
SITE DESIGN

This guideline provides 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.

This guideline should be applied to all development proposals.

This guideline identifies planning and design considerations in addition to *Zoning Bylaw* regulations related to setbacks, site coverage ratios, building height, etc.

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

This guideline does not address the detailed design of buildings or civic spaces.

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, and establish a public realm which is well connected, thriving and walkable in all seasons, and contributes 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 broader 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 planning 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 planning 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.
- If parking is being located within a building at or above grade see also *BF3 Parking Structures (TBD)* for additional design considerations.
- 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 similar 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 minimize disturbing 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 public amenity areas with human scaled streetwalls – whether on public or private land (i.e. within the interior of a development site) (Figure 4).
- While this guideline generally translates to minimizing front yard setbacks, there are land uses (e.g. multi-unit housing) that require larger front yard setbacks allowing privacy separation and landscaping. See also *PR2 Commercial + Mixed Use Interfaces* and *PR3 Multi-unit Housing Interfaces*.
- The main floors of buildings should incorporate, where possible, active edges (e.g. patios, decks, seating) and common amenity areas to animate and provide natural surveillance to streets, alleys, civic spaces and public amenity areas (Figure 4).
 - 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 public 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 within development sites should reflect their intended function.
 - The orientation and configuration of buildings and civic spaces should

maximize solar access and minimize adverse wind impacts (including downdrafts, updrafts and channeling) to facilitate all-season use.

- Special consideration may need to be given to accommodate 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. These considerations could include 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 common 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 public amenity space developed and/or constructed during each phase of the project.
 - Prioritize building out the public realm interface (ie. 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

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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).

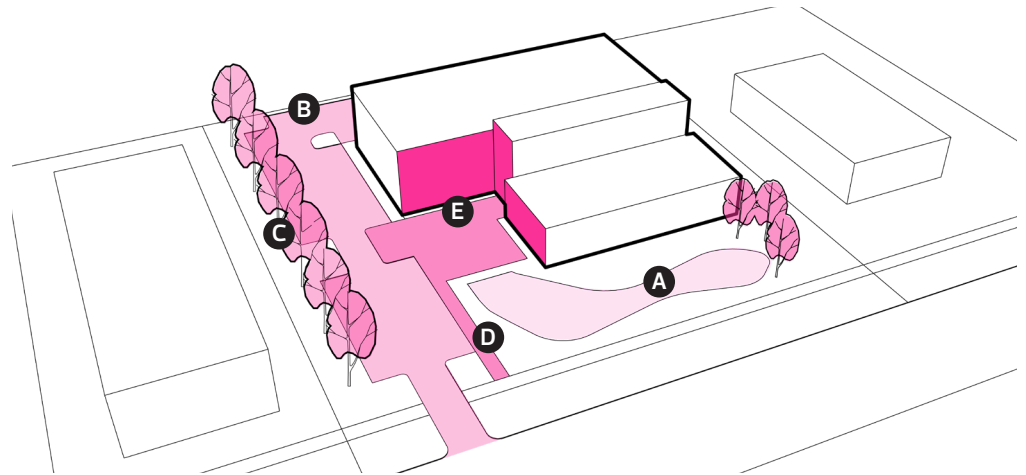
Direct and pedestrian access (D).

Amenity area sited to maximize solar access and protection from winter winds (E).

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 or civic spaces.
- To support the proposed public realm framework, applicants may be

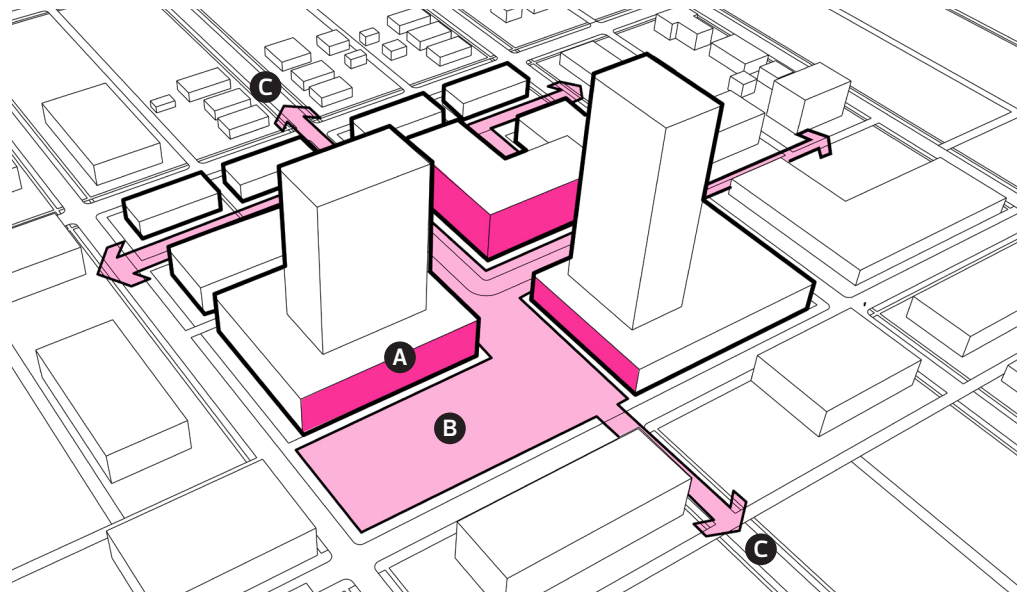


Summary of key considerations for the design of large sites

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).



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- 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.

