



DOWNTOWN CORE

Built Form Standards

January 22, 2013



DOWNTOWN CORE BUILT FORM STANDARDS

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INTRODUCTION

1.0 Purpose of the Standards

The purpose of the Downtown Core Built Form Standards is to provide urban design direction and guidance for proposed development at the planning application stage in order to assess, promote and fulfill the intent of the City's official plan policies, Downtown21 vision and zoning by-law - all of which shape and have influence on the urban structure, built form qualities and overall character of the Downtown Core.

Selected content from this document, has been incorporated into the Local Area Plan as Official Plan policy in addition to the zoning by-law. Applicants should also refer to the Mississauga Official Plan principal document (MOP), Downtown Core Local Area Plan, Zoning By-law, and Building Code to ensure that the applicable policies and requirements in these documents have been met. Furthermore, other City initiatives and special projects should be consulted to determine applicability, such as the Strategic Plan, Downtown21 Master Plan, Green Development Strategy, Hurontario Light Rail Transit Study, Accessibility Design Handbook and the City of Mississauga Standards for Shadow Studies, etc.

2.0 Objectives of the Standards

Chapter 9 of the MOP, 'Build a Desirable Urban Form' is a fundamental component of the Plan. This section along with the policies contained within Section 12 'Downtown' and the 'Downtown Local Area Plan' set out the urban design policies which support the vision for a vibrant Downtown Core. These built form standards act to articulate the policies in addition to the following objectives:

- Promote development that supports and implements the six guiding principles of the Downtown21 Master Plan; specifically, #6 - 'Create a Development Framework with Predictability' which recommends creating a policy framework that directs downtown development in a coordinated, comprehensive fashion through new urban design standards;
 - Facilitate the fair and consistent application of design objectives;
 - Integrate a mix of uses, through appropriate built form, including retail and commercial uses, offices, residential, cultural, entertainment and institutional uses — the whole of which is intended to put people in close proximity to a broad range of urban amenities and experiences;
 - Achieve a high quality built form and strengthen the continuity of buildings that contribute to the emerging Downtown Core urban context;
 - Ensure that development is resilient, environmentally friendly, safe and universally accessible; and
 - Foster compact, pedestrian and transit oriented development that achieves vibrant street level activity and a public realm of the highest standard.
- Support the City of Mississauga's Strategic Plan and its Strategic Pillars for Change - a paramount goal is to *Create a Vibrant Downtown* that functions as a strong economic centre, while acting as the civic heart and soul of the city;



*The 20th Century was about getting around.
The 21st Century will be about staying in a place
worth staying in.*

~ James Howard Kunstler

3.0 Expectation of the Standards

The Built Form Standards provide further direction on the Urban Design Policies set out in the Official Plan, Downtown21 Master Plan in addition to other city initiatives that support land use decisions and strategies for the Downtown Core.

The Standards set out detailed requirements to achieve a high quality built form in the Downtown Core that interfaces with the public realm in a seamless fashion. The Built Form Standards have been developed to communicate the design expectations, in advance of an application being filed, related to the quality and outcome of development.

The standards, in addition to the dimensions indicated, are to be addressed and achieved by development

proponents through the planning application process. Depending on the context or site, exceptions to the Standards may be considered at the discretion of the City, in whole or part, when there are extenuating site circumstances and/or where proposals are able demonstrate urban design excellence.

It should be noted that the standards may be amended, modified or updated on an as-needed basis to provide clarity on the intent of the Downtown21 Master Plan, the Downtown Core Local Area Plan, provisions of the Zoning By-law including the outcome of other studies or initiatives that bear on the Downtown Core.



3.1 How to Read the Standards



The rationale of the Downtown Core Built Form Standards is best understood by reviewing all sections, text and diagrams, including the policies cited within the City's Official Plan (Downtown Core Local Area Plan). The Built Form Standards reflect an integrated approach to the Downtown Core, in which buildings are keyed to the streets through street frontage standards that guide and provide direction on the general disposition of buildings through form-based design.

Moreover, the Standards are also contingent on an understanding that downtowns are complex urban places that require an overarching organizing structure with a view to creating a coherent, legible, high quality public realm and memorable sense of place.



DOWNTOWN CORE STREET FRONTAGE PLAN

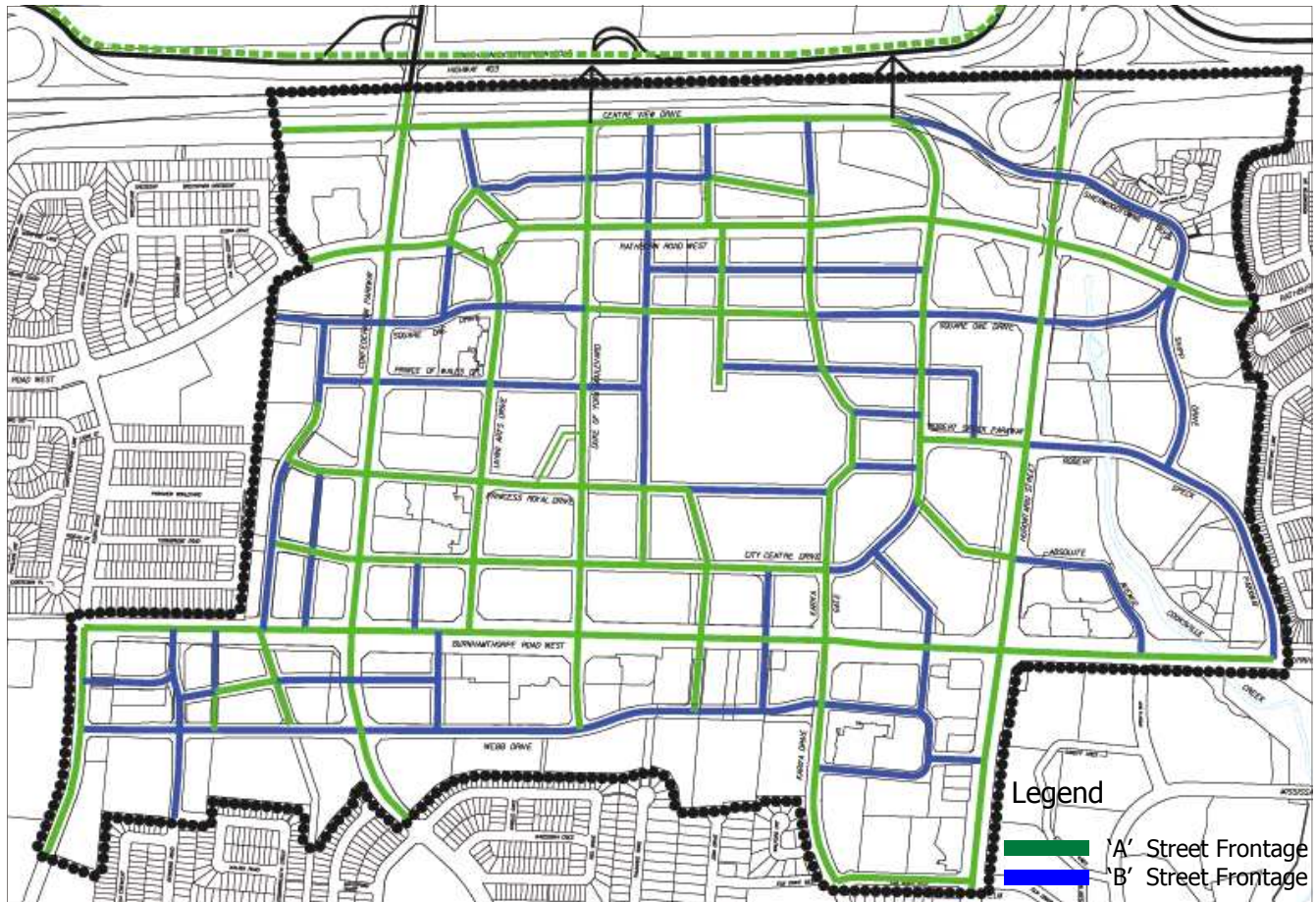


Figure 1: The Downtown Core Street Frontage Plan designates the frontage type for all existing and new streets in the Downtown Core. There are two categories - 'A' & 'B' Street Frontages. Refer to Downtown Core Local Area Plan policies and schedule.

4.0 Downtown Core Street Frontages

The City of Mississauga's Downtown Core vision (Downtown21 Master Plan) proposes new public streets to augment the existing public and private street pattern, thereby creating a comprehensive and interconnected urban grid. This framework is shown in the Downtown Core Street Frontage Plan above (see Figure 1).

Categories of frontages differentiate the various streets in the Downtown Core according to their function, character and design. As such, all streets are categorized as 'A' and/or 'B' frontages. 'A' Street Frontages will require the highest attention to urban design, having a cohesive built form to achieve character and a vibrant pedestrian environment.

Similarly, 'B' Street Frontages are designed to ensure a quality pedestrian environment and high standard of built form, but provide defined locations for necessary access, delivery, service, loading and parking facilities serving development blocks.

In general, new development will follow specified standards for each street frontage type which prescribes how buildings (through their site design, streetwalls, built form treatments, etc.) individually contain and provide visual enclosure of the street or open space in order to collectively frame and animate the public realm.



If you design communities for automobiles, you get more automobiles. If you design them for people, you get walkable, liveable communities.

– Parris Glendening and Christine Todd Whitman

Petrosino Square, Manhattan, NYC.

For each type of street frontage ('A' and/or 'B') the standards outline specific design requirements for new buildings such as:

- **Building Location and Streetwall Placement**
- **Access, Loading and Servicing**
- **Buildings Facing Open Space**
- **Buildings Containing Structured Parking**
- **Ground Floor Treatments**
- **Priority Retail Activation Streets**
- **Minimum Building Height**
- **Treatments for Building Facades and Streetwalls**
- **Tall Buildings; and**
- **Transition to Adjacent Development**

The following sections set out the standards to be achieved for buildings along the frontage types in accordance with the Downtown Core Local Area Plan policies and the Downtown Core Street Frontage Plan:

5.0 General Standards for Buildings on 'A' & 'B' Street Frontages

Buildings are the most pronounced element of the urban fabric and create the sense of place. Buildings in the Downtown Core will shape and articulate the streets and open spaces by forming edges and streetwalls to establish definition and enclosure. Collectively, they create the pedestrian environment, frame the public realm and establish the urban setting. Common standards for 'A' and 'B' Street Frontages set up the urban framework for all development blocks in the Downtown Core.

The following standards will apply:

- G1** Locate build-to-line requirements (within build-to areas) on development blocks to inform the orientation and placement of buildings and streetwalls;
- G2** Coordinate build-to lines with adjacent properties in order to create consistent edges and street walls along frontages;
- G3** Locate buildings parallel to the street, with streetwalls placed at the build to line, to contain the street and provide enclosure;
- G4** Ensure a variation in set backs along the building frontages to articulate façade emphasis at the build-to-line, in order to allow for visual interest, accommodate outdoor patios, recessed entries and landscaped areas (*for setback provisions, refer to Section 5.1 Specific Standards for 'A' Streets and Section 5.2 Specific Standards for 'B' Streets*);
- G5** Buildings should incorporate active uses at grade, such as commercial and retail, to animate the public realm and pedestrian environment (*Also, refer to Section 7.0 Ground Floor Treatments*);



Figure 2: Buildings are located parallel to street to provide enclosure and definition of the street space.

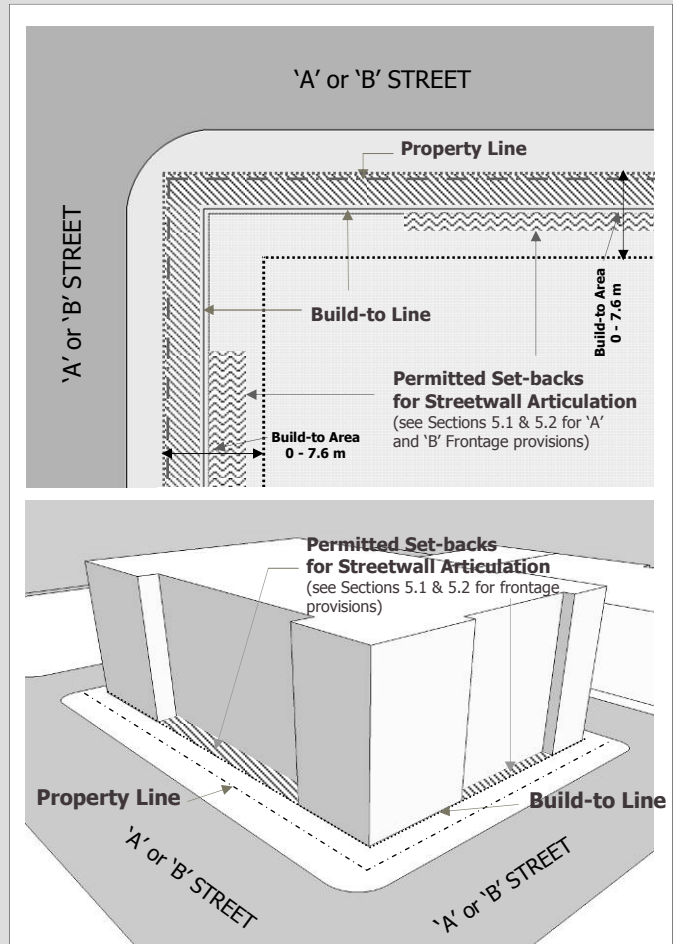


Figure 3: Development is located parallel to the street and placed at established build-to lines. Depending on the frontage type, the streetwall can stepback to accommodate façade articulation, in addition to patios and entrances.

- G6** Ground floor uses will incorporate transparent windows;
- G7** Locate main entrances flush with the public sidewalk;
- G8** Ensure site designs relate to and interface with existing, proposed and future transit stops and facilities;
- G9** Locate main building entrances so that they are clearly identifiable and prominent with direct access to the public sidewalk, pedestrian connections and transit facilities;
- G10** Where appropriate, provide corner entrances to buildings located at prominent intersections and/or gateways;

G11 Balconies may not protrude into the public realm, but may extend as far as the build-to line;

G12 Below grade parking structures will not protrude into the public realm, but can extend as far as the property line provided that a clearance of 1.5 m is provided between the top of the parking structure slab and sidewalk.

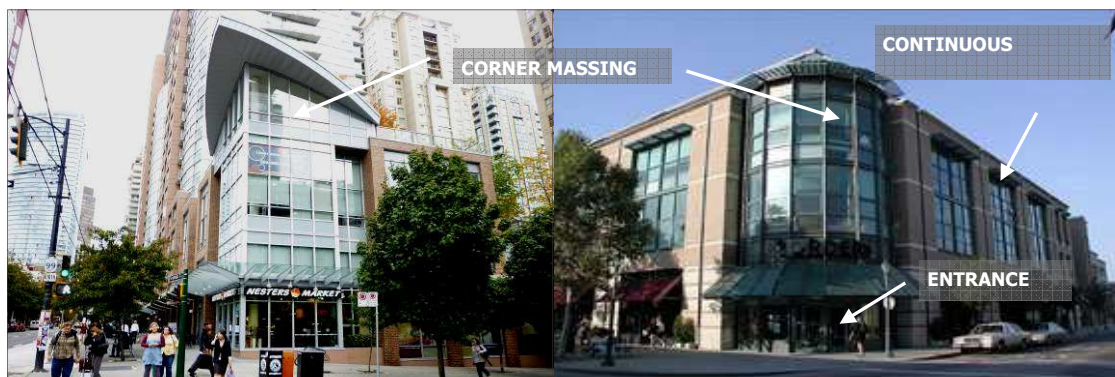


Figure 4: The street emerges as an urban place when buildings collectively deploy streetwalls, animated conditions at-grade, and built form treatments to reinforce corners.

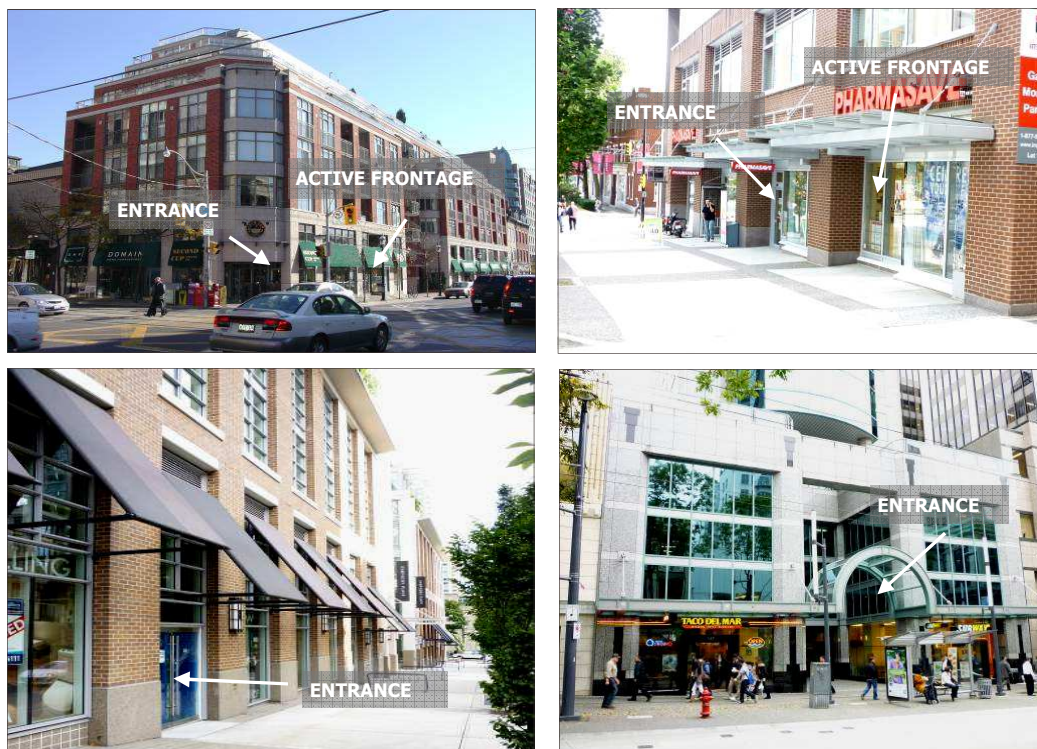
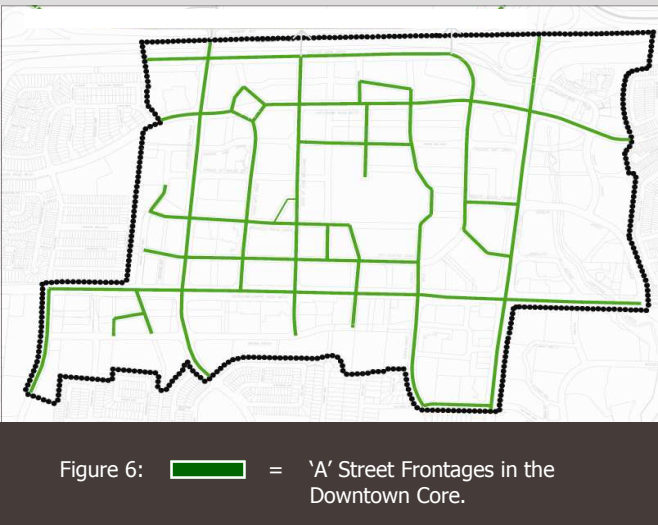


Figure 5: Clear points of entry and flush entrances to commercial and retail uses create an extension of the pedestrian environment from the public sidewalk.

5.1 Standards for Buildings on 'A' Street Frontages

'A' Street have a critical role and function in the Downtown Core. They are the most important for securing animation and character, a comfortable pedestrian environment with access to sunlight and sky views, street activity and vibrancy. Development fronting onto 'A' Streets will require the greatest attention to urban design, ensuring a cohesive built form and streetscape treatment to achieve the highest standard in the execution of the public realm.



The following standards will apply:

- A1** Provide continuous buildings along development blocks fronting onto 'A' Streets to provide continuity of built form from one property to the next;
- A2** A minimum of 90% of a property's frontage is required to be occupied by the streetwall at the build-to line;
- A3** Development will be prohibited from locating curb cuts, driveways and laneways on 'A' Streets;
- A4** A maximum of 25% (i.e. 25% of 90%) of the building frontage will be allowed to step back to a maximum of 4.5 m from the build-to line to allow for articulation of the streetwall, including provision for outdoor patios, recessed entries and landscaped areas;

- A5** Functioning main entrances to buildings will be provided on 'A' Streets. *(Also, see Section 7.0 Ground Floor Treatment);*
- A6** Ground floor elevations along 'A' frontages will have a minimum of 75% transparent vision glazing with views into the building; and
- A7** Where residential uses are permitted at the ground level, special provisions will apply for the design of unit entrances and setbacks *(see Section 11.9 Design for at grade Residential Uses).*

E-A3 Exceptions to Access on 'A' Streets:

Curb cuts, driveways and access may be provided on 'A'-Street frontages provided that:

- a site or block does not have access from a 'B' Street or other means of access, or if there is a requirement for emergency vehicle access; and
- impacts on the pedestrian environment are minimized through a high standard of design treatment consistent with the quality of the public realm.



Figure 7: Continuous streetwalls on 'A' frontages are required along the length of a property with provision for articulation and step-back of the streetwall.

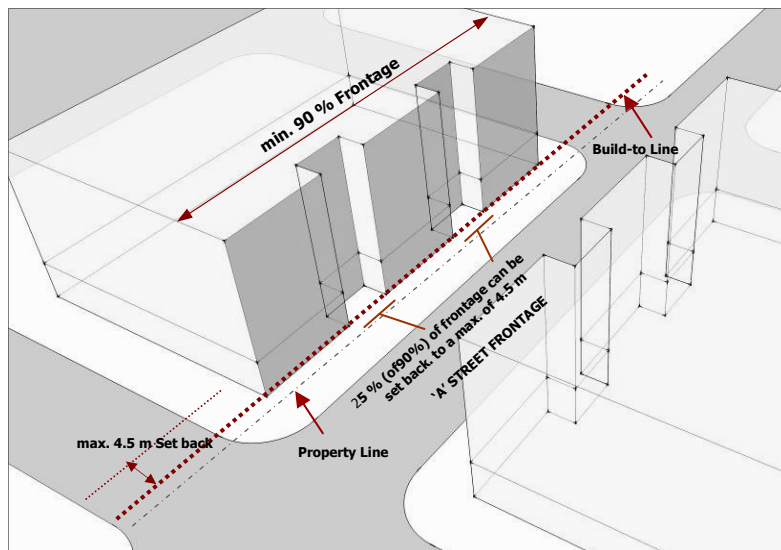


Figure 8: Illustration of a building streetwall positioned on 'A' Street frontages



Figure 9: Continuous streetwalls on 'A' frontages are required along the length of a property with provision for articulation and step-back of the streetwall.



Figure 10: Buildings follow the streetline and incorporate entrances at regular intervals with access to at grade uses.



Figure 11: Articulation of the façade along the build-to line provides visual interest at the street



Figure 12: Variation and step backs along the street wall provide visual interest.

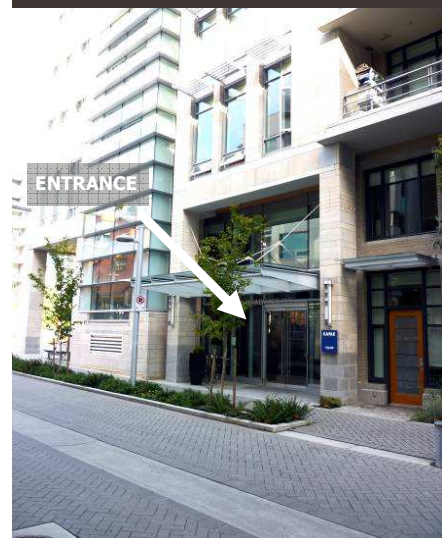
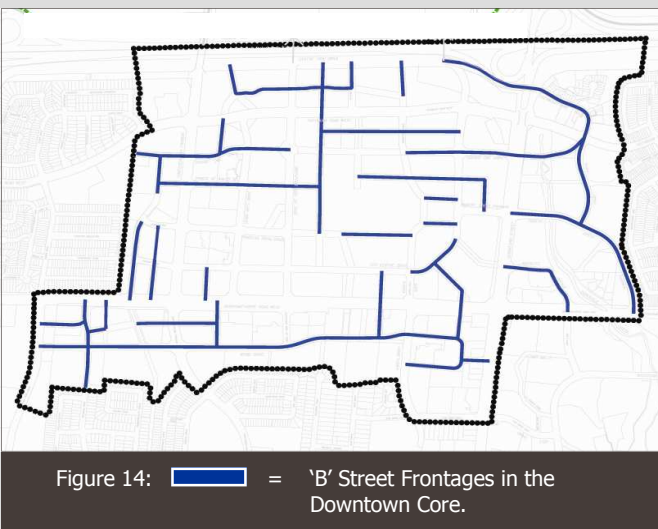


Figure 13: Principal entrances are clearly identifiable and articulated at the street frontage.

5.2 Standards for Buildings on 'B' Street Frontages

'B' Streets generally connect 'A' Streets to each other. In contrast to 'A' Streets, they provide development blocks with access for deliveries, garbage pick-up, service and loading, including vehicular access to structured and off-street parking within development sites. It should be noted that 'B' Streets are also intended to support a pedestrian environment, integrating a high standard of urban design to support street activity.



The following standards will apply:

- B1** 'B' Streets will have buildings along development blocks, with provision for vehicular access to off street parking, access for deliveries, garbage pick-up, servicing and loading (*refer to Section 5.3 Design for Access, Parking, Service and Loading*);
- B2** A minimum of 75% of a property's frontage is required to be occupied by the streetwall at the build-to line;
- B3** A maximum of 15% (i.e. 15% of 75%) of the building frontage will be allowed to step back to a maximum of 3.0 m from the build-to line, to allow for articulation of the streetwall, including provision for outdoor patios, recessed entries and landscaped areas;

- B4** Provide functioning main entrances to buildings on 'B' Street frontages; and
- B5** Ground floor elevations along 'B' frontages will have a minimum of 50% transparent vision glazing with views into the building.

E-B4 Exceptions to Access on 'B' Streets:

Where a development block has an 'A' and 'B' frontage, the most prominent building entrance will be located on the 'A' Street frontage.



Figure 15: Access to parking and services is discretely provided within these developments near the street edge, acknowledging the importance of the pedestrian realm.

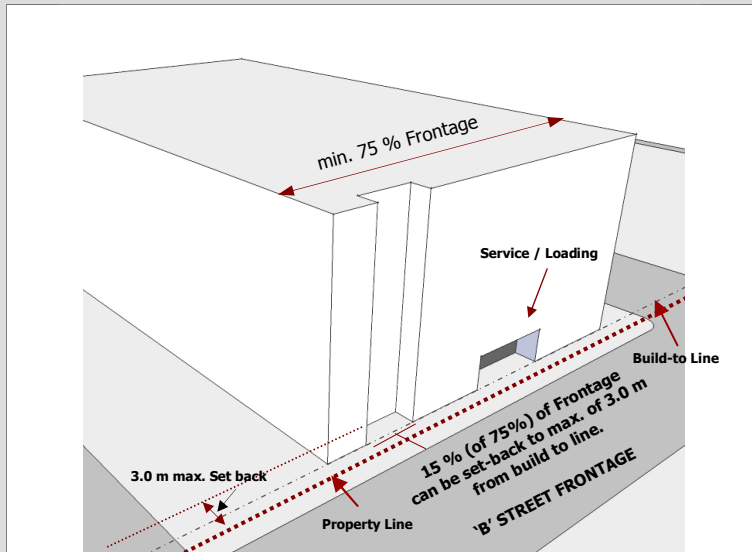


Figure 16: Illustration of a building streetwall positioned on a 'B' Street frontage.



Figure 18: Access to below grade parking is discretely executed at grade without compromise to the pedestrian environment or manner in which the building relates to the street.

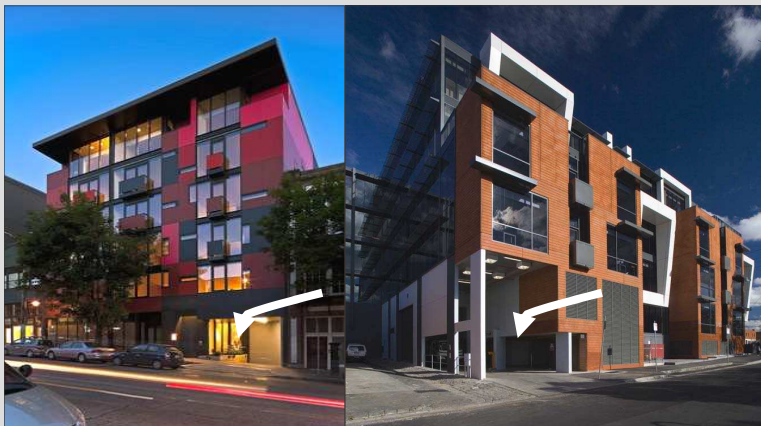


Figure 17: 'B' frontages in the Downtown Core allow for service, loading and access, but are also envisioned to be pedestrian oriented with an attractive character.



Figure 19: Functioning principal entrances can be accommodated on 'B'-Streets subject to the Frontage Standards.

5.3 Design for Access, Parking, Service and Loading ('B' Streets)

Access for loading, garbage, parking and servicing to buildings will be located on 'B' Streets *(for exceptions, refer to Section 5.1, 'Standards for Buildings on 'A' Frontages')*. In general, new development will coordinate the location of service areas for delivery, parking, loading and garbage pick-up and will reduce vehicular interruptions along the public street in order to improve the aesthetic appeal of the streetscape.

The following standards will apply:

- SL1** Service, parking and loading should be coordinated on sites by providing consolidated locations that can serve a number of buildings simultaneously from one area;
- SL2** Loading, garbage and service spaces will be located internal to the building to avoid noise and visual impacts;
- SL3** Loading, servicing, other vehicular related functions and utilities will not detract from the use, safety or attractiveness of the pedestrian and public realm by:
 - incorporating special architectural treatment;
 - using soft and hard landscape treatments to screen loading and servicing areas; and
 - providing safe levels of illumination and lighting.
- SL4** The height required for overhead loading for bulk refuse within a collection area should conform to the Region on Peel's standards for overhead clearance;

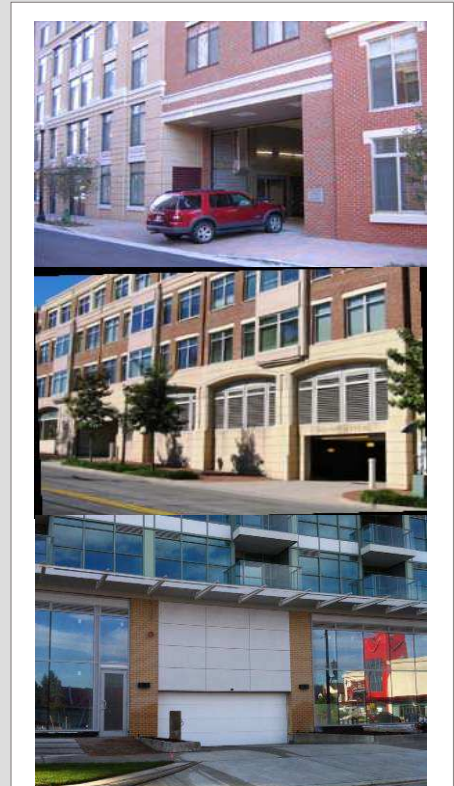


Figure 20: Above / Below - Vehicular access for loading, servicing and parking is designed in a compact fashion and integrated with the building façade.



6.0 Buildings Facing Parks and Open Space

New buildings which front onto, or have proximity to parks and open space will require special attention to their frontage treatments and architectural design in order to achieve the kind of character, sense of place and pedestrian experience warranted for these important elements of the public realm.

The following standards will apply:

- OS1** If the build-to line of a development fronts onto the edge, or street adjoining a public park or open space, then 'A' frontage requirements will apply (refer to Section 5.1 'Standards for Buildings on 'A' Frontages');
- OS2** Building frontages along parks and open spaces will have uses on the ground floor to animate and/or activate the frontage such as retail, commercial and/or residential uses;
- OS3** Buildings which surround, have proximity, or front -onto parks and open space will have the highest level of architectural expression, articulation and use of materials;
- OS4** At grade level residential uses fronting onto parks and open space will have individual unit entrances in order to animate the street environment (refer to Section 11.9 Design for At grade Residential Uses);
- OS5** Parking structures or surface parking lots will not be permitted to front onto or address parks and open spaces; and
- OS6** The design of building massing will protect for maximum sun exposure onto parks and open space. (Refer to Section 11.5 & 11.6 Tall Buildings - 'Site / Park Orientation').

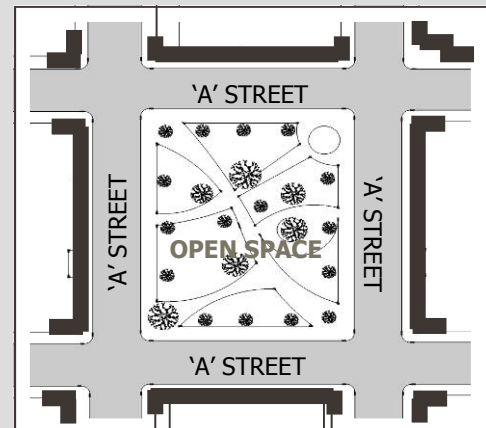


Figure 21: The facades of buildings that address open space will be treated like 'A' frontages, incorporating the highest level of architecture, articulation and use of materials.



THE FRONTAGE STANDARDS (cont'd)

7.0 Ground Floor Treatments

7.1 General Standards for Retail Uses (All Streets)

To ensure well designed ground floors, at-grade conditions incorporating retail uses must be carefully executed in order to animate the street edge and support the pedestrian experience. The following standards will apply to all streets in the Downtown Core (inclusive of those identified in Section 7.1 Retail Activation Streets):

- GF1** Ground floor heights will be a minimum of 4.5 metres (floor-to-floor, measured from established grade) to accommodate retail and commercial uses with windows that correspond to the height of ground floors;
- GF2** The primary entrance to each street-level tenant space that has its frontage along a public street will be provided from that street;
- GF3** Where retail units occupy prominent corner locations, design units to:
- address the corner with well designed, animated storefronts that wrap the corner; and
 - incorporate corner entrances;
- GF4** Entrances to retail and commercial tenant spaces will be operational, flush and directly related to the grade of the public sidewalk;
- GF5** Entrance doors to retail units should be recessed within storefronts in order to minimize conflicts between door swings and pedestrians;
- GF6** Ensure that ground floors containing storefronts articulate:
- a strong sense of rhythm and pattern collectively across frontages;
 - subtle recesses and reveals to create depth and visual interest; and
 - assist pedestrians with spatial perception, orientation and accessibility along retail frontages.



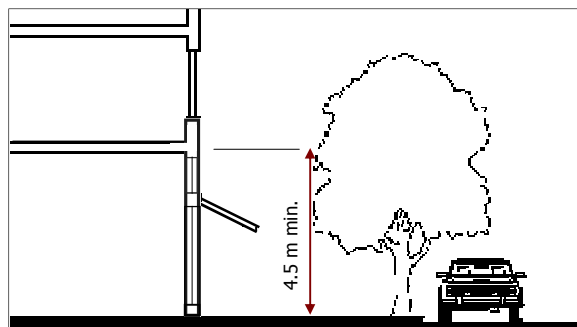


Figure 22: The ground floor of retail and commercial uses will have a minimum height of 4.5 m.



Figure 23: Storefronts when well executed promote a vibrant street life and the pedestrian experience.

GF7 At grade retail and commercial uses will incorporate the highest standard of storefront design consisting of:

- Durable, high quality materials such as wood, metal (steel and anodized aluminium, etc), glass, natural stone and brick;
- Clear transparent windows and doors that allow for views into and out of storefronts;
- Dark tinted, reflective or opaque glazing or 'appliqué lifestyle' panels placed on storefront windows are not permitted in the Downtown Core; and
- Elements such as mullions, glazing bars and transoms to help frame, divide and define storefront window sections and apertures;

GF8 When part of a larger single development or individual tenancy, provide coordinated and consistent signage and lighting that integrates with the storefront design, and which compliments or acts as an extension of the buildings architectural character;

GF9 The incorporation of architectural cantilevers, fixed canopies, awnings or similar features into a proposed development will be provided in order to achieve pedestrian scale, comfort and weather sheltered pedestrian routes. These should compliment the architectural character of the building and be made of highly durable materials, extending a min. of 1.5 m to a max. of 2.75 m, protrusion beyond the retail edge and/or into the public sidewalk area (refer to Figure 25); however, such installations should not conflict or interfere with any streetscaping elements or public realm treatments;

GF10 Where appropriate, patios and outdoor amenity space should be provided adjacent to retail/commercial frontages or entrances to promote activation of the street and vibrancy; and

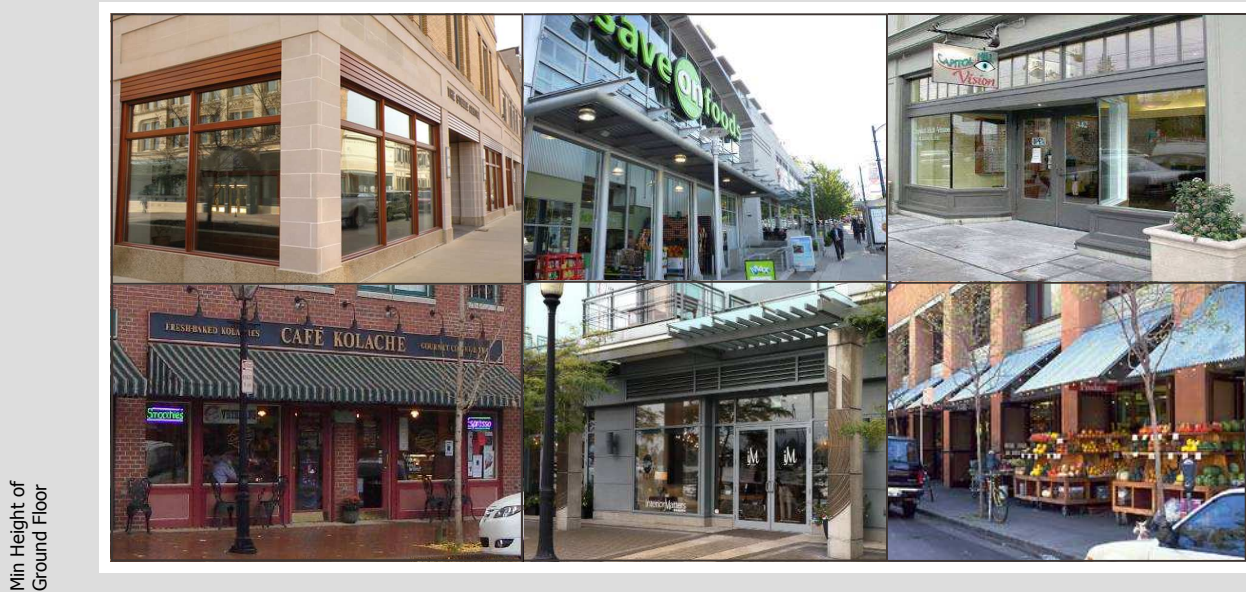
GF11 Patios should have a depth of at least 2.5 m. and can be recessed into the building as part of the permitted setback from the build-to line, or placed beyond the build-to line along the spill-out zone providing that there is sufficient space. A clear sidewalk width is required to ensure pedestrian traffic flow is not disrupted.

THE FRONTAGE STANDARDS (cont'd)

General Standards for Ground Floor Treatments

DESIGN for STOREFRONTS

Buildings incorporating at grade commercial and/or retail uses will be designed to ensure that such uses will be directly related to the public sidewalk and will incorporate operating entrances, doorways and storefront windows oriented to the street; along with signage and lighting to provide animation, interest and variety in the streetscape.



Min Height of
Ground Floor

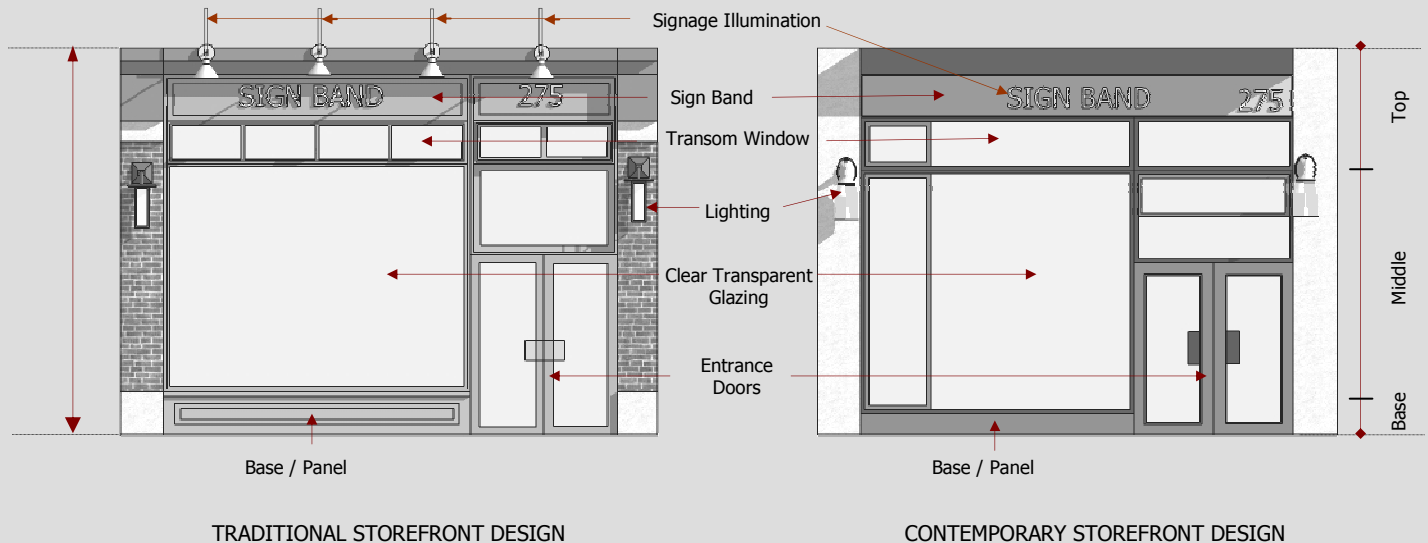
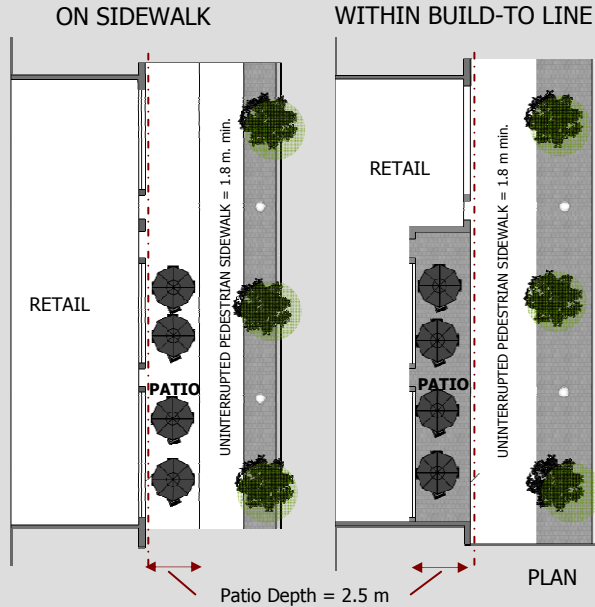


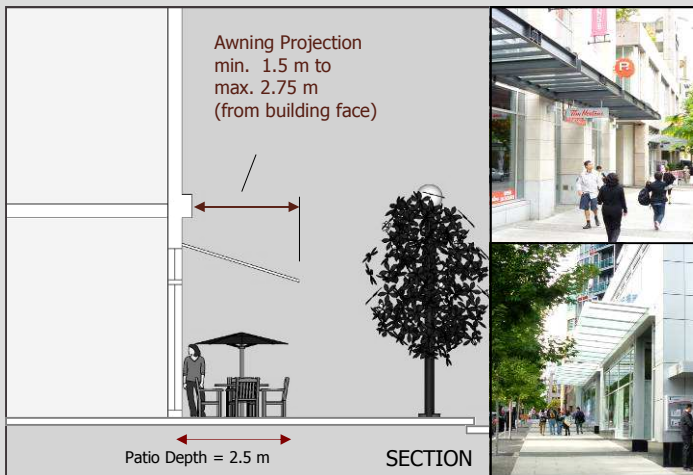
Figure 24: Storefronts can incorporate a variety of styles and character to animate the street edge. When well-executed, they contribute to the identity of the street and make retail and commercial frontages inviting and accessible to pedestrians.

General Standards for Ground Floor Treatments

DESIGN for OUTSIDE PATIO AREAS & PEDESTRIAN COMFORT



Patios can be recessed into the building as part of the permitted setback at the build-to frontage, or placed beyond the build-to line along the 'shy zone' providing that there is sufficient space and where pedestrian traffic flow is not disrupted.



Developments will incorporate architectural cantilevers, fixed canopies, awnings or similar features in order to achieve pedestrian scale, comfort and weather sheltered pedestrian routes. These should complement the architectural character of the building and be made of highly durable materials.



Patios and amenity space should be provided adjacent to retail /commercial entrances to promote activation and street vibrancy.



Figure 25: Design elements such as awnings and patios extend from storefronts to activate the street and create the urban experience for pedestrians.

Downtown Core Retail Activation Street Plan

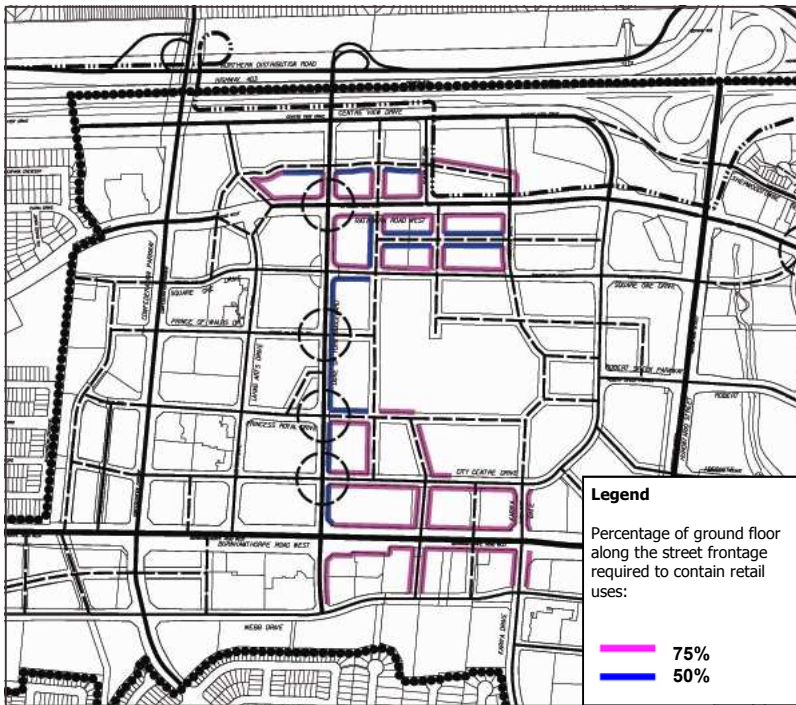


Figure 26: The Retail Activation Plan identifies retail objectives in the Downtown Core for existing and new streets. Also, refer to Downtown Core Local Area Plan - Retail Activation Policies and Schedule.

7.2 Retail Activation Street Standards

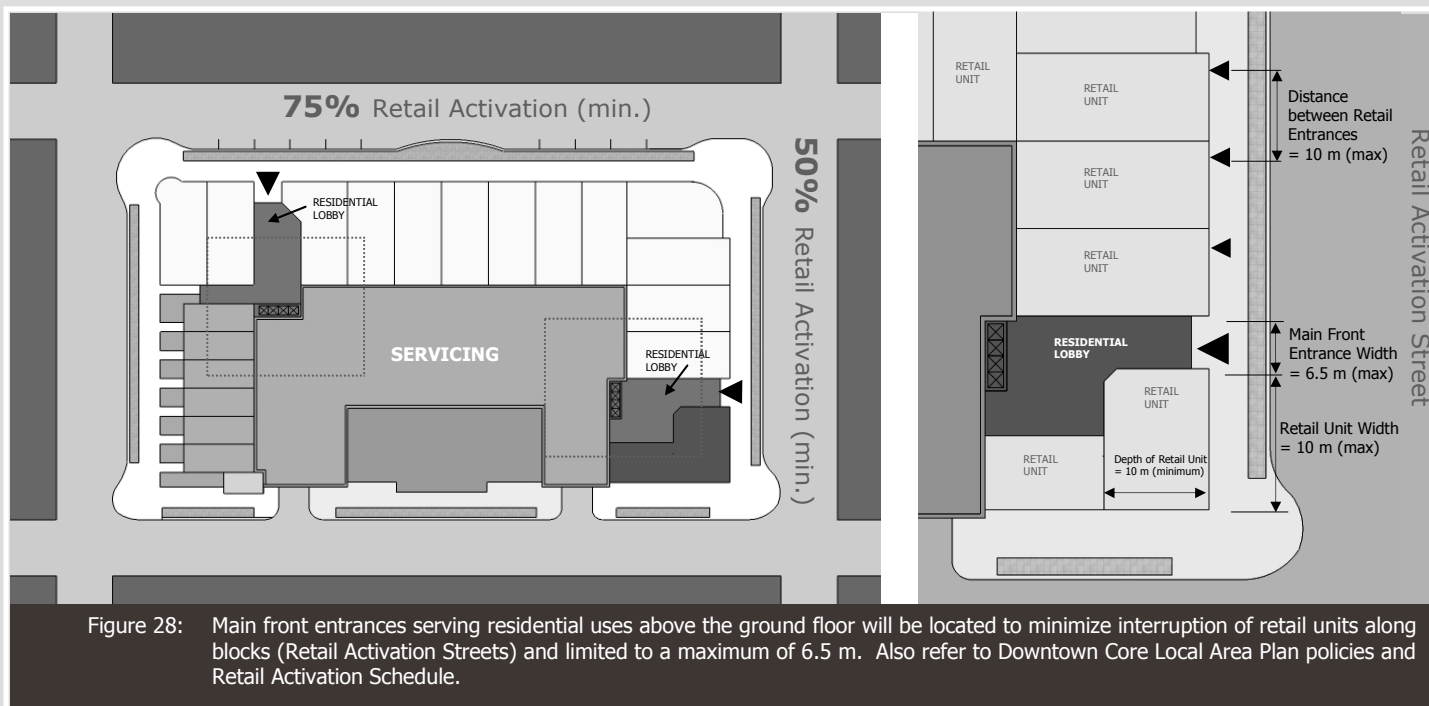
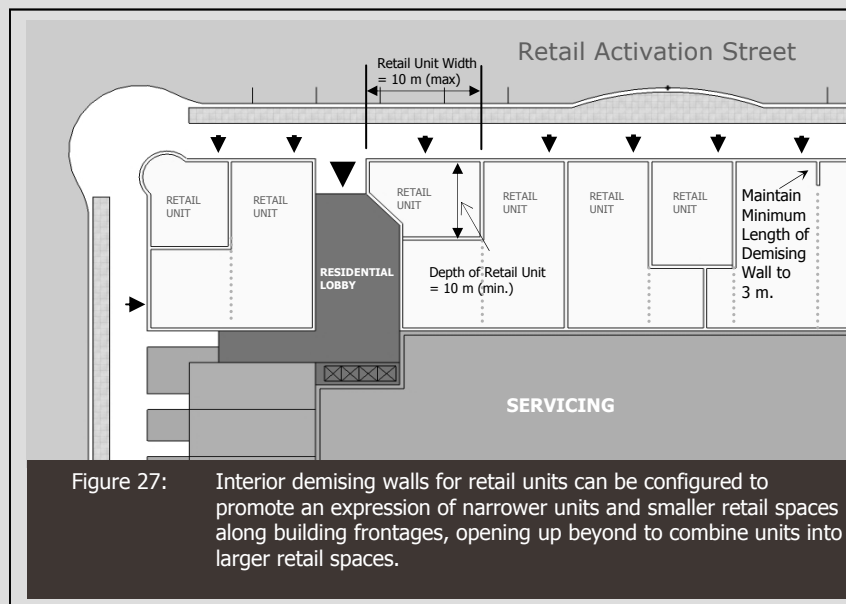
Existing and new streets in the Downtown Core have been identified for the purpose of establishing retail objectives within mixed use buildings. The Retail Activation Plan (shown above) identifies districts and areas of focus for which retail has been determined to be a strategic priority, setting out requirements for the amount of at-grade retail to be achieved on ground floors (corresponding to 75% or 50% minimum requirements).

In addition to the standards outlined in Section 7.0 'Ground Floor Treatments for At-grade Retail Uses', the design of units fronting onto Retail Activation Streets in the Downtown Core will:

- RA1** Provide narrow storefronts to a maximum unit width of 10 m;
- RA2** Have a minimum unit depth of 10 m;

- RA3** Design the entrances to retail units to a maximum spacing of 10 m between successive storefronts; and
- RA4** To ensure the integrity of retail activation streets, main front entrances and lobbies that serve residential uses above the ground storey will be:
 - limited to a maximum width of 6.5 m.;
 - located to establish and reinforce patterns of access between blocks of development; and
 - positioned so that there is minimal interruption of retail units along the block.





8.0 Design for Structured Parking Facilities on 'A' and 'B' Street Frontages.

Parking facilities will have an important role to play in supporting key uses, attractions and urban amenities in the Downtown Core. In general, development will locate structured parking and vehicular access to minimize impacts on the property and on surrounding properties and to improve the safety and attractiveness of adjacent streets, parks and open spaces.

The following standards will apply:

- P1** Parking structures will not directly front onto 'A' Streets, but will be entirely screened by 'liner' buildings incorporating a mix of uses between the parking structure and street space in accordance with Section 5.0 – 5.1 for 'A' Street Frontages;
- P2** Liner uses should have a minimum depth of 10 m.;
- P3** On the ground floor, parking structures will have active uses such as commercial or retail services with an appropriate scale and architectural expression to support activity on the streets, including those fronting onto parks and/or open spaces (*refer to Section 7.0 . Ground Floor Treatments*);
- P4** Parking structures will only directly front onto one 'B' Street where more than one 'B' street frontage exists;
- P5** When fronting onto 'B' Streets, parking structure façade elevations will be designed to the highest level of architectural treatment and animation to mask the parking and screen views of the interior;
- P6** Entrances, lobbies and passageways that provide a convenient means of access to parking facilities will be fully enclosed, appropriately signed and integrated into the façade design without appearing as dominant elements on the street frontages;

- P7** At grade exhaust vents serving structured parking facilities will be:
 - located to minimize negative impacts on the public realm; and
 - integrated into the design of buildings, expressed as part of the architectural character.
- P8** Consult the PEEL CPTED (Crime Prevention Through Environmental Design) Guidelines for the Design of Parking Garages.

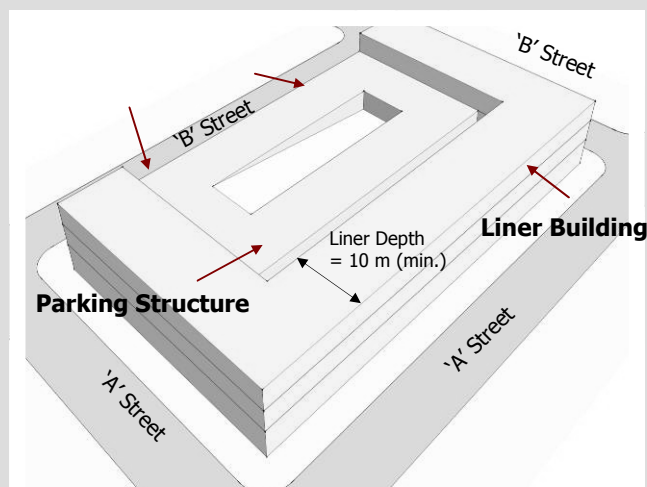


Figure 29: To animate the public realm, a 'vener' (liner buildings) of uses are located between the parking structure and street space to conceal the parking structure (from behind) as part of an integrated development.



Figure 30: Facades that are articulated with architectural treatment to resemble authentic buildings, and/or more animated approaches are used to mask structured parking (applicable to 'B' Streets).

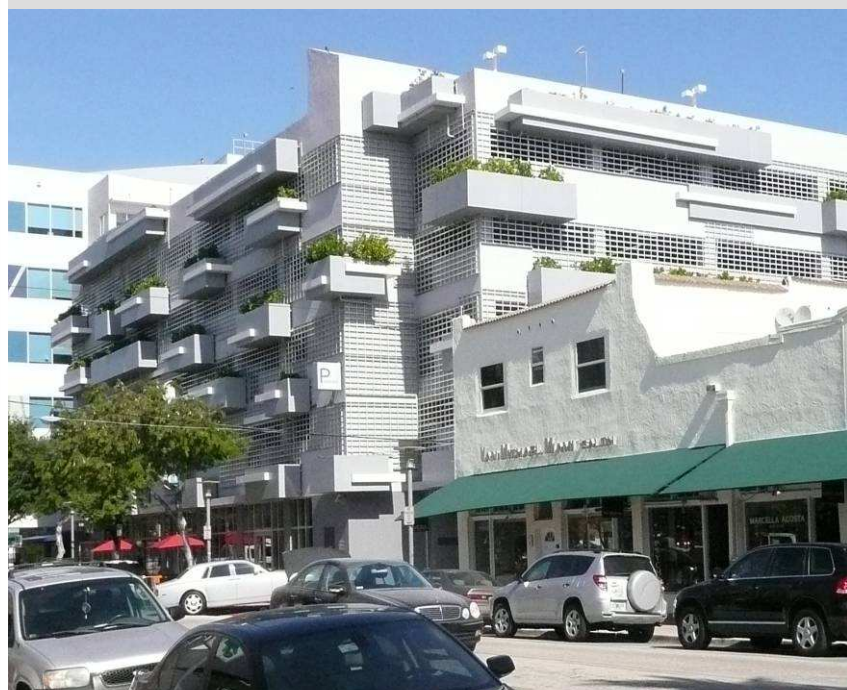


Figure 31: A typical condition for a 'B' frontage in which at grade retail is incorporated at the base and the structured parking above is enclosed by façade treatments to screen the stalls and interior parking areas.

9.0 Minimum Building Height

Mississauga's vision to urbanize the Downtown Core is intended to provide, a compact, mixed-use urban form that puts people in close proximity to jobs, transit, and a broad range of uses and urban amenities. To achieve this, a minimum building height of three storeys needs to be deployed to ensure the most efficient use of land and to create a pedestrian environment through street walls that contain the street and supports transit. In a downtown environment, one-storey temporary format buildings, such as big-box retail or entertainment facilities, served by surface parking, are examples of building typologies which are inefficient, suburban and do not lend themselves to creating a pedestrian friendly environment.

The following standards will apply:

BH1 All new buildings in the Downtown Core must achieve a minimum height of 10.7 metres (3 Storeys) both at the street frontage and across the entire area of the building.

N.B. Applicants should also refer to 'A' and 'B' frontage standards concerning build-to requirements, building placement, step-backs, etc.

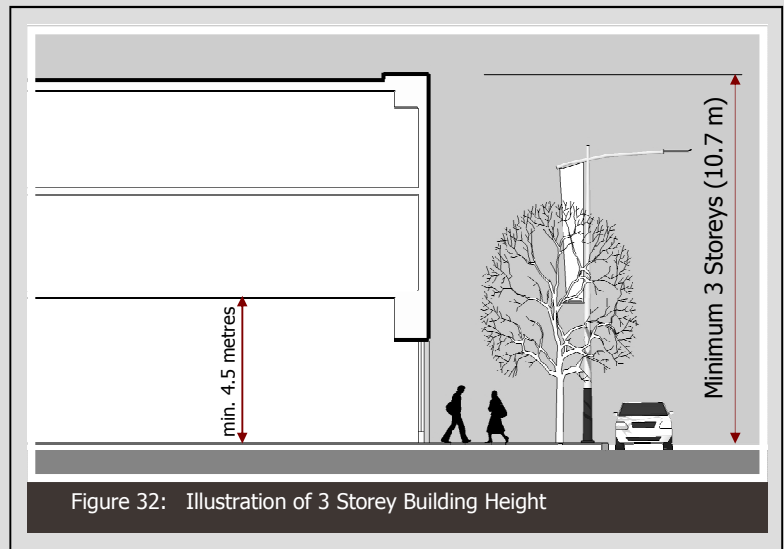


Figure 32: Illustration of 3 Storey Building Height



Figure 33: A 3 Storey mixed-use building with active ground floor retail/commercial uses contains the street and provides a comfortable pedestrian scale.

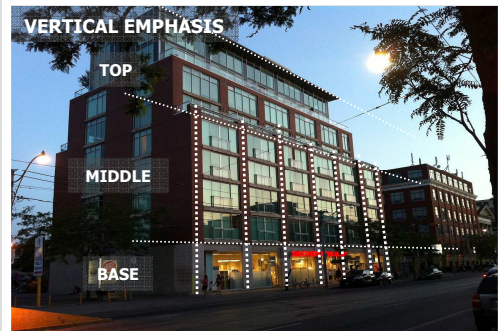


Figure 34: Buildings deploy a tri-partite configurations (base, middle and top), including horizontal and vertical expression lines to support and reinforce pedestrian scale aspects and an expression well suited to urban environments.

10.0 Streetwall and Building Façade Treatments

To ensure that development in the Downtown Core provides a strong sense of urbanity, the following built-form treatments will be incorporated into the design of buildings:

BF1 Mitigate the perception of large buildings and long frontages by:

- ensuring buildings and their streetwalls are well proportioned to address human scale;
- incorporating variation or special massing; and
- providing a change in materials, textures, patterns, colours and details on building frontages to create a sense of smaller scale buildings;

BF2 Ensure that the design of streetwalls in mixed-use buildings deploy:

- **Base** - to strongly define the at grade level;
- **Middle** - to define the upper storeys; and
- **Top** - to express the termination of the streetwall at the roof-line, parapet, related floor juncture or storey, in a way that articulates the expression and character of the building;
- Elements that accentuate floor and/or ceiling junctures and transitions between subsequent storeys. The should include horizontal expression lines, such as belt-courses, cornices, banding(s) or architectural treatments integrated into the streetwall expression;

BF3 Establish a rhythm, with frequency and articulation, across the streetwall by deploying elements that are vertically oriented and scaled to the pedestrian to include:

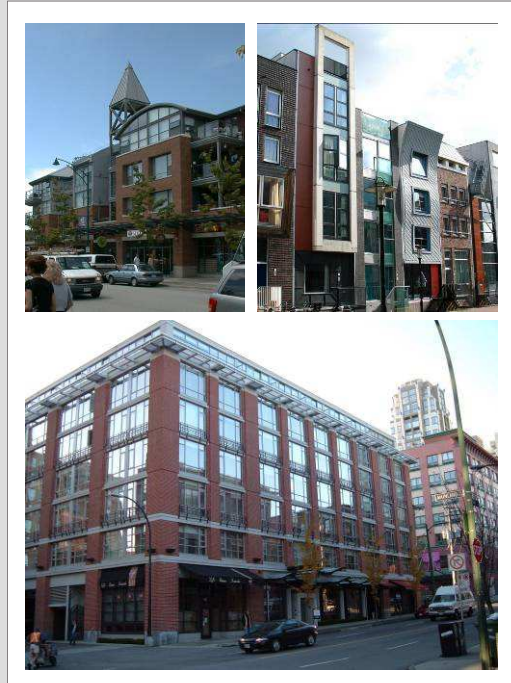
- all forms of fenestration, including transparent windows, apertures, bow, bay, storefronts, dormer and monitor-style windows; and
- pilasters, engaged columns, recesses, reveals, expression lines or other architectural treatments to create interest for the pedestrian and which serve to break up elongated facades.

BF4 Consider incorporating a balance in the proportion of glazing to solid wall materials in the design of facades in order to achieve pleasing symmetries and legible asymmetries;

- BF5** Design corner lot buildings with special massing and architectural treatments on both streets to give prominence along the frontages and visually distinguish these sites;
- BF6** Express principal building entrances with a height, proportion and level of articulation that is compatible with the ground floor storey height, so that entrances are visible and serve as focal points for orientation and access from the street (*also, see Section 5.0 - 5.2, 'A/B' Standards for Street Frontage*);
- BF7** Incorporate upgraded doors for entrances, including egress and fire exit doors fronting onto streets;
- BF8** Design balconies to be recessed and/or architecturally integrated into the design of the building façade incorporating high quality materials, balustrades and railings;
- BF9** Integrate, conceal and screen roof top equipment into the complete building design;
- BF10** Deploy a hierarchy of materials with solid, or 'heavier' materials located closer to the ground as a means to visually anchor the building to grade;



Figure 35: A strong vertical emphasis in the façade of this development creates rhythm and definition at the street edge.



- BF11** Construct building exteriors from enduring, natural materials such as clay brick, stone, metal, glass and wood in order to create durable buildings;
- BF12** Building materials such as stucco, metal siding, embossed face brick panels, vinyl, and EIFS (Exterior Insulation Finish Systems) are not to be used in the Downtown Core;
- BF13** Consider using building materials that are energy efficient and/or those that have been re-used or recycled (*Please consult the City of Mississauga's Green Development Standards for sustainable approaches and further direction*);
- BF14** Building signage will be visually integrated with the development as sign-bands or fascia signs, and as an extension of the building's architectural expression;
- BF15** Except for wayfinding signage and commemorative plaques, pylon and stand-alone signs are not permitted in the Downtown Core; and
- BF16** Ensure that utilities, meters, gas pipes and other building services installed on the ground plane do not negatively impact the presentation or scenic quality of existing or proposed development in the Downtown Core.

11.0 Tall Buildings ~ Overview

Tall buildings characterize a good part of the Downtown Core and have a role to play among other building types and land uses in the emerging downtown context.

Tall buildings are accompanied with significant civic obligations and responsibilities compared to other structures in the built environment. Spatially, they articulate the city pattern and urban structure, while visually reinforcing the civic importance of the Downtown Core and the image of the City as a whole.

Tall buildings must consider location, placement, relationship to the street, height ranges, built form qualities, architectural treatment and their ability to enhance the pedestrian environment by minimizing shadowing of the public realm. They need to protect important views, impacts on cultural resources and be able to accommodate a range of uses and support for transit. Tall buildings must also ensure that fundamental quality of life aspects are provided for, such as access to natural light, sky views and privacy for those that live, work and visit the Downtown Core.

11.1 Massing Standards

Tall buildings in the Downtown Core will be designed to consist of three parts:

Podium

The Podium will enclose and provide definition and appropriate scale for adjacent streets, parks and open spaces, and integrate with adjacent buildings and address the impacts of parking, loading and servicing uses.

The Podium includes the street level to midrise portion of the development which includes the streetwall. The Podium will be designed in accordance with the frontage and massing standards set out in this document.

Middle Shaft (Tower)

The floor plate size and shape of the middle shaft (tower) will be designed with appropriate dimensions for the site; the middle shaft will be located and oriented on the site and in relationship to the Podium and adjacent buildings.

Towers above the Podium height are governed by the massing standards which provide direction on slenderness, orientation and separation.

Top

Design the top of the tall building to contribute to the skyline character and integrate roof top mechanical systems into the design.

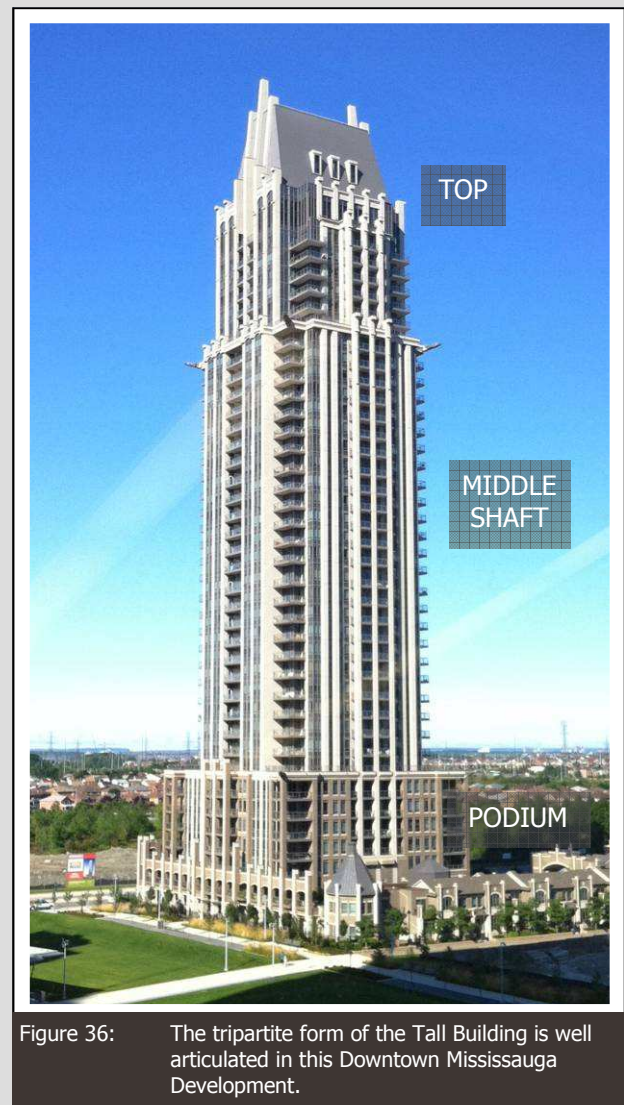
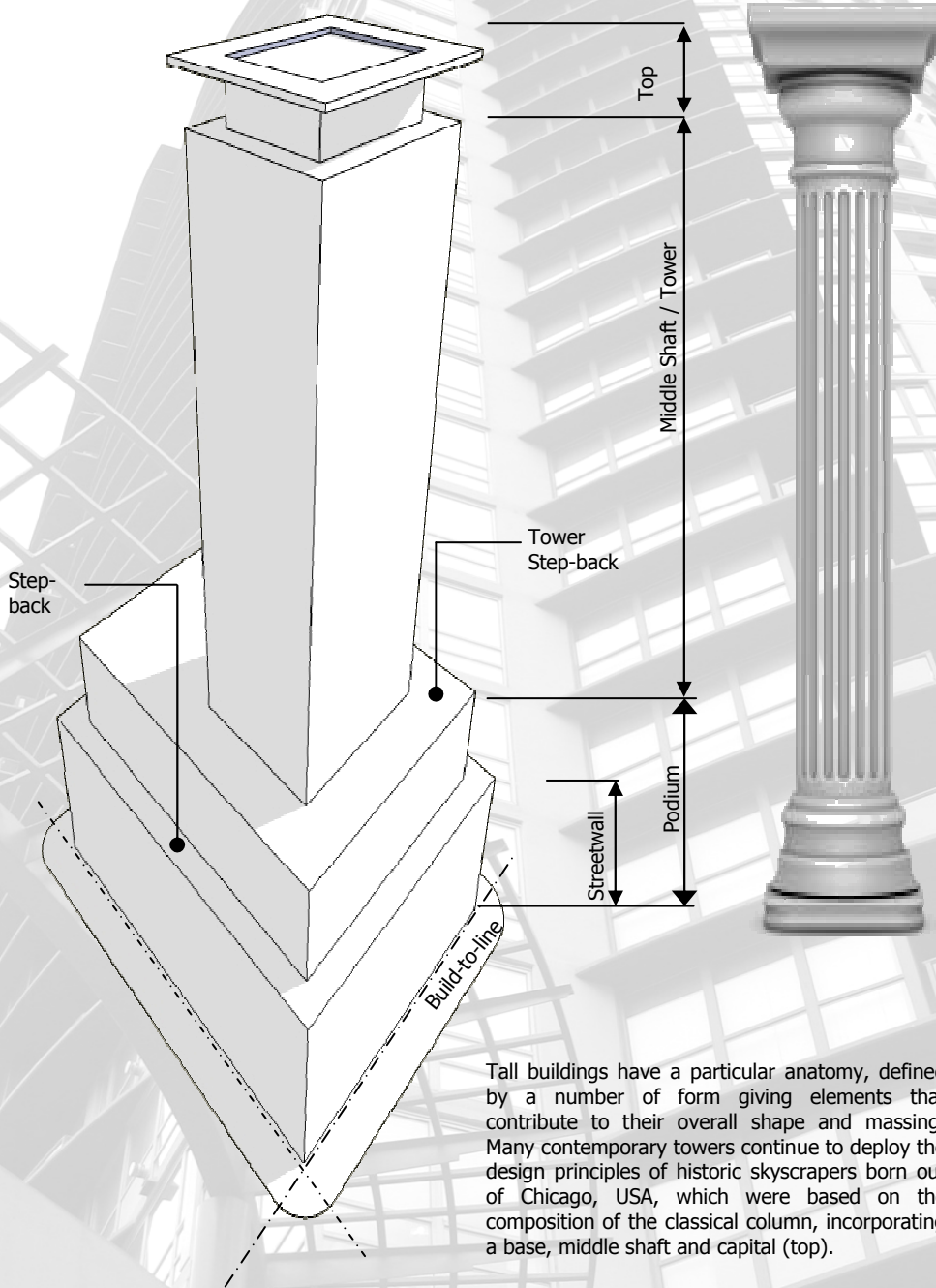


Figure 36:

The tripartite form of the Tall Building is well articulated in this Downtown Mississauga Development.

TALL BUILDING ANATOMY



Tall buildings have a particular anatomy, defined by a number of form giving elements that contribute to their overall shape and massing. Many contemporary towers continue to deploy the design principles of historic skyscrapers born out of Chicago, USA, which were based on the composition of the classical column, incorporating a base, middle shaft and capital (top).



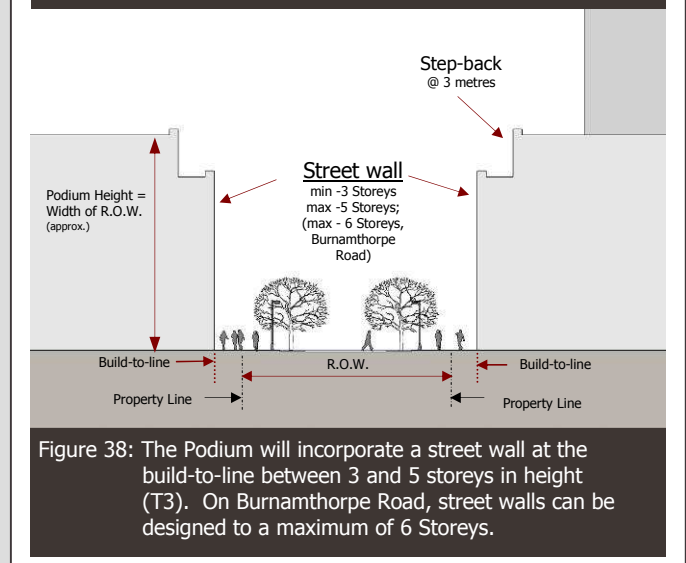
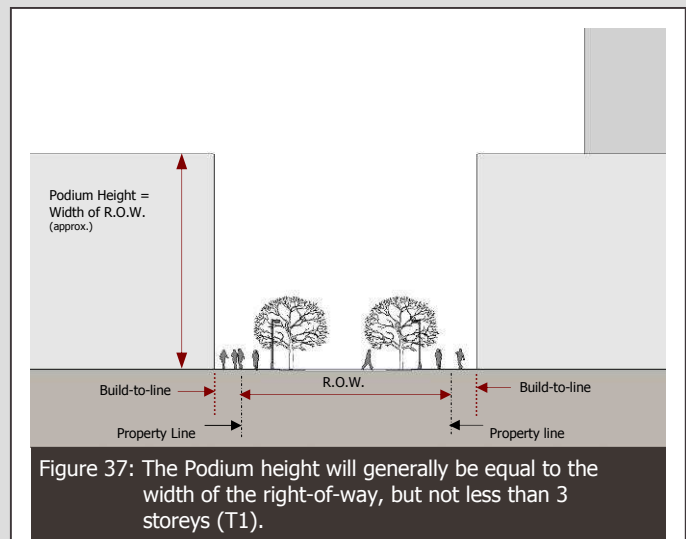
11.2 Podium Design

The design and placement of the podium requires careful consideration in terms of its role in helping to contain the street and achieving pedestrian scale qualities. Podiums will need to consider appropriate height in relation to the street right of way, streetwalls, and step-backs at the upper storeys, including ways in which sunlight can reach sidewalks to support a light-filled, vibrant public realm.

The following standards will apply:

- T1** The podium height will generally be equal to the width of the right-of-way, but not less than 3 storeys (*refer to Figure 37*);
- T2** The design of Podiums that front onto Burnamthorpe Road should:
- not be less than 6 storeys in height; and
 - have a height that is compatible with the podiums of adjacent development (existing or proposed and where they exceed 6 storeys) subject to Standard 'T5';
- T3** To support a pedestrian scale and contain the street, Podiums will also incorporate a street wall placed at the build-to-line, having a minimum of 3 storeys to a maximum of 5 storeys in height.
- T4** Where right-of-ways exceed 60 m, the street wall can be increased to a maximum of 6 storeys in accordance with Standard 'T2' (*refer to Figure 38 and 39*);
- T5** Podiums and their street walls will be articulated and massed at the upper storeys using step-backs to:
- mitigate the perception of height and create a comfortable scale for pedestrians;
 - maximize sunlight on the public realm in accordance with the parameters set out in the *City of Mississauga's Standards for Shadow Studies*;
 - mitigate the effects of wind on the pedestrian environment.

- T6** Step backs of 3.0 m will be applied to the street wall and podium design in order to achieve the angular plane (*Refer to City of Mississauga Standards for Shadow Studies*);
- T7** Towers should be set back a minimum of 3.0 m from the top tier of the Podium edge in order to establish a clear definition between the podium and tower (*Refer to Figure 39 for illustration of Podium Design*).
- T8** When Tall Building proposals are phased, ensure that party walls of Podiums are architecturally treated and enhanced to address interim conditions.



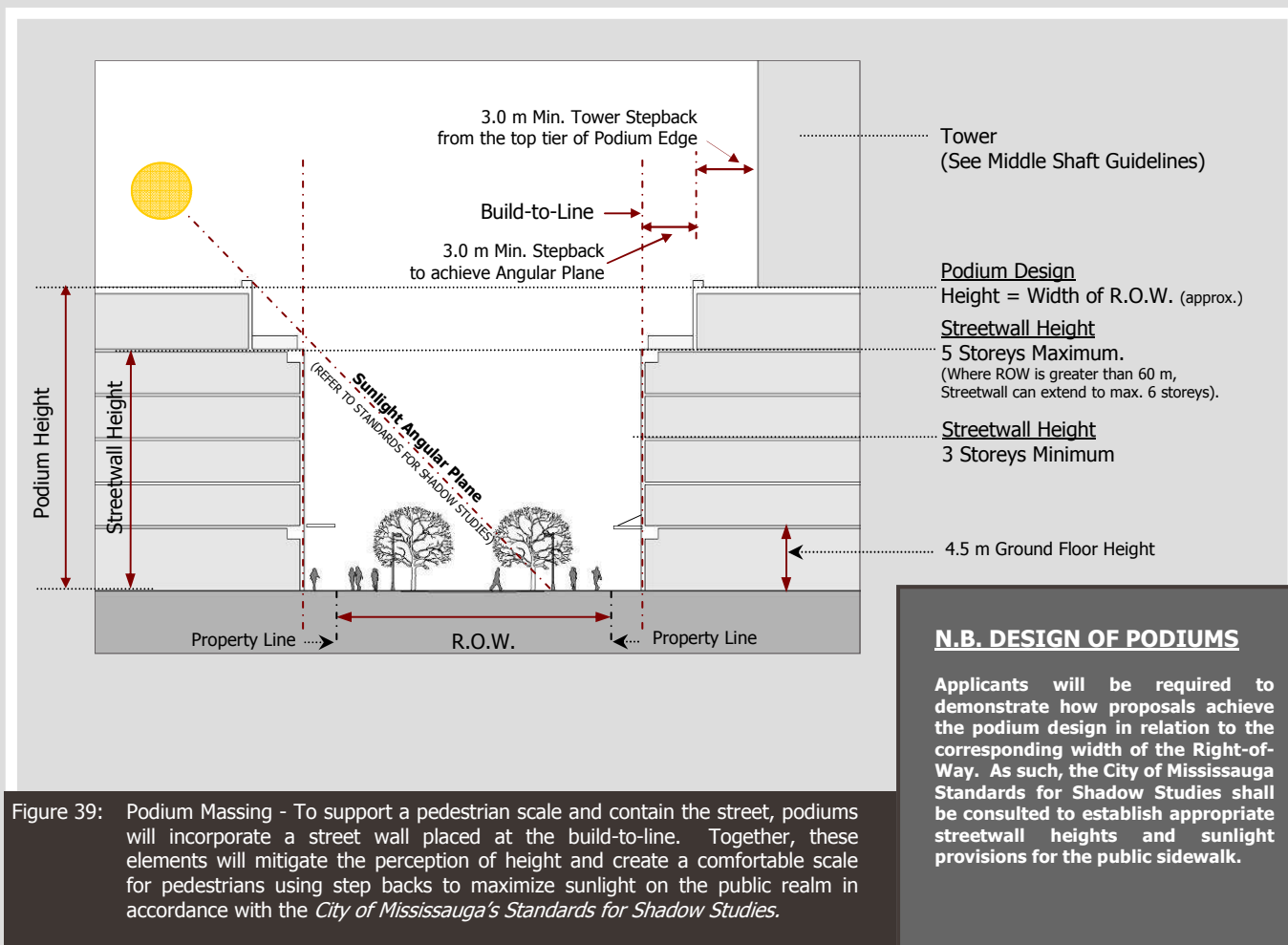


Figure 39: Podium Massing - To support a pedestrian scale and contain the street, podiums will incorporate a street wall placed at the build-to-line. Together, these elements will mitigate the perception of height and create a comfortable scale for pedestrians using step backs to maximize sunlight on the public realm in accordance with the *City of Mississauga's Standards for Shadow Studies*.

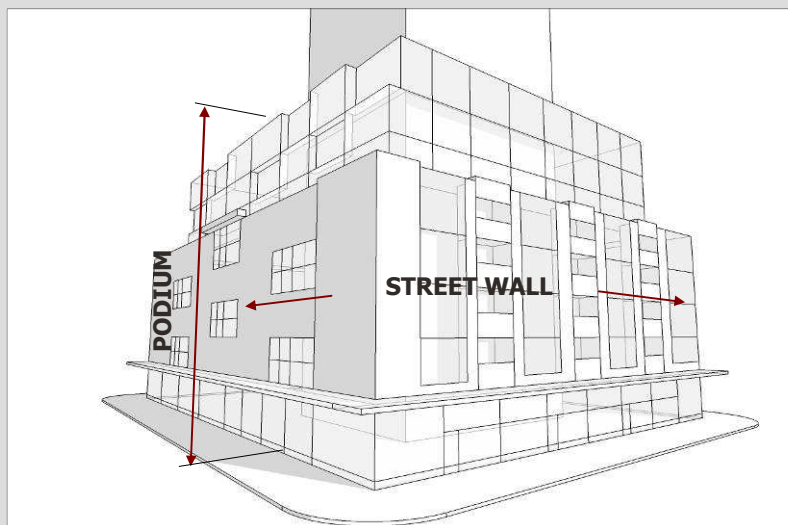


Figure 40: Podiums when well designed and executed contribute positively to the pedestrian environment.

11.3 Middle Shaft (Residential Point Towers)

Compact slim towers and small floor plates minimize shadowing, maximize separation, and views between buildings. They also improve privacy and reduce overlook impacts on adjacent streets, parks, open spaces and properties.

The following standards will apply:

- T9** Design and articulate the floor plates to break down the mass of the building and to create 'street interest' and enhance skyline character;
- T10** Residential tower floor plates above the podium height will not exceed a maximum area of 850 m² (gross, inclusive of internal elevator cores, servicing and circulation components) and should be designed to achieve proportionately slender tower profiles based on the suggested guideline:
- 0 - 30 Storeys = 750 m² (gross)
 - 0 - 40 Storeys = Up to 800 m² (gross)
 - 0 - 50+ Storeys = Up to 850 m² (gross)
- T11** Provide a minimum spatial separation of 30 m between towers to maximize access to sky views, natural daylighting, adequate privacy, minimize wind conditions and collective shade on the streets, parks and open spaces;

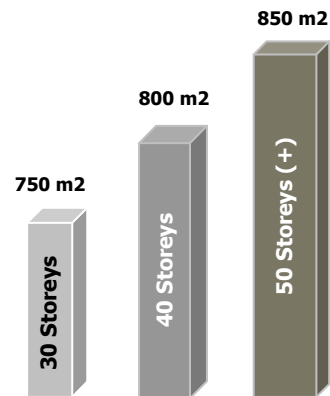


Figure 41: **Slenderness & Floor Plate** — Compact slim towers with small floor plates minimize shadowing, maximize separation and views between buildings, and reduce privacy and overlook impacts. To achieve the objective of compact slimmer towers, yet allow for tower massing flexibility, floor plates above the podium will be designed to a maximum of 850 m² (gross). See 'T9'.

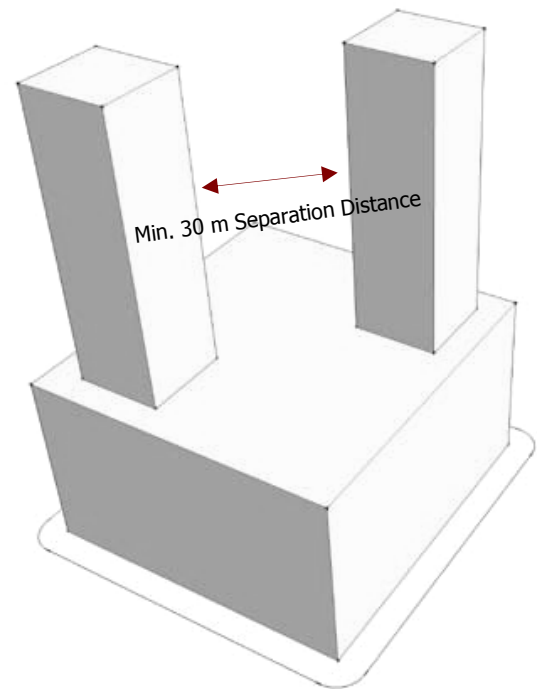
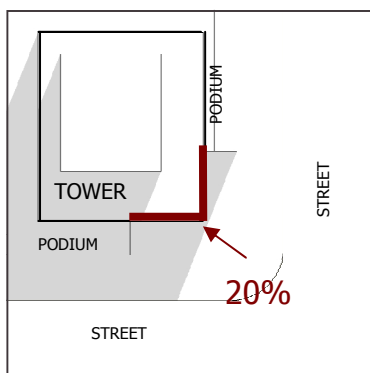
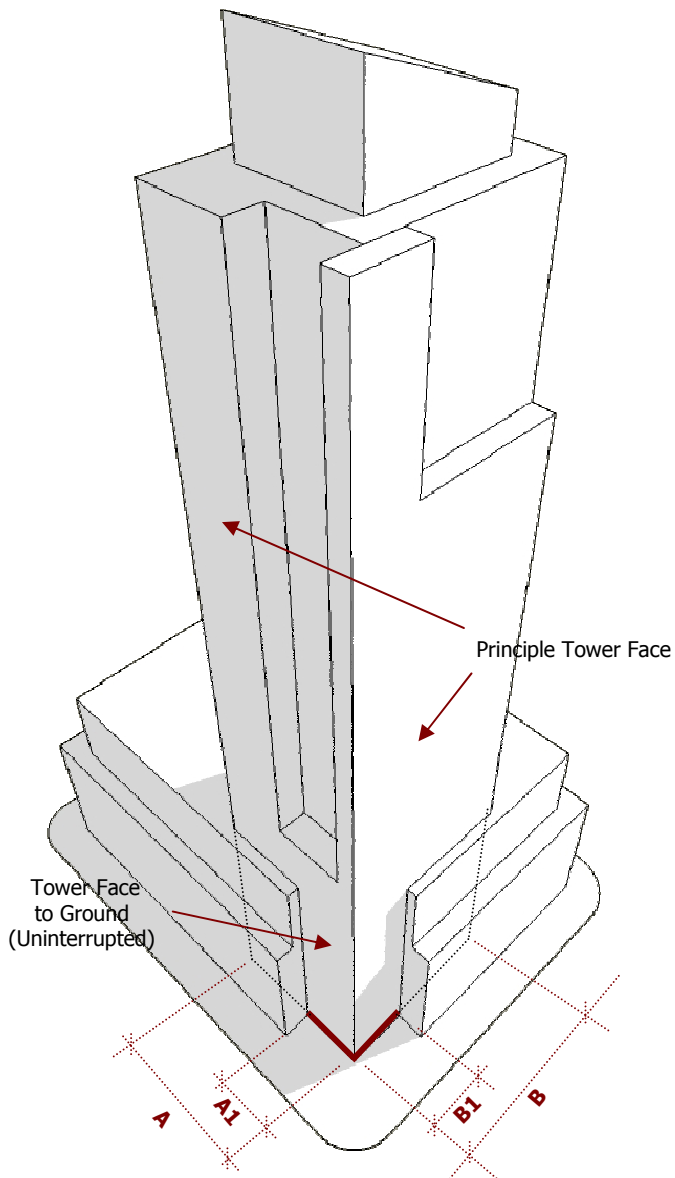


Figure 42: **Tower Separation** — Spacing towers with minimum separation will minimize collective shade and sunlight impacts of closely-spaced towers on streets, parks and adjacent residential buildings. This will also achieve increased access to sky views and natural lighting as well as increased privacy. The minimum spacing between point towers will be a minimum of 30m.



The maximum exposed Tower Face is calculated as follows:

$$\frac{A1 + B1}{A + B} \leq 20\%$$

Where:
A and B = Length of Principle Tower Faces
A1 and B1 = Exposed Face of the Tower (Uninterrupted)

Figure 43: Calculation of uninterrupted tower shafts.

11.4 Uninterrupted Tower Shafts

To allow for different tower expressions and juxtaposition of form in the Downtown Core, a portion of the tower shaft may vertically extend down to grade in order to allow for an uninterrupted tower expression when incorporated into a podium or larger development scheme, subject to the following:

- T12** A maximum of 20% of the principle tower face may extend to grade without interruption by a Podium. Refer to Figure 40 for calculation of maximum allowable area of Uninterrupted Tower Shaft;
- T13** The placement of the tower should not overshadow and impact sunlight on the public sidewalk;
- T14** The setback to accommodate an uninterrupted tower shaft will count towards the allowable setback set out by the frontage standards for 'A' and 'B' Streets (see Section 5.1—5.2, *Street Frontage*);
- T15** When deployed at corner locations, the exposed at grade portion of the tower will be designed to create a highly animated and active condition, with entrances, in order to positively reinforce and celebrate the corner;
- T16** Tall building proposals must demonstrate that uninterrupted tower treatments do not introduce significant wind impacts on the pedestrian realm by virtue of the tower location itself;
- T17** Introducing design elements at-grade to mitigate the effects of wind that are integrated with the architecture of the building or landscape design.



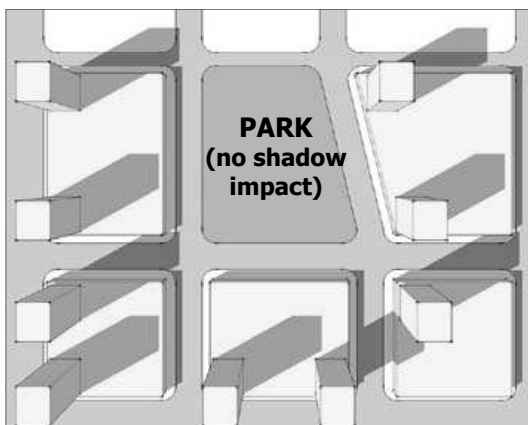
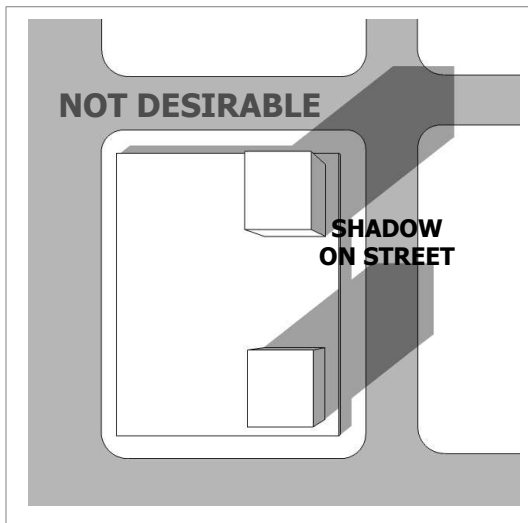
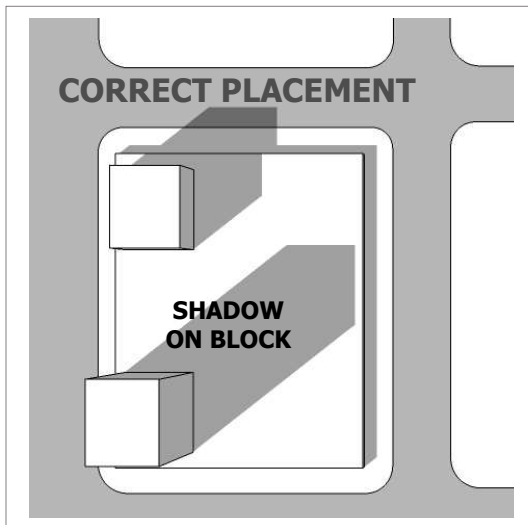


Figure 44: Towers should be placed on development blocks in locations that mitigate shadow impacts on the public realm.

11.5 Site Orientation

Point towers should be located on their sites to minimize shadow impacts on adjacent streets and open space. The following standards apply:

- T18** Point towers should be located on the north-west and south-west sides of a block or development site so that shadows fall primarily within the block itself rather than on the street;
- T19** Elongated floor plates should be oriented in a manner which minimizes shadow impacts - this should be demonstrated in accordance with any sun/shadow studies that are required by the City;



11.6 Park Orientation

- T20** Locate towers to minimize shadow impacts on adjacent parks and open spaces;
- T21** For blocks on the southeast and southwest sides of a park, towers should be located on the farthest side of the block from the park;
- T22** For blocks on the northeast and northwest sides of a park, point towers should be located on the southeast and southwest sides of the block;
- T23** Buildings abutting or facing onto parks and open spaces will establish a maximum podium height and point tower location/massing that maximizes opportunities for sunlight exposure in accordance with the *City of Mississauga's Standards for Shadow Studies*;



Figure 45: Delineate the top of the tower with a change in architectural detail and have the top meet the sky with a distinctive profile.

11.7 Tower (Roof) Top

Towers contribute to the image of the Downtown Core. The tops of towers should be designed as distinctive elements against the skyline, when seen from the street or from a distance. Moreover, a well-designed roofline creates opportunities for views to distinctive landmarks, including orientation and wayfinding.

- T24** Design the uppermost floors of the tops of tall buildings to achieve a sculptural or distinctive profile;
- T25** Design the tops of tall buildings to integrate and screen the mechanical penthouse function and other roof top units into the complete building design;
- T26** Use materials, finishes and patterns that are consistent with the overall building design and architectural expression;
- T27** Incorporate ways in which the roof top expression can be subtly illuminated and enhanced with architectural lighting effects during evening hours;



11.8 Built Form Compatibility & Transition to Adjacent Development

Taller buildings should be sited and organized to provide a desirable transition to adjacent lower form buildings and open space. They should also ensure compatible relationships between buildings of differing scale through adequate spatial separation.

Where a significant difference in scale exists between building heights, development will be required to deploy transition strategies through massing and built form, to achieve a harmonious relationship between proposed and existing development, and/or adjacent open spaces.

The following standards will apply:

- T28** Consider the size of the development area and the planned intensity of the use;
- T29** Consider the context of adjacent low scale development and other aspects such as the street width or adjacent open space;
- T30** Where a proposed development incorporates multiple buildings, design the buildings to step down in height from high to low, and where it abuts lower scale development;

- T31** For large properties, use an angular plane of 45 degrees from the closest property line of lower scaled residential development, or open space, to determine the minimum setback and height of a building within a development;
- T32** For single properties, deploy a stepping down of the building height and mass to achieve a transition to adjacent lower scale development or open space;
- T33** Design the development to address the impacts of shadow, sky-views and how sunlight can be maximized on the private and public realm;
- T34** Where a group of buildings and/or spaces act collectively to create a special architectural context (i.e. related by similar scale, heights, materials, colours, architectural character, landscaping and open space patterns or qualities) ensure that proposed infill development respects the context by deploying a strategy for building height that is compatible, and which positively contributes to the existing and/or anticipated pattern of development;
- T35** Tall building proposals will not compromise important view corridors or silhouettes associated with the Mississauga Civic Centre/City Hall;

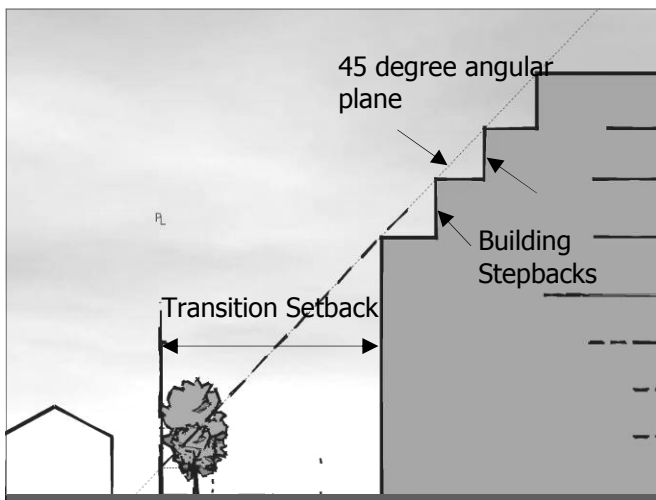


Figure 46: Taller buildings will mitigate height through step-down built form treatments in order to transition to adjacent lower scale development or open space.

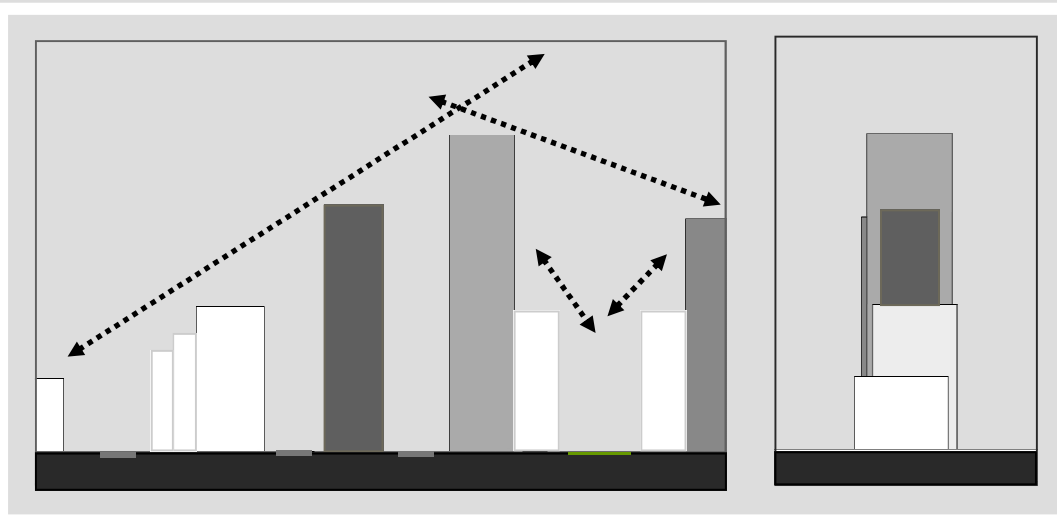
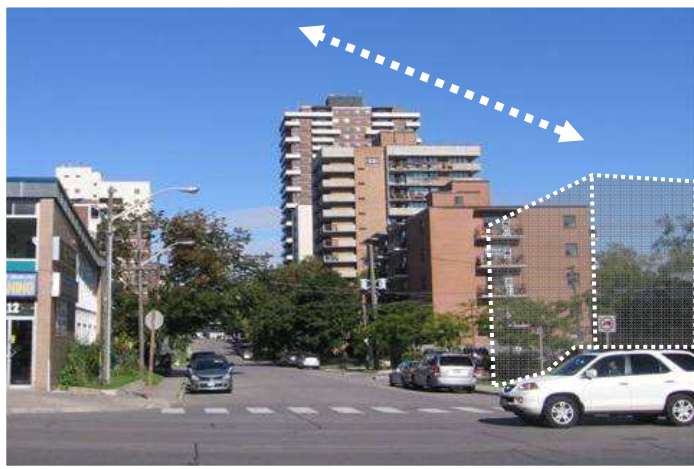
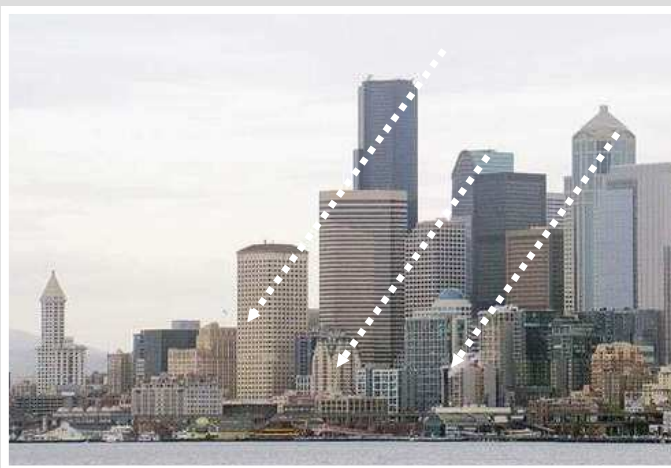


Figure 47: A progression in building heights over large blocks and areas can achieve more orderly arrangements and patterns in the built environment. Heights can be used to articulate and define the highest and most intense use of land, to the least intensive of uses.



11.9 Design for At Grade Residential (Horizontal Multiple Units)

Tall building proposals can integrate townhouse-form (horizontal multiple units) buildings to define edges, open space, streets and mews.

The following standards apply to townhouse form portions associated with tall buildings:

- T36** Create a high quality interface and transition between the public sidewalk and front door to ensure adequate separation, definition and privacy; (*refer to RT5 and RT6*)
- T37** Provide high quality landscape and treatments within frontages, transition zones and set-backs;
- T38** Provide functioning, individual entrances to residential units and animate the frontage with windows on the ground floor that look out onto the street or open space; and
- T39** Incorporate ways in which ground floor residential uses may transition to commercial uses in the future;



Figure 48: Above - Townhouse units address the street and incorporate landscaped transition areas between private individual entrances and the public sidewalk.

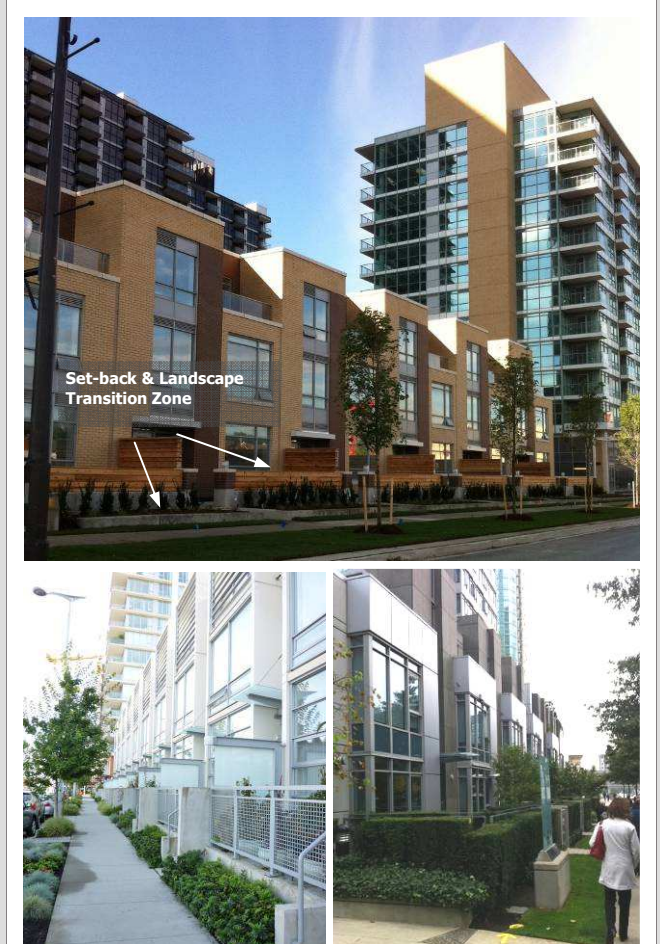


Figure 49 Examples of landscape treatments within transition zones.

T40 Standard Design for Raised Residential Units

- Provide individual unit entrances from the sidewalk;
- Incorporate a minimum setback of 3.0 metres, which includes front steps (maximum 6 risers) and porch;
- Buffer to include architectural and landscape treatments such as a raised planter, low fencing or landscaping to augment the transition zone; and
- The ground floor should be raised between 0.9 – 1.2 metres above the sidewalk level;

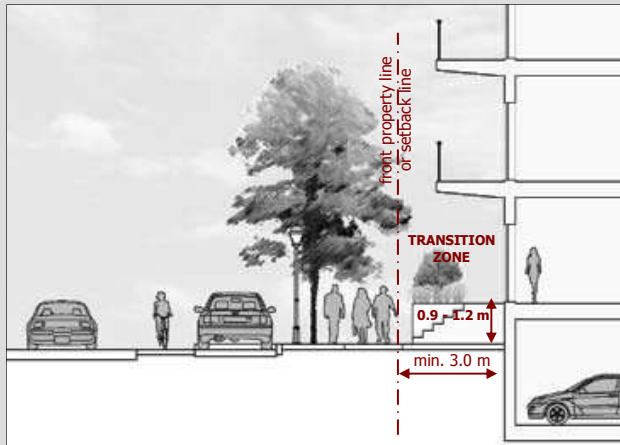


Figure 50: Approach I: Residential uses are elevated above the ground floor, but directly linked to the public sidewalk through individual points of access serving each unit.

T41 Standard for Grade Related Residential Units

(Including Retail Conversion as a Potential Future Use)

- Provide individual unit entrances that are grade related, with a direct connection to the public sidewalk;
- Incorporate a minimum setback of 4.5 metres;
- Buffer to include architectural and landscape treatments such as a raised planter, low fencing or landscaping to augment the transition zone; and
- Incorporate a minimum floor-to-floor height (ground floor to second floor) of 4.5 metres.

N.B. The City of Mississauga recognizes that there may be other approaches which achieve similar objectives for the conversion of at grade residential development to commercial/retail uses. These will be considered and assessed for their merit at the application stages.

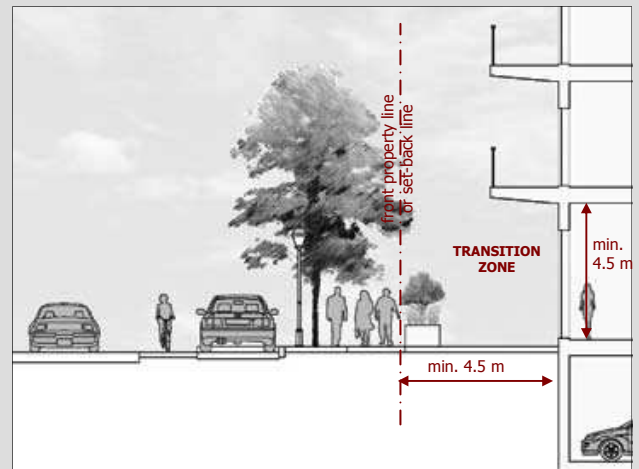


Figure 51: Approach II: Residential uses are located at the same level of the public sidewalk, with individual entrances, but designed for potential conversion to retail and or commercial

GLOSSARY

Articulation - architectural detail that refines and gives a building interest and added richness.

At grade - refers to the uses located at the ground storey, and generally the manner in which they are expressed or articulated to positively support the public realm.

Build-to-line - a designated line placed within the build-to area on a development block which informs the placement and orientation of the streetwall or building.

Built form - buildings and structures.

Compatible/Compatibility - when the density, form, bulk, massing, height, setbacks and/or materials of buildings are able to co-exist in harmony with their surroundings.

Curb cut - a break in the curb for vehicular access from the street onto a property.

Façade - means one or more exterior sides of a building, which may front onto or face a public space such as a street, park, access, etc.

Frontage Design - Refers to the built form urban design requirements associated with a category of frontage such as 'A' or 'B' frontage.

Glazing - clear or transparent glass windows whose physical attribute allows light to pass through completely. In reference to at grade uses, it enables views towards the inside of a building space from the exterior at the sidewalk level.

Liner Building - A liner building vertically places useable building space between a parking structure and the street space (build-to-line) in order to screen the parking from view.

Patio - an outdoor space generally used for dining that adjoins a restaurant, grocery store, coffee shop or café.

Pedestrian scale - a size of building, or space that a pedestrian perceives as not dominating or overpowering.

Main Building Entrance - The primary means of access which serves pedestrians, patrons and/or users of a building through a common entrance, internal lobby or vestibule that provides access to uses other than retail or commercial uses that are located at grade.

Podium - means the base of the building, structure or part thereof, located at or above established grade that project from the tower portion of the building.

Public realm - the streets, parks and open spaces that are available for any member of the public to access, use and enjoy.

Scale - the size of a building or an architectural feature in relation to its surroundings and to the size of a person.

Sidewalk - unobstructed pedestrian travel route generally situated within the public right-of-way.

Spill-Out Zone - a space adjacent to storefront entrances where internal uses can spill out onto the public sidewalk or boulevard.

Streetscape - means the character of the street, including the street right-of-way, adjacent properties between the street right-of-way and building faces. Thus, the creation of a streetscape is achieved by the development of both public and private lands and may include planting, furniture, paving, etc.

Street frontage - the front and/or side of a property that faces an 'A' or 'B' street.

Streetwall - The façade of the building that defines the enclosure of the public space or street. It is defined through the use of a required step back at the upper storeys that articulates the building massing and establishes a consistent architectural line along the street frontage.

Step back - A required articulation of the building massing that helps establish the streetwall; it serves to reduce the appearance and bulk of the podium, mitigate the perception of height from the street and reduce shadow and wind impacts.

Storefront - the front of a store, or a room at the ground floor of a building that contains a display window at its front designed for commercial and retail uses.

Transit-supportive land uses - land uses that encourage transit use and transportation network efficiency.

N.B. Definitions in the Zoning By-law should be consulted and will take precedence over this Glossary.

DOWNTOWN CORE

Built Form Standards