Draft Recommendations Report

Centres and Corridors Building Typology Study

City of Richmond Hill
DTAH + Gladki Planning Associates
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1.0 Introduction

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The Centres and Corridors Built Form Typology Study has looked at ways in which Richmond Hill's Official Plan and Zoning Bylaw could be improved to promote desirable forms of development. This Report summarizes the findings of the Study.

1.1 Study Area

"Centres and Corridors" refers to a specific collection of Richmond Hill's Official Plan land use designations. They are:

- Richmond Hill Centre
- Local Centres including Village, Oak Ridges, Newkirk, Bathurst/ Highway 7, and East Beaver Creek/Highway 7
- Key Development Areas
- Regional Mixed-Use Corridors
- Employment Corridors
- Local Development Areas
- Local Mixed-Use Corridors

As illustrated on the following page, the Centre and Corridor lands run primarily along Yonge Street, the city's arterial spine. They also extend along several other arterial roads, including King Road, Major Mackenzie Drive and Highway 7.

Each Official Plan designation comes with varying land use permissions and levels of intensity, ranging from Richmond Hill Centre (a planned mixed-use node of regional significance), to Local Mixed-Use Corridors (mixed-use areas of lower intensity) to the Employment Corridors (employment-specific lands).

Several Employment Corridors are the subject of Employment conversion requests that would see other uses permitted there. One (as indicated in Figure 1) has already been approved by Ministerial Zoning Order (MZO).

1.2 General Study Goals

The Centres and Corridors are amongst the highest profile lands in Richmond Hill. This is due to their location, as the City's most visited and traversed areas, but also because of the critical role they will play in the future. With much of Richmond Hill's greenfield land already developed, most growth going forward will have to take the form of redevelopment within the Centres and Corridors.

Is the current built form policy up to this task? This study will examine relevant sections of the Official Plan, and will also examine potential new approaches to zoning, as Richmond Hill looks to update and consolidate its zoning bylaws. Where necessary, the study will make recommendations for improvements in its final report. As such, the study considers the impact of current policies and how they do, or do not, respond to City planning goals and policies of the Province and Region.

1.3 Specific Issues to be Considered

For the most part, the Centres and Corridors are well suited to accommodate growth. Existing and planned transit is nearby, as are a variety of services. Indeed, the vast majority of Richmond Hill's higher density new development is already taking place within the Centres and Corridors.

However, growth here also poses certain challenges. Some of these include:

- The impact of fragmented lot and ownership patterns in certain parts of the Centres and Corridors. In these areas, minimum lot sizes (or consolidation of lots) may be required to adequately deploy certain typologies without risk of negative consequences.
- Appropriate built form considerations including maximum building height and length, minimum building separation dimensions and setbacks that influence the quality of new development and how it can be effectively integrated into the Centres and Corridors.
- The need to achieve particular design excellence within the Centres and Corridors, some of the highest profile parts of Richmond Hill.

- Street relationships, either to the primary arterial, a local street, or both.
- Level of glazing and activity at grade, especially on major frontages.
- The need for new open spaces, whether public parks or privately-owned public spaces (also known as “urban squares.”)
- The need for appropriate at-grade amenity areas for the range of typologies developed within the Centres and Corridors.
- The need for new pedestrian (or vehicular) connections, especially through larger sites. These may range from mid-block connections to private and, in some cases, public streets. Porosity and interconnectedness between developments is integral to a comprehensive fabric along the Centres and Corridors.
- Appropriate transition to low-rise Neighbourhoods, as well as parks and open spaces. Specific areas of concern include shadowing, overlook and broader visual impacts.
- Location and treatment of parking facilities.
- Acknowledging the diversity of lands within the Centres and Corridors and developing a policy that can provide consistency, cohesiveness and predictability, while responding to:
  - » Varying depths of lots, which will impact development potential and transition; and
  - » The patchwork of lots with widely varying sizes and configurations.

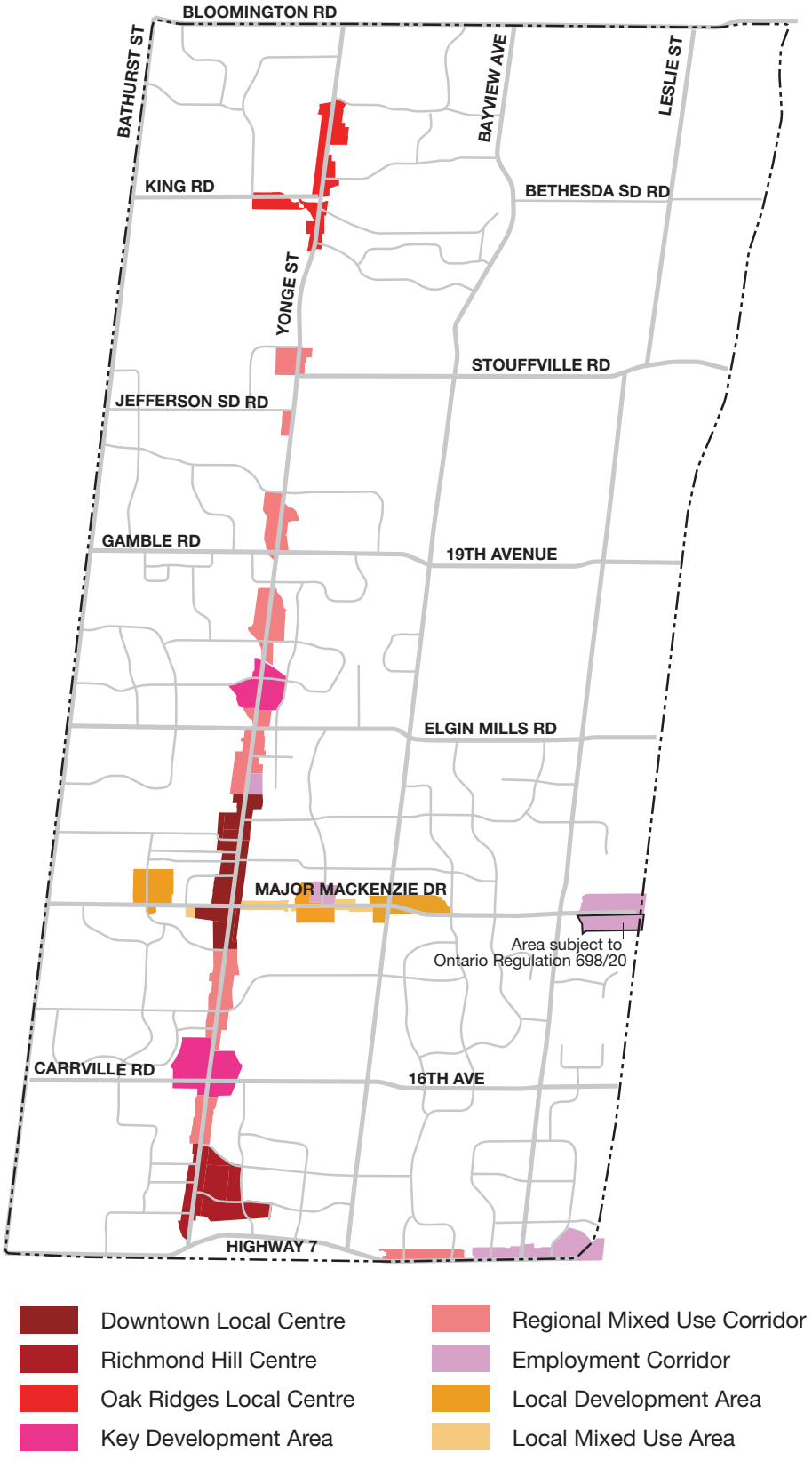

Figure 1: Centre and Corridor land use designations in accordance with Schedule A2 of the Richmond Hill Official Plan, 2021 (Office Consolidation). OPA 18.3 has updated the list of Centres, so this graphic is provided for reference only.

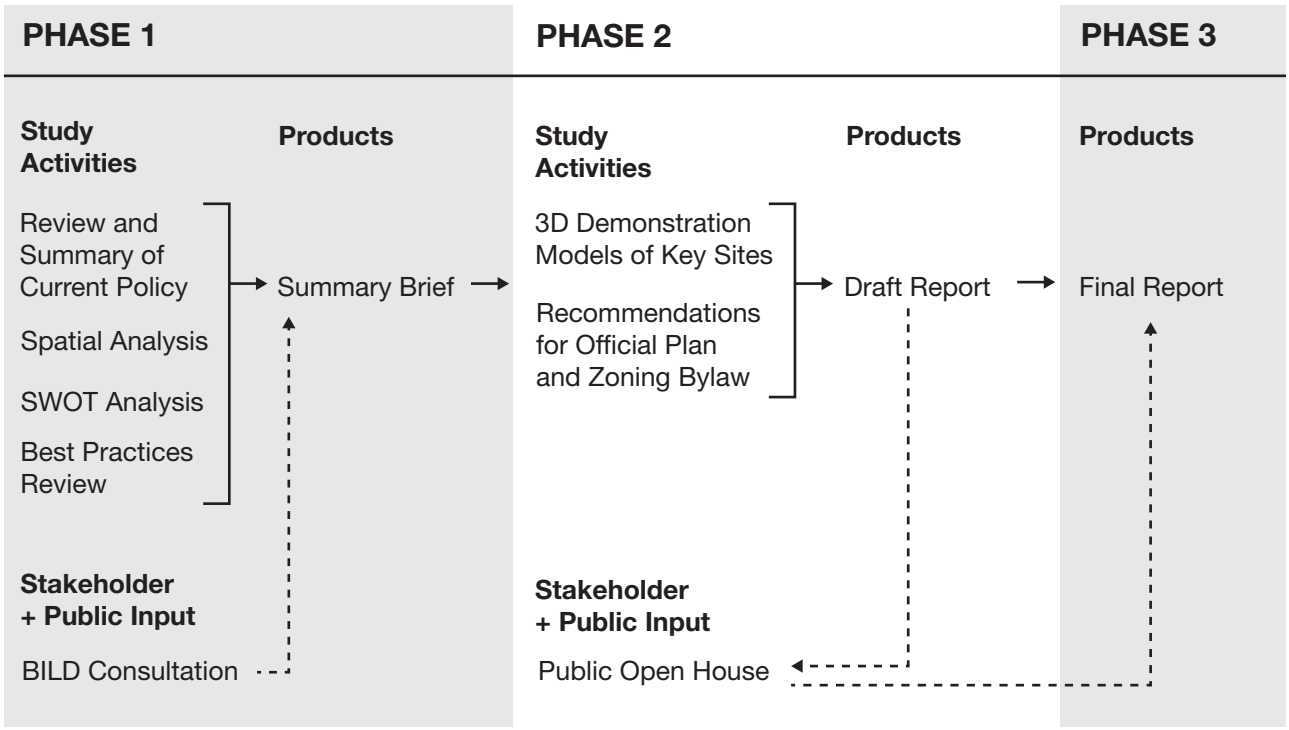

Figure 2: Study process diagram.

1.4 Process

The study included three Phases:

- **Phase 1:** The background study, compiled in a Summary Brief.
- **Phase 2:** Testing demonstrations sites and development of draft recommendations.
- **Phase 3:** Submission of a final report.

1.5 Structure of This Report

This Report document is structured as follows:

- **Policy Review:** A review of current policies affecting Richmond Hill's Centres and Corridors. Mapping is included to illustrate the location and extent of the lands presently affected.
- **Demonstrations:** A set of Demonstrations that explore development options on different site types. These Demonstrations are further broken down into Variants that consider alternate scenarios around some of the sites. The thinking behind the Demonstrations is called out in a list of design principles that could inform changes to the Official Plan or Zoning Bylaw.
- **Implementation:** An analysis of how planning tools can achieve to a number of goals, which are listed and reviewed in detail.
- **Conclusion:** A conclusion and overview of the Study's key findings, a summary of public consultation feedback, and a list of some potential next steps the City may wish to take.
- **Appendix:** To support the consideration of best practice metrics for built form and amenity area provisions, comparison tables outlining key metrics used across GTHA municipalities have been prepared and included as an Appendix for reference.

2.0 Policy Review

2.0 Policy Review

Provincial, regional and municipal plans and policies all shape the future of Richmond Hill's Centre and Corridor sites. They are reviewed below.

2.1 The Planning Act

The Planning Act, is the central piece of legislation governing land use planning in Ontario. The Act establishes a provincially-led, top-down planning system. At the top are matters of Provincial interest (s. 2), articulated through Provincial policy statements (s. 3) and Provincial plans prescribed by statute. Matters of Provincial interest (s. 2) that are relevant to this Study include:

- the orderly development of safe and healthy communities (h);
- the adequate provision of a full range of housing, including affordable housing (j);
- the appropriate location of growth and development (p); and
- the promotion of built form that is well-designed, encourages a sense of place, and provides for high-quality public spaces (r).

Decisions of municipal councils must be consistent with the Provincial Policy Statement and must conform or not conflict, as the case may be, with Provincial plans. The next layers in the top-down land use planning structure are the official plan of the upper-tier municipality and then the official plan of the lower-tier municipality (s. 16). Official plans are broad policy documents that provide for different uses and intensities throughout the municipality. These policies are subsequently implemented through zoning by-laws (s. 34) and site plan control (s. 41). The Act and its regulations outline specific procedures for approvals, amendments and appeals of official plans and zoning by-laws.

2.2 Provincial Policy Statement 2020

On April 6, 2023, the Government of Ontario released the proposed Provincial Planning Statement 2023 (proposed PPS 2023), which integrates the Provincial Policy Statement 2020 (PPS 2020) and A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Growth Plan) into a singular, province-wide policy document. The summary below reflects the PPS 2020, in force at the time of writing.

The Provincial Policy Statement (PPS) is the planning document that translates matters of provincial interest listed in the Planning Act into policy. It provides the policy foundation for regulating the development and use of land in Ontario. It acknowledges that long-term goals for the province will be achieved through planning for strong, sustainable and resilient communities for people of all ages, a clean and healthy environment, and a strong and competitive economy.

The PPS indicates that Settlement Areas shall be the focus of growth and development (1.1.3.1) and that planning authorities shall identify appropriate locations and promote opportunities for intensification and redevelopment (1.1.3.3). Further key policy direction includes:

- Accommodating an appropriate affordable and market-based range and mix of residential types, employment (including industrial and commercial), institutional, and other uses to meet long-term needs (1.1.1, 1.4.1, 1.4.3).
- Planning for densities and a mix of land uses that efficiently use land, resources, infrastructure, and public service facilities and support public transit and active transportation (1.1.3.2, 1.4.3, 1.6.7.4).
- Identifying areas where growth and development will be directed, including a structure of nodes and corridors (1.2.1, 1.2.2, 1.8.1).
- Identifying appropriate locations and promoting opportunities for transit-supportive development; focusing major employment, commercial, and a significant supply and range of housing options in areas well-served by transit (1.1.3.3, 1.8.1).
- Reducing the number and length of vehicle trips and supporting the use of active transportation and

public transit between residential, employment and institutional uses (1.6.7.4, 1.8.1).

- Employment areas planned for industrial or manufacturing uses should include an appropriate transition to adjacent non-employment areas (1.3.2.3).

- Supporting land use and development patterns, building design and orientation, and green infrastructure and vegetation that achieve energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and prepare for the impacts of a changing climate (1.8.1).

- Encouraging a sense of place through well-designed built form, and conservation of built heritage resources and cultural heritage landscapes (1.7.1, 2.6.1).

2.3 Growth Plan for the Greater Golden Horseshoe, 2019 (August 2020 Consolidation)

On April 6, 2023, the Government of Ontario released the proposed Provincial Planning Statement 2023 (proposed PPS 2023), which integrates the Provincial Policy Statement 2020 (PPS 2020) and A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Growth Plan) into a singular, province-wide policy document. The summary below reflects the Growth Plan, 2019 (August 2020 consolidation), in force at the time of writing.

The Growth Plan guides growth management and environmental protection in the Greater Golden Horseshoe (GGH) through to 2051. Select guiding principles (1.2.1) include:

- Support the achievement of complete communities that are designed to support healthy and active living and meet people's needs for daily living throughout an entire lifetime.

- Prioritize intensification and higher densities in strategic growth areas to make efficient use of land and infrastructure and support transit viability.

- Provide flexibility to capitalize on new economic and employment opportunities as they emerge, while providing certainty for traditional industries, including resource-based sectors.

- Support a range and mix of housing options, including additional residential units and affordable housing, to serve all sizes, incomes, and ages of households.

The Region of York is expected to be home to 2,020,000 people and provide 990,000 jobs by 2051, according to Schedule 3. While municipalities are to encourage intensification generally throughout settlement areas, growth will be focused in delineated built-up areas, strategic growth areas, locations with existing or planned transit (with a priority on higher order transit), and areas with existing or planned public service facilities. Upper-tier municipalities will establish a hierarchy of areas within settlement areas and provide direction for an urban form that will optimize infrastructure, particularly along transit and transportation corridors, to support the achievement of complete communities through a more compact built form (2.2.1.3).

Growth Plan policies strongly promote the concept of complete communities. Complete communities feature a diverse mix of land uses, including residential and employment uses, and convenient access to local stores, services, transportation options, and public service facilities (ideally as community hubs) (2.2.1.4). Complete communities provide for a more compact built form and a vibrant public realm, including public open spaces (2.2.1.4e). Building compact and complete communities will help reduce greenhouse gas emissions and ensure communities are more resilient to the impacts of a changing climate (2.1, 2.2.1). Municipalities are encouraged to establish an open space system within settlement areas, which may include opportunities for urban agriculture, rooftop gardens, communal courtyards, and public parks (4.2.5.2).

For the City of Richmond Hill, a minimum of 50% of all residential development occurring annually must be within the delineated built-up area (2.2.2.1). To support this intensification target, municipalities should identify strategic growth areas and determine the appropriate type, scale and transition of built form. Official plan policies and zoning should implement the intensification strategy (2.2.2.3).

Urban growth centres, such as Richmond Hill Centre/Langstaff Gateway (identified on Schedule 4), will be planned to accommodate significant population and employment growth, achieving minimum density targets of 200 residents and jobs combined per hectare by 2031 (2.2.3.2). Urban growth centres will draw people from the region for major employment, regional public service facilities, as well as commercial recreational, cultural and entertainment uses (2.2.3.1).

Major transit station areas (MTSAs) will be planned to be transit-supportive, which could include alternative development standards (such as reduced

parking standards) and prohibiting land uses or built form that would adversely affect the achievement of transit-supportive densities (2.2.4.9). MTSAs on priority transit corridors or subway lines will be planned for a minimum density target of:

- 200 residents and jobs combined per hectare for those served by subways;
- 160 residents and jobs combined per hectare for those served by light rail transit or bus rapid transit; or
- 150 residents and jobs combined per hectare for those served by the GO Transit rail network.

Within employment areas, municipalities should prohibit residential uses and limit or prohibit sensitive land uses or major retail at a scale that may adversely affect the viability and planned function of employment areas (2.2.5.7). In planning for employment, surface parking will be minimized and the development of active transportation networks and transit-supportive built form will be facilitated (2.2.5.4). There should be an appropriate interface between employment areas and adjacent non-employment areas to maintain land use compatibility (2.2.5.7c).

2.4 York Region Official Plan 2022

Bill 23 received Royal assent on November 28, 2022 and included changes to the Planning Act. In these changes York Region was identified as an upper-tier municipality without planning responsibilities. As such, it will not have an official plan. However, portions of its official plan will be deemed to be part of Richmond Hill's official plan, until the city revokes or amends it. These changes were not in effect at the time of writing and the summary below reflects the Regional Official Plan at that time.

The York Region Official Plan (ROP) provides a long-term vision for York Region's physical form and community structure. It places a high priority on complete communities in managing the growth of the region. Complete communities support a full range of amenities and housing types, healthy and active living, meaningful employment opportunities and thriving local businesses. Communities will be designed to be sustainable by incorporating green building technologies, renewable alternative energy options and climate change mitigation.

The ROP establishes that communities will be designed to the highest urban design and green development standards to support walkability, complement existing character, promote sustainable and attractive buildings, create animated public spaces and streetscapes and ensure land use compatibility (2.3.13).

The ROP establishes that the primary location for growth and development within York Region is within the Urban System (4.1.1). A minimum of 50% of all residential development between 2021 to 2041, and 55% from 2041 to 2051 will occur annually within the built-up area (4.4.2). The intensification rate established for Richmond Hill is 78% (4.4.10).

Within the Urban System, strategic growth areas will attract the majority of development and contain a mix of uses, with densities (highest to lowest) based on the following hierarchy: i. Regional Centres; ii. Subway station major transit station areas; iii. Other major transit station areas; iv. Regional Corridors outside of major transit station areas; v. Local centres and corridors (4.1.3). Intensification will be prioritized and a scale of development established that reflects this Regional intensification hierarchy through local official plans (4.4.4).

The ROP includes policies on intensification, Regional Centres, Regional Corridors and Major Transit Station Areas, and Local Centres and Corridors, including policies to be implemented through local official plans and secondary plans (4.4). Matters addressed in these policies include establishing minimum and maximum densities, height targets, achieving appropriate transitions of built form, achieving a mix and range of housing options, and creating an urban form and design that is compact, accessible, mixed-use, oriented to the street, pedestrian- and cyclist-friendly, and transit supportive (4.4). Appendix 2 identifies Protected Major Transit Station Areas and establishes minimum density targets.

2.5 Richmond Hill Official Plan (September 2022 consolidation))

The City of Richmond Hill is currently updating its Official Plan to guide land use and development. In 2022, the City passed two amendments related to Vision and City Structure (18.3) and Neighbourhoods (18.4). Key points from the Official Plan as amended are summarized below.

Overview

A strong theme of the OP is city building, which maintains and enhances the character of Richmond Hill as it evolves through growth and development. Fostering a complete community is central to this idea. A complete community provides a mix of uses, including a balance of housing, employment, services, amenities, parks and

open spaces. It offers amenities in well-designed, pedestrian-oriented places developed at a human scale where public transit, walking, and cycling are viable alternatives to the automobile (3.1).

City Structure

The OP establishes that most of the City's future development will happen through intensification. It sets out a City Structure which forms a spatial framework for land use and development (3.1.3.1). Within this structure, the majority of intensification will occur within Centres and Corridors (3.1.3.3). The OP establishes an intensification hierarchy which includes (from highest to lowest priority): Richmond Hill Centre, Key Development Areas (KDAs) and Regional Corridors, Local Centres, Local Development Areas (LDAs) and Corridors, and to a more modest extent, neighbourhoods (3.1.3.4). The majority of employment intensification will take place along the Employment Corridors serviced by existing and planned public rapid transit (3.1.3.15).

Development in the Centres and Corridors shall accommodate the highest densities and widest range of uses within the City and shall be provided at an appropriate scale and intensity (3.1.3.6). This includes a built form transitioning to the surrounding areas and ensures the creation of a high-quality, human-scaled, pedestrian-oriented public realm (3.1.3.6). The appropriate type, mix, scale and intensity of development within Centres and Corridors are described in policies 3.1.3.7-15, Figure 2, and in Chapter 4 of OP. The OP establishes factors that further inform the density of development within Centres and Corridors (3.1.4.3).

Urban Design

The policies of the OP foster compact, pedestrian-oriented, human-scaled development in both the public and private realm (3.4.1). The City's design guidelines provide direction on such matters as site plan design, built form, massing, architectural quality, building articulation, exterior building design elements, streetscapes and the public realm (3.4.1.1).

OP policies promote the city pattern, pedestrian experience and wayfinding by creating focal points, gateways and landmarks. The establishment of a skyline is promoted by directing high-rise built form in a series of pulses that correspond with the centres of the city structure. High-rise development may also be permitted in the Regional Mixed-Use Corridors but should not detract from the "pulses" intended to be created within the respective Centres (3.4.1.16). In this same vein, policies address major gateways and protected views (3.4.1.17-23).

Development shall promote a compact land use pattern and create a pedestrian-oriented built environment through the design and placement of buildings and landscaping on a site (3.4.1.28).

There are several built form requirements that pertain to development within the Centres and Corridors:

- Encourage a continuous street façade, with service, access and driveways located to the side or rear (3.4.1.29).
- Landscaping and enhanced treatments adjacent to the public street or public sidewalk shall promote an attractive landscaped transition between the public and private realm, where a setback is required (3.4.1.30).
- Buildings shall front onto a public street, with some exceptions (3.4.1.36).
- Entrances of buildings shall be oriented to a street (3.4.1.34).
- Create a rhythm of facades that complements adjacent buildings (3.4.1.37).
- Maintain a well-proportioned, human-scaled street wall (3.4.1.37).
- Encourage a variation in setbacks along building frontages to allow for visual interest, outdoor patios, recessed entries and landscaped areas (3.4.1.37).
- Animate the public realm as an extension of the pedestrian environment, through active ground floor uses (3.4.1.37).;
- Locate functioning main entrances to buildings so that they are clearly identifiable and prominent (3.4.1.37).
- Design development to minimize conflicts between vehicles and pedestrians/cyclists, including creating a fine-grained public street network within large parcels (3.4.1.46).

The OP establishes that surface parking should be minimized wherever possible (3.4.1.49). Within Centres and Corridors, parking shall be encouraged or required to locate below grade or in structured or surface parking at the rear or side of a development. Detailed policies guide the design of above grade parking structures to enhance the pedestrian realm (3.4.1.47).

Where Centres and Corridors abut low- and medium-density residential areas, transition policies ensure land use compatibility and appropriate skyview, light and

separation. Transition shall be accomplished through a 45-degree angular view plane measured from the adjacent low- or medium-density residential property line (together with suitable massing and design), new public streets with grade-related residential entrances facing existing residential areas (where appropriate), and landscape buffers or linkages (where appropriate). In the event that the Neighbourhood designation immediately abuts the lot line of lands within the Centres and Corridors, a building structure up to 10 metres in height may protrude into the angular view plane (3.4.1.55).

Other policies applicable to high-rise buildings require a minimum tower separation distance of approximately 25 metres and a maximum tower floorplate of generally 750 square metres for residential buildings (3.4.1.57, 3.4.1.58). Step backs above the base building height shall be present in mid- and high-rise developments (3.4.1.59).

Applications for high-rise development may be required to provide a viewplane analysis to address applicable angular plane policies and/or protected public views (3.4.1.27). High-rise and mid-rise development applications may require sun/shadow analysis to demonstrate that shadowing of public sidewalks within and adjacent to development sites is limited (3.4.1.41). Similarly, high-rise and mid-rise development applications may require wind studies to demonstrate wind impacts on the public realm are limited (3.4.1.42).

Detailed policies on height, density and urban design for each centre and corridor are elaborated in Chapter 4 of the OP or secondary plans.

Land Use and Design Policies for Centres and Corridors

Chapter 4 contains land use and design policies for Richmond Hill Centre, Local Centres, Key Development Areas, Local Development Areas, Regional Mixed-Use Corridors, Local Mixed-Use Corridors, and Employment Corridors. The Official Plan recognizes the different contexts of intensification areas and thus provides detailed, location-specific policies that will guide built form in each area.

Land use policies provide direction on matters that may impact built form, such as:

- Permitted uses (e.g. small-scale office, major retail, residential apartments, live-work units, etc.);
- Scale of residential development (i.e. low density, medium density, high density);
- Active at-grade uses along key frontages (e.g. Yonge Street, Major Mackenzie Drive);
- Building (or base building) height;
- Density (e.g. FSI, residential units per hectare);
- Massing and location of tallest buildings; and
- Transitions.

Design policies provide high-level guidance on matters that may be addressed in greater detail by zoning by-laws or design guidelines, such as streetscape elements, pedestrian connections, screening, outdoor amenity space, landscaping, focal points, parking, gateways, and setbacks.

Secondary Plans

An Official Plan review is currently underway. Planning policies pertaining to Centres and Corridors as well as applicable secondary plans are being reviewed as part of that process.

The Centres and Corridors intersect with three Secondary Plan Areas:

- Yonge and Bernard Key Development Area Secondary Plan;
- Yonge and Carrville/16th Key Development Area Secondary Plan (in process); and
- The Richmond Hill Centre Secondary Plan (in progress).

The Yonge and Bernard Key Development Area Secondary Plan sets a vision for more intense development that creates a complete community in a manner that is respectful of the Oak Ridges Moraine. There are three distinct character areas that represent a transition from taller and higher density development near Yonge Street to a compatible lower scale abutting existing residential areas. Policies address built form in terms of height, density, street orientation and street wall, angular plane and shadowing, views and gateway features, public realm, connectivity and mobility, and parking.

The Yonge Street and Carrville Road/16th Avenue Key Development Area (KDA) is an intensification area and major node of retail and commercial development on the Yonge Street Regional Rapid Transit corridor. This area is being reviewed as part of the Official Plan Update project currently underway.

The Richmond Hill Centre Secondary Plan is a major intensification area located along Yonge Street north of Highway 7. It extends eastward to Red Maple Road (and beyond that, south of High Tech Road). As Richmond Hill's Urban Growth Centre, it will be supported by the planned extension of the Yonge Street subway (TTC Line 1) and will include the city's most intensive densities.

Exceptions (Chapter 6)

Chapter 6 of the Official Plan contains site-specific Official Plan Exceptions. There are twenty-six in-force exceptions, of which fifteen are for properties within the Centres and Corridors. The exceptions commonly address maximum building height and density. Less frequently, exceptions address angular plane, pedestrian/cycling connections, active frontages and specific building typologies.

Other Relevant Policies

Other policy areas pertinent to the study relate to:

- Housing – Encouraging a mix and range of housing types and affordability in order to meet the needs of the whole community (3.1.5.1).
- Sustainable Design – Policies on sustainable design address water management, renewable and alternative energy systems, drought-resistant landscaping, heat island mitigation, tree planting and preservation, energy efficiency and conservation (3.2.3).

2.6 Zoning By-laws

Richmond Hill is currently covered by a patchwork of disparate zoning bylaws, which often take different approaches.

To help standardize them, the City of Richmond Hill is currently undertaking a comprehensive review of all the in-force Zoning By-laws. The Comprehensive Zoning By-law Review will culminate in one document that will establish "as-of-right" permissions for all properties in the City and enable residents and landowners to develop their lands in a more predictable and consistent manner.

2.7 City Standards and Guidelines

Richmond Hill Urban Design Guidelines

The Richmond Hill Urban Design Guidelines (UDGs) were approved by Council on November 25, 2013. They articulate the City's preferences for how each planning application can contribute to Building a New Kind of Urban community through design. In addition to providing general guidance on community design, site design and building design, the UDGs provide specific guidance addressing mid-rise and tall buildings relevant to the Centres and Corridors. The Village Core Urban Design Guidelines and the North Yonge Street Urban Design Study provide further design guidance for these specific areas.

Sustainability Metrics Program Guidebook

The Sustainability Metrics Program are green development standards that Richmond Hill uses to encourage developers and builders to work with municipal staff to achieve healthy, complete, and sustainable communities through sustainable design. The Sustainability Assessment Tool is a scoring system used by the City to quantify and evaluate the sustainability performance of new developments to promote sustainable design targets that go beyond provincial and municipal requirements that include low-carbon/energy buildings, active transportation, open space, bird friendly design and urban heat island reduction strategies, which are important considerations for development within the City's Centres and Corridors. The updated version of the program took effect on January 1, 2023.

Standards and Specifications Manual

The City of Richmond Hill's Standards and Specifications provide technical information about the requirements and standards for sewers, watermains, transportation and road works, grading and drainage, utilities, erosion and sediment control, and stormwater management for developments. The City's Urban Forest Tree Planting Guidelines were updated and incorporated into the Standards and Specifications Manual as Division K and provide minimum space and soil requirements for plantings.

2.8 Spatial Analysis

Secondary and Tertiary Plans

In addition to the Official Plan designations, the study area examined is impacted by three secondary plan areas (covering the three Centres), each of which will have their own policy for development:

- Richmond Hill Centre Secondary Plan, currently in draft only.
- Yonge/Carrville-16th KDA Secondary Plan, currently in draft only.
- Yonge/Bernard KDA Secondary Plan, approved.

Tertiary plan areas do not extend into the Centres and Corridors, but several directly abut these lands and may impact approaches to transition.

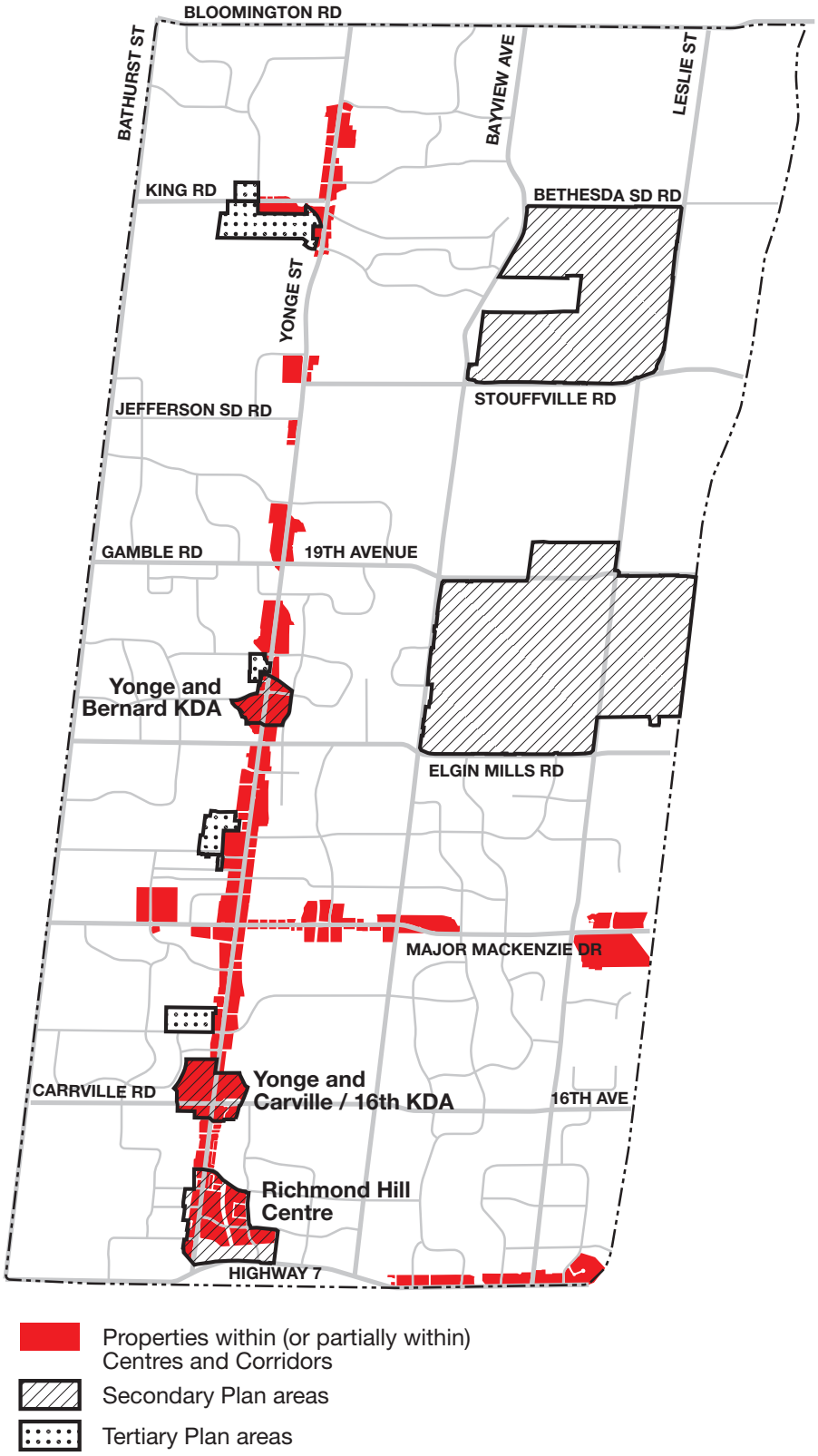

Figure 3: Locations of Secondary and Tertiary Plans, in relation to the Centres and Corridors, as of 2022.

Transit Access

Most properties within the Centres and Corridors have good access to existing and planned higher order transit, as illustrated here.

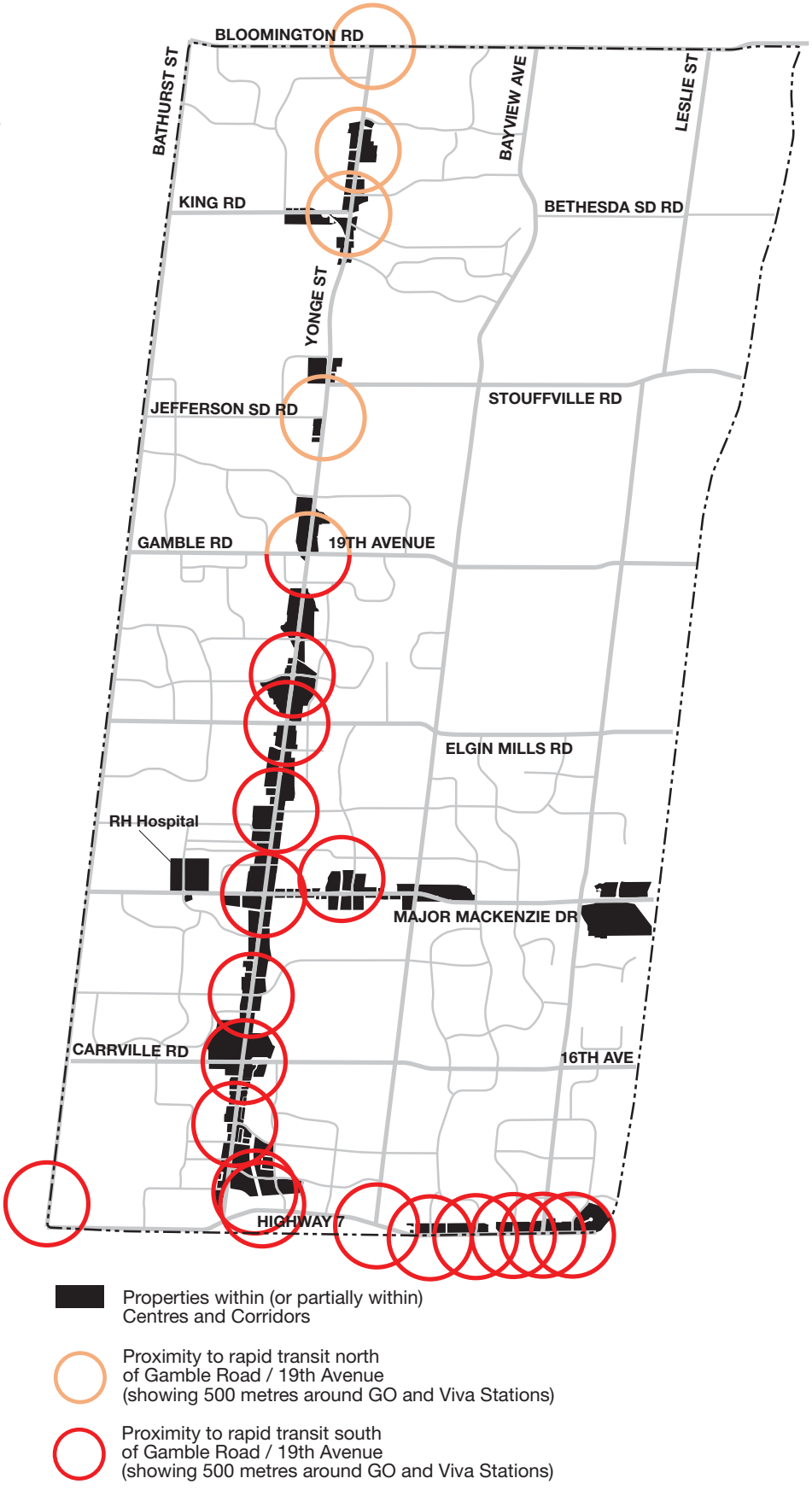

Figure 4: Transit access within the Centres and Corridors, as of 2020.

Development Applications

As the focus for much of the city's growth, the Centres and Corridors include a number of active and approved development applications.

These are distributed relatively evenly throughout the Centres and Corridors, meaning that no one particular part of the study area is dominating growth.

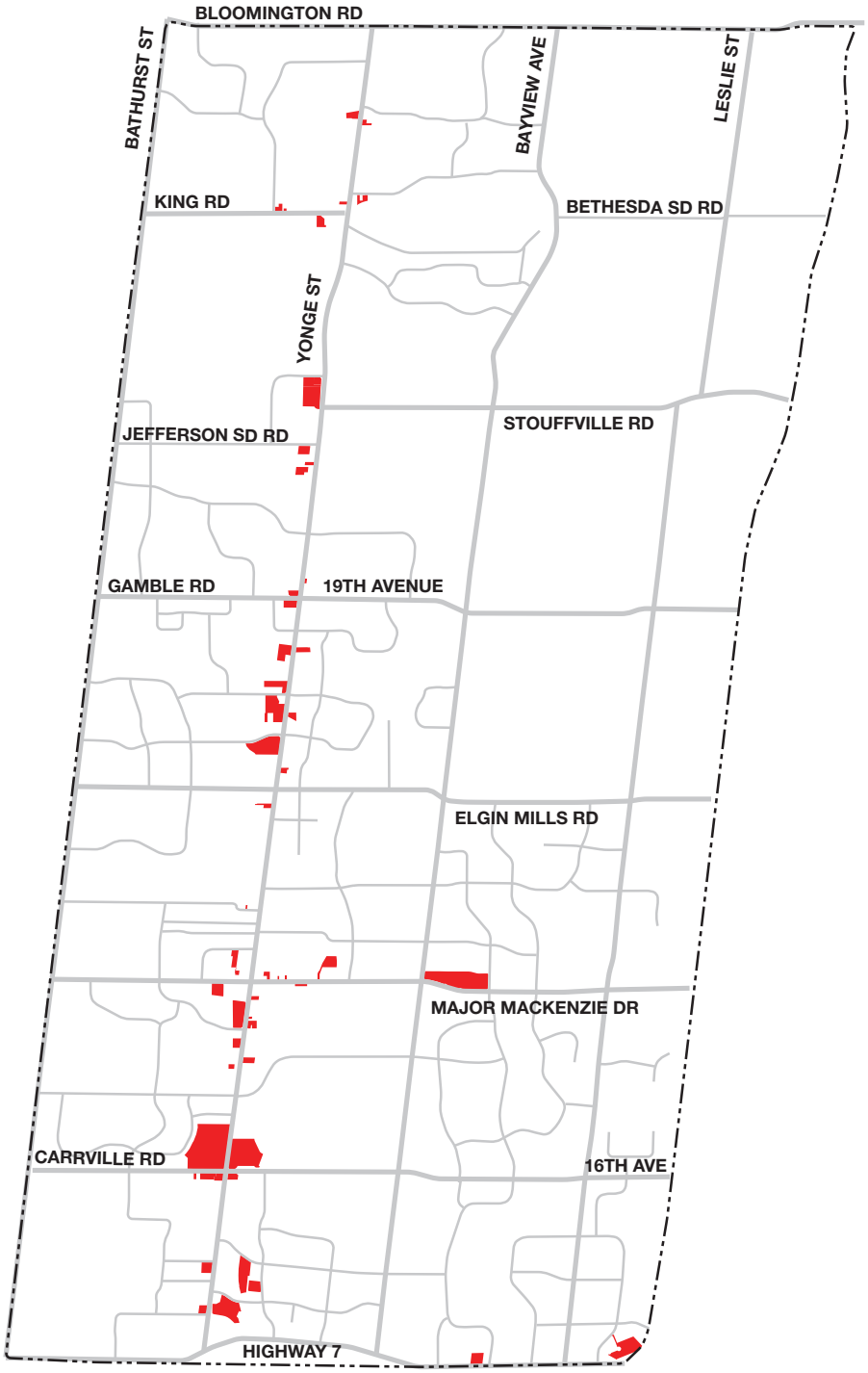

Figure 5: OPA and ZBA applications within Richmond Hill, as of June, 2021, to provide a sense of their numbers. Additional applications will have been received since that time, and some previous applications have been resolved.

Current Land Use

Current (as opposed to planned) land use varies substantially within the Centres and Corridors. However, they are primarily made up of low-rise retail/commercial sites, which include freestanding commercial pads, auto dealerships and garages, strip malls, indoor malls, and motels.

Residential uses are primarily concentrated within the historic downtown, the apartment areas on Major Mackenzie Drive and along segments of Yonge Street between Major Mackenzie Drive and Highway 7.

Institutional uses (such as schools, libraries, community centres and places of worship) appear throughout the study area. There are currently very few mixed-use sites (either residential/retail or office/retail) within the study area.

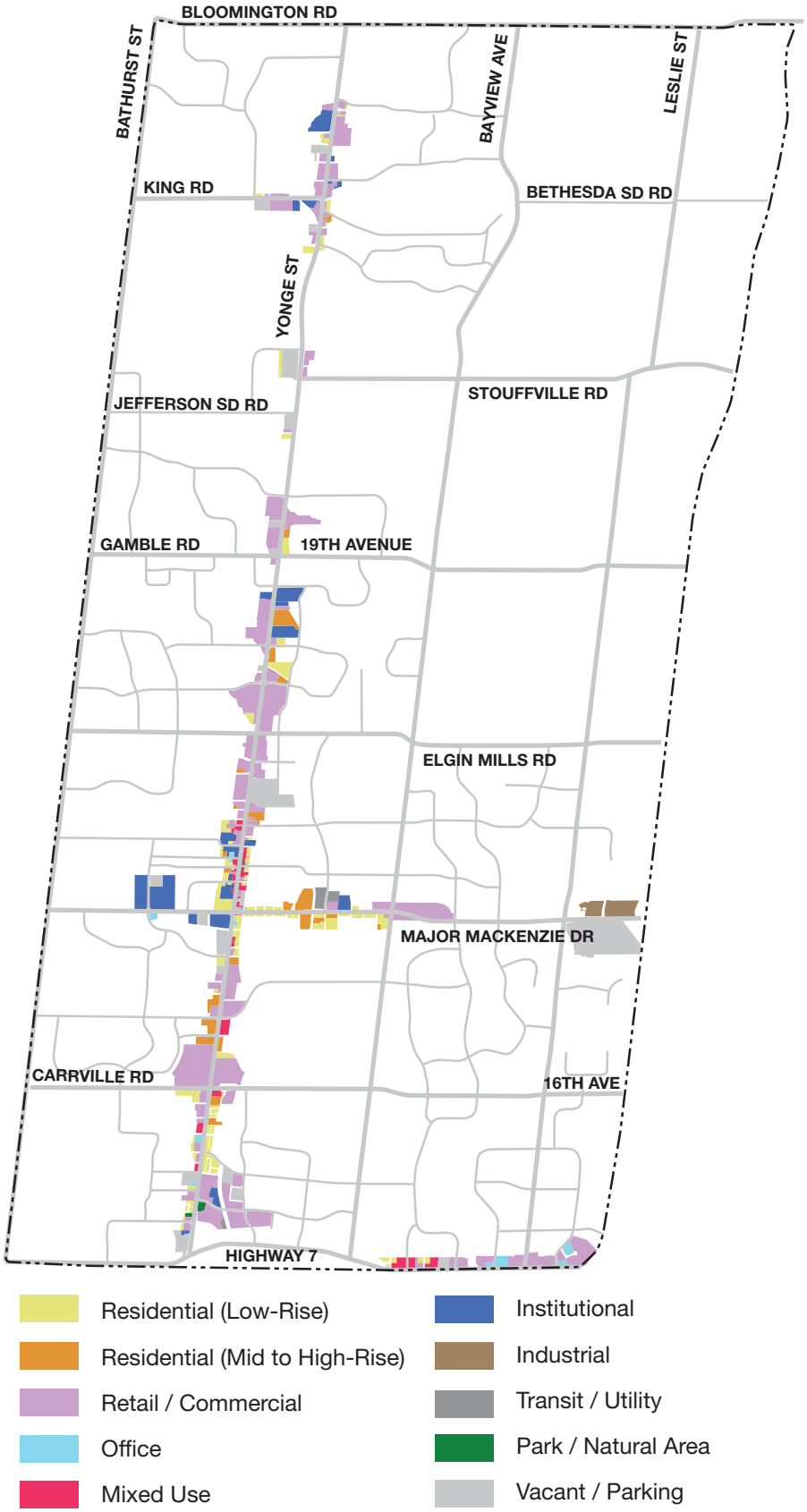

Figure 6: Generalized current land uses in Richmond Hill's Centres and Corridors, as observed in 2020 based on existing mapping, development applications and online aerial and streetview photography.

Backing Interfaces

One of the goals of the Centres and Corridors Built Form Typology Study has been to understand best practices for rear lot transition.

Looking at the blocks of properties that comprise the Centres and Corridors, as designated by the Official Plan, most immediately abut low-rise residential neighbourhoods. A minority abut mid to high-rise residential areas, parks or natural areas, and commercial or employment areas.

In some cases, the block is bounded at the rear by a street or railway. Railways present hard edges that require separation and protection of sensitive uses. Streets serve as secondary frontages that need to be addressed, with consideration to the uses and forms found on the opposite side.

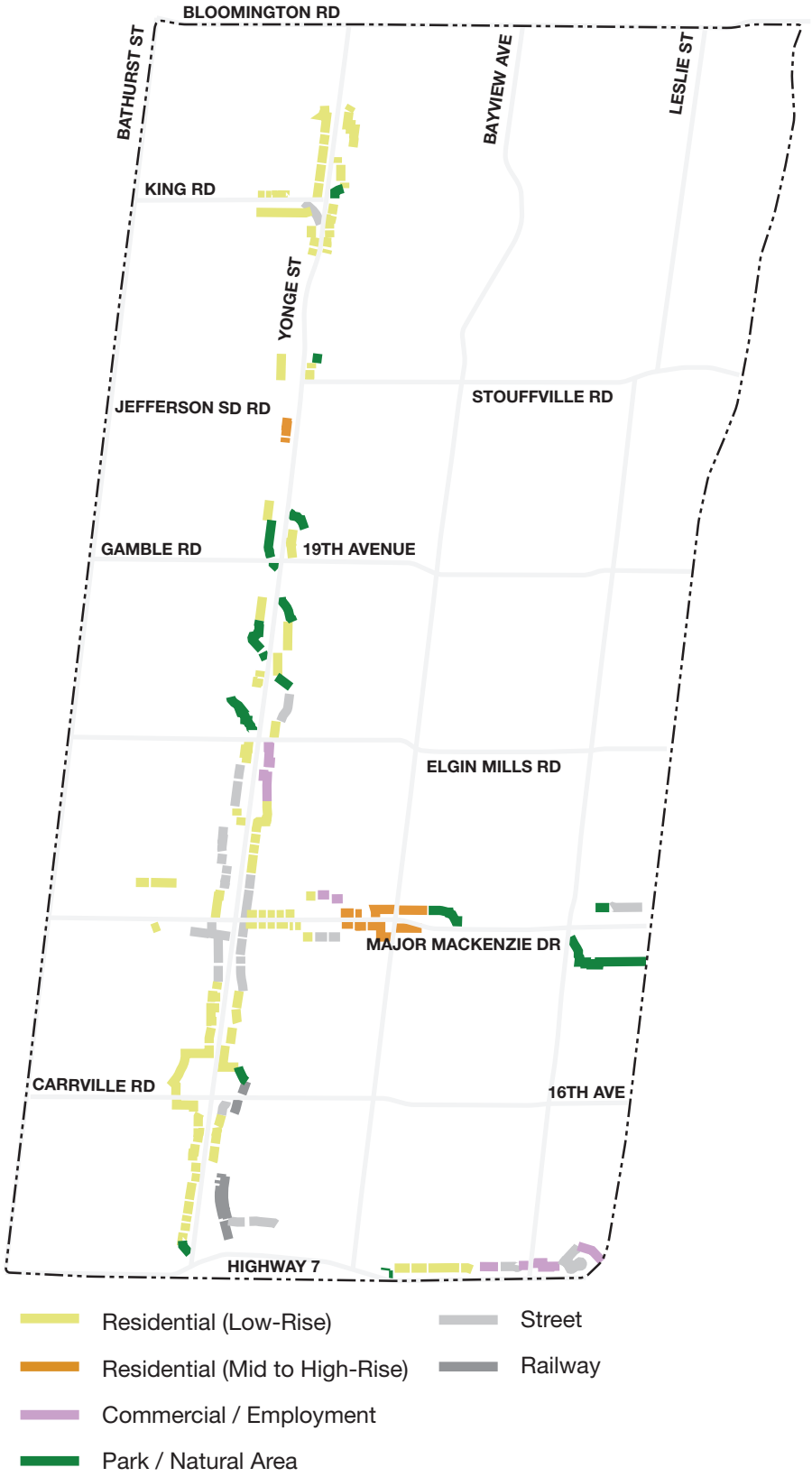

Figure 7: Generalized backing interfaces in Richmond Hill's Centres and Corridors, as observed in 2020 based on existing mapping, development applications and online aerial and streetview photography.

Fronting Interfaces

Right-of-way widths may impact building and streetwall height, setbacks and other features.

As designated, the Centres and Corridors in Richmond Hill front onto arterial roads, although not all individual properties within them do. According to the ROP, relevant Regional road rights-of-way range from 30 to 45 metres in width.

At the time of the 2019 ROP for Regional Roads, the segment of Yonge Street going through historic Downtown Richmond Hill was the only non-Regional road frontage for the study area. Since then, this segment has been designated as a Regional road. Currently this section of Yonge Street has a right of way width of either 20 or 36 metres.

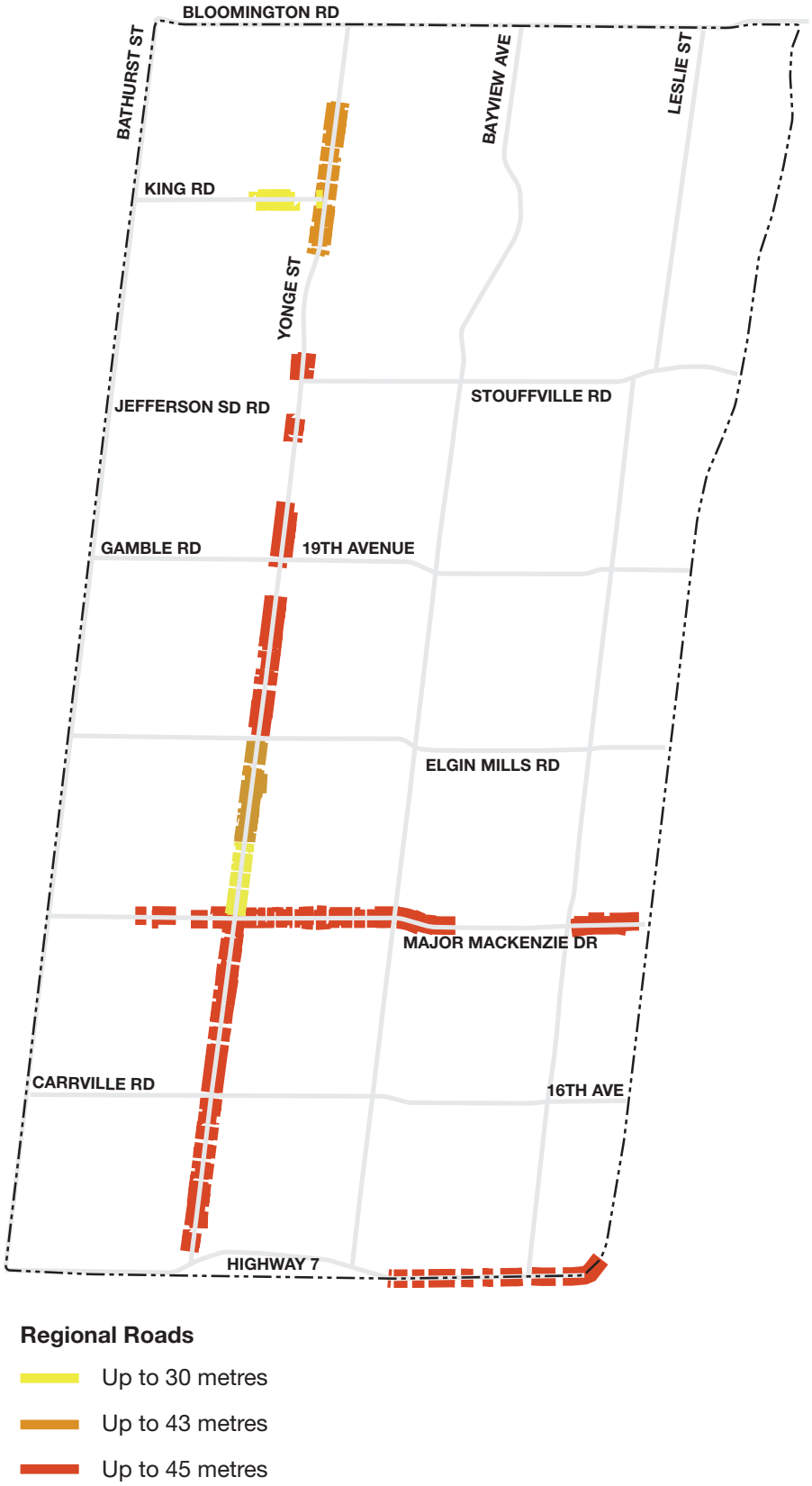

Figure 8: Fronting interfaces in Richmond Hill's Centres and Corridors, as per the 2019 ROP (for Regional roads), recent changes approved to facilitate Regional Transit corridor on Yonge Street, and as measured in 2020 for local roads.

OP-Designated Heights

Richmond Hill Official Plan-designated maximum heights vary throughout the Centres and Corridors, and are sometimes accompanied by minimum heights (producing a range).

The diagram at right (simplified from the Official Plan) illustrates maximum heights ranging between 4 and 40 storeys.

The lowest maximums run along segments of the Major Mackenzie Drive Corridor, the historic Downtown and Oak Ridges. The highest maximums appear within Richmond Hill Centre, befitting that area's planned regional significance. Other areas designated for very tall buildings include the Yonge / Carrville-16th KDA node and various segments along Yonge Street.

In addition, it should be noted that:

- The Yonge and Bernard KDA Secondary Plan does not regulate height except at edges and only regulates FSI (Floor Space Index).
- The draft Richmond Hill Centre Secondary Plan will assign different heights to the lands it covers, once in effect.

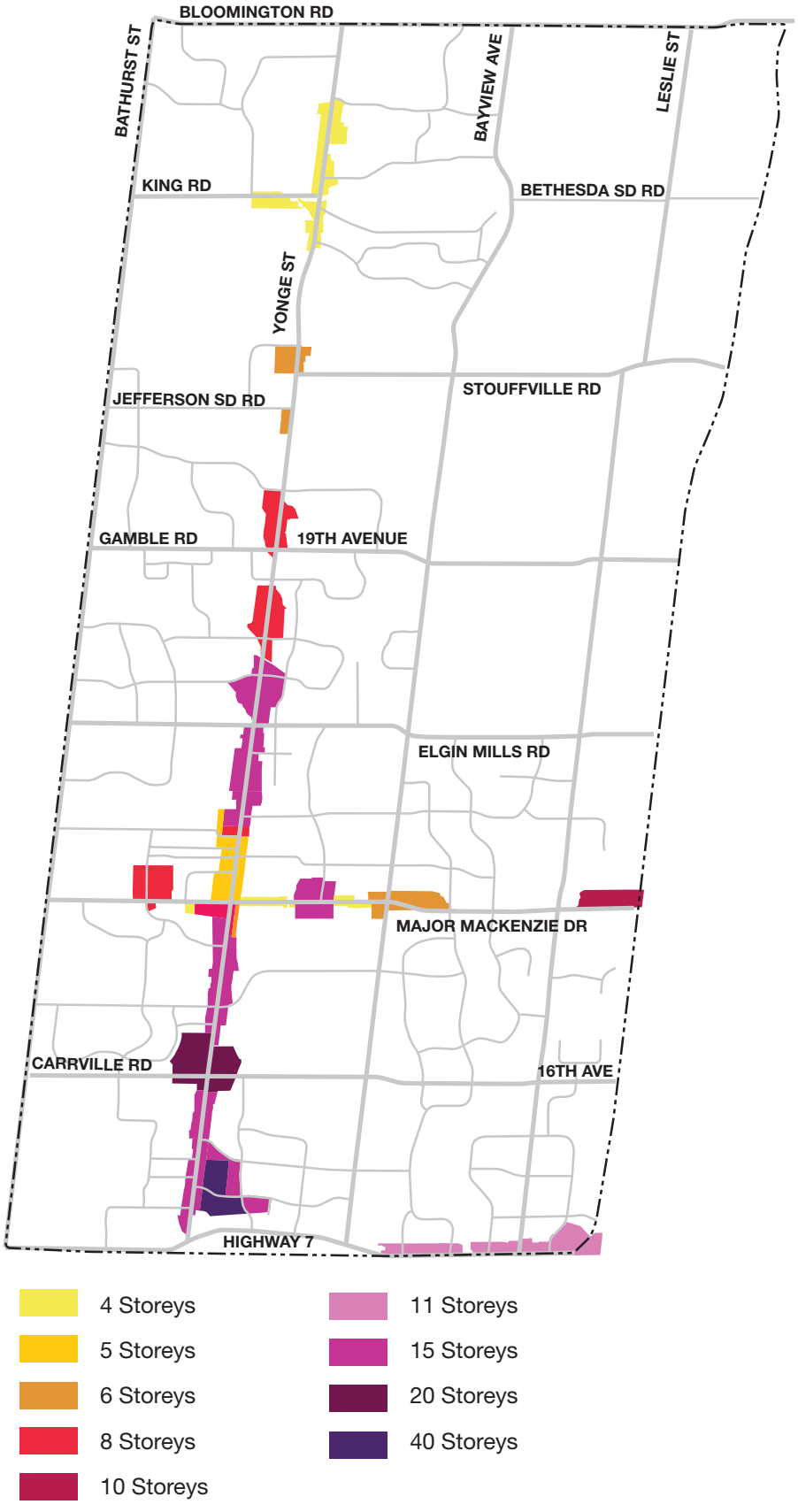

Figure 9: Maximum designated heights in Richmond Hill's Centres and Corridors, as per the Richmond Hill Official Plan (2021 Office Consolidation).

Current Heights

In contrast to the planned heights, existing building heights are predominantly low, indicative of Richmond Hill's earlier sub-urban commercial development context.

Mid-rise and tall buildings appear sporadically along Yonge Street, south of Gamble Road / 19th Avenue (with only a couple of examples of mid-rise buildings north of that), as well as along Major Mackenzie Drive, between Yonge Street and Bayview Avenue, and along Highway 7, between Bayview Avenue and Highway 404.

Arguably, the greatest concentration of existing tall buildings is around the periphery of the Yonge / Carrville-16th KDA.

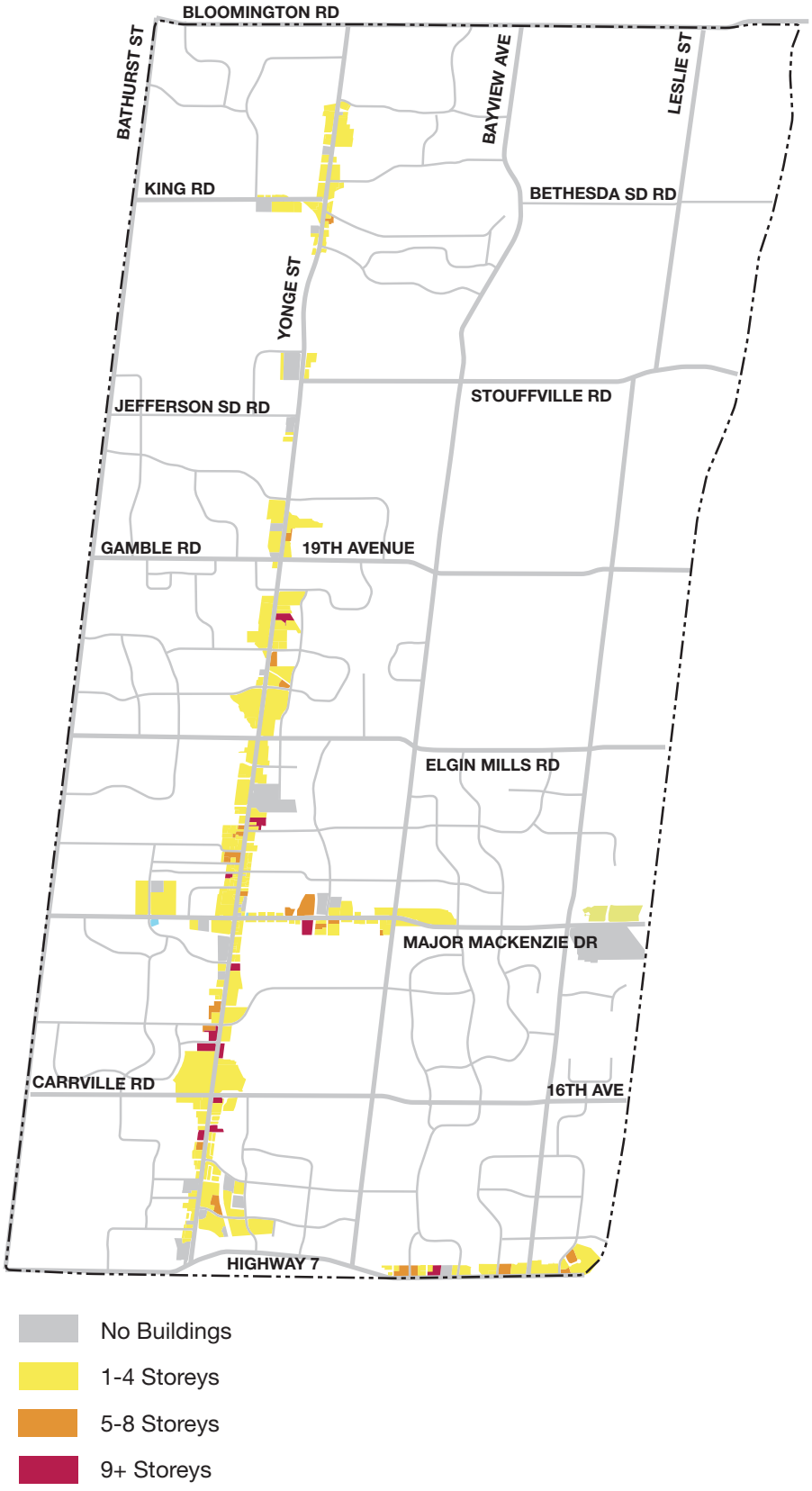

Figure 10: Current building heights in Richmond Hill's Centres and Corridors, as observed in 2020.

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3.0 Demonstrations

3.0 Demonstrations

What potential do sites within the Centres and Corridors have for intensification? What form does intensification take, what role does property consolidation play in achieving practical forms of development, and how are access and parking needs accommodated?

3.1 Overview

To explore options, five scenarios were selected to demonstrate how Centre and Corridor sites could be redeveloped and intensified. For some sites, different extents were explored to test configurations and lot consolidation. For other sites, the impacts of shifting parking from below grade to above grade was explored.

Each demonstration was informed by a set of design principles or parameters pertaining to the issues and challenges of growth and intensification, that could in turn inform changes to Richmond Hill's Official Plan and Zoning Bylaw. (See the Implementation chapter for a detailed discussion of specific recommendations).

The design principles/parameters considered for this study include:

- Consolidation and Block Planning
- Presenting a Good Face
- Commercial Frontages
- Minimizing Curb Cuts
- Landscape Integration
- Pedestrian Permeability
- Alignment of Setbacks
- Transition and Stepping
- Garbage / Loading Provisions
- Managing Fire Department Access

It should be noted that, although they are intended to represent a range, these demonstrations are not exhaustive or comprehensive in scope. Richmond Hill has a great diversity of site types and contexts, and this Study was not able to capture them all.

Similarly, there are a wide range of different building typologies possible within the Centres and Corridors, ranging from townhouses to office buildings and high-rise residential towers. These scenarios explore only some of the possibilities, focusing primarily on residential uses (often incorporating at-grade retail), to reflect predominant development trends.

And finally, the provision of parking within the demonstration sites, particularly those where below-grade parking may not be feasible, is challenging. Parking feasibility will be dependent on forthcoming rates developed through the Parking and Transportation Demand Management (TDM) Strategy. The Parking and TDM strategy will provide opportunity to reduce parking rates from base levels through the provision of additional TDM measures, and includes the introduction of electric vehicle accommodation requirements.

3.2 Demonstration Sites

Site A: Shallow Sites (With Potential for Rear Consolidation)

Demonstration A tests a common, but challenging scenario: How can appropriate densities be accommodated on very shallow properties? Such properties are common in Richmond Hill's Centres and Corridors (particularly the latter), where they may have originated as detached residential or small commercial sites. If redevelopment is to occur, how much consolidation is required to make it practical? How can rear transitions be accommodated?

The following three Variants were explored:

Variant 1 (Figures 11-12): A single mid-block site, consisting of series of shallow lots. Without consolidation nor cooperation amongst neighbouring landowners, it was determined that this presented almost no redevelopment potential by itself. With cooperation in terms of vehicular access in particular, a series of townhouse developments may be developed perpendicular to the arterial street, with a shared loop access drive. This still represents a modest redevelopment.

Variant 2 (Figures 13-14): A consolidation of several of the shallow residential lots noted in Variant 1, allows for more intensive redevelopment, however still challenging from a practical perspective, particularly in terms of providing adequate transition and appropriate vehicular and parking accommodations.

Variant 3 (Figures 15-16): A still larger consolidation that extends backwards to the adjacent local street, effectively doubling the scale and depth of the site. If achievable, this final scenario is the optimal one from a design perspective, as it provides good built-form transition to the flanking local street, adequate at-grade amenity as well as convenience drop-off for residential and retail uses, and significant and practical underground parking provision.

The demonstrations were guided by the following principles:

- **Consolidation and block planning:** Larger sites have more potential to achieve higher densities and more satisfactory site planning and parking accommodations. Variant 3 was able to successfully achieve the target densities with efficient underground parking provisions, which would not be possible on smaller sites such as those tested in Variants 1 and 2. This suggests that a graded approach may be necessary, in which maximum permitted densities are tied to minimum site sizes.

- **Presenting a good face:** It is critical that redevelopments engage closely with the public realm. With the exception of Variant 1, building fronts and entrances face the arterial street. Cloistered developments that turn their back or side to a street frontage should be discouraged through policy. In order for public realm improvements to take place, a 3.0m front-yard setback is illustrated in all Variants.

- **Commercial frontages:** The presence of retail / commercial uses at grade facing principal streets is desirable on many Centres and Corridors sites to animate the public realm. To support animated ground floor uses, a minimum 4.5m ground floor height is recommended and illustrated in Variants 2-3. However, the presence of these uses complicates vehicular access, loading and parking requirements on smaller sites. Only in Variant 3 are practical loading and below-grade parking layouts feasible, along with adequate at-grade space for convenience drop-off.

- **Minimizing curb cuts:** As a rule, curb cuts should be minimized in number, especially along arterials roads (where additional curb cuts may be prohibited). Therefore, in Variants 2-3 single vehicular entry points off the arterial are illustrated, achieved through either consolidation or block planning cooperation between neighbouring landowners. The downside of only one curb cut for Variant 2 is the requirement for a turn-around at the back of the site for fire services purposes.

- **Landscape integration:** Landscape of different types is important within developments in the Centres and Corridors. This may include private yards, common at-grade or rooftop amenity space, areas that serve a visual or buffering purpose, and, on larger sites, POPS (privately-owned public spaces) or even dedications for public parks. As seen in Variants 1-2, on narrow sites opportunities for at-grade landscapes are limited, particularly when consolidation is not achieved. A comparison of zoning by-law requirements for amenity space provisions is included in the Appendix. While all three Variants demonstrate at-grade amenity opportunities, rooftop

areas on Variants 2-3 may be additionally desirable for resident amenities, allowing for a combination of at-grade and rooftop areas serving different resident group needs.

- **Pedestrian permeability:** Achieving pedestrian permeability through the provision of sidewalks is demonstrated in each of the three Variants. For Variant 3, mid-block through-block pedestrian access is an added feature.

- **Alignment of setbacks:** Depending upon the site context, in many cases it is important that front setbacks match those of surrounding buildings. This allows the new infill, even if more intensive, to fit relatively harmoniously into its surroundings. On shallow sites this alignment may be challenging to achieve, particularly when rear consolidation is not possible. A minimum of 3.0m front setback is demonstrated in each of the Variants.

- **Transition and stepping:** For this site the largest and most intensive buildings should be positioned closer to the arterial, stepping down to the rear local street. In these demonstrations, lower podiums, outdoor amenity areas and driveways have been positioned at the rear to minimize shadowing and overlook to adjacent residential properties. Variant 3 demonstrates how effective built-form transitions can be achieved in a through-block condition, allowing the highest-density tower forms on the arterial, stepping down to podia flanking the local street. While all Variants here comply with a rear-yard 45-degree angular plane from the local street, the massing transition to the adjacent rear properties in Variant 2 is abrupt, further supporting the idea of rear consolidation being desirable. Variants 2-3 also demonstrate a 750m2 footprint on building elements above podium levels, limiting shadow impacts on adjacent properties.

- **Parking and loading provisions:** On more intensively developed sites, parking is best accommodated underground (which may also be necessary to achieve permitted densities). Underground parking should generally be encouraged. Loading is provided to individual townhouse units in Variant 1, and through communal bulk pick-up for Variants 2-3, where internal loading docks are provided.

- **Managing fire department access:** Assuming Fire Department access must be wholly accommodated within properties fronting onto an arterial wherever possible, including turn-around provisions, the smallest site configuration tested (Variant 1) relies upon a loop road for Fire Department turn-around, whereas turn-around has been accommodated via hammer-head turn in Variant 2, and a through-road in Variant 3. Review of assumptions concerning Fire Department access would be important in order to determine the development potential of smaller site configurations.

Drawing Legend:

- Individual Units
- Frontyard/ Backyard
- Shared Amenity Space
- POPS
- Primary Building Face
- Improved Landscape Area

Mixed Use Development Shared Collection

- Waste Storage Room
- Waste Setout Area

Individual Curbside Collection

- Waste Setout Area
- Waste Collection Vehicle Route

Figure 11: Demonstration Site A, Variant 1 (Ground Floor Plan Diagram): No consolidation leading to modest property redevelopment in the form of townhouses with a shared access driveway off of the arterial and potential for rear-yard landscape buffer.

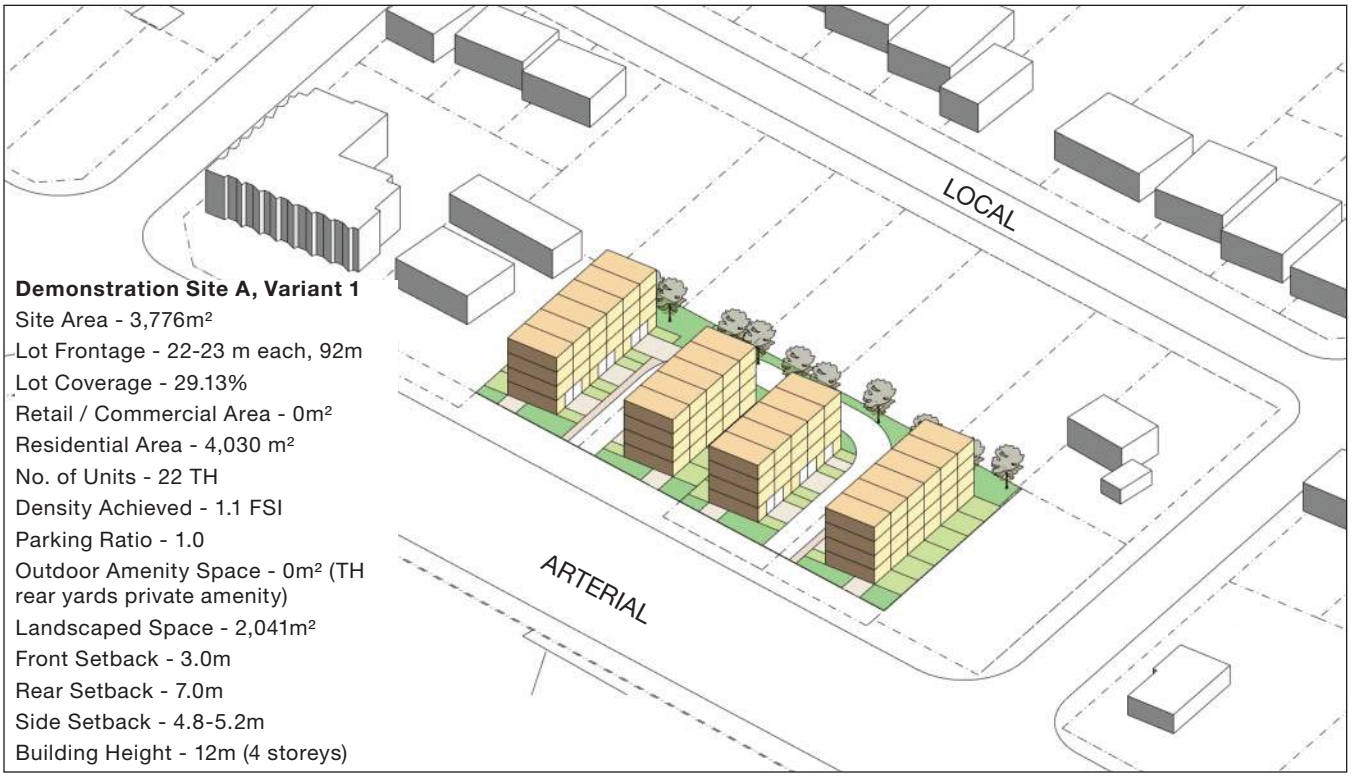

Figure 12: Demonstration Site A, Variant 1 (Axonometric Diagram)

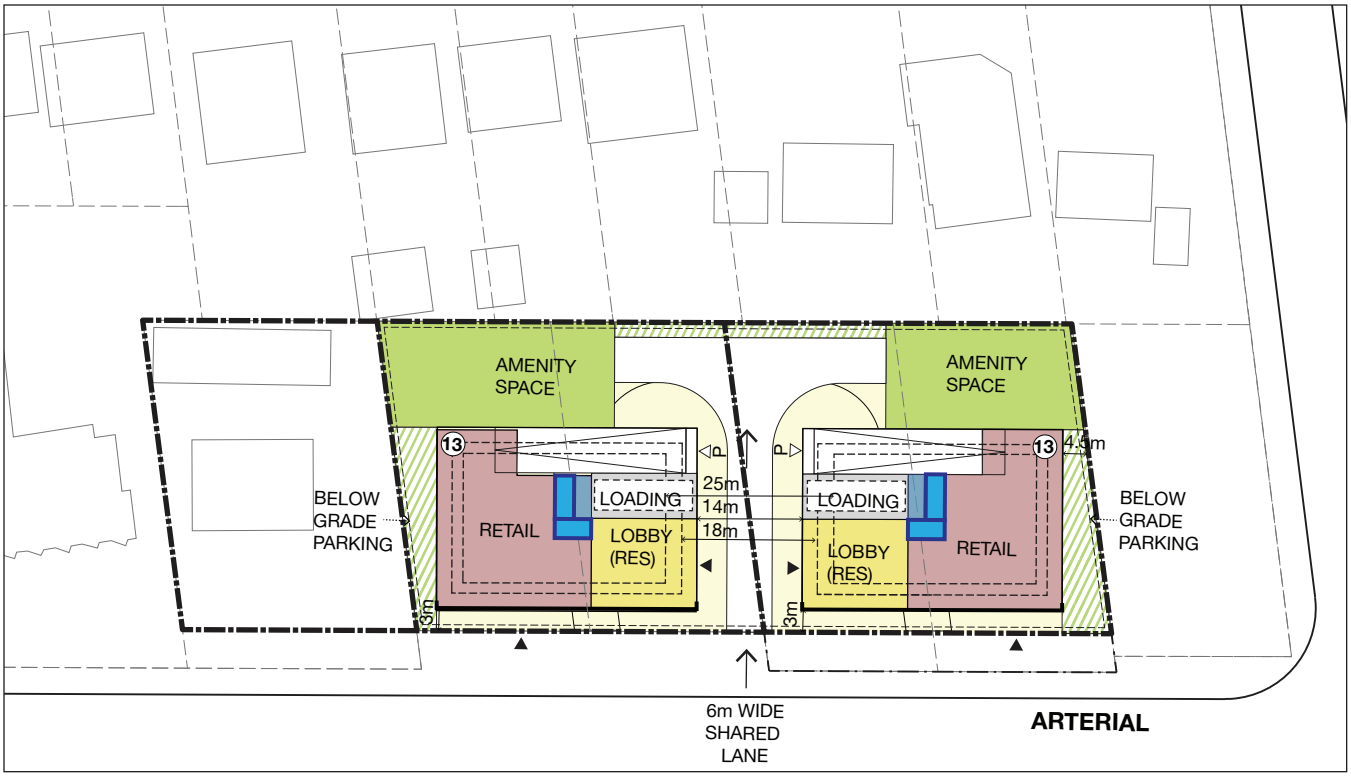

Figure 13: Demonstration Site A, Variant 2 (Ground Floor Plan Diagram): Larger parcel sizes permit more intense forms of development, assuming below-grade parking and a shared access drive. Fire truck turn-around possible within site, but dimension of landscaped buffer beyond limited (2m).

Demonstration Site A, Variant 2
Site Area - 3,776m²
Lot Frontage - 184m
Lot Coverage - 43.86%
Retail / Commercial Area - 1,080m²
Residential Area - 15,901m²
No. of Units - 177
Density Achieved - 4.50
Parking Ratio - 0.62
(2 Levels Below Grade)
Outdoor Amenity Area - 788.0 m²
(4.5m² / unit)
Landscaped Space - 1,671m²
Front Setback - 3.0m
Rear Setback - 14.0m
Side Setback - 4.5m
Separation Distances - 14-18m, 25m tower
Building Height - 40.5m (13 storeys)

Figure 14: Demonstration Site A, Variant 2 (Axonometric Diagram)

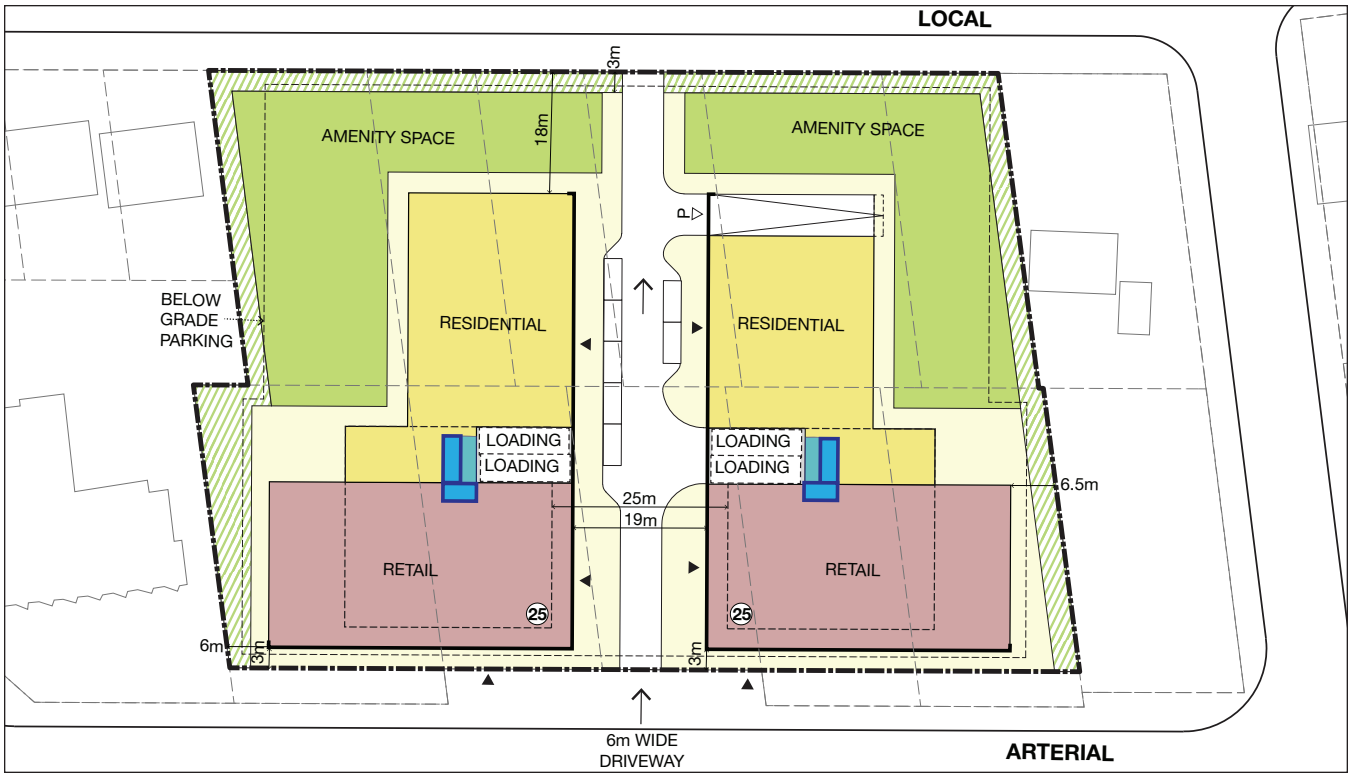

Figure 15: Demonstration Site A, Variant 3 (Ground Floor Plan Diagram): Through-block consolidation allows for more density, more meaningful built-form transition to the local street, streamlined vehicular access including Fire Route with two access points, and a greater proportion of at-grade amenity area flanking adjacent properties.

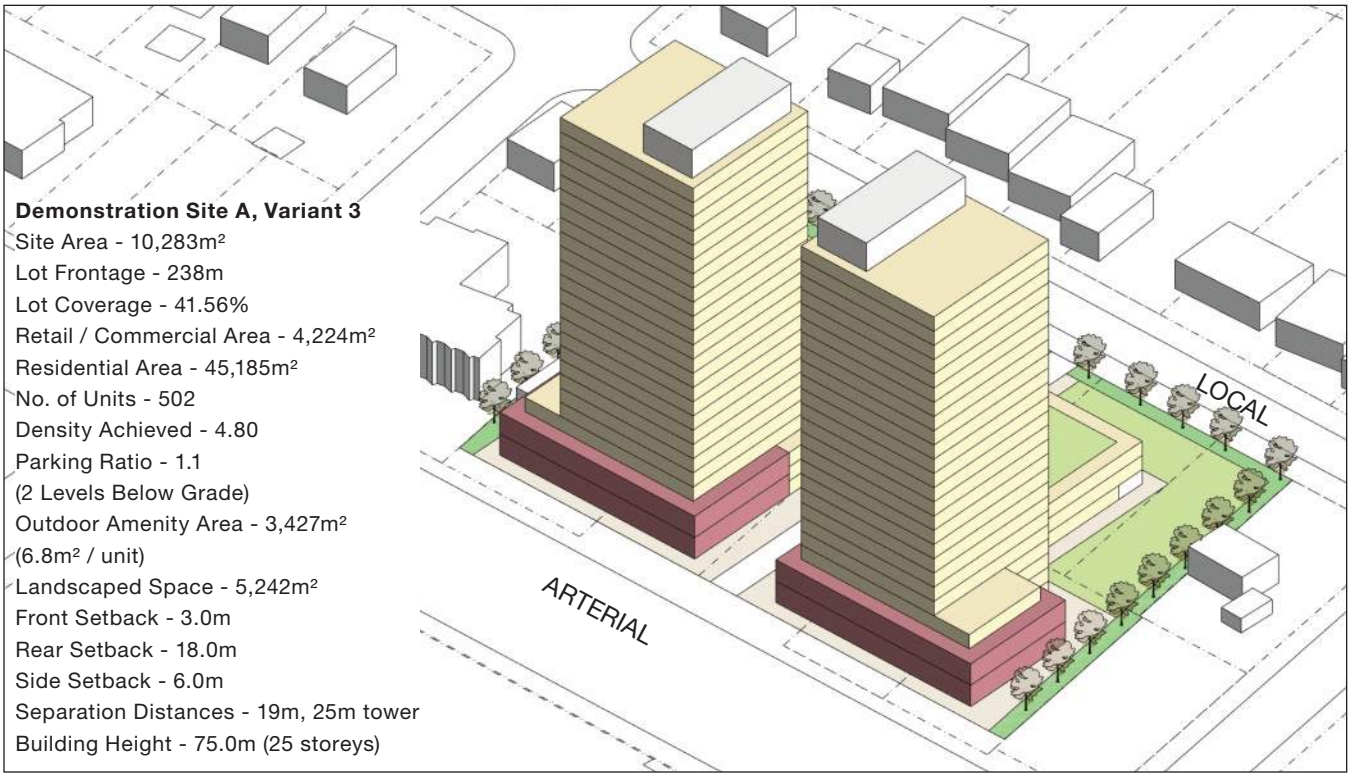

Figure 16: Demonstration Site A, Variant 3 (Axonometric Diagram)

Site B: Deep But Narrow Sites

Demonstration B tests the opposite of A, which is also relatively common in Richmond Hill: Exceedingly deep sites, perhaps originating from subdivided rural properties. While the redevelopment potential of these lots is limited because of their narrowness, consolidation may allow for better options.

The following four Variants were explored:

Variant 1 (Figures 17-18): Consolidation of two long and narrow lots.

Variant 2 (Figures 19-20): A similar consolidation on two adjacent lots creates a slightly wider parcel.

Variant 3 (Figures 21-22): Development of four lots by two separate (but cooperating) parties, sharing a central driveway.

Variant 4 (Figures 23-24): Full consolidation of all four lots by a single party.

The demonstrations were guided by the following principles:

- **Consolidation and block planning:** Larger sites have more potential to achieve higher densities and more satisfactory site planning, parking and loading accommodations. Variant 4 most successfully achieves the target densities with practical built-form transition, efficient underground parking, and generous at-grade outdoor amenity area. This suggests that a graded approach may be necessary, in which maximum permitted densities are tied to minimum site sizes.
- **Presenting a good face:** It is critical that redevelopments engage closely with the public realm. Variant 1 illustrates commercial uses facing the arterial street, but the narrowness of the property limits the impact of the frontage on the public realm. Full consolidation (Variant 4) offers the longest, most impactful active frontage.
- **Commercial frontages:** On narrow sites building frontage facing the public realm is limited, with both building entrance and commercial opportunity vying for space and visibility. Variant 4's frontage allows for both commercial and residential lobbies to face the public realm, and parking volumes to support commercial uses located below-grade. Retail uses are provided with a 4.5m minimum floor height.
- **Minimizing curb cuts:** For long and narrow sites curb cuts represent a significant portion of the frontage length and therefore must be minimized to make redevelopment of the sites feasible. Shared access driveways, and the establishment of a rear street or service laneway connecting multiple long and narrow sites together present the greatest opportunity to redevelop sites effectively.
- **Landscape integration:** Landscape of different types is important within higher density developments. In Variants 1-3, the lack of underground parking provision severely limits at-grade landscape amenity, while Variant 4 provides a generous outdoor amenity along with appropriate perimeter screening to neighbouring properties. The priority for amenity areas within these demonstrations are to serve building typologies that do not already have private front yards for each unit (such as townhouses have). Additional rooftop amenity areas are likely desirable on larger apartment or mixed-use building forms.
- **Pedestrian permeability:** Pedestrian permeability is achieved through the provision of sidewalks on all Variants.
- **Alignment of setbacks:** Depending upon the site context, in many cases it is important that front setbacks be consistent with those of surrounding buildings. Given the historical fabric of the narrow-deep site typology (with deep setbacks from the street), new development will need to establish a new streetwall position suitable for the right-of-way width and public realm ambition of the street. A 3m front setback is illustrated in all Variants.
- **Transition and stepping:** The largest and most intensive buildings should be positioned along the arterial, stepping back to the rear. In these demonstrations, lower forms of housing, outdoor amenity areas and driveways have been positioned at the rear and flanking sides to minimize shadowing and overlook to adjacent residential properties, however very narrow properties may be limited in terms of effective transition, and development density limited accordingly. A 2m minimum landscape buffer is illustrated throughout, and expanded where possible.

- **Parking and loading provisions:** Higher density developments present an opportunity to accommodate underground parking, allowing at-grade areas to be developed as landscape amenity or buffer to adjacent properties. Variants 1-3 demonstrate the limitations of at-grade parking, and do not achieve practical parking ratios. Variant 4 places all parking underground, which is critical to achieving the level of density demonstrated, and the quality of landscape available within the development. Surface parking options should be permitted, but would substantially reduce opportunities for these sites. With respect to loading, mixed-use buildings within these demonstrations are provided loading docks where garbage pick-up is accommodated. Smaller residential buildings including apartments and townhouses are provided with cart storage rooms and layout areas. In interconnected rear street or laneway would improve garbage pick-up provisions for narrow/deep sites.

- **Managing fire department access:** Fire Department access is provided for each Variant including turn-around. Variant 4 simplifies access with a looping fire route configuration, maximizing site area available for landscape and amenity. In Variant 3 an approach to access is suggested through the provision for a future street or laneway connection along the rear property line to adjacent properties. If available, such a rear laneway connection may allow pavement within site to be reduced.

Drawing Legend:

- Individual Units
- Frontyard/ Backyard
- Shared Amenity Space
- POPS
- Primary Building Face
- Improved Landscape Area

Mixed Use Development Shared Collection

- Waste Storage Room
- Waste Setout Area

Individual Curbside Collection

- Waste Setout Area
- Waste Collection Vehicle Route

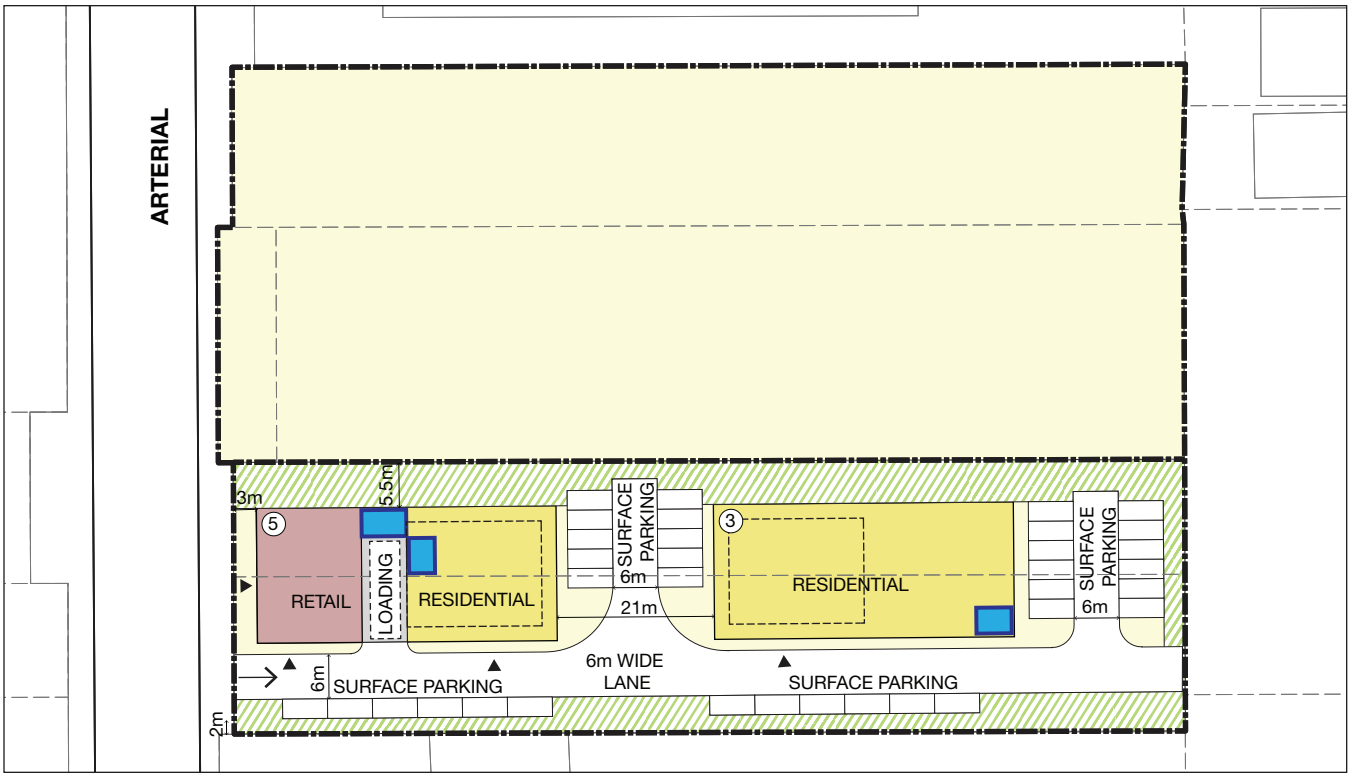

Figure 17: Demonstration Site B, Variant 1 (Ground Floor Plan Diagram): Narrow property redeveloped with two apartment-style buildings perpendicular to the public realm, with surface parking in courts and limited at-grade landscaping. Fire route turn-around accommodated at the centre of the site.

Demonstration Site B, Variant 1
Site Area - 4,593m²
Lot Frontage - 36m
Lot Coverage - 31.35%
Retail / Commercial Area - 720m²
Residential Area - 3,744m²
No. of Units - 42
Density Achieved - 0.97
Parking Ratio - 0.52
(Surface Parking)
Outdoor Amenity Area - 504 m²
(12m² / unit)
Landscaped Space - 1,562m²
Front Setback - 3.0m
Rear Setback - 22.6m
Side Setback - 5.5m
Separation Distances - 21m
Building Height - 15m (5 storeys)

Figure 18: Demonstration Site B, Variant 1 (Axonometric Diagram)

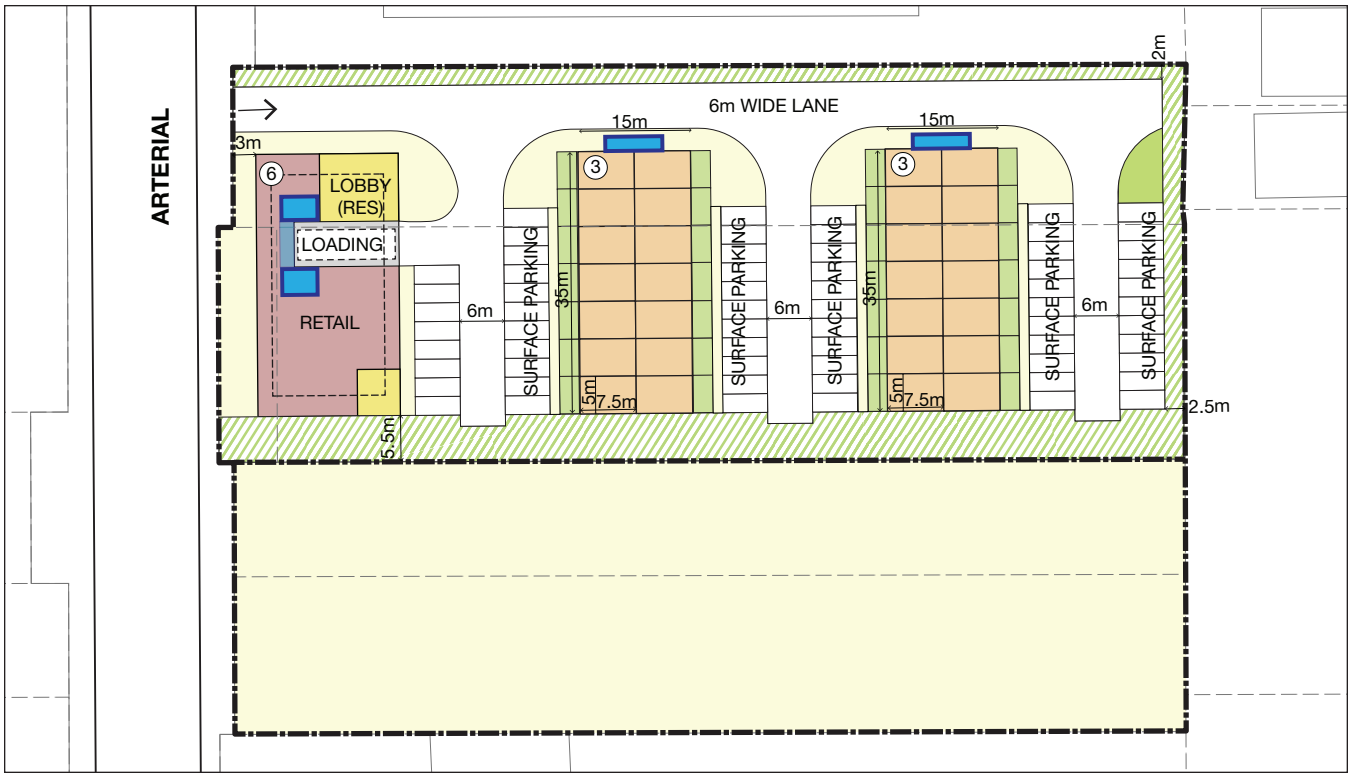

Figure 19: Demonstration Site B, Variant 2 (Ground Floor Plan Diagram): Wider property redeveloped with larger mid-rise building parallel to the public realm, with townhouses and surface parking in courts behind. A linear landscape amenity is accessible to all blocks along the side yard. Fire route turn-around at each parking court.

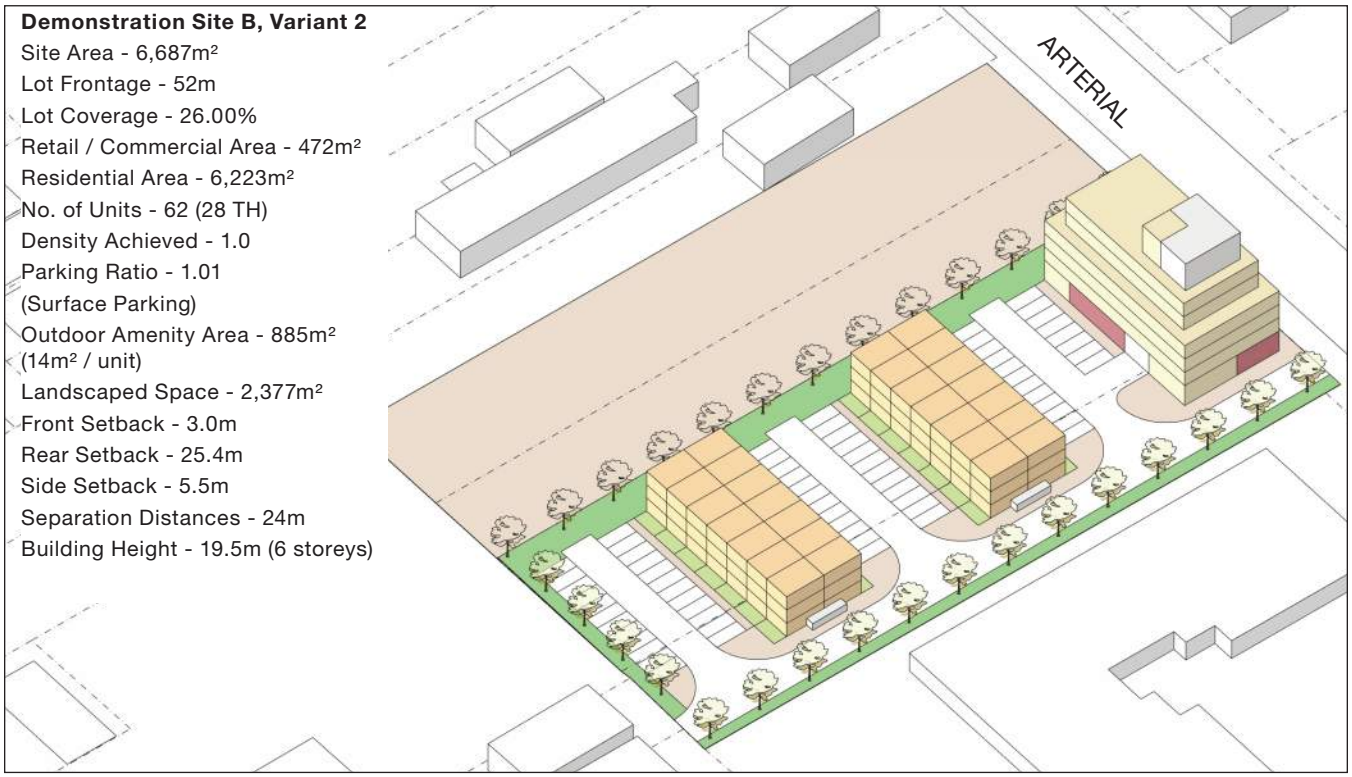

Figure 20: Demonstration Site B, Variant 2 (Axonometric Diagram)

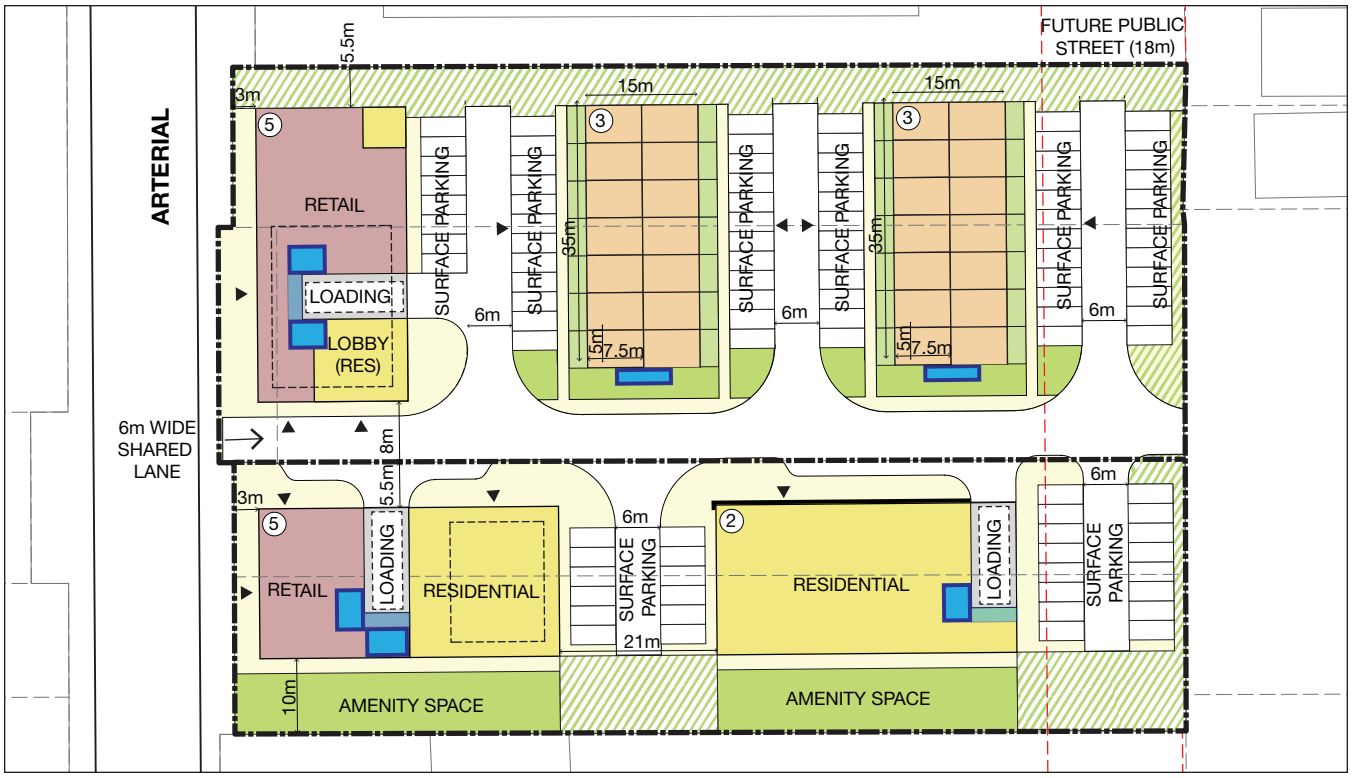

Figure 21: Demonstration Site B, Variant 3 (Ground Floor Plan Diagram): Collaboration between flanking landowners allowing for a single shared access drive with surface parking courts either side and a more significant linear landscape amenity flanking adjacent properties. Potential for rear public street or lane to service these and adjacent properties noted in red.

Demonstration Site B, Variant 3 Part 1 (left)
Site (1) Area - 4,593m²
Lot Coverage - 34.83%
Retail / Commercial Area - 632m²
Residential Area - 3,944m²
No. of Units - 44
Density Achieved - 1.0
Parking Ratio - 0.64
(Surface Parking)
Outdoor Amenity Area - 927m²
(21m² / unit)

Demonstration Site B, Variant 3 Part 2 (right)
Site (2) Area - 6,687m²
Lot Coverage - 27.42%
Retail / Commercial Area - 615m²
Residential Area - 5,999m²
No. of Units - 60 (28 TH)
Density Achieved - 1.0
Parking Ratio - 1.1
(Surface Parking)
Outdoor Amenity Area - 216m²
(3.6m² / unit)

Figure 22: Demonstration Site B, Variant 3 (Axonometric Diagram)

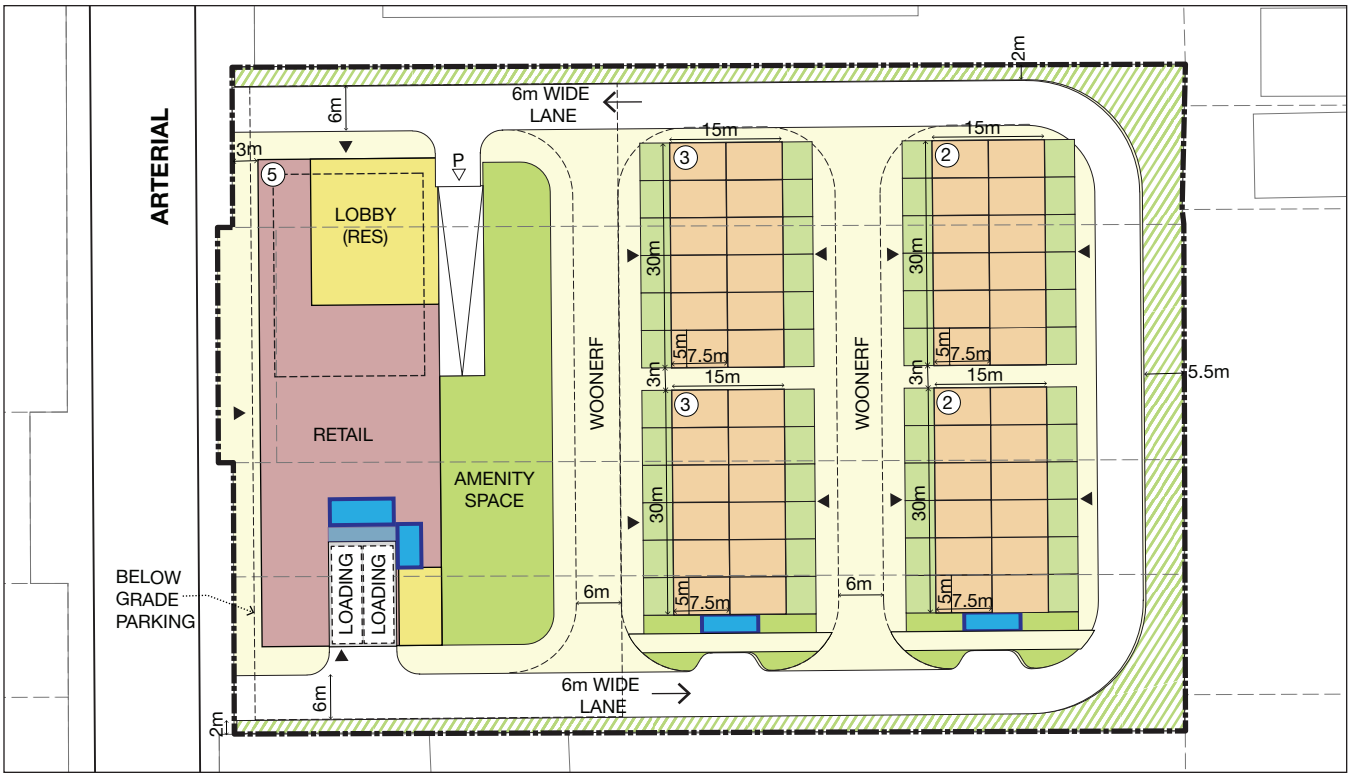

Figure 23: Demonstration Site B, Variant 4 (Ground Floor Plan Diagram): Full consolidation allowing for more significant mid-rise development along the arterial, an at-grade landscape amenity behind, and townhouses. Underground parking is assumed below the mid-rise component and outdoor amenity.

Demonstration Site B, Variant 4

Site Area - 11,280m²
Lot Frontage - 89m
Lot Coverage - 30.11%
Retail / Commercial Area - 1,170m²
Residential Area - 10,110m²
No. of Units - 110 (48 TH)
Density Achieved - 0.89
Parking Ratio - 1.1
(1 Level Below Grade)
Outdoor Amenity Area - 1,393m²
(12.6m² / unit)
Landscaped Space - 4,921m²
Front Setback - 3.0m
Rear Setback - 18.6m
Side Setback - 11.6m
Separation Distances - 20m towns
Building Height - 16.5m (5 storeys)

Figure 24: Demonstration Site B, Variant 4 (Axonometric Diagram)

Site C: Constrained Site In A Highly Urban Context

Some parts of Richmond Hill's Centres and Corridors already have a high degree of urbanization, including existing mid-rise and high-rise buildings. While this context may set the tone for the redevelopment of adjacent lands, small or unusually-shaped sites may still prove challenging.

Demonstration C tests a small and narrow site adjacent to a larger one. Development of this site in isolation would severely limit its potential to reach permitted densities, but cooperation with a neighbour, in the form of a block plan establishing building placement (particularly future tower locations), separation distances, and cooperative vehicular access, lifts the constraint.

The following two Variants were explored (see diagrams on the following page):

Variant 1 (Figures 25-26): Development of the constrained site with parking below grade.

Variant 2 (Figures 27-28): Development of the constrained site with parking at the surface level and above, in the building podium.

In both Variants, cooperation with the adjacent larger property is assumed in terms of building placement, as well as the provision of a future public street connecting the sites along the rear property line.

The demonstrations were guided by the following principles:

- **Consolidation and block planning:** Given the density potential of this and adjacent sites, efforts to encourage collaboration between landowners for the purposes of buliding and tower location is important to ensure adequate tower separation distances are achieved.

  Site C is positioned at the edge of a block of large, deep properties with high-density redevelopment potential. As demonstrated in Variants 1 and 2, the allocation of lands at the rear of the lot for a public street accessed via the local street could provide fire, parking and servicing access for the entire block, helping to reduce curb cuts on the main streets, and the impact of vehicles on each property. The access illustrated between the two buildings is more than 30m from the intersection.

- **Presenting a good face:** On corner sites active frontages that wrap the corner should be encouraged, whether in the form of commercial frontage, residential lobbies or grade-related residential suite entrances. Variant 1 illustrates commercial uses wrapping the corner with a double-height residential lobby behind, whereas Variant 2 adds embedded townhouse units to the base of the local street frontage to continue animation the full length of the site and screen the above-grade parking behind.

- **Commercial frontages:** Variants 1 and 2 demonstrate more significant retail/ commercial uses along with residential development. The commercial uses are provided with their own entrance and loading provisions distinct from the residential uses, with parking provisions shared due to the physical constraints of the property. Not withstanding commercial parking ratios being applied in addition to residential parking, opportunities for parking capacity-sharing between commercial users and residential users should be investigated/encouraged.

- **Minimizing curb cuts:** In order to avoid curb cuts on the arterial (which, given the narrowness of this property is not practical) vehicular access has been provided from the local street only.

- **Landscape integration:** Landscape of different types is important within higher density developments. On tight sites with high density potential, rooftop landscape amenities may be more likely than at-grade amenities. As outlined in the Appendix, there exists a range of considerations and means of calculating amenity area requirements. Within Variant 1 and 2 an indoor amenity area is assumed immediately adjacent to the exterior rooftop amenity areas illustrated. In Variant 2 where townhouse frontages are illustrated along the local street, additional landscaping measures would be required to create welcoming residential frontages while affording residents some privacy from the adjacent sidewalk.

- **Pedestrian permeability:** Pedestrian permeability is provided to the lobby entrances of both buildings illustrated in the Variants. Additional permeability would be desirable mid-block to the adjacent developments, and/or along the proposed future public street at the back of the development.

- **Alignment of setbacks:** Front setbacks of 3.0m have been provided in both Variants, allowing the buildings to address the flanking streets in an urban manner befitting such a prominent corner site.

- **Transition and stepping:** Massing on the site is illustrated in both options to focus height at the corner, stepping down along the local street.

- **Parking and loading provisions:** Higher density developments present an opportunity to accommodate underground parking, allowing at-grade areas to be developed as landscape amenity or buffer to adjacent properties. Variant 1 places all parking underground, which is critical to achieving the level of density demonstrated. Loading provisions are provided within the back of the mixed-use building, with additional storage and setout area provided in the residential building behind. Variant 2 demonstrates the limitations of a three-storey above-grade parking provision, and does not achieve practical parking ratios.

- **Managing fire department access:** Fire department access is accommodated through a looping road configuration including the proposed future public street at the rear of the property.

Drawing Legend:

- Individual Units
- Frontyard/ Backyard
- Shared Amenity Space
- POPS
- Primary Building Face
- Improved Landscape Area

Mixed Use Development Shared Collection

- Waste Storage Room
- Waste Setout Area

Individual Curbside Collection

- Waste Setout Area
- Waste Collection Vehicle Route

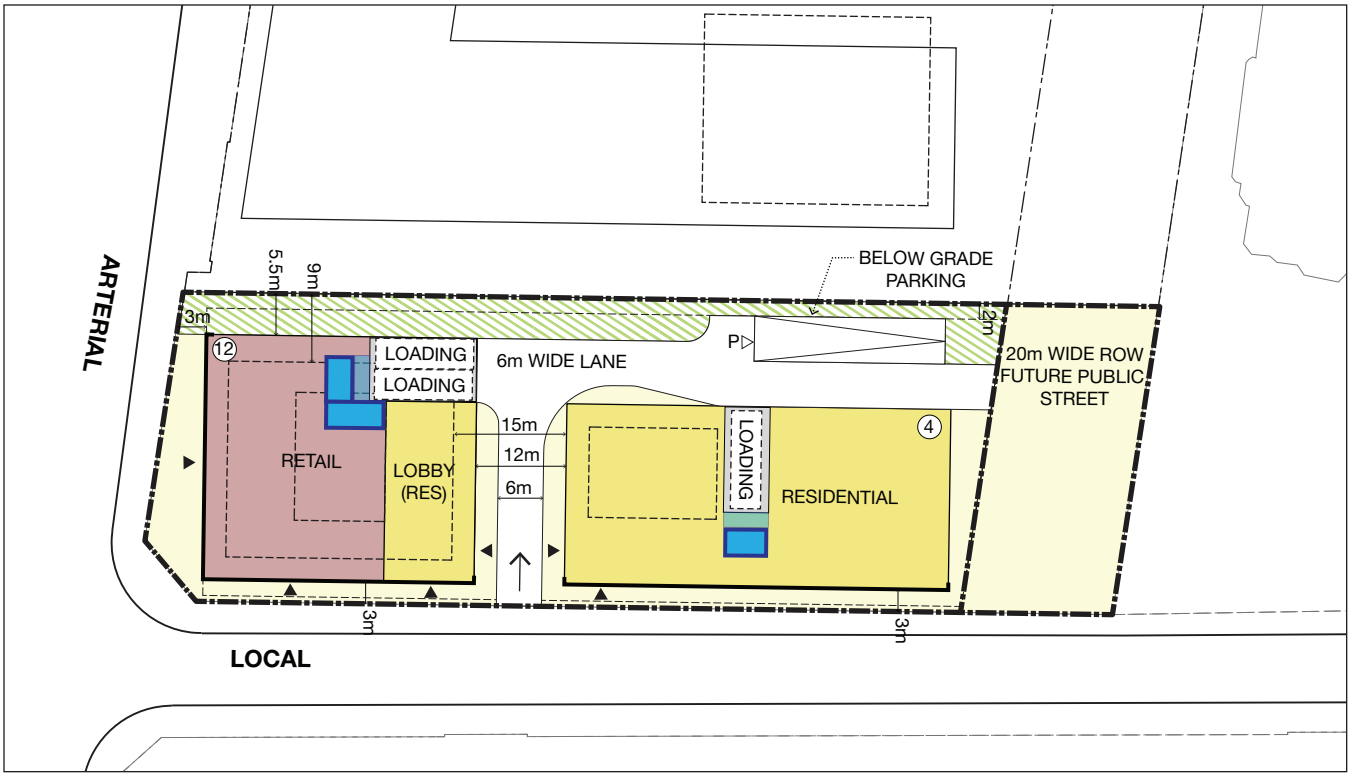

Figure 25: Demonstration Site C, Variant 1 (Ground Floor Plan Diagram): Mixed-use redevelopment including two-storeys of commercial uses with residential above. All parking assumed below-grade, with limited opportunity for at-grade landscape due to provision of laneway intended to serve the remainder of the block.

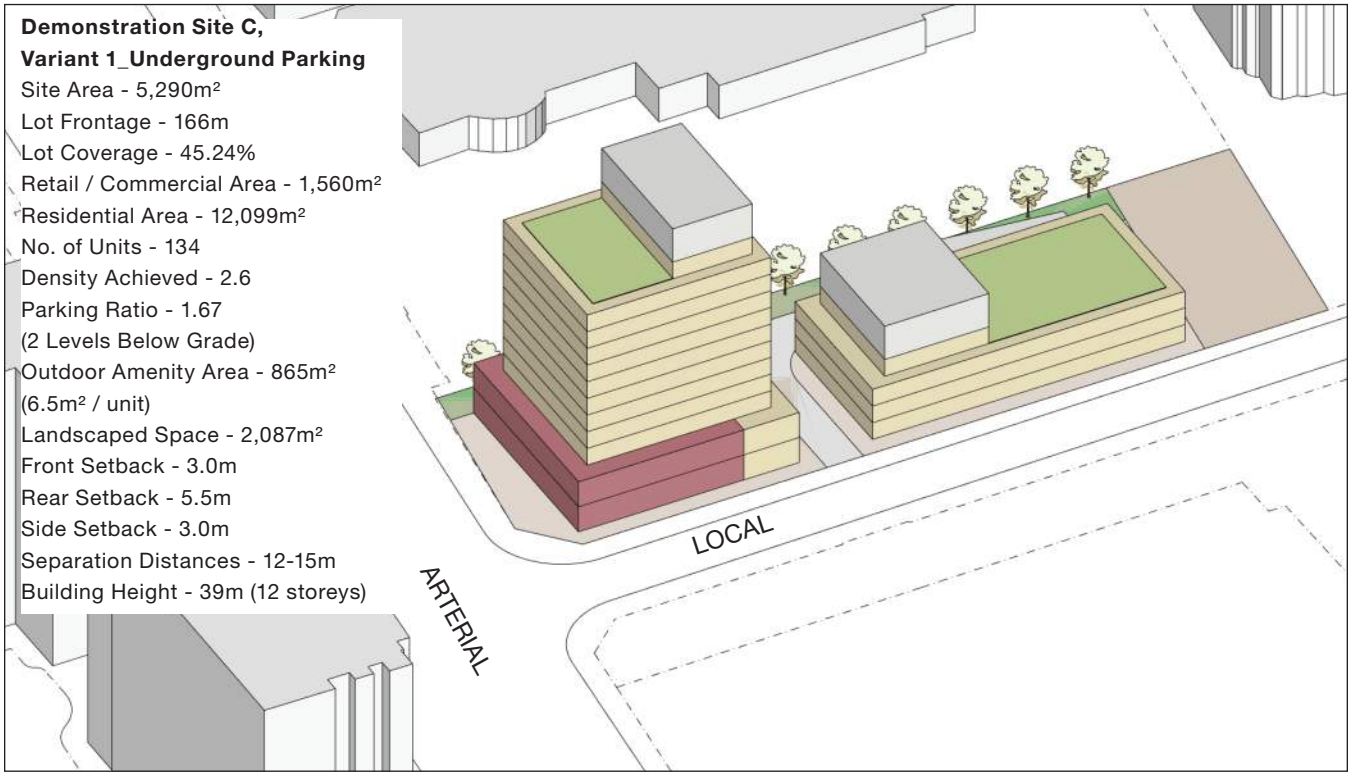

Figure 26: Demonstration Site C, Variant 1 (Axonometric Diagram)

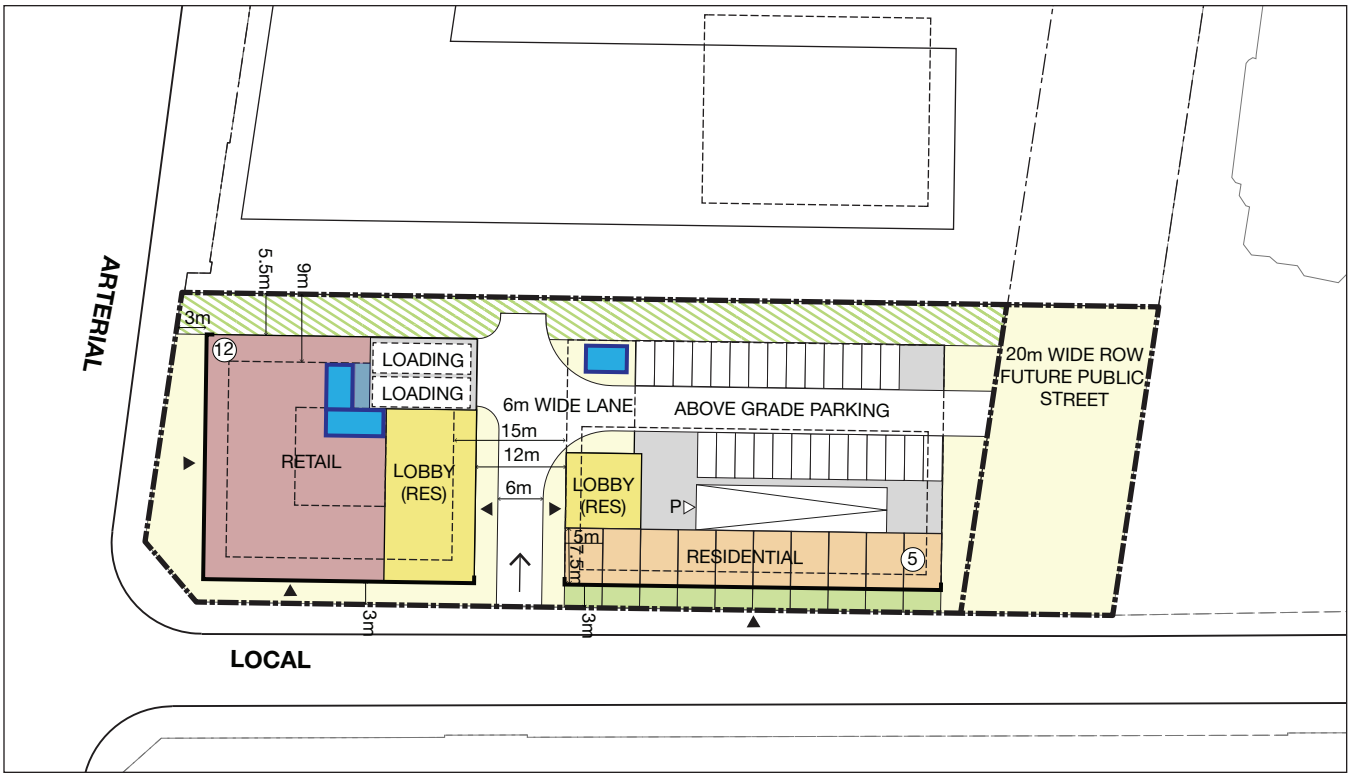

Figure 27: Demonstration Site C, Variant 2 (Ground Floor Plan Diagram): Mix of uses similar to Variant 1, with parking limited to at-and-above-grade structure of a maximum of 3 storeys. Townhouse wrapper screens parking behind.

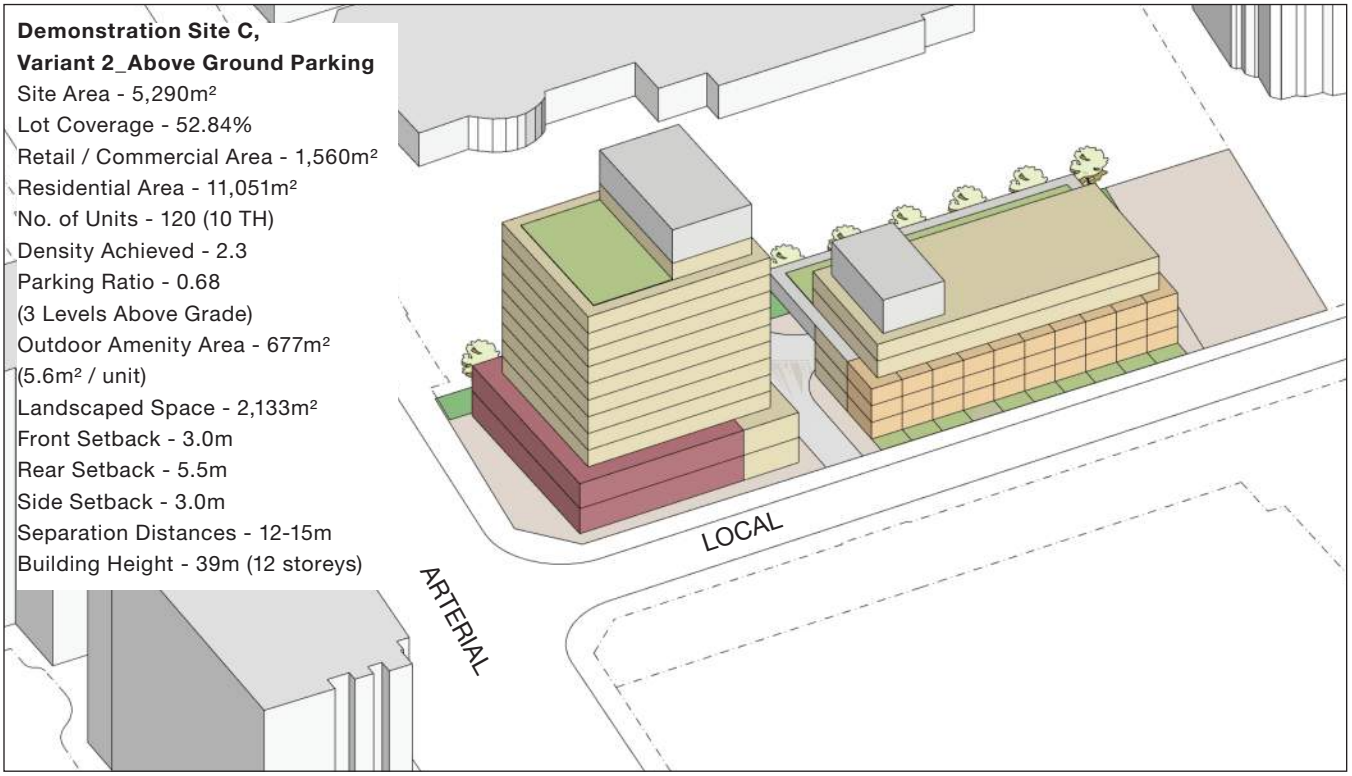

Figure 28: Demonstration Site C, Variant 2 (Axonometric Diagram)

Site D: Large Site on Two Arterials

Demonstration D tests a much larger and less constrained site than the first three. Sites like these also appear commonly within the Centres and Corridors (particularly the former). Although a site like this provides many options for redevelopment, it must still achieve appropriate transitions to Neighbourhoods. Additionally, it has the potential to incorporate an internal (largely private) street network and several forms of open space.

Only a single version of this demonstration was tested (Figures 29-30), placing all parking at grade in building podiums. While not preferred from an urban design perspective, this form of parking may be a cost effective solution for lower density Centre and Corridor sites, particularly those where water table issues challenge below-grade excavations.

The demonstration was guided by the following principles:

- **Consolidation and block planning:** This large demonstration site allows a range of built-form solutions including mid-rise buildings and back-to-back townhouse blocks. Built-form variety supports a range of housing sizes, types, tenures, and affordability. Additional forms of townhouses could be accommodated, in particular fronting onto the landscape amenity areas. If additional height / density were permitted, the site could also likely accommodate a point tower form adjacent to the corner, however if this were the case underground parking would almost surely be necessary to effectively accommodate residential parking requirements.

- **Presenting a good face:** Active uses along the arterial frontages support a vibrant public realm, while screening parking behind. Ground floors are provided 4.5m heights, and residential lobbies are positioned at corners providing eyes on interior landscaped areas and pedestrian access points.

- **Commercial frontages:** Commercial frontages are provided at all key corner positions on the block, including flanking the main intersection of the two arterials where an additional public plaza amenity might be developed. Retail also fronts the proposed public park, providing convenient access for park users.

- **Minimizing curb cuts:** Vehicular access is arranged through an internal network with only two curb cuts onto the arterial street network at opposite ends of the property. Within the site an internal street network is proposed, with streets flanking townhouses potentially designed as shared streets (or woonerfs) where pedestrian priority and safety would benefit the quality of life of residents.

- **Landscape integration:** Landscape of different types is important within higher density developments. In this demonstration a portion of the property is identified as a possible Parkland dedication, flanking an existing Neighbourhood. A second interior green space is provided as a POPS, accessible from the intersection of the two arterials. Additional at-grade green spaces assumed as private amenities are positioned in line with the existing Local road. Rooftop amenity terraces would also be available if desirable on the mid-rise building components, although for the purposes of this demonstration they have not been included.

- **Pedestrian permeability:** Pedestrian permeability is provided through sidewalks on all streets within the site, including a sidewalk along the public park edge connecting to the adjacent arterial road.

- **Alignment of setbacks:** In order to create a strong streetwall presence on the flanking arterials a 3.0m setback is provided. The position of the public park against the frontage beyond which single family residential dwelling exist provides a transition both in built-form as well as frontage condition to the deeper front yard setback conditions beyond.

- **Transition and stepping:** The largest and most intensive buildings are positioned along the arterials, with townhouse forms behind providing an appropriate transition to the neighbouring single-family residential dwellings. Interior roadway / fire route access is provided to all townhouse frontages, including against the property line flanking the Neighbourhood.

- **Parking and loading provisions:** Higher density developments present an opportunity to accommodate underground parking, allowing at-grade areas to be developed

as landscape amenity or buffer to adjacent properties. In this demonstration the limitations of at-grade parking provisions do not achieve practical parking ratios, whereas underground parking would, even if constrained to only beneath the denser forms of development.

For the mixed-use buildings loading is provided through loading areas including storage within the buildings and setout spaces within the landscape. The provision of at-grade parking severely limits the ability to also contain loading within the building footprints.

Within the rows of townhouse development private garage accesses are provided, paired with neighbouring units in order to maximize the opportunity for tree planting within the front yards. Loading is provided through curbside pick-up for the townhouses.

- **Managing fire department access:** Fire department access is provided through the network of private streets within the development, with adequate curb radii to enable fire access to all front doors.

Figure 29: Demonstration Site D (Ground Floor Plan Diagram): Mid-rise developments flank the arterials with townhouses behind, providing transition to the adjacent Neighbourhood. A new public park accessed from the arterial, coupled with a landscape amenity area internal to the site, provide significant landscape areas to residents.

Figure 30: Demonstration Site D (Axonometric Diagram)

Site E: Very Large Site With Replacement Parking Provision

Demonstration E is the largest site in this series, transforming an existing surface parking lot located near a high-order transit facility, and integrating redevelopment with a structured parking garage.

The assumption reflected in this demonstration is that 50% of the existing surface parking would be replaced in the form of a structured facility, screened with retail uses facing the collector. The remainder of the site would be primarily residential, with modest retail uses.

Like Demonstration D, transition is a critical issue, as are the provision of open space, pedestrian porosity and internal networks for movement.

Two variants were tested considering mid-rise (Figures 31-32) and high-rise components (Figures 33-34), with all parking supporting on-site residential and retail uses located below-grade.

The demonstrations were guided by the following principles:

- **Consolidation and block planning:** This large demonstration site allows a range of built-form solutions ranging from mid-and-high-rise structures as well as townhouse blocks. Built-form variety supports a range of housing sizes, types, tenures, and affordability. Variant 1 demonstrates tall mid-rise built form flanking the collectors, whereas Variant 2 demonstrates how high-rise components might be considered and integrated, particularly near the corner of the two collector roads, in order to increase residential density adjacent to a transit node.
- **Presenting a good face:** Active uses along the principle frontages support a vibrant public realm, particularly in a context that is close to high-order transit facilities. Convenience retail or commercial uses, if provided, are most suitable in locations adjacent to desire lines to the transit facility, and/or as a transition to neighbouring industrial uses if applicable. In both Variants, lobbies are positioned at prominent locations and are noted as "through-lobbies", providing eyes on interior landscaped areas and pedestrian access points as well as the public realm of the flanking collectors.
- **Commercial frontages:** Retail uses are proposed along the collector frontage closest to the high-order transit provision, including as a wrapper on the front of the structured parking component provided to serve transit users. Internal to the site no additional retail is anticipated, as the character within the centre of the site seeks to be residential in focus.
- **Minimizing curb cuts:** Curb cuts are provided on the collectors in strategic locations allowing for movement and views deep into the site. Ramp to underground parking, along with loading docks, are also positioned immediately off the collectors, to minimize vehicular movements within the townhouse areas of the development where shared streets or woonerfs are proposed.
- **Landscape integration:** Landscape of different types is important within higher density developments. In this demonstration a portion of the property is identified as an amenity area, as it is internal to the site and likely used primarily by the residents of the development. Additionally, the townhouse units are all provided their own front yards. Dedicated outdoor amenity areas in addition to this large at-grade amenity, may be accommodated within the rear yards of the mid-rise components or upon their rooftops.
- **Pedestrian permeability:** Sidewalks are provided throughout in order to encourage pedestrian permeability.
- **Alignment of setbacks:** Given the scale of the site, and the dimension of the collectors flanking the site, a 6.0m front setback has been illustrated in the two Variants presented here to allow for expanded public realm areas supporting pedestrian comfort. This increased setback also allows for a more gradual transition to the single-family residential dwellings flanking the site.
- **Transition and stepping:** The largest and most intensive buildings are positioned along the collector roads, with tallest buildings at their intersection, and stepping down to either side. Townhouses are positioned internal to the site providing an appropriate transition to the neighbouring single-family residential dwellings.
- **Parking and loading provisions:** Higher density developments present an opportunity to accommodate underground parking, allowing

at-grade areas to be developed as landscape amenity and buffer to adjacent properties. In this demonstration underground parking is assumed below the high-rise developments at minimum, with the assumption that townhouse residents would also benefit from underground parking. Multiple access points to this form of underground parking would be necessary in order for it to be convenient for townhouse residents. Alternatively the townhouse blocks could be designed with their own private garages, as demonstrated in Site D, however proximity to high-order transit on this site suggests a reduced parking ratio may be achievable. Loading is provided via internal loading docks at each of the four mid-rise buildings, with garbage storage for all buildings on site (including the townhouses) proposed to be consolidated below-grade.

- **Managing fire department access:** The interior roadway / fire route access is provided to all mid-rise and townhouse frontages, including adequate curb radii for all streets including woonerfs.

Figure 31: Demonstration Site E, Variant 1 (Ground Floor Plan Diagram): Mid-rise buildings line two edges of this large site, with townhouses behind encircling a new landscape amenity area. A large structured parking facility at the edge of the site replaces existing surface parking, and includes retail uses fronting the collector on the ground and second storey.

Demonstration Site E
Mixed-Use
Site Area - 41,484m²
Lot Frontage - 458m
Lot Coverage - 39.74%
Retail / Commercial Area - 4,904m²
Residential Area - 85,588m²
No. of Units - 860 (137 TH)
Density Achieved - 2.18
Parking Ratio - 1.0
(2 Levels Below Grade)
Outdoor Amenity Area - 3,576m²
(4.16 m² / unit)
Landscaped Space - 17,873m²
Front Setback - 6m
Rear Setback - 5.5m
Side Setback -5.5m
Building Height - 31.5m (10 storeys)

Figure 32: Demonstration Site E (Axonometric Diagram)

Figure 33: Demonstration Site E, Variant 2 (Ground Floor Plan Diagram): Tall building added at corner of this large site, with townhouses behind encircling a new landscape amenity area. A large structured parking facility at the edge of the site replaces existing surface parking, and includes retail uses fronting the collector on the ground and second storey.

Figure 34: Demonstration Site E (Axonometric Diagram)

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4.0 Implementation

4.0 Implementation

A variety of tools are available to help achieve the best outcomes for Richmond Hill's Centres and Corridors, including the Official Plan and Zoning Bylaws. This chapter explores strategies for using both, along with applicable metrics.

4.1 Overview of Potential Solutions by Implementation Method

The Demonstrations in Chapter 3 tested a variety of scenarios and presented design principles and metrics applicable to each site. This chapter will compare and discuss various ways that desirable outcomes could be implemented in policy. (The list of outcomes was informed by discussions with City staff and from the design principles).

While this Study is intended to focus on the Official Plan and Zoning Bylaw, the potential role of Design Guidelines is presented here for comparison. Each is compared in the matrix below in terms of their utility. In some cases, multiple approaches could be taken to a given topic, while others better lend themselves to a very specific approach.

The matrix is followed by a more detailed explanation of recommended approaches and metrics.

Overview of Policy Approaches

Desired Outcome	Solution(s)	Potential Implementation Methods		
		Official Plan	Zoning By-law	Design Guidelines
Achieving the Right Built Form Intensity (Height)	• Height limits. • Angular planes. • Height limits based on shadow impact.	• Urban structure which establishes a hierarchy of heights. • Height maximums established through area-specific policies and schedules. • Policies on shadow and wind impacts of tall buildings. • Angular plane policies.	• Maximum heights in metres or storeys (or both), by zone. • Alternately, maximum heights as an overlay on a zoning map. • Maximum heights defined by angular plane relative to ROW width, or to provide rear transition.	• Maximum heights defined by angular plane relative to ROW width, or to provide rear transition. • Further guidance on shadow and wind impacts of tall buildings.

Overview of Policy Approaches				
Desired Outcome	**Solution(s)**	**Potential Implementation Methods**		
		Official Plan	**Zoning By-law**	**Design Guidelines**
Achieving the Right Built Form Intensity (Density)	• Density limits.	• Urban structure which establishes a hierarchy of built form intensity. • Density maximums established through area-specific policies and schedules.	• Maximum Floor Space Index (FSI) by zone. • Alternately, maximum Floor Space Index (FSI) as an overlay on a zoning map.	
Achieving the Right Level of Building on Small Lots	• Minimum lot size (as a threshold for specific permissions). • Minimum lot width (as a threshold for specific permissions).		• Density regulations. • Minimum lot area. • Minimum lot width or minimum lot frontage.	
Arriving at a Regular Lot Form, Despite Varied Lot Sizes and Depths	• Consistent streetwall. • Consistent setbacks.	• General policies on built form.	• Maximum and minimum front yard setbacks. • Build-to zone. • Minimum streetwall height. • Minimum and maximum podium heights.	
Establishing Built Form Cohesion	• Concept plan requirements.	• Tertiary or concept plan requirements with emphasis on built form relationships.		

Overview of Policy Approaches				
Desired Outcome	**Solution(s)**	**Potential Implementation Methods**		
		Official Plan	**Zoning By-law**	**Design Guidelines**
Appropriate Tower Footprint and Location		• General policies on built form and building types. • Area-specific built form policies.	• Stepback requirements. • Podium height minimum and maximums. • Tower setbacks regulations. • Maximum tower floor plate area. • Angular plane requirements.	• Heights and setbacks defined by angular plane relative to ROW width. • Stepback guidance. • Guidance on the massing of mid-rise and high-rise development.
Desirable Rear Transitions	• Angular planes. • Height bands. • Minimum separation. • Transition area design requirements.	• General policies relating to rear transitions to lower density residential areas include: angular planes, setback requirements, landscaping and buffering requirements. • Area-specific policies addressing transitions through building types, height permissions, as well as those mentioned as general policies.	• Minimum rear yard setbacks. • 45-degree angular plane from rear or side adjacent low density residential areas. • Minimum tower setback from rear and side lot lines. • Rear setbacks relative to height of building. • Rear stepbacks relative to height of building. • Requirements for landscaped or planted buffers. • Requirements for visual barriers, such as fences or plantings.	• Design guidance and examples of different strategies to realize successful transition to lower density areas.

Overview of Policy Approaches				
Desired Outcome	**Solution(s)**	**Potential Implementation Methods**		
		Official Plan	**Zoning By-law**	**Design Guidelines**
Ground Floor Animation	• Identification of retail priority areas. • Requirement for active frontage (and definition of this). • Standards for ground floor residential design. • Minimum ground floor height.	• General policies on realizing a pedestrian-oriented built environment.	• Minimum and maximum setbacks and build-to zones. • Prohibitions or limitations on ground floor residential uses. • Requirement for ground floor dwelling units to have entrances on the street. • Percentage requirements for transparent glazing of first floor facade. • Requirement for commercial GFA, at grade and/or as a percentage of overall GFA. • Minimum ground floor heights. • Active frontage requirement (uses identified as active) for percentage of ground floor facing a street. • Minimum width of façade as a percentage of lot width. • Requirement for the principal entrance to be located in the ground floor façade facing the street.	• Guidance and examples of different strategies for realizing good animation at the ground floor.

Overview of Policy Approaches				
Desired Outcome	**Solution(s)**	**Potential Implementation Methods**		
		Official Plan	**Zoning By-law**	**Design Guidelines**
Establishing Built Form Variety	• Requirement for variety (on large sites). • Permissions for varied forms.	• Permitted building types by land use designation. • General policies describing the objective for variety. • Site size threshold to apply a requirement for variety within site. • Area-specific policies describing the location of different building forms.	• Within zones, sets of mutually exclusive regulations that permit varied building types (e.g. separate regulations for mid-rise and high-rise form).	• Guidance and examples of how large sites can be developed to incorporate a variety of built forms.
Achieving a High Quality Public Realm	• Improved streetscape design. • Setback requirements to augment boulevards.	• Requirements for wind and shadow studies. • Area-specific street segment design objectives.	• Minimum and maximum setbacks and build-to zones. • Landscaping requirements in front yard setbacks. • Setback exceptions for the provision of urban squares and POPS.	• Guidance and examples of different strategies for creating a positive public realm.
Providing an Appropriate Mix of Uses	• Non-residential requirements. • Non-residential bonusing.	• General policies describing the desired mix of uses, employment objectives and targeted jobs to people balance.	• Limitations on residential uses in the ground floor. • Separate density permissions for residential and commercial uses. • Minimum GFA percentage requirement for commercial uses.	

Overview of Policy Approaches				
Desired Outcome	**Solution(s)**	**Potential Implementation Methods**		
		Official Plan	**Zoning By-law**	**Design Guidelines**
Appropriate Quantity of Parking	• Reduce parking requirements. • Provide bicycle parking requirements.	• General policies on minimizing the amount and impact of parking.	• Parking maximums. • Reduced parking minimums. May be based on proximity to transit, and require alignment with Parking and TDM Strategy. • Shared parking based on mix of uses. • Prohibition on surface parking, except for temporary pick-up/drop-off and delivery parking, or retail customer parking. • Bicycle parking minimums.	• Guidance on the implementation of bicycle parking, including short-term bicycle parking.
Quality Parking / Loading Design	• Improved standards for parking design, including bicycle parking. • Clear indication of where parking should be located.	• General policies on design objectives for parking. • Design requirements for particular forms of parking, e.g., structured parking, EV parking.	• Prohibition on parking in front and side yards. • Requirements for particular forms of parking, loading, including provisions for access.	• Guidance and examples of parking design that supports a variety of objectives. • Guidance and examples of loading designs including access provisions.
Well Scaled and Designed Outdoor Amenity Space	• Minimum amenity space requirement. • Guidelines for ground floor residential design.		• Area requirement per unit (based on typology). • Minimum contiguous area. • Location requirement.	• Guidance and examples of meeting amenity areas requirements.

Overview of Policy Approaches				
Desired Outcome	**Solution(s)**	**Potential Implementation Methods**		
		Official Plan	**Zoning By-law**	**Design Guidelines**
Good Quantity of Green Space / Plantings	• Minimum landscaped area. • Standards.	• General policies establishing landscaping objectives.	• Minimum site percentage for landscaped areas. • Landscaped strips and setbacks.	• Guidance and examples of effective landscaping in site planning.
High Level of Pedestrian Permeability (for Large Sites)	• Identification of special key mid-block connections. • Policy generally encouraging permeability.	• Pedestrian permeability objectives. • Pedestrian circulation plan requirement • Consideration for cycling and micromobility.		• Guidance and examples of effective site planning for pedestrian, cyclist, and micromobility user permeability.
Appropriate Site Coverage	• Maximum lot coverage.	• General built form policies.	• Maximum lot coverage. • Minimum setbacks. • Minimum landscaping requirements.	• Guidance and examples of effective building design.
Appropriate Scale of Podiums (Length)	• Maximum podium length. • Articulation requirements.	• General built form policies limiting building length, promoting articulation, and materiality.	• Maximum building length along frontage.	• Guidance and examples of effective building design.
Appropriate Scale of Podiums (Height)	• Minimum and/or maximum heights. • Minimum stepbacks (to towers or upper podium storeys).	• General built form policies. • Area-specific policies to establish minimum and maximum podium heights.	• Minimum and maximum base building height.	• Guidance and examples of effective building design.
Appropriate Floorplate size	• Floorplate control.	• Maximum tower floor plate size.	• Maximum tower floor plate size.	• Guidance and examples of effective building design.
Sufficient Separation Distance Between Buildings	• Minimum separation distance(s) applicable to mid-rise buildings and towers.	• General built form policies to include a qualitative or numeric description of minimum separation distances.	• Minimum separation distances. • Minimum tower setback.	• Guidance and examples of effective building design.

4.2 Recommendations

The following discussion of options expands on the implementation approaches matrix, focusing specifically on the potential of the Official Plan and Zoning Bylaw.

This section juxtaposes approaches taken in Richmond Hill with that of other GTHA municipalities - Toronto, Vaughan, Burlington and Hamilton - to understand and gain inspiration from their approaches dealing with similar planning challenges. Further detail on the approaches of these municipalities can be found in the Summary Brief (March 2022) prepared in an earlier phase of this project.

A recommendations matrix concludes this section, with recommended metrics for key site planning and built-form considerations based on our review of City documents, a review of comparable Municipalities, industry standards, and the Demonstrations contained within this study.

Two additional tables summarizing the kinds of controls and the specific metrics used in the zoning by-laws of other GTHA municipalities are included in the Appendix - one table dedicated to built form controls, and the other to amenity area standards.

Achieving the Right Built Form Intensity (Height and Density)

Challenges

- Excessive height.
- Excessive density.
- Disregard for the hierarchy of built form scale intensity, as expressed through Official Plan city structure.

Approaches in Official Plan Policy

The Richmond Hill Official Plan establishes a city structure, which lays out a hierarchy of mixed-use intensification areas defined in part by scale and intensity. (OP 3.1.3)

Land use policies provide direction on a hierarchy of heights and densities within particular intensification areas, including where the tallest buildings should be located and for transitions to Neighbourhoods. These policies establish numeric standards that determine minimum and maximum densities (as an FSI), minimum and maximum building heights (in storeys), and, in some instances, maximum base building height (in storeys). For some designations, descriptive policy is provided on the distribution of height (e.g. the tallest buildings will be located along the arterial in the Regional Mixed-Use Corridor).

This is a detailed approach relative to the Official Plans of some municipalities, one that approaches the level of detail more frequently found in secondary plans. Toronto does not include numeric standards for height and density in its Official Plan, while Vaughan includes area-specific standards in a schedule to the Official Plan.

Erosion of OP policies on height and density can occur through the appeals process. In some other municipalities, appeals of planning policy have used height permissions as justification for greater density, and vice versa. For clarity, Richmond Hill could consider adding a policy that establishes that heights and densities indicated in the Official Plan are independent maximums; one maximum may be achieved without achieving the other. Richmond Hill may wish to consider additional nuance or flexibility in maximum heights.

A further consideration, current provisions of the Planning Act protect heights and densities from appeal in Protected Major Transit Station Areas (PMTSA) (Planning Act 16 (36.1.4)). This is pertinent for this study, as PMTSA generally fall under the category of Centres and Corridors. PMTSA have been established for the City of Richmond Hill by York Region through its Municipal Comprehensive Review. The boundaries and proposed minimum density targets are identified in Appendix 2 of the Regional Official Plan. Worthy to note, notwithstanding the protection from appeals discussed above, the Planning Act permits appeals where the maximum height authorized for a building would not satisfy the minimum density authorized for a parcel (Planning Act 16 (36.1.6)).

Both Centres and Corridors have been the subject of area-based planning in other municipalities. These processes allow for a more specific approach to the distribution of height and density. They can also create a policy framework that reflects the cumulative impacts of intensification and ensures that, with built form intensity, comes an appropriate balance of uses and an appropriate provision of retail, parks and community facilities.

Another issue to note, Richmond Hill defines mid-rise development as buildings or structures between 5 to 8 storeys tall. Other municipalities define mid-rise development with a higher top end: Vaughan (5-12 storeys), Toronto (4-11 storeys, relative to ROW width) and Burlington (5-11 storeys). Based on the Demonstrations included in this report, and the Corridor ROW widths of up to 45m that currently exist within the City, Richmond Hill may wish to reconsider this definition and increase it to 11-12 storeys. As indicated particularly in Demonstration Sites D and E, this

form of "tall mid-rise" is appropriate where flanking wide ROW conditions. If "tall mid-rise" were to be permitted, this built form would require specific design guidelines pertaining to issues unique to the performance of taller mid-rise buildings.

Approaches in Zoning

Some municipalities have zones that align with OP land use designations, while in others, zones may provide a further level of gradation. The inclusion of minimum and maximum heights in zoning is common (usually in metres, rather than storeys, but sometimes both). Minimum and maximum densities are not always present.

The City of Vaughan attributes heights and densities with particular zones, but provides a finer grain of variation within the Vaughan Metropolitan Area. The City of Toronto assigns heights and densities through a numeric overlay on zoning maps which may differ within the same zone. The City of Hamilton includes a height schedule in its zoning by-law which attributes heights within the Downtown area at the block and sub-block level.

In some circumstances, angular planes may be used to determine a height maximum and envelope. For example, in the City of Toronto, an angular plane defines the height of mid-rise in proportion with the width of the right-of-way. However, as demonstrated on Site A Variant 2, compliance with angular plane controls does not eliminate the potential for abrupt transitions on sites slated for intensification. In these cases, in order to encourage consolidation a minimum site size (or depth) may be an added measure in order to permit higher density redevelopment and achieve the desired built form outcome.

Given the high level of detail on heights and densities included in the Official Plan, the Richmond Hill zoning by-law should provide for a further level of variation within Centres and Corridors as appropriate, either as an overlay or schedule.

Angular plane policies included in the Richmond Hill Official Plan should be reflected in the zoning by-law.

Establishing Built Form Variety and Cohesion

Challenges

- Lack of built form variety.
- Monoculture of building types – overuse of point tower-podium.
- Difficulty in achieving mid-rise form.
- Overbuilding of small lots.
- Excessively irregular form associated with varying lot sizes / depths.
- Lack of cooperation between landowners.

Approaches in Official Plan Policy: Built Form Variety

Many GTHA municipalities are confronted with the challenge of a gap in development interest between low-rise medium density forms, such as townhouses, and high-rise, high density forms, such as towers. Mid-rise buildings are a form that seems more difficult to achieve.

The Richmond Hill Official Plan establishes in its Vision Statement that much of the future growth will take the form of mid- and high-rise development concentrated in a network of Centres and Corridors. (OP 2.1). Area-specific policy provides further guidance on the location of mid-rise development within these Centres and Corridors.

The most straightforward way to incorporate mid-rise development into the mix of built form is to have land use designations and/or zones for which only mid-rise built form is allowed. These could be developed as part of area-specific secondary plans and zoning by-laws. Urban Design Guidelines can provide extensive guidance on the creation of this kind of built form. Avenue and mid-rise guidelines prepared by the City of Toronto provide significant detail on building scale, massing, transitions to surrounding built form and at-grade animation.

The Richmond Hill Official Plan has general policies on establishing a good rhythm of facades that complement adjacent buildings and creates a well-proportioned, human scale streetwall. (OP 3.4.1(39)) Richmond Hill should also consider a policy promoting built form variety in general, as well as within large development sites. Redefining mid-rise to include buildings of 11-12 storeys may be an additional incentive, as long as corresponding design guidelines address their unique performance.

Approaches in Official Plan Policy: Cooperation Between Landowners

Concerning large development sites or blocks with multiple owners, through secondary plan policies, some municipalities have included a requirement for the submission of a precinct or block plan (for example, the Sherway Area Secondary Plan in the City of Toronto). This is similar to the concept/tertiary plan requirement currently included in the Richmond Hill Official Plan, but could be expanded to include built form variety and other features, in the case of joint plans submitted by

multiple owners. As demonstrated on Sites A, B and C, cooperation between landowners can facilitate more rational vehicular and servicing access provisions and tower placement.

Further policy could encourage landowners within each block or precinct to enter into agreements with each other, and potentially the City, addressing their respective responsibilities regarding coordination, provision, financing, cost-sharing and phasing of infrastructure, community facilities, housing, parkland, public art or any other public amenities required to support the development of a block or precinct.

Approaches in Zoning: Overbuilding of Small Lots

Minimum lot frontages and lot areas are common features found in the Vaughan, Hamilton and Burlington zoning by-laws. These combine with standards for lot coverage and maximum density to establish the appropriate level of development. Specific numeric standards can be tailored to reflect zoning categories.

Approaches in Zoning: Excessively Irregular Form Associated with Varying Lot Sizes / Depths

Zoning by-laws, in general, cannot account for all site-specific irregularities through their regulations. However, as long as the intent of the zoning by-law is clear and supported by policies in the Official Plan, irregularities can be appropriately addressed through the minor variance or zoning by-law amendment process. Hamilton has taken an interesting step of including an explanatory note at the beginning of every zone to clearly state the broad intent of the zoning regulations.

Toronto includes regulations that differ depending on the depth of the lot. A similar approach could be contemplated in Richmond Hill, given the wide range of lot depths as demonstrated in Sites A and B in particular.

Regardless of lot size, depth or shape, particular zoning regulations can establish consistency across lots. Many mixed-use zones include minimum and maximum setbacks or a build-to zone, as well as regulations on minimum building, podium or base building heights that create a consistent frontage. Exceptions can be created in regulations for setbacks related to features such as driveways and urban squares.

Achieving Appropriate Building Massing

Challenges

- Excessive site coverage.
- Excessively long podiums.
- Inappropriately sized podiums (either too short or too tall).
- Excessive floorplate size.
- Insufficient separation distance between buildings.
- Block or slab building massing.

Approaches in Official Plan Policy and Zoning: Excessive Floorplate Size

The Richmond Hill Official Plan has a policy establishing that high-rise residential buildings must generally have a slender floorplate of approximately 750 square metres above the podium to adequately limit shadow and wind impacts and loss of skyview. (OP 3.4.1.58) This is a common standard, although it is usually included in design guidelines (Toronto, Ottawa, Mississauga) rather than Official Plan policy. Vaughan includes maximum tower floorplate size in its zoning by-law.

As the standard is already included in the Official Plan, Richmond Hill should consider incorporating it into the zoning by-law. All Demonstrations including high-rise components included in this report reflect this standard.

Approaches in Official Plan Policy and Zoning: Insufficient Separation Distance Between Buildings

Minimum separation distances between the tower portion of high-rise buildings are common in planning policy and zoning regulation to maintain appropriate light, view and privacy conditions.

Urban design policies included in the Richmond Hill Official Plan establish a separation distance of approximately 25 metres between both proposed and existing towers. (OP 3.4.1.57) Demonstrations on Sites A and C assume this requirement, although for Site C an agreement would be necessary with the adjacent landowner to implement the 12-storey building illustrated in both Variants 1 and 2 if the definition of mid-rise is not expanded to include such "tall mid-rise" typologies.

In other municipalities, the standard is often incorporated into zoning bylaws, both as a separation distance between towers on the same lot, as well as a minimum setback of tower portions of buildings from interior side and rear lot lines.

In some other municipalities, tower separation only applies to residential buildings, or different standards apply to office tower separation (Vaughan).

The standard established by Richmond Hill of 25m is in line with those is established by other municipalities. General policies or regulations pertaining to separation distances between towers may be tailored to reflect the built form patterns and conditions of specific areas, e.g. an existing “tower-in-the-park” condition where tall buildings exist, but with a different standard related to patterns of sky view.

Separation distances between mid-rise buildings or mid-rise components of high-rise buildings is also important to consider, particularly in the context of the Centres and Corridors where mid-rise, including "tall mid-rise" up to 11-12 storeys, has been demonstrated in Chapter 3.0 of this report.

Toronto's Mid-Rise Design Guidelines recommend a 5.5m setback to a side property line where windows may be present, suggesting a total minimum facing dimension of 11m. Generally within the Demonstrations we have allowed for a minimum of 5.5m setbacks between secondary facades of mid-rise building faces and side yard property lines. Where multiple mid-rise buildings are illustrated within the same property, Demonstrations illustrate a minimum of 15m facing distance between primary faces of buildings. Similar to high-rise building separation distance requirements, mid-rise separation distance requirements, along with other built-form controls applicable to mid-rise buildings, should be considered for inclusion in the Official Plan.

Separation distances assigned to townhouse components may be slightly less than those for mid-rise buildings due to the smaller scale, height and massing of townhouse components. Visual privacy between facing units does demand a minimum facing dimension where windows are present.

Approaches in Official Plan Policy and Zoning: Block or Slab Building Massing

Many of the built form policies related to massing in the Richmond Hill Official Plan are located in the “Transitions to Neighbourhoods” section of the plan (OP 3.4.1.55-59), although they have broader applicability outside of that context. Policies establish that built form will provide suitable massing and design, in order to achieve skyview, light and building separation. Mid-rise and high-rise developments must have a step back above the base building to provide a clearly discernible top to the street wall and to minimize shadow impact on the public realm. High-rise residential buildings must generally have a slender floorplate above the podium to limit shadow and wind impacts and loss of skyview.

The Vaughan Official Plan has specific design criteria by building type, including mid-rise and high-rise buildings. Tall buildings are encouraged to take a podium and point tower form, with maximum podium heights, therefore eliminating “slab” buildings taller than 12 storeys (the mid-rise category). The Burlington Official Plan includes detailed built form policies on an area-by-area basis, including policies related to massing.

Tall building guidelines prepared by municipalities (e.g. Toronto) usually focus on the tower-podium form. While this form has its advantages, the desire for greater variety may require Richmond Hill to broaden its built form policy to permit and provide guidance for sensitively-designed "tall mid-rise" buildings in certain situations, particularly those flanking wide ROW dimensions.

Approaches in Zoning: Excessive Site Coverage

Maximum lot coverage is a common zoning standard, although often not applied in every zone. Site coverage is also addressed through setbacks and landscaping requirements.

Approaches in Official Plan Policy and Zoning: Lack of Built Form Variety

Zoning often establishes a complete set of regulations for each zone, with all regulations applying to any given development. For example, in the Vaughan zoning by-law, the Mixed-Use and Vaughan Metropolitan Centre zones include regulations that apply to buildings taller than 14m or 20m (roughly equivalent to 4-6 storeys). These regulations presume a building with a tower and podium form. However, the Vaughan Official Plan establishes that mid-rise buildings are defined as between 5-12 storeys. If the intent is to create a mix of built form that includes mid-rise buildings, as well as those with a tower-podium form, the zoning by-law could be working against that variety. A potential solution, and one that might be considered by Richmond Hill, is to include regulation sets within the same zone that pertain to different kinds of built form. Developments would be required to the meet the regulations included in one full set that is in keeping with the built form being creating.

Another potential solution, at the Official Plan level, is to provide a policy that would allow for creativity and innovation in design if overall planning objectives are satisfied. The Downtown Hamilton Secondary Plan has a general policy which indicates that designs that do not align completely with its policies or supporting design guidelines may be permitted if they satisfy good

planning principles and meet the intent of the vision and policies.

Approaches in Official Plan Policy and Zoning: Excessively long podiums

Any built form that continues along an extended portion of frontage, be it a mid-rise building or the podium of a tall building, risks a monotonous condition and reduced block permeability.

The urban design policies of the Richmond Hill Official Plan have a particular focus on creating a pedestrian-oriented built environment, but do not address this issue directly. (OP 3.4.1)

A review of other jurisdictions did not identify policies or regulations specifically addressing this issue.

Richmond Hill Official Plan urban design policies could be expanded to address the issue through a number of solutions: limiting podium/building length, promoting building articulation, and requirements around design and materiality to break up mass and create visual interest. Further guidance on this issue could be provided in design guidelines.

This issue could also be addressed in the zoning by-law by establishing a maximum building length along a frontage. In the Demonstrations contained within this report, overall building lengths are generally limited to 60-70m, with townhouse rows further broken down based on no more than 8-units in a row beyond which a 3m minimum pedestrian passageway is provided.

Approaches in Official Plan Policy and Zoning: Inappropriately Sized Podiums (Either Too Short or Too Tall)

The Richmond Hill OP includes policies on minimum and maximum base building heights in some areas of Richmond Hill Centre, Key Development Areas and Regional Mixed-Use Corridor designations (but more often only maximum base building heights).

In the Vaughan zoning by-law, Mixed-Use and Vaughan Metropolitan Centre zones include minimum and maximum podium heights (10.5m and 14-20m, respectively depending on zone) and minimum tower stepbacks above the podium.

Richmond Hill should bring its OP standards concerning base buildings heights into the zoning by-law, and consider their more broad application as appropriate. Tying height to adjacent right-of-way width can produce a pleasing ratio of streetwall height to street width (between 1:1 and 1:2). A qualitative rather than numeric description of appropriate podium sizing could be included in OP policy or design guidelines.

Establishing the Relationship of Built Form to Surrounding Low Density Areas

Challenges

- Poor transition to lower intensity built form – usually rear transitions to neighbourhoods, lower intensity residential areas.

Approaches in Official Plan Policy

The Richmond Hill Official Plan establishes policies to ensure a good transition between low/medium density residential areas and development within Centres and Corridors. The policies require:

- Suitable massing and design, in order to achieve skyview, light and building separation. This is to be achieved through a 45-degree angular plane, from the lot line of the lower density designation where it is separated by a road, with the allowance of a 10-metre protrusion where the lots immediately abut.
- New public streets with grade-related residential entrances facing existing low density residential or medium density residential areas, where appropriate; and
- Landscape buffers or linkages, which may include parks, where appropriate. (OP 3.4.1.55)

Land use policies particular to specific Centres and Corridors provide further direction on transitions to the Neighbourhood designation, including heights and densities for adjacent blocks, as well as more stringent angular planes, in some instances.

Other approaches employed by other municipalities include requiring ground-related residential units to abut Neighbourhoods (Burlington) or permitting low-rise, medium-density form, otherwise precluded from intensification areas, as a transition to Neighbourhoods.

Approaches in Zoning

A number of requirements are common in zoning regulations to address transition to lower density

areas. These include angular planes, minimum rear yard setback, landscape buffers and visual barriers such as fencing. Some variations of note include:

- Hamilton's zoning by-law varies permitted building height according to the rear yard setback in areas abutting Residential or Institutional Zones.
    - » Any building height above 11.0m may be equivalently increased as the yard increases beyond the minimum yard requirement, to a maximum building height of 22.0m.
    - » Any portion of a building above 22.0m in height, to a maximum of 40.0m, shall be set back a minimum of 29.5m from the rear or interior side lot line.
    - » For any portion of building exceeding 44m, additional minimum stepbacks requirements apply: 9.5m from a lot line abutting a laneway; or 12.5m from all side and rear lot lines except any flankage lot line.
- Toronto's zoning by-law varies the required angular plan from a rear lot line depending on the depth of lots:
    - » For shallow lots, the angular plane starts from the height of 10.5m.
    - » For deep lots, the angular plane starts from the height of 7.5m.

Richmond Hill zoning regulations should reflect the policies of the Official Plan. Consideration should be given if these standards need to evolve based on more urban conditions (as in Toronto) or a desire to prescribe variation in height and setback (as in Hamilton).

Achieving a Mix of Uses

Challenges

- Over-reliance on residential uses
- Only token amounts of retail and employment uses in mixed-use developments.

Approaches in Official Plan Policy

The Richmond Hill Official Plan promotes the intensification of employment and establishes targets for a balance of jobs and residents: 1 job per 2 residents for the city as a whole; 1 job per 1 resident for the Richmond Hill Centre. Centres and corridors are intended to serve as a focus of economic activity. Given the city's limited amount of employment land, high density forms of employment are required and the Centres and Corridors are an important location for this intensification. (OP 3.3.2, 3.3.3.2)

Almost all GTHA municipalities have had difficulty realizing an intensification of employment uses in mixed-use Centres and Corridors to match the intensity of residential development. Most municipalities have preserved employment-only designations in their Official Plans, although this can be eroded through the MCR process. Some municipalities have used Community Improvement Plans as a means to incentivize office development, although it is difficult for these incentives to make a large enough difference to alter project financial feasibility. A few municipalities have used planning tools to require that employment intensification accompany residential development. This kind of approach allows developers to integrate different kinds of uses to create an overall pro forma that works. Markham's Official Plan includes a Mixed-Use Office Priority designation that requires that the majority of GFA in a development be office employment uses.

In order to achieve employment intensification and a balance of uses, Richmond Hill will need to use all the planning tools at its disposal to incentivize and require employment uses be part of mixed-use development. Richmond Hill should consider more strongly promoting employment intensification in the narrative of the Official Plan, at a city-wide scale and at the scale of the Centres and Corridors.

Approaches in Zoning

As policies of the Richmond Hill Official Plan are strengthened to promote employment intensification, they should be implemented through zoning.

In Toronto, total density permissions in the zoning by-law are broken down into commercial and residential maximums. Minimums or percentages could also be introduced for Richmond Hill.

It is common within zoning by-laws to limit residential uses on the ground floor to create space for uses that better activate frontages and provide employment or amenity in terms of retail, services or community uses.

Establishing the Relationship of Built Form to Street/Public Realm

Challenges

- Poor pedestrian environment.
- Lack of ground floor animation.
- Poor public realm.

Approaches in Official Plan Policy

The Richmond Hill Official Plan includes an extensive set of policies promoting a pedestrian-oriented built environment through the design and placement of buildings on a site, landscaping and active frontages. These policies require or encourage:

- Landscaping and enhanced treatments to promote an attractive transition between the public and private realm, where setbacks are required; (OP 3.4.1(30))
- Buildings and primary entrances oriented toward the public street; (OP3.4.1(34) and (36))
- Adequate visual transparency on building façades, weather protection, entranceways, and landscaping to maximize comfort within the pedestrian realm through all four seasons; (OP 3.4.1(39))
- Location of garages or service bay openings at the side and rear instead of along the frontage; (OP 3.4.1(29))
- Screening of loading areas and outdoor storage areas; (OP 3.4.1(43))
- The requirement for a sun/shadow analysis and wind study to demonstrate pedestrian comfort on public sidewalks and the public realm. (OP 3.4.1(41) and (42))
- Pedestrian Circulation Plans for development proposals within the Centres and Corridors to ensure appropriate linkages to and from adjoining land uses, transit stations, recreational facilities, parks and the urban open space system. (3.5.2(10))

Approaches in Zoning

The Richmond Hill Official Plan policies discussed above concerning a positive pedestrian environment are well suited for incorporation into the zoning by-law.

Active frontages have been incorporated into the zoning by-laws of other municipalities in a variety of ways, which Richmond Hill is encouraged to consider:

- Establishing a consistent street wall and build-to zone;
- Locating primary entrances along that frontage;
- Requiring all residential uses be located above the ground floor, except for a percentage of the frontage permitted for the primary entrance and lobby;
- Establishing percentages of ground floor frontages that will be occupied by non-residential uses with an active component;
- Limiting residential uses on the ground floor to the primary entrances and lobbies of multi-unit developments and individual units with their primary entrance on the frontage (such as podium townhouses as seen in Site C Variant 2);
- Identifying areas where retail or other active use frontages are a requirement through a schedule or overlay;
- Establishing a minimum and maximum ground floor height that is conducive to active uses (4.5m minimum as suggested in the Demonstration Sites);
- Establishing the minimum width of the ground floor façade as a percentage of lot width; and
- Setting a minimum percentage of the ground floor façade facing the street to feature transparent glazing.

Achieving High Quality and Quantity of Green Space / Plantings

Challenges

- Lack of green space and plantings.

Approaches in Official Plan Policy

Issues of landscaping and site design are generally not specifically addressed in OP policy.

Approaches in Zoning

In mixed-use medium and high density areas, the amount of green space and landscaping can be addressed in zoning through:

- Minimum landscaped area as a percentage of site area, with the potential to distinguish between hard and soft landscaping;
- Minimum landscape strip abutting a street line (3m used within Demonstration Sites);
- Minimum required landscape strip on any interior side lot line or rear lot line abutting a Residential Zone or an Open Space Zone (2m used within Demonstration Sites).

Providing Sufficient Amenity Areas

Challenges

- Insufficient / poorly designed indoor and outdoor amenity areas.

Approaches in Official Plan Policy

Amenity areas are usually not addressed in OP policy.

Approaches in Zoning

Requirements for indoor and outdoor amenity areas are often included in the general provisions section of a zoning by-law or in the regulations pertaining to specific zones. They establish a required area of space in square metres based on the number of units in a multiple residential unit development, including apartment dwellings, block townhouse dwellings, back-to-back townhouse dwellings, stacked townhouse dwellings and podium townhouse dwelling.

The table of Zoning By-Law Comparison - Amenity Area Provisions, included in the Appendix, shows the variation in regulations addressing amenity space found in other municipalities' zoning by-laws. Variation includes:

- The detail included in the definition of amenity area, and whether inclusions or exclusions are specified;
- Whether the requirement addresses communal amenity areas only, or whether private amenity areas can be used to satisfy requirements;
- The amount of amenity area required per dwelling unit and whether this varies by type of dwelling unit (building typology or unit size);
- Whether there is a unit count threshold above which the requirement applies;
- How the amenity area requirement should be broken down between indoor and outdoor spaces;
- Minimum contiguous space requirements for outdoor amenity areas; and
- Other specifications.

Richmond Hill should include amenity area regulations in its zoning by-law, addressing both indoor and outdoor amenity areas, and consider how regulations should differ based on building and dwelling type. As noted in the Demonstrations, outdoor amenity areas illustrated range from 4 m2/ unit to significantly higher values (up to nearly 40m2 / unit), and are calculated excluding townhouse unit provisions with their own landscape areas.

As noted in the Appendix, 4 m2 / unit (2 m2 / unit of which is interior amenity area) appears to be the minimum standard within Toronto, with other municipalities choosing to include more significant requirements based on housing typology. With the addition of rooftop areas to Sites D and E, amenity area provisions could easily increase to 8-10 m2 / unit, values used in Vaughan which may be more suitable to the context of the Centres and Corridors.

Maximizing Pedestrian Permeability of Larger Sites

Challenges

- Lack of pedestrian permeability within large sites.
- Poor pedestrian connections to surrounding areas.

Approaches in Official Plan Policy

In its section on Active Transportation, the Richmond Hill Official Plan establishes the requirement that development proposals within Centres and Corridors provide Pedestrian Circulation Plans in order to ensure appropriate linkages to and from adjoining land uses, transit stations, recreational facilities, parks and the urban open space system. (OP 3.5.2(10)) Richmond Hill should consider adding further policies that promote the interior permeability of sites to support the exterior permeability discussed above, including the provision of sidewalks on both sides of internal streets and connecting to resident amenity areas within the site.

Under land uses policies for each Centre and Corridor, there are policies that are supportive of creating walkable streets and people places. For the Downtown Local Area, policies support buildings oriented toward and accessed at the street, limited vehicular access and support for breaks in the street wall along Yonge Street to provide pedestrian mews, courtyards, urban squares, parks, or other appropriate pedestrian amenities. (OP (4.3.1.2(7))

Richmond Hill should consider including policies on interior block permeability and pedestrian amenity to its general policies or adding

them to the area-specific policies for the other Centres and Corridors. Mid-block connections should be identified and promoted as a way of breaking up larger blocks to create pedestrian permeability. When POPS are provided within a site, as demonstrated in Site D, direct visual and physical connection to the POPS from an adjacent ROW is desirable.

Design guidelines on site planning large blocks could address the issue of pedestrian permeability, including a numeric guideline for the distance between pedestrian routes/connections that could guide the inclusion of mid-block connections.

Approaches in Zoning

Zoning regulations pertaining to the pedestrian permeability of large sites were not identified during our review.

Reaching the Desired Quantity, Location and Form of Parking

Challenges

- Excessive parking areas.
- Poor parking design.

Approaches in Official Plan Policy

The Richmond Hill OP has policies on minimizing the amount and impact of surface parking and promoting underground and structured parking. (OP 3.4.1(47), (48) and (49)). The OP includes policies on the design of structured parking to minimize negative impacts. (3.4.1 (47)).

Approaches in Zoning

It is a common practice in other municipalities to reduce parking minimums in intensification areas which will feature a good mix of uses and be well-served by transit. Less common is the introduction of parking maximums. Vaughan includes both parking minimums and maximums in its zones covering mixed-use areas and the Vaughan Metropolitan Centre. Vaughan also includes regulations on reducing parking minimums to account for shared parking in mixed-use developments. Toronto is studying eliminating parking minimums altogether.

In addition to setting parking rates, zoning by-laws of other municipalities shape the form of parking in a number of ways:

- Prohibiting surface parking and above-grade structured parking in certain zones;
- Dictating the location of surface parking. For example, not permitting parking in front and exterior side yards;
- Establishing landscaping requirements; and
- Including general provisions on the location and design of above- and below-grade parking structures and commercial parking facilities.

Richmond Hill should consider the merit of similar approaches given the local context, as well as reflecting and implementing Official Plan policies on parking.

Summary of Selected Metrics addressed in Demonstration Plans			
Category	**Recommended Metrics**	**Reference Demonstrations**	**Further Considerations**
Sample Zones	It is recommended to establish zones by use and/or density target in order to customize zoning parameters to suit the character of each zone.		
Lot Frontage Minimum (m)	35-40 m if mid-rise built form is desired	Demonstration Site B Variant 1, and Site C Variants 1 and 2 both illustrate the opportunities for intensification on relatively narrow lots (36.0 - 41.0m frontages). These demonstrations do suggest a minimum lot frontage within this range if street-oriented mid-rise built form is desirable.	Depending upon the typology being accommodated, lot frontage minimums will vary.
Lot Area Minimum (m2)	Will vary depending upon zone, frontage and other factors.	The Demonstration Sites in this Study range from 3,775 m2 to 41,500 m2 in area - a wide range capturing the opportunities for consolidation that do exist within the Centres and Corridors. Optimal development yields are not achieved, however, on sites less than 10,000 m2, as demonstrated by Sites A and B in particular.	Depending upon the typology being accommodated, lot area minimums will vary.
Setback: Front Minimum (m)	Varies - depends upon context, right-of-way and public realm provisions and other factors		Intended cross-section of the right-of-way and scale of development will influence front setbacks.
Setback: Rear Minimum (m)	5.5-7.5 m	Where possible, all demonstrations illustrate 7.5m and massing arrangements are further influenced by angular planes. Some variance in rear minimum setback is exhibited where townhouses or other relatively low-rise components abut a property line. Therefore a range of setback minimums by typology may be appropriate.	Consideration of the application of a 45-degree angular plane control where properties abut local streets or existing single-family residential development.
Setback: Interior Side Minimum (m)	Will vary depending upon zone, frontage and other factors. 7.5m where primary windows face interior sideyard 5.5 m where secondary windows exist facing the interior sideyard		Depending upon the desired streetwall condition and the building typologies being accommodated, interior side setbacks will vary.

Summary of Selected Metrics addressed in Demonstration Plans			
Category	**Recommended Metrics**	**Reference Demonstrations**	**Further Considerations**
Setback: Street Side Minimum (m)	Varies - depends upon context, right-of-way and public realm provisions and other factors		Intended cross-section of the right-of-way and scale of development will influence front setbacks.
Building Height Minimum (storeys)	3	In all demonstrations 3-storey minimum height was required in order to achieve target densities.	
Podium Height Minimum (storeys)	3		Consideration of defining residential or commercial storeys - Study assumed 3.0m for typical residential storey and 4.5m for typical commercial storey
Podium Height Maximum (storeys)	11-12 storeys	Demonstration Site E illustrates tall mid-rise components flanking a collector in immediate proximity to high-order transit, where increased densities are encouraged.	Consideration of target 1:1 relationship with ROW width, with streetwall height equal to 80% ROW width, stepping back minimum 3.0m above for remaining podium storeys. Appropriateness of 9-12 storeys highly dependent upon context.
Ground Floor Height Minimum (m)	4.5 m retail / commercial uses, residential lobby areas		
Building Length Maximum (m)	60.0 - 70.0 m	Demonstration Sites D and E illustrate multiple mid-rise buildings lining arterial or collector roads, with breaks in the built form corresponding to the recommended maximums herein.	

Summary of Selected Metrics addressed in Demonstration Plans			
Category	**Recommended Metrics**	**Reference Demonstrations**	**Further Considerations**
Townhouse Length Maximum (# units)	8 units	Demonstration Sites B, D and E illustrate rows of townhouses with pedestrian passageways breaking up the massing and further improving pedestrian and landscape porosity through the site.	
Tower Footprint Maximum (m2)	750.0 m2	Demonstration Sites A, C and E each illustrate 750m2 building footprints in a range of contexts.	
Tower Facing Distance Minimum (m)	25.0 m	Demonstration Site A illustrates 25m facing distances between towers as a minimum dimension.	Consider whether separate dimension should be provided relative to corner-to-corner (diagonal) positioning.
Podium Facing Distance Minimum, primary faces (m)	15.0 m		Assumes principle windows present to primary uses
Podium Facing Distance Minimum, secondary faces (m)	11.0 m		Assumes windows present to secondary uses
Townhouse Facing Distance Minimum, primary faces (m)	10.0-15.0 m		Range reflects building height - taller townhouse massings assigned larger facing distance provision
Townhouse Facing Distance Minimum, secondary faces (m)	3.0-5.0 m		Assumes minimal to no facing windows - example are side yard separations between rows of townhouses.
Amenity Area (m2 / unit)	4.0 as a minimum, however highly dependent upon typology and provision of at-grade versus rooftop amenity areas		Due to high degree of variability depending upon typology, separate amenity area provision study is recommended.

5.0 Conclusion

5.0 Conclusion

There are many steps that Richmond Hall can take to improve the quality of built form and site arrangements within its Centres and Corridors, both making use of the Official Plan and Zoning By-Laws.

5.1 Role of Study

This Study reviewed the issue of urban design and planning policy within Richmond Hill's Centres and Corridors and has provided a broad set of explorations and recommendations outlined in the Demonstrations and Implementation Chapters of this report.

City staff and Council will need to decide whether they wish to implement the recommended approaches and minimum standards suggested herein. Follow-up work will need to be done to develop Official Plan Amendments and/or elements for an updated new zoning by-law, including mapping, detailed text and decisions about specific metrics to be used. Specific metrics to be incorporated into the zoning by-law will need to be tailored to local context and conditions, as well as planning objectives established in the general and area-specific policies of the Official Plan. While language to be potentially added to the Official Plan will be more general in nature, additional work and consideration will need to be given to specific wordings and approaches.

5.2 Consultations

In addition to discussions with City staff, the study was informed by a consultation with the Building Industry and Land Development Association (BILD) that occurred in 2021, which informed the work-in-progress at that time, and by a general open house that occurred in 2023 summarizing the draft contents contained within this Recommendations Report.

Public feedback on this study, obtained in person during the Open House and afterward through an online survey, generally supported the design parameters and recommended implementation approaches proposed to guide development within the Centres and Corridors.

With respect to the considerations guiding the development of desirable building forms and typologies, public feedback emphasized the following:

- consideration of micromobility (cycling, scooters, skateboards) and how these users access new developments safely
- consideration of parking requirements and their impact on necessary transportation planning to mitigate negative impacts on the surrounding community
- consideration of micro-climate impacts including wind, noise and odors associated with increasingly dense development forms
- consideration of uses contributing to an active street frontage and creating complete communities, including home occupation, and ensuring this diversity of uses is supported by adequate access and parking provisions
- consideration of how meaningful areas of landscape amenity can be created, ensuring resilient, comfortable spaces that are supportive of ecological growth

With respect to the considerations guiding development compatibility with existing neighbourhoods, public feedback emphasized the following:

- consideration of larger buffer zones between new, intensified developments and existing stable contexts, particularly in the context of heritage areas
- consideration of how increased traffic flow negatively impacts existing neighbourhoods, and how planning might avoid these impacts
- consideration of the suggested correlation between lot size and development density, and recommendation that

development compatibility needs to be assessed on a case-by-case basis

When asked to select the top three design parameters most important to guide growth and desirable development, public feedback demonstrated that no three parameters superseded others in terms of importance. Of the nine parameters listed in the survey, six parameters received more than 30% of the public survey vote. The top three parameters were Presenting a Good Face, Consolidation and Block Planning, and Landscape Integration. Parameters that were not identified as priority include Commercial Frontages, Minimizing Curb Cuts, Transition and Stepping, and the Alignment of Setbacks.

When asked to select the top three zoning metrics most important to guide growth and desirable development, public feedback gave preference to Parking Requirements, Minimum Amenity Space, and Minimum Building Height. Angular Plane and Minimum Facing Distances received the least number of votes.

Any implementation of the study recommendations into future Official Plan Amendments or a revised zoning bylaw will require its own consultation process, which will be more extensive in nature.

5.3 Summary Conclusions

Summary conclusions stemming from the content of this report include:

Consider addressing some priority issues in the Official Plan: Overall, the Richmond Hill Official Plan does a very good job in addressing the major issues related to the evolution of Centres and Corridors, both in its general policies, as well as in its area-specific policies related to particular Centres and Corridors. The Implementation Chapter of this report identifies some issues that could be further addressed by the Official Plan, including policies to support built form variety, block planning, the pedestrian permeability of sites and employment intensification.

Continue to develop secondary plans or other area-based plans for intensification areas: Although the Official Plan includes area-specific policies for Centres and Corridors, secondary plans could provide a more detailed policy framework for the evolution of particular intensification areas, one that provides greater nuance on built form hierarchy within the area, the balance of uses, key streets for retail and at-grade animation, and an appropriate provision of parks and community facilities to serve a growing population.

Consider updating the definitions of mid-rise and high-rise development: Mid-rise development is an important component of built form variety in the context of intensification. The Official Plan currently defines mid-rise development as buildings between 5 to 8 storeys. A survey of other GTHA municipalities indicates definitions covering a broader range, generally between 5 to 11/12 storeys or defined in proportion to the right-of-way onto which a building fronts. Richmond Hill should consider the suitability of expanding its definition to permit taller mid-rise form given the Richmond Hill context. A change to the definition of a mid-rise building would lead to a revision of the definition of a high-rise building.

Use the Zoning By-law to promote built form variety: Generally, mid-rise buildings have seen less development interest than low-rise forms, like townhouses, and taller buildings, like towers on podiums. Richmond Hill should consider how the Zoning By-law can promote this building form through mid-rise-specific zones or mid-rise “regulations sets” that facilitate as-of-right development.

Bring the detailed policy framework established by the Official Plan into the new Zoning By-law: Both in its general policies, as well as in its area-specific policies related to particular Centres and Corridors, the Richmond Hill Official Plan includes numeric standards. These standards should be reflected in the new Zoning By-law. As well, the Implementation Chapter of this report identifies a number of approaches that can be taken in zoning to realize the broader policy objectives of the Official Plan, which should be considered as part of the full suite of policies, regulations and guidelines that will shape the growth and evolution of Richmond Hill.

5.4 Additional Guidance

While the Official Plan and Zoning By-law are the principal tools to influence growth and development in Richmond Hill, consideration should also be given to Urban Design Guidelines to supplement these tools. While they lack the statutory “teeth” of these other tools, guidelines can support the interpretation of Official Plan policies, while also offering greater flexibility. They are a good way to illustrate desirable outcomes and address the broad range of contexts, site types and other variables that cannot be anticipated in a by-law. They can also help to inform whether or not a by-law amendment should be considered to accommodate a given proposal. Richmond Hill’s City-wide Urban Design Guidelines (2013) should be reviewed to consider how they work with the updated Official Plan and new Zoning By-law, particularly in identifying issues that could be added or elaborated upon based on experience since their development.

6.0 Appendix

6.0 Appendix

To support the consideration of best practice metrics for built form and amenity area provisions, comparison tables outlining key metrics used across GTHA municipalities have been prepared.

6.1 Zoning By-Law Comparison - Built Form Controls + Provision of Amenity Areas

Standards included in zoning by-laws are context sensitive and may vary between zones. The metrics included below are a sample of what is included in the zoning by-laws of other GTHA municipalities, and were referenced during the preparation of this Study.

Some standards may include qualifications (these instances are identified by a "*"). Terminology differs between the municipalities sampled. The left-hand column includes the metric title that corresponds with the municipality in the order of Hamilton, Burlington and Vaughan. Where there is no corresponding metric title or metric, this is indicated by a "--".

Zoning By-Law Comparison - Built Form Controls			
Category	**Hamilton**	**Burlington**	**Vaughan**
Sample Zones	C5a – Mixed Use Medium Density Pedestrian Focus TOC1 – Transit Oriented Corridor Mixed Use Medium Density TOC3 – Transit Oriented Corridor Multiple Residential1 TOC4 – Transit Oriented Corridor Mixed Use High Density D1 – Downtown Central Business District (1separate regulations for street townhouses not included in table)	URM – Uptown Medium Density Residential UMXE – Uptown Mixed-Use Corridor Employment URH – Uptown High Density Residential UCR2 – Uptown Commercial/Residential 2 UCR1 – Uptown Commercial/Residential 1	LMU – Low-Rise Mixed Use MMU – Mid-Rise Mixed Use V3 – VMC Neighbourhood HMU – High-Rise Mixed Use V1 – VMC Station Area
Minimum lot frontage (m) Lot width (m) Minimum lot frontage (m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: 35 m	URM: varies by typology UMXE: 15 URH: 7.5 UCR2: 15 UCR1: 7.5	LMU: 18 MMU: 30 V3: 30 HMU: 30 V1: 50
Minimum lot area (sq.m) Lot area (sq.m) Minimum lot area (sq.m)	C5a: -- TOC1: -- TOC3: 360 TOC4: -- D1: 1,575	URM: varies by typology UMXE: 500 URH: 225 UCR2: 500 UCR1: 225	LMU: 800 MMU: 1200 V3: 1800 HMU: 1200 V1: 4000
Maximum lot coverage (%) -- --	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: 85	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: -- MMU: -- V3: -- HMU: -- V1: --
Minimum building setback from street line (m) Minimum front yard (m) Minimum front yard (m)	C5a: -- TOC1: 3*(building with res units on ground floor) TOC3: -- TOC4: -- D1: --	URM: varies by typology, 2.7-3 UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: 3.5 MMU: 5 V3: 3 HMU: 5 V1: 3

Zoning By-Law Comparison - Built Form Controls			
Category	**Hamilton**	**Burlington**	**Vaughan**
Maximum building setback from a street line (m) Maximum front yard (m) Required build-to zone (m)	C5a: 3* TOC1: 4.5* TOC3: 3 TOC4: 3* D1: 4.5*(portion of building less than 11 m in height)	URM: 8 UMXE: 22 URH: 6 UCR2: none UCR1: *(4-16 based on qualification)	LMU: 3.5-7* MMU: 5-10* V3: 3-7.5* HMU: 5-10* V1: 3-5*
Minimum rear yard (m) Rear yard (m) Minimum rear yard (m)	C5a: 7.5 TOC1: 7.5 TOC3: 7.5 TOC4: 7.5 D1: --	URM: varies by typology, 6-7.5 UMXE: 3 URH: 3 UCR2: none UCR1: none	LMU: 7.5 MMU: 7.5 V3: 1 HMU: 7.5 V1: 1
Minimum interior side yard Side yard (m) Minimum interior side yard (m)	C5a: 7.5* TOC1: 7.5*(as transition to lower res or institutional zones) TOC3: 7.5*(as transition to lower res building forms) TOC4: 7.5*(as transition to lower res or institutional zones) D1: --	URM: varies by typology, 0.6-1.2 UMXE: none URH: none UCR2: none UCR1: none	LMU: 1.5 MMU: -- V3: 1 HMU: -- V1: 1
-- Minimum street side yard Minimum exterior side yard (m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: varies by typology, 2.7-3.0 UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: 3.5 MMU: 5 V3: 3* HMU: 5 V1: 3*
Minimum building height Minimum building height Minimum height	C5a: 7.5 m* TOC1: 11 m TOC3: 11 m TOC4: 11 m D1: 7.5 m	URM: -- UMXE: 2 storeys URH: 2 storeys UCR2: 2 storeys UCR1: 2 storeys	LMU: 8 m MMU: 11 m V3: 3-5 storeys (shown on schedule) HMU: 24 m V1: 5-6 storeys (shown on schedule)

Zoning By-Law Comparison - Built Form Controls			
Category	**Hamilton**	**Burlington**	**Vaughan**
Maximum building height Maximum building height Maximum height	C5a: 22 m TOC1: 22 m* TOC3: 22 m* TOC4: 40 m* D1: as indicated on schedule – range from 11 to 100 m	URM: 3 UMXE: 24* URH: 24 m* UCR2: 28 m* UCR1: 35 m*	LMU: 20 m MMU: 48 m V3: 10-25 storeys (shown on schedule) HMU: 88 V1: 25-35 storeys (shown on schedule)
-- Minimum Floor Area Ratio Minimum density	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: -- URH: 0.5 UCR2: 0.5 UCR1: 0.5	LMU: -- MMU: -- V3: 1.5-2.5 (shown on schedule) HMU: -- V1: 2.5-4.5 (shown on schedule)
-- Maximum Floor Area Ratio Maximum density	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: 1.0 URH: 1.0 UCR2: 1.5 UCR1: 2.5	LMU: -- MMU: -- V3: 3-4.5 (shown on schedule) HMU: -- V1: 4.5-6 (shown on schedule)
-- -- Minimum street wall (m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: 8 MMU: 8 V3: 8 HMU: 9 V1: 9
Minimum/Maximum ground floor height (m) -- Minimum ground floor height (m)	C5a: 3.6/4.5 TOC1: -- TOC3: -- TOC4: 3.6/4.5 D1: 3.6/4.5*(in a Heritage Character Zone only)	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: 4.5 MMU: 4.5 V3: 3.5* HMU: 4.5 V1: 3.5-5*

Zoning By-Law Comparison - Built Form Controls			
Category	**Hamilton**	**Burlington**	**Vaughan**
-- -- Minimum podium height (m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: -- MMU: 10.5 V3: 10.5 HMU: 10.5 V1: 10.5
-- -- Maximum podium height (m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: Provisions that require a setback above a height shown on a schedule, ranging from 4.5 to 22 m. Additional setbacks from side and rear lot lines.*	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: -- MMU: 20 V3: 14 HMU: 20 V1: 20
-- -- Minimum tower setback (m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: -- MMU: 3 V3: 3 HMU: 3 V1: 3
-- -- Maximum tower floor plate (sq.m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: -- MMU: 850 V3: 750 HMU: 850 V1: 750
-- -- Minimum tower separation (m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: -- MMU: 30 V3: 25 (res); 20 (office) HMU: 30 V1: 25 (res); 20 (office)

Zoning By-Law Comparison - Built Form Controls			
Category	**Hamilton**	**Burlington**	**Vaughan**
-- -- Minimum tower setback from any rear lot line and interior side lot line (m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: -- MMU: 12.5 V3: 12.5 (res); 10 (office) HMU: 12.5 V1: 12.5 (res); 10 (office)
Additional regulations regarding max building height -- Angular plane	TOC1, TOC3, TOC4: Above 11 m, the building height may be equivalently increased as the yard increases over the minimum requirement to a maximum of 22 m, when abutting a residential or institutional zone. TOC4: The portion of the building above 22 m to a max of 40 m shall have minimum setback of 29.5 m from a rear of interior side lot line when abutting a residential or institutional zone.	--	LMU, MMU, HMU : 45-degree angular plane shall be applied from the rear lot line and interior side lot line when abutting any Residential Zone except the RM2 and RM3 Zones.
-- -- Minimum landscape strip abutting a street line (width in m)	C5a: -- TOC1: -- TOC3: -- TOC4: -- D1: --	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: 3.5 MMU: 5 V3: 3 HMU: 5 V1: 3

Zoning By-Law Comparison - Built Form Controls			
Category	**Hamilton**	**Burlington**	**Vaughan**
Minimum planting strip requirement abutting a residential zone or an institutional zone (width in m) -- Minimum required landscape strip on any interior side lot line or rear lot line abutting a Residential Zone or an Open Space Zone (width in m)	C5a: 1.5 TOC1: -- TOC3: -- TOC4: 1.5 D1: --	URM: -- UMXE: -- URH: -- UCR2: -- UCR1: --	LMU: 3 MMU: 3 V3: 3 HMU: 3 V1: 3
Minimum landscaped area for multiple dwellings (%) Landscape area (%) Minimum landscape (%)	C5a: -- TOC1: -- TOC3: 10 TOC4: -- D1: --	URM: 25 (townhouse and stacked townhouse) UMXE: 5* URH: 5* UCR2: 5* UCR1: 5*	LMU: 10 MMU: -- V3: -- HMU: -- V1: --

Zoning By-Law Comparison - Built Form Controls			
Category	**Hamilton**	**Burlington**	**Vaughan**
Land Uses Permitted (selected to reflect main building typologies permitted)	C5a Dwelling Unit, Mixed Use Office TOC1 Multiple Dwelling Office TOC3 Multiple Dwelling Street Townhouse Dwelling TOC4 Dwelling Unit, Mixed Use Office D1 Multiple Dwelling Office	URM Detached Semi-detached Duplex Triplex Fourplex Townhouse Street Townhouse Stacked Townhouse UMXE Office URH Townhouse Street Townhouse* Stacked Townhouse Apartment Building Office UCR2 Townhouse* Street Townhouse* Stacked Townhouse* Apartment Building* Large Retail* Office UCR1 Townhouse* Street Townhouse* Stacked Townhouse* Apartment Building* Office*	LMU Apartment dwelling* Block townhouse dwelling Street townhouse dwelling Office MMU Apartment dwelling* Multiple-unit townhouse dwelling* Podium townhouse dwelling* Office V3 Apartment dwelling Block townhouse dwelling Multiple-unit townhouse dwelling Podium townhouse dwelling Street townhouse dwelling Office* HMU Apartment dwelling* Multiple-unit townhouse dwelling Podium townhouse dwelling* Office V1 Apartment dwelling* Multiple-unit townhouse dwelling Podium townhouse dwelling Street townhouse dwelling Office
Reference	Zoning By-law 05-200 10.5a Mixed Use Medium Density – Pedestrian Focus (C5a) Zone 11.1 Transit Oriented Corridor Mixed Use Medium Density (TOC1) Zone 11.3 Transit Oriented Corridor Multiple Residential (TOC3) Zone 11.4 Transit Oriented Corridor Mixed Use High Density (TOC4) Zone 6.0 Downtown Zones General Provisions 6.1 Downtown Central Business District (D1) Zone	Zoning By-law 2020 Part 7 – Uptown Mixed-Use Centre Zones	Zoning By-law 001-2021 8.0 Mixed Use Zones 10.0 Vaughan Metropolitan Centre Zones

Zoning By-Law Comparison - Amenity Area Provisions					
	Hamilton	**Burlington**	**Vaughan**	**Toronto**	**Clarington**
Definition	Amenity Area An area intended for recreational purposes Indoor and Outdoor areas Private and Communal areas Includes: areas that are landscaped, patios, privacy areas, balconies, communal lounges, swimming pools, play areas and similar uses, located on the same lot. Excludes: service areas, parking lots, aisles or access driveways, or planting strip.	Amenity Area An area intended for recreational purposes Indoor and Outdoor areas Private and Communal areas Includes open spaces, patios, balconies, communal play areas, lounges, sundecks, and roofdecks. Excludes: the area occupied at grade by the buildings, service areas, parking, and driveways	Amenity Area An area designed and maintained for active recreational uses or passive recreational uses for residents of a dwelling or building with residential uses. Indoor or Outdoor Communal areas	Amenity Space Space on a lot that is available for use by the occupants of a building on the lot for recreational or social activities. Indoor or Outdoor Communal areas	Amenity Area An area that is designed and intended primarily for the leisure and recreation of the occupants of a building or site Indoor or Outdoor Common areas Provides further guidance on inclusions and exclusions
Applies to	Dwelling units Zones with Multiple Dwelling as a permitted use – a building or part thereof containing three or more dwelling units but not a street townhouse dwelling or semi-detached dwelling.	Apartments Retirement homes Stacked Townhouses Back-to-Back Townhouses	Apartment dwelling Block townhouse dwelling Multiple-unit townhouse dwelling, which includes stacked townhouse dwelling and back-to-back townhouse dwelling Podium townhouse dwelling	Apartment building (five or more dwelling units, with at least one dwelling unit entirely or partially above another)	Medium and High Density Residences
Threshold number of units	10 or more dwelling units	None	None	20 or more dwelling units	16 or more dwelling units

Zoning By-Law Comparison - Amenity Area Provisions					
	Hamilton	**Burlington**	**Vaughan**	**Toronto**	**Clarington**
Minimum area	4.0 sq.m for each dwelling unit less than or equal to 50 sq.m of gross floor area. 6.0 sq.m for each dwelling unit greater than 50 sq.m of gross floor area.	Varies by zone and typology: 20 sq.m per unit for apartment dwelling units and retirement homes, 15 sq.m per efficiency unit for Apartments and Stacked Townhouses 20 sq.m per one-bedroom unit for Apartments and Stacked Townhouses 35 sq.m per two or more bedroom unit for Apartments and Stacked Townhouses 25 m2 per unit for Back-to-Back Townhouses	Varies by typology: 10.0 sq.m per unit for a block townhouses 10.0 sq.m per unit for the first eight units of a multiple-unit townhouse and podium townhouse; an additional 8.0 sq.m for each additional unit. 8.0 sq.m per unit for the first eight units of an apartment, and an additional 5.0 sq.m for each additional unit. For a block townhouse or multiple-unit townhouse, 50% of the total required amenity area shall be outdoor amenity area	4.0 sq.m for each dwelling unit, of which: at least 2.0 sq.m for each dwelling unit is indoor amenity space; at least 40.0 sq.m is outdoor amenity space in a location adjoining or directly accessible to the indoor amenity space; and	Based on number of Dwelling Units Indoor 1 to 15 – encouraged not required 16 to 25 – 50 sq.m 26 or more – 2.0 sq.m per dwelling unit Outdoor 1 to 15 – encouraged not required 16 to 25 – 100 sq.m 26 or more – 4.0 sq.m per dwelling unit
Minimum contiguous outdoor area	No requirement	Each back-to-back townhouse development shall have a minimum of one common amenity area, with a minimum area of 100 m2, or a total common amenity area of 6 m2 per unit, whichever is greater.	For an apartment dwelling, apartment dwelling units or podium townhouse dwelling units, at least one contiguous outdoor area of 55.0 sq.m located at grade. At least 50% of the minimum required outdoor amenity area shall be aggregated into contiguous areas of at least 55.0 sq.m.	40.0 sq.m	No requirement

Zoning By-Law Comparison - Amenity Area Provisions					
	Hamilton	**Burlington**	**Vaughan**	**Toronto**	**Clarington**
Further specifications for outdoor amenity areas	Outdoors amenity areas shall be unobstructed and shall be at or above the surface, and exposed to light and air.		Outdoors amenity areas shall not within any enclosed building or structure A maximum of 20% of the required minimum outdoor amenity area may consist of amenity area located on a rooftop or terrace. Where any required outdoor amenity area is provided at grade, it shall be included in satisfying any applicable minimum landscape requirements of this By-law.	No more than 25% of the outdoor component may be a green roof.	
Further specifications		Each unit in a back-to-back townhouse development shall contain an individual balcony with an area of 5.5 m2, separated from adjoining units by a wall or privacy screen and with a maximum projection of 1.8 m from the front wall of the back-to-back townhouse building. Each back-to-back townhouse development shall have a minimum of one common amenity area which may include decorative accessory structures such as a gazebo, arbour, or pergola, as well as playground equipment, but may not include other accessory buildings or structures, unitary equipment, mailboxes, or above-ground utility boxes.			

Zoning By-Law Comparison - Amenity Area Provisions					
	Hamilton	**Burlington**	**Vaughan**	**Toronto**	**Clarington**
Reference	Zoning By-law 05-200 Section 3: Definitions Section 10: Commercial and Mixed Use Zones, 10.4.3(h)	Zoning By-law 2020 Part 16 Definitions Part 6 – Downtown Mixed-Use Centre Zones, 4.11 and 7.7	Zoning By-law 001-2021 3.0 Definitions 4.0 General Provisions, 4.3	Zoning By-law 569-2013 Chapter 800 Definitions Chapter 10 Residential, 10.10.40.50	Amenity Guidelines for Medium and High Density Residences (1993)