

Guidelines

Solar Access Guidelines for Areas Outside of Downtown

Approved by Council July 10, 2024



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The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the xʷməθkʷəy̓əm (Musqueam Indian Band), Sk̓wx̓wú7mesh (Squamish Nation), and səliłwətał (Tsleil-Waututh Nation).

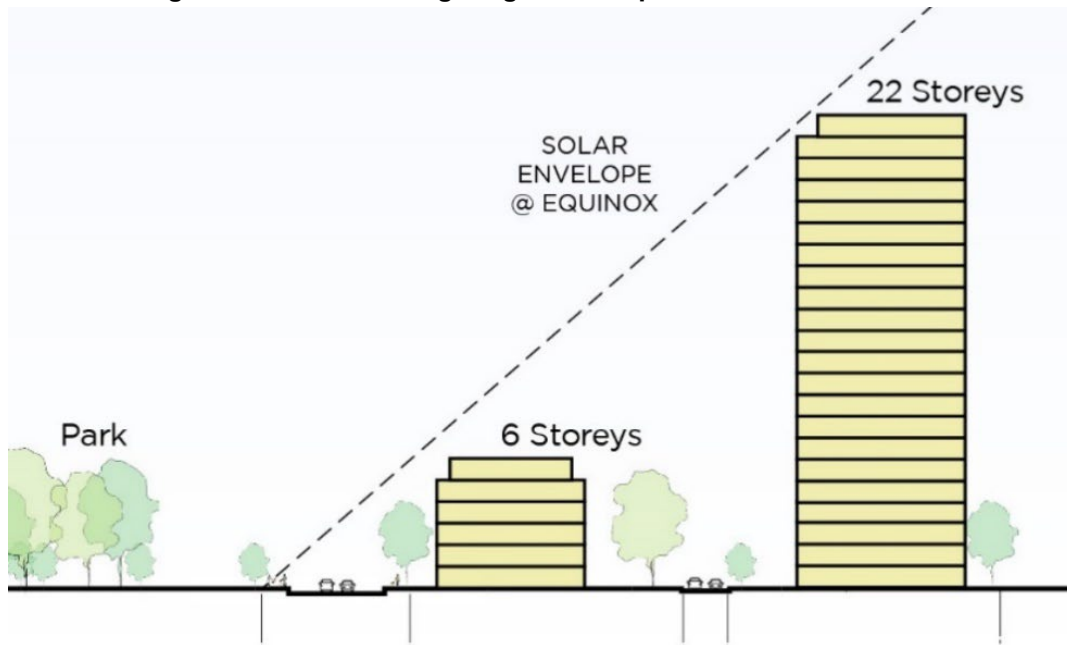
1 BACKGROUND AND CONTEXT

Vancouver’s northern temperate oceanic climate means extended periods of overcast skies in the fall, winter, and spring, which is contrasted with clear warm dry summers. Solar access contributes to the city’s urban vibrancy by promoting the use and enjoyment of parks, boosting pedestrian activity in commercial areas and extending the sidewalk patio season.

Sunlit spaces and places that are well designed and responsive to the weather and seasonal variations are demonstrably more utilized especially during spring/fall shoulder seasons. In Vancouver, sunlight, or solar access, promotes physical activity, improving happiness, energy, and health. It supports healthy vegetation growth and dries out areas of standing water on fields, playgrounds and seating areas. This requires strategic planning of nearby development to contribute to a great urban environment.

Research shows that parks and commercial retail streets in Vancouver experience peak usage between 9 a.m. and 6 p.m. with the heaviest usage typically in the late afternoon. However, evaluating development proposals on this timeframe would significantly restrict development opportunity. To strike a balance, in the Broadway Plan, solar access criteria were established from 10 a.m. to 4 p.m. PDT on the equinoxes. Analysis revealed that the resulting impact would be to approximately 3% of the residential land up to 6 storeys and another 3% up to 12 storeys, with the remaining approximately 94% of the residential land in the plan area unaffected. These guidelines extend the Broadway Plan area solar access strategy from 10 a.m. to 4 p.m. PDT on the equinoxes, citywide (excluding downtown).

Figure 1: South Building Height Envelope Based on Guidelines



2 INTENT

Regulating solar access to a consistent standard citywide (with the exception of downtown) is intended to provide clarity to developers, the public and staff in assessing development proposals thereby supporting a more certain and streamlined permitting process. This approach uses the angle of the sun to establish a solar envelope (see Diagram 1) that reduces subjective bias, is easy to model and is an industry-tested methodology.

These guidelines are intended to be used in the review of development proposals in conjunction with all applicable policies, regulations, and guidelines for Rezoning or conditional Development Permit applications.

3 GUIDELINES

Models used to determine compliance with these guidelines should be geolocated and set to Pacific Daylight Time (PDT) (UTC -7). To accurately demonstrate the shadowing conditions of a proposed development within the existing context, models should also include adjacent buildings and topography.

3.1 Shadow Limits

- 3.1.1 Proposed development should not create new shadow impacts on public parks and public school sites between the spring and fall equinoxes from 10 a.m. to 4 p.m. PDT.
- 3.1.2 Proposed development should avoid creating new shadow impacts on the opposite sidewalk in village high streets as identified in the Vancouver Plan or other relevant policies between the spring and fall equinoxes from 10 a.m. to 4 p.m. PDT.
- 3.1.3 New buildings should minimize shadowing impacts on independent school yards (i.e., outdoor play fields, playgrounds, etc.) particularly during school hours.

4 EXCEPTIONS AND NOTES

- 4.1.1 In the following circumstances, minor exceptions to these guidelines will be considered:
 - (a) For any development less than four storeys where reasonable efforts are made to minimize shadow impacts.
 - (b) For secured rental housing developments in residential apartment areas (i.e. zoned RM and FM) to enable buildings up to six storeys.

(c) For 100% social housing developments, assessed on a case-by-case basis.

4.1.2 The size and location of some parks may make maintaining solar access particularly challenging, such as when smaller parks are located in areas undergoing increased densification. In these cases, further coordination between applicants and City staff may be required.