



600 Southgate Drive
Guelph ON Canada
N1G 4P6

Tel: +1.519.823.1311
E-mail: jordan.gilmour@rwdi.com

MEMORANDUM

DATE:	2023-11-28	RWDI Reference No.:	2101131
TO:	Chloé Valcin-Wright	EMAIL:	cvalcinwright@hazelview.com
FROM:	Jordan Gilmour Ryan Danks	EMAIL:	jordan.gilmour@rwdi.com ryan.danks@rwdi.com
RE:	Sun Access Factor Analysis for Amenity Spaces 1580-1650 Dundas Street East Mississauga, Ontario		

Dear Chloé

RWDI was previously retained to conduct a detailed sun/shadow study for a proposed multi-building development located at 1580-1650 Dundas Street East in Mississauga, Ontario. RWDI conducted this analysis per the City of Mississauga Standards for Shadow Studies and the results summarized in a report dated July 29, 2022. Since that time, we understand that the city has provided comments related to amenity spaces added to the project since the original assessment. The purpose of this report addendum is to summarize the Sun Access Factor (SAF) calculations for the amenity spaces within the site as well as the Tot Lot located at Block C. The tabular data is provided in a separate file.

Block A

The detailed results for Block A indicate a significant amount of solar exposure from midday through the evening all year across all locations and at least one amenity space had sun access at all studied test times. There was also significantly higher SAF predicted during the cooler months which can be considered a positive from a thermal comfort perspective. Overall, only the grade level space (A05) was predicted to have an SAF above 0.5 on the June 21 test day. On the September 21 test day, this same space and the south end of the 2nd story roof space (A01c) met the criterion and on December 21, these spaces plus the central, covered portion of the 2nd story roof space (A01b) and the 11th story space met the target. The average SAF across all spaces in this block (less the covered area) were predicted to be 0.29, 0.38 and 0.56 for the June, September and December dates respectively.



Block C

The tot lot at block C was predicted to meet the SAF criterion on all three test days. The other three amenity areas also met the criterion on December 21 and all but one (C01) met the criterion on September 21. On the June test day, the other spaces did not meet the criteria but at least one area had direct sun exposure at each time, and all were predicted to have solar exposure from midday through to late afternoon. The average SAF across all spaces in this block (less the tot lot) were predicted to be 0.35, 0.52 and 0.67 for the June, September and December dates respectively.

Block E

The amenity space on the 8th floor roof was predicted to meet the SAF criterion on the June and September test days but not December. The more sheltered space on the 1st floor roof did not meet the criterion on any date but was still predicted to receive direct sun at the majority of the test times. As with the other blocks, there was at least one space with direct sun exposure predicted at all test times. The average SAF across all spaces in this block were predicted to be 0.51, 0.44 and 0.10 for the June, September and December dates respectively.

Block F

The tallest two amenity spaces on block F (F01 and F03 on the roofs of floors 9 and 6 respectively) met the criterion on the June 21 test day, and the taller of the two also met the criterion on the September 21 test day. Aside from the last test times on each day, there was at least one space predicted to receive sunlight at all test times. The average SAF across all spaces in this block were predicted to be 0.51, 0.27 and 0.07 for the June, September and December dates respectively.

Block G

The predicted SAF for the Block G spaces was generally similar to that of Block F. The two spaces located higher up, met the criterion on the June and also in September. The lower space was predicted to have limited direct sunlight on the December day but was predicted to receive direct sun for the majority of the other times. Aside from the final test times of the days, there was always at least one space predicted to receive direct sunlight. Aside from a single test time (19:33 on June 21) there was always at least one space in the block receiving direct sunlight. The average SAF across all spaces in this block were predicted to be 0.49, 0.41 and 0.19 for the June, September and December dates respectively.



Chloé Valcin-Wright
Hazelview Investments
RWDI #2101131
November 28, 2023

Townhouses

The larger of the two townhouse amenity spaces met the criterion on the June and September 21 test days with the smaller was predicted to meet the criterion only on June 21. That said, both spaces had access to direct sunlight for the majority of the test times during these dates with more limited access on the December day due to the surrounding massing.

We hope that this addendum is sufficient for your current needs. Do not hesitate to contact us if there are any further questions or comments.

Yours truly,

RWDI

A handwritten signature in black ink, appearing to read 'J Gilmour'.

Jordan Gilmour, P.Eng.
Project Delivery Manager



Rowan William Davies & Irwin Inc.

Sun Access Factor Calculation Sheet

Project Number: 2101131

Project Name: 1530-1650 Dundas St E

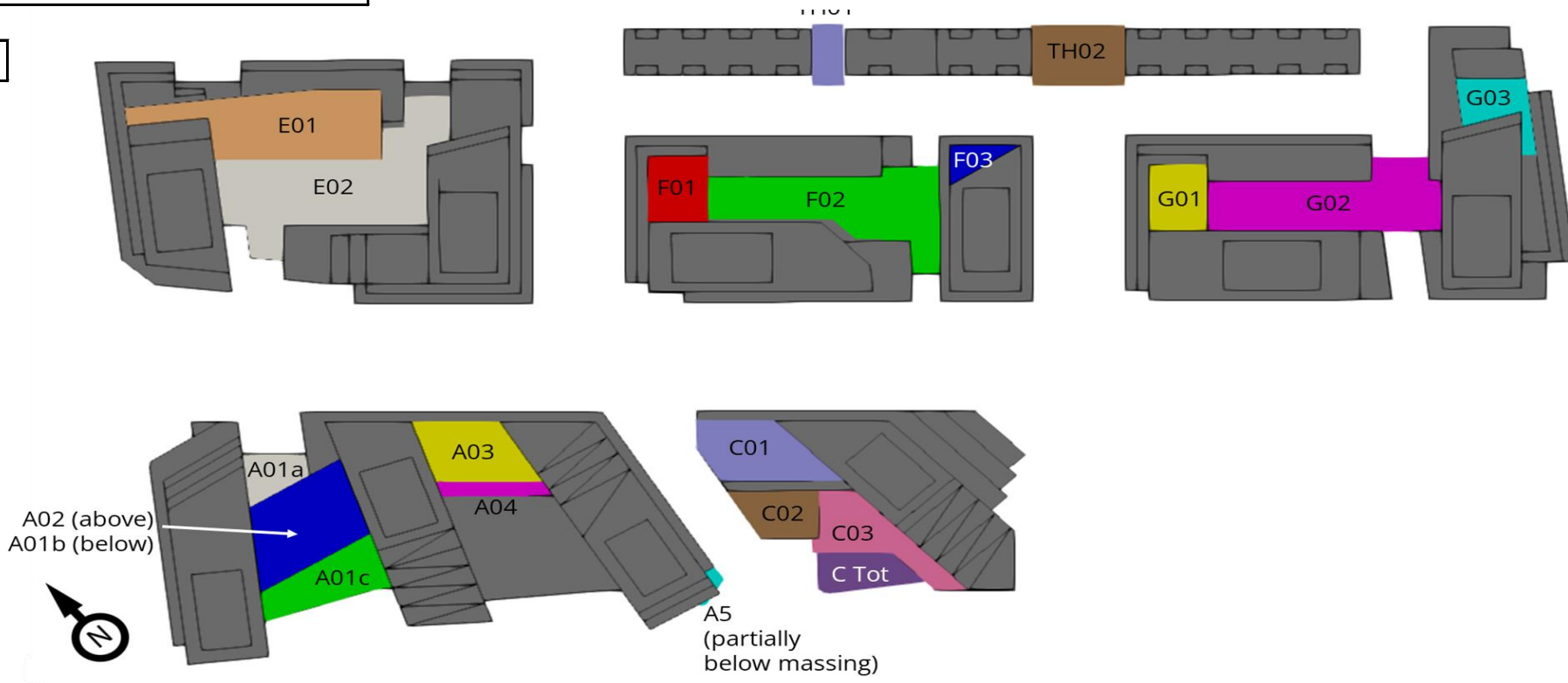
Project Location: Mississauga, ON

Generated On: 28-Nov-23

Generated By: RCD

Checked By: JWG

Space Definitions



21-Jun

Area in Sun at Test Time [m²]

Block	Space ID	Total Area [m ²]	7:07	7:20	8:20	9:20	10:20	11:20	12:20	13:20	14:20	15:20	16:20	17:20	18:20	19:20	19:33	Average Area In Sun [m ²]	SAF
A	01a	191.83	0.00	0.00	0.00	39.75	3.78	0.00	0.00	20.88	13.00	0.00	0.00	0.00	0.00	0.00	0.00	5.16	0.03
A	01b	491.83	0.00	0.00	0.00	0.00	0.00	1.87	95.84	161.16	179.94	90.43	0.00	0.00	0.00	0.00	0.00	35.28	0.07
A	01c	420.37	0.00	0.00	0.00	0.00	0.00	68.56	255.58	356.77	420.37	339.96	214.87	59.49	1.12	0.00	0.00	114.45	0.27
A	02	707.26	0.00	5.86	0.00	0.00	0.00	38.94	276.01	551.06	707.26	624.92	519.74	338.68	51.67	0.00	0.00	207.61	0.29
A	03	460.99	264.21	262.09	273.34	311.35	347.25	368.37	183.98	321.72	366.27	181.82	60.50	0.45	0.00	0.00	0.00	196.09	0.43
A	04	119.83	0.00	0.00	0.00	0.00	0.00	15.60	0.00	76.65	103.98	66.83	22.09	0.03	0.00	0.00	0.00	19.01	0.16
A	05	95.43	0.00	0.00	0.00	0.00	0.00	82.42	73.48	72.69	72.51	74.13	73.37	80.14	95.43	86.10	82.51	52.85	0.55
A	<i>Average</i>																		0.26
A	<i>Average, Less</i>																		0.29
A	<i>01b</i>																		0.29
C	01	503.74	252.90	245.08	204.18	160.49	112.02	48.50	45.48	503.74	503.74	259.04	61.95	0.90	0.00	0.00	0.00	159.87	0.32
C	02	280.24	0.00	0.00	0.00	0.00	0.00	0.00	162.70	280.24	280.24	258.44	141.74	38.17	0.83	0.00	0.00	77.49	0.28
C	03	452.32	0.00	0.00	0.00	0.00	0.00	3.94	161.25	452.32	452.32	444.42	432.67	410.97	337.23	175.75	143.57	200.96	0.44
C	Tot Lot	266.50	0.00	0.00	0.00	0.00	2.73	144.67	255.71	266.50	266.50	266.50	266.50	266.50	266.50	266.41	266.50	169.00	0.63
C	<i>Average, Less</i>																		0.35
C	<i>Tot Lot</i>																		0.35
E	01	998.38	998.38	998.38	998.38	998.38	998.38	998.38	985.40	979.75	931.50	801.86	677.95	437.25	64.26	77.90	84.12	735.35	0.74
E	02	1608.09	163.61	169.21	222.07	318.12	442.92	559.88	771.31	845.66	1025.97	910.21	731.54	539.88	216.41	24.26	5.82	463.12	0.29
E	<i>Average</i>																		0.51
F	01	306.00	306.00	306.00	306.00	306.00	306.00	306.00	294.58	267.94	244.35	226.38	213.58	211.77	108.19	0.00	0.00	226.85	0.74
F	02	1046.44	205.05	206.79	310.16	483.58	549.98	606.13	658.60	600.75	484.36	189.34	19.87	0.00	0.00	0.00	0.00	287.64	0.27
F	03	111.63	111.63	111.63	111.63	111.63	93.64	50.42	21.60	12.81	9.45	24.55	48.97	75.02	91.95	0.00	0.00	58.33	0.52
F	<i>Average</i>																		0.51
G	01	302.60	302.60	302.60	302.60	302.60	302.60	302.60	291.41	265.33	242.97	225.38	214.77	0.68	0.00	0.00	0.00	203.74	0.67
G	02	1050.59	11.33	13.03	65.27	239.56	270.35	398.47	487.99	427.01	392.65	298.12	75.09	0.00	0.00	0.00	0.00	178.59	0.17
G	03	255.93	255.93	255.93	255.93	255.93	255.93	251.00	222.51	171.51	99.94	9.57	45.53	83.55	59.02	171.84	0.00	159.61	0.62
G	<i>Average</i>																		0.49
TH	01	155.05	84.19	78.32	58.44	53.61	65.93	91.40	112.33	132.47	155.05	134.39	103.59	60.10	0.00	0.00	0.00	75.32	0.49
TH	02	446.62	368.36	361.46	337.56	341.13	355.13	380.18	399.45	419.66	441.22	407.19	287.75	237.96	152.42	0.00	0.00	299.30	0.67
TH	<i>Average</i>																		0.58

21-Sep

Area in Sun at Test Time [m²]

Block	Space ID	Total Area [m²]	8:35	9:12	10:12	11:12	12:12	13:12	14:12	15:12	16:12	17:12	17:48	Average Area In Sun [m²]	SAF
A	01a	191.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	01b	491.83	0.00	0.00	0.00	20.14	149.54	254.56	298.45	286.25	135.95	6.40	0.00	104.66	0.21
A	01c	420.37	0.00	0.00	0.00	121.13	236.57	324.87	410.55	410.65	360.34	292.95	244.47	218.32	0.52
A	02	707.26	0.00	0.00	0.00	23.84	318.18	513.00	687.76	679.55	526.16	202.91	4.10	268.68	0.38
A	03	460.99	119.22	173.17	152.23	33.09	0.00	185.42	460.99	306.95	130.53	19.95	2.69	144.02	0.31
A	04	119.83	0.00	0.00	0.00	0.00	0.00	67.36	119.83	89.31	49.06	17.74	2.02	31.39	0.26
A	05	95.43	0.00	0.00	91.09	95.43	95.43	95.43	95.43	95.43	95.43	95.43	95.43	77.68	0.81
A	<i>Average</i>														0.36
A	<i>Average, Less</i>														0.38
A	<i>01b</i>														0.38
C	01	503.74	109.50	80.07	30.26	0.00	99.08	503.74	503.74	477.76	281.13	114.92	54.60	204.98	0.41
C	02	280.24	0.00	0.00	0.00	49.86	270.38	280.24	280.24	280.24	262.79	199.75	184.16	164.33	0.59
C	03	452.32	0.00	0.00	0.00	13.33	194.61	452.32	452.32	452.32	438.61	415.17	392.96	255.60	0.57
C	Tot Lot	266.50	0.00	0.00	5.27	160.03	252.00	266.50	266.50	266.50	266.50	266.50	266.50	183.30	0.69
C	<i>Average, Less</i>														0.52
C	<i>Tot Lot</i>														0.52
E	01	998.38	998.38	998.38	985.28	752.68	663.13	737.36	892.63	809.46	666.56	382.71	226.31	737.53	0.74
E	02	1608.09	13.98	48.40	0.00	0.00	138.11	408.27	49.56	533.67	506.93	433.92	413.79	231.51	0.14
E	<i>Average</i>														0.44
F	01	306.00	306.00	306.00	306.00	284.68	243.58	196.39	81.47	25.23	73.00	73.20	0.00	172.32	0.56
F	02	1046.44	52.27	188.11	144.03	191.61	199.78	186.58	213.38	0.04	0.00	0.00	0.00	106.89	0.10
F	03	111.63	90.52	65.31	24.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.40	0.15
F	<i>Average</i>														0.27
G	01	302.60	302.60	292.38	302.60	281.73	241.48	200.85	169.15	132.67	104.93	99.43	0.00	193.44	0.64
G	02	1050.59	0.00	0.16	0.00	0.00	3.05	57.20	216.19	332.14	213.61	65.04	8.12	81.41	0.08
G	03	255.93	255.93	255.93	238.88	205.80	168.47	110.76	77.55	60.02	0.01	14.66	21.05	128.10	0.50
G	<i>Average</i>														0.41
TH	01	155.05	32.41	26.69	29.83	32.90	62.86	97.11	127.10	0.00	0.00	0.00	0.00	37.17	0.24
TH	02	446.62	187.55	202.28	265.46	314.70	353.86	386.12	405.26	442.45	220.38	0.00	0.00	252.55	0.57
TH	<i>Average</i>														0.40

21-Dec

Area in Sun at Test Time [m²]

Block	Space ID	Total Area [m ²]	9:19	10:17	11:17	12:17	13:17	14:17	15:15	Average Area In Sun [m ²]	SAF
A	01a	191.83	0.00	0.00	0.00	23.00	67.55	159.67	124.70	53.56	0.28
A	01b	491.83	0.00	33.10	154.19	370.82	448.64	491.83	426.54	275.02	0.56
A	01c	420.37	41.23	157.15	239.85	308.68	374.63	420.37	413.44	279.34	0.66
A	02	707.26	2.72	181.18	334.90	485.55	622.33	707.26	636.81	424.39	0.60
A	03	460.99	0.00	0.00	0.00	166.39	460.99	401.89	258.73	184.00	0.40
A	04	119.83	0.00	0.00	0.00	62.98	119.83	108.29	78.65	52.82	0.44
A	05	95.43	95.43	95.43	95.43	95.43	95.43	95.43	95.43	95.43	1.00
A	<i>Average</i>										0.56
A	<i>Average, Less</i>										0.56
A	<i>01b</i>										0.56
C	01	503.74	0.00	0.00	224.03	503.74	503.74	503.74	458.38	313.38	0.62
C	02	280.24	0.00	62.33	272.98	280.24	280.24	280.24	280.24	208.04	0.74
C	03	452.32	6.57	28.39	216.79	452.32	452.32	452.32	452.32	294.43	0.65
C	Tot Lot	266.50	57.48	190.14	242.68	266.50	266.50	266.50	266.50	222.33	0.83
C	<i>Average, Less</i>										0.67
C	<i>Tot Lot</i>										0.67
E	01	998.38	330.78	14.35	0.00	5.10	456.69	206.25	422.14	205.04	0.21
E	02	1608.09	0.00	0.00	3.93	0.00	26.44	2.67	0.00	4.72	0.00
E	<i>Average</i>										0.10
F	01	306.00	130.39	164.42	98.54	12.14	0.00	0.00	0.00	57.93	0.19
F	02	1046.44	0.00	0.00	0.00	0.00	41.35	154.28	0.00	27.95	0.03
F	03	111.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F	<i>Average</i>										0.07
G	01	302.60	0.00	0.00	41.49	0.00	0.00	0.00	0.00	5.93	0.02
G	02	1050.59	0.00	0.00	0.00	23.55	98.16	183.17	183.32	69.74	0.07
G	03	255.93	207.66	178.70	137.69	104.83	84.84	70.52	59.40	120.52	0.47
G	<i>Average</i>										0.19
TH	01	155.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TH	02	446.62	0.00	0.00	0.00	0.00	0.00	213.92	422.63	90.94	0.20
TH	<i>Average</i>										0.10