

CALGARY

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23 Elizabeth Street North, Mississauga

Shadow Study Written Analysis Prepared – August 29, 2025

The latitude and longitude used in the preparation of the shadow study is as follows:

Latitude: 43 degrees 35' 20" N Longitude: 79 degrees 38' 40" W

North has been determined using a UTM coordinate system using NAD 83 Original to determine north.

The Origin/Source Plan is derived from observed reference points A and B having a bearing of N37°35′55″E by real time network (RTN) observation, and are referred to the 6° UTM Coordinate system, zone 17, central meridian 81°00′ West Longitude. (3° modified transverse Mercator projection, NAD 83 (CSRS-2010)

The following is the summary of all the shadow impact criteria that has been met.

3.1. Residential Private Outdoor Amenity Spaces:

There is no shadow impact within more than two consecutive hourly test times within the impact zone of nearby residential properties.

3.2. Communal Outdoor Amenity Areas:

The Sun Access Factor for June 21 is 0.259
The Sun Access Factor for September 21 is 0.355
The Sun Access Factor for December 21 is 0.134

Shadows from the proposed development allow for full sun on different communal outdoor amenity areas in the development at various parts during the day. The proposed development site, and outdoor communal areas are shadowed by the existing context during many of the test times in all months resulting in a lower SAF.

There are 4 areas of outdoor communal area:

1. Ground floor outdoor amenity on the north side of the development.

In June, this area starts to receive sunlight after 14:20, and at 17:12 in March/Sept., it receives no sunlight in December due primarily to the existing context condition.

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2. Gound floor outdoor amenity along Elizabeth

In June, this area begins to receive sunlight after 12:20, with 100% sunlight at the test times of 12:20, 13:20, 14:20, 18:20, 19:20, & 19:33. During March/Sept., it receives sun from 10:12 to 15:12, with 100% sunlight at 11:12, 12:12, & 13:12. During December this area receives sunlight at 11;17, 13:17, & 14:17. At the other test times it is shadowed primarily by the existing context condition.

3. 2<sup>nd</sup> Floor area – Dog walk/relief area.

In June, this area receives sunlight from 8:20 to 19:33 with the exception of 17:20 and 18:20 where it is completely shadowed by the existing context - during June, there is 100% sunlight during the test times of 12:20. 13:20, & 14:20. During March/Sept., This area receives sunlight from 8:35 to 17:12, and has 100% sunlight coverage during the hours of 11:12, 12:12, 13:12 & 14:12. During December, this area receives sunlight from 9:19 to 15:15 with the exception of 11:17 & 13:17, with the highest at 14:17 with 100% coverage. It is primarily shadowed by the existing context at all test times during this month.

4. 2<sup>nd</sup> Floor area – Outdoor Communal Area

In June this area primarily receives sun coverage between 9:20 and 17:20. It receives 100% coverage during the test times of 10:20 and 11:20. During March/Sept., this area receives sun coverage at all hours with the exception of 16:20 with 100% coverage at 10:12. During December, this area receives sun coverage at all hours with the exception of 12:17.

4.2. Public Realm including sidewalks, open spaces, parks and plazas:

There is no incremental shade from the proposed development on the opposite boulevard including the full width of the sidewalk on September 21 at 12:12 p.m., 1:12 p.m. and 2:12 p.m., and three consecutive times at 9:12 a.m., 10:12 a.m., and 11:12 a.m.

There are no public open spaces, parks and plazas near the proposed development.

4.3. Turf and flower gardens in public parks:

The proposed development's shadow does not impact the growing season from March to October of any public park.

4.4. Building Faces to allow for the possibility of using solar energy:

The proposed development does not have a shadow impact for more than two consecutive hourly test times in the No Impact zone on September 21.

Sincerely,

Roman Pevcevicius