

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

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.

- 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 stepbacks 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

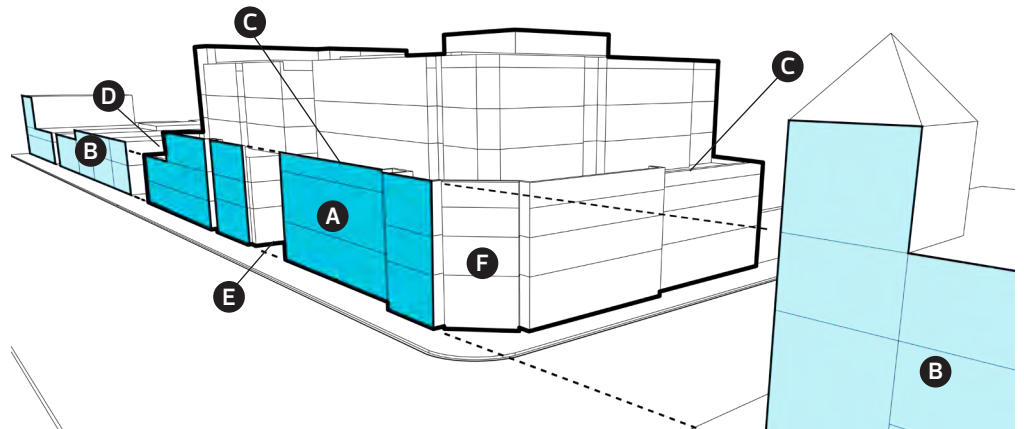
Streetwall (A) informed by adjacent context (B).

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

Appropriate built form transitions (D).

Breaking up facade to lessen visual impact (E).

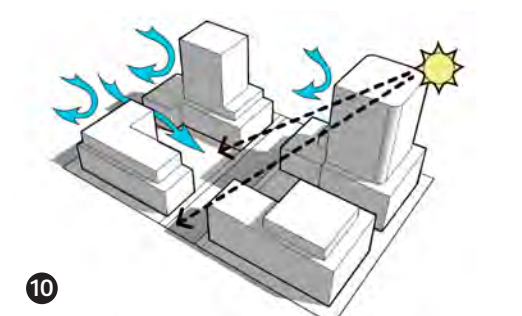
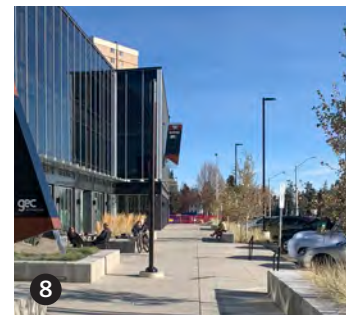
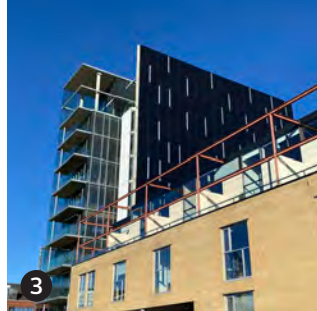
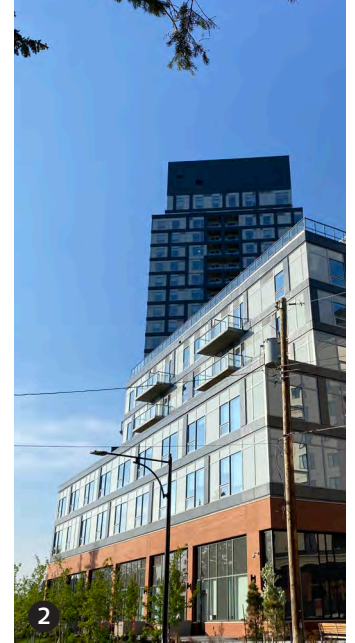
Design addresses corner condition (F).



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- 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



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- 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.

