



5150 Ninth Line

Shadow Study

Prepared by

NAK 
design strategies

Oct, 2019

5150 Ninth Line

- Site Latitude: 43°32'13.92"N
- Longitude: 79°44'17.27"W
- Source of base: 5150 Ninth Line Concept Plan provided by KORSIK Urban Planning dated October 8, 2019 (See last page for reference)
- According to City of Mississauga Urban Design Terms of Reference Standards for Shadow Studies, 5150 Ninth Line Concept Plan meets the criteria for the categories listed below:
 - 3.1 Residential Private Outdoor Amenity Spaces
 - 3.2 Communal Outdoor Amenity Areas
 - 3.3 Public Realm
 - 3.4 Turf and flower gardens in Public Parks (Not Applicable)
 - 3.5 Building Faces to allow for the possibility of using solar energy



Site Context Map

5150 Ninth Line Sun Angle Data (June 21)

latitude: 43°32'13.92"N

longitude: 79°44'17.27"W

Date: June 21	Azimuth (deg)	SLF (ratio length/height)	Comments
Local Time EDT			
5.38	235.80		Rise
7.08	250.56	4.0774	Rise + 1.5 hr
7.21	252.60	3.4851	SN - 6 hr.
8.21	262.04	1.9987	SN - 5 hr.
9.21	272.05	1.3075	SN - 4 hr.
10.21	283.80	0.8954	SN - 3 hr.
11.21	299.54	0.6186	SN - 2 hr.
12.21	323.74	0.4361	SN - 1 hr.
13.21	0.00	0.3640	Solar Noon (SN)
14.21	36.52	0.4371	SN + 1 hr.
15.21	60.62	0.6210	SN + 2 hr.
16.21	76.31	0.8982	SN + 3 hr.
17.21	88.04	1.3117	SN + 4 hr.
18.21	98.04	2.0066	SN + 5 hr.
19.21	107.48	3.5059	SN + 6 hr.
19.34	109.52	4.1022	Set - 1.50 hr
21.04	124.29		Set

5150 Ninth Line Sun Angle Data (September 21)

latitude: 43°32'13.92"N

longitude: 79°44'17.27"W

Date: September 21	Azimuth (deg)	SLF (ratio length/height)	Comments
Local Time EDT			
7.04	268.07		Rise
8.34	283.91	3.6705	Rise + 1.5 hr
9.12	291.17	2.5027	SN - 4 hr.
10.12	304.07	1.6389	SN - 3 hr.
11.12	319.61	1.2140	SN - 2 hr.
12.12	338.48	0.9976	SN - 1 hr.
13.12	0.00	0.9293	Solar Noon (SN)
14.12	21.47	0.9983	SN + 1 hr.
15.12	40.32	1.2161	SN + 2 hr.
16.12	55.84	1.6434	SN + 3 hr.
17.12	68.72	2.5129	SN + 4 hr.
17.49	75.78	3.6479	Set - 1.50 hr
19.19	91.42		Set

5150 Ninth Line Sun Angle Data (December 21)

latitude: 43°32'13.92"N

longitude: 79°44'17.27"W

Date: December 21	Azimuth (deg)	SLF (ratio length/height)	Comments
Local Time EDT			
7.48	302.21		Rise
9.18	318.79	4.9020	Rise + 1.5 hr
10.17	331.24	3.1448	SN - 2 hr.
11.17	345.21	2.5167	SN - 1 hr.
12.17	0.00	2.3490	Solar Noon (SN)
13.17	14.80	2.5180	SN + 1 hr.
14.17	28.76	3.1467	SN + 2 hr.
15.16	41.22	4.9020	Set - 1.50 hr
16.46	57.62		Set



June 21, 2019

Time: 7:08

Azimuth: 250.56

SLF: 4.0774

Rise + 1.5hr.



June 21, 2019

Time: 7:21

Azimuth: 252.56

SLF: 3.4851

SN - 6 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



June 21, 2019

Time: 8:21

Azimuth: 262.04

SLF: 1.9987

SN - 5 hr.



June 21, 2019

Time: 9:21

Azimuth: 272.05

SLF: 1.3075

SN - 4 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



June 21, 2019

Time: 10:21

Azimuth: 283.80

SLF: 0.8954

SN - 3 hr.



June 21, 2019

Time: 11:21

Azimuth: 299.54

SLF: 0.6186

SN - 2 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



June 21, 2019

Time: 12:21

Azimuth: 323.74

SLF: 0.4361

SN - 1 hr.



June 21, 2019

Time: 13:21

Azimuth: 0.00

SLF: 0.3640

Solar Noon (SN)

LEGEND

Heritage Building

Phase I Building

Phase II Building



June 21, 2019

Time: 14:21

Azimuth: 36.52

SLF: 0.4371

SN + 1 hr.



June 21, 2019

Time: 15:21

Azimuth: 60.62

SLF: 0.6210

SN + 2 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



June 21, 2019

Time: 16:21

Azimuth: 76.31

SLF: 0.8982

SN + 3 hr.



June 21, 2019

Time: 17:21

Azimuth: 88.04

SLF: 1.3117

SN + 4 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



June 21, 2019

Time: 18:21

Azimuth: 98.04

SLF: 2.0066

SN + 5 hr.



June 21, 2019

Time: 19:21

Azimuth: 107.48

SLF: 3.5059

SN + 6 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



June 21, 2019

Time: 19:34

Azimuth: 124.29

SLF: 4.1022

Set - 1.5 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



September 21, 2019

Time: 8:34

Azimuth: 283.91

SLF: 3.6705

Rise + 1.5hr.



September 21, 2019

Time: 9:12

Azimuth: 291.17

SLF: 2.5027

SN - 4 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



September 21, 2019

Time: 10:12

Azimuth: 304.07

SLF: 1.6389

SN - 3 hr.



September 21, 2019

Time: 11:12

Azimuth: 319.61

SLF: 1.2140

SN - 2 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



September 21, 2019

Time: 12:12
 Azimuth: 338.48
 SLF: 0.9976
 SN - 1 hr.



September 21, 2019

Time: 13:12
 Azimuth: 0.00
 SLF: 0.9293
 Solar Noon (SN).

LEGEND

- Heritage Building
- Phase I Building
- Phase II Building



September 21, 2019

Time: 14:12

Azimuth: 21.47

SLF: 0.9983

SN + 1 hr.



September 21, 2019

Time: 15:12

Azimuth: 40.32

SLF: 1.2161

SN + 2 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



September 21, 2019

Time: 16:12
Azimuth: 55.84
SLF: 1.6434
SN + 3 hr.



September 21, 2019

Time: 17:12
Azimuth: 68.72
SLF: 2.5129
SN + 4 hr.

LEGEND

- Heritage Building
- Phase I Building
- Phase II Building



September 21, 2019

Time: 17:49

Azimuth: 75.78

SLF: 3.6479

Set - 1.5 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



December 21, 2019

Time: 9:18

Azimuth: 318.79

SLF: 4.9020

Rise + 1.5hr.



December 21, 2019

Time: 10:17

Azimuth: 331.24

SLF: 3.1448

SN - 2 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



December 21, 2019

Time: 11:17
 Azimuth: 345.21
 SLF: 2.5167
 SN - 1 hr.



December 21, 2019

Time: 12:17
 Azimuth: 0.00
 SLF: 2.3490
 Solar Noon (SN).

LEGEND

- Heritage Building
- Phase I Building
- Phase II Building



December 21, 2019

Time: 13:17
Azimuth: 14.80
SLF: 2.5180
SN + 1 hr.



December 21, 2019

Time: 14:17
Azimuth: 28.76
SLF: 3.1467
SN + 2 hr.

LEGEND

- Heritage Building
- Phase I Building
- Phase II Building



December 21, 2019

Time: 15:16

Azimuth: 41.22

SLF: 4.9020

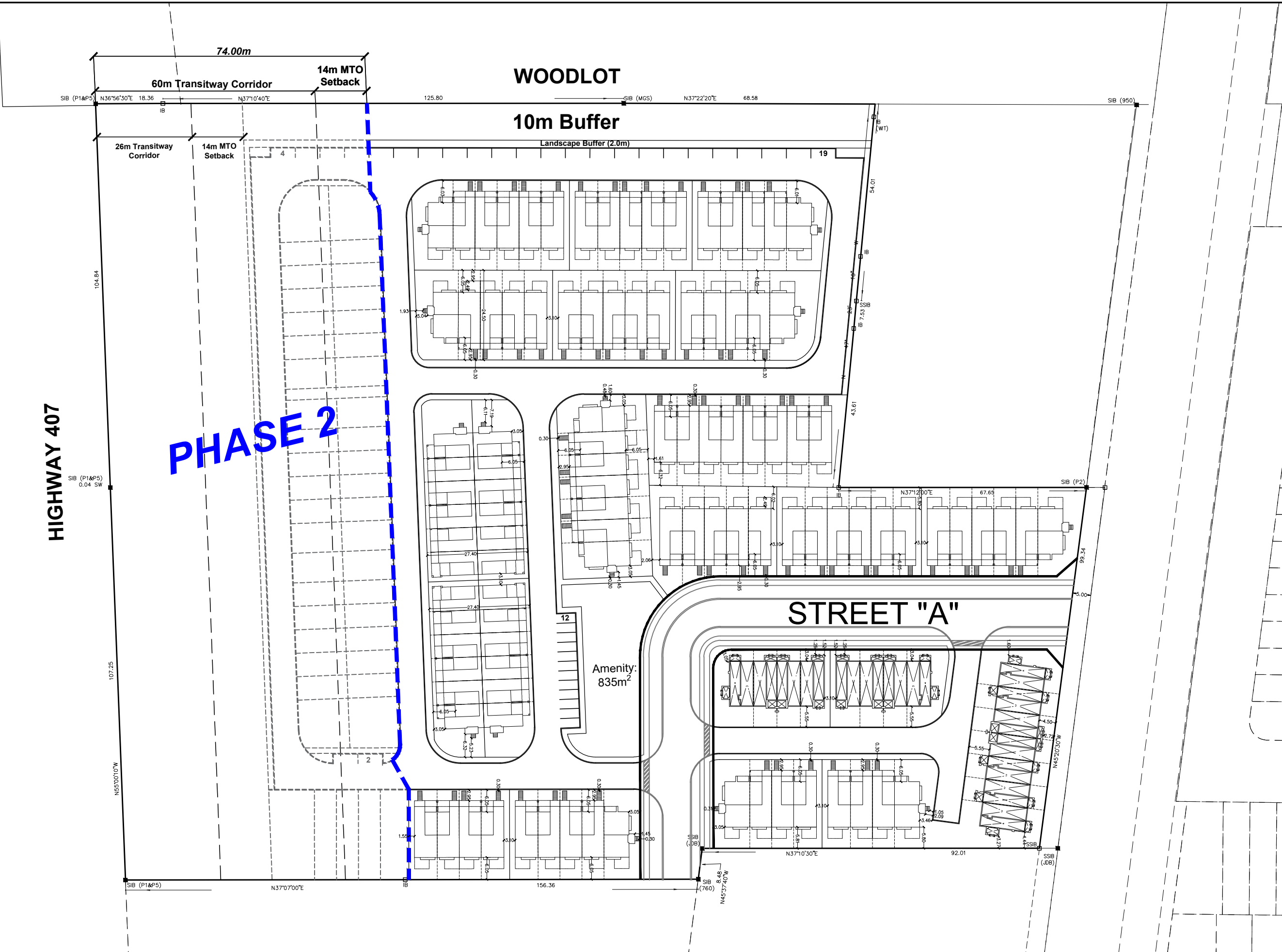
Set - 1.5 hr.

LEGEND

Heritage Building

Phase I Building

Phase II Building



PHASE 2

5150 NINTH LINE

CONCEPT PLAN

Product Type	Unit Count Phase 1	Unit Count Phase 2	Total
Dual Frontage Towns	15	0	15
Towns	63	5	68
Towns - Freehold	17	0	17
Back to Backs	24	40	64
Total	119	45	164

Site Area = ±3.8 ha (excluding transit corridor & 14m MTO setback)
Density = 43.1 UPH

Visitor Parking Required (excluding freehold):
147 units x 0.25 spaces/unit = 37 spaces

Visitor Parking Provided: 37 spaces

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Scale 1:1000

October 8, 2019



Q4A
ARCHITECTS

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