

805 Dundas Street East, Mississauga, Ontario

Sun Shadow Study Written Analysis
Prepared – September 26, 2022

The following information has been prepared by Kirkor Architects and Planners and are to be read in conjunction with the shadow drawings in the architectural drawings.

Introduction

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 Horizontal Control Monuments No. 075930012 and No.075930019, and are referred to the 6° UTM Coordinate system, Zone 17, Central Meridian 81°00' West Longitude. (NAD 83 Original).

Time Zone

Daylight Saving Time GMT-4/Standard Time GMT-5

Astronomic North and Software Use to Prepare Shadow Analysis

The North Arrow in the survey was used to setup the True North in Revit 2021. This survey was prepared by:

Aksan Piller Corporation Ltd. on May 20, 2022.

The base plan originated from the survey above and the base map was taken from Google maps with coloured regions noted in Revit.

The project address was entered into Autodesk Revit 2021 which geolocates the site and the orientation to astronomical north established accurate shadows of the development.

PARTNERS

Clifford Korman
Architect, OAA, AAA, AIA, MRAIC,
MAIBC, OPPI, RPP, MCIP, NCARB

Carlos Antunes
Architect, OAA, AAA, MRAIC

Brent Whitby
Architect, OAA, AAA, MRAIC

PRINCIPALS

Adrienne Lee
Architect, OAA

Ali Lalmohammadi
Intern Architect, OAA

Dickson So
Architect, OAA

Keesa Hutchinson
Architect, AAA, MRAIC

Roman Pevcevicus
Architect, OAA

TORONTO

20 De Boers Dr. Unit 400 Toronto, ON M3J 0H1
Tel: 416 665 6060

CALGARY

715-5TH Ave SW Suite1400 Calgary, AB T2P 2X6
Tel: 403 455 6064

3.1 Residential Private Outdoor Amenity Spaces

There is no shadow impact from the proposed development on surrounding residential dwellings during the day and evening. There is minor shadow impact from the proposed development on West residential dwellings on March / September 21 at 8:35am and June 21 at 7:07am, 7:20am and 8:20am.

3.2 Communal Outdoor Amenity Areas

Shadows from the proposed development should allow for full sun on the above places with a Sun Access Factor of at least 50% sun coverage on June 21, March / September 21 and December 21.

The Sun Access Factor for the outdoor amenity areas in June is 0.676.

The Sun Access Factor for the outdoor amenity areas in March / September 21 is 0.718.

The Sun Access Factor for the outdoor amenity areas in June is 0.632.

All the communal outdoor amenity areas have a Sun Access Factor above 0.5 and therefore the development is in accordance with the criteria.

3.3 Public Realm

There is no shadow impact of the development site on the opposite side of Dundas Street East and Haines Road during the below times:

Dundas Street East

March / September 21:

8:35am, 9:12am, 10:12am, 11:12am, 12:12pm, 13:12pm, 14:12pm, 15:12pm

June:

7:07am, 7:20am, 8:20am, 9:20am, 10:20am, 11:20am, 12:20pm, 13:20pm,
14:20pm, 15:20pm

Haines Road

March / September 21:

8:35am, 9:12am, 10:12am, 11:12am, 12:12pm

June:

7:07am, 7:20am, 8:20am, 9:20am, 10:20am, 11:20am, 12:20pm, 13:20pm

3.4 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.

3.5 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 March / September 21.

Conclusion

To conclude, the proposed development meets the shadow impact criteria for all existing amenity areas and public spaces. There is minor shadow impact from the proposed development on West residential dwellings during early morning. Effort has been made to improve the shadow impact by reducing all the tower floor plates at each end, and locating amenity areas with sun exposure in mind.

Sincerely,



Clifford Korman
Partner/Architect