
SITE DESIGN

These guidelines provide general direction, at the concept or schematic design stage, on site design – the general siting and configuration of buildings, civic spaces and public amenity areas, as well as access, circulation, parking and other functional concerns, on a site.

These guidelines should be applied to all development proposals.

These guidelines identify planning and design considerations in addition to *Zoning Bylaw* regulations related to setbacks, site coverage ratios, building height, etc.

These guidelines should be read in conjunction with other City policies and standards related to servicing, waste management, emergency access and other matters.

These guidelines do not address the detailed design of buildings, civic spaces or amenity areas.

Thoughtful site design – including the siting of a building or buildings on a site – sets the stage for creating a public realm of great streets and civic spaces. Site design should ensure ecological function and promote energy transition, embrace efficient and resilient development, establish a public realm which is well connected, thriving and walkable in all seasons, and contribute to a strong city image.

SITE ANALYSIS

- A thorough analysis of the subject site (and its immediate neighbourhood context) is critical to identify opportunities and constraints related to:
 - Development context, including but not limited to, land uses, zoning, community destinations, and heritage resources;
 - Natural features, including but not limited to, existing vegetation, significant slopes and topography, environmental hazards, and environmentally sensitive areas;
 - Microclimate;
 - Circulation, including but not limited to, transit and LRT routes, transit stops and stations, and pedestrian, vehicular and active transportation linkages;
 - Safety and accessibility; and
 - Built form, including but not limited to, adjacent building heights and urban pattern (e.g. figure-ground), and city image (e.g. paths, edges, districts, nodes and landmarks).
- Refer to *Urban Design Brief Requirements* for more detail.

CLIMATE RESILIENCE

- Preserve mature trees and natural areas, including wetlands, wherever possible.
- Consider stormwater management early in the site design process and explore how Low Impact Development (LID), snow storage management and similar requirements can be integrated into civic spaces, streetscapes, amenity areas, parking, etc. (Figures 1, 2). Refer to the *Low Impact Development Best Management Practices Design Guide* for more

information.

- Consider site grading early in the site design process and work with existing land forms so that buildings, streets and civic spaces fit within the site rather than relying on excessive grading and / or retaining walls.
- Locate, orient and configure buildings to maximize daylight, solar access and natural ventilation.

SITE ACCESS, PARKING AND SERVICING CONSIDERATIONS

- Parking, loading, mechanical, waste collection and similar requirements should be located within buildings wherever possible. If this is not possible, these functions should be directed to the rear of the site to provide a safer pedestrian realm, and located and/or screened in a manner to minimize nuisance (noise, fumes), and reduce their unsightliness.
- Large surface parking areas should be designed to integrate generous landscaping as well as safe, convenient and direct active transportation connections (Figure 3).
 - CPTED considerations may need to be applied to the design of parking and loading areas, to reduce issues of safety, crime and/or vandalism.
- Site accesses should be combined and located off alleys or secondary streets whenever possible in order to maximize pedestrian safety and comfort along the more prominent active public streets surrounding the site.
- Bicycle parking for building tenants, employees and visitors should be located within buildings wherever possible.
 - Access to indoor bicycle parking should preferably be from a street (i.e. not an alley), well lit and visible.
 - Access to indoor bicycle parking should not be through a vehicular parkade entrance. At these locations a separate access for bicycles should be provided.
- Outdoor bicycle parking (typically for building visitors) should be provided in well-lit, highly visible areas near the building entrance to encourage use and reduce theft.
- Direct and safe pedestrian access should be provided from each building within the site to the nearest public sidewalk and nearest public transit node (bus stop or LRT station).

PUBLIC REALM CONSIDERATIONS

- Buildings should be sited to define and enclose streets, alleys, civic spaces and amenity areas with human scaled streetwalls – whether on public or private land (Figure 4).
- The main floors of buildings should incorporate, where possible, active edges (e.g. commercial and multi-unit residential interfaces) to animate and provide natural surveillance to streets, alleys, civic spaces and public amenity areas (Figure 4).
 - While this guideline generally translates to minimizing front yard setbacks, it may be appropriate to establish a larger setback to accommodate an active outdoor use such as an outdoor cafe or patio. See also *PR2 Commercial + Mixed Use Interfaces* and *PR3 Multi-unit Housing Interfaces*.
 - Where these active outdoor uses are planned, buildings should be oriented to maximize solar exposure and minimize adverse wind impacts.
 - In instances where parking is located to the rear of buildings, consideration should be given to creating active edges on both the front and rear frontages (Figures 5, 6).
 - Buildings on corner sites should incorporate active edges and entrances on each facade fronting a street, alley, civic space or amenity area.
- The existing pattern of streets, alleys and active transportation connections adjacent to a proposed development should be extended into the site to establish a framework for a well connected public realm with a strong city image. This is particularly important for large sites. Particular consideration should be given to:
 - Providing sidewalks, shared paths, walkways, landscaping and clearly defined pedestrian crossings to ensure safe, comfortable and accessible connections for people who walk and wheel.
 - Creating streets, alleys, shared spaces, mid-block crossings and similar connections (whether public or private) which accommodate a variety of modes and users which fit into the neighborhood context (Figures 7, 8).
 - Creating focal points which contribute to a strong city image and make the site easy to navigate.
- The general location and size of civic spaces and amenity areas within

development sites should reflect their intended function.

- The orientation and configuration of buildings, civic spaces and amenity areas should maximize solar access and minimize adverse wind impacts to facilitate all-season use.
- Special consideration may need to be given to winter functions with unique requirements (eg. skating rinks, festivals) (Figure 9).
- Special consideration may need to be given to the design of civic spaces adjacent to mass transit stations and mobility hubs, including programming, accessibility, wayfinding, safety, etc.
- See also *PR1 Civic Spaces* and *Winter Design Guidelines*.

ACCOMMODATING DENSITY THROUGH SITE DESIGN

- Accommodating increased density is an important priority of The City Plan. In addition to providing adequate civic spaces and amenity areas, careful consideration needs to be given to the following:
 - Built form, particularly towers, should generally be located, oriented and configured in a manner that reduces their visual and environmental impact (eg. shading of, and adverse wind impacts on, the public realm and adjacent sites) with appropriate height transitions to adjacent buildings, streets and civic spaces. See also *B2 Towers*.
 - Heights of buildings (particularly those at the perimeter of large sites) should be established with regard to the neighbourhood context. Built form transitions may be required to maximize development compatibility. See also *B1 Built Form – General*.

DEVELOPMENT PHASING

- Consider phasing strategies which incorporate a proportionate amount of civic space and/or amenity areas constructed during each phase of the project.
 - Prioritize building out the public realm interface (i.e. the streetwall) in early phases of project development.
 - Complete active transportation connections into and through sites even in early phases of project development.
- A well structured network of vehicular and active transportation

SITE DESIGN

connections on large format retail sites can serve as a framework for future intensification as land values increase (Figure 10).

OTHER REQUIREMENTS

- As identified in the *Urban Design Brief Requirements*, applicants may be required to prepare a shadow plan which illustrates future site intensification.
- Applicants may be required to undertake a Wind Impact Assessment and/or a Sun/Shadow Impact Assessment to demonstrate the impact of the proposed built form on adjacent streets, civic spaces and amenity areas.
- To support the proposed public realm framework, applicants may be requested to prepare conceptual designs which illustrate the intended use and function of the civic spaces within the site.

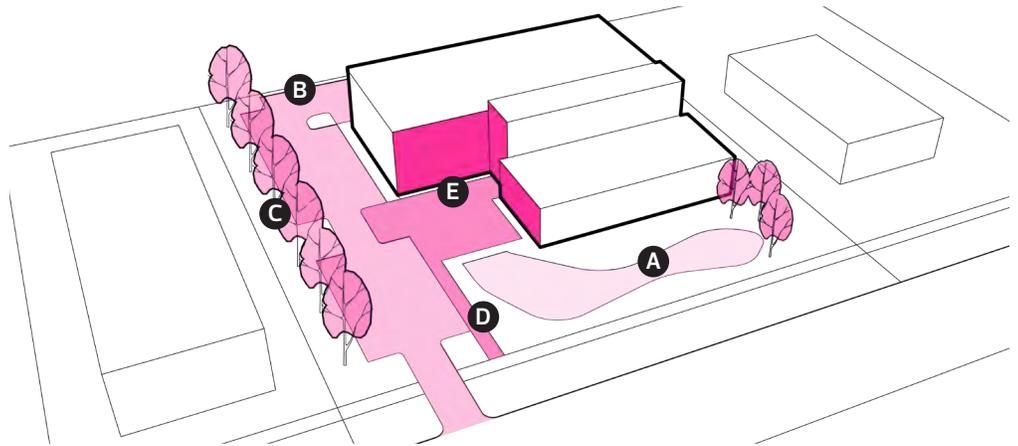
Summary of key considerations for site design – general

Opportunities to integrate stormwater management (A).

Parking and service areas located to the side and rear (B), and screened from adjacent sites (C).

Direct pedestrian access (D).

Amenity area maximizes solar access and protection from winter winds (E).

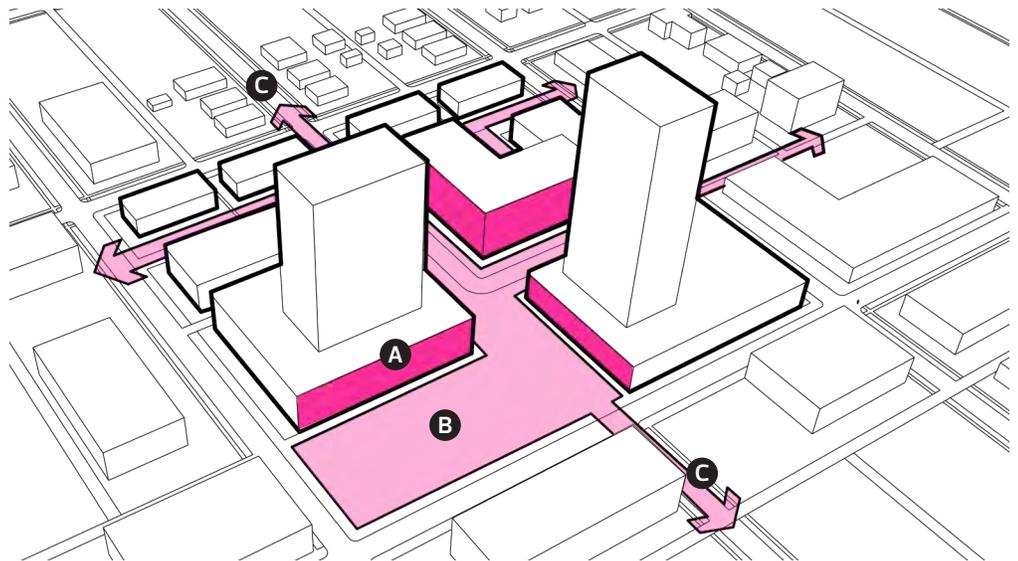


Summary of key considerations for the design of large sites

Built form (A) defines and encloses human scaled civic spaces.

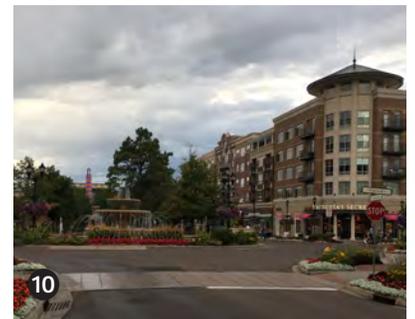
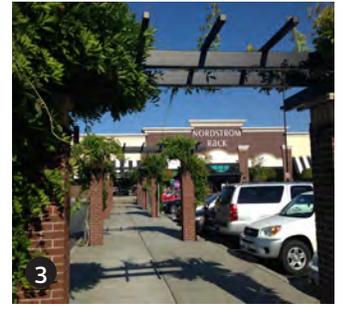
Civic spaces are sized and configured to accommodate their proposed function, and sited to minimize adverse microclimatic effects (B).

Neighbourhood circulation patterns are extended into and through the site to maximize connectivity (C).



SITE DESIGN

- 1 Stormwater management incorporated into parking, Portland.
- 2 Stormwater management as open space amenity, Toronto.
- 3 Parking lot with separated, well landscaped pedestrian connections, Seattle.
- 4 Well define, human scaled active frontage, Vancouver.
- 5,6 Double loaded retail space with frontages along both Jasper Avenue (5) and internal parking area (6).
- 7 Internal pedestrian connection, Portland.
- 8 Shared space, Olympic Village, Vancouver.
- 9 New winter park, University District, Calgary.
- 10 Shopping centre redevelopment, Denver. The fountain creates a strong focal point and the building includes strong corner articulation to reflect its prominent location.



B1

BUILT FORM – GENERAL

These guidelines provide general direction, at the concept or schematic design stage, on the physical form of proposed buildings – height, mass, setback, stepbacks, etc., and as such, these guidelines should be read in conjunction with *US2 Site Design*.

This guideline should be applied to all development proposals.

These guidelines identify design considerations in addition to *Zoning Bylaw* regulations related to building height, setbacks.

For guidance on building interfaces with streets and other civic spaces, see also *PR2 Commercial + Mixed Use Interfaces* and *PR3 Multi-Unit Housing Interfaces*.

These guidelines do not address the detailed design of buildings related to materiality, facade articulation, transparency, etc.

In conjunction with integrated site design, the consideration of built form early in the planning and design phase can ensure new developments are compatible with the existing or planned context and create high quality, inclusive, sustainable, authentic, attractive and thriving urban places during all seasons.

GENERAL BUILT FORM CONSIDERATIONS

- Accommodating increased density is an important priority of The City Plan. Increased density should not be pursued at the expense of reduced setbacks and separation space between buildings, as providing this space is essential for the building occupants' health and well being. In addition, careful consideration should be given to the following:
 - Residential and mixed-use developments should accommodate a range of typologies and unit sizes (e.g. courtyard housing, live-work units, garden suites, co-housing, seniors housing) to encourage aging in place (Figure 1).
 - Built form, particularly towers, should be designed in a manner that reduces their visual and environmental impact (eg. shading and wind on the public realm and adjacent sites) with appropriate built form transitions to adjacent buildings, streets and civic spaces, as well as abutting sites and land uses (Figure 2) (See also *B2 Towers*).

CLIMATE RESILIENCE

- Buildings should be oriented and configured to maximize daylight, solar access and natural ventilation.
 - It may be appropriate to consider how solar panels can be integrated with the built form of the proposed building (Figure 3).
- Green roofs should be considered as a means to address urban heat island effect and minimize stormwater impacts.

STREETWALLS

- Streetwalls are generally defined by a series of continuous building facades that are typically parallel to a street, alley or civic space. Establishing human-scaled streetwalls to define streets, alleys, civic spaces and public amenity areas is a key built form consideration).
- Where an established streetwall exists, particularly on streets of heritage

BF1

BUILT FORM – GENERAL

importance (e.g. Whyte Ave), facade heights and building setbacks should be generally consistent with the adjacent context (Figure 4).

- In areas where the streetwall is at or near the property line, it may be appropriate to vary the building setback to maintain sightlines, emphasize adjacent heritage buildings, highlight a building entrance (Figure 6) or create a more pedestrian friendly frontage zone (Figure 7). (See also *PR2 Commercial + Mixed Use Interfaces*).
- In areas without an existing pattern of built form or streetwall (e.g. greenfield and brownfield sites), consideration should be given to designing the streetwall to accommodate a functional and attractive public realm interface, including appropriate space for pedestrian circulation and amenities (e.g. patios and seating areas) in alignment with the overall vision for the site (Figure 8).
- In general, the height of the streetwall should be no greater than six storeys or the width of the adjacent right-of-way, whichever is less.
 - Stepbacks may be needed to maintain this streetwall height while accommodating the desired development density (Figure 9).

STEPBACKS

- Building stepbacks can be an effective means to:
 - Minimize shadow and microclimatic impacts (e.g. downdrafts) on adjacent streets and civic spaces (Figure 10);
 - Create an appropriate built form transition, particularly when higher density zones abut lower density residential zones (Figure 11);
 - Accommodate outdoor amenity spaces (Figure 12); and
 - Reduce the mass, and in turn the visual impact, of the building (See also *Massing and Visual Impact*, below).

SIDE AND REAR YARD SETBACKS

- Particularly in residential and mixed-use developments, side and rear yards are commonly used for site access, loading and servicing, building entrances, and/or amenity areas. Minimum setbacks are defined in the Zoning Bylaw; however, it may be appropriate to incorporate larger setbacks to accommodate these functional requirements while creating spaces which are attractive, comfortable and safe.

BF1

BUILT FORM – GENERAL

- In side yards, particular attention should be paid to maximizing suitable access (i.e. to the rear of the site) for those walking and wheeling, while accommodating mechanical units, landscaping (including shrubs and trees for screening and shading) and snow storage (Figure 13).

MASSING AND VISUAL IMPACT

- Careful consideration should be given to the massing of built form – particularly when viewed from streets, alleys, civic spaces and amenity areas including. Techniques include:
 - Limiting building facade lengths to smaller modules consistent with other buildings (existing or planned) along the street (Figure 14);
 - Employing recesses and projections in the facade plane (Figure 15); and
 - Employing setbacks to minimize massing (Figure 16).
- These techniques when used together (Figures 17 and 18), can result in a built form that responds better to the size and massing of adjacent development while providing improved definition and legibility of building elements such as entries and amenity areas.
 - In these instances, it may be appropriate to explore increasing the Floor Area Ratio (i.e. number of storeys).

PROMINENT SITES AND LANDMARK BUILDINGS

- On corner sites and other prominent locations (e.g. terminus of a street) it may be appropriate to modify the built form through architectural features and setbacks (with corresponding public realm enhancements) to create a focal point and contribute to a legible city image (Figures 19 and 20).

Key built form considerations

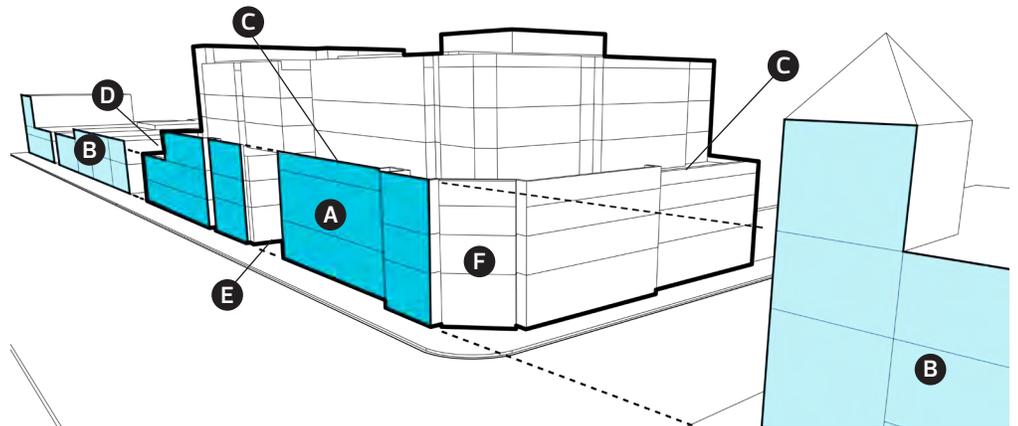
Streetwall (A) informed by adjacent context (B).

Setbacks to maintain streetwall and improve microclimatic conditions (C).

Appropriate built form transitions (D).

Breaking up facade to lessen visual impact (E).

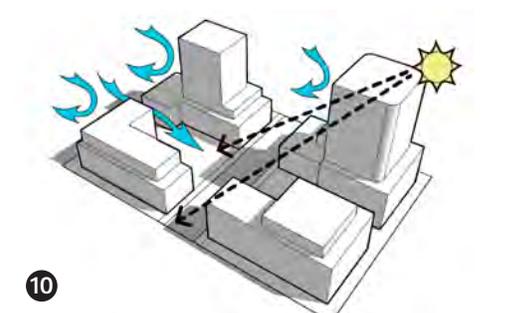
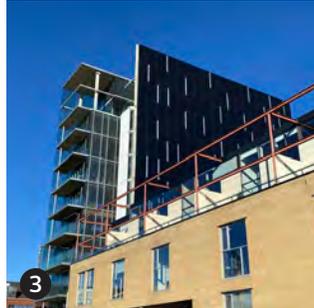
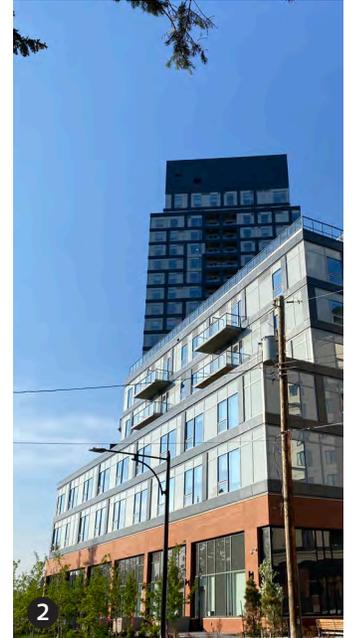
Design addresses corner condition (F).



BF1

BUILT FORM – GENERAL

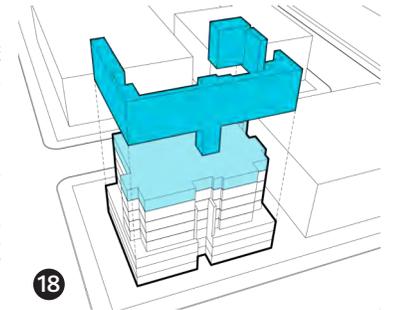
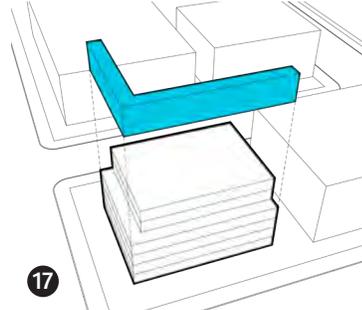
- 1 Low-rise residential with both at grade and above grade units, Toronto.
- 2 Built form transition from tower to streetscape.
- 3 Solar panels integrated into the building design, The Edge.
- 4 Human scaled streetwall, Vancouver.
- 5 Streetwall of new development aligning with existing context.
- 6 Break in streetwall to create / highlight building entrance.
- 7 Additional setbacks to create pedestrian amenity.
- 8 Human-scaled streetwall and pedestrian realm established on a redevelopment site.
- 9 Setbacks accommodate development density while maintaining a human scaled streetwall, Vancouver.
- 10 Built form should be carefully considered to create



BF1

BUILT FORM – GENERAL

- 11** Setbacks provide an appropriate built form transition with adjacent low rise residential development, Calgary.
- 12** Setbacks provide rooftop amenity space, Vancouver.
- 13** Side yard accommodating pedestrian access, private amenity space and generous landscaping.
- 14** Building facade broken into smaller modules consistent with surrounding development, Vancouver.
- 15** Building facade modulated with recesses and projections.
- 16** Stepped backs to reduce building mass and visual impact.
- 17, 18** Typical use to stepped backs (17) compared to a more creative use of stepped backs and other modulation (18) to improve the public realm interface.
- 19** Building massing to highlight a corner location, Vancouver.
- 20** Built form and amenity space highlight a site's landmark location, Richmond BC.



TOWERS

These guidelines provide general direction, at the concept or schematic stage, on built form considerations related to the design of towers and tower tops.

These guidelines identify design considerations in addition to *Zoning Bylaw* regulations related to floor plate area, tower separation and setbacks.

Note that considerations of tower size and location must be taken holistically. While it may be possible to reduce or trade off minimum requirements, a site that cannot meet the minimum design expectations may not be suitable for tower development.

For additional considerations related to the location, orientation and configuration of a tower (or towers) on a site, please see *BF1 Built Form – General*.

These guidelines do not provide detailed guidance related to materiality, facade articulation, transparency, etc.

The careful siting, orientation and configuration of towers can contribute to a comfortable, human scaled public realm, minimize microclimatic impacts, prioritize the health and wellbeing of building occupants, while making a positive contribution to the city's skyline.

Towers

- The floor plates of residential towers should be no greater than 850m² to maximize views and sun exposure within adjacent buildings, streetscapes and civic spaces (Figure 1). Smaller tower floor plates (e.g. 750m²) are recommended in certain situations, e.g:
 - On sites adjacent to development of a smaller scale, to ensure the proposed tower addresses the existing street context.
 - On sites of a size and/or configuration that dictate a smaller tower footprint.
 - Where buildings of lower height are proposed.
- For office towers, the maximum floor plate area should be limited to 2500m² (Figure 2).
 - A maximum facade length of 60 meters should be considered for these larger buildings to contribute to a more human scaled streetscape.
- A minimum separation distance of 25m should be provided between two towers on the same site. It may be appropriate to increase this separation in certain situations; e.g.:
 - To reduce wind and shadow impacts on surrounding streets, civic spaces and outdoor amenity areas.
 - To accommodate necessary building separations at the ground level; e.g. townhouse podiums on either side of a mid-block connection.
- Towers should be setback a minimum of 12.5m from side yard property lines and/or the centrelines of adjacent streets and lanes, allowing for tower development and appropriate separation for towers on adjacent sites.
- A podium/tower configuration is a desirable way to create a human-scaled street wall and potentially mitigate the impact of wind downdrafts on adjacent streets and civic spaces.

- When a tower/podium configuration is used, towers should be stepped back a minimum of 4.5m from the face of a podium. This setback clearly delineates the tower from the podium, and creates opportunities for outdoor common and/or private amenity areas above the podium.
- Towers can extend directly to grade (for any portion of the length of a facade) (Figure 3); however, additional design strategies may be required to address wind impacts and create a more articulated, human scaled public realm interface.
- Additional tower setbacks and/or setbacks should be considered to respond to the surrounding context and/or preserve important views to heritage buildings or other significant landmarks.
- For office towers, consideration should be given to creating a civic space integrated with the primary building entry, and in particular:
 - Increasing the legibility of building entrances (Figure 4).
 - Accommodating the high volume of pedestrian activity generated by these buildings.
 - Incorporating design elements to mitigate wind impacts.
 - Incorporating amenities for the use of building tenants and others (Figure 5).
 - See *PR1 Civic Spaces* for more information.
- Where sites have multiple towers, consideration should be given to varying the heights of adjacent towers to add visual interest to the city's skyline and maximize views.
- Consider the environmental and visual impact of the tower form.
 - Towers should be located, configured and oriented in a manner to maximize sky view and sun access; e.g. towers with rectangular floor plates should be oriented north-south to minimize shadows.
 - The location, orientation, massing and shape of towers on a site (or podium) must be supported by the required *Wind Impact Assessment* and *Sun Shadow Impact Study*.
 - Additional sculpting of the tower form may be needed to address wind and sun/shadow concerns, and/or reduce its mass and visual impact (Figure 6).

Tower Tops

- Rooftop mechanical and/or telecommunication equipment should be screened to not be visible from adjacent streets and civic spaces. Strategies to achieve this may include:
 - Wrapping mechanical units with usable floor space, and / or integrating them with the tower top design (Figure 6).
 - Using screens, parapets and similar architectural elements. These elements should extend or otherwise complement the design language of the tower (Figure 7).
- A distinctive tower top is not required; however, the design of a tower top should be considered holistically with that of the overall tower form in order to create a unified architectural composition, visually terminate the tower with a simple, elegant gesture, and contribute positively to the city's skyline.
 - Tower top design can be used in conjunction with tower setbacks, setbacks and articulation to improve city views and sunlight penetration, while reducing the massing, and in turn the visual impact, of the tower.
 - Rooftop patios and amenity spaces should be considered as part of the tower top design and the overall tower composition (Figure 8).
- Lighting and signage is often a key element of tower top design and therefore requires additional design attention.

Summary of key tower design considerations

Setbacks allow for rooftop amenity areas (A).

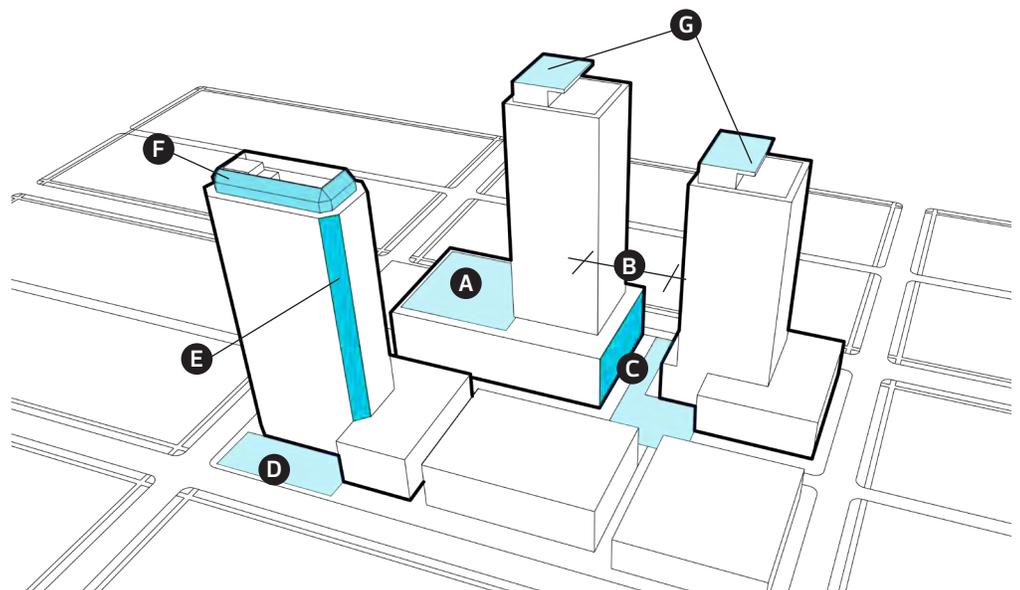
Sufficient tower separation (B) to accommodate at-grade uses (C).

Civic space opportunity where tower extends to grade (D).

Tower orientation and sculpting to minimize microclimatic impacts (E).

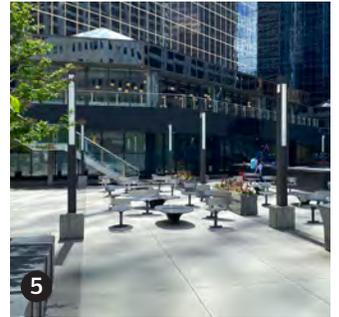
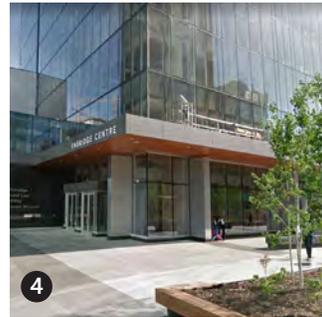
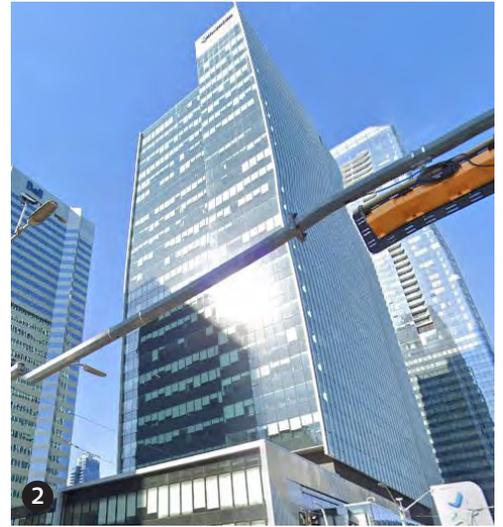
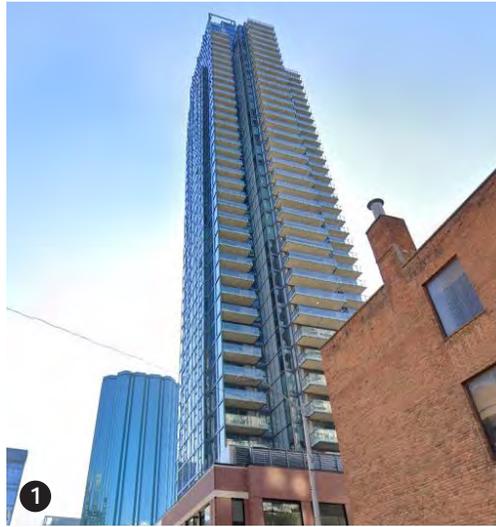
Rooftop mechanical screened (F).

Varying tower heights to contribute positively to the city's skyline (G).



TOWERS

- 1,2** Visual impact of residential vs. non-residential tower floorplates: Encore Tower (1) and Edmonton Tower (2).
- 3** Removal of a tower podium to create a ground-level amenity, HSBC Place.
- 4** Well defined entry, Enbridge Tower.
- 5** Ground level amenity space, Fifth Avenue Place, Calgary.
- 6** The design of EPCOR Tower is sculpted to reduce its visual impact, while incorporating mechanical into its tower top.
- 7** Stantec Tower and JW Marriot both employ parapets to screen rooftop mechanical equipment.
- 8** The Maclaren integrates rooftop amenity space into the overall tower design.



PARKING STRUCTURES

This guideline is intended to address the integration of parking structures into built form and the public realm interface.

This guideline addresses both above- and below-grade parking structures, either as standalone parking facilities or accessory uses (as defined in the Zoning Bylaw).

The general location and configuration of above-grade parking structure is addressed under *US1 Site Design* and *BF1 Built Form - General*.

This guidance identifies design considerations in addition to *Zoning Bylaw* regulations related to building height and setbacks.

The allocation and design of parking spaces, drive aisles, bicycle parking and similar considerations is addressed in the *Zoning Bylaw*.

Parking structures require thoughtful consideration to ensure their configuration and design contribute to a thriving and attractive public realm interface and create active edges that are comfortable and safe (eg. eyes on the street) for all users. Parking structures, whether above- or below grade, should be designed to be flexible so they can be repurposed for other uses, if necessary.

GENERAL

- Vehicle entrances to parking structures should be accessed from the rear (e.g. alley) or less prominent street wherever possible.
 - Access from a mid-block connection may also be appropriate. See also *PR4 Mid-block Connections* for more information.
- Vehicle entrances to parking structures should be integrated into the building design in a manner which minimizes their visual impact (Figure 1).
- Access considerations for pedestrians and cyclists include:
 - Ensuring pedestrian entrances are directly accessible and clearly visible from the street.
 - Accommodating cyclists through the use of separate entrances and/or ramps that are physically separated from vehicles.
 - If access for cyclists is not directly from a visible street (i.e. from an alley), signage should be used to direct users appropriately.
- Consideration should be given to the design of pedestrian and cyclist entrances to ensure the safety of users. Considerations include, but are not limited to maintaining site lines, minimizing entrapment areas, and providing appropriate lighting. Refer to *Section 3.1.1. Parkades, Pages 26-27 of the Design Guide for a Safer City*.
- Consideration should be given to the design to provide accessibility for people of all ages and abilities including, but not limited to entrances, internal walkways, ticket/payment kiosks, emergency call buttons and other facilities. Refer to *Section C.1. Off Street Parking Areas, pages 11-14 of the Access Design Guide*.
- Parking structures in multiple-building complexes should include interconnected walkways between buildings and to the exterior to facilitate safe and comfortable pedestrian movement.

ABOVE-GRADE PARKING STRUCTURES

- Above-grade parking structures should be wrapped with commercial and other uses that activate the streetscape wherever possible (Figure 2).
 - The Zoning Bylaw requires a minimum 8.0m depth of commercial uses to wrap and screen parking bays at grade.
 - It may be appropriate to consider other uses (e.g. residential) to wrap screen parking bays both at grade and on upper stories of parking structures.
 - It may be necessary to increase the depth of commercial or other uses, in order to create a useable floor plate suitable for its intended use.
- The facade of above-grade parking structures should create visual interest through a combination of architectural design patterns, cladding, screening, landscaping and/or public art (Figure 3).
- Particularly for large above-grade parking structures, consideration should be given to reducing building massing by breaking up long facades and incorporating recesses and projections into the facade plane (See also *BF1 Built Form - General*).
- Ensuring stairwells incorporate ample glazing and are well lit, comfortable and attractive, increases animation and natural surveillance, and provides a viable alternative to elevator use (increasing energy conservation).
- Special consideration should be given to a design strategy that facilitates future conversion to other uses. Convertible parking structures are characterized by level floors, removable ramps, and high floor-to-floor heights (minimum 4.5m main floor height) (Figure 4).

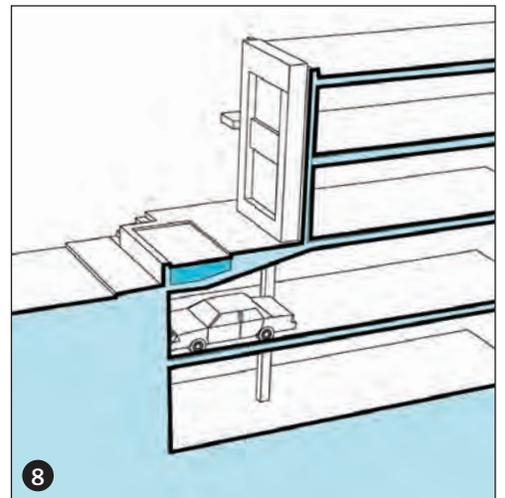
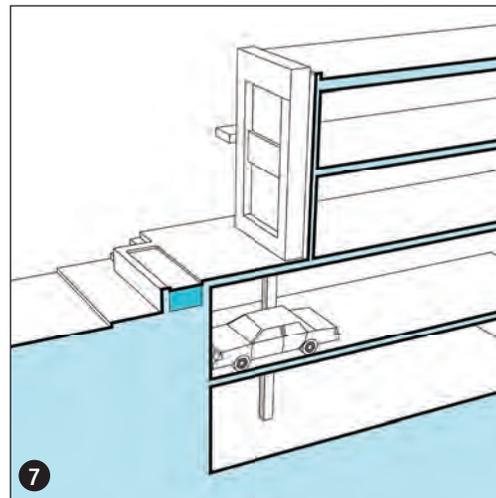
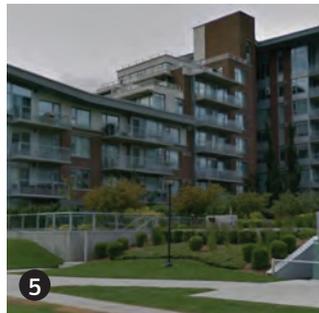
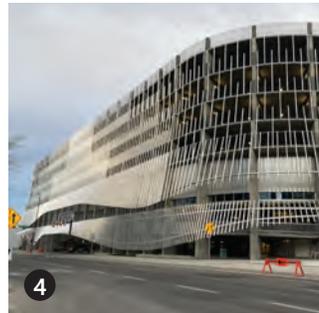
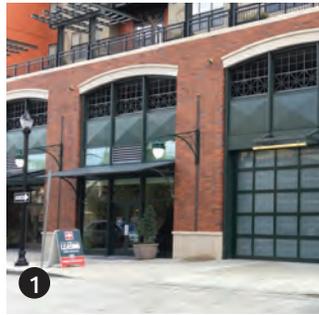
BELOW-GRADE PARKING STRUCTURES

- Ramps for below-grade parking structures should be located inside of buildings wherever possible to ensure weather protection and minimize the visual impact on the public realm interface, amenity areas or other open spaces.
- Ensure below-grade parking structures are of a sufficient depth to minimize grade changes that limit site accessibility.
 - Stairs and ramps within the public realm interface should be designed in an integrated way (Figure 5). Visible portions of parking structures devoid of architectural treatment, landscaping, etc., are discouraged.

PARKING STRUCTURES

- Below-grade parking structures should be set back from property lines in order to accommodate tree planting and landscaping within the site generally and the public realm interface in particular (Figure 6).
- Alternatively, a below-grade parking structure can be designed and configured in a manner which accommodates sufficient soil depth (1.2m minimum) for tree planting and landscaping (Figure 7).

- 1 Parking structure entrance integrated into streetscape, Portland.
- 2 Main floor uses integrated into parking structure, Banff.
- 3 Above-grade parking structure screened with coloured glass panels, Calgary.
- 4 New parking structure designed for future conversion to residential and commercial uses, Calgary.
- 5 Below-grade parking structure screened by soft landscaping.
- 6 Stairs, planting beds well integrated into the public realm interface, Calgary.
- 7 Below-grade parking structure set back from property line to facilitate landscaping.
- 8 Below-grade parking structure design which accommodates tree and shrub planting.



BF4

AMENITY AREAS

This guideline provides general direction, at the concept or schematic design stage, on the planning and design of outdoor common amenity areas (e.g. courtyards and rooftops), indoor common amenity areas (e.g. party rooms and fitness rooms) and private amenity areas (e.g. balconies, patios and terraces) for residential and mixed-use developments.

This guideline identifies design considerations in addition to *Zoning Bylaw* regulations related to amenity area size and configuration.

For plazas and similar public amenity areas (as defined in the *Zoning Bylaw*) in commercial, industrial and other types of development, refer to *PR1 Civic Spaces*.

The creation of high quality indoor and outdoor amenity areas in residential and mixed-use developments can contribute to a higher quality of life for residents. Well designed amenity areas provide a focal point within the development and can support increased density of development.

GENERAL CONSIDERATIONS

- It is critical to provide a range of common and private amenity areas, and indoor and outdoor amenity areas, to offer a variety of opportunities and benefits for residents of all ages and abilities. Providing only a single form of amenity area (e.g. indoor party room or rooftop amenity area) can dramatically limit the quality of these opportunities.
- The choice of specific amenity area types should consider and address the proposed building functions and anticipated resident mix, as well as the neighbourhood and street context (e.g. balconies or grade-level common amenity spaces can contribute to a vibrant and safe public realm).
- All amenity areas regardless of type must be universally accessible to users of all ages and abilities.

ENVIRONMENTAL + ECOLOGICAL CONSIDERATIONS

- Amenity areas (both at-grade and on rooftops) should introduce planting areas (including trees and shrubs), community gardens, etc., that reduce urban heat island effect and reduce stormwater impacts.
 - At-grade courtyards and plazas should include additional Low Impact Development (LID) measures, such as permeable paving and bioswales.

AMENITY AREA TYPOLOGIES

There are a number of amenity area typologies of varying scales and functions. The following outlines design considerations for each type of amenity area.

Courtyards + Plazas

- Courtyards and plazas are outdoor amenity areas which serve residents (and in some cases, the general public).
- Plazas are typically designed as an extension of the streetscape, whereas

BF4

AMENITY AREAS

courtyards are typically integrated with, and partially or fully enclosed by, built form.

- Courtyards and plazas generally have considerations (e.g. size, programme) similar to those of civic spaces (*Refer to PR1 Civic Spaces*). Other key considerations in the planning and design of courtyards and plazas include:
 - Ensuring spaces that are publicly accessible respond to functional needs of the broader community and be more flexible in nature.
 - Maximizing active edges through the incorporation of multi-unit residential interfaces (*Refer to PR3 Multi-Unit Residential Interfaces*), indoor amenity spaces and similar uses.
 - Special design consideration needs to be given to the transition between the public and semi-private natures of these spaces.
 - When courtyards and plazas are located over parking structures, the design should accommodate trees and shrubs in a manner that supports their long term sustainability (*See also BF3 Parking Structures*).
 - As courtyards are partially or fully enclosed by built form, their dimensions should consider the scale of the surrounding built form as well as the intended program. Other considerations include:
 - Furnishings, circulation, lighting, landscaping, views (Figures 1 and 2); and
 - Micro climatic aspects including sunlight, heat island effect, wind impacts, rain and snow.
- For courtyards that are directly accessible from the street:
 - Design cues need to be integrated which invite public use while communicating the semi-public nature of the space (Figure 3).
 - Spaces should not be dead ended. To ensure the safety of users, courtyards should provide shortcuts or other access routes which are potentially usable 24 hours a day.
 - Shortcuts should incorporate design cues to ensure these routes and uses are legible for all users (Figure 4).

Patios + Terraces

- Patios are mainly associated with multi-unit residential interfaces that directly address streets, civic spaces or courtyards.
- Terraces are commonly provided on the rooftop of podiums where building setbacks allow.
- For both typologies, consideration should be given to providing high quality amenity areas of a sufficient size, which contribute to street activation while providing natural surveillance; i.e. 'eyes on the street'.
 - As terraces are typically located above grade, special consideration may need to be given to mitigating wind impacts, providing shade and privacy (e.g. through screens, pergolas, etc).
 - For more information on patios see *UDM 3.2. Residential Interfaces*.

Indoor Common Amenity Areas

- Indoor common amenity areas should be located and oriented to take advantage of views and daylight, and integrated with outdoor common amenity areas wherever possible (Figure 5).
 - Indoor common amenity areas provided below grade (e.g. in basements) are discouraged as these conditions can pose particular challenges related to safety, access, daylight and views to the outdoors.
 - In these instances, sunken terraces, stairs, etc., should be utilized to ensure daylight, views and access to grade.
- Programming for indoor common amenity areas should reflect the unit count and anticipated resident mix, as well as opportunities for adjacent outdoor use.
- Consideration should be given to providing indoor common amenity areas at grade to activate streets, alleys and civic spaces and provide natural surveillance and security for both residents and passers-by.

Rooftops

- Rooftops should not be the sole form of common amenity area provided as they are typically used for limited months of the year due to seasonal weather conditions.

BF4

AMENITY AREAS

- Rooftop amenity areas should be combined with associated indoor common amenity space to provide for multi-seasonal use (Figure 6).
- The design of rooftop amenity areas should consider the unit count and anticipated resident mix through a range of spaces, amenities, furnishings, etc., which accommodate a range of group size, activities, and seasonal constraints / opportunities.
- Other key design considerations for rooftop amenity areas include:
 - Incorporating green roofs, community gardens, planting, etc.;
 - Addressing the unique environmental conditions within rooftop settings (e.g. wind, rain, noise, light spill, solar exposure) (Figure 6);
 - Accommodating appropriate setbacks from the roof edge to enable privacy, limited overlook to adjacent sites, and user safety; and
 - Ensuring universal accessibility for all residents and users.

Balconies

- Balconies should be designed as extensions of indoor living space. To maximize their functionality and accommodate furnishings and other amenities, balconies should be dimensioned to accommodate all furnishings, circulation, planters, etc.
- Other design considerations for balconies (Figure 7) include:
 - Ensuring weather protection;
 - Affording privacy between adjacent units / balconies;
 - Limiting direct views from adjacent residences; and
 - Providing views of streets, alleys and other civic spaces where possible.
- Consideration should be given to the use of inset balconies (Figure 8) to address the above considerations. Inset balconies can also be useful where setback requirements limit the use of traditional balconies extending from the building face.
- Balconies (inset and otherwise) are an important element of a building's composition that can add visual interest while reducing building massing – particularly for large building facades (Figure 9).

Common amenity area typologies and design considerations

Courtyard (A) incorporating both active edges (patios) and appropriate transitions with the streetscape.

Indoor common amenity Area at grade (B) opening onto courtyard.

Patios (C) activate the streetscape and provide natural surveillance.

Indoor common amenity area (D) well integrated with the adjacent rooftop space (E).

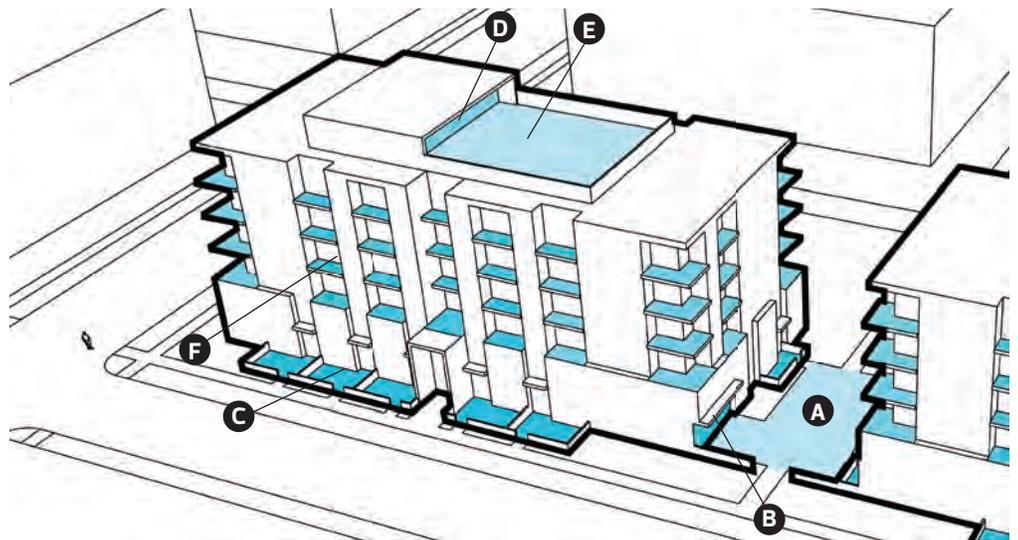
Inset balconies (F) provide weather protection and appropriate separation between adjacent units.

Other Amenity Area Typologies

- In multi-building residential developments amenities are commonly provided in the form of a club house or recreation facility (with swimming pools, courts, indoor fitness rooms, etc) (Figure 10).
- While the considerations for these amenity area types are similar to those of civic spaces, the siting and design of these amenity areas should consider:
 - Selecting a centralized location with direct and safe pedestrian access for all residents/users;
 - Ensuring protection from wind, sun and other climatic concerns;
 - Integration with adjacent buildings, parking and circulation areas, streetscapes; and
 - Integration of indoor and outdoor amenity areas wherever possible.

OTHER REQUIREMENTS

- Applicants may be required to provide a concept design of a proposed outdoor common amenity space, accompanied by a design narrative.
- Applicants may be required to undertake a Wind Impact Assessment and/or a Sun/Shadow Impact Assessment to demonstrate the impact on proposed amenity areas.
- A CPTED study may be required for some outdoor common amenity areas.



BF4

AMENITY AREAS

1,2 Two different courtyards within a large, multi-building residential development, Vancouver.

3 Careful demarcation of the public / semi-private courtyard interface.

4 Well defined public access through courtyard, Vancouver.

5 Indoor common amenity area with access to daylight and views. (*Autograph*)

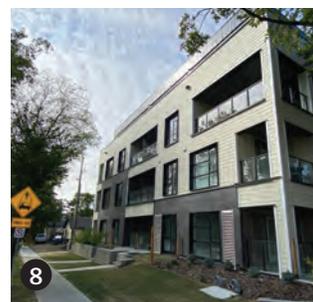
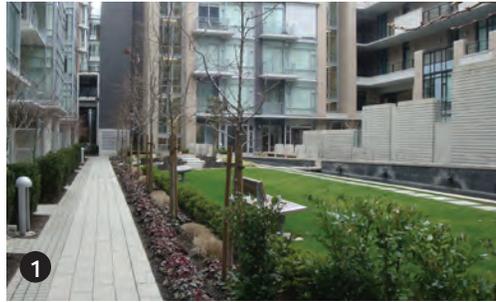
6 Rooftop with furnishings, weather protection and integration with indoor amenities. (*Autograph*)

7 Balcony configuration offering wind and weather protection.

8 Inset balconies can offer additional privacy and weather protection.

9 Balconies as an element of a building's architectural composition, Calgary.

10 Common amenity area well integrated with fitness centre.



CIVIC SPACES

These guidelines provides general direction, at the concept or schematic design stage, on civic spaces – plazas, courtyards and other predominantly hard surfaced areas within an urban setting.

The guidelines should be applied to both private development (including common and public amenity areas as regulated in the *Zoning Bylaw*) as well as publicly-owned civic spaces. These guidelines can also be applied to other open spaces and natural areas, and in particular, the planning and design of gathering areas, focal points and similar spaces and elements.

These guidelines does not address the location or configuration of civic spaces. Refer to *US2 Site Design* for more information.

These guidelines do not address detailed civic space design or the selection of finishes, furnishings, lighting, landscaping, etc.

The planning of healthy, vibrant, walkable and inclusive civic spaces in all seasons requires articulating a clear vision of the use, function and identity of the space. This includes carefully considering user comfort, accessibility, safety, and other factors, while exploring opportunities to improve environmental health and ecological function, and increasing recreational, economic and community activities.

ESTABLISHING A VISION

- A civic space should have a clear vision regarding its design (Figures 1,2).
 - This vision should reflect the needs of local residents and the larger community, identified through engagement opportunities that are inclusive and diverse for all potential users of these spaces.
 - It may be appropriate to consider the themes of celebration, wellness and ecology as identified in *Breathe* (see pages 44-72).
 - This vision should also reflect the careful identification and analysis of site opportunities and constraints, including (but not limited to):
 - Current and/or historical use of the site;
 - Adjacent land uses;
 - Access and circulation;
 - Existing trees, topography and natural features; and
 - Microclimate
 - The vision of a civic space should reflect the proposed uses of the specific location over the course of the day and evening, in all seasons, and encourage the use of forgotten or neglected spaces in our city.
 - Civic spaces should consider a range of uses including places to sit and relax as well as places to play and interact with others. There should be a balance of soft and hard surface areas, allowing access and safe use for people of all ages and abilities (Figures 3,4).
 - Large unprogrammed areas with extensive hard landscaping are discouraged, unless they are intended for particular uses such as

large community gatherings, outdoor performances or community events, farmers' markets, or seasonal uses such as mini-skating rinks, winter festivals, etc.

- Performance stages and similar fixed elements should be avoided unless an agreement is in place with a community group, business improvement area, etc, to ensure the regular use of the amenity. In other cases, temporary stages may provide an acceptable alternative and should be planned for accordingly.
- It is important to identify all of the needs and amenities that should be considered to support a particular civic space program. These needs and amenities could include power and water service, temporary or portable washrooms, and / or firepits and heaters for winter use.
 - Consider incorporating additional features such as communal cooking and eating areas (including shelters), water fill stations, washrooms, etc.
- Depending on size, civic spaces should be able to accommodate a number of functions simultaneously to attract a diversity of users.
- Civic spaces should be planned to be multi-functional and be adaptable over time as needs change and new recreation and leisure trends emerge.
- Civic spaces can be designed as shared spaces, allowing pedestrian, cycling and/or emergency access. If vehicular access is required, the integrated design of pedestrian and vehicular circulation shall be considered to ensure functional requirements and pedestrian safety measures are addressed.
- At the conceptual or schematic level, the vision of a civic space should begin to consider its identity and expression.
 - The vision should inform a consistent design language or theme expressed in design patterns, surface pavement colour and materiality, planting and amenity features (including lighting, seating, waste disposal, wayfinding and bicycle racks) (Figure 5).
 - Materials and street furniture must be selected to enable cost effective and practical maintenance. Custom furniture for a scheme should ideally be avoided as this delays the replacement of the particular item and can

significantly increase future maintenance costs.

- Maintenance considerations (including winter maintenance) should be reflected in the proposed design.
- Considerations of public art should occur early in the planning process to explore opportunities to integrate art rather than including it as an afterthought. Public art could take the form of indigenous art or other cultural works that are deemed appropriate for the local context and contribute to the sense of place.

GENERAL PLANNING CONSIDERATIONS

- The edges of civic spaces and the transitions with adjacent land uses should be carefully considered.
 - Civic spaces should be planned as an extension of adjacent streets or other spaces to communicate the public nature of the amenity (Figure 6).
 - Where appropriate, civic spaces should be integrated with, effectively becoming an extension of, the frontage zones of adjacent buildings.
 - In other cases, it may be appropriate to delineate and /or separate a civic space from adjacent land uses, roadways, etc., through landscaping and other means.
- Thoughtful seating is a critical element of a successful civic space. Consideration should be given to providing a range of seating types and arrangements, including permanent and movable seating (if appropriate) which promote social interaction (Figures 4,5,7).
- In locating uses, consider environmental and micro-climatic impacts such as access to sky-views and sunlight (e.g. for environmental comfort and / or urban agriculture), shade and wind conditions (Figure 8).
- Landscaping (e.g. shrub and tree planting) can provide definition and scale to seating spaces, delineate uses and provide privacy, and improve micro-climates (e.g. shade and shelter from the wind).

ACCESSIBILITY

- Civic spaces must be universally accessible to users of all ages and abilities. At the concept or schematic design phase there are important accessibility considerations that can be addressed:
 - Accesses into and through at-grade civic spaces will generally follow

Complete Street Design and Construction Standards, the *Access Design Guide* and reflect the specific site context and intended function.

- Pedestrian access should align with 'through zones' (1.8 – 3.0m).
- Shared pedestrian and cyclist access should ideally be avoided where possible however, where required, these installations should align with 'shared pathway' (3.0 – 6.0m).
- Emergency vehicle access minimum 4.0m to 6.0m.
- Ramps should be well integrated into the proposed circulation of civic spaces and not be out of the way or inconvenient to use. All ramps should be designed separately from stairs (i.e. avoid 'stramps') to provide a safe and fully accessible design for all users, particularly those with visual impairments (Figure 9).
- Larger and complex civic spaces should be designed to be easy to understand, to use and to navigate. Wayfinding signage should be provided to invite and regulate public use of the amenity.
- For more detailed information refer to the *Access Design Guide*.

SAFETY

- Civic spaces must be designed to be safe, using the principles of CPTED in accordance with the *City's Design Guide for a Safer City*. At the concept or schematic design phase, the following principles provide some important safety considerations that address the following:
 - Access: Safe movement and connections – example – pathways should be designed to allow visibility and avoid creating potential hiding places. Physical elements such as continuous solid fences, blank walls or planting beside pathways that impede sightlines and reduce opportunities for surveillance should be avoided (Figure 10).
 - Surveillance and sightlines: See and be seen – example – lighting can be used to ensure safety and wayfinding and to enhance the aesthetic value of open spaces (Figure 11). Any lighting provided should follow these principles:
 - No more illumination should be provided than is necessary for security and to provide a safe attractive night time environment.
 - Avoid over-lighting the space and its surroundings and adhere to dark sky principles to help reduce light spill.

- Decorative lighting must consider safety and environmental concerns described above.
- If the safety of a civic space cannot be reasonably assured due to factors that cannot be mitigated (eg. land use adjacencies or lack of sightlines), then it may not be appropriate to provide lighting.
- Layout: Clear and logical orientation – example – enable people to find site entrances and exits as well as other services within such as public toilets, playgrounds, information and more.
- Activity mix: Eyes on the street – example – civic spaces should incorporate or anticipate a mix of activities that will ensure use day and night, year-round. Creating a strong integration with adjacent land uses (particularly those with active edges) can make a significant contribution to this activity mix.
- Sense of ownership: Showing a space is cared for – example – employ some common design techniques and elements to delineate ownership boundaries (that most people respond to) which could include: landscaping, changes in level, and different ground surface treatments.
- Quality environments: Well-designed, managed and maintained environments – example – encourage public/private partnerships such as main street programmes and the like to promote the importance of creating places that are safe and vibrant.
- Physical protection: Using active security measures – example – making perimeter fences look attractive by allowing visibility through fences, including simple designs or combining them with a hedge or other landscaping treatments. Architectural elements and details should be considered which contribute to a walkable, human scaled streetscape.

CLIMATE RESILIENCE

- Preserve mature trees and natural areas, including wetlands, wherever possible.
- Consider integrating Low Impact Development (LID) features, including bioretention, soil cells, bio swales, box planters (Figure 12). Refer to *Epcor's LID Design Guide* for more information.
- Consider incorporating community gardens into civic spaces. Ensure the appropriate provision of power and potable water to support this type of amenity.

- Consider integrating landscaping (eg. perennials, shrubs and trees) to maximize health and environmental benefits.
 - Landscaping can mitigate air pollution, support urban biodiversity, and reduce the urban heat island effect (Figures 2,4,5).
 - Landscaping and other natural elements (e.g. water features) provide access to nature which provide biophilic benefits to users.
 - Tree planting within civic spaces requires appropriate soil volumes
 - refer to the *City of Edmonton Design and Construction Standards Volume 5: Landscaping (2021)*.
 - Special consideration should be given to tree species that are adapted to the changing climate - refer to the *Guide to Urban Forest Management in a Changing Climate*.
 - Tree setbacks in relation to other infrastructure elements are described in the *Complete Streets Design and Construction Standards*.

OTHER REQUIREMENTS

- Applicants may be requested to provide a design narrative including an overview of the vision of the civic space, a summary of the site analysis, and a description of the intended users and proposed functions.
- Applicants may have to provide a wind impact assessment to document existing site conditions and proposed mitigation measures to ensure environmental comfort within proposed civic spaces.

Summary of key civic space design considerations

Range of uses and landscape treatments; e.g. active, programmable spaces (A) and quiet seating areas (B).

Strong edge integration; e.g. shared space (C) and extended frontage zone (D).

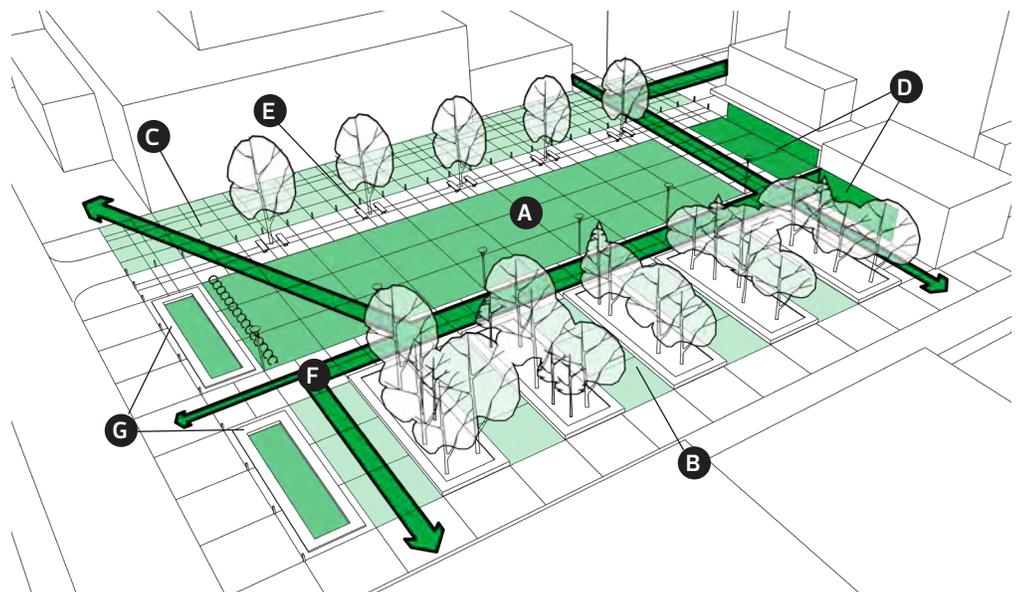
Range of seating options (E, B).

Environmental comfort through both sunny (D) and shady (B) spaces.

Easily accessible with a legible layout and clear sightlines (F).

Opportunities for Low-Impact Development (G).

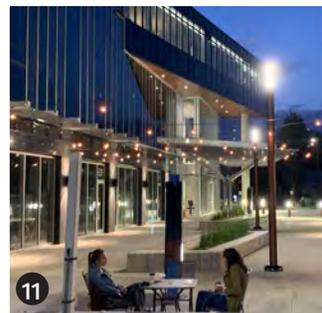
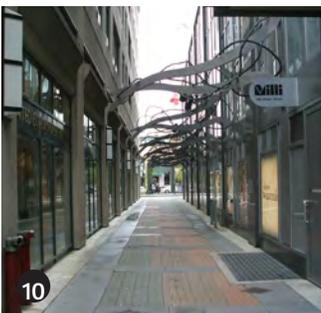
Generous tree planting to mitigate heat island effect (B).



PR1

CIVIC SPACES

- 1,2** Two different visions of civic space, Montreal – one active and one passive.
- 3** Children’s play area for all ages and abilities.
- 4** Passive seating area and connections to adjacent streets and land uses, Toronto.
- 5** Themed selection of finishes and furnishings to enhance overall character, Montreal.
- 6** Integration with and adjacent shared space, Montreal.
- 7** Civic space with casual seating around fountain, North York.
- 8** Civic space designed to facilitate winter use (City of Edmonton).
- 9** Separate design of stair and ramp for greater functionality, Nanaimo (Stephen Hunter).
- 10** Walkway with clear sightlines and limited entrapment spots, Toronto.
- 11** Appropriate lighting to activate a civic space for nighttime use.
- 12** Low Impact Development (LID) features integrated into a park design.



COMMERCIAL + MIXED USE INTERFACES

These guidelines provide general direction, at the concept or schematic design stage, on commercial and mixed use interfaces – ground floor frontages and adjacent frontage zones abutting the public right-of-way.

These guidelines should be applied to all commercial and mixed use development with ground floor uses accessed from the street.

These guidelines identify planning and design considerations in addition to *Zoning Bylaw* regulations related to front yard setbacks, glazing, main floor ceiling heights and bay widths.

As mixed use developments may also incorporate ground oriented residential units, these guidelines should be read in conjunction with *PR3 Multi-Unit Housing Interfaces*.

These guidelines do not address the detailed design of buildings, lighting, signage, or streetscaping.

Ground floor commercial and mixed-use building facades and frontage zones interfacing with the public realm create active edges that attract people and contribute to vibrant, walkable and inclusive streetscapes and civic spaces.

GROUND FLOOR ACCESS AND FRONTAGE ZONES

- Front yard setbacks should be considered to create frontage zones for landscaping, patios, sandwich boards, storefront displays and similar uses to improve walkability and vibrancy (Figures 1–4).
 - The depth of a frontage zone should reflect:
 - The existing street wall. It may be more appropriate to create an extended frontage zone on a corner site or where a strong street wall does not exist (Figure 1).
 - The intended use – which can range from 1.0m to 3.0m or more.
 - Frontage zones should be hard surfaced, and seamlessly integrated with the adjacent sidewalk though pavement material and pattern that minimizes the visual separation between public and private areas (Figure 5).
 - Grade changes from sidewalks to ground floor uses should be avoided to allow for a convenient and barrier-free universal access. If necessary, small ramps can be integrated into the frontage zone (Figure 6) or within the building interior.
 - Informal seating can include seating walls and window ledges (Figures 7,8).
- Outdoor patios within frontage zones or within the road right-of-way can animate the streetscape and support local business (Figure 9). Outdoor patios should:
 - Protect street trees and other street furniture (e.g. signs, fire hydrants, light poles);
 - Ensure a clear path of travel for pedestrians of a minimum of 2.0m;
 - Be universally accessible to both patrons and pedestrians through the provision of ramps and other devices (Refer to *Edmonton Access Design*

Guide and *Alberta Barrier-Free Design Guide* for more information);

- Be located and/or configured for maximum sun exposure; and
- Be built with high-quality materials of a robust design in order to positively contribute to the street character and city image.
- Temporary patios within the road right-of-way should be developed in accordance with the *City of Edmonton Patio Program Guide*.

GROUND FLOOR CEILING HEIGHT

- High ground floor ceiling heights should be considered to provide additional functionality and increase streetscape animation (Figures 10, 11).
 - High ground floor ceiling heights (e.g. 4.5m, measured from floor to floor) permit additional glazing (e.g. transom windows) for increased daylight and ventilation for ground floor uses.
 - Double floor heights (e.g. 7.5m – 9.0m) allow for mezzanine space while accommodating service and loading functions elsewhere within the building.

GROUND FLOOR AND STREET ANIMATION

- Small commercial bays, multiple entries, take-out windows, roll-up doors and other techniques should be considered to enhance access, visibility and interactions between the sidewalk and ground floor uses (Figures 12–15).
 - Small commercial bays, each with their own entrance, are preferred over bays which occupy large ground floor areas. A maximum bay width of 11.0m is recommended.
 - Ground floor uses that require visual separation / privacy, or otherwise do not positively contribute to an active frontage (e.g. waiting areas, mechanical rooms), should not face the street but instead be located within the building interior.
 - Large format retail uses should be moved to interior or second floor locations to allow small commercial bays on the ground floor (Figure 16).
 - For take-out windows, the height and design of window sills / counters must take into account persons in wheelchairs.
- Shared entries and lobbies (commercial or residential) are acceptable if designed in an appropriate manner.

- Shared commercial entries may be appropriate where internal units cannot be provided with their own exterior access. Shared entries should include seating and other amenities for the use and enjoyment of visitors.
- Shared entries should minimize their street frontage.
- Shared entries should be clearly differentiated from other ground floor uses for wayfinding and ease of identification (Figure 17).
- Commercial and mixed-use building interfaces should consider the proximity of transit stops and stations (Figure 18).
 - Building entries and adjacent areas should be designed to provide sufficient pedestrian throughway widths and not interfere with the transit stop waiting area.
 - Where feasible, closer integration of transit stops and stations into building design should be explored, in ways that create a strong identity for transit and enhance building architecture and the public realm.
- Glazing along the ground floor should be maximized to create a strong inside-outside connection and accommodate store window displays.
 - Continuous storefront glazing is preferred over punched windows.
 - Tinted, frosted, fritted and mirrored glass, as well as large window signs, are strongly discouraged. See *S4 Signage Guidelines* for more information.

PEDESTRIAN COMFORT, WALKABILITY AND HUMAN SCALE

- Architectural elements and details should be considered which contribute to a walkable, human scaled streetscape, regardless of architectural style.
 - Columns, pilasters or similar repetitive vertical architectural elements can reinforce the pattern of commercial bays and create a sense of rhythm along the streetscape.
- Canopies, awnings, and inset entries should be considered as a means to articulate building entrances and provide practical weather protection (Figure 19).
 - Inset entries can maximize accessibility and wayfinding – particularly for persons with visual impairments – but must be carefully designed to minimize entrapment areas.

COMMERCIAL + MIXED USE INTERFACES

Key considerations for the design of commercial + mixed use interfaces

Setback (A) creates a usable frontage zone while generally respecting the existing streetwall.

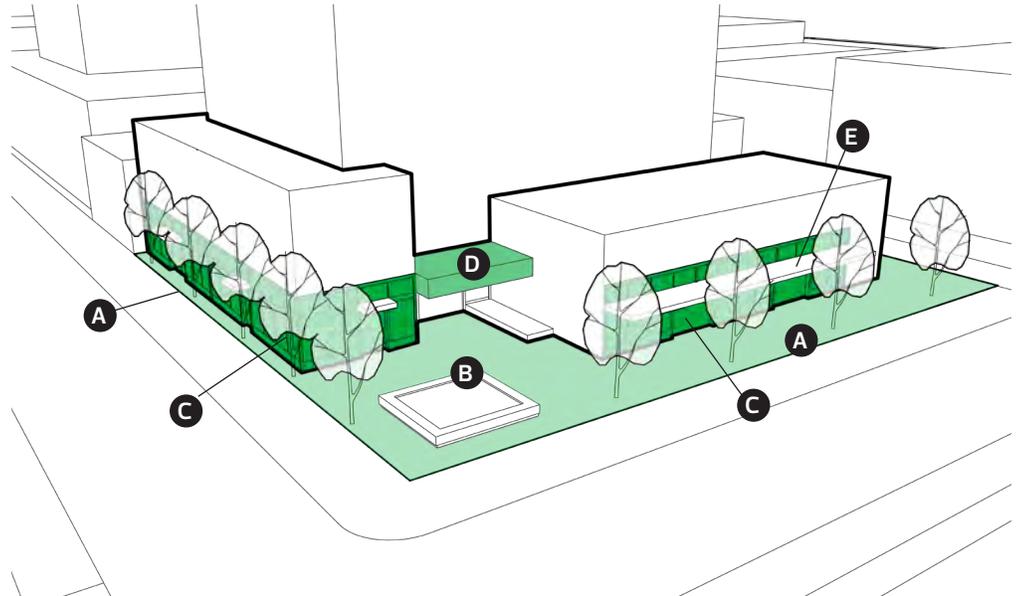
Opportunities for increased frontage zone; e.g. corner site, solar orientation (B).

High ground floor height, generous glazing and multiple, well articulated unit entries (C).

Well articulated shared entry (D).

Opportunity for continuous canopy for weather protection, human scale (E).

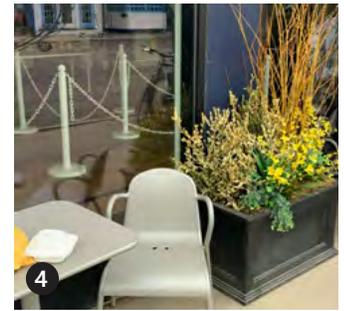
- Canopies, awnings and arcades (Figure 20) can also be incorporated along the entire length of a building facade to provide additional weather protection and contribute to a human scaled streetscape.
- The minimum requirements for canopy heights and depths are regulated in the Zoning Bylaw. In addition, canopies should not encroach on the public right of way. The ultimate location, height and depth of a canopy should maximize pedestrian comfort and weather protection.
- Canopies and awnings can also incorporate signage in an architecturally integrated manner.
- Canopies and awnings must be carefully detailed to mitigate snow melt and ice buildup on sidewalks.



PR2

COMMERCIAL + MIXED USE INTERFACES

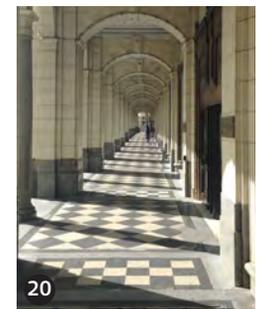
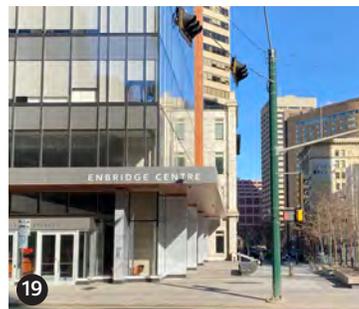
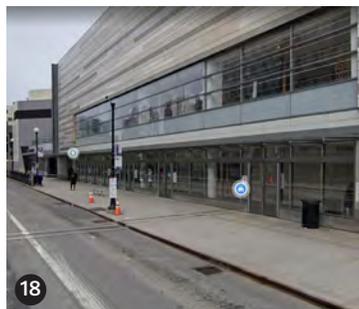
- 1 On a corner site a generous frontage zone incorporates a patio, pedestrian space and extensive landscaping, Calgary.
- 2-4 Even a small frontage zone can accommodate merchandising, signage, seating and seasonal displays.
- 5 Frontage zone seamlessly integrated with the sidewalk, Vancouver.
- 6 Ramped entrance provides universal access to ground floor uses.
- 7 A window sill provides an informal seating opportunity.
- 8 Bench seating incorporated into a building frontage for year-round amenity, Oslo.
- 9 A simple yet robust patio design integrated with existing street furniture.



PR2

COMMERCIAL + MIXED USE INTERFACES

- 10 Double-height glazing enlivens the winter cityscape, Copenhagen.
- 11 Human scaled storefront with high ground floor ceiling heights, small commercial bays and pilasters.
- 12,13 An effective commercial interface can be created regardless of architectural style.
- 14 Roll-up door, Calgary.
- 15 Take-out window.
- 16 Second level big box retailer allowing for small bays at ground level, Calgary.
- 17 Common residential entrance differentiated from ground floor commercial (Street View)
- 18 Transit shelter incorporated into commercial development, Ottawa (Street View).
- 19 Canopy with integrated building signage.
- 20 Pedestrian arcade, Hudson's Bay building, Calgary.



PR3

MULTI-UNIT HOUSING INTERFACES

These guidelines provide general direction, at the concept or schematic design stage, on building facades, and the design of terraces, patios and similar public / private transitions within front and side yards of multi-unit housing.

These guidelines should be applied to multi-unit housing (e.g. row housing) and those portions of multi-unit housing (e.g. tall building podiums) with private amenity spaces accessed directly from streets, alleys or civic spaces; however, the guideline may be applicable to other housing typologies (e.g. cluster housing).

These guidelines identify design considerations in addition to *Zoning Bylaw* regulations related to front and side yard setbacks.

For developments that incorporate both commercial and residential uses, these guidelines should be read in conjunction with *PR2 Commercial + Mixed Use Interfaces*.

Street oriented multi-unit housing contributes to walkable, attractive and inclusive streetscapes and civic spaces by creating appropriate public / private transitions while promoting activity and natural surveillance.

GENERAL DESIGN CONSIDERATIONS

- Ensure that facade design, including entrances and private amenity spaces (e.g. patios), wrap around corners and contribute to a consistent and active streetscape on corner sites.
- All residential units on the ground floor should have direct access to a street or amenity area.
- Common entrances for multi-unit housing should be welcoming and differentiated from individual street-oriented residential units through architectural and landscape treatments (Figure 1).
- Residential address signs should be limited to wall and low-profile sign types, located in close proximity to the main building entrance serving as a visual marker of the entrance.
- Limit the placement of air intakes, exhaust, air conditioning, water drainage and similar mechanical equipment along the public realm (e.g. sidewalks), in front yards or otherwise visible from adjacent streets. If their placement is unavoidable, orient them away from the sidewalks or other pedestrian circulation paths as necessary to minimize their effect on the public realm. Screen as appropriate using landscaping or other such means.
- The placement of windows at the ground level residential units fronting a street, civic space or amenity area should enhance privacy for the residents while maintaining "eyes on the street" (Figure 2).
- Entrances to ground floor residential units should be at grade, or include minimal grade changes, to provide universal access. Minimal or no grade changes allow for greater degree of adaptability in possible conversion to commercial in future. Residential units in mid-rise development, or a podium of a tall building that are raised above grade, may require universal access provided via an internal corridor.
- Multi-unit housing fronting onto a civic space or amenity area should be designed in a similar fashion as when fronting onto a street.

PR3

MULTI-UNIT HOUSING INTERFACES

PUBLIC / PRIVATE TRANSITIONS

- Multi-unit housing interfaces should reflect the established character of its context in terms of treatment of public-private transitions within front and side yards.
- Minimum setbacks are defined in the Zoning Bylaw, but consideration should be given to establishing setbacks which accommodate functional private amenity spaces (e.g. patios), landscaping and adequate separation and buffering which reflects the nature and character of the streetscape and roadway (Figure 3).
 - In very unique conditions (e.g. alley housing) it may be appropriate to greatly reduce setbacks (Figure 4).
- Public / private transitions can be further enhanced by:
 - Landscape screening using trees and shrubs, with sufficient space and soil volume to be provided (particularly in landscape over structure conditions) (Figure 5);
 - Decorative fencing or walls (1.2m maximum) which utilizes materials, colours, etc, which are consistent with or complement the building architecture; and/or
 - Minor changes in grade (Figure 6). Note that grade changes over 0.6m in height may limit accessibility, and require a railing or other barrier which may change the nature of the separation and buffering.

CLIMATE RESILIENCE

- Priority should be given to accommodating large canopy shade trees within front yard setbacks, particularly where no boulevard exists.
 - The ultimate size of the front yard setback should accommodate both the growth habit and mature spread of the tree, as well as its soil volume requirements.

FACADE DESIGN FOR ROW HOUSING TYPOLOGIES

- For multi-unit housing which utilizes a row housing typology, key design considerations include:
 - Articulating residential units as separate units through changes in facade design and materiality, to contribute to a human scaled streetscape (Figure 6).

PR3

MULTI-UNIT HOUSING INTERFACES

Key considerations for the design of multi-unit residential interfaces

Front setback (A) accommodates functional private amenity areas (e.g. patios), landscaping (e.g. tree planting), while reflecting built form context (e.g. streetwall). Ultimately, the nature of the public / private transition is a function of the street character, traffic and other factors.

Common building entry articulated clearly and separately (B).

Townhouses articulated as separate units with clearly defined primary unit entrances (C).

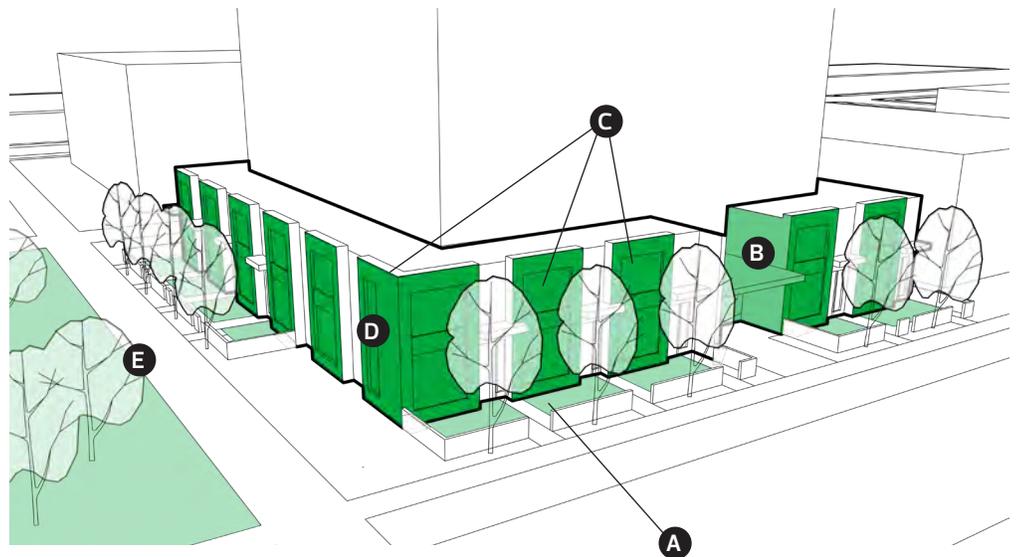
Facade treatment wraps building corner (D).

Building facade facing civic space treated as an active frontage (E).

- Providing separate and clearly visible access points to each ground floor unit with clear sightlines from the street, and design these as viable primary entrances (Figure 7).
- Consider inset doorways and weather protection (e.g. canopies) to improve the functionality of entrances.
- Consider enhancing the legibility of ground floor entrances by incorporating well designed features such as stoops, porches, shared landings and canopies.

LIVE-WORK UNITS AND COMMERCIAL CONVERSIONS

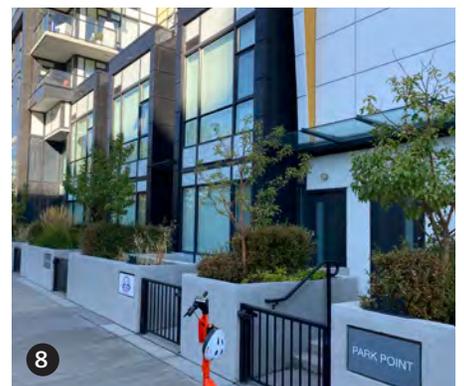
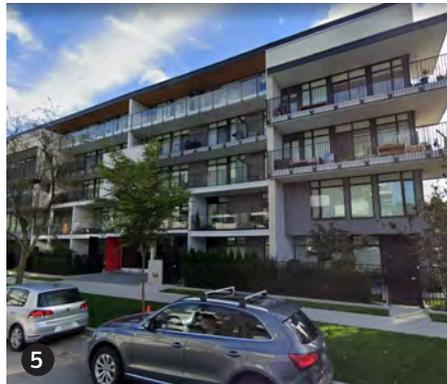
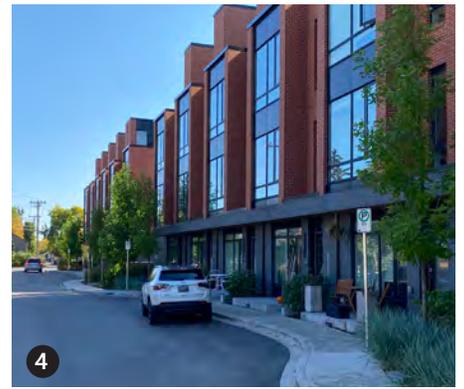
- In commercial or commercial transition areas, there may be opportunities for row housing typologies to be designed as live-work units, or convertible to future commercial use. Design considerations include:
 - High ground floor ceiling heights (e.g. 4.5m);
 - Increased glazing (i.e. storefront expression);
 - Minimal signage well integrated into the building facade or front yard (Figure 8); and
 - Minimal or no grade changes for universal accessibility – otherwise ramps may be required.



PR3

MULTI-UNIT HOUSING INTERFACES

- 1 Common entrance differentiated through architectural and landscape treatments, Vancouver.
- 2 Generous use of windows provide 'eyes on the street' while maintaining privacy, Vancouver.
- 3 Generous front yard setback accommodates both boulevard tree planting and a functional private amenity space.
- 4 Alley housing with reduced setback, Calgary.
- 5 Public to semi-private transition created through landscaping and decorative fencing, Vancouver.
- 6 Public to semi-private transition created through landscaping and grade changes, Vancouver.
- 7 Clearly defined and well designed entrances, Vancouver.
- 8 Clearly defined live-work units with integrated signage, Calgary.



PR4

MID-BLOCK CONNECTIONS

This guideline addresses the planning and design of mid-block connections, as well as the public realm interface with the adjacent built form

The planning and design of mid-block connections apply to both existing (e.g. brownfield) and new (e.g. greenfield) contexts, at varying scales (e.g. from the planning of neighbourhoods to the design of sites)

The general location and configuration of mid-block connections is also addressed in *US1 Site Design*.

The thoughtful design of a mid-block connection focuses on creating safe, walkable, attractive, connected and inclusive public spaces that are extensions of the adjacent public realm. The design of these spaces shall promote pedestrianization and strong integration with adjacent land uses to encourage increased connectivity and density of development.

GENERAL

- Mid-block connections may be employed:
 - As extensions of adjacent streets, alleys and civic spaces (Figure 1);
 - To preserve views and create sightlines to nearby destinations including schools, facilities and open spaces (Figure 2); and/or
 - To break up large blocks and building sites to help reduce building massing and improve connectivity for a range of travel modes (Figure 3).
- Mid-block connections should be designed primarily for pedestrians and active modes.
 - It may be appropriate for mid-block connections to accommodate limited vehicular access for emergency vehicles, loading, deliveries, on-site parking facilities, etc. In these instances the mid-block connection should be designed as a shared space.
- Special consideration should be given to the animation of mid-block connections, by:
 - Fostering pedestrian-oriented uses such as informal seating, play areas and community gardens, complemented by landscaping, signage, furnishings and public art (Figure 4);
 - Providing appropriate lighting and ensuring good sightlines for safety (Figure 5);
 - Prioritizing active transport modes for people of all ages and abilities; and/or
 - Creating strong at-grade connections with adjacent land uses, whether commercial, residential or mixed use (Figures 6-8). See also *PR2 Commercial and Mixed Use Interfaces* and *PR3 Multi-Unit Housing*

PR4

MID-BLOCK CONNECTIONS

Interfaces.

- Mid-block connections should be designed in a manner that can easily adapt to changes in function and program; e.g. minimizing steps, ramps, retaining walls and other barriers.
- Mid-block connections should generally be open to the sky and special consideration should be given to minimizing adverse microclimate effects such as wind and shadows.
- Mid-block connections should be a minimum width of 6m; however, increasing the width may be necessary to accommodate the desired functionality and integration with adjacent land uses, ensure environmental comfort, and create an appropriate human scale (Figure 9).
- Other design considerations for mid-block connections include:
 - Arranging utilities, waste collection, and building equipment away from pedestrian walkways to reduce visual clutter and negative impacts for pedestrians and cyclists using these important connections.
 - Where mid-block connections meet a street or open space, turning building frontages around corners (with corresponding civic space improvements) to create gateways and inviting entrances.

Summary of key mid-block design considerations

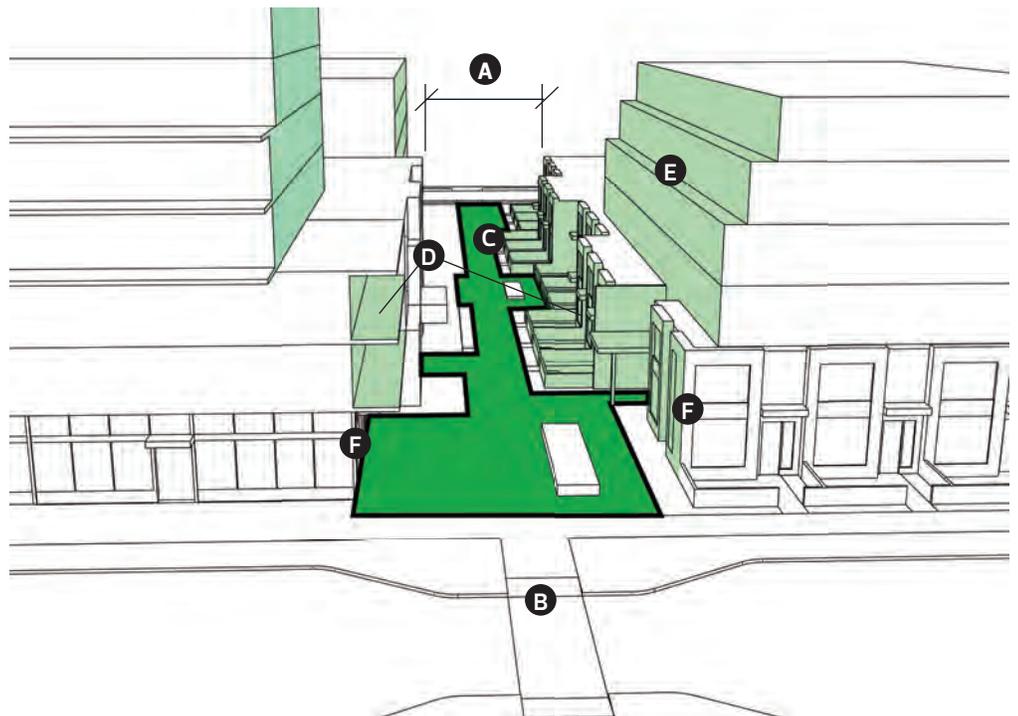
Maximize connectivity through adequate space with clear sightlines (A), and associated street improvements (e.g. curb extensions) (B).

Opportunities for landscaping and amenities (C) to animate the space.

Good land use integration for activity and surveillance (D).

Appropriate built building height and form to ensure human scale and environmental comfort (E).

Wrapping building frontages at corners, with associated civic space improvements, to create more inviting entrances (F).



PR4

MID-BLOCK CONNECTIONS

- 1-3** Mid-block connections can be used in a greenfield setting to break up long blocks, improve connectivity and access to community facilities (1); on a redevelopment site to provide physical access to an important open space (2); and as an alternative to an alley - to improve vehicular movements while creating pedestrian opportunities (3).
- 4** Mid-block connection with community garden, lighting and seating, Vancouver.
- 5** Mid-block connection with appropriate lighting and good sightlines.
- 6,7** Mid-block connection with good residential land use integration.
- 8** Mid-block connection as vibrant commercial space, Toronto.
- 9** Mid-block connection with appropriate access and human scale, Portland.

