



City of Toronto

Tall Building Design Guidelines

March 2013

Tall Building Design Guidelines online:
toronto.ca/planning/tallbuildingdesign.htm

The City of Toronto acknowledges the following previous tall building design guidelines and studies which informed the development of these city-wide Tall Building Design Guidelines:

“Design Criteria for the Review of Tall Building Proposals” (2006) HOK Architects Corporation | City of Toronto

“Tall Buildings: Inviting Change in Downtown Toronto” (2010) Urban Strategies Inc. | Hariri Pontarini Architects | City of Toronto

“Downtown Tall Buildings Vision and Performance Standards Design Guidelines” | (2012) Urban Strategies Inc. | Hariri Pontarini Architects | City of Toronto

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INTRODUCTION

Evolution of Tall Buildings in Toronto

Evolution of Tall Building Guidelines

Defining Tall Buildings

Guiding Principles

Design Excellence

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Downtown Study Area

Downtown Tall Buildings: Vision and Supplementary Design Guidelines

Organization of the Guidelines

How and Where the Guidelines Apply

Introduction

EVOLUTION OF TALL BUILDINGS IN TORONTO

Tall buildings have been part of Toronto’s urban landscape since the early twentieth century. In 1905, the steel frame of the Traders Bank Building at Yonge and King rose to 14-storeys to become the tallest building in the British Empire. Over the course of the following century, the form of tall buildings in Toronto continuously evolved, responding to changes in technology, market demand, transportation choice, development economics, settlement patterns, planning controls, and design trends.

In the 1920s, small plate commercial developments, such as the first tall buildings at Yonge and King, and along Bay Street, were constructed on large single lots or a collection of smaller lots. Later, in the 1950s, eight to ten storey concrete frame apartments were built on single lots along streets such as Jarvis, Dunn Avenue, and St. George. This generation of tall building development provided little or no on-site parking. These buildings also tended to have small rear and side yard setbacks, which may have provided adequate light, view, and privacy for lower buildings, but did not work successfully with taller structures.



Traders Bank Building, c.1912

By the 1960s, new construction technology and changing ideals in city planning resulted in taller buildings and larger-scale development. Whether commercial or residential, tall buildings at this time were typically built on consolidated lots or large-scale blocks, and in many cases involved the demolition of existing neighbourhoods for redevelopment. New towers were then placed in the middle of the lot with extensive landscaped open space around. Bold new commercial developments based on this model, such as the TD Centre, became the symbols of the rising economic power of Toronto. While this pattern allowed for ample sky view, sunlight, as well as privacy between neighbours, it often impeded ease of pedestrian access and the vitality of the street.

Beyond the built up core, new subdivisions such as Flemingdon Park and Parkway Forest were planned using “Tower in the Park” design principles. While often providing generous apartment and office space, in general, this type of development did not fit comfortably within the existing built form context and was disruptive to the pedestrian-oriented scale and character of traditional Toronto neighbourhoods. These buildings did not support walkable streets and lacked the mix of uses, small retail frontages, porches, and stoops which successfully animated the public realm elsewhere in the city. The large, often slab-like floor plates cast long shadows and created windy conditions at grade. In many cases, the promised landscapes of the “Tower in the Park” became, in reality, the “Tower in the Parking Lot.”

In the late 1980s, a different approach to tall buildings emerged. New developments were more careful to fit within the existing urban fabric, defining the edges of streets and small open spaces in a traditional way with base buildings, townhouses, and other lower scale buildings. These new tall buildings were often mixed-use, had smaller floor plates, and were located with greater regard for minimizing shadow and wind impacts.

More recently, tall building development has been influenced by sustainable design and construction methods, with factors such as energy efficiency, indoor environmental quality, and building



1960s "Towers in the Parking Lot"

performance playing an increasingly important role in determining tall building form. Many buildings today are also capitalizing on technological advancements and economic advantages resulting in ever greater building heights. While it is an exciting time in the history of tall buildings in Toronto, many new questions and challenges have emerged.

Current tall building debates often centre around the capacity of places and infrastructure to serve tall buildings and their occupants, the liveability of the vertical communities being created, the cumulative effect of clusters of tall buildings, particularly on quality of life and the public realm, as well as the longevity of what is being built, including the durability and lifespan of materials, construction practices, energy performance, and the ability of buildings to adapt and accommodate change over time.

Whether past, present, or future, all tall buildings play a prominent role in the Toronto landscape. In addition to the Traders Bank Building, other tall buildings, including the Canadian Bank of Commerce (1934) and the remainder of Commerce Court (1972), have claimed the status of 'tallest' building in the city and beyond. While contributing to the evolution of tall buildings in Toronto, these buildings stand proudly today as city-wide landmarks and heritage icons.

In recognition of the high level of civic responsibility and obligation that tall buildings carry, the Official Plan includes specific "Built Form - Tall Buildings" policies. These policies are based on the premise that tall buildings are desirable in the right places, but do not belong everywhere. When appropriately located, designed, and "well-planned," tall buildings can enhance the public realm, complement neighbouring buildings, and contribute to a sustainable future.

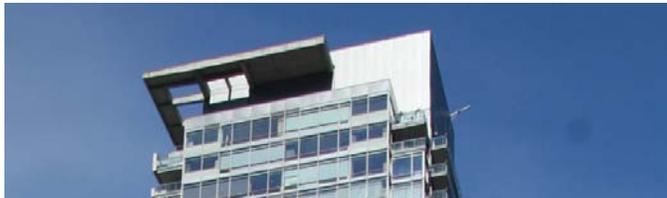
EVOLUTION OF TALL BUILDING GUIDELINES

To assist with implementation of Official Plan policy and provide specific design direction for tall buildings in Toronto, City Council adopted the "Design Criteria for the Review of Tall Building Proposals" (2006) and the "Downtown Tall Buildings Vision and Performance Standards Design Guidelines" (2012). These guidelines were developed through consultant studies by HOK Architects (2006) for the city-wide "Design Criteria," and Urban Strategies Inc./Hariri Pontarini Architects (2010) for the "Downtown Guidelines."

This updated city-wide "Tall Buildings Design Guidelines" document integrates and builds upon these previous studies and guidelines to establish a new, unified set of performance measures for the evaluation of all tall building development applications across the entire city.

DEFINING TALL BUILDINGS

Tall buildings are generally defined as buildings with height that is greater than the width of the adjacent street right-of-way or the wider of two streets if located at an intersection. Since street right-of-way width varies across Toronto, typically between 20 and 36 meters, this definition reinforces the importance of site context in determining the threshold for when a building is considered tall and when these Guidelines will apply.



As with variation in height, the design of tall buildings may also differ across the city in response to the local context or building use. While the design expression may vary, in general, most tall buildings in Toronto will follow a classic form and consist of three carefully integrated parts: a base building, middle, and top, each with a particular role to play in achieving the goals of the Official Plan. Exceptions to this form may be considered on a site-specific basis, provided that the overall intent of the Official Plan is met.

Top

The tops of tall buildings, including upper floors and roof-top mechanical or telecommunications equipment, signage, and amenity space, should be designed, primarily through tower massing and articulation, and secondarily through materials, to create an integrated and appropriate conclusion to the tall building form.

Middle (Tower)

The location, scale, floor plate size, orientation, and separation distances of the middle (tower) affect sky view, privacy, wind, and the amount of sunlight and shadows that reach the public realm and neighbouring properties. The design and placement of the tower should effectively resolve these matters to ensure that a tall building minimizes its impact on surrounding streets, parks, public and private open space, as well as existing or future buildings on adjacent sites. Tower placement and design also plays an important role in meeting sustainability objectives.

Base Building

The lower storeys of a tall building are referred to as the base building. The role of the base building is to frame the public realm, articulate entrances, and assist in the creation of an attractive and animated public realm which provides a safe, interesting, and comfortable pedestrian experience. The base building should define and support adjacent streets, parks, and open space at an appropriate scale, integrate with adjacent streetwall buildings, assist to achieve transition down to lower-scale buildings, and minimize the impact of parking and servicing on the public realm.

Regardless of stylistic approach, the design and placement of all tall buildings should make a positive contribution to the public realm, fit harmoniously within the surrounding context and skyline, and be consistent with the following:

- slender point towers, rising above well-proportioned and articulated base buildings, with a strong relationship to the existing context and adjacent public realm, are preferred;
- avoid free-standing towers without bases or a direct relationship to the street, e.g. “towers in a park;”
- avoid big, boxy, dominant massing, and large, elongated, or slab-like floor plates;
- embrace design creativity and variation in built form and architectural expression, including variation in tower shape, orientation, and the design of each façade for the purpose of visual interest and sustainability; and
- be innovative, but also appropriate in the choice of materials and construction methods, to make a long-term, sustainable, high-value contribution to city building.

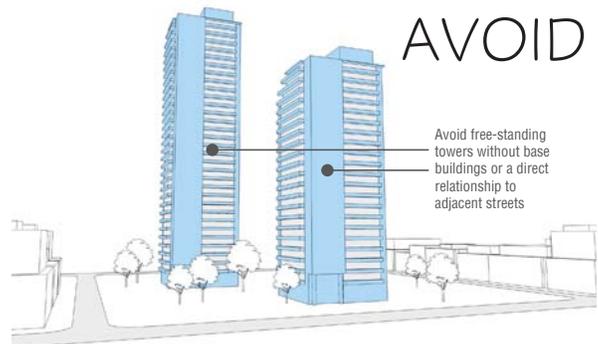


Figure 1: Free-standing towers disrupt the pedestrian-oriented scale, character, and vitality of the street.

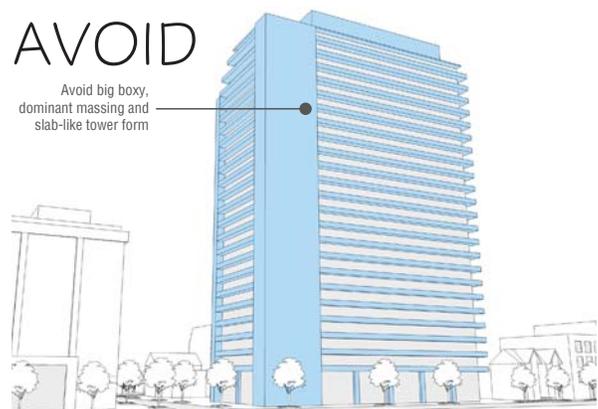


Figure 2: Large, elongated floor plates cast long shadows and create an inappropriate scale at street level.

Official Plan Reference

3.1.3 Built Form – Tall Buildings: Policy 1

GUIDING PRINCIPLES

The Tall Building Design Guidelines do not determine where tall buildings are permitted. Rather, the Guidelines assist with the implementation of Official Plan policy to help ensure that tall buildings, where they are permitted, “fit within their context and minimize their local impacts.”

The Guidelines primarily illustrate how the public realm and built form policy objectives of the Official Plan can be achieved within a tall building development and within the area surrounding a tall building site. The Guidelines provide specific and often measurable directions related to the following guiding principles:

- promote architectural and urban design excellence, sustainability, innovation, longevity, and creative expression with visionary design, high-quality materials, and leading-edge construction methods;
- promote harmonious fit and compatibility with the existing and planned context, emphasizing relationships to lower-scale buildings, parks and open space;
- conserve and integrate adjacent and on-site heritage properties so that new tall buildings are sympathetic to, and compatible with, the heritage property;
- consider relationships to other tall buildings, including the cumulative effect of multiple towers on sunlight, comfort, and quality in the public realm;
- create a safe, comfortable, accessible, vibrant, and attractive public realm and pedestrian environment;
- minimize shadowing and wind impacts, and protect sunlight and sky view, for streets, parks, public and private open space, and neighbouring properties;
- respond appropriately to prominent sites, important views from the public realm, and the shape of the skyline to reinforce the structure and image of the city; and
- ensure high-quality living and working conditions, including access to public and private open space, interior daylighting, natural ventilation, and privacy for building occupants.

DESIGN EXCELLENCE

Tall buildings should reflect design excellence and innovation to acknowledge the important civic role tall buildings play in defining the image and liveability of Toronto. In addition to architectural quality, design excellence should be reflected through the effective use of resources, high-quality materials, innovative and sustainable building design and construction, and through a sensitive and thoughtful response to the impacts that tall buildings place upon the urban landscape.

To assist in achieving design excellence, tall building applications may be subject to the City of Toronto Design Review Panel process. Design Review is an independent process that can help ensure a design that is “fit for purpose” from a property owner’s perspective also makes a suitable response and contribution to the surrounding context and public realm.



Review of a tall building proposal at a Design Review Panel meeting

City Council has designated all growth areas within Toronto as Design Review Districts. Tall building applications in these and other areas experiencing substantial development pressure may be subject to Design Review, particularly if they contain significant public realm impacts either through their location, scale, form or architectural quality.

Given the prominence of tall buildings, the City, development and design industry, and members of the public all have a vital role to play in promoting design excellence. The Design Review Panel process is one important way of contributing to this goal.

SUSTAINABLE DESIGN

Another responsibility of tall buildings is to embrace a heightened awareness of green building innovation and the built form linkages between urban design, architecture, and sustainability. Sustainable design is an approach to developing tall building sites and buildings that is less resource intensive and works to improve the economic, social, and natural environment we live in.

Sustainable design works at two levels in tall buildings. The first level recognizes that tall buildings have a strategic role to play in the economic, social, and environmental sustainability of the City.

Tall buildings, particularly those that contain a mix of uses and are designed to accommodate the changing needs of occupants, can be an effective counter-measure to urban sprawl by encouraging a healthy, pedestrian-oriented lifestyle and promoting better use of transit. Improving the adaptability and flexibility of tall buildings also helps to ensure that these buildings remain functional and capable of addressing any shifts in demographics and market demands over the long term.

The second level of sustainable design is more technical relating to building performance, materials and construction methods, water management, landscaping, and the quality of the internal environment. While the core temperatures of fully glazed tall buildings are typically quite stable and comfortable with very low energy consumption, current popular glazing systems and balcony designs create highly dynamic thermal conditions within the first two metres of the building perimeter. Significant thermal losses and solar heat gain in the perimeter zone must then be offset with extra energy (e.g. mechanical heating/cooling) to create a comfortable and balanced interior environment. This in turn can translate into higher maintenance costs. There are many site and building design measures, including the selection

of more efficient perimeter systems, which can be applied to improve the sustainability and energy performance of tall building developments.

Both the first and second levels of sustainable design should be identified at the project's initial or site planning stage when fundamental design decisions are being made. By following an integrated design process (IDP) and ensuring that all design and construction disciplines are involved early, a tall building can achieve better overall performance results.

Strategies for applying both levels of sustainable design in new tall building development can be considered in the following ways:

- in residential and mixed-use buildings, offer a range of ownership types and unit size choices, including the provision of larger units suitable for families with children;
- design and construct tall buildings for flexibility of use and potential for future change, including versatility in interior design, layout, and construction practices to encourage building longevity and adaptability to potential shifts in demand over time:
 - in base buildings, provide flexible interior spaces to accommodate changing uses, including the transition from residential to commercial uses;
 - in the tower portion, provide conditions to allow residential units to be converted or combined to adjust to changing occupancy requirements;
- incorporate renewable energy systems or district energy where feasible;
- include energy efficiency measures and evaluate energy performance through changes in glazing ratios, building placement, massing, orientation and articulation, balcony design, materials and construction methods;
- incorporate recycled content or reuse building materials and components;
- provide effective lighting and measures for bird-friendly design;
- include opportunities for water collection and reuse;



Tall building green roof

- incorporate pedestrian and cycling infrastructure improvements; and
- include sufficient space and high-quality soil volume for successful shade tree planting, sustainable landscaping, and green roofs

The City of Toronto encourages sustainable design through the Official Plan and the Toronto Green Standard (TGS). The TGS sets out performance measures for tall buildings and sites and specifies strategies that can be used to achieve cost-effective, environmentally, and socially responsible end results. The performance measures are organized under the following categories:



Air Quality



Greenhouse Gas Emissions/Energy Efficiency



Water Quality, Quantity and Efficiency



Ecology



Solid Waste

New tall building applications are required to meet Tier 1 of the Toronto Green Standard (TGS) performance measures. Applicants are required to submit the TGS checklist with their development application. Specific performance measures from the TGS are identified with the above icons for relevant sections of the Submission Requirements for these Guidelines.

HERITAGE CONSERVATION

The City of Toronto values its heritage properties and requires that they be protected and that new development conserve the integrity of their cultural heritage value, attributes, and character, consistent with accepted principles of good heritage conservation (see Appendix A: Heritage Conservation Principles). Not every property is suitable for tall building development as a result of constraints imposed by its size or by the fact that such development may be incompatible with conserving heritage properties on or adjacent to a development site or within a Heritage Conservation District.

Heritage Conservation Districts (HCDs) are special areas dense with heritage properties and a unique historic character. The character and values of HCDs will be conserved to ensure that their significance is not diminished by incremental or sweeping change.

There will also be heritage properties that can work in harmony with new development. In these cases, development should strive for the long term protection, integration, and re-use of heritage properties. Heritage properties should be used to inform the scale and contextual treatment of the new development. If well-designed and sited in appropriate locations, tall buildings can make a positive contribution within historical settings.



James Cooper Mansion

Tall building development proposals containing heritage properties on or adjacent to the development site are required to provide a Heritage Impact Assessment as part of the application review process, to evaluate the impact the proposed development or site alteration will have on the heritage property and to recommend an overall approach to conservation of these resources and mitigate negative impact upon them.

DOWNTOWN STUDY AREA

In response to the tremendous growth and amount of tall building development in Toronto's Downtown, City Council adopted the "Downtown Tall Buildings Vision and Performance Standards Design Guidelines" in July 2012. The Downtown Guidelines identified "where" tall buildings may be appropriate within the Downtown and established a framework to guide the height, form, and contextual relationship between new tall buildings and the surrounding area.

The Downtown Guidelines included: a vision statement for Downtown tall buildings; mapping identifying the location, heights, and building typologies along "High Streets;" and twenty-three

Performance Standards relating to the base conditions, the tower portion of tall buildings, and to contextual fit.

Key objectives behind developing Downtown Tall Building Guidelines included enhancing the pedestrian environment; minimizing shadowing of sidewalks, parks, and public squares; protecting landmark views and heritage resources; and improving the quality of life (access to natural light, sky view, and privacy) for people living and working in the city's core.

Together, the study vision and performance standards were designed to assist with the review of new tall building applications within the Downtown study area boundary, encompassing portions of Wards 20, 27 and 28 as bounded by Bathurst Street on the west, Dupont Street on the north, the Don Valley Parkway on the east and Lake Ontario on the south, (but excluding areas within this boundary that are subject to existing Secondary Plans).

DOWNTOWN TALL BUILDINGS: VISION AND SUPPLEMENTARY DESIGN GUIDELINES

As part of the 2012 approval, City Council directed that the Downtown Guidelines be consolidated with the city-wide Guidelines. The outcome of this consolidation is as follows:

- all Downtown tall building performance standards with city-wide applicability have been integrated into the updated city-wide Tall Building Design Guidelines;
- location-specific aspects of the Downtown Guidelines, namely the Downtown Vision and the Tall Building Typologies with all associated mapping and tables, as well as all area- or site-specific performance standards unique to the Downtown study area, remain as-adopted by Council in a consolidated, companion guideline renamed the "Downtown Tall Buildings: Vision and Supplementary Design Guidelines;" and
- the city-wide Tall Buildings Design Guidelines will be used together with the consolidated "Downtown Tall Buildings: Vision and Supplementary Design Guidelines" to evaluate all new and current tall building development applications falling within the Downtown study area boundary. Secondary Plan Areas within the Downtown study area boundary continue to be excluded from the Downtown Supplementary Design Guidelines.

As a result of this consolidation, the updated Tall Building Design Guidelines contained herein establish a unified set of performance measures for the evaluation of all tall building development applications city-wide, including all areas within the Downtown.

The consolidated and renamed "Downtown Tall Buildings: Vision and Supplementary Design Guidelines," is now a chapter within the Council-approved District- or Area- Based Urban Design Guidelines.

For convenience purposes, cross-references to the Downtown Supplementary Design Guidelines are listed within the Related Standards, Guidelines & Studies at the bottom of relevant sections within these Guidelines and within a summary table in Appendix B.

ORGANIZATION OF THE GUIDELINES

The Tall Building Design Guidelines are organized into the following sections:

	Introduction
	1.0 Site Context
	2.0 Site Organization
	3.0 Tall Building Design
	4.0 Pedestrian Realm
	Glossary; References; Submission Requirements; and Appendices

Individual design guidelines with supporting illustrations, photos, rationales, and related references, such as to Official Plan policies, TGS performance measures, and the Downtown Tall Buildings Supplementary Design Guidelines, are provided for each aspect of tall building development identified within sections 1.0 through 4.0. These sections provide an easy to follow workbook, which is concluded by a supporting framework of related Submission Requirements to help lead applicants, City staff and others through an effective tall building development review process.

A brief overview of principle guideline statements contained in sections 1.0 through 4.0.

1.0 SITE CONTEXT

1.1 Context Analysis

Evaluate the existing and planned context and demonstrate how the proposed tall building responds to the patterns, opportunities, and challenges within the surrounding area.

1.2 Master Plan for Larger Sites

Coordinate the development of larger sites with potential for multiple tall buildings, new internal streets, or parks through a Master Plan.

1.3 Fit and Transition in Scale

Ensure tall buildings fit within the existing or planned context and provide an appropriate transition in scale down to lower-scaled buildings, parks, and open space.

1.4 Sunlight and Sky View

Locate and design tall buildings to protect access to sunlight and sky view within the surrounding context of streets, parks, public and private open space, and other shadow sensitive areas.

1.5 Prominent Sites and Views from the Public Realm

Provide an appropriate, high-quality design response for tall buildings on or adjacent to prominent sites, and when framing views from the public realm to prominent sites.

1.6 Heritage Properties and Heritage Conservation Districts

Locate and design tall buildings to respect and complement the scale, character, form and setting of on-site and adjacent heritage properties and Heritage Conservation Districts (HCDs).

2.0 SITE ORGANIZATION

2.1 Building Placement

Locate the base of tall buildings to frame the edges of streets, parks, and open space, reinforce corners, and to fit harmoniously within the existing context.

2.2 Building Address and Entrances

Organize tall buildings to use existing or new public streets for address and building entrances.

Ensure primary building entrances front onto public streets, are well-defined, clearly visible, and universally accessible from the adjacent public sidewalk.

2.3 Site Servicing, Access and Parking

Locate “back of house” activities, such as loading, servicing, utilities, and vehicle parking, underground or within the building mass, away from the public realm and public view.

2.4 Publically Accessible Open Space

Provide grade-related, publically accessible open space within the tall building site to complement, connect, and extend the existing network of public streets, parks, and open space.

2.5 Private Open Space

Provide a range of high-quality, comfortable private and shared outdoor amenity space throughout the tall building site.

2.6 Pedestrian and Cycling Connections

Provide comfortable, safe, and accessible pedestrian and cycling routes through and around the tall building site to connect with adjacent routes, streets, parks, open space, and other priority destinations, such as transit and underground concourses.

2.7 Public Art

Pursue public art opportunities and funding strategies on tall building sites, or adjacent public lands, to enhance the quality of the development, the public realm, and the city.

3.0 TALL BUILDING DESIGN

3.1 Base Building

3.2 Middle (Tower)

3.3 Tower Top

3.1 BASE BUILDING

3.1.1 Base Building Scale and Height

Design the base building to fit harmoniously within the existing context of neighbouring building heights at the street and to respect the scale and proportion of adjacent streets, parks, and public or private open space.

3.1.2 Street Animation

Line the base building with active, grade-related uses to promote a safe and animated public realm.

3.1.3 First Floor Height

Provide a minimum first floor height of 4.5 metres, measured floor-to-floor from average grade.

3.1.4 Façade Articulation and Transparency

Articulate the base building with high-quality materials and design elements that fit with neighbouring buildings and contribute to a pedestrian scale.

Provide clear, unobstructed views into and out from ground floor uses facing the public realm.

3.1.5 Public-Private Transition

Design the base building and adjacent setback to promote an appropriate level of visual and physical access and overlook reflecting the nature of building use at grade.

3.2 MIDDLE (TOWER)

3.2.1 Floor Plate Size and Shape

Limit the tower floor plate to 750 square metres or less per floor, including all built area within the building, but excluding balconies.

3.2.2 Tower Placement

Place towers away from streets, parks, open space, and neighbouring properties to reduce visual and physical impacts of the tower and allow the base building to be the primary defining element for the site and adjacent public realm.

3.2.3 Separation Distances

Setback tall building towers 12.5 metres or greater from the side and rear property lines or centre line of an abutting lane.

Provide separation distance between towers on the same site of 25 metres or greater, measured from the exterior wall of the buildings, excluding balconies.

Implementation of Tower Separation Distances: Small Sites

On small sites, apply the recommended minimum tower setbacks and stepbacks to determine the resultant floor plate size and feasibility of the site dimensions to accommodate a tall building.

3.2.4 Tower Orientation and Articulation

Organize and articulate tall building towers to promote design excellence, innovation, and sustainability.

3.2.5 Balconies

Design balconies to maximize usability, comfort, and building performance, while minimizing negative impacts on the building mass, public realm, and natural environment.

3.3 TOWER TOP

3.3 Tower Top

Design the top of tall buildings to make an appropriate contribution to the quality and character of the city skyline.

Balance the use of decorative lighting with energy efficiency objectives, the protection of migratory birds, and the management of artificial sky glow.

4.0 THE PEDESTRIAN REALM

4.1 Streetscape and Landscape Design

Provide high-quality, sustainable streetscape and landscape design between the tall building and adjacent streets, parks, and open space.

4.2 Sidewalk Zone

Provide adequate space between the front of the building and adjacent street curbs to safely and comfortably accommodate pedestrian movement, streetscape elements, and activities related to the uses at grade.

4.3 Pedestrian Level Wind Effects

Locate, orient, and design tall buildings to promote air circulation and natural ventilation, yet minimize adverse wind conditions on adjacent streets, parks and open space, at building entrances, and in public and private outdoor amenity areas.

4.4 Pedestrian Weather Protection

Ensure weather protection elements, such as overhangs and canopies, are well-integrated into building design, carefully designed and scaled to support the street, and positioned to maximize function and pedestrian comfort.

HOW AND WHERE THE GUIDELINES APPLY

- i. The Tall Building Design Guidelines apply to the design, review, and approval of all new and current tall building development in Toronto. The Guidelines have city-wide applicability and will normally apply to the evaluation of tall building proposals and design alternatives in Official Plan Amendments, Zoning By-law Amendments, Plans of Subdivision, and Site Plan Control applications.
- ii. The Tall Buildings Design Guidelines apply together with the consolidated "Downtown Tall Buildings: Vision and Supplementary Design Guidelines" to evaluate all new and current tall building development applications within the Downtown study area boundary. Secondary Plan Areas within the Downtown study area boundary continue to be excluded from the Downtown Supplementary Design Guidelines.
- iii. The Guidelines are intended to be read together with the Official Plan, applicable Zoning By-Laws, Secondary Plans and Heritage Conservation District Plans, the Toronto Green Standard (TGS), the Toronto Development Guide, as well as all other applicable City policies, standards, guidelines, and requirements.

While there are no perceived conflicts between any pre-existing City Council-adopted policies, standards or guidelines, should conflict arise, the more restrictive or prescriptive of these measures will prevail. In all cases, Official Plan and Heritage Conservation District Plan policies prevail over guideline measures or requirements.

- iv. The Guidelines are intended to provide a degree of certainty and clarity of common interpretation, however, as guidelines, they should also be afforded some flexibility in application, particularly when looked at cumulatively.

The Guidelines are not intended to be applied or interpreted independently of each other. Rather, each guideline requirement should be weighed across the board with the other guidelines and "work together" to determine whether a tall building development application has successfully met the overall intent of these Guidelines and the Official Plan.

- v. In considering whether to permit a tall building on a site-by-site basis, many other planning issues must first be taken into account, including, but not limited to, the site context and availability of adequate infrastructure, public transit, parks, community and cultural services and facilities, schools, and child care facilities. If it is determined that a tall building is supportable, and represents "good planning," these Guidelines will then apply.
- vi. The Guidelines are an evolving "living" document which may be revised, from time to time, to reflect new findings or study recommendations that have an impact on the effective evaluation of tall building applications.

1.0 SITE CONTEXT

- 1.1 Context Analysis
- 1.2 Master Plan for Larger Sites
- 1.3 Fit and Transition in Scale
- 1.4 Sunlight and Sky View
- 1.5 Prominent Sites and Views from the Public Realm
- 1.6 Heritage Properties and Heritage Conservation Districts

1.1 CONTEXT ANALYSIS

Evaluate the existing and planned context and demonstrate how the proposed tall building responds to the patterns, opportunities, and challenges within the surrounding area.

- a. As part of the Planning Rationale, include a “Walkable” context analysis, showing the tall building proposal, and illustrating through text and graphics at an appropriate scale:
 - 250m and 500m “walkability” radii from the site;
 - planning area boundaries (e.g. secondary plans);
 - land uses and designations;
 - major streets and blocks (patterns, size, location);
 - pedestrian/cycling routes and connections;
 - transit routes, stations, and stops (including distance to rapid transit nodes);
 - open space networks (parks, open space, natural features);
 - existing or potential heritage properties and Heritage Conservation Districts;
 - area amenities and destinations (community centres, trails, libraries, schools, retail areas, etc.);
 - topographical information (where significant).
- b. As part of the Planning Rationale, include a “Block” context analysis, showing the tall building proposal and illustrating through text and graphics at an appropriate scale:
 - size of blocks and arrangement of parcels or lots;
 - location, size, and organization of public streets, laneways, sidewalks, transit stops, and other pedestrian or cycling routes and connections;
 - location and size of parks and open space;
 - adjacent and on-site heritage properties;
 - important or identified views from the public realm;
 - existing and planned building footprints;
 - ground floor uses, setback patterns, and general location of building entrances, street trees and site circulation/ servicing on adjacent sites and blocks;
 - existing and planned building heights, including the height of context buildings, other tall building towers and base buildings, to demonstrate how the proposed tall building relates to surrounding buildings, particularly within the same block and across streets and open space (see also 1.3 Fit and Transition in Scale and 3.2.3 Separation Distances).

RATIONALE

Context refers to the setting of a development, including both the existing physical surroundings and the planned vision for the future of an area. The intent of the context analysis is to identify patterns, opportunities, and challenges, and demonstrate how the proposed tall building will fit with and respond appropriately to the surrounding area.

The context analysis should inform many key design decisions, including the placement, height and character of base buildings, the location, shape, general height, and spacing of towers, as well as the relationship in scale between tall building components and to neighbours.

The context analysis may also be used to determine what amenities and community facilities are present and which ones may need to be provided around or within the tall building site to achieve a high-quality living and working environment. Important considerations may include public open space, community centres, schools, grocers and markets, other active commercial uses, community energy systems, transit, cycling and pedestrian connections, generous sidewalks, and street trees.

A 500 metre radius is a generally accepted measure for “walkability” and is roughly equivalent to a 10 minute walk. The intent of the context analysis at a “walkable” scale is to demonstrate how the proposed tall building development reinforces existing or planned built form patterns, responds appropriately to changes in land use and scale, and makes connections to important area amenities, such as transit, public open space, and living and working destinations.

The block scale analysis allows for a closer examination of the immediate context, including buildings on the same block and across the street on adjacent blocks. This analysis should evaluate setback patterns, building heights, proximity to open space, ground floor uses, relationship to other tall

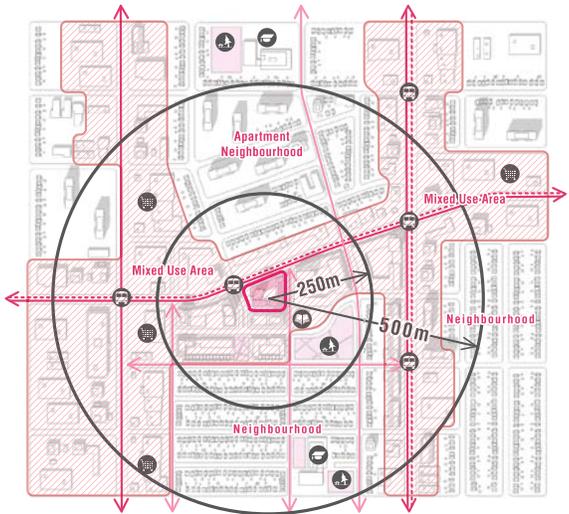


Figure 1: A conceptual “Walkable” context analysis within a 500 metre radius of the tall building site.

- Property Line
- ▶ Main Building Entrance
- ▷ Commercial/Retail Entrance
- Existing Heritage Properties
- Existing Commercial Frontage
- Proposed Commercial Frontage
- Proposed Development Site

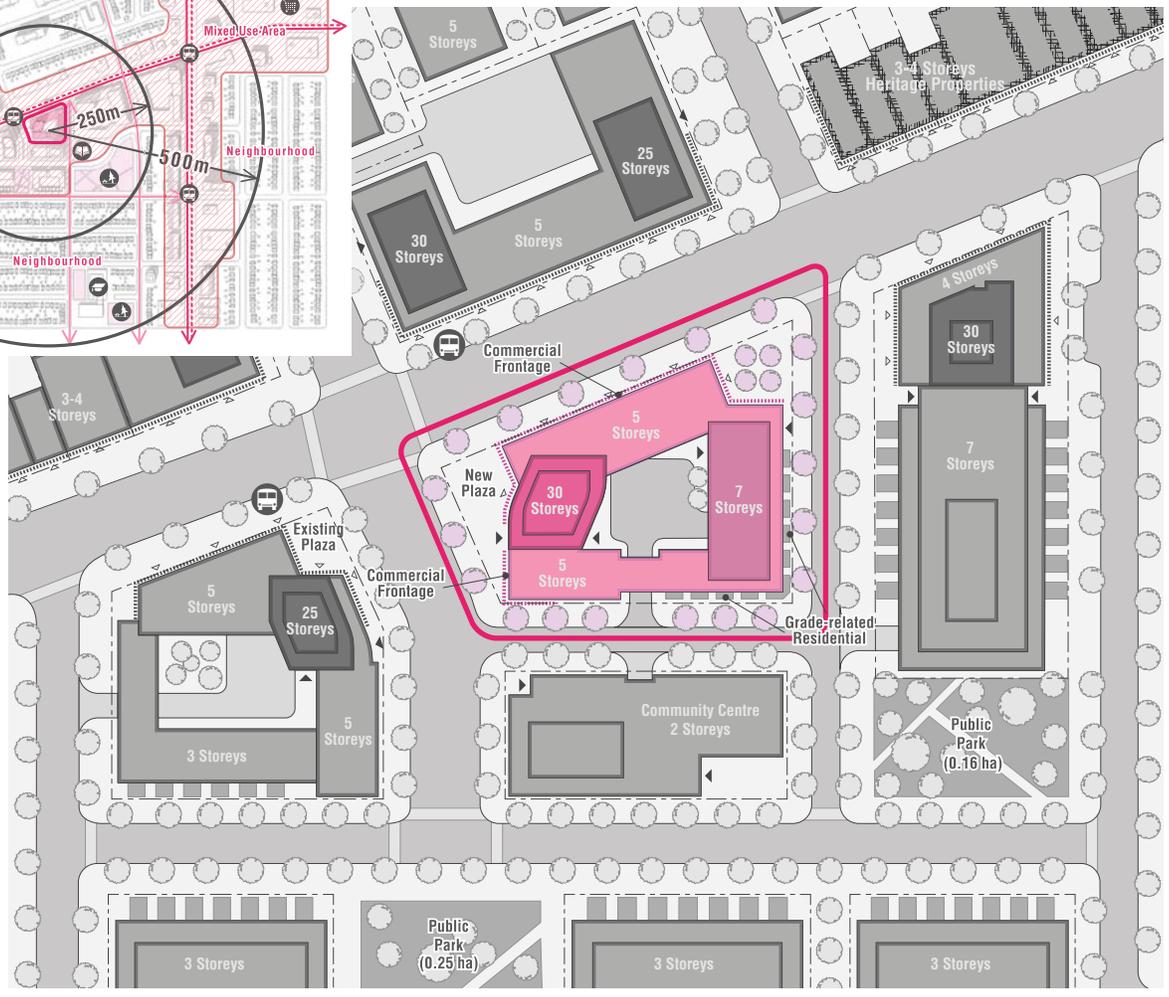


Figure 2: A conceptual “Block” context analysis for the blocks immediately adjacent to the proposed tall building site.

buildings, and the arrangement of driveways, sidewalks, and street trees. The block scale context analysis should inform site organization, open space allocation, building massing, placement, ground floor uses, and the design and character of the public realm.

An important step in the “Block” context analysis is to evaluate the relationship between the proposed development and the heights of other buildings in the surrounding area. The intent of this analysis is to coordinate the proposed tall building with the location, height, scale, and spacing of existing or approved

buildings, and in particular other tall buildings on the same or adjacent blocks.

Flexibility in the scope of the context analysis, as well as the size and shape of the 500 metre and 250 metre “walkability” radii is encouraged to address localized conditions, such as natural or physical barriers (ravines, railways, highways, etc.), planning boundaries, important destinations, community facilities, transportation nodes, changes in land use, and the overall size of the tall building site.

Official Plan Reference

- 3.1.2 Built Form: Policy 1 | 3.1.3 Built Form - Tall Buildings: Policy 2b, 2c and 2d | 3.1.5 Heritage Resources |
- 3.3 Building New Neighbourhoods: Policy 1, 2, and 3 | 5.1.3 Site Plan Control: Policy 2

1.2 MASTER PLAN FOR LARGER SITES

Coordinate the development of larger sites with potential for multiple tall buildings, new internal streets, or parks through a Master Plan.

- a. As part of the Planning Rationale, provide a Master Plan for Larger Sites, which includes:
 - 250m and 500m "walkability" radii and relevant site context (see also 1.1 Context Analysis);
 - general layout and dimensions of new streets, blocks, parks, and public or private open space;
 - perspective(s) showing important views and the shape of the skyline;
 - existing or potential heritage properties and Heritage Conservation Districts to be conserved;
 - size and dimensions of development parcels; and
 - a phasing plan, schedule, and interim landscape plan.
- b. For each development parcel within a Master Plan, include:
 - general location of base buildings and tower footprints;
 - setbacks between buildings and from streets, parks, and open space;
 - proposed building heights and separation distances between proposed towers;
 - location of site servicing, vehicular circulation, and major utility connections including shared systems such as district/community energy;
 - pedestrian and cycling connections through and around the tall building sites; and
 - a landscape concept plan.

RATIONALE

A Master Plan provides a planning and design framework to guide the incremental development of large or complex areas with multiple tall buildings, new streets, or parks. This Plan should provide a vision for the development of the entire site area, including how new buildings, streets, blocks, pedestrian and cycling routes, parks, and publically accessible and private open spaces will fit within the existing and planned context.

A Master Plan for Larger Sites is required for developments having any one or more of the following characteristics:

- requiring new streets or parks;
- proposing multiple tall buildings;
- containing two or more construction phases;
- using shared servicing; and/or
- covering a site area larger than 2.0 hectares.

Preparing a Master Plan for Larger Sites can offer certain planning and design advantages, including the ability to:

- coordinate servicing, parking access, and utilities to maximize efficiency and minimize negative impacts on neighbouring properties and the public realm;
- accommodate an appropriate transition in scale to areas of different intensity, including stepping down to lower scale buildings and properties;

- define new and existing streets, parks, and open spaces at an appropriate scale;
- achieve generous spatial separation between tall building towers, particularly if clustered within a block or on adjacent blocks;
- locate and orient buildings, parks, and open space to maximize sunlight access, sky view, and energy efficiency;
- provide a mix of open space and building types, and a diverse range of housing options and affordability;
- effectively conserve on-site heritage buildings, structures, and landscapes, adjacent heritage properties, Heritage Conservation Districts, and identified heritage views from the public realm; and
- shape the skyline and vary the built form, sky view, and massing in a comprehensive way to reinforce the city structure.

A Master Plan may not be required if there is a Secondary Plan that applies to the site, with associated Context or Precinct Plans that include comparable information and detail.

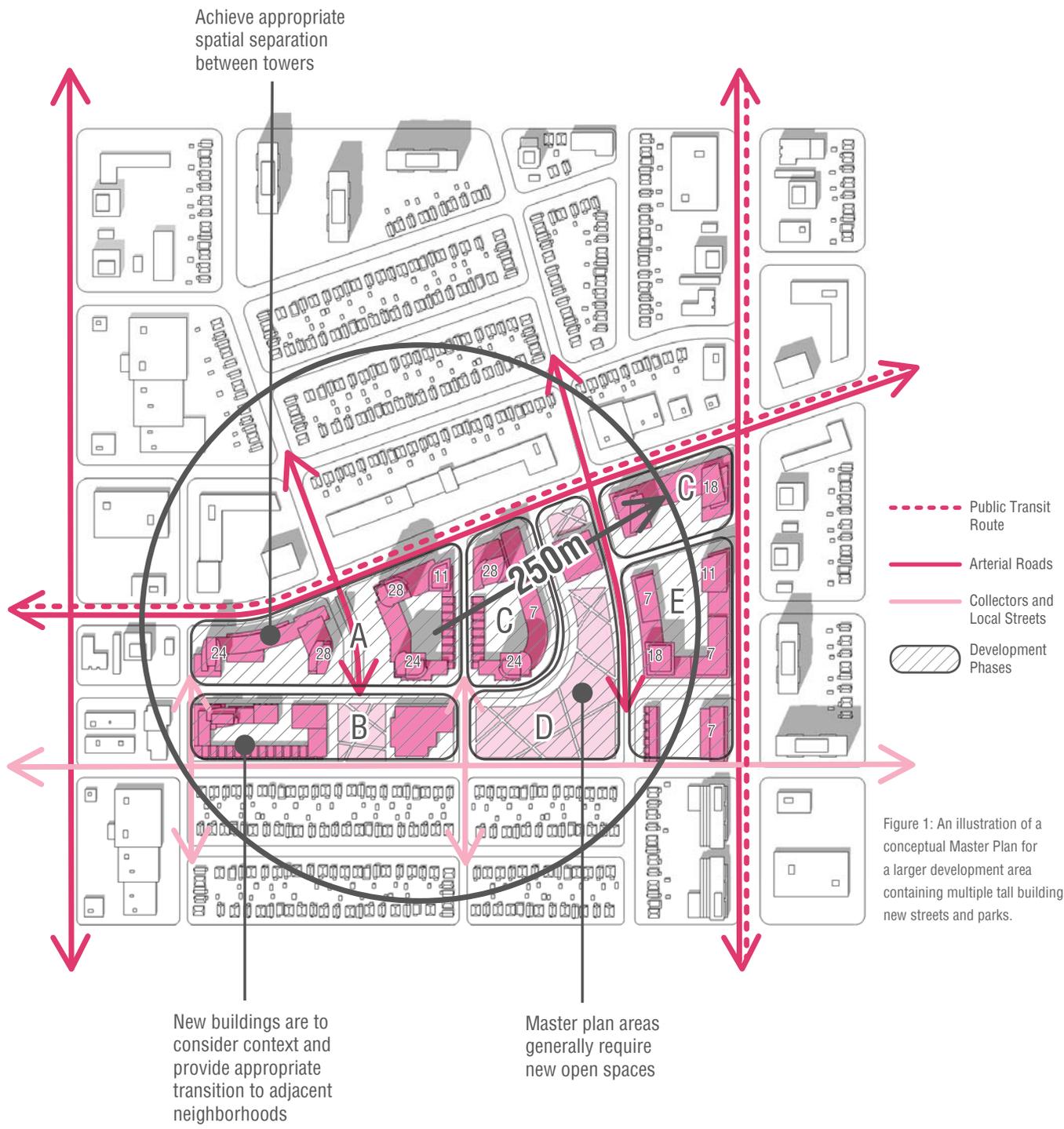


Figure 1: An illustration of a conceptual Master Plan for a larger development area containing multiple tall buildings, new streets and parks.

Official Plan Reference

- 3.1.1 The Public Realm: Policy 13 to 18 | 3.1.3 Built Form - Tall Buildings: Policy 2b, 2c, 2d and 2e | 3.1.5 Heritage Resources |
- 3.2.1 Housing: Policy 9a | 3.2.2 Community Services and Facilities: Policy 5 and 6 | 3.2.3 Parks and Open Space: Policy 1 |
- 3.3 Building New Neighbourhoods: Policy 1, 2, and 3 | 3.4 The Natural Environment: Policy 20

1.3 FIT AND TRANSITION IN SCALE

Ensure tall buildings fit within the existing or planned context and provide an appropriate transition in scale down to lower-scaled buildings, parks, and open space.

- a. Apply angular planes, minimum horizontal separation distances, and other building envelope controls (such as stepping height limits, building setbacks and stepbacks), to transition from tall buildings down to lower-scale buildings and to maintain access to sunlight and sky view for surrounding streets, parks, public or private open space, and neighbouring properties.
- b. At the broader district or city scale, encourage fit and transition in scale in the following ways:
 - when a tall building or group of tall buildings is proposed within an identified growth area, design towers nearer to the edge of the growth area to be progressively lower in height than those in the “centre” – the location of greatest intensity and highest order transit;
 - when a tall building or group of tall buildings is proposed on a site surrounded by other tall buildings of consistent height, relate the height and scale of the proposed tower to the existing context.
- c. At the site scale, promote fit and transition in scale between tall buildings and lower-scaled buildings, parks and open spaces on the block or across the street by:
 - accommodating all aspects of fit and transition within the tall building development site (see figures 1 to 4);
 - including base buildings that relate directly to the height and typology of the existing or planned streetwall context (see also 3.1.1 Base Building Scale and Height);
 - on larger sites, providing lower-scale buildings or open space to achieve horizontal separation distance.
- d. Appropriate fit and transition in scale may mean that not all sites are suitable for tall buildings, or that the existing or approved massing and scale of a tall building on one site can be applied or used as a reference point for redeveloping a neighbouring site (see also 3.2.3 Separation Distances).

RATIONALE

Tall buildings should respect the scale of the local context and display an appropriate transition in height and intensity especially when adjacent to areas of differing land use, lower-scale built form, and heritage properties.

In general, appropriate fit and transition is achieved when tall buildings respect and integrate with the height, scale and character of neighbouring buildings, reinforce the broader city structure, provide horizontal separation and transition down to lower-scale buildings and open space, and maintain access to sunlight and sky view for surrounding streets, parks, public or private open space, and neighbouring properties.

Figures 1 through 4 illustrate typical scenarios of tall building fit and transition. The actual design approach and methods used

to achieve appropriate fit and transition will be determined on a site-by-site basis and may vary according to the:

- regulatory framework (e.g. Secondary Plans);
- existing and planned context;
- size of the development site;
- planned intensity of use and scale of development;
- proximity and scale of adjacent built form;
- location or size of adjacent streets, parks and open space;
- potential impact on privacy, daylight, sky view, sunlight/shadow for the public realm and neighbouring properties;
- potential impact on heritage properties and/or Heritage Conservation Districts;
- potential impact on identified important views from the public realm; and
- environmental sensitivity of adjacent natural features (woodlots, ravines, etc.).

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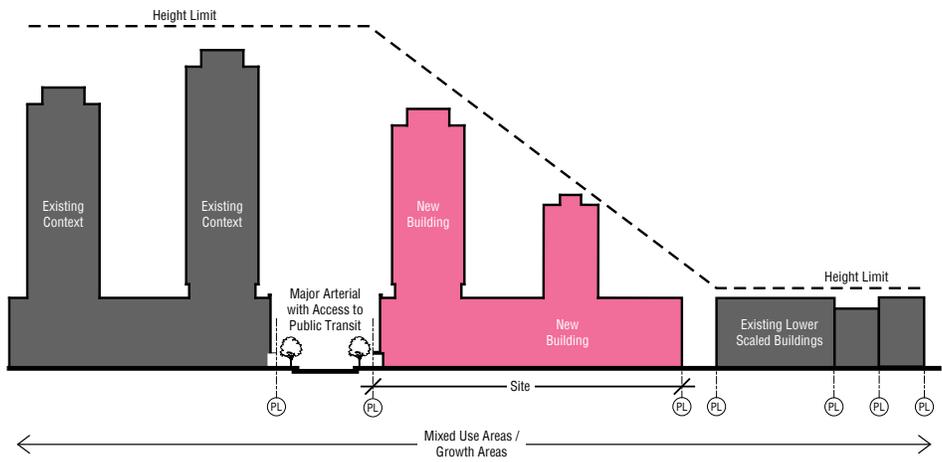


Figure 1: A conceptual illustration of a progressive transition in the height and scale of tall buildings from the centre of a growth area down to a lower-scale area.

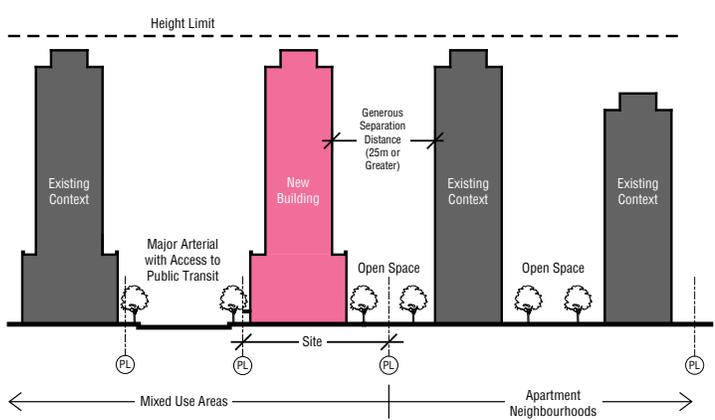


Figure 2: A conceptual illustration of a new tall building fitting within an existing context of other tall buildings of consistent height.

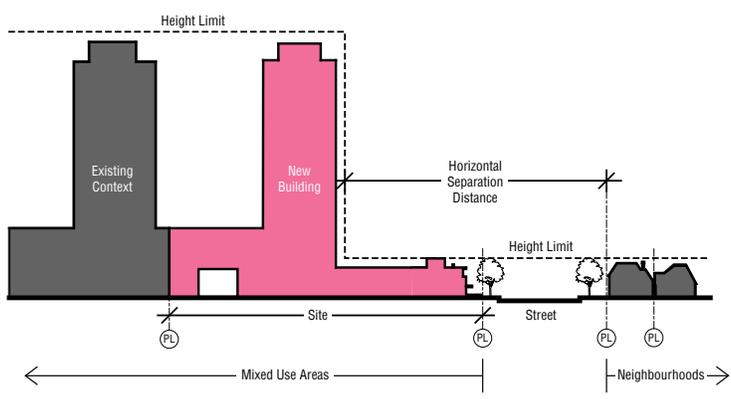


Figure 3: A conceptual illustration of horizontal separation distance and a change in base building height and form to support tall building transition down to a lower-scale area.

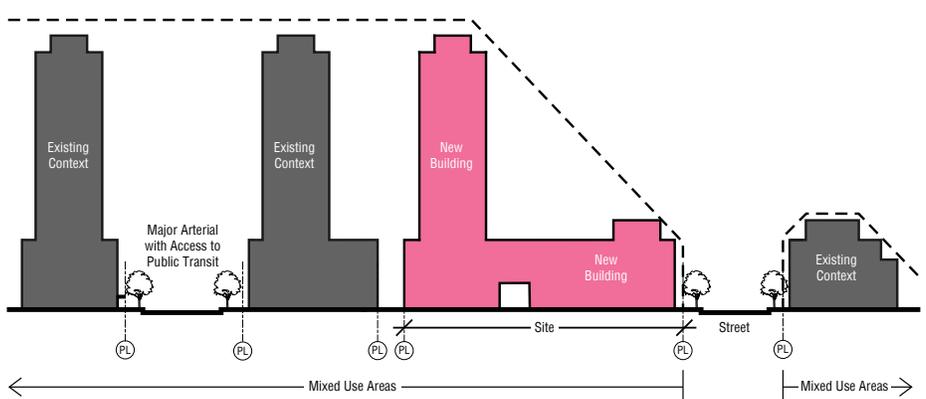


Figure 4: A conceptual illustration of an angular plane and direct relationship in base building height and form to support tall building transition down to a lower-scale area.

1.3 FIT AND TRANSITION IN SCALE CONT...

RATIONALE cont.

Angular Planes

Angular planes are a commonly applied measure:

- to provide transition in scale from tall buildings down to lower scale areas, limiting shadow and overlook on neighbouring properties that are lower scale, and limiting shadow and loss of sky view on adjacent streets and open space (see Figures 1 and 4); or
- to protect access to sunlight and sky view for streets, parks, public and private open space (see Figure 4 and 1.4 Sunlight and Sky View and 3.2.1 Base Building Scale and Height).

Unless otherwise specified in a Secondary Plan or other City-approved policy, standard, guideline, or study which would apply to a specific site, a 45 degree angular plane, measured from the relevant property line(s), is typically used to provide transition in scale from growth areas/tall building developments down to lower scale areas, such as stable residential Neighbourhoods.

Official Plan Reference

2.3.1 Healthy Neighbourhoods: Policy 2a, 2b, 2c and 3 | 3.1.2 Built Form: Policy 3 and 4 | 3.1.5 Heritage Resources |
 3.3 Building New Neighbourhoods: Policy 3b | 4.2 Apartment Neighbourhoods: Policy 2a, 2b and 3d |
 4.5 Mixed Use Areas: Policy 2c and 2d

Related Standards, Guidelines & Studies

Downtown Tall Buildings: Vision and Supplementary Design Guidelines, #1

1.4 SUNLIGHT AND SKY VIEW

Locate and design tall buildings to protect access to sunlight and sky view within the surrounding context of streets, parks, public and private open space, and other shadow sensitive areas.



Figure 1: Tall buildings designed to protect sunlight and sky view in a public park.

- a. Evaluate alternative placement and massing concepts for individual tall building sites at the scale of the block to secure the greatest amount of sunlight and sky view in the surrounding context. Consider the following:
 - limit the scale and height of the base building to appropriately frame the public realm, while maintaining access to at least 5 hours of sunlight on the opposite side of the street at the equinoxes (see also 3.1.1 Base Building Scale and Height);
 - provide slender, point towers with generous separation distances, and limit or vary the height of towers, to retain sky view between buildings and reduce the size of shadows and length of time they are cast on a particular area (see also 3.2 Middle (Tower)). Consider the cumulative effect of multiple towers on resulting shadowing.
- b. Through a Sun/Shadow Study, demonstrate how the proposed tall building protects access to sunlight and seeks to minimize any additional shadowing of parks and natural areas, such as ravines.

A Natural Heritage Impact Study may be required to evaluate sun/shadow impacts on natural areas.
- c. Through a Sun/Shadow Study, demonstrate how the proposed tall building protects access to sunlight and seeks to adequately limit shadowing of neighbouring streets, properties, and open space, including shadow sensitive areas such as schoolyards, play fields, and cemeteries.
- d. Additional shadow and sky view protection may be required for a particular street, park, open space, natural area, heritage property, Heritage Conservation District, or other shadow sensitive area on a site-specific basis.

RATIONALE

Access to direct sunlight improves the usability and enjoyment of outdoor spaces and allows trees and vegetation to thrive. Tall buildings can adversely affect the environmental quality of surrounding areas through the loss of sky view and by the overshadowing of adjacent streets, parks, and public or private open spaces.

Sky view is the measurable amount of sky seen from a street, park, or other open space above and in between building masses. Loss of sky view reduces access to light, which affects the comfort, quality, and use of the public realm.

Toronto's climate is one of extremes, characterized by hot, humid summers, and cold, grey, damp winters. In summer, shade from trees and light breezes make the public realm more comfortable. In the shoulder seasons, spring and fall, access to direct sunlight and shelter from the wind become very important to improve the comfort, usability, and enjoyment of outdoor spaces. Required Sun/Shadow studies focus on the equinoxes – March 21 and September 21 – to emphasize the importance of access to sunlight during these seasons. The review of other times of day and other seasons may be required depending on the type and shadow sensitivity of adjacent uses.

For tall buildings, protecting sky view and access to sunlight is generally achieved through good street proportion, overall massing, generous tower setbacks and separation distances.

Official Plan Reference

- 3.1.2 Built Form: Policy 3d, 3e, 3f, and 4
- 3.2.3 Parks and Open Space: Policy 3

Related Standards, Guidelines & Studies

Downtown Tall Buildings: Vision and Supplementary Design Guidelines, #2 and #3 | Sun, Wind and Pedestrian Comfort: A Study of Toronto's Central Area

1.5 PROMINENT SITES AND VIEWS FROM THE PUBLIC REALM

Provide an appropriate, high-quality design response for tall buildings on or adjacent to prominent sites, and when framing views from the public realm to prominent sites.

- Locate and design tall buildings on or adjacent to prominent sites to appropriately frame or terminate visual axes. A view terminus is not always justification to locate or emphasize a tall building tower.
- When a tall building will frame an important view from the public realm, evaluate the proposed site organization, building placement, heights, setbacks, stepbacks, massing, and site landscaping to ensure that the view is maintained, and where possible, enhanced. In the case of identified heritage views, locate and design tall buildings to preserve these views unobstructed (see also 1.6 Heritage Properties).
- Where possible and appropriate, organize the tall building site and building massing to create or extend views from the public realm to important natural and human-made features, such as prominent buildings, structures, landscapes, and natural features, including ravines and Lake Ontario.

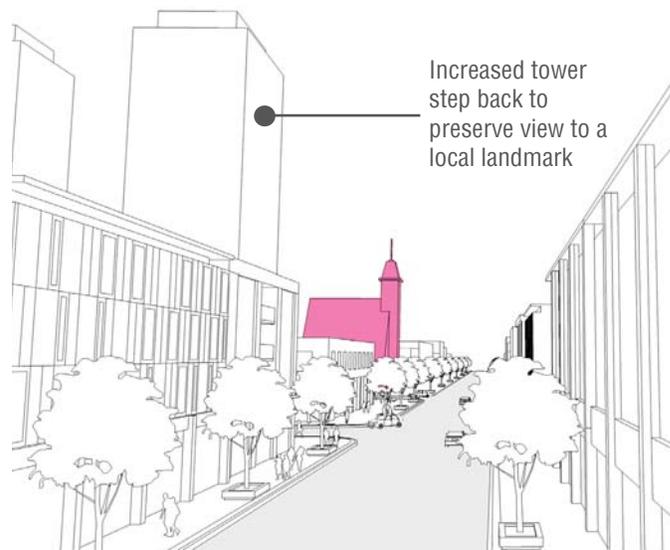


Figure 1: The tall building steps back to protect an important view from the public realm.

RATIONALE

Certain sites within the City are more prominent than others. The role of a tall building should vary depending on whether it is on a prominent site, adjacent to a prominent site, framing a view from the public realm to a prominent site, or none of the above and simply part of the overall city fabric.

Not all tall building sites are considered prominent. Furthermore, prominent sites neither require tall buildings to make them special, nor are they justification for a tall building or an additional increase in height. The merits of a site will be reviewed and determined during the preliminary planning application stages.

Sites identified as “prominent” may include:

- a street or view corridor terminus;
- a major intersection and high-order transit node;

- key locations viewed from bridges or highways, or framing views to or from important public open spaces or natural features, such as ravines, river valleys, Lake Ontario, and the Lake Iroquois shoreline; or
- other unique places within the structure of the City.

When a tall building is proposed on a prominent site, the design and placement of the building and surrounding landscape should respond to the heightened level of importance within the City structure. Well-designed tall buildings on prominent sites can become recognizable landmarks, providing points of orientation and visual interest within the City.

When a tall building frames a view from the public realm to a prominent site or other important natural or human-made feature, the design and placement of the tall building should

respond in a supporting role to those sites and features which are important and prominent. In the case of identified heritage views, the location and design of tall buildings will preserve these views unobstructed. A Heritage Impact Assessment may be required to inform this evaluation.

In order to determine how the design and placement of the tall building may best support views from the public realm to prominent sites and other important natural and human-made features, it is necessary to understand the character of the view, and what is important within it.

Considerations for views from the public realm may include:

- is the view of or including heritage properties?
- is the view short or long?
- is the view framed by buildings, landscaped setbacks, open spaces, or a natural setting?
- is the foreground, background, and/or silhouette, important to the integrity or clarity of what is being viewed?
- is the view dynamic and anticipated to transform over time, or is it expected to be maintained and enhanced in its current state?

Most often tall buildings will play a secondary role to what is being viewed. For example, the design and placement of the base building, tower and open spaces work together to open up or better frame the view. Less frequently, tall buildings may be an integral part of shaping what is being viewed, such as with skylines.

In all instances where it is considered appropriate to include tall buildings in the vicinity of an identified public view, the addition must be coordinated and appear well-integrated with the overall composition of the view.

Official Plan Reference

2.3.2 Toronto's Green Space System and Waterfront: Policy 7b |

3.1.1 The Public Realm: Policy 3, 8a, 8b, 9, and 10 |

3.1.2 Built Form: Policy 1a | 3.1.5 Heritage Resources

Related Standards, Guidelines & Studies

Downtown Tall Buildings: Vision and Supplementary Design Guidelines, #4 | Parks Canada: Standards and Guidelines for the Conservation of Historic Places in Canada

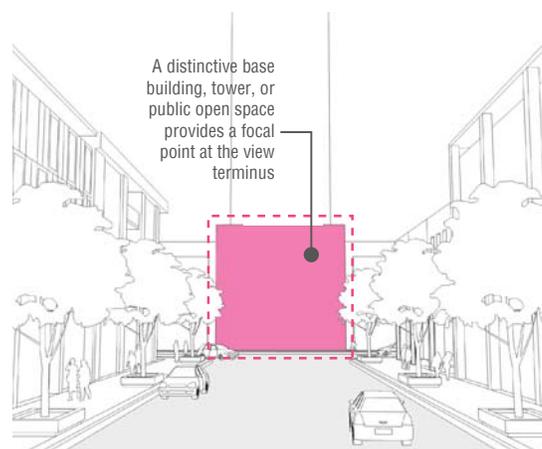


Figure 2: A prominent site at a view terminus.

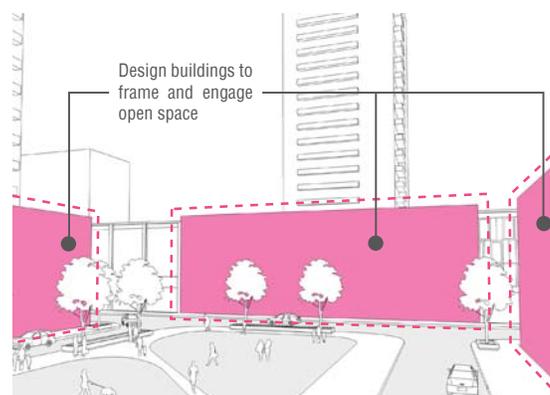


Figure 3: Prominent sites framing an important public open space.

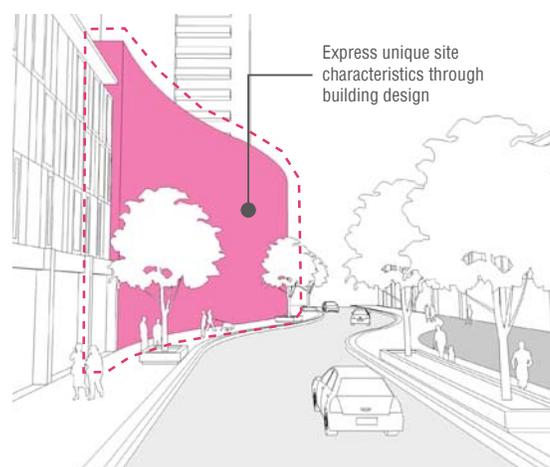


Figure 4: A prominent site at a unique location in the City structure.

1.6 HERITAGE PROPERTIES AND HERITAGE CONSERVATION DISTRICTS

Locate and design tall buildings to respect and complement the scale, character, form and setting of on-site and adjacent heritage properties and Heritage Conservation Districts (HCDs).

- a. Conserve and integrate heritage properties into tall building developments in a manner that is consistent with accepted principles of good heritage conservation (see Appendix A: Heritage Conservation Principles). Tall building proposals with adjacent or on-site heritage properties or within an HCD are required to provide a Heritage Impact Assessment as part of a complete application.
- b. Conserve the integrity of the cultural heritage values, attributes, character, and three-dimensional form of an on-site heritage building or structure or property within an HCD. Façade retention alone is not an acceptable method of heritage preservation.
- c. When a tall building is adjacent to a lower-scale heritage property:
 - design new base buildings to respect the urban grain, scale, setbacks, proportions, visual relationships, topography, and materials of the historic context;
 - integrate the existing heritage character into the base building through high-quality, contemporary design cues;
 - provide additional tall building setbacks, stepbacks, and other appropriate placement or design measures to respect the heritage setting (see also 1.5 Prominent Sites and Views from the Public Realm); and
 - ensure consistency with applicable HCD Plan requirements.
- d. Tall buildings will not visually impede the setting of properties on the heritage register. The objective for the long-term preservation, integration, and re-use of heritage properties may mean that not all sites with or adjacent to heritage properties are appropriate for tall building development.



Figure 1: New base buildings with contemporary expression relate to the heritage buildings preserved on-site.



Figure 2: The historic streetwall context is respected with a generous tower stepback and referenced through an appropriately scaled and articulated base building.

RATIONALE

The City of Toronto values its heritage properties and Heritage Conservation Districts (HCDs) and requires that they be protected and, where appropriate, integrated into new development in a manner that is consistent with accepted principles of good heritage conservation (see Appendix A: Heritage Conservation Principles).

There may be instances where conservation principles outweigh the goals of intensification and redevelopment, and may limit the construction of tall buildings or require additional “breathing space” to preserve the integrity of an HCD, heritage property, or specific attributes. In locations where tall buildings are considered appropriate, heritage properties should be referenced to inform the scale and contextual treatment of the new development. If well-designed and appropriately sited, tall buildings can make a positive contribution to an historical setting.

Official Plan Reference

3.1.5 Heritage Resources

Related Standards, Guidelines & Studies

Downtown Tall Buildings: Vision and Supplementary Design Guidelines, #5 | Parks Canada: Standards and Guidelines for the Conservation of Historic Places in Canada

2.0 SITE ORGANIZATION

- 2.1 Building Placement
- 2.2 Building Address and Entrances
- 2.3 Site Servicing, Access, and Parking
- 2.4 Publicly Accessible Open Space
- 2.5 Private Open Space
- 2.6 Pedestrian and Cycling Connections
- 2.7 Public Art

2.1 BUILDING PLACEMENT

Locate the base of tall buildings to frame the edges of streets, parks, and open space, to fit harmoniously with the existing context, and to provide opportunities for high-quality landscaped open space on-site.

- In general, build parallel to the street and extend the base building the length of the site along the edges of streets, parks, and open space.
- Where the existing setback pattern is consistent and not planned to change, align new base buildings with neighbouring building frontages.
- When existing setbacks are well-established, but vary on either side of a tall building site, locate and design the base building to resolve the differences. Avoid blank side walls visible to a street.
- On blocks where a consistent setback pattern does not exist or is planned to change, locate the base building at the required setback line (see also 4.2 Sidewalk Zone).
- On corner sites, respond to the setback pattern and alignment of neighbouring buildings on both streets.
- Provide greater building setbacks at strategic points or along the entire frontage, as appropriate, for architectural interest and to improve pedestrian amenity, including more space for tree planting, wider sidewalks, forecourts, plazas, and other publically accessible open spaces (see 2.4 Publically Accessible Open Space and 4.2 Sidewalk Zone).
- Where applicable, maintain the character of existing soft landscaped streetscapes by providing generous setbacks for trees and plantings.
- High-quality, grade-related landscaped open space is encouraged for at least 25 percent of total site area. Opportunities may include hard and soft landscaped setbacks, plazas, courtyards, etc. On smaller infill sites, this landscaped open space may be combined in part with above-grade areas, such as rooftop amenity or green roofs. (See 2.4 Publically Accessible Open Space and 2.5 Private Open Space).



Figure 1: A base building placed parallel to the street and aligned with the frontages of neighbouring buildings. Strategic setbacks, where appropriate, create space for pedestrian amenity.

RATIONALE

Toronto's traditional urban pattern is of buildings aligned parallel to the street with a consistent setback from the front property line. This pattern of building placement clearly defines the edges of streets, parks, and open spaces to promote a vibrant pedestrian environment.

Well-placed base buildings create a coherent streetscape and help new tall buildings fit in with existing neighbours. Where the setback pattern is not consistent or planned to change, the placement of base buildings at the required setback line, parallel to the street, helps establish a pedestrian-oriented context for

the future. Where the required setback line is at or very close to the property line, greater building setbacks at strategic points or along the entire frontage may be encouraged to expand the public realm and improve pedestrian comfort and amenity. Buildings, site services, and amenities should also be arranged to maximize grade-related and other on-site opportunities for high-quality landscaped open spaces to enrich the public realm, improve living and working conditions, and promote sustainable design.

Official Plan Reference

3.1.1 The Public Realm: Policy 11a, 12, 17 and 18 | 3.1.2 Built Form: Policy 1a, 4, 5b and 5d | 3.1.3 Built Form - Tall Buildings: Policy 2e | 3.4 The Natural Environment: Policy 18f

2.2 BUILDING ADDRESS AND ENTRANCES

Organize tall buildings to use existing or new public streets for address and building entrances.

Ensure primary building entrances front onto public streets, are well-defined, clearly visible, and universally accessible from the adjacent public sidewalk.

- Use high-quality architectural and landscape design to emphasize primary entrances.
- Differentiate between residential and commercial entrances in mixed-use buildings.
- Provide an entrance to each ground floor retail unit, which is identifiable and directly accessible from the public sidewalk.
- Where building entrances are set back by a plaza or forecourt, maintain high visibility and direct, universal access from the public sidewalk.
- If a base building provides access to more than one tower or more than one use within a tower, ensure that the entrance to each is clearly identifiable, visible, and universally accessible from the public sidewalk.
- When a larger tenancy is planned, divide the façade into narrower widths or bays and provide multiple secondary entrances to animate the street (see 3.1.2 Street Animation).
- Coordinate the location of building entrances with transit stops and stations.

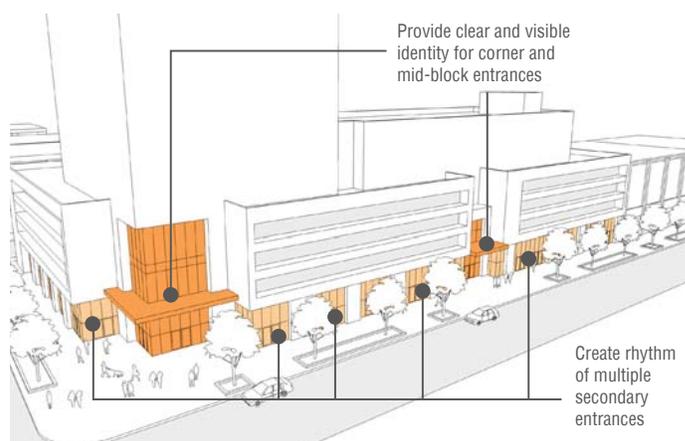


Figure 1: A series of street-related entrances promote interaction between the building interior and adjacent public realm.



Figure 2: Public art and signature architectural features effectively highlight primary building entrances.

RATIONALE

Well-designed entrances create an arrival experience and identity for the tall building and can help define the transition between public and private realms. Typically, the most vibrant and interesting streets are lined with active, street-related uses accessed by a series of entrances from the public sidewalk.

Clear, visible entries and views from building interiors to the street provide security for building occupants and pedestrians. Direct, universal access from the public sidewalk to each tower or use within a tall building, animates the street and encourages pedestrian activity to occur in the public realm rather than inside the building.

Official Plan Reference

3.1.1 The Public Realm: Policy 11b | 3.1.2 Built Form: Policy 1b and 1c |
3.5.3 The Future of Retailing: Policy 4

Related Standards, Guidelines & Studies

Accessibility Design Guidelines |
Toronto Green Standard

2.3 SITE SERVICING, ACCESS, AND PARKING

Locate “back of house” activities, such as loading, servicing, utilities, and vehicle parking, underground or within the building mass, away from the public realm and public view.

- Provide access to site servicing and parking at the rear of the building, from a lane, if present, or from a shared driveway, if possible.
- Include new curb cuts, preferably on side streets, only when there is no alternative means of site access.
- Minimize the extent of site area dedicated to servicing and vehicular access through the use of shared infrastructure and efficient layouts.
- Through-lanes (public or private) are encouraged to minimize vehicle turnarounds.
- Avoid free-standing vehicle ramps, loading areas, and garbage storage and collection areas or enclosures.
- Recess, screen, and minimize the size of garage doors and service openings visible from public streets and public or private open space. Use high-quality doors and finishes.
- Organize drop-off areas into the side or rear of the site. When located at the rear, provide direct visual and physical pedestrian access to the street frontage.
- Provide taxi stands and bus drop-off areas on private property for tall buildings which contain hotels, or commercial and office uses.
- Provide pedestrian and cyclist access to and from parking areas that is clearly visible, well-lit, convenient, and easily accessible from the street.
- Where below-grade parking structures are permitted to encroach beyond the front face of the building, provide uncompacted soil for a minimum 1 metre depth below grade to support opportunities for tree planting and other soft landscaping along the building frontage.
- Locate ventilation shafts, grates, and other above-ground mechanical or site servicing equipment, away from the public sidewalk (especially the pedestrian clearway) and public or private open spaces.

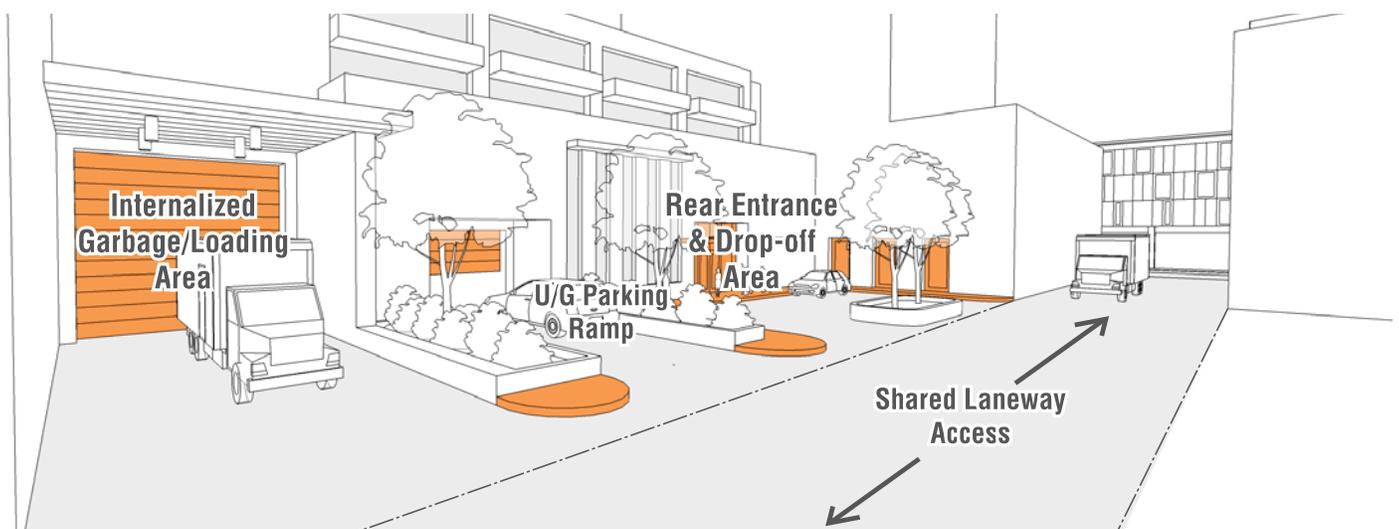


Figure 1: Site servicing and vehicular access provided within and behind the building.



Figure 2: Site servicing and vehicular access screened with high-quality architectural and landscape features.

- i. Where it is not feasible to integrate “back of house” activities underground or within the building mass, locate these activities to limit negative impacts on the safety, comfort, and quality of the public realm. Where appropriate, use high-quality architectural elements and landscape design to screen these activities from public view.
- m. When parking cannot be located underground (due to below-grade transit infrastructure, a high-water table, etc.), line the parking structure with active, grade-related uses to separate the above-grade parking from streets and public or private open spaces (see also 3.1.2 Street Animation).

Design above-grade parking structures to be consistent with the design standards outlined in 3.1 Base Building.

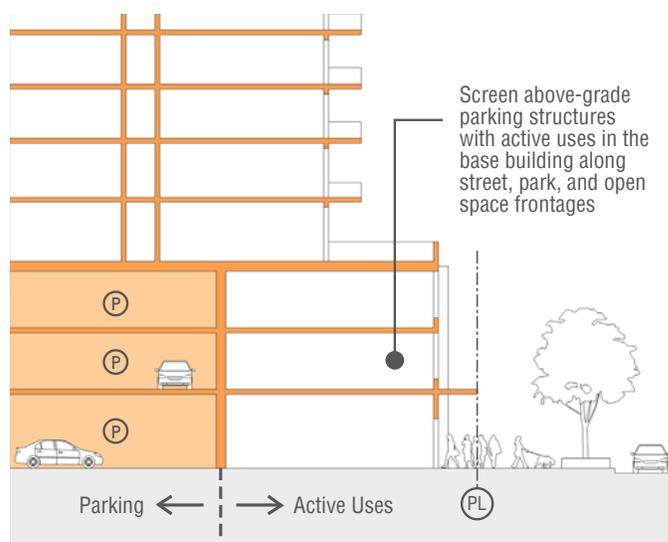


Figure 3: Above-grade parking structures lined with active, grade-related uses.

RATIONALE

Tall buildings accommodate two types of activities at grade: “front of house” activities, such as retail and landscaping, and “back of house” activities, such as parking, loading, and servicing.

“Back of house” activities include, but are not limited to:

- vehicle access, ramps, and parking;
- drop-off areas;
- garbage storage and collection;
- loading docks;
- vents, utility meters, transformers, and other site utilities and servicing infrastructure.

“Back of house” activities are essential to the efficient functioning of new development. When “back of house” activities are concealed within and behind buildings, it promotes a safer, more comfortable and attractive public realm and pedestrian environment.

Using the building or high-quality architectural elements and landscape design to screen vehicular access and site servicing, also helps mitigate noise, air quality concerns, and unattractive views within the tall building site and on adjacent streets, public or private open spaces, and neighbouring properties.

Official Plan Reference

2.2 Structuring Growth in the City: Policy 3c | 2.3.1 Healthy Neighbourhoods: Policy 2d | 2.4 Bringing the City Together: Policy 7b and 12 | 3.1.1 The Public Realm: Policy 6b | 3.1.2 Built Form: Policy 2 and 5a | 3.1.3 Built Form – Tall Buildings: Policy 1a | 3.4 The Natural Environment: Policy 18d and 20 | 5.1.3 Site Plan Control: Policy 3a and 3h

Related Standards, Guidelines & Studies

Toronto Green Standard | Guidelines for the Design and Management of Bicycle Parking Facilities | Bird-Friendly Development Guidelines

2.4 PUBLICALLY ACCESSIBLE OPEN SPACE

Provide grade-related, publically accessible open space within the tall building site to complement, connect, and extend the existing network of public streets, parks, and open space.

- Locate and design publically accessible open space to:
 - read as a public place and include features and programming opportunities to encourage year-round use;
 - provide direct visual and physical connections to public streets, parks, and open space, including adjacent pedestrian and cycling routes;
 - complement and connect with publically accessible open space on neighbouring properties, where possible;
 - create attractive views and focal points; and
 - maximize safety, comfort, and amenity, including access to sunlight, clear views to and from adjacent streets and buildings, universal accessibility, pedestrian-scale lighting, four season landscaping, seating, public art, and protection from wind and inclement weather.
- On larger sites, use publically accessible open space to provide through-block pedestrian connections.
- Define and animate the edges of publically accessible open space with well-proportioned base buildings, permeable façades, and active uses at-grade.
- Use design elements, such as surface materials, furnishings, landscaping, and pedestrian-scale lighting that are high-quality, functional, universally accessible, and environmentally sustainable.

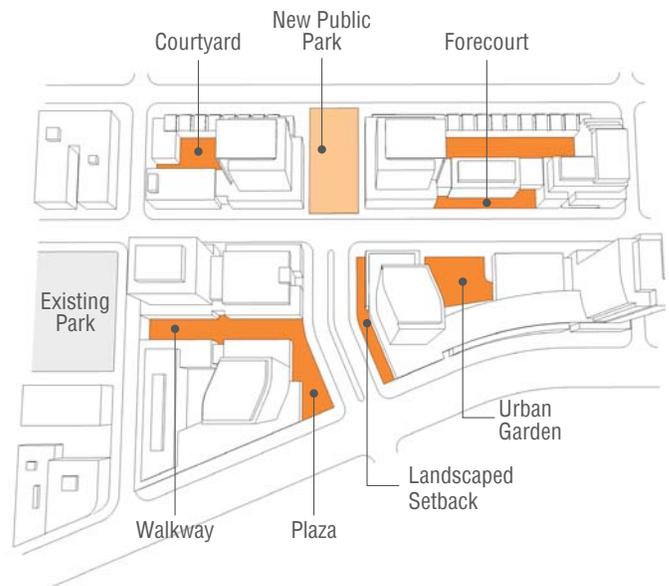


Figure 1: Tall building sites offer a broad range of publically accessible open space opportunities.

RATIONALE

Most new tall building developments have important on-site opportunities to provide publically accessible landscaped open space (see also 2.1 Building Placement). Although these open spaces are typically privately-owned and maintained, they should read as public places and be designed to encourage year-round public use.

The location of open spaces on a site, along with the type, size, and intended use of the space, may vary depending upon building use, site characteristics, and the range of open spaces available in the surrounding area. Providing good quality, publically accessible open space within a tall building site can

help new development fit within the existing context and is particularly important when there is a shortage of public park space in the surrounding area.

Publically accessible open space should be large enough and flexible in its design to support a variety of uses and programming opportunities. The design should also create a micro-climate that supports pedestrian comfort, biodiversity, and should meet or exceed public standards for universal accessibility, safety, and high-quality architectural, landscape, and sustainable design.

Legal agreements for on-site parkland dedication or easements on title to secure public access to open space and owner maintenance responsibilities may be required.

Types of publically accessible open space may include:

Courtyards - landscaped open space, located in the centre of a single or consolidated block with no direct street frontage.

Forecourts - landscaped open space between the public sidewalk and the main entrance of a building.

Landscaped Setback - space between the public sidewalk and building face characterized by hard or soft landscape treatment.

Plazas - animated gathering place with predominantly hard surfaced landscape features flanking a public street.

Urban Gardens - landscaped space, usually of intimate scale, open to a public street, located and oriented to provide maximum sunlight during midday.

Walkways - exterior public pedestrian route at street level, usually providing connection through the block. A galleria, when glazed and enclosed.

Official Plan Reference

- 3.1.1 The Public Realm: Policy 11a, 12, 13, 17 and 18
- 3.1.2 Built Form: Policy 5b and 5d
- 3.1.3 Built Form - Tall Buildings: Policy 2e
- 3.2.3 Parks and Open Space: Policy 1a, 1c and 1d
- 3.4 The Natural Environment: Policy 18f

Related Standards, Guidelines & Studies

Toronto Green Standard | Shade Guidelines

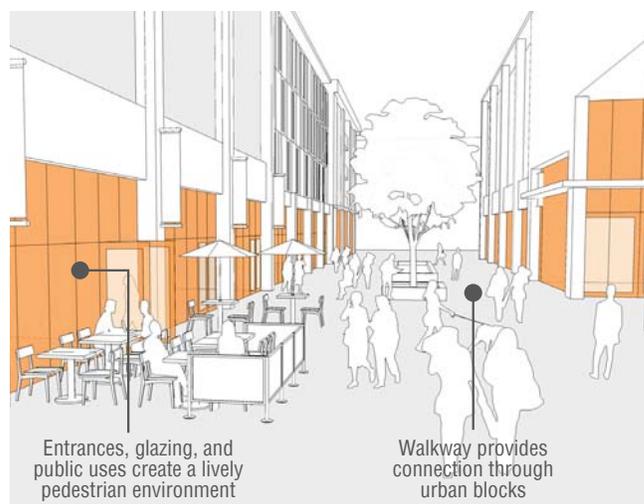


Figure 2: An active, mid-block walkway.



Figure 3: An urban garden with amenity for children.



Figure 4: A plaza with seating and shade.

2.5 PRIVATE OPEN SPACE

Provide a range of high-quality, comfortable private and shared outdoor amenity space throughout the tall building site.

- a. Locate and design shared private outdoor amenity space to:
 - maximize access to sunlight;
 - minimize noise and air quality impacts from site servicing, mechanical equipment, etc.;
 - include high-quality, universally accessible, and environmentally sustainable materials, four season landscaping, seating, pedestrian-scale lighting, trees, shade structures, weather protection, screening, and programming opportunities, as appropriate.
- b. To the greatest extent possible, locate private patios and gardens to access direct sunlight and minimize overlook from neighbours.
- c. Make private balconies large enough to provide usable outdoor space, such as space for seating (see also 3.2.5 Balconies).
- d. In residential or mixed-use developments, include places for pets and pet runs either at-grade or on a shared rooftop space.
- e. In residential or mixed-use developments, provide access to secure outdoor play space and equipment for family-sized units. Where possible, locate family-sized units with windows and balconies overlooking outdoor play areas.
- f. When rooftops are used for outdoor amenity, ensure that the base of any building mass or tower that faces onto the space is treated to protect migratory birds and mitigate pedestrian-level wind.
- g. Where possible, locate interior amenity facilities adjacent to shared outdoor amenity areas and provide windows and doors for direct physical and visual access between these spaces.

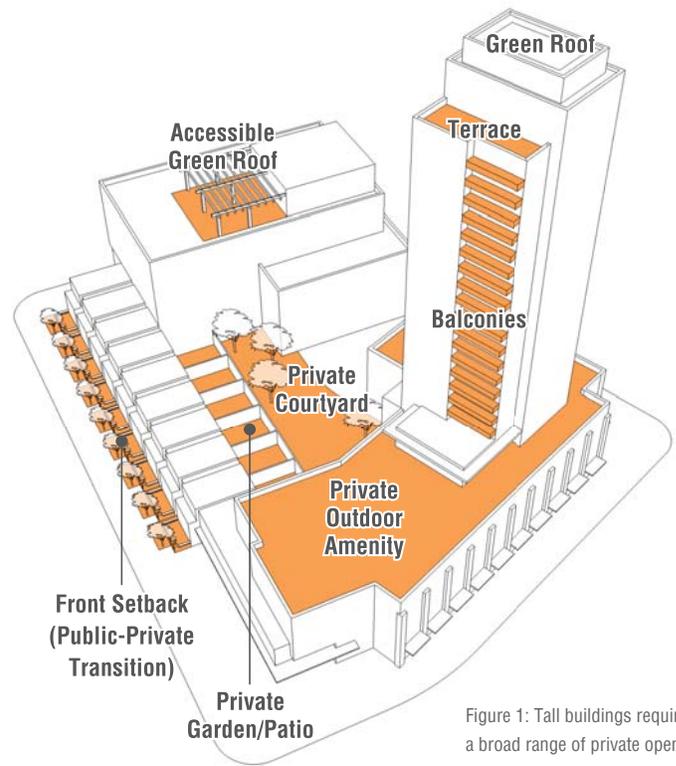


Figure 1: Tall buildings require a broad range of private open spaces to meet the needs of building occupants.

RATIONALE

Whether shared or accessed exclusively by individual building occupants, private open space should meet a broad range of needs, including those of families with children and pet owners.

Private outdoor amenity space, such as balconies, gardens, courtyards, roof terraces, and accessible intensive green roofs, should be comfortable, safe, and designed to accommodate year-round use.

Official Plan Reference

3.1.2 Built Form: Policy 6 | 3.4 The Natural Environment: Policy 18f | 5.1.3 Site Plan Control: Policy 3b

Related Standards, Guidelines & Studies

Toronto Green Standard | Toronto Green Roof By-law | Bird-Friendly Development Guidelines

2.6 PEDESTRIAN AND CYCLING CONNECTIONS

Provide comfortable, safe, and accessible pedestrian and cycling routes through and around the tall building site to connect with adjacent routes, streets, parks, open space, and other priority destinations, such as transit and underground concourses.

a. Design on-site pedestrian and cycling routes to:

- read as publically accessible (easements on title to secure public access may be required);
- be direct, logical, and continuous to limit the need for added way-finding measures;
- include landscaping, pedestrian-scale lighting, and other amenities to enhance safety, comfort, and four season use;
- meet or exceed design standards for universal accessibility and safety in the public realm.

b. Locate short-term and long-term bicycle parking with direct access from the public street and near entrances to tall buildings, transit, and other pedestrian infrastructure. Design bicycle parking in accordance with the Toronto Green Standard and Guidelines for the Design and Management of Bicycle Parking Facilities.

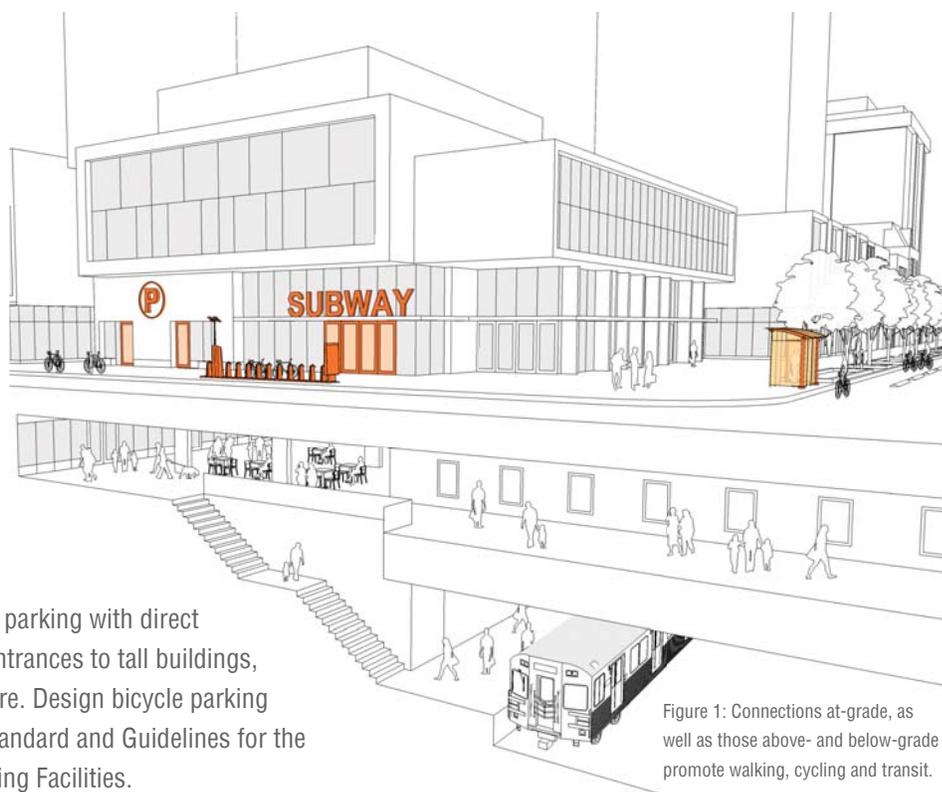


Figure 1: Connections at-grade, as well as those above- and below-grade promote walking, cycling and transit.

RATIONALE

Tall buildings should be sited and designed to encourage walking and cycling as viable transportation choices for building occupants. High-quality pedestrian and cycling routes should be well-connected with related infrastructure, such as transit, bicycle lanes, on-site bicycle parking, generous public sidewalks, the PATH, etc., to reduce auto-dependency, support safer and more active streets, and promote a healthier city.

Providing direct, convenient, safe, highly-visible, and universally accessible connections to the surrounding public realm is key to promoting walking and cycling.

A network of above- and below-grade connections to local destinations can also help tall buildings integrate with the surrounding context, but should never be at the expense of good connections at-grade to support vibrant public streets and sidewalks.

Official Plan Reference: 2.2.1 Downtown: The Heart of Toronto: Policy 12 | 2.4 Bring the City Together: Policy 2d and 8 | 3.1.1 The Public Realm: Policy 11a, 12, 13 | 5.1.3 Site Plan Control: Policy 3a

Related Standards, Guidelines & Studies: Toronto Green Standard | PATH Master Plan Study | Toronto Walking Strategy | Guidelines for the Design and Management of Bicycle Parking Facilities

2.7 PUBLIC ART

Pursue public art opportunities and funding strategies on tall building sites, or adjacent public lands, to enhance the quality of the development, the public realm, and the city.

- a. Where applicable, provide adequate building setbacks and space around public art so that it can be properly viewed and experienced from the public realm.



Figure 1: Public art integrated with landscape elements.



Figure 2: Public art in the form of an independent sculpture.

RATIONALE

Public art enriches the public realm by making buildings and open spaces more interesting, engaging, and memorable. When considered early in the project planning stages, the most impactful locations and opportunities for public art can often be identified and secured.

Public art opportunities on tall building sites may include:

- a conceptual framework to organize open spaces including parks, plazas, setbacks, or streetscapes;
- an independent sculpture or two-dimensional work that marks an entryway, corner, feature area, or view terminus;
- a combination of visual arts with the building elements, including façades, canopies, floors, lighting, etc.;
- visual arts combined with landscape design, functional, and decorative elements of a site, such as water features, lighting, seating, paving, walls, fences, entrances and exits, etc.

Official Plan Reference

3.1.2 Built Form: Policy 5g | 3.1.4 Public Art: Policy 1d and 1e

Related Standards, Guidelines & Studies

Percent for Public Art Program Guidelines

3.0 TALL BUILDING DESIGN

- 3.1 Base Building
- 3.2 Middle (Tower)
- 3.3 Tower Top

3.0 TALL BUILDING DESIGN

The Official Plan states that a tall building should consist of three carefully integrated parts: a base building, middle, and top.



3.3 TOWER TOP

3.3 Tower Top



3.2 MIDDLE (TOWER)

- 3.2.1 Floor Plate Size and Shape
- 3.2.2 Tower Placement
- 3.2.3 Separation Distances
- 3.2.4 Tower Orientation and Articulation
- 3.2.5 Balconies

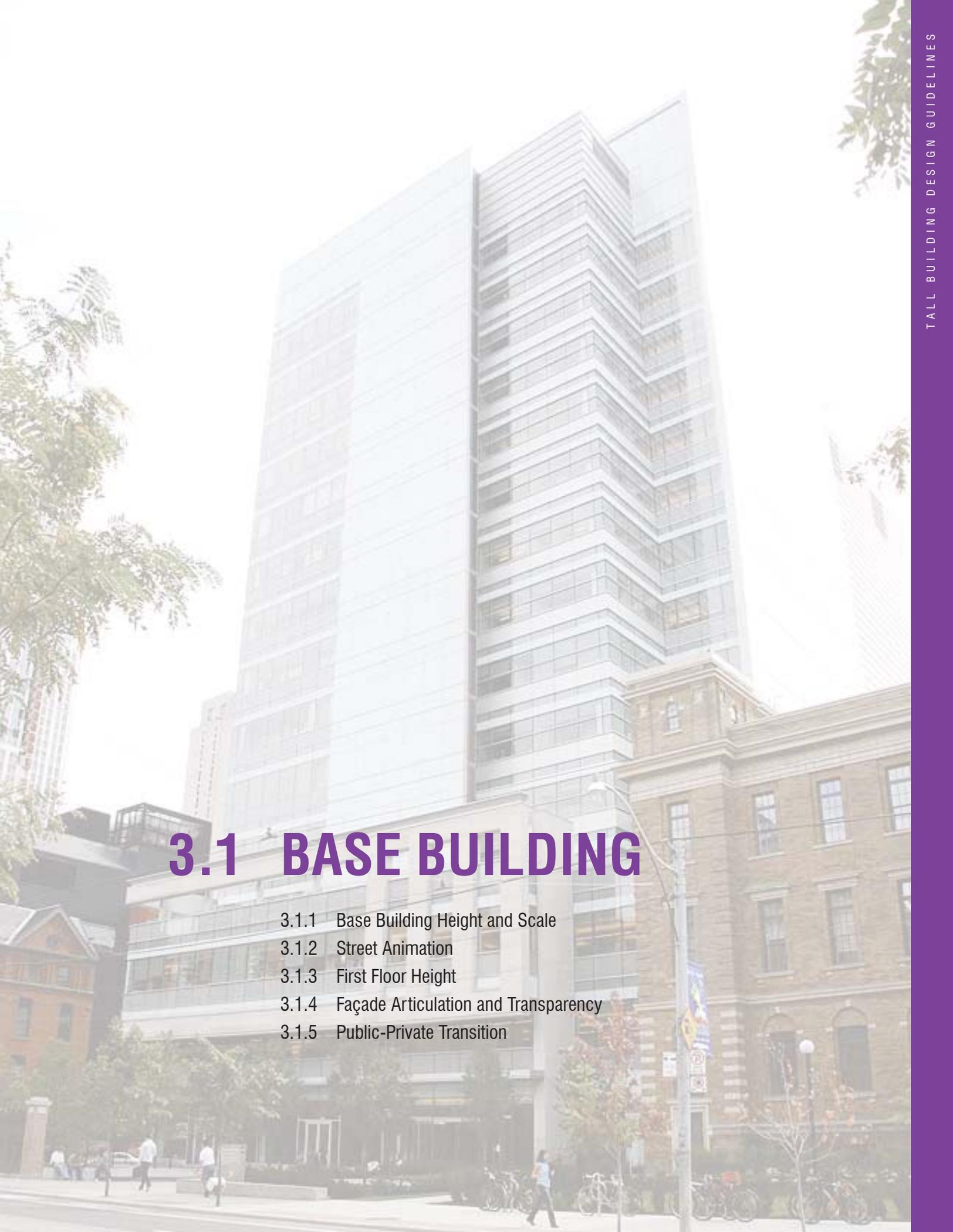


3.1 BASE BUILDING

- 3.1.1 Base Building Height and Scale
- 3.1.2 Street Animation
- 3.1.3 First Floor Height
- 3.1.4 Façade Articulation and Transparency
- 3.1.5 Public-Private Transition

3.1 BASE BUILDING

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- 3.1.3 First Floor Height
- 3.1.4 Façade Articulation and Transparency
- 3.1.5 Public-Private Transition



3.1.1 BASE BUILDING SCALE AND HEIGHT

Design the base building to fit harmoniously within the existing context of neighbouring building heights at the street and to respect the scale and proportion of adjacent streets, parks, and public or private open space.

- Where there is an existing context of streetwall buildings with consistent height, align the new base building with the height of the streetwall (see also the height limit in 3.1.1b).
- In the absence of a consistent streetwall height context, provide a minimum base building height between 10.5 metres and 80% of the adjacent street right-of-way width (A), up to a limit of 24 metres* in height.

Additional base building height may be appropriate with a stepback of at least 3 metres, provided that the total height does not exceed 100% of the adjacent street right-of-way width (A), up to a limit of 24 metres* in height.

*Note: 24 metres equals approximately 7 storeys for a mixed-use building (assuming 4.5m first floor and 3m for all other floors) or 6 storeys for a commercial-only building (assuming 4.5m first floor and 3.6m for all other floors).
- On corner sites, vary the height and form of the base building to respect and respond to the height, scale, and built-form character of the existing context on both streets.
- For sites where the adjacent context is lower-scale and not anticipated to change, provide a transition in the base building height down to the lower-scale neighbours. Match at least a portion of the base immediately adjacent to the lower-scaled context with the scale and height of neighbouring buildings.
- For sites including or adjacent to heritage properties, design the scale and height of the base building to respect and reinforce the streetwall height established by the historic context.
- Within the tall building site, frame publically accessible and shared, private open spaces with a well-proportioned base building.

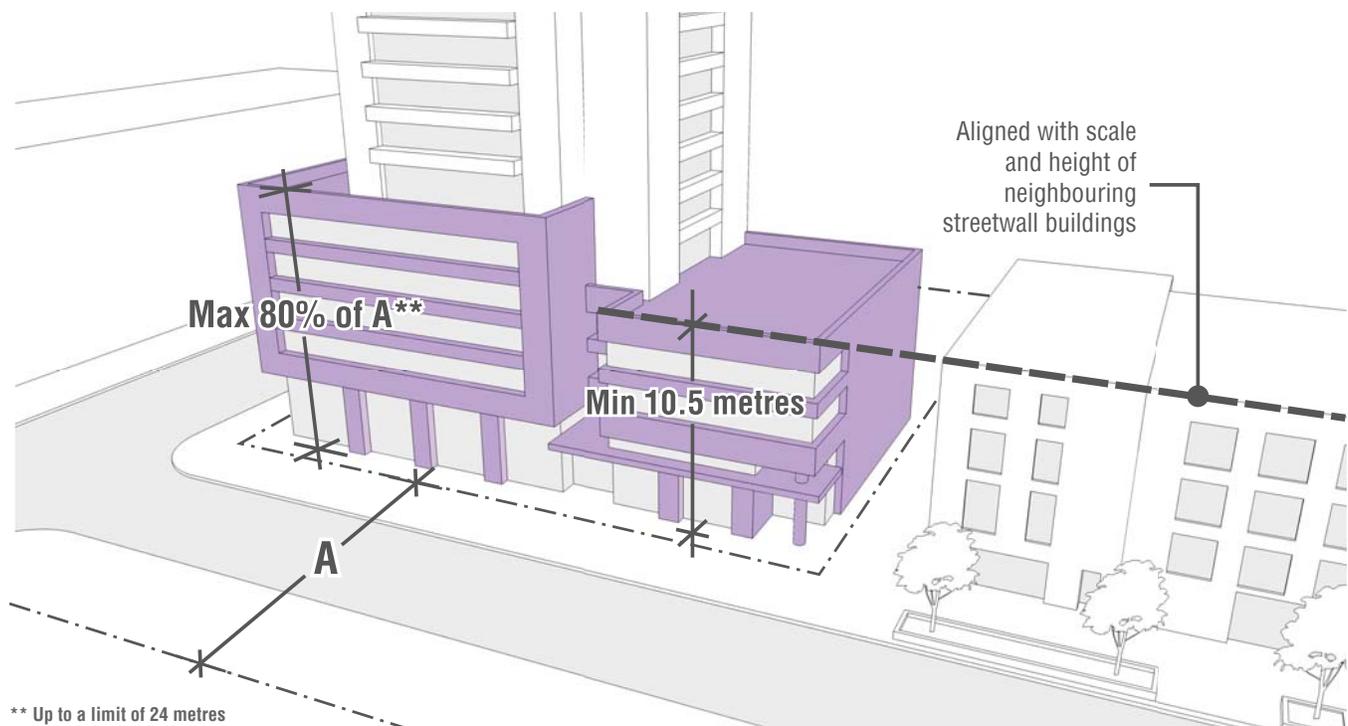


Figure 1: The height and scale of the base building responds to the scale of neighbouring buildings and the street proportion.

RATIONALE

The role of the base building is to help a tall building fit harmoniously within the existing or planned streetwall context, define the edges of adjacent streets, parks, and open space at good proportion, and maintain access to sunlight and sky view for pedestrians and neighbouring properties.

A base building that is 10.5 metres or around 3 storeys in height generally fits well with a lower-scale context to effectively frame the public realm.

Limiting the height of the base building to 80% of the right-of-way width provides consistency in street proportion and maintains access to at least 5 hours of sunlight on the opposite side of the street at the spring and fall equinoxes.

On wider streets (30 to 45 metres in width), limiting the height of the base building to a maximum 24 metres (6-7 storeys), ensures that the base does not overwhelm the pedestrian environment, compound tall building impacts on shadow and sky view, and contribute to a disproportionate tall building composition, undermining the benefits of achieving a slender, point tower form.

Many tall building sites, including corner sites, have multiple frontages facing streets, parks, and public or private open space. The scale, height, and form of the base building may need to vary in order to respond appropriately to differences in adjacent building height, built-form character, open space size, and street width for each facing condition.

The appropriate height for base buildings facing small open spaces within a site is often lower-scale than what may be appropriate for street frontages. Provide a smooth transition where a change in base building height, scale, and built-form character occurs.



Figure 2: The height of the base building relates directly to an established streetwall context.



Figure 3: The base building sets a new streetwall height context at a comfortable pedestrian scale.

Official Plan Reference

- Map 3 Right-of-Way Widths Associated with Existing Major Streets
- 2.3.1 Healthy Neighbourhoods: Policy 2a to 2c
- 3.1.1 Built Form: Policy 5
- 3.1.2 Built Form: Policy 1a, 3a, 3c, 3e, 3f and 4
- 3.1.3 Built Form – Tall Buildings: Policy 1a and 2c
- 3.2.3 Parks and Open Space: Policy 3

Related Standards, Guidelines & Studies

- Downtown Tall Buildings: Vision and Supplementary Design Guidelines, #6 | Sun, Wind and Pedestrian Comfort: A Study of Toronto's Central Area

3.1.2 STREET ANIMATION

Line the base building with active, grade-related uses to promote a safe and animated public realm.

- a. On streets with a mixed-use or commercial character, line the base building with a series of active commercial and retail uses. Where possible, dedicate at least 60% of the street frontage to active retail uses.
- b. On streets with an exclusively residential character, line the base building with grade-related residential units with usable front entrances and windows to living spaces facing the street.
- c. On secondary street frontages where a mixed-use or commercial character is planned, but not yet established, provide a first floor height and flexibility in the base building structure to accommodate transition to active commercial and retail uses over time (see also 3.1.3 First Floor Height).
- d. Avoid locating private, indoor amenity facilities at-grade along primary street frontages. Amenities and bicycle storage facilities with a positive street-level presence may be permitted on a secondary street frontage.
- e. Multiple building and storefront entrances, spaced an average of 7-10 metres along street and open space frontages, are encouraged.
- f. Animate upper floors of base buildings with active uses and windows overlooking the public realm.
- g. In general, limit the width of lobbies and the presence of large format commercial uses at street level. Consider placing large format uses on upper floors or below-grade.
- h. Where large-scale spaces are necessary on the first floor, locate them toward the building interior and line them with active uses along all street and public open space frontages.
- i. In locations where grand lobbies and foyers prevail, such as the Downtown Financial District, continue their use as a signature feature.



Figure 1: Active retail and commercial uses and upper storey windows animate the base building and provide natural surveillance for the street.

RATIONALE

Active, street-related commercial and retail uses are often the most desirable activity generators in the base building, since the resulting pattern of entrances and display windows provides multiple points of interaction between the building interior and adjacent public realm.

Conversely, lobbies, large-format commercial uses, private indoor amenities, and guest suites tend to be relatively unanimated spaces that lack a strong or engaging connection with pedestrians and do little to improve safety from natural surveillance and street-level activity.

On streets characterized by a residential character, grade-related residential units, such as townhouses, can create a pleasant and animated base building alternative, broaden the range of housing choices, and increase the opportunity for social interaction and natural surveillance.

Official Plan Reference: 3.1.1 The Public Realm: Policy 12
 3.1.2 Built Form: Policy 1c | 3.5.3 The Future of Retailing:
 Policy 2 and 4

Related Standards, Guidelines & Studies
 Downtown Tall Buildings: Vision and Supplementary Design
 Guidelines, #7

3.1.3 FIRST FLOOR HEIGHT

Provide a minimum first floor height of 4.5 metres, measured floor-to-floor from average grade.

- a. Where the base building is adjacent to low-rise residential buildings or to a heritage property, maintain a direct relationship between the first floor height and the height and scale of the neighbouring buildings (see 3.1.1 Base Building Scale and Height and 3.1.4 Façade Articulation and Transparency).



Figure 1: A 4.5 metre first floor height gives prominence to the base and supports active commercial uses.

RATIONALE

A generous first floor height gives prominence to the street level, establishes a clear presence for retail, and increases the visibility, marketability, and utility of ground floor space.

A minimum floor-to-floor height of 4.5 metres also accommodates the vertical clearance required for loading spaces and truck maneuvering within the rear of the building, which is essential to the viability of retail and many other commercial activities.

Where appropriate, taller first floor heights for grade-related residential units are encouraged to provide continuity in the base building and to permit adaptability and long-term flexibility, including possible future conversion to retail or commercial use.

The floor-to-floor heights of adjacent heritage properties or lower-scale buildings that are not anticipated to change, should be reflected in the design and articulation of the base building to promote integration and fit with the context.

3.1.4 FAÇADE ARTICULATION AND TRANSPARENCY

Articulate the base building with high-quality materials and design elements that fit with neighbouring buildings and contribute to a pedestrian scale.

Provide clear, unobstructed views into and out from ground floor uses facing the public realm.

- Provide architectural expression and design elements, such as cornice lines, window bays, entrances, canopies, building materials, and fenestration, in a pattern, scale, and proportion that relate to neighbouring buildings and engages pedestrians.
- Place building entrances and transparent windows on all façades facing streets, parks, and open space. Design the first 10-12 metres of the façade in accordance with Bird-Friendly best practices found in the Toronto Green Standard.
- For active commercial and retail uses at-grade, include transparent glazing 0.5 metres above grade and at least 2.5 metres in height, for 60% or more of the frontage.
- Avoid blank walls, but if necessary, articulate them with the same materials, rhythm, and high-quality design as the more active and animated frontages.
- Along mixed-use and commercial street frontages, avoid locating balconies (projecting or inset) within the first 10.5 metres (3 storeys) of the base building. Between 3 and 6 storeys, inset balconies behind the streetwall.
- Use high-quality, durable materials, an appropriate variety in texture, and carefully crafted details to achieve visual interest and longevity for the façade. Environmentally sustainable materials and construction methods are encouraged.
- Use opaque or translucent overhangs and canopies to reduce solar gain within the building, help mute reflections on glazing, and minimize light trespass from the building interior.



Figure 1: A high degree of visual and physical access supports retail and promotes a vibrant and safe public realm.



Figure 2: A well-proportioned base building, articulated with high-quality materials and architectural detailing, fits with the rhythm of the existing streetwall context and contributes to a pedestrian-scale street frontage.

RATIONALE

The building façade should provide architectural expression that relates to its surroundings and include materials and elements that can be viewed and appreciated at the speed and proximity of pedestrians.

Although the articulation and transparency of all faces of a base building are important, those fronting streets, parks, and open space are most critical. At street level, a series of clear and unobstructed views both into and out of buildings enriches the urban experience for pedestrians and building occupants alike. Transparency in the building façade adds visual interest, contributes to a sense of liveliness on the street, and improves safety through natural surveillance.

A high degree of visual and physical connection, including multiple entrances and “storefront” windows, supports active, street-related commercial and retail uses. Attempting to obscure these views (e.g. through the use of posterage, paint, shelving, or non-transparent glass), creates an uninviting pedestrian realm and is strongly discouraged.

Transparency in the façade, especially at street level, is very important to livability, but must be balanced with requirements for environmental sustainability, including design measures for energy efficiency, effective lighting, bird-friendly best-practice, and the use of sustainable materials and construction methods.

Official Plan Reference

3.1.2 Built Form: Policy 1c and 3b | 3.5.3 The Future of Retailing: Policy 4 | 5.1.3 Site Plan Control: Policy 3f and 3g

Related Standards, Guidelines & Studies:

Toronto Green Standard | Bird Friendly Development Guidelines | Accessibility Design Guidelines

3.1.5 PUBLIC-PRIVATE TRANSITION

Design the base building and adjacent setback to promote an appropriate level of visual and physical access and overlook reflecting the nature of building use at-grade.

- For all public entrances, such as entries to commercial uses or shared lobbies (public and private), provide direct, universal access, flush with the public sidewalk.
- For private entrances to ground floor residential units, provide grade separation (up to 0.9 metres) and distance separation (3 metres minimum from the front property line, or greater where required by the existing context or Zoning By-law).



Figure 1: Treatment of the transition space between the public sidewalk and building interior reflects the differing needs for access and privacy between residential and commercial frontages.

- Where there is a change in grade along a street or open space frontage, maintain a consistent grade relationship between the public sidewalk and ground floor. Avoid the use of large retaining walls and exterior stair cases.
- Filter and screen views into private dwelling units with soft landscaping, but ensure views to streets and open space are maintained for natural surveillance.

RATIONALE

There are a variety of design approaches to treat the transition space between the public realm and the public or private interior of the base building.

Where shared entrances or active, street-related uses, such as retail, are present, interaction between the ground floor and public sidewalk should be promoted by providing paved surfaces with direct, universal access to the building interior.

In cases where there are townhouses or other private uses at street level, grade separation and a landscaped setback, hard or soft, are important to define a level of privacy for the building interior, while maintaining views out to improve safety in the public realm.



Figure 2: A small change in grade and soft landscaping enhances privacy, while maintaining views out from residential uses at grade.

3.2 MIDDLE (TOWER)

- 3.2.1 Floor Plate Size and Shape
- 3.2.2 Tower Placement
- 3.2.3 Separation Distances
- 3.2.4 Tower Orientation and Articulation
- 3.2.5 Balconies



3.2.1 FLOOR PLATE SIZE AND SHAPE

Limit the tower floor plate to 750 square metres or less per floor, including all built area within the building, but excluding balconies.

- a. Organize, locate, and articulate the tower floor plate to:
 - minimize shadow impacts and negative wind conditions on surrounding streets, parks, open space, and properties;
 - minimize loss of sky view from the public realm;
 - allow for the passage of natural light into interior spaces (e.g. shallow rather than deep floor plans);
 - create architectural interest and visually diminish the overall scale of the building mass; and
 - present an elegant profile for the skyline.
- b. Provide greater tower separation, setbacks, and stepbacks proportionate to increases in tower floor plate size or height to mitigate resultant wind, shadow, and sky view impacts (see 1.4 Sunlight and Sky View and 3.2.3 Separation Distances).

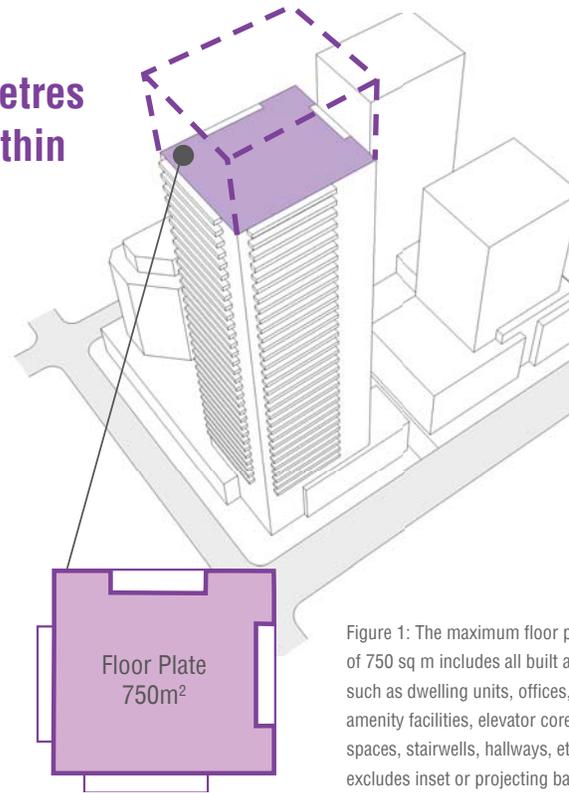


Figure 1: The maximum floor plate size of 750 sq m includes all built areas, such as dwelling units, offices, indoor amenity facilities, elevator cores, storage spaces, stairwells, hallways, etc., but excludes inset or projecting balconies.

RATIONALE

The size and shape of the tower floor plate works together with the height and placement of the tower to determine the overall three-dimensional massing of a tall building and the visual and physical impact it poses on surrounding streets, parks, open space, and properties. Tower floor plate size includes all built area within the building, measured from the exterior of the main walls at each floor above the base building, excluding balconies.

When adequately separated, slender, point form towers with compact floor plates cast smaller, faster moving shadows, improve access to sky view, permit better views between buildings and through sites, and contribute to a more attractive skyline. Towers with smaller floor plates can also make interior climate control more energy efficient and increase daylighting within the building – an important contributor to sustainability, residential liveability, and workplace productivity.

The tower floor plate size and shape should be determined together with the site dimensions and required tower separation distances, setbacks, and stepbacks. A floor plate smaller than 750 square metres may be necessary to achieve adequate tower setbacks and spacing on a site (see 3.2.3 Separation Distances).

On a site-specific basis where adequate tower separation, setbacks, and stepbacks are achieved, flexibility in the maximum floor plate size may be considered for the tower, or a portion thereof:

- to make the interior layout of non-residential uses, such as commercial-only buildings, commercial-only floors of mixed-use buildings, institutional buildings, and hotels, economically viable; or
- to accommodate modest increases from additional servicing and structural requirements for very tall buildings (e.g. residential or mixed-use buildings greater than 50 to 60 storeys).

Any increases in tower floor plate size require that exceptional design attention be given to the shape and articulation of the tower to diminish the overall scale and impact of the building mass. Greater tower separation, setbacks, and stepbacks proportionate to increases in building size are also effective strategies to mitigate resultant wind, shadow, and sky view impacts on surrounding streets, parks, open space, and properties.

Official Plan Reference 3.1.2 Built Form: Policy 3d, 3e, 3f and 4
3.1.3 Built Form - Tall Buildings: Policy 1b | 3.2.3 Parks and Open Space: Policy 3

3.2.2 TOWER PLACEMENT

Place towers away from streets, parks, open space, and neighbouring properties to reduce visual and physical impacts of the tower and allow the base building to be the primary defining element for the site and adjacent public realm.

- Coordinate tower placement with other towers on the same block and adjacent blocks to maximize access to sunlight and sky view for surrounding streets, parks, open space, and properties (see 1.4 Sunlight and Sky View and 3.2.3 Separation Distances).
- Step back the tower, including balconies, 3 metres or greater from the face of the base building, along all street, park, and open space frontages (including publically accessible or private shared open space and rooftop amenity within the site).
- Tower setbacks greater than 3 metres are encouraged and may be required for tall buildings to fit harmoniously within an existing context, including sites that contain or are adjacent to heritage properties.
- As an option within the setback, up to one third of a point tower frontage along a street or open space may extend straight down to the ground. At these locations, provide permanent building features, such as canopies and overhangs, to help mitigate pedestrian-level wind.

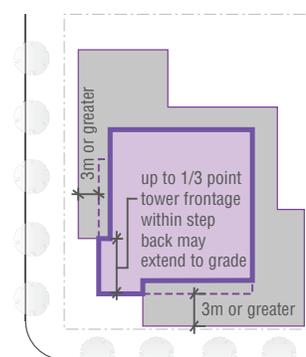
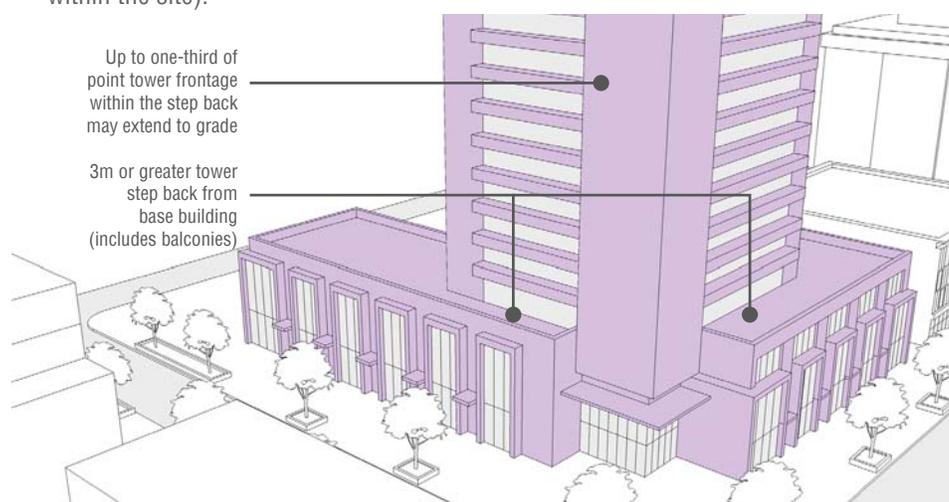


Figure 1: The tower frontage, including balconies, steps back at least 3 metres from the base building. As an option, up to one third of the point tower frontage within the setback extends to the ground.

RATIONALE

Towers that meet the ground directly can generate uncomfortable wind conditions, establish an overwhelming street proportion, and create an oppressive sense of pedestrian scale. Setting the tower back at least 3 metres and more where possible, reinforces the base building as the defining element for the public realm, enhances pedestrian comfort by absorbing downward wind shear, and limits the visual impact of the tower at grade. Generous tower setbacks, substantially greater than 3 metres, as well as coordination of tower placement with the location of other tall buildings, may also improve wind conditions and access to sunlight and sky view in the surrounding area.

For the purpose of design flexibility, providing visible tower address, and integrating components of a tall building (i.e. base

building, tower, top), up to one third of a point tower frontage within the setback, may extend down through the base building to the ground. In the case of larger or elongated floor plates, a threshold below one third may apply. At locations where towers extend to the ground, permanent features to mitigate pedestrian-level wind are essential.

Official Plan Reference 2.3.1 Healthy Neighbourhoods: Policy 2a to c | 3.1.2 Built Form: Policy 3a, 3e and 4 | 3.1.3 Built Form - Tall Buildings: Policy 1b | 3.2.3 Parks and Open Space: Policy 3

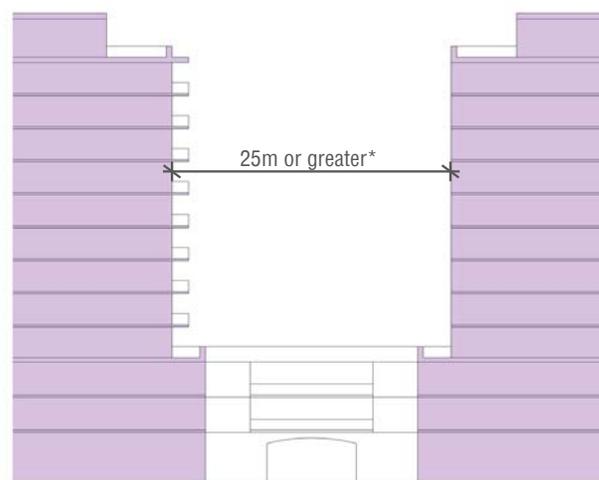
Related Standards, Guidelines & Studies
Downtown Tall Buildings: Vision and Supplementary Design Guidelines, #8 | Sun, Wind and Pedestrian Comfort: A Study of Toronto's Central Area

3.2.3 SEPARATION DISTANCES

Setback tall building towers 12.5 metres or greater from the side and rear property lines or centre line of an abutting lane.

Provide separation distance between towers on the same site of 25 metres or greater, measured from the exterior wall of the buildings, excluding balconies.

- Where the existing context is characterized by tower separation distances greater than 25 metres, provide tower setbacks and separation distances in keeping with the more generous spacing established by the context (see Figure 3).
- Where taller buildings or larger tower floor plates are proposed (see also 3.2.1 Floor Plate Size and Shape), provide greater setbacks and separation distances proportionate to increases in building size and height (see Figure 2). For larger floor plates, use the widest dimension of the tower floor plate as a guide to determine adequate tower setbacks and separation (see Figure 4).
- Sites that cannot provide the minimum tower setbacks and setbacks, as required above and in 3.2.2 Tower Placement, may not be appropriate for tall buildings (see Implementation of Tower Separation Distances: Small Sites on page 51).
- Sites that cannot provide the minimum tower separation distance of 25 metres or greater in relation to the context as outlined in 3.2.3a., may not be appropriate for multiple towers.
- Coordinate tower setbacks and separation distances with other towers on the same block and adjacent blocks to maximize access to sunlight and sky view for surrounding streets, parks, open space, and properties (see 1.4 Sunlight and Sky View and 3.2.2 Tower Placement).
- Where possible, apply creative solutions, such as offset towers/views, non-parallel walls, tapering or curved tower forms, to increase actual or perceived tower separation distances, provided that access to sky view is maintained and adverse wind and shadow conditions are minimized.



*greater than 25 metres, particularly when dictated by Zoning By-law or the existing or planned context.

Figure 1: Minimum tower separation distance measured from building face to building face.

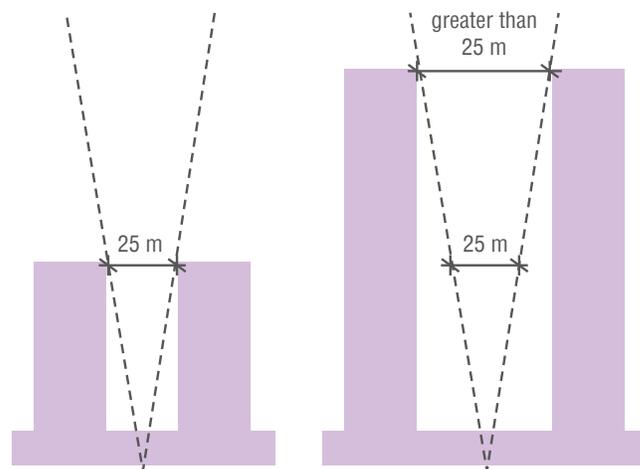


Figure 2: Minimum tower separation distance increases with building height.



Figure 3: Generous spacing of new towers (greater than 25m) reinforces the pattern of tower separation found in the existing context.

RATIONALE

Adequate tower separation distances from property lines and from other towers is a critical aspect of tall building design. The placement of towers should minimize negative impacts on the public realm and neighbouring properties, such as adverse shadowing, pedestrian-level wind, and blockage of sky view, and should maximize the environmental quality of building interiors, including daylighting, natural ventilation, and privacy for building occupants.

Separation distances greater than the 25 metres are often necessary to ensure a tall building fits harmoniously within an existing or planned context.

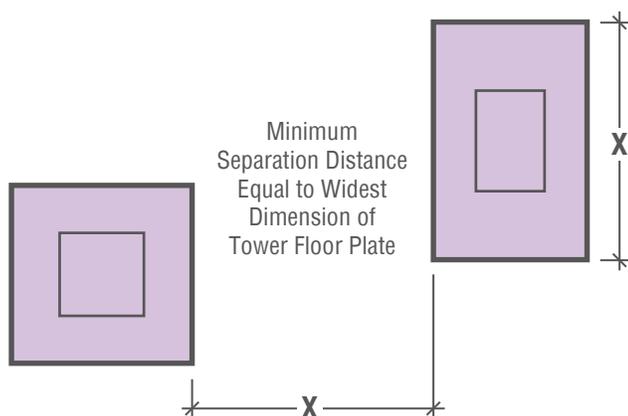


Figure 4: Minimum tower separation distance proportionate to floor plate size, measured from building face to building face.

The minimum separation distances are established to ensure tall buildings achieve the following objectives for the protection of sky view, privacy, and daylighting:

Sky View:

The ability to retain adequate sky view in between building masses is essential to maintain the character, usability, and quality of streets, parks, open space, and neighbouring properties. Lack of sky view can also negatively affect the microclimate and sense of pedestrian scale at grade.

Privacy:

Privacy objectives, particularly for residential units, are achieved when tower orientation, appropriate facing distances, and setbacks combine to mitigate overlook between the windows or balconies of one building and those of another.

Daylighting:

Access to natural light in the building interior is an important component of residential liveability, workplace productivity, and sustainable building practice. An adequate level of daylighting is achieved for residential buildings when natural light reaches the main living space for part of the day. Tall buildings with small floor plates and adequate separation provide enhanced opportunity for daylighting.

Continued on next page...

3.2.3 SEPARATION DISTANCES CONT.

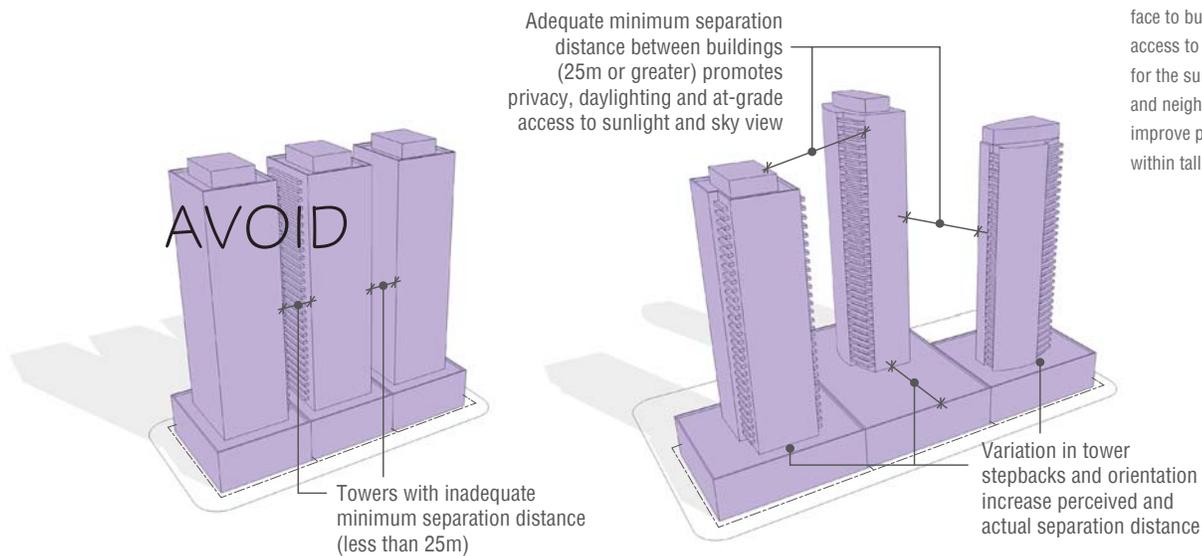


Figure 5: Adequate minimum tower separation distances, measured from closest building face to building face, protect access to sunlight and sky view for the surrounding public realm and neighbouring properties, and improve privacy and daylighting within tall buildings.

RATIONALE cont.

Where a new tall building is proposed adjacent to an existing tall building or a potential tall building development site, matters of sunlight, sky view, privacy, and daylighting become even more critical since the cumulative effect of a cluster of towers on a street, park, open space, or in relation to each other and neighbours can amplify quality of life concerns for both the public and private realms. Even if tall buildings in close proximity to other tall buildings meet the minimum required separation distances, setbacks, and setbacks, towers should be further shaped, placed, and articulated to increase the actual and perceived distances between adjacent building elevations.

Since tall building development is typically evaluated on a site-by-site basis, it is important to understand the cumulative

effect of the proposed tall building within the context of other tall buildings (see also 1.1 Context Analysis). One test for the appropriateness of proposed tower setbacks and separation distances is to replicate the proposal on adjacent sites or blocks. The cumulative effect should result in acceptable outcomes for shadowing, access to sky view, privacy, and daylighting (see also 1.4 Sunlight and Sky View).

If towers are permitted to locate too close to side or rear property lines, the result is a “first-to-the-post” development scenario, whereby the need to provide access to sunlight, sky view, privacy, and daylighting, may restrict adjacent sites from developing in a similar manner.

Official Plan Reference

2.3.1 Healthy Neighbourhoods: Policy 2c | 3.1.2 Built Form: Policy 3c, 3d, 3e and 4 | 3.1.3 Built Form - Tall Buildings: Policy 1b

Related Standards, Guidelines & Studies

Sun, Wind and Pedestrian Comfort: A Study of Toronto’s Central Area

3.2.3 SEPARATION DISTANCES CONT. IMPLEMENTATION OF TOWER SEPARATION DISTANCES: SMALL SITES

On small sites, apply the recommended minimum tower setbacks and stepbacks to determine the resultant floor plate size and feasibility of the site dimensions to accommodate a tall building.

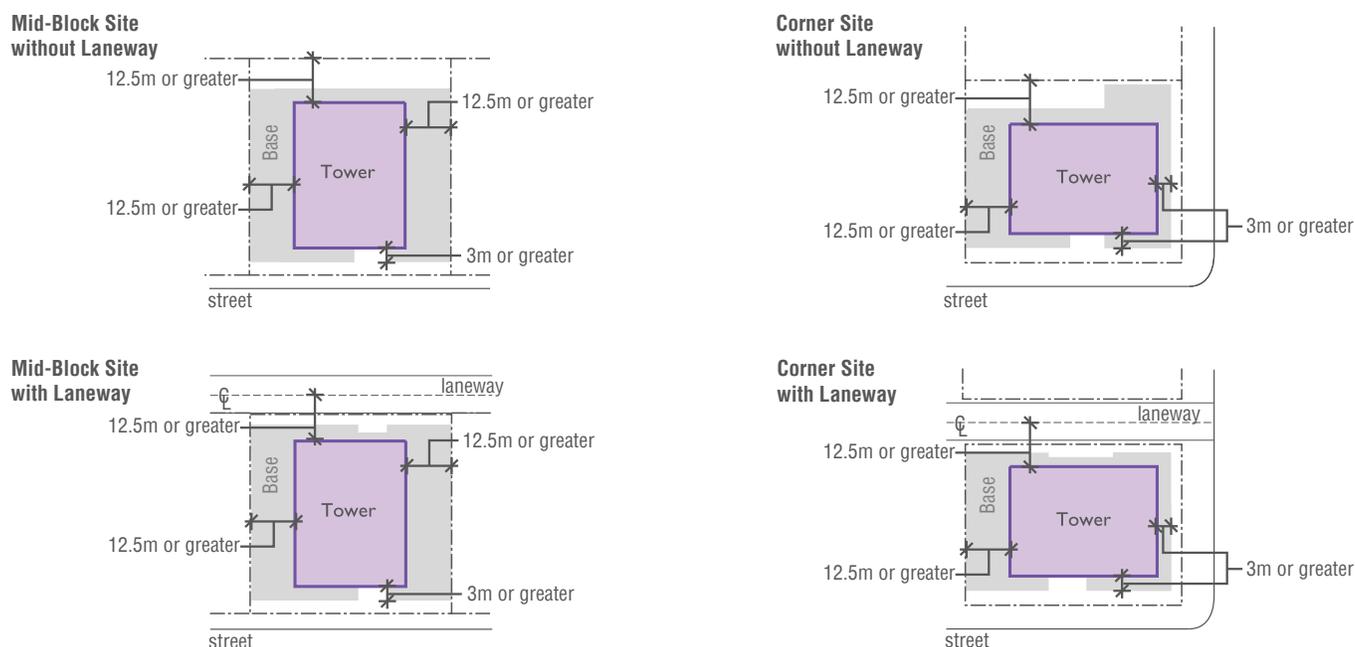


Figure 6: Conceptual "small sites" showing recommended minimum tower setbacks from the base building and setbacks from side and rear property lines or centre line of an abutting lane.

The construction of tall buildings on sites that are too small to accommodate the minimum tower setbacks and stepbacks results in negative impacts on the quality of the public realm, neighbouring properties, the living and working conditions for building occupants, and the overall liveability of the City.

If tall buildings are constructed too close together negative impacts may include:

- excessive shadowing of surrounding streets, parks, open space, and properties;
- diminished sky views for pedestrians;
- heightened street level wind effects;
- loss of privacy for residents; and
- limited interior daylighting.

As noted, when towers are constructed too close to property lines, development of one site may restrict adjacent sites from developing in a similar manner.

Small sites also have greater difficulty in providing required amounts of underground parking as minimum lot depths are necessary to achieve setbacks and to allow for typical below-grade parking layouts, including ramps and access. Street level façades and pedestrian activities are compromised when above-grade parking garages are introduced on sites with inadequate conditions for below-grade parking to exist.

Appropriate minimum dimensions for a proposed tall building site may be determined by applying the recommended minimum tower setbacks and stepbacks (see figure 6), and evaluating the resultant floor plate size. If it is not feasible to construct a tower on a site after applying these setbacks and stepbacks, the site may be too small for a tall building. In some cases, it may be possible to assemble several smaller properties to allow tall building development to proceed, but in other cases, the small site may only be able to accommodate a lower-scale building form, such as a mid-rise building.

3.2.4 TOWER ORIENTATION AND ARTICULATION

Organize and articulate tall building towers to promote design excellence, innovation, and sustainability.

- a. Orient towers to improve building energy performance, natural ventilation, and daylighting, provided that access to sky view is maintained and adverse wind and shadow impacts are minimized (see also 1.4 Sunlight and Sky View, 3.2.1 Floor Plate Size and Shape, 3.2.2 Tower Placement, and 3.2.3 Separation Distances).
- b. Vary the design and articulation of each tower façade to respond to changes in solar orientation. Where appropriate, adjust internal layouts, glazing ratios, balcony placement, fenestration, and other aspects of the tower design to manage passive solar gain and improve building energy performance (see also 3.2.5 Tower Balconies).
- c. Variation in the design and articulation of each tower façade is encouraged to provide visual interest and to respond to design opportunities and differing facing conditions within the adjacent context (see also 1.5 Prominent Sites and Views from the Public Realm).
- d. Where possible, include operable windows to provide natural ventilation and help reduce mechanical heating and cooling requirements.



Figure 2: A "sustainable" façade design, including operable windows for natural ventilation and fenestration to shade high-performance glazing.



Figure 1: A well-articulated tower provides visual interest and a variety of balcony opportunities with good solar orientation.

- e. When multiple towers are proposed, stagger the tower heights to create visual interest within the skyline, mitigate wind, and improve access to sunlight and sky view. In general, variation of 5 storeys or more provides a difference in height that can be perceived at street level.
- f. Where possible, provide internal flexibility within the tower to accommodate changing floor layouts and uses over time. In residential and mixed-use buildings, the inclusion of "break-out" panels or other relevant construction techniques are encouraged to allow residential units to be converted or combined to meet changing occupancy requirements.
- g. Articulate tall building towers with high-quality, sustainable materials and finishes to promote design excellence, innovation and building longevity.

RATIONALE

In addition to tower floor plate size, shape, placement, and separation, the orientation and articulation of the tower is critical to the overall perception of the three dimensional massing of the tall building, the physical impact on adjacent areas, and the visual impact upon the skyline. Designs which reduce the appearance of the overall tower bulk and present a slender, point tower form in the skyline are encouraged (see also 3.2.1 Tower Floor Plate Size and Shape).

Orienting and articulating the tower in relation to the seasonal paths of the sun across the sky, combined with the arrangement of internal spaces, can greatly improve natural daylighting, liveability, and energy efficiency. It is important to balance design decisions based on building performance objectives with maintaining sky view and minimizing adverse wind and shadow impacts on the public realm and surrounding properties.

The tower portion of a tall building is often the most visible and the most resource intensive part of the development. The provision of internal flexibility and the inclusion of operable windows, sun shades, and other high-quality, sustainable materials, finishes, and construction methods foster building sustainability and longevity.

Official Plan Reference

- 3.1.3 Built Form – Tall Buildings: Policy 1b
- 3.2.3 Parks and Open Space: Policy 3
- 3.4 The Natural Environment: Policy 18e and 19
- 3.5.1 Supporting the Foundations of Competitiveness: Policy 1c
- 5.1.3 Site Plan Control: Policy 3c, 3f and 3g

Related Standards, Guidelines & Studies

- Toronto Green Standard | Bird-Friendly Development Guidelines

3.2.5 BALCONIES

Design balconies to maximize usability, comfort, and building performance, while minimizing negative impacts on the building mass, public realm, and natural environment.

- a. Avoid balcony arrangements that significantly increase the physical and apparent visual building mass. Wrap-around balconies are generally discouraged, but if included may require a smaller tower floor plate or greater tower separation distances to offset the impacts on shadow, sky view, privacy, and daylighting caused by adding to the building mass (see 3.2.2 Floor Plate Size and Shape).

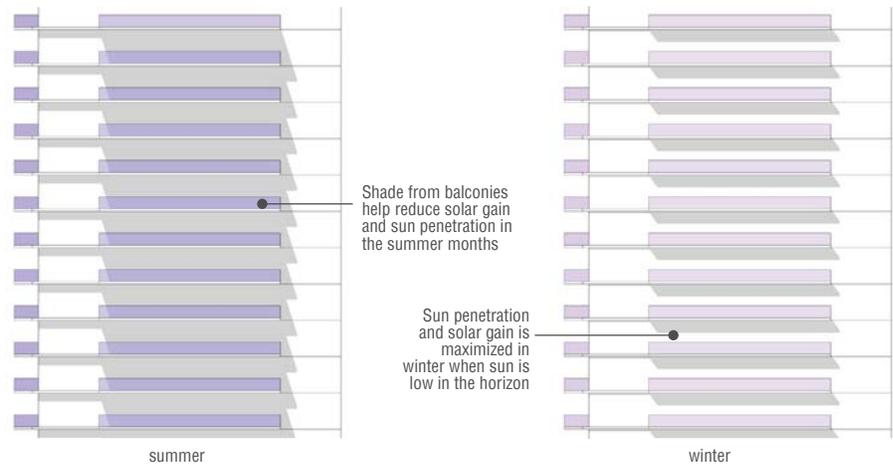


Figure 1: The effective design and placement of balconies can help manage sun penetration and passive solar gain.

- b. Design balconies to meet sustainability objectives, including the use of separated floor slabs to minimize heat loss from thermal bridging, less transparent materials to reduce bird strikes and mitigate light trespass, and arrangements and materials that control sunlight penetration passive heat gain.
- c. Design residential balconies to be an extension of interior living space and consider the following:
- balconies greater than 1.5 metres in depth and rectangular in shape are generally preferred for dining and seating; and
 - inset or partially inset balcony arrangements may offer greater privacy and be more comfortable, particularly on upper floors (see also 2.5 Private Open Space).

RATIONALE

Balconies are often included, particularly in residential and mixed-use tall buildings, to provide private open space amenity. While balconies contribute important outdoor space, their placement and design can have a major impact on the real and perceived bulk of a tall building. When balconies are contiguous and wrap the entire tower, the result can sometimes be a building envelope that appears much larger than the tower floor plate, even when it meets the 750 square metre maximum size.

Balcony arrangements which are not carefully planned and integrated within the tower massing can contribute to additional shadow impacts and a reduction in privacy, sky view, and daylighting. A decrease in floor plate size or increase in separation distances may be required to mitigate the impact of balconies on the public realm and neighbours.

From a sustainable design perspective, balcony arrangements, materials, and construction methods can significantly impact building energy performance. Furthermore, transparent glass balconies are generally discouraged, since they can pose a collision risk for migratory birds and do little to manage passive solar gain or reduce sky glow caused by light trespass from the building interior. Where glass is used, it should always include bird-friendly surface treatments.

Official Plan Reference:

3.1.2 Built Form: Policy 3b, 3d, 3e, 3f and 6 |
5.1.3 Site Plan Control: Policy 3c

Related Standards, Guidelines & Studies

Toronto Green Standard | Bird-Friendly Development Guidelines

3.3 TOWER TOP

3.3 Tower Top



3.3 TOWER TOP

Design the top of tall buildings to make an appropriate contribution to the quality and character of the city skyline.

Balance the use of decorative lighting with energy efficiency objectives, the protection of migratory birds, and the management of artificial sky glow.

- Integrate roof-top mechanical or telecommunications equipment, signage, and amenity space, where appropriate, into the design and massing of the upper floors of the tall building.
- Where decorative lighting is included within the tower design, use energy efficient fixtures (such as LEDs), avoid uplighting and overlighting, and include programmable fixtures which can dim as the evening progresses or turn off during migratory seasons.



Figure 1: Subtle variation in massing and integrated signage enhance the tower top.



Figure 2: Energy efficient decorative lighting makes an interesting contribution to the appearance of tall buildings in night sky.

RATIONALE

An appropriate design for the top of a tall building is influenced by many factors, which may include location, height, built form composition, architectural expression, and overall ‘fit’ within the existing context of the city skyline.

Most tall buildings form part of the urban backdrop which frames existing landmarks and public open space. In these instances, the top should reinforce the supporting role of the building and subtly integrate with the overall tower design.

A small number of tall buildings, such as those terminating a view or those with significant height, may benefit from a signature tower top to strengthen the tall building identity as a landmark for orientation in the city.

In all instances, roof-top mechanical and telecommunications equipment, as well as signage must be well-integrated into the total building design to avoid detracting from the form and elegance of the top.

In the same manner that not all tower tops warrant a signature feature, not all tops require decorative lighting. When decorative lighting for the tower top or other key architectural features is included to enhance the design and presence of a tall building at night, lighting does not have to be turned on for all hours of the night or all days of the year to be effective. Furthermore, illumination should respond to environmental sustainability objectives and be:

- energy efficient
- designed to minimize glare, light trespass, and sky glow
- programmed to turn off during the migratory seasons (April to May and mid-August to mid-October).

Official Plan Reference

3.1.3 Built Form - Tall Buildings: Policy 1c and 2b | 3.4 The Natural Environment: Policy 18e | 5.1.3 Site Plan Control: Policy 3g

Related Standards, Guidelines & Studies

Toronto Green Standard | Bird-Friendly Development Guidelines



4.0 PEDESTRIAN REALM

- 4.1 Streetscape and Landscape Design
- 4.2 Sidewalk Zone
- 4.3 Pedestrian Level Wind Effects
- 4.4 Pedestrian Weather Protection

4.1 STREETSCAPE AND LANDSCAPE DESIGN

Provide high-quality, sustainable streetscape and landscape design between the tall building and adjacent streets, parks, and open space.

- Create a strong visual and physical connection between the building setback and public streetscape through the use of consistent materials, grades, and design elements. Maintain universal access to public and shared entrances, particularly where there are changes in topography. (See also 3.2.5 Public-Private Transition).
- Organize streetscape and landscape elements to support safe and comfortable pedestrian movement, highlight important building features, such as entrances, screen less attractive activities, such as parking access, add four season interest, colour, and texture, and provide shade, where appropriate.
- Provide sustainable streetscape and landscape design by:
 - protecting existing natural features and trees;
 - providing sufficient soil depth and high-quality growing medium for new shade trees and plant material;
 - using high-albedo and permeable paving materials to manage the urban heat island effect and stormwater;
 - maximizing on-site stormwater infiltration, capture, and reuse;
 - installing energy efficient, pedestrian-scale lighting with shielded fixtures and automatic shut-off devices.
- On streets characterized by soft landscape setbacks or where ground floor uses require more privacy from the adjacent sidewalk, provide additional landscaping between the building face and public sidewalk. Such treatment may include tree and shrub planting, water features, minor grade changes, railings, curbs, low walls, fences, public art, lighting, and seating, etc.



Figure 1: A vibrant and 'green' streetscape with a good range of pedestrian and cycling amenities.

RATIONALE

A well-designed and vibrant streetscape is vital to the character and quality of the tall building site and the surrounding public realm, as well as to the livability of the City.

All building frontages facing public streets, parks, and open space must safely and comfortably accommodate pedestrian movement, street furnishings, lighting, bicycle parking, and landscaping. The space in front of buildings may also contain cafés, grocery stands, canopies, awnings, signage, public art, fountains, landscape structures, and other built or landscape features, which further animate the street and enhance pedestrian amenity.

Official Plan Reference 3.1.1 The Public Realm: Policy 1d, 5, 6, 11a, 12, and 14e | 3.1.2 Built Form: Policy 1d, 5a, 5b and 5g | 3.4 The Natural Environment: Policy 1d and 18f | 5.1.3 Site Plan Control: Policy 3b, 3d, 3e and 3g

Related Standards, Guidelines & Studies Urban Design Streetscape Manual | Toronto Green Standard | Vibrant Streets | Toronto Walking Strategy | Percent for Public Art Program Guidelines

4.2 SIDEWALK ZONE

Provide adequate space between the front of the building and adjacent street curbs to safely and comfortably accommodate pedestrian movement, streetscape elements, and activities related to the uses at grade.

- Along the primary street frontages of a tall building site, secure a sidewalk zone at least 6 metres wide or greater where larger setbacks are established by the existing context or required by the Zoning By-law. The pedestrian clearway must be within public property. The broader sidewalk zone may be entirely public or a combination of public and private property.
- Exceptions to the minimum 6 metre width may be considered when the extent of the tall building frontage or potential for future redevelopment on abutting sites does not support establishing a new setback pattern. In such cases, creative solutions, such as eroding the first floor to achieve the sidewalk width at grade, or setting back a portion of the building to create a forecourt, may be appropriate.
- Tall buildings at corners, transit nodes, PATH access points, or other locations with significant pedestrian use, or where there is a substantial change in grade, may require additional setbacks for all or portions of the building frontage to accommodate pedestrian flow.
- Tall buildings of significant height and density may require additional sidewalk width beyond 6 metres to accommodate the anticipated volume of pedestrian traffic.
- Wider streets that typically carry higher volumes and speeds of vehicular traffic may also benefit from additional sidewalk width to improve pedestrian safety and comfort.

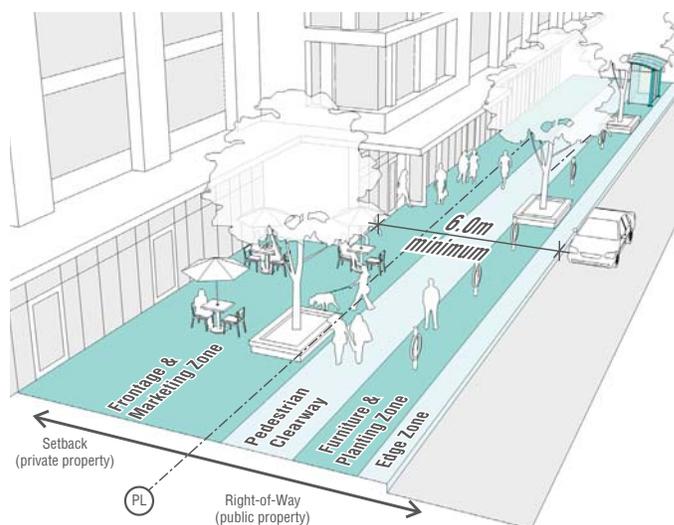


Figure 1: A generous sidewalk and strategic setback supports an active street frontage and vibrant pedestrian environment.

RATIONALE

Sidewalks are a vital part of the public realm, and play a crucial role in dense urban areas, particularly when characterized by limited open space or parkland deficiencies. Since many streets in Toronto were not designed with tall buildings and the associated density in mind, the width of the existing public sidewalk is frequently too narrow. A wider sidewalk zone, which may include a building setback, is often necessary to properly resolve competing demands for space from pedestrians, street furniture, trees, utilities, and commercial uses. Wider sidewalks can also provide space for grouped bicycle parking, boulevard cafés, public art installations, and other valuable street activities and amenities.

New development, especially when at the scale of an entire block, offers the opportunity to improve sidewalk amenity by providing an edge zone, a generous furnishing and planting zone, a continuous, universally accessible pedestrian clearway, and an appropriate frontage or marketing zone depending upon the uses at grade. In order to achieve an appropriate sidewalk width, the base of a tall building may need to be set back further from the property line than the distance required by the Zoning By-law.

Official Plan Reference 2.2 Structuring Growth in the City: Policy 3a(ii) and 3b | 2.2.1 Downtown: The Heart of Toronto: Policy 11 | 2.4 Bringing the City Together: Policy 2 | 3.1.1 The Public Realm: Policy 5, 11a, 11b, 12 and 14e

Related Standards, Guidelines & Studies Urban Design Streetscape Manual | Vibrant Streets | Toronto Green Standard | Toronto Walking Strategy

4.3 PEDESTRIAN LEVEL WIND EFFECTS

Locate, orient, and design tall buildings to promote air circulation and natural ventilation, yet minimize adverse wind conditions on adjacent streets, parks and open space, at building entrances, and in public and private outdoor amenity areas.



Figure 1: Strong pedestrian level wind makes street-level conditions uncomfortable and in some cases hazardous.

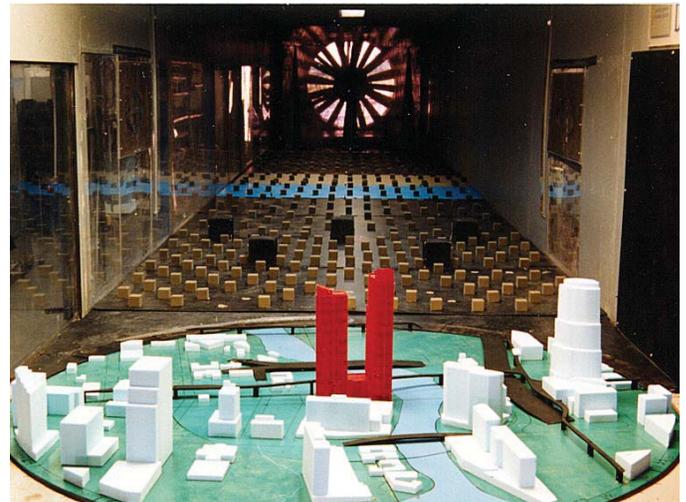


Figure 2: Wind testing (Engineering input by RWDI)

RATIONALE

The design and placement of tall buildings to capture natural breezes and air flow can benefit energy efficiency and indoor air quality. Adequate air circulation at-grade, especially during the summer months, is important to flush away street-level pollutants and improve air quality for pedestrians and cyclists.

While air circulation around tall buildings is important, down drafts from buildings or accelerated winds from tunnelling between buildings can negatively affect pedestrian-level comfort and even become hazardous. In general, the taller the building, the stronger the potential for wind effects at the base and the greater the need for mitigation measures.

Adverse wind conditions can be mitigated through the siting, massing, orientation and articulation of the base and the tower. The use of setbacks at the tower base is a particularly useful strategy to dissipate down drafts. Architectural devices, such

as projecting cornices, screens, terraces, overhangs, and permanent canopies can also be applied to reduce the effects of high speed wind around the base building and within rooftop amenity areas.

The placement of permanent site features such as walls, berms, and landscaping can also help mitigate wind impacts by reducing speed or creating sheltered areas for seating or standing.

Predicting the influence of tall buildings on local wind flow patterns and street-level conditions is a complex task best established through wind tunnel testing of a scale model. At a preliminary planning stage, however, the basic aerodynamic issues illustrated in the schematic diagrams provided on the following page can be applied to inform the initial design.

Issues

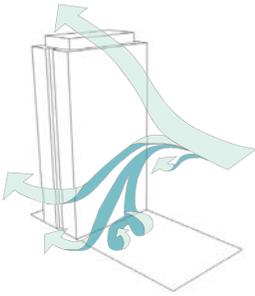


Figure 3:

- Wind flowing down the building face causes accelerated wind speeds near the windward corners.
- Tall and wide facades that face the prevailing winds are often undesirable.

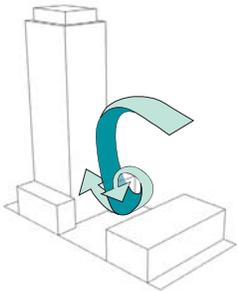


Figure 4:

- Buildings create a low wind pressure area immediately downwind.
- A low building upwind of a tall building increases the downward flow of wind, causing accelerated winds near the windward corners of the tall building.

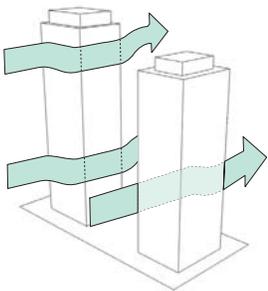


Figure 5:

- Wind is funneled between two buildings causing accelerated winds between them (wind canyon effect).
- The height, spacing, and orientation of the buildings affect intensity of wind acceleration.

Solutions

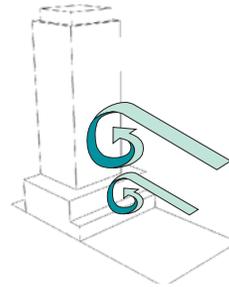


Figure 6:

- Towers that step back from base buildings can be used to reduce undesirable downward wind flows.
- The proportion of base building setbacks and their influence on the wind is affected by the height of the surroundings.

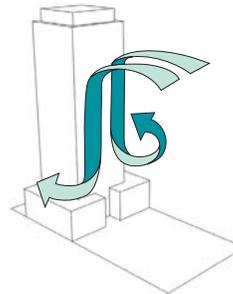


Figure 7:

- Base building roof areas that are inaccessible to pedestrians can be used to mitigate against downward wind flows and improve conditions at grade.
- Landscaped base building roof areas can further reduce wind speeds at grade.

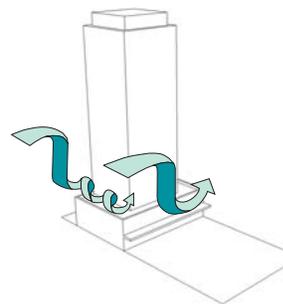


Figure 8:

- The use of horizontal canopies on the windward face of base buildings is beneficial.
- Parapet walls can increase the canopy's effectiveness.
- Sloped canopies only partially deflect downward wind conditions.

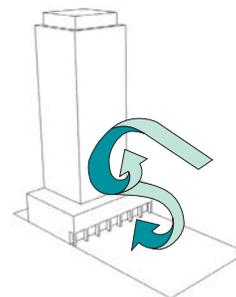


Figure 9:

- Colonnaded base buildings can be used on windward facades to control downward wind flows.
- Colonnades provide pedestrians a choice of calm or windy areas (breezes are welcome on hot days).

Official Plan Reference

3.1.1 The Public Realm: Policy 12 | 3.1.2 Built Form: Policy 3e, 3f and 5c | 3.2.3 Parks and Open Space: Policy 3

Related Standards, Guidelines & Studies

Sun, Wind and Pedestrian Comfort: A Study of Toronto's Central Area

4.4 PEDESTRIAN WEATHER PROTECTION

Ensure weather protection elements, such as overhangs and canopies, are well-integrated into building design, carefully designed and scaled to support the street, and positioned to maximize function and pedestrian comfort.

- Provide permanent pedestrian weather protection, such as overhangs or canopies, at building entrances and along commercial and mixed-use street frontages.
- In general, locate weather protection at the top of the first floor (6 metres maximum) and provide a width of 3 metres. Incorporate all encroachments within the private setback unless otherwise permitted by By-Law or legal agreement.
- Coordinate pedestrian weather protection with neighbouring buildings for continuous shelter and compatibility in design.
- For visual interest and clarity, integrate pedestrian-scale lighting, signage, street numbering, and other features, such as public art, as appropriate.
- Permanent, durable materials are preferred as they form part of the building architecture, have greater longevity, and hold up against the elements.
- Translucent or opaque materials are recommended to mute reflections on ground floor glazing, mitigate passive solar gain, and reduce light trespass from the building interior.
- Colonnades are generally discouraged, but where proposed, design and space columns to maintain clear views to the uses behind and promote ease of pedestrian flow. Provide generous proportions, including a minimum width of 3 metres and minimum height of 6 metres (1:2 ratio).

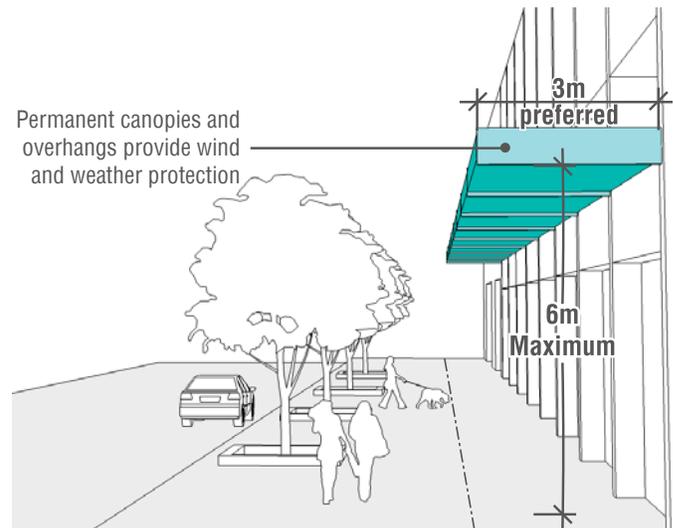


Figure 1: A generous permanent overhang protects pedestrians from wind and weather.



Figure 2: A well-proportioned overhang is enhanced by illuminated public art.

RATIONALE

The inclusion of pedestrian weather protection along the edges of buildings can greatly enhance the year-round enjoyment of streets and open space. Where base buildings form a continuous streetwall, coordinated and uninterrupted weather protection allows pedestrians to move comfortably throughout the entire area in all seasons.

Weather protection elements can work together with street trees to define and frame a street. They can help define building proportions at the street level, articulate entrances, animate base buildings and enhance the character of a neighbourhood. Overhangs, canopies and awnings can also play an important environmental role by protecting building interiors from direct,

midday summer sun and help mute reflections on glazing to achieve 'bird-friendly' design.

Colonnades are generally discouraged as weather protection devices as they tend to pull retail frontages and associated pedestrian activity away from the street. Where they do prevail, generous proportions and a clear view to the uses behind is key to allow for pedestrian flow and visibility.

Official Plan Reference 3.1.2 Built Form Policy 5c | 5.1.3 Site Plan Control: Policy 3a

Related Standards, Guidelines & Studies
Toronto Green Standard | Accessibility Design Guidelines

GLOSSARY

REFERENCES

SUBMISSION REQUIREMENTS

Glossary

Active Uses: at-grade uses within a building that support pedestrian activity and promote a high degree of visual and physical interaction between the building interior and adjacent public realm. Grand entrance lobbies, private indoor amenity space, guest suites, and large-format retail or commercial facilities are typically not considered active uses.

Amenity: see Pedestrian Amenity

Angular Plane: a geometric measure applied to control the size and shape of the building envelope or portion thereof for such purposes as promoting transition in scale between buildings of different intensity, protecting access to sunlight and sky view for streets, parks, public and private open space, and/or limiting shadow and overlook on neighbouring properties.

Articulation: the layout or pattern, expression and material character of building elements, including walls, doors, roofs, windows and decorative elements such as cornices and belt courses.

Base Building: the lower portion of a tall building, designed to define and support adjacent streets, parks, and open space at an appropriate scale, integrate with adjacent buildings, assist to achieve transition down to lower-scale buildings, and minimize the impact of parking and servicing on the public realm.

CPTED (Crime Prevention Through Environmental Design): a pro-active crime prevention strategy which advocates that proper design and effective use of the built environment can lead to a reduction in the incidence and fear of crime and improve the quality of life. The four underlying concepts of CPTED are Natural Surveillance, Natural Access Control, Territorial Reinforcement, and Maintenance.
www.cptedontario.ca/

Context (Existing and Planned): the existing context of any given area refers to what is there now. The planned context refers to what is intended by City policies in the future.

Context Analysis: the study of how new development will fit with and respond to existing and planned patterns, opportunities, and challenges identified within the surrounding area.

Courtyard: a landscaped open space, located in the centre of a single or consolidated block with no direct street frontage.

Daylighting: access to natural light – direct or diffuse sunlight – within the building interior.

Façade: the exterior wall of a building visible from the public realm.

Floor Plate: see Tower Floor Plate

Forecourt: a landscaped open space between the public sidewalk and the main entrance of a building.

Frontage: the portion of a development parcel or lot facing a street, park or other publically accessible open space.

Galleria: a glazed and enclosed public or publically accessible walkway.

High-rise Building: see Tall Building

Landscaped Open Space: outdoor area characterized by hard and/or soft landscape treatment, but excluding driveways and vehicular parking areas. On-site landscaped open space may be publically accessible or privately shared common outdoor space at-grade or above-grade on rooftops of base buildings or towers.

Landscaped Setback: the space between the public sidewalk and building face characterized by hard or soft landscape treatment.

Low-Rise Building: a building that is generally up to four storeys in height.

Master Plan: a planning and design framework to guide the incremental development of a large or complex area with multiple buildings, new streets, and/or parks.

Mid-Rise Building: a building generally taller than four storeys, but no taller than the width of the adjacent street right-of-way. On a 20 metre wide street, the tallest mid-rise building would be 5 to 6 storeys, whereas on a 36 metre wide street, the tallest mid-rise building would be 9 to 11 storeys (see chart below).

R.O.W. Width ¹	Mixed-Use		Commercial	
	storeys	height (m) ²	storeys	height (m) ³
20m	6	19.5	5	18.9
27m	8	25.5	7	26.1
30m	9	28.5	8	29.7
36m	11	34.5	9	33.3

Assumptions:

1. R.O.W. widths are identified in Official Plan Map 3
2. Mixed Use heights assume 4.5m for ground floor and 3.0m from all floors above
3. Commercial heights assume 4.5m for ground floor and 3.6m for all floors above

Refer to the City of Toronto Performance Standards for Mid-Rise Buildings.

Middle (Tower): the portion of a tall building above the Base Building, designed to fit with and achieve an appropriate relationship with the Base Building, the public realm, and neighbouring properties.

Primary Street: a street with high pedestrian priority, determined by the street and sidewalk widths, character of uses at grade, level of transit service, traffic volumes, number of vehicular and cycling lanes, and the overall level of civic importance within the structure of the city. A site can have more than one primary street frontage.

Pedestrian Amenity: architectural and landscape elements, including lighting, trees, four season landscaping, decorative paving, seating, public art, water features, etc., that promote the safe and comfortable use of streets and open spaces.

Pedestrian Scale: the quality of the physical environment which reflects a sympathetic proportional relationship to human dimensions and which contributes to a person's perception and comprehension of buildings or other features in the built environment.

Plaza: an animated gathering place with predominantly hard surfaced landscape features flanking a public street.

Podium: a podium is a type of base building. For the purposes of evaluating tall buildings, the term 'podium' should be replaced by the term Base Building with the associated definition and guideline requirements.

Point Tower: a compact and slender tall building form with a typical residential tower floor plate of 750 square metres or less.

Private Shared Amenity Space: common spaces or facilities that are owned, maintained, and accessed privately by building occupants.

Public Art: site specific artwork created to enhance publicly accessible space through artistic interpretations that range from independent sculpture to integrated architectural treatment and landscape design.

Public Realm: streets and lanes, parks and other open spaces and the accessible parts of public buildings.

Publicly Accessible Open Space: privately owned and maintained outdoor space that is designed to promote public access and use.

Secondary Street: a flanking street with a more local scale and pedestrian priority, determined by the street and sidewalk widths, character of uses at grade, the level of transit service, traffic volumes, number of vehicular and cycling lanes, and the overall level of civic importance within the structure of the city.

Separation Distance: the horizontal distance between buildings or building components, such as tall building towers, measured from the exterior wall of the building or building component, but excluding balconies.

Setback: a horizontal distance measured at a right angle from any lot line to the nearest part of the main wall of a building or structure.

Sidewalk Zone: the space between the roadway curb and property line. The sidewalk zone may be expanded when a building is setback from the property line.

Sky View: the measurable amount of sky seen from a street, park, or other open space above and in between building masses.

Soft Landscaping: vegetation such as grass, trees, shrubs, flowers or other plants growing in an open unobstructed area that permits water infiltration into the ground.

Stepback: the setting back of the upper storeys of a base building or of a tower from the face of a base building.

Streetscape: the distinguishing elements and character of a particular street as created by its width, degree of curvature, paving materials, design and placement of street furniture, trees, landscaping, lighting and other pedestrian amenities, as well as the setback and form of surrounding buildings.

Streetwall: the condition of enclosure along a street whereby the fronts of buildings align and the façades visually and physically join together to create a continuous defining edge for the street.

Street Proportion: the ratio of the height of buildings along the edges of a street and the width of the space between the building faces on each side of the street (includes setbacks).

Tall Building: (also referred to as a High-rise Building) a building that is generally taller than the width of the adjacent street right-of-way, or the wider of two streets if located at an intersection.

Tall Building Form: generally a three-part building composition, consisting of a Base Building, Middle (Tower) and Top.

Top: the uppermost portion of a tall building, designed to contribute to the skyline character and integrate any roof-top mechanical or telecommunications equipment, signage, and amenity space.

Tower Floor Plate: the total built area within a tall building tower above the base building, measured from the exterior of the main walls at each floor, but excluding balconies.

Universal Access: refers to built environments, buildings, facilities, accommodation, services and products that are inherently accessible to all people regardless of their abilities. Incorporating universal access and accessible facilities into the design and site layout of new development contributes to making Toronto's built environment "barrier free," enabling people of all abilities to move about freely and safely, participate fully in society and experience a better quality of life.

Urban Garden: a landscaped space, usually of intimate scale, open to a public street, located and oriented to provide maximum sunlight during midday.

Walkability: the extent to which the built environment promotes safe, comfortable and convenient conditions for pedestrian travel. Generally measured and evaluated within a 500 metre radius (10 minute walk) of a site.

Walkway: an exterior public pedestrian route at street level, usually providing connection through the block.

Weather Protection Systems: continuous canopies, overhangs, or other permanent building features which are sized and positioned to effectively shield pedestrians from inclement weather at-grade. Such systems are a priority:

- on streets with active retail or commercial uses at grade
- along Avenues
- within the Downtown Financial District
- at locations adjacent to transit stops
- in all other areas with significant pedestrian flow

References

Official Plan

http://www.toronto.ca/planning/official_plan/introduction.htm

Tall Building Design Guidelines (online)

<http://www.toronto.ca/planning/tallbuildingdesign.htm>

Downtown Tall Buildings: Vision and Supplementary Design Guidelines

<http://www.toronto.ca/planning/tallbuildingstudy.htm>

<http://www.toronto.ca/planning/urbdesign/tableofcontents.htm>

Toronto Green Standard (TGS)

<http://www.toronto.ca/planning/environment/greendevelopment.htm>

TGS Tier 1 for Mid to High Rise Development

http://www.toronto.ca/planning/environment/pdf/mr_hr_tech.pdf

TGS Checklist for Mid to High Rise Development

http://www.toronto.ca/planning/environment/pdf/checklist_mid-high.pdf

Toronto Development Guide – "Build Toronto Together: A Development Guide"

http://www.toronto.ca/developing-toronto/development_guide.htm

OTHER RELATED STANDARDS, GUIDELINES & STUDIES

Accessibility Design Guidelines

<http://www1.toronto.ca/wps/portal/toronto/content?vgnextoid=79a62d36cd049310VgnVCM1000003dd60f89RCRD&vgnnextchannel=26d311e69e529310VgnVCM1000003dd60f89RCRD>

Bird-Friendly Development Guidelines

<http://www.toronto.ca/planning/environment/guidelines.htm>

Guidelines for the Design and Management of Bicycle Parking Facilities

http://www.toronto.ca/planning/bicycle_parking_guide.htm

Parks Canada: Standards and Guidelines for the Conservation of Historic Places in Canada

<http://www.historicplaces.ca/en/pages/standards-normes>

PATH Master Plan Study

http://www.toronto.ca/planning/tp_pathmp.htm

Percent for Public Art Program Guidelines

http://www.toronto.ca/planning/urbdesign/public_art.htm

Shade Guidelines

<http://www.toronto.ca/health/tcpc/shade.htm>

Sun, Wind and Pedestrian Comfort: A Study of Toronto's

Central Area by P. Bosselmann/E.Arens and K.Dunker/R. Wright, City of Toronto, 1990

<http://www.escholarship.org/uc/item/0165c77h#page-1>

Toronto Green Roof Bylaw

<http://www.toronto.ca/greenroofs/index.htm>

Toronto Walking Strategy

<http://www.toronto.ca/transportation/walking/index.htm>

Urban Design Streetscape Manual

<http://www.toronto.ca/planning/urbdesign/streetscape/index.htm>

Vibrant Streets

http://www.toronto.ca/involved/projects/streetfurniture/pdf/vibrant_streets.pdf

OTHER REFERENCES

City of Toronto Design Review Panel

<http://www.toronto.ca/planning/designreviewpanel.htm>

Infill Townhouse Design Guidelines

<http://www.toronto.ca/planning/urbdesign/infilltownhousing.htm>

Performance Standards for Mid-Rise Buildings

<http://www.toronto.ca/planning/midrisestudy.htm#report>

Submission Requirements

Submission Requirements

A section-by-section overview is provided below to outline how Applicants can demonstrate accordance with the Tall Building Design Guidelines and how each section within these Guidelines relates to the Complete Application submission requirements found in the Toronto Development Guide "Building Toronto Together: A Development Guide."

Guideline Summary Statement

As part of the required Planning Rationale (or cover letter) in a complete application, provide a brief summary outlining how the proposed tall building development responds to these Guidelines, including how the tall building(s) will fit harmoniously within the existing/planned context and address key performance measures, such as base building height, tower setbacks, stepbacks and separation distances, tower floor plate size, on-site landscaped open space, sidewalk width, etc. The summary should also address relationships to other relevant policies, plans, standards and guidelines, such as site-specific Zoning, Secondary Plans, Mid-rise Guidelines, Public Realm Plans, etc.

Where a tall building development differs from these Guidelines, provide a supporting planning/design justification to explain how the proposed design approach for the site/building/public realm will meet the overall intent of these Guidelines and the related policies and goals of the Official Plan.

1.0 SITE CONTEXT

1.1 Context Analysis

Illustrate the required context analysis information through detailed text and graphics presented at two scales:

1. "Walkable" scale – within a radius of at least 500 metres (10 minute walk) of the tall building site
2. "Block" scale – for the block(s) on which the tall building development is located and for all blocks immediately adjacent to the tall building site(s) (e.g. across a street, park or open space).

Flexibility in the size and shape of the context analysis boundaries should be applied to address localized conditions and priorities. On larger sites where multiple tall buildings are proposed, provide larger context analysis boundaries to incorporate the boundary for each individual tall building or site.

Toronto Development Guide: Related Submission Requirements

- ▣ Context Plan
- ▣ Concept Site and Landscape Plan
- ▣ Topographic Survey
- ▣ Boundary Plan of Survey
- ▣ Planning Rationale
- ▣ Computer Generated Building Mass Model
- ▣ Preliminary Pedestrian Level Wind Study
- ▣ Community Services and Facilities Study
- ▣ Noise Impact Study
- ▣ Vibration Study
- ▣ Geotechnical Study
- ▣ Servicing Report
- ▣ Storm Water Management Report
- ▣ Transportation Impact Study
- ▣ Parking Study
- ▣ Loading Study
- ▣ Site and Building Elevations
- ▣ Site and Building Sections
- ▣ Site Plan

1.2 Master Plan for Larger Sites

Provide a Master Plan for Larger Sites which illustrates the required context analysis, planning, design and phasing information, through detailed text and graphics. A Master Plan may not be required if there is a Secondary Plan that applies to the site, with associated Context or Precinct Plans that include comparable information and detail.

Toronto Development Guide: Related Submission Requirements

- ▣ Planning Rationale
- ▣ Context Plan
- ▣ Concept Site and Landscape Plan
- ▣ Topographic Survey
- ▣ Boundary Plan of Survey
- ▣ Computer Generated Building Mass Model
- ▣ Preliminary Pedestrian Level Wind Study
- ▣ Architectural Control Guidelines
- ▣ Site-Specific Urban Design Guidelines
- ▣ Housing Issues Report
- ▣ Noise Impact Study
- ▣ Vibration Study
- ▣ Geotechnical Study
- ▣ Servicing Report
- ▣ Storm Water Management Report
- ▣ Transportation Impact Study
- ▣ Parking Study
- ▣ Loading Study
- ▣ Traffic Operations Assessment
- ▣ Site and Building Elevations
- ▣ Site and Building Sections
- ▣ Site and Building Sections
- ▣ Site Plan

1.0 SITE CONTEXT

1.3 Fit and Transition in Scale

Provide plans, sections, elevations and computer views at an appropriate scale to clearly illustrate the existing context and proposed tall building(s) within this context. Include zoning envelopes, setbacks, property lines, street widths, heights of existing and proposed buildings, angular planes and sun/shadow analyses as applicable.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Context Plan
- Topographical Survey
- Concept Site and Landscape Plan
- Perspective Drawing
- Computer Generated Building Mass Model
- Site and Building Elevations
- Site and Building Sections

Downtown Tall Buildings: Vision and Supplementary Design Guidelines



SDG #1

1.4 Sunlight and Sky View

Provide plans, elevations, computer views and a Sun/Shadow Study to illustrate and evaluate the potential impact of the proposed tall building(s) on access to sunlight and sky view for all affected streets, parks, public and private open space and other shadow sensitive areas identified within the surrounding context.

Where shadows from tall buildings have potential impact on heritage properties or Heritage Conservation Districts, a Heritage Impact Assessment will be required. Where shadows from tall buildings have potential impact on natural areas, a Natural Heritage impact Study may be requested.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Context Plan
- Sun/Shadow Study
- Concept Site and Landscape Plan
- Computer Generated Building Mass Model
- Site & Building Elevations
- Natural Heritage Impact Study
- Heritage Impact Assessment

Downtown Tall Buildings: Vision and Supplementary Design Guidelines



SDG #2 and SDG#3

1.0 SITE CONTEXT

1.5 Prominent Sites and Views from the Public Realm

Provide plans, elevations and computer views to illustrate how a proposed tall building(s) responds to being on or adjacent to a prominent site or within an important view corridor. Where a tall building is proposed on a "prominent" site, provide a detailed planning rationale outlining the merits of the site and the associated design response.

Where tall buildings have potential impact on views from the public realm to heritage properties or Heritage Conservation Districts, a Heritage Impact Assessment will be required.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Context Plan
- Concept Site and Landscape Plan
- Sun/Shadow Study
- Computer Generated Building Mass Model
- Perspective Drawing
- Site & Building Elevations
- Site Plan Drawing
- Landscape Plan
- Heritage Impact Assessment

- Site and Building Elevations
- Site and Building Sections

Downtown Tall Buildings: Vision and Supplementary Design Guidelines



SDG #4

1.6 Heritage Properties and Heritage Conservation Districts

Provide plans, sections, elevations and computer views to illustrate how the location and design of a proposed tall building(s) conserves, integrates, and complements on-site or adjacent heritage properties and heritage conservation districts.

Tall building proposals with on-site or adjacent heritage properties, as well as those within a Heritage Conservation District or with potential impact on a Heritage Conservation District are required to provide a Heritage Impact Assessment.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Context Plan
- Concept Site and Landscape Plan
- Sun/Shadow Study
- Perspective Drawing
- Site Plan Drawing
- Site & Building Elevations
- 1:50 Scale Detailed Colour Building Elevations
- Landscape Plan
- Tree Preservation Plan
- Archaeological Assessment
- Heritage Impact Assessment

Downtown Tall Buildings: Vision and Supplementary Design Guidelines



SDG #5

2.0 SITE ORGANIZATION

2.1 Building Placement

Provide plans, sections and elevations to illustrate how the organization of the site and buildings fits with the patterns established by the existing/planned context (see also "Block" scale analysis in 1.1 Context Analysis).

Identify the size and character of all building setbacks and on-site landscaped open space

Toronto Development Guide: Related Submission Requirements

- Boundary Plan of Survey
- Topographical Survey
- Context Plan
- Concept Site and Landscape Plan
- Site Plan Drawing
- Site Grading Plan
- Underground Garage Plan(s)
- First Floor Plan(s)
- Site and Building Elevations
- Site & Building Sections
- Landscape Plan
- Tree Preservation Plan
- Public Utilities Plan

2.2 Building Address and Entrances

Provide annotated plans, sections and elevations that indicate the location of primary and secondary building entrances (public and private) and how the addresses are readily identifiable and accessible from the public street.

Toronto Development Guide: Related Submission Requirements

- Boundary Plan of Survey
- Topographic Survey
- Context Plan
- Site Plan Drawing
- Site Grading Plan
- First Floor Plan(s)
- Site & Building Elevations
- Site & Building Sections
- 1:50 Scale Detailed Colour Building Elevations
- Landscape Plan

Toronto Green Standard References:



AQ 3.5

2.0 SITE ORGANIZATION

2.3 Site Servicing, Access and Parking

Provide annotated plans, sections and elevations to explain the systems of vehicular and bicycle access, circulation and parking, major pedestrian movements, and the location, integration and screening of garbage/ recycling storage and collection areas, loading areas, underground ventilation shaft/ gratings, service metres and transformer vaults, etc.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Context Plan
- Concept Site and Landscape Plan
- Computer Generated Building Mass Model
- Storm Water Management Report
- Transportation Impact Study
- Parking Study
- Loading Study
- Traffic Operations Assessment
- Underground Garage Plan
- Site Plan Drawing
- Site & Building Elevations
- Site & Building Sections
- Landscape Plan
- Public Utilities Plan

Toronto Green Standard References:

-  AQ 1.1 | 2.1 to 2.5 | 4.3
-  EC 5.3
-  SW 1.1 & 1.2

2.4 Publicly Accessible Open Space

Demonstrate through annotated plans, pedestrian level perspective views and other studies how the on-site open space features create and enhance pedestrian amenity and comfort, and how the design of the building and associated open space(s) relate to its context including other public spaces.

Identify the size and character of all building setbacks and on-site landscaped open space.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Topographical Survey
- Perspective Drawing
- Context Plan
- Computer Generated Building Mass Model
- Sun/Shadow Study
- Preliminary Pedestrian Level Wind Study
- Noise Impact Study
- Site Plan Drawing
- Site Grading Plan
- Landscape Plan
- Tree Preservation Plan

Toronto Green Standard References:

-  AQ 3.1 & 3.2
-  EC 2.1 to 2.4

2.0 SITE ORGANIZATION

2.5 Private Open Space

Demonstrate through annotated plans, sections, elevations and perspective drawings how the proposed private open space features work together with the building programming and other public spaces to achieve required outdoor amenity for building occupants. Drawings and studies should identify the level of privacy and comfort achieved, as well as the sustainable design measures being pursued.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Computer Generated Building Mass Model
- Sun/Shadow Study
- Preliminary Pedestrian Level Wind Study
- Noise Impact Study
- Perspective Drawing
- Site Plan Drawing
- Site Grading Plan
- Roof Plan
- Site & Building Elevations
- Site & Building Sections
- Landscape Plan
- Tree Preservation Plan

Toronto Green Standard References:



AQ 5.1



EC 2.1 to 2.4 | 5.2

2.6 Pedestrian and Cycling Connections

Provide annotated plans, sections and elevations to explain the systems of major pedestrian and cycling movement through and around the site.

Demonstrate the projects' commitment to universal accessibility and to reducing private vehicle use through relevant transportation demand management strategies.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Concept Site and Landscape Plan
- Transportation Impact Study
- Traffic Operations Assessment
- Context Plan
- Site Plan Drawing
- Site Grading Plan
- Underground Garage Plan
- Floor Plan(s)
- Site & Building Elevations
- Site & Building Sections
- Landscape Plan

Toronto Green Standard References:



AQ 2.1 to 2.5 | 3.1 to 3.5

2.0 SITE ORGANIZATION

2.7 Public Art

Refer to the processes for secure public art opportunities outlined in the Percent for Public Art Program Guidelines (2010, Chapter 5: Making it Happen – Securing Public Art).

Where applicable, provide annotated plans, elevations or perspective drawings to identify potential public art opportunities.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Concept Site and Landscape Plan
- Site Plan Drawing
- Site & Building Elevations
- Site & Building Sections
- 1:50 Scale Detailed Colour Building Elevations
- Landscape Plan

3.1 BASE BUILDING

3.1.1 Base Building Scale and Height

Provide annotated street elevations, sections and pedestrian level views showing the massing relationship between the base building, the adjacent street width, and neighbouring building heights and the sun/shadow impacts of the base building on affected streets/sidewalks, parks and open space.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Computer Generated Building Mass Model
- Sun/Shadow Study
- Context Plan
- Perspective Drawing
- Site and Building Elevations
- 1:50 Scale Detailed Colour Building Elevations

Downtown Tall Buildings: Vision and Supplementary Design Guidelines



SDG#6

3.1 BASE BUILDING

3.1.2 Street Animation

Provide annotated plans, sections and elevations for the first floor(s), showing the nature of ground floor uses and the relationship to the public sidewalk.

Toronto Development Guide: Related Submission Requirements

- Context Plan
- Site Plan Drawing
- Site Grading Plan
- Floor Plan(s)
- Site and Building Elevations
- Site & Building Sections
- 1:50 Scale Detailed Colour Building Elevations
- Landscape Plan

Downtown Tall Buildings: Vision and Supplementary Design Guidelines



SDG #7

3.1.3 First Floor Height

Provide annotated sections and elevations showing the first floor height at various points along the building frontage, and where relevant, the relationship of this height to the height and scale of neighbouring buildings.

Toronto Development Guide: Related Submission Requirements

- Context Plan
- Site Grading Plan
- Site and Building Elevations
- Site & Building Sections
- 1:50 Scale Detailed Colour Building Elevations

3.1 BASE BUILDING

3.1.4 Façade Articulation and Transparency

Provide an annotated 1:50 elevation drawing showing how the proposed materials and expression of the base building creates visual interest, contributes to active street frontages, and employs sustainable design techniques.

Toronto Development Guide: Related Submission Requirements

- ▣ Site and Building Elevations
- ▣ 1:50 Scale Detailed Colour Building Elevations

Toronto Green Standard References:



EC 5.1 | 6.1 & 6.2

3.1.5 Public-Private Transition

Provide annotated plans, section and elevations showing the design techniques being used to provide safe, accessible and context-appropriate transition from the public realm to the tall building.

Toronto Development Guide: Related Submission Requirements

- ▣ Site Plan Drawing
- ▣ Site Grading Plan
- ▣ Floor Plan(s)
- ▣ Site and Building Elevations
- ▣ Site & Building Sections
- ▣ 1:50 Scale Detailed Colour Building Elevations
- ▣ Landscape Plan

3.2 MIDDLE (TOWER)

3.2.1 Floor Plate Size and Shape

Provide dimensioned plans to illustrate the size and shape of all interior and exterior elements of the tower. Include a Planning Rationale and other relevant studies to support proposed variation from the stated maximum.

Annotate regulations such as the Ontario Building Code which affect the layout.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Sun/Shadow Study
- Computer Generated Building Mass Model
- Floor Plan(s)
- Site & Building Elevations

3.2.2 Tower Placement

Provide annotated plans and related studies to demonstrate how the tower location works together with the base building to achieve a comfortable microclimate at-grade.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Sun/Shadow Study
- Preliminary Pedestrian Level Wind Study
- Site Plan Drawing
- Site and Building Elevations

Downtown Tall Buildings: Vision and Supplementary Design Guidelines



SDG #8

3.2 MIDDLE (TOWER)

3.2.3 Separation Distances

Provide annotated plans, elevations and relevant studies to illustrate design strategies for adequate tower separation, and impacts on sunlight, sky view, daylighting, wind and privacy.

Drawings will clearly indicate zoning envelopes, setbacks, separation distances, property lines, and building heights, as well as arrow annotations showing view angles and access to light at different times of the day and year. Where offset towers and non-parallel walls are proposed, demonstrate through a massing study that issues of privacy, daylighting and sunlight and sky view are suitably resolved.

Indicate separation distances between towers on the same site and between neighbouring properties, on a site plan or a block context plan as appropriate.

SMALL SITES

Provide annotated plans showing site dimensions, all required building/tower setbacks and stepbacks from relevant property lines/other buildings and the dimension of the resultant floor plate.

Toronto Development Guide: Related Submission Requirements

- Planning Rationale
- Sun/Shadow Study
- Preliminary Pedestrian Level Wind Study
- Computer Generated Building Mass Model
- Boundary Plan of Survey
- Topographical Survey
- Perspective Drawing
- Context Plan
- Site Plan Drawing
- Site & Building Elevations

3.2.4 Tower Orientation and Articulation

Provide annotated plans, sections, elevations, perspective views and other studies to indicate how the tower placement, form and articulation responds to the context, including site prominence, relationship to other tall buildings, and solar orientation.

Toronto Development Guide: Related Submission Requirements

- Computer Generated Building Mass Model
- Preliminary Pedestrian Level Wind Study
- Sun/Shadow Study
- Site and Building Elevations
- Site and Building Sections
- Energy Efficiency Report

Toronto Green Standard References:



GHG 1.1



EC 5.1 & 5.2 | 6.1 & 6.2

3.2 MIDDLE (TOWER)

3.2.5 Balconies

Demonstrate through sun/shadow studies, through mass and energy modelling, and through other studies, that the balcony design and arrangement minimizes shadowing of the public realm, addresses opportunities to control passive heat gain, and minimizes heat loss through the use of thermal bridging systems. Indicate balcony dimensions on typical tower floor plans.

Toronto Development Guide: Related Submission Requirements

- ▣ Sun/Shadow Study
- ▣ Computer Generated Building Mass Model
- ▣ Site and Building Elevations
- ▣ Site and Building Sections
- ▣ Floor Plan(s)
- ▣ Energy Efficiency Report

Toronto Green Standard References:



GHG 1.1



EC 5.1 & 5.2

3.3 TOWER TOP

3.3 Tower Top

Provide perspective drawings and 3D modelling images which show the proposal in the context of the skyline.

Illustrate on site and building elevations the tower top design, labelling clearly the proposed materials.

Toronto Development Guide: Related Submission Requirements

- ▣ Perspective Drawing
- ▣ Site and Building Elevations
- ▣ Energy Efficiency Report
- ▣ Roof Plan

Toronto Green Standard References:



AQ 5.1



EC 6.1 & 6.2

4.0 PEDESTRIAN REALM

4.1 Streetscape and Landscape Design

Indicate landscape design elements on the landscape plan including paving, exterior furniture, fencing, lighting screens, public art locations where applicable, planting, and other related materials in sufficient detail to fully describe and illustrate the design quality and sustainable design techniques.

Toronto Development Guide: Related Submission Requirements

- ❑ Concept Site and Landscape Plan
- ❑ Topographic Survey
- ❑ Boundary Plan of Survey
- ❑ Computer Generated Building Mass Model
- ❑ Sun/Shadow Study
- ❑ Final Pedestrian Level Wind Study
- ❑ Arborist / Tree Preservation Report
- ❑ Storm Water Management Report
- ❑ Site Plan Drawing
- ❑ Site and Building Elevations
- ❑ Site and Building Sections
- ❑ Landscape Plan
- ❑ Tree Preservation Plan
- ❑ Public Utilities Plan

Toronto Green Standard References:



AQ 3.4 | 4.1 & 4.2



WQ 4.1



EC 2.1 to 2.4 | 3.1 to 3.3 | 4.1 | 6.1 & 6.2

4.2 Sidewalk Zone

Provide a dimensioned plans and sections of the sidewalk zone (curb to building face) at key points along the building frontage. Identify the location and width of the pedestrian clearway and all other zones (e.g. furnishing and planting zone).

Toronto Development Guide: Related Submission Requirements

- ❑ Planning Rationale
- ❑ Site Plan Drawing
- ❑ Site Grading Plan
- ❑ Site and Building Sections
- ❑ Landscape Plan
- ❑ Public Utilities Plan

Toronto Green Standard References:



AQ 3.2 & 4.2

4.0 PEDESTRIAN REALM

4.3 Pedestrian Level Wind Effects

Provide a Pedestrian Level Wind Study analysis to demonstrate that the tall building design results in a comfortable microclimate for pedestrians and cyclists on adjacent streets, parks and open space, at building entrances, and in public and private outdoor amenity areas.

Toronto Development Guide: Related Submission Requirements

- ▣ Final Pedestrian Level Wind Study

4.4 Pedestrian Weather Protection

Illustrate on building sections and elevations the design and amenity of pedestrian weather protection features, labelling clearly the dimensions and proposed materials.

Toronto Development Guide: Related Submission Requirements

- ▣ Final Pedestrian Level Wind Study
- ▣ Site and Building Elevations
- ▣ Site and Building Sections
- ▣ 1:50 Scale Detailed Colour Building Elevations
- ▣ Final Pedestrian Level Wind Study

Toronto Green Standard References:



AQ 3.3

APPENDICES

- Appendix A. Heritage Conservation Principles
- Appendix B. Downtown Tall Buildings: Summary of
Supplementary Design Guideline References

Appendix A

Heritage Conservation Principles

The Province of Ontario's Eight Guiding Principles for the Conservation of Heritage Properties, as well as the Standards and Guidelines for the Conservation of Historic Places in Canada should be used as primary documents for evaluating and articulating what good heritage conservation means within a development proposal.

These principles speak to:

RESPECT FOR DOCUMENTARY EVIDENCE: Do not base restoration on conjecture. Conservation work should be based on historic documentation such as historic photographs, drawings and physical evidence.

RESPECT FOR THE ORIGINAL LOCATION: Do not move buildings unless there is no other means to save them. Site is an integral component of a building or structure. Change in site diminishes cultural heritage value considerably.

RESPECT FOR HISTORIC MATERIAL: Repair/conservate - rather than replace building materials and finishes, except where absolutely necessary. Minimal intervention maintains the heritage content of the built resource.

RESPECT FOR ORIGINAL FABRIC: Repair with like materials. Repair to return the resource to its prior condition, without altering its integrity.

RESPECT FOR THE BUILDING'S HISTORY: Do not restore to one period at the expense of another period. Do not destroy later additions to a building or structure solely to restore to a single time period.

REVERSIBILITY: Alterations should be able to be returned to original conditions. This conserves earlier building design and technique. (Example - when a new door opening is put into a stone wall, the original stones are numbered, removed and stored, allowing for future restoration).

LEGIBILITY: New work should be distinguishable from old. Buildings or structures should be recognized as products of their own time, and new additions should not blur the distinction between old and new.

MAINTENANCE: With continuous care, future restoration will not be necessary. With regular upkeep, major conservation projects and their high costs can be avoided.

Applying these principles for the Tall Buildings Design Guideline Area means:

Heritage Properties are Valued: Heritage properties help make up a dynamic mix of buildings that embody our history, events and accomplishments as Torontonians. As such they contribute to our collective identity and should be treated with a high level of respect and reverence.

Heritage Properties Shall Be Conserved: The Provincial Policy Statement, the Planning Act and the City of Toronto Official Plan all direct that significant heritage resources shall be conserved. Heritage buildings are three-dimensional and all have an exterior and interior that requires consideration. Although heritage buildings can sometimes work in harmony with developments, there may be places where heritage considerations outweigh other goals such as intensification and redevelopment. As such, not all sites with, or adjacent to, heritage properties can accommodate tall buildings.

Alterations to Heritage Properties Must Adhere to adopted Standards and Guidelines: In March of 2007, City Council adopted the Standards and Guidelines for the Conservation of Historic Places in Canada for the evaluation of all proposed interventions to heritage properties. Any proposed tall buildings that have an impact on or adjacent to a heritage property are required to conform with that document to ensure that properties are properly conserved.

Heritage Properties Deserve Excellent Conservation: When change is proposed for a heritage property, it should be done with the utmost respect for its cultural heritage values. Heritage properties best convey their importance when retained in their entirety or when substantially intact. As such, additions or alterations to heritage properties should retain as much of the original heritage fabric as possible. Façade retention alone, relocation off site, or reconstruction are not generally acceptable methods of conservation for historic properties in the City of Toronto.

The Best Way to Protect a Heritage Property is to Give it a Second Life: Heritage buildings can accept a change in use, and may need to do so in order to ensure their survival. Heritage properties can sometimes accept interventions including acting as podiums to towers placed behind or beside heritage structures, or by accommodating appropriately designed additions. In every instance, new construction should be sympathetic and compatible with the historic building. Changes in use and form should conserve and celebrate the cultural heritage values of a heritage property and mitigate impacts to its form, scale, massing, materials and other attributes.

Heritage Properties Contribute to and Define Local and Street Contexts: Heritage properties sometimes populate a street in concentrations or groups that help define and reinforce the existing built form context of many streets. The form, scale, massing, rhythm, materials, setbacks, and orientations create valued streetscapes and welcoming pedestrian environments. The context created by a grouping or series of heritage properties should be conserved and strengthened when new development is considered in these areas. Towers may not always be appropriate along historic streetscapes and heritage conservation district plans may prohibit tall buildings by imposing height limits or other restrictions.

Appendix B



References to the Downtown Tall Buildings Supplementary Design Guidelines

The Tall Building Design Guidelines apply to the evaluation of all tall building development applications city-wide. These Guidelines are to be used together with the Downtown Tall Buildings: Vision and Supplementary Design Guidelines to evaluate tall building proposals within the Downtown Design Guideline boundary area.

For convenience purposes, the following table provides a summary of references within the Tall Building Design Guidelines to applicable Downtown Supplementary Design Guidelines.

Tall Building Design Guidelines	Downtown Tall Buildings: Supplementary Design Guidelines (SDG)
1.3 Fit and Transition in Scale	SDG #1 specific transition requirements to lower scale areas
1.4 Sunlight and Sky View	SDG #2 and SDG #3 specific sunlight protection requirements for Downtown parks and open space
1.5 Prominent Sites and Views from the Public Realm	SDG #4 specific view protection requirements for City Hall, Old City Hall and the Queens Park Legislature Assembly
1.6 Heritage Properties and Heritage Conservation Districts	SDG #5 specific references to Downtown Heritage Conservation Districts (HCDs), HCD Study Areas potential HCD Study Areas and Cultural Resources
3.1.1 Base Building Scale and Height	SDG #6 specific exceptions for Downtown base building heights (e.g. Canyon Form Streets)
3.1.2 Street Animation	SDG #7 specific requirements for Priority Retail Streets
3.2.2 Tower Placement	SDG #8 specific tower stepback requirements for Yonge Street

The complete Downtown Tall Buildings: Vision and Supplementary Design Guidelines are available online: www.toronto.ca/planning/tallbuildingstudy.htm