

PROPOSED RESIDENTIAL DEVELOPMENT

4274 Dundas Street, Burlington Ontario
MILLCROFT - AREA E

MILLCROFT - AREA E

SHADOW STUDY ANALYSIS

1.0 TERMS OF REFERENCE

2.0 SUMMER SOLSTICE

3.0 FALL/SPRING EQUINOXES

4.0 WINTER SOLSTICE

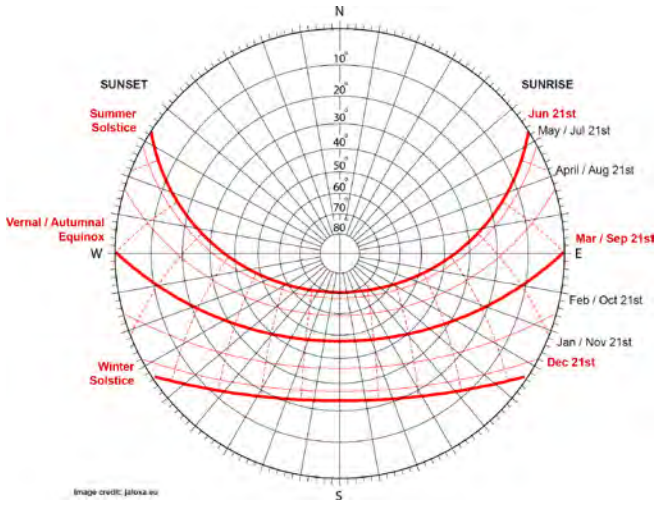
5.0 PRIVATE OUTDOOR AMENITY SPACE ANALYSIS

6.0 PUBLIC REALM AND SIDEWALKS ANALYSIS

7.0 SUMMARY/CONCLUSIONS

PROJECT NO. 19111 DATE : NOV 16, 2020

Figure 3.1 - Sterographic Sunpath Diagram (Latitude 43N)



Burlington, Ontario 43.3255° N, 79.7990° W

4.0 Shadow Impact Criteria

4.1 Introduction

Shadow Impact Criteria cannot be applied universally due to unique site specific and surrounding built form and land use attributes. Five unique Shadow Impact Criteria have been developed to respond to desired uses. As such, each area will include unique evaluation criteria with different times, dates, and standards.

Shadow Impact Criteria will specify:

- How a criterion is fulfilled; and,
- The test dates and times the criterion applies.

Shadow Impact Criteria are organized by the application of the concepts Net New Shadows and Sun Access Factor (SAF).

Net New Shadows are incremental shadows that exceed the existing building shadows.

Sun Access Factor (SAF) is a measure of sun penetration on a given area, during a specified time frame, calculated as follows:

1. Measure the total area (A_T) of the feature (e.g. boulevard, private outdoor amenity or park space).
2. Measure the area exposed to sunshine ($A_{S(test)}$) at each of the hourly test times.
3. Calculate the average area exposed to sunshine ($A_{S(interval)}$) over each hourly interval as the mean between the ($A_{S(test)}$) at the beginning of the interval, and at the end of the interval.
4. Find the overall average area exposed to sunshine ($A_{S(average)}$) by dividing the sum of the ($A_{S(interval)}$) values by the number of hourly intervals (e.g. hourly measurements between 09:00 and 18:00 = 9 intervals).
5. Find the SAF by dividing the $A_{S(average)}$ by A_T (passes if > the specified standard; i.e. 0.22 or 0.50).

This section provides some example shadow drawings that show how to measure for calculating SAF (Figures 4.1 and 4.2). See Appendix B for example calculations.

6.1 Study Drawings

Required Shadow Study drawings include the following test dates and times:

Spring and Fall Equinoxes:

- March 21st, hourly increments between 09:00 – 18:00; and,
- September 21st, hourly increments between 09:00 – 18:00.

Winter and Summer Solstices:

- December 21st, hourly increments between 11:00 – 15:00; and,
- June 21st, hourly increments between 08:00 –19:00.

Some test dates and times will be for illustrative purposes only. Calculations and accompanying drawings are required only for the specified dates and times required for each of the applicable Shadow Impact Criteria.

6.2 Base Mapping

Because shadow impacts are greatest to the north and east, the base mapping must include a study area with a minimum coverage area of:

- 4 times the building height to the north;
- 6 times the building height to the east;
- 3 times the building height to the west; and,
- 1.5 times the building height to the south.

Identification of shadow-sensitive areas as defined in Section 4.0 or by City staff.

1.0

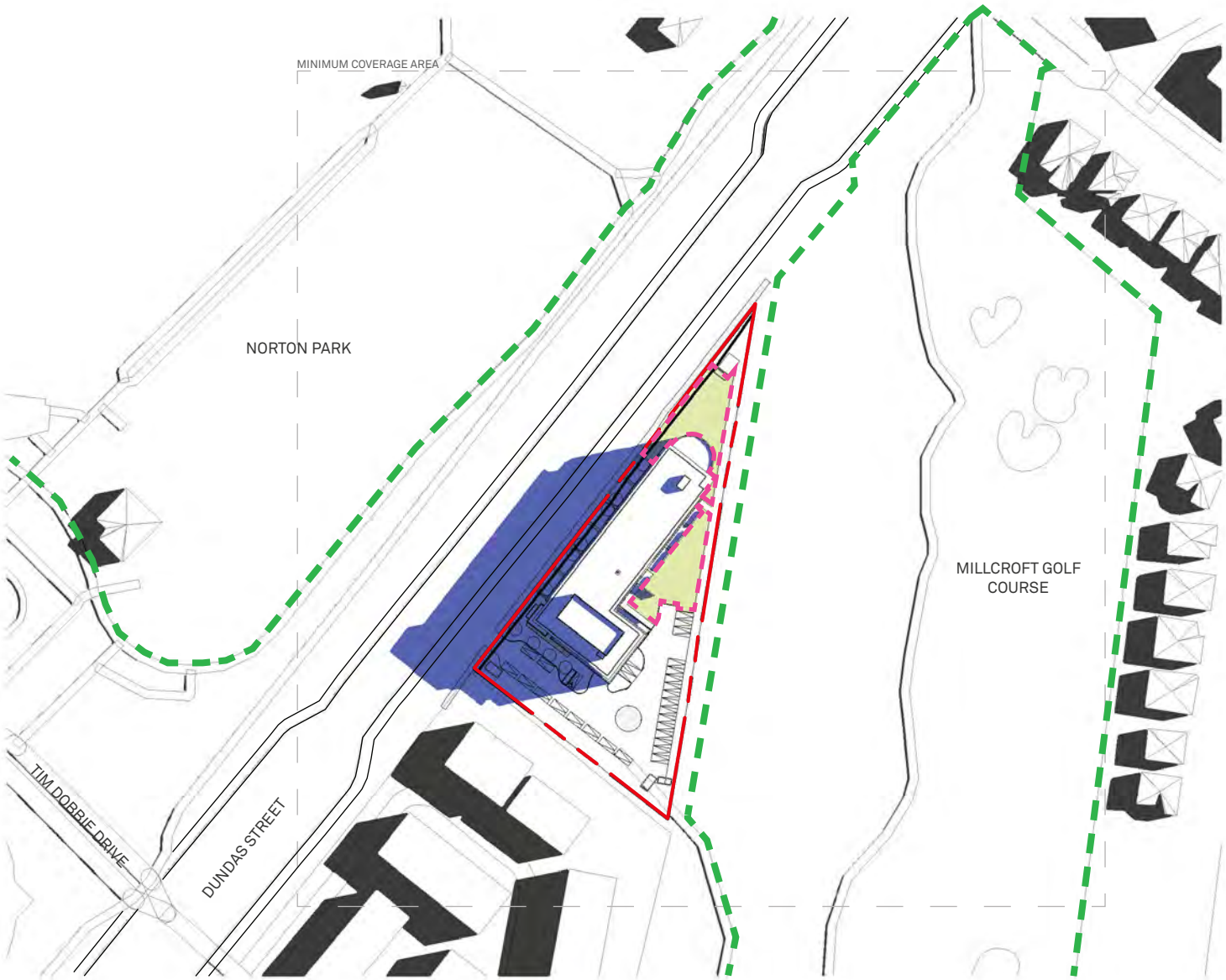
TERMS OF REFERENCE

CONTEXT MAP



SUMMER SOLSTICE

JUNE 21st



50m 100m

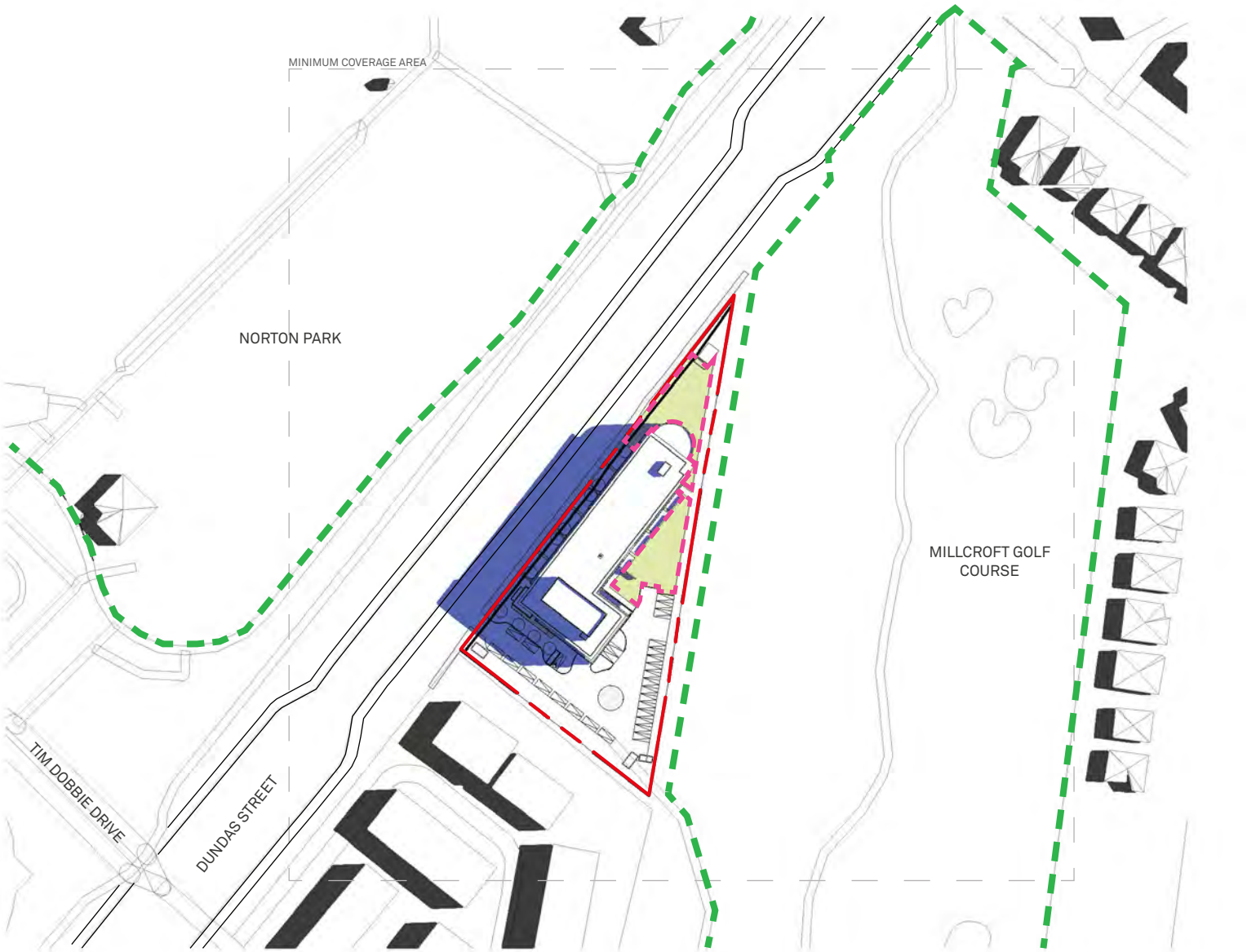
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Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 08:00

N

- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity
- Minimum Coverage Area

JUNE 21st



50m 100m

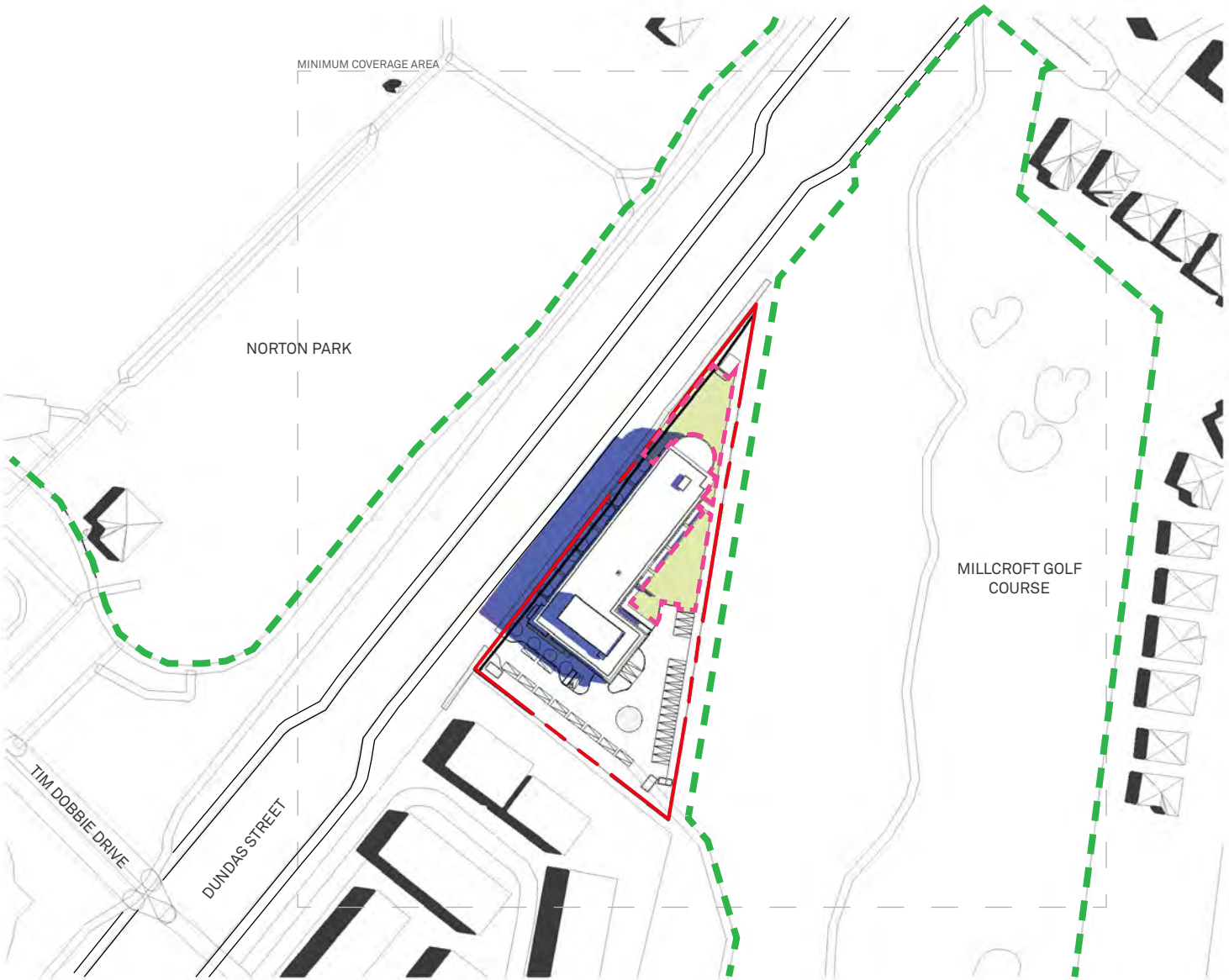
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Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 09:00

N

- Net New Shadows cast on roof surfaces
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- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity
- Minimum Coverage Area

JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 10:00

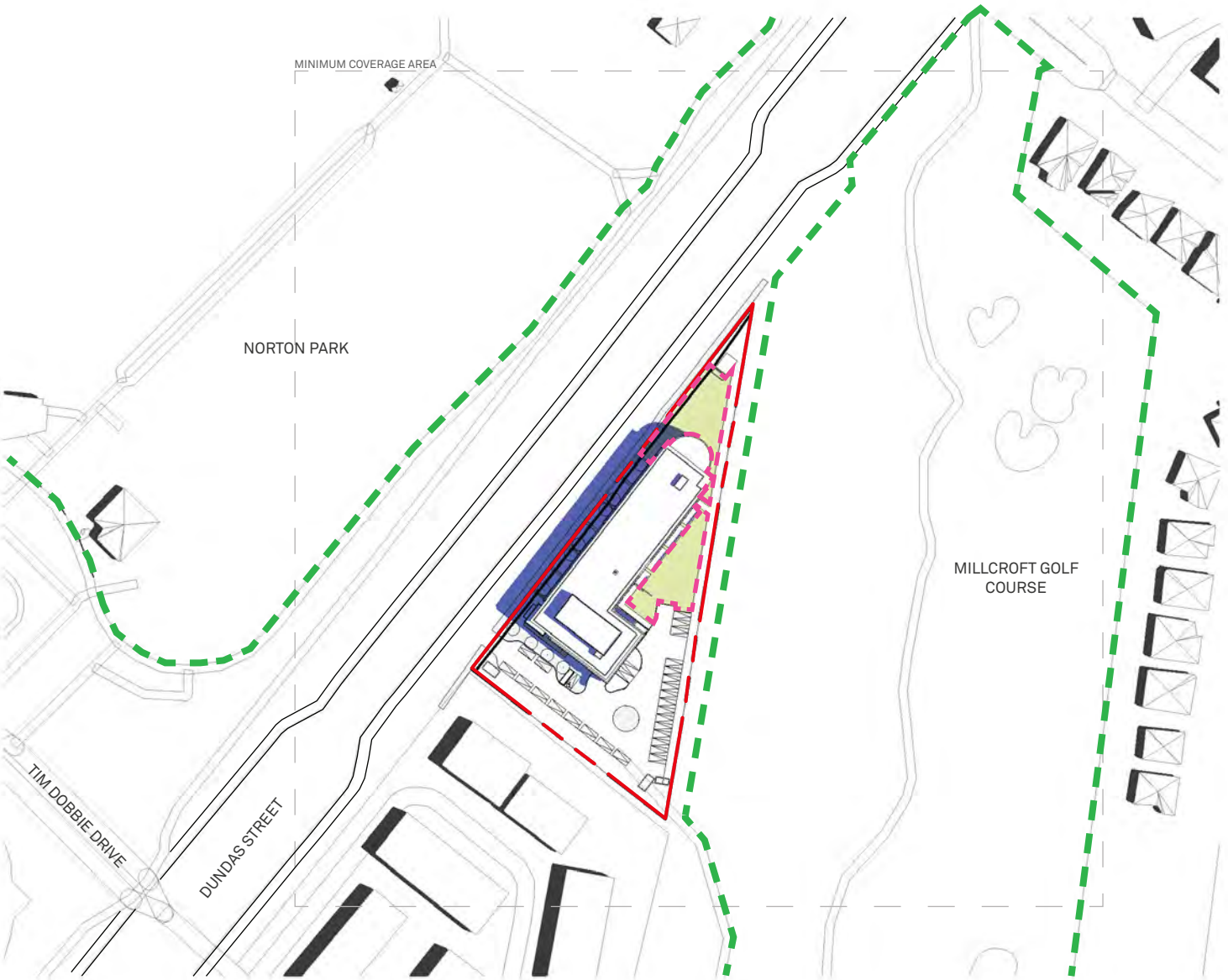
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2.0

SUMMER SOLSTICE

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- Site Boundary
- Open Space
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- Minimum Coverage Area

JUNE 21st



50m 100m

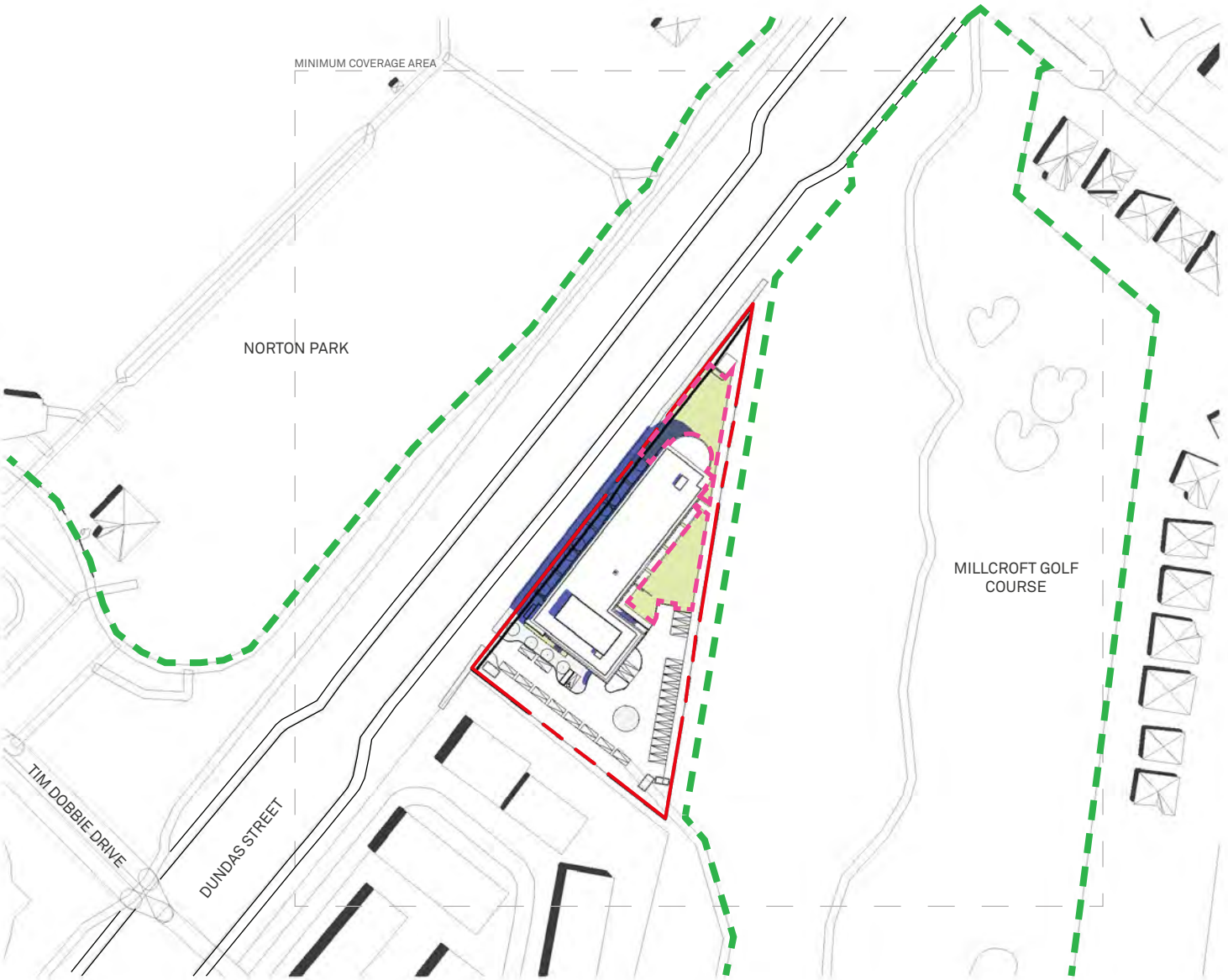
Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 11:00

N

- Net New Shadows cast on roof surfaces
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- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity
- Minimum Coverage Area

JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 12:00

N

- Net New Shadows cast on roof surfaces
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- Private Outdoor Amenity
- Minimum Coverage Area

JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 13:00

N

2.0

SUMMER SOLSTICE

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JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 14:00

N

- Net New Shadows cast on roof surfaces
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JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 15:00

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- Minimum Coverage Area

JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 16:00

N

2.0

SUMMER SOLSTICE

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JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 17:00

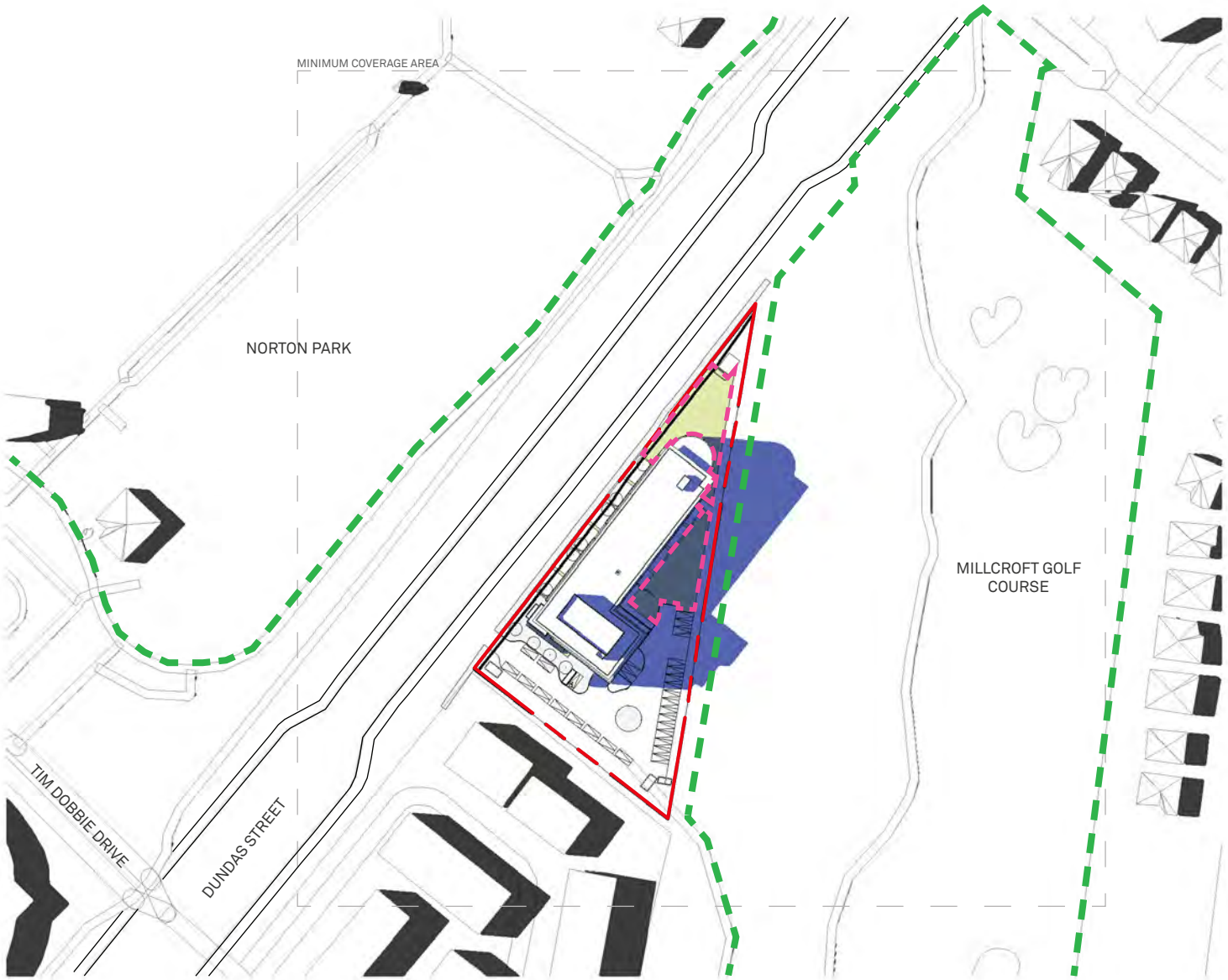
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JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 18:00

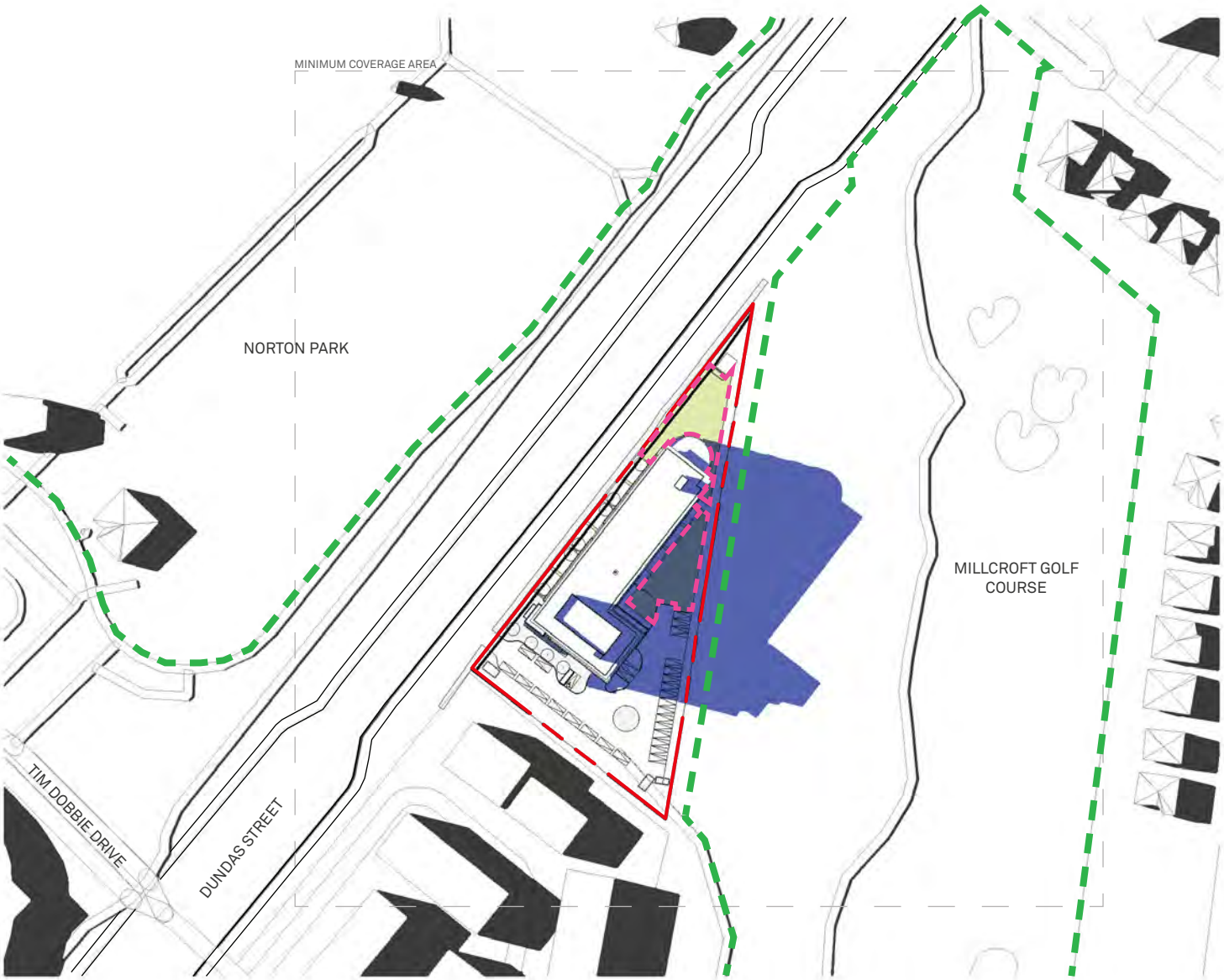
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JUNE 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
June 21st @ 19:00

N

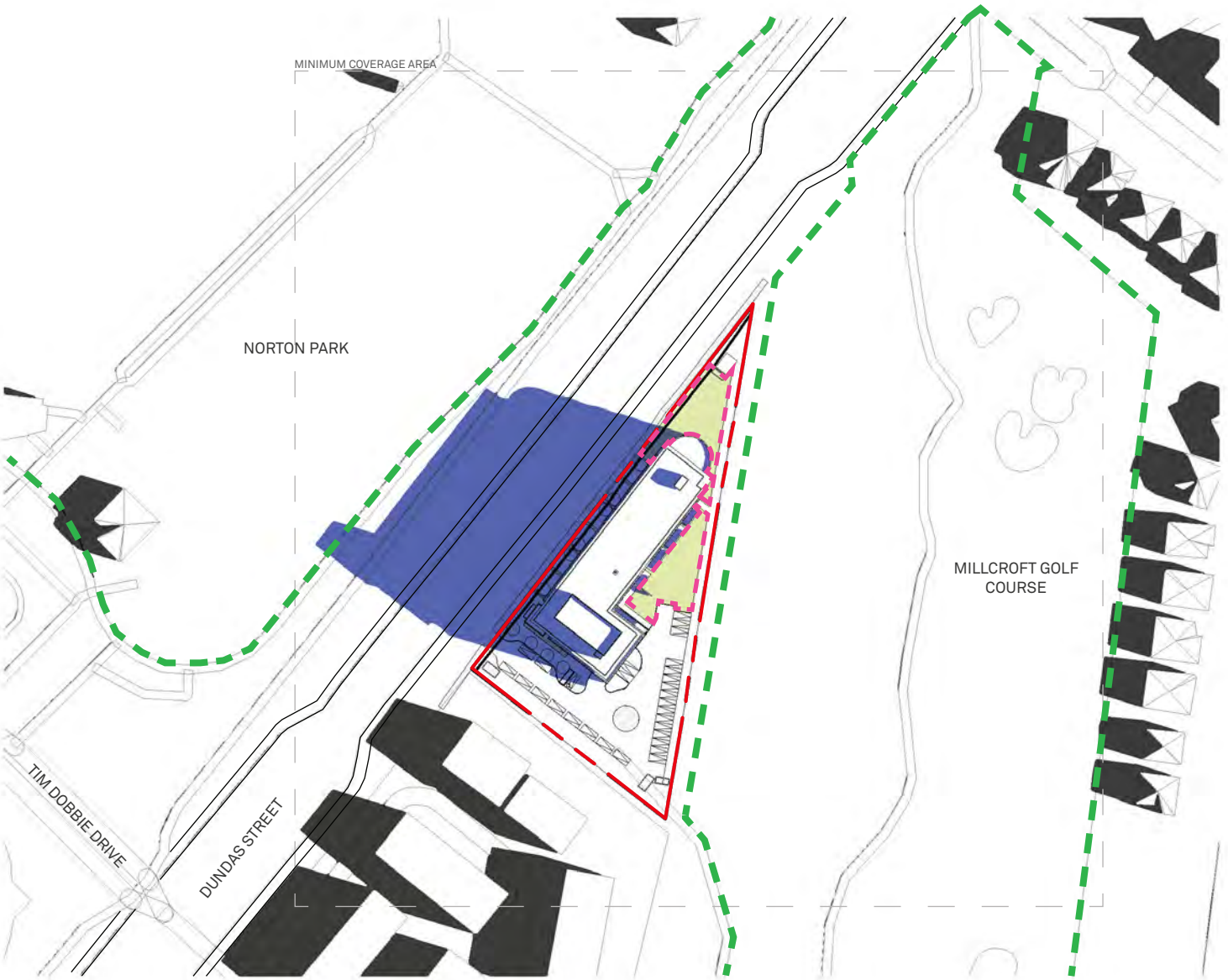
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SUMMER SOLSTICE

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FALL/SPRING EQUINOXES

SEPTEMBER 21st / MARCH 21st



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- Private Outdoor Amenity
- Minimum Coverage Area

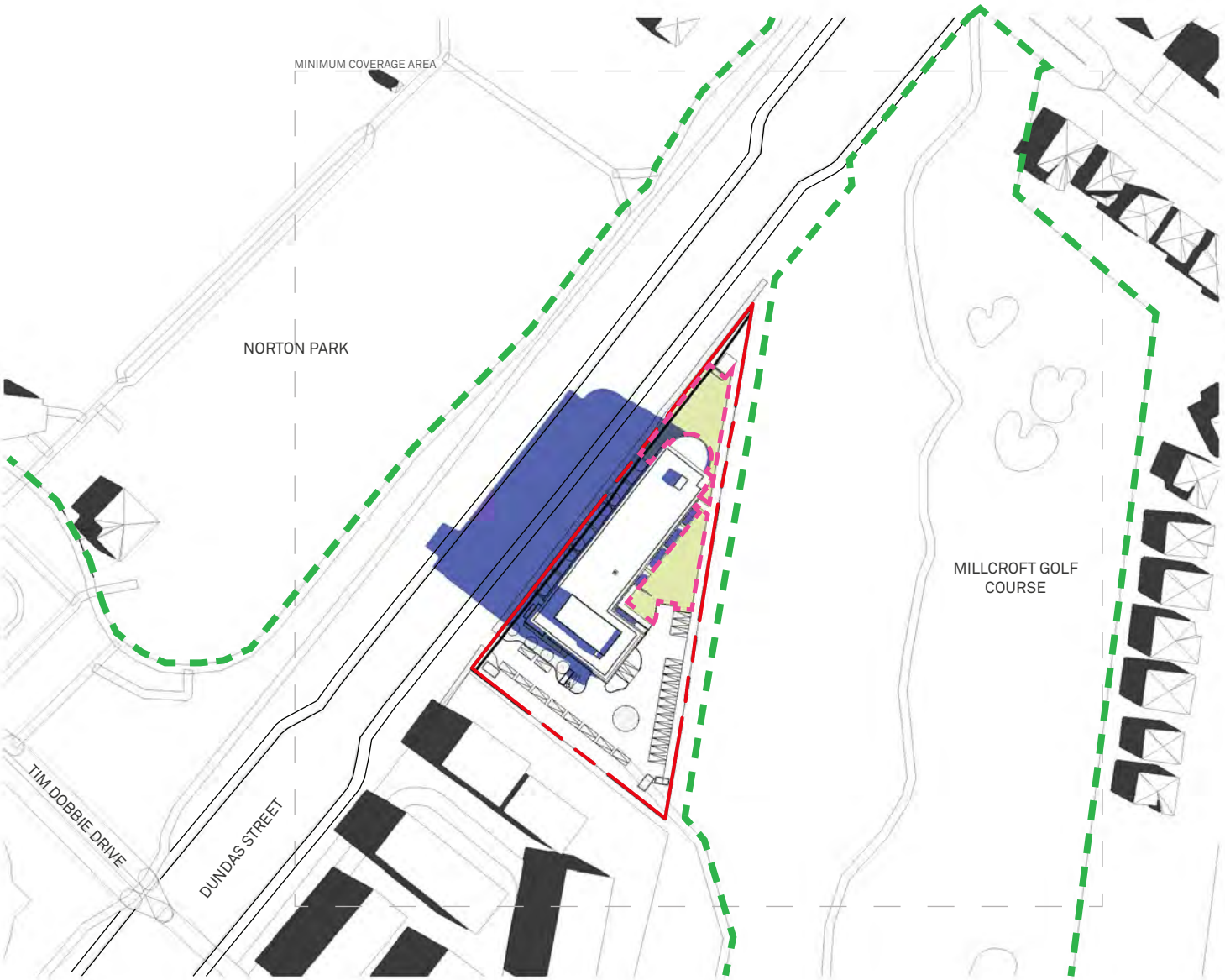
50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 09:00

N

SEPTEMBER 21st / MARCH 21st



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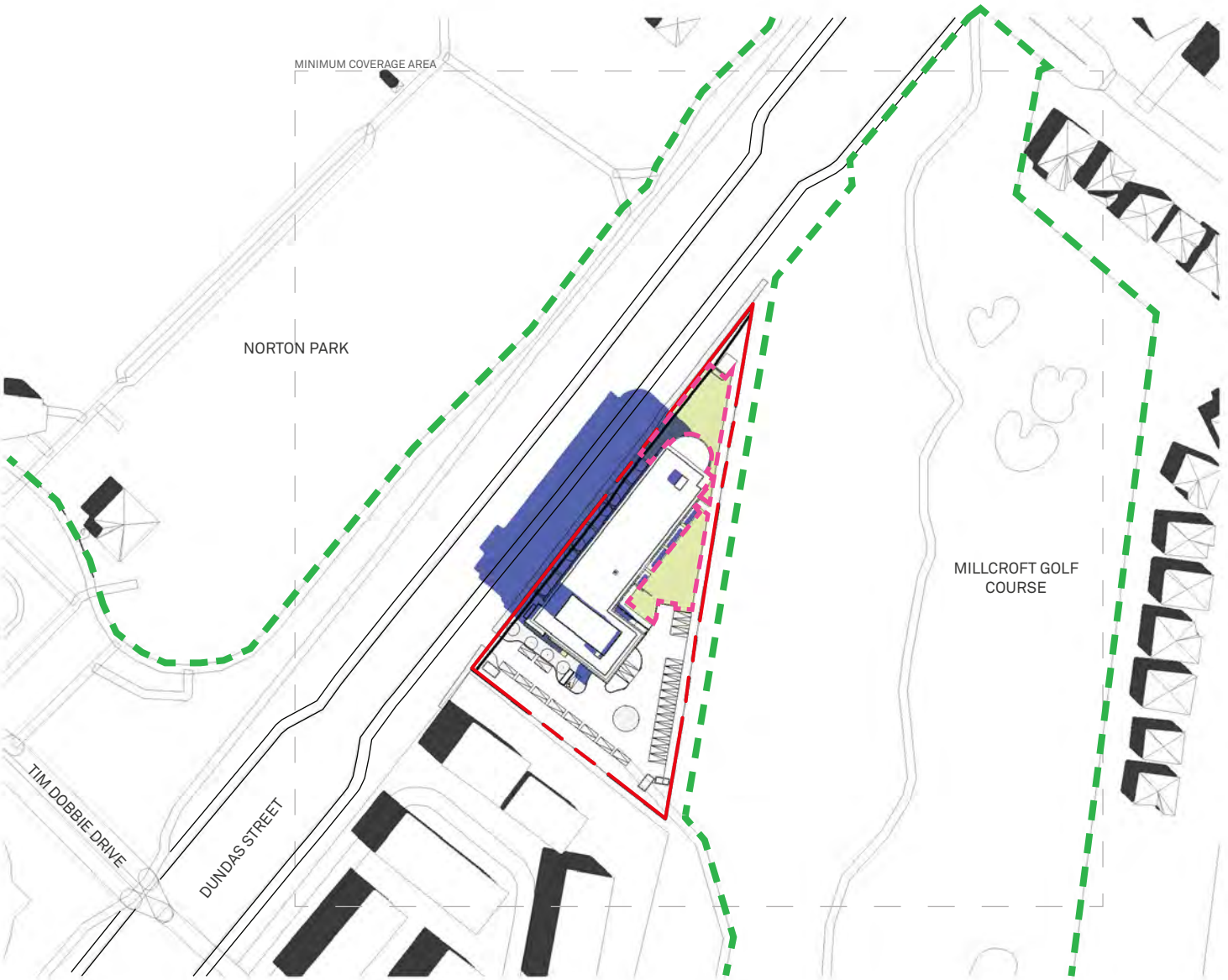
Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 10:00

N

3.0

FALL/SPRING EQUINOXES

SEPTEMBER 21st / MARCH 21st



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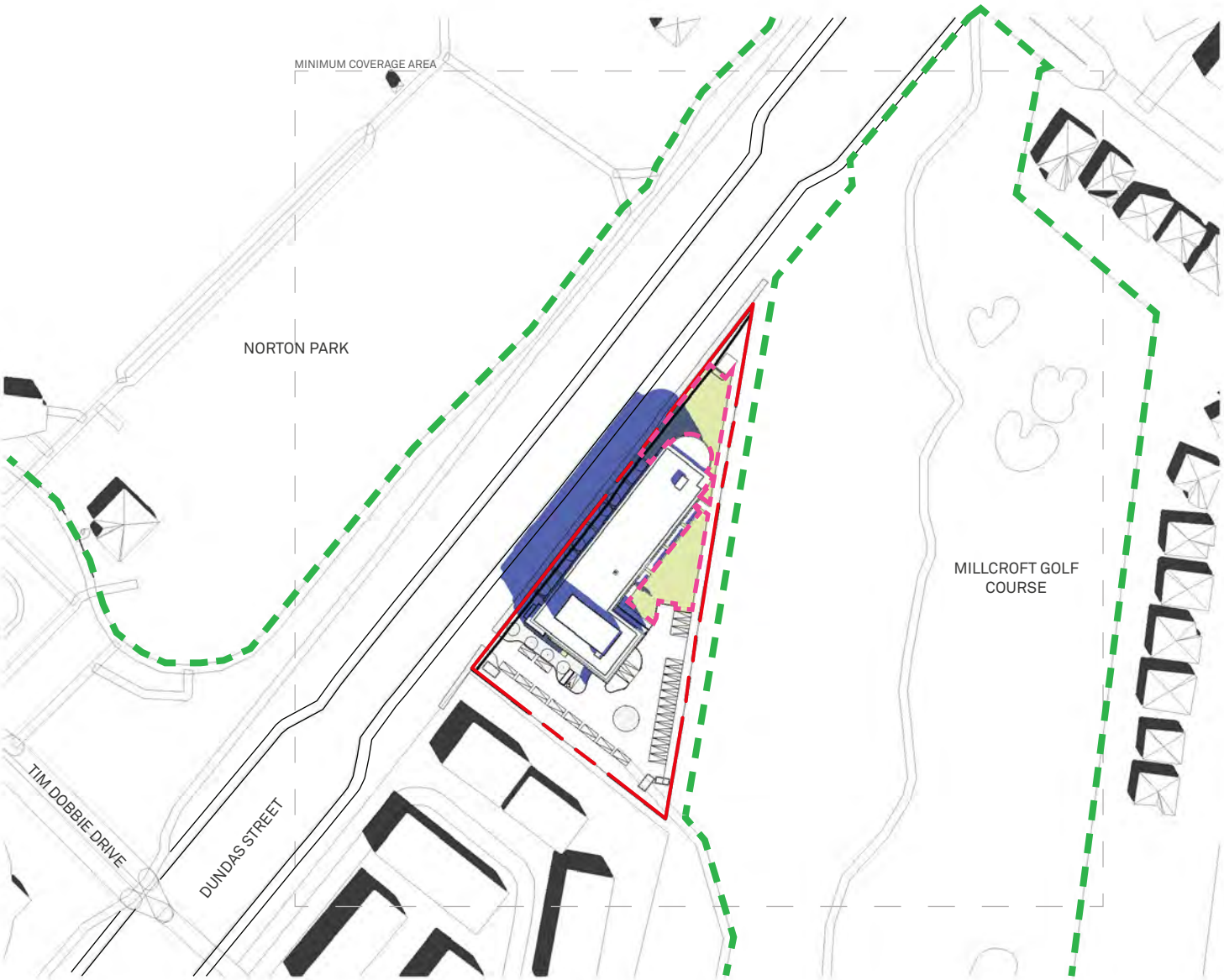
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Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 11:00

N

SEPTEMBER 21st / MARCH 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 12:00

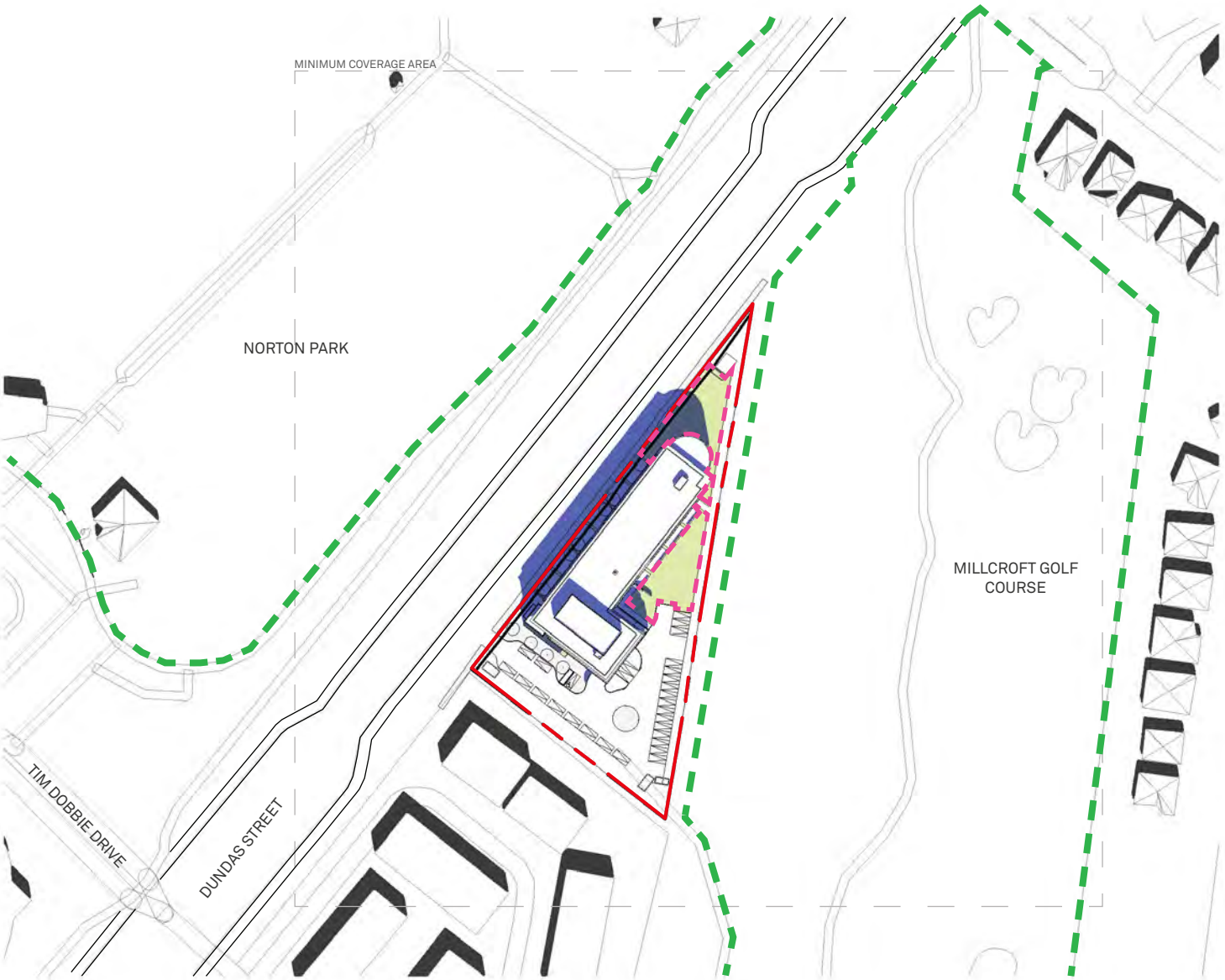
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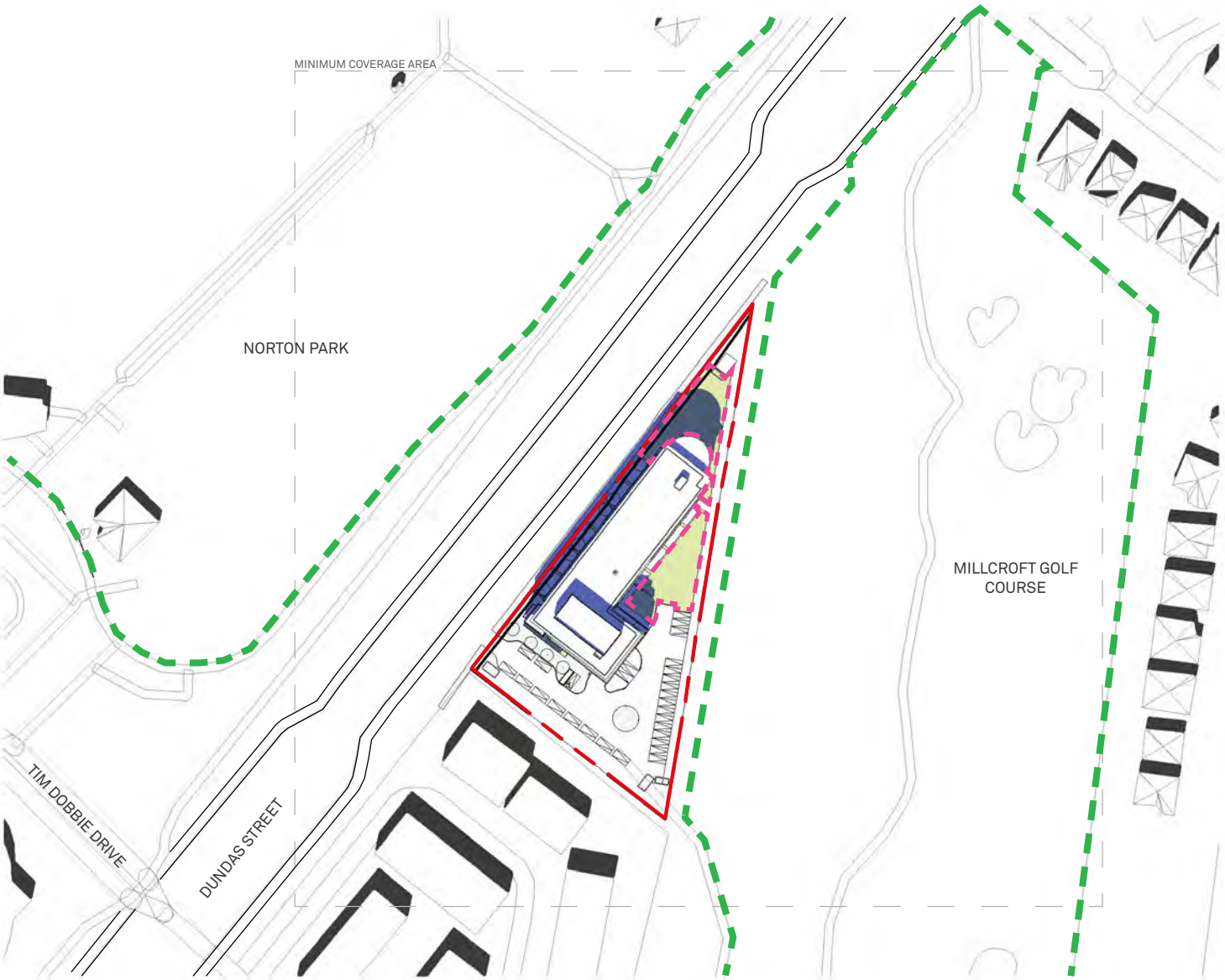
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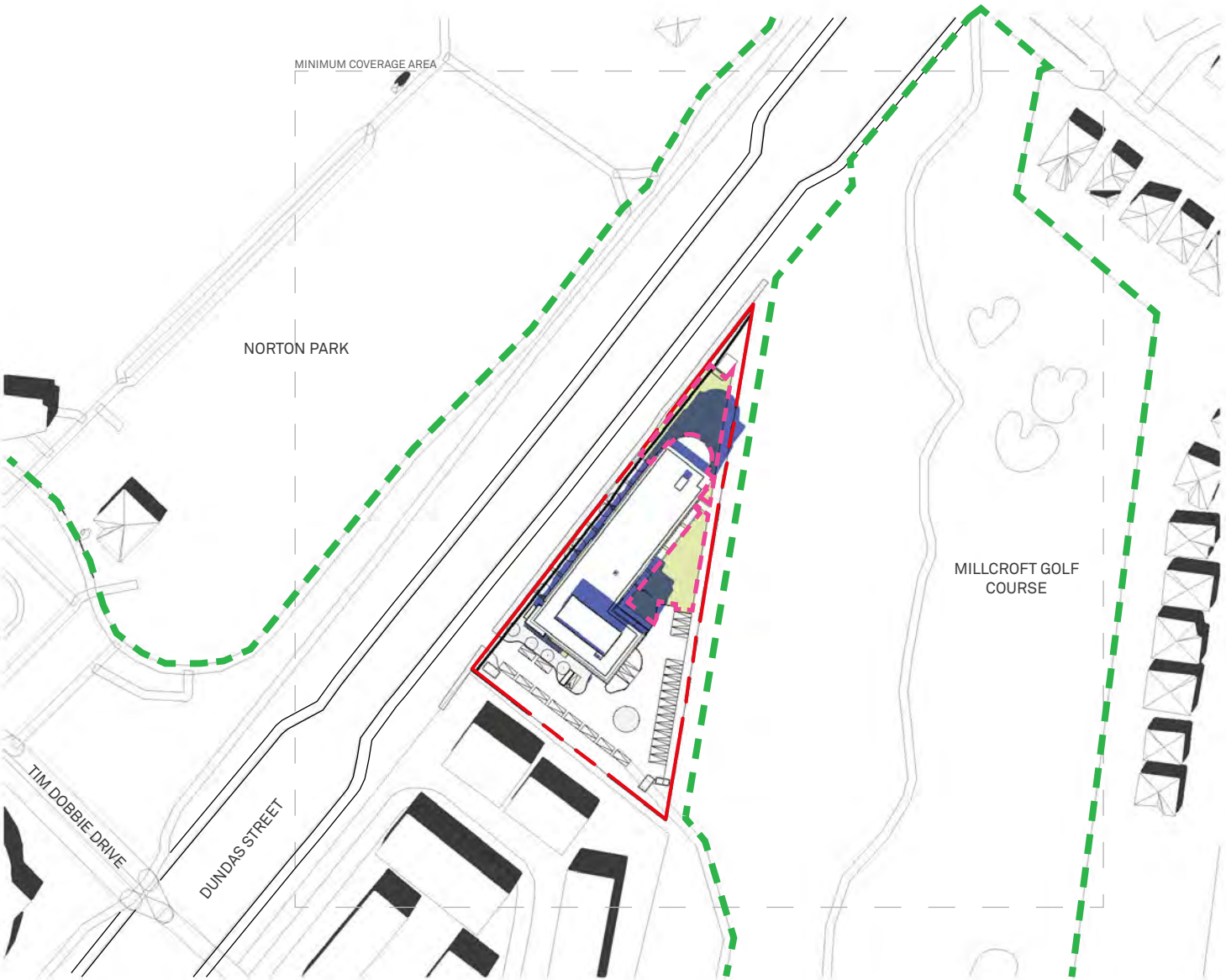
50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 14:00

N

SEPTEMBER 21st / MARCH 21st



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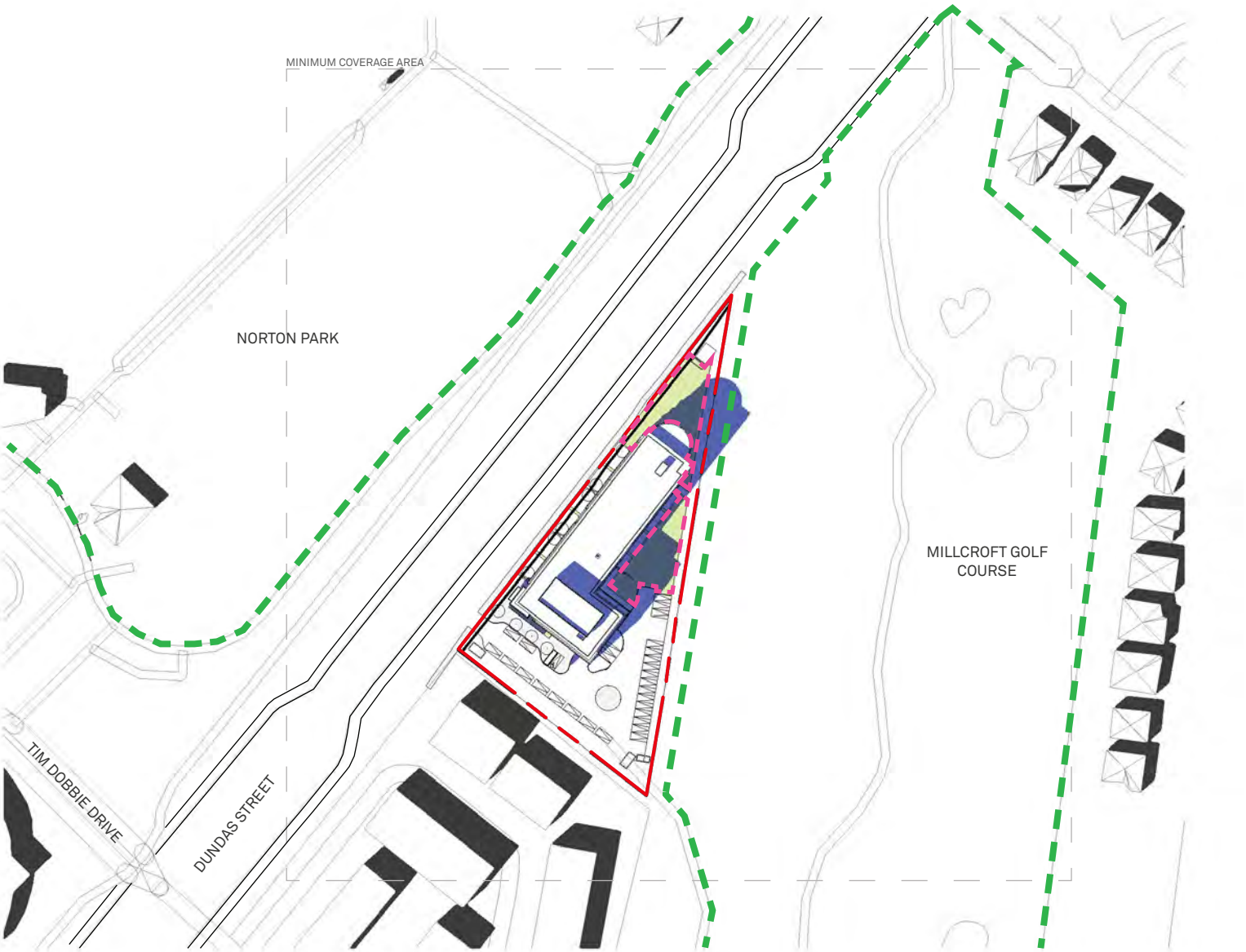
50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 15:00

N

SEPTEMBER 21st / MARCH 21st



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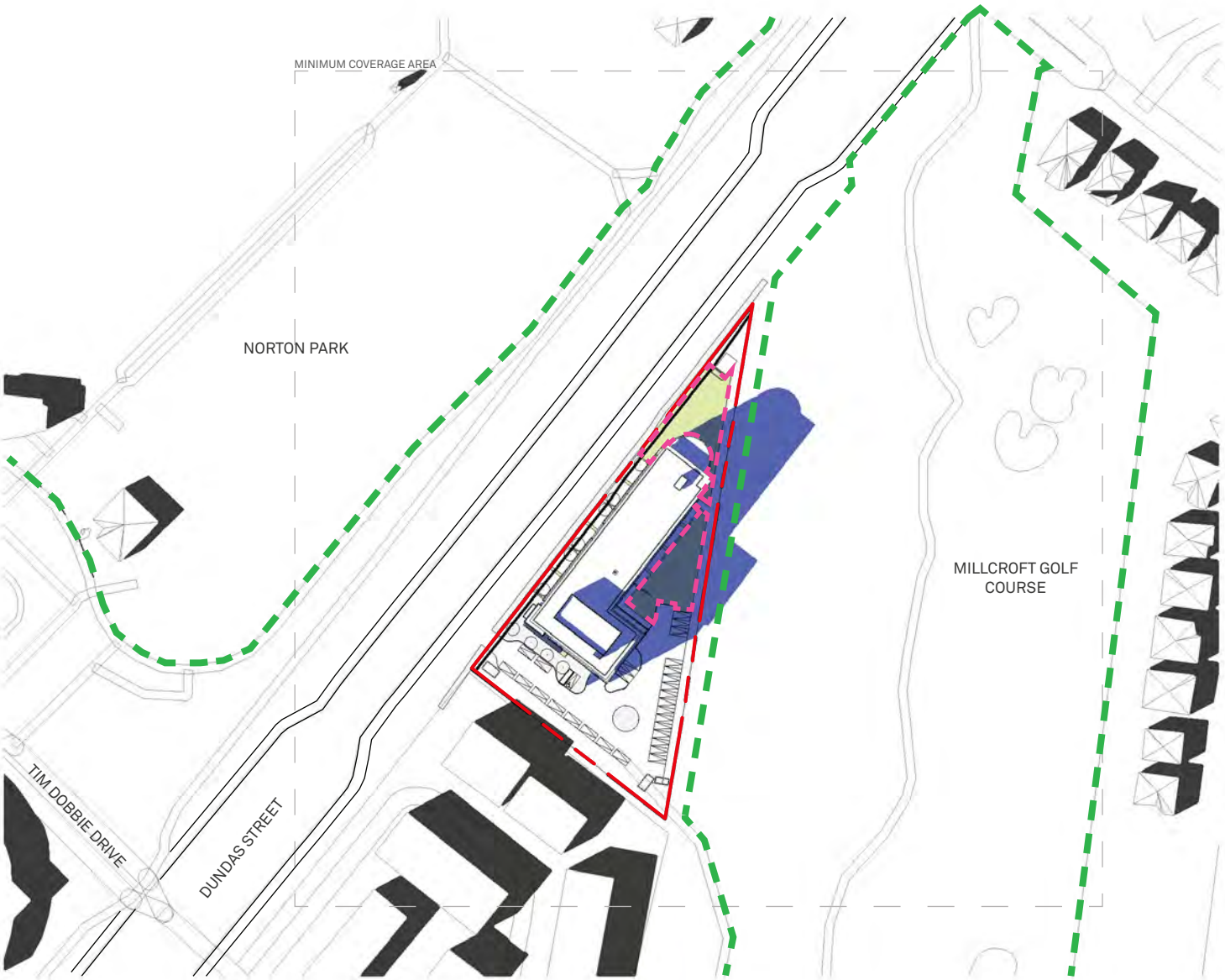
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Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 16:00

N

SEPTEMBER 21st / MARCH 21st



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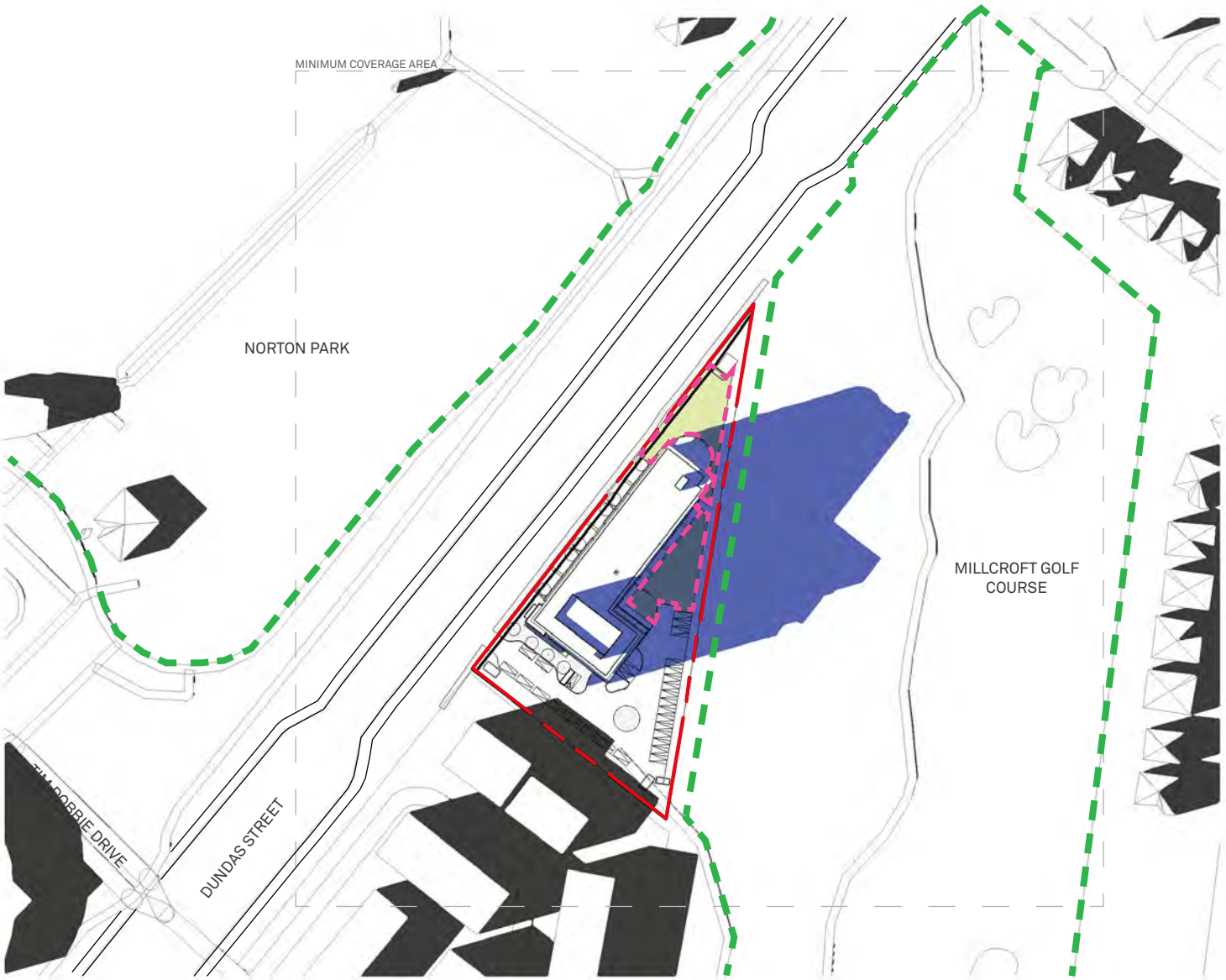
50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 17:00

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SEPTEMBER 21st / MARCH 21st



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50m 100m

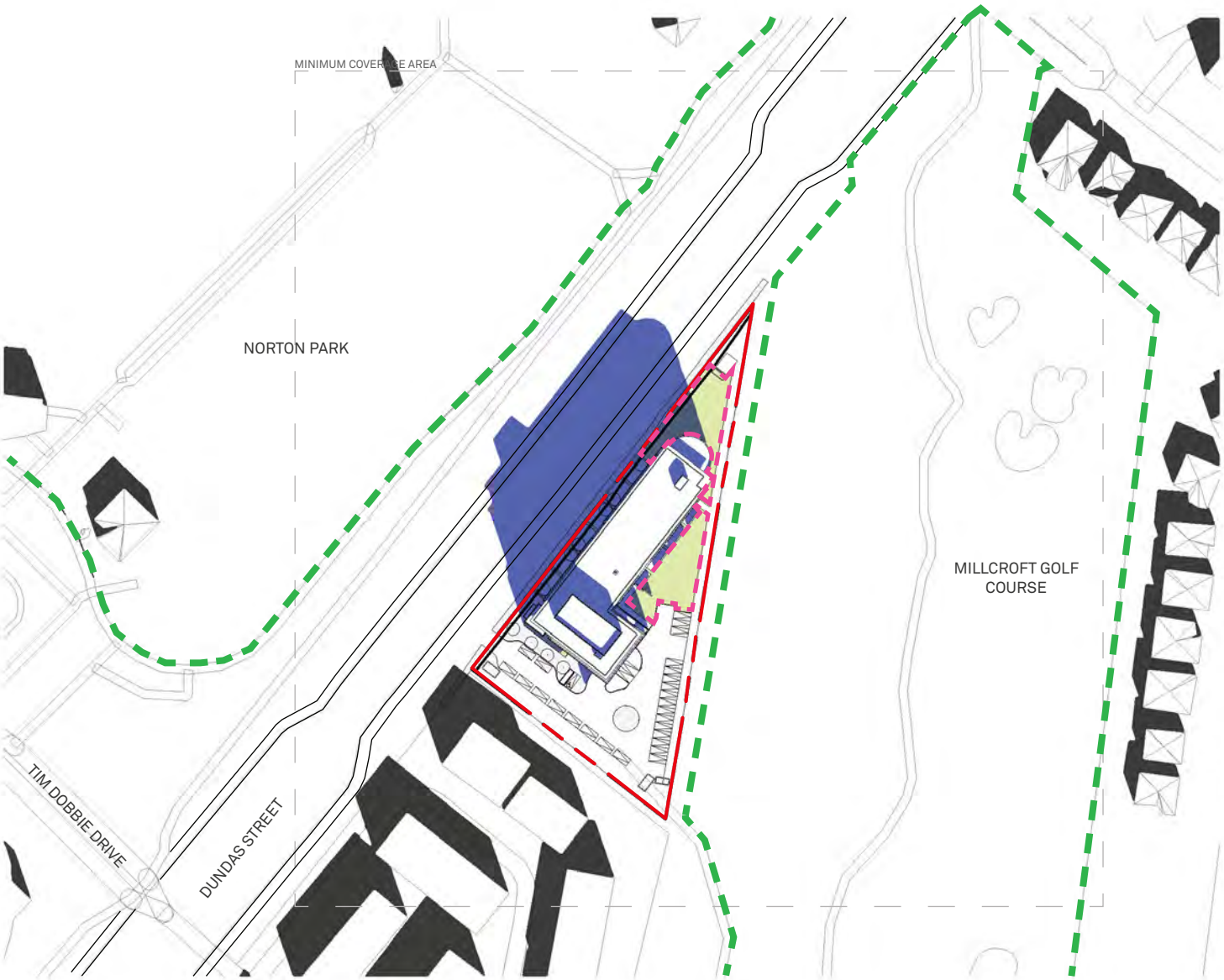
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Millcroft - Area E
4274 Dundas Street, Burlington Ontario
September 21st/March 21st @ 18:00

N

WINTER SOLSTICE

DECEMBER 21st



Net New Shadows cast on roof surfaces

Net New Shadows cast on ground Surfaces

Shadows cast by existing buildings on all surfaces

Site Boundary

Open Space

Private Outdoor Amenity

Minimum Coverage Area

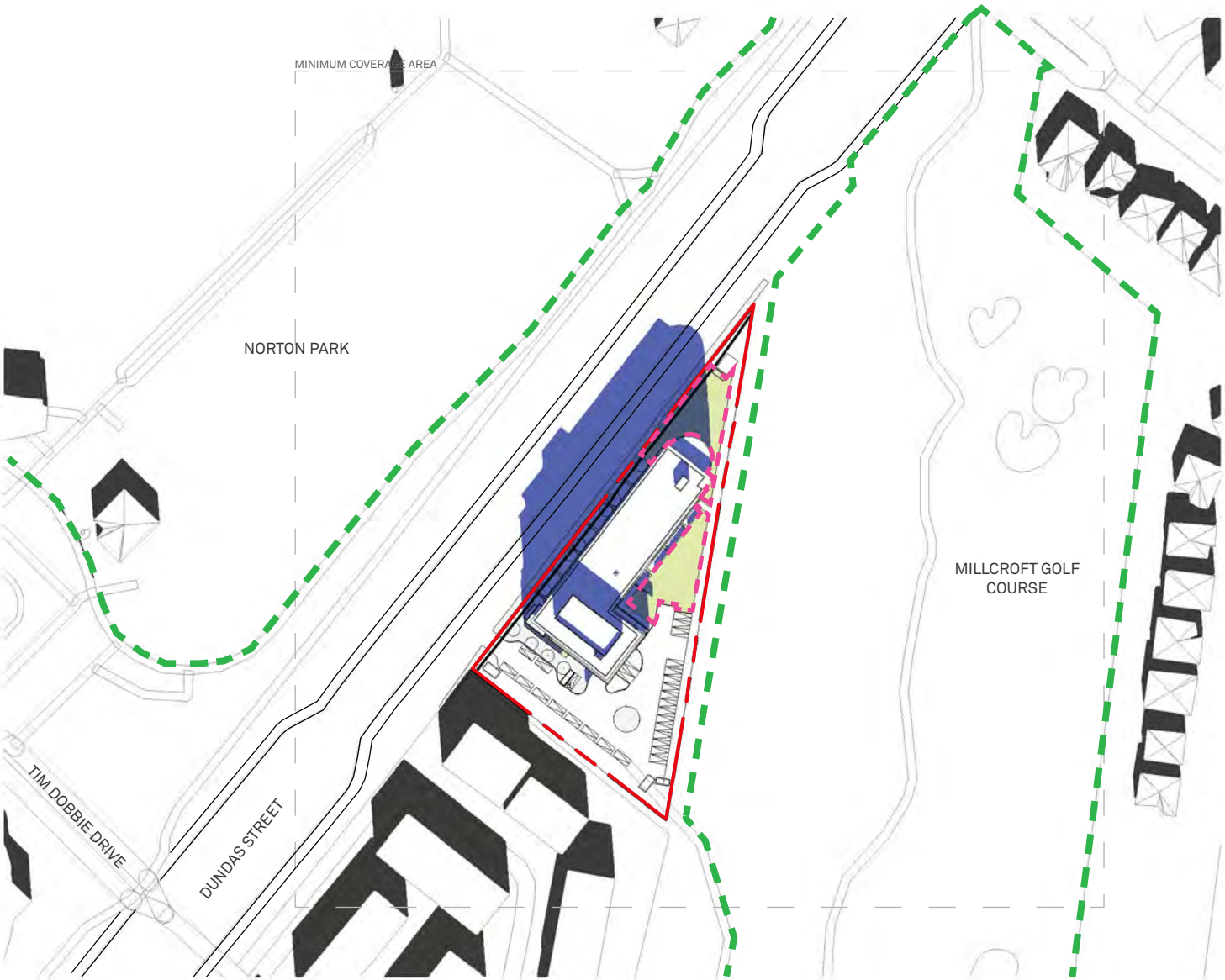
50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
December 21st @ 11:00

N

DECEMBER 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
December 21st @ 12:00

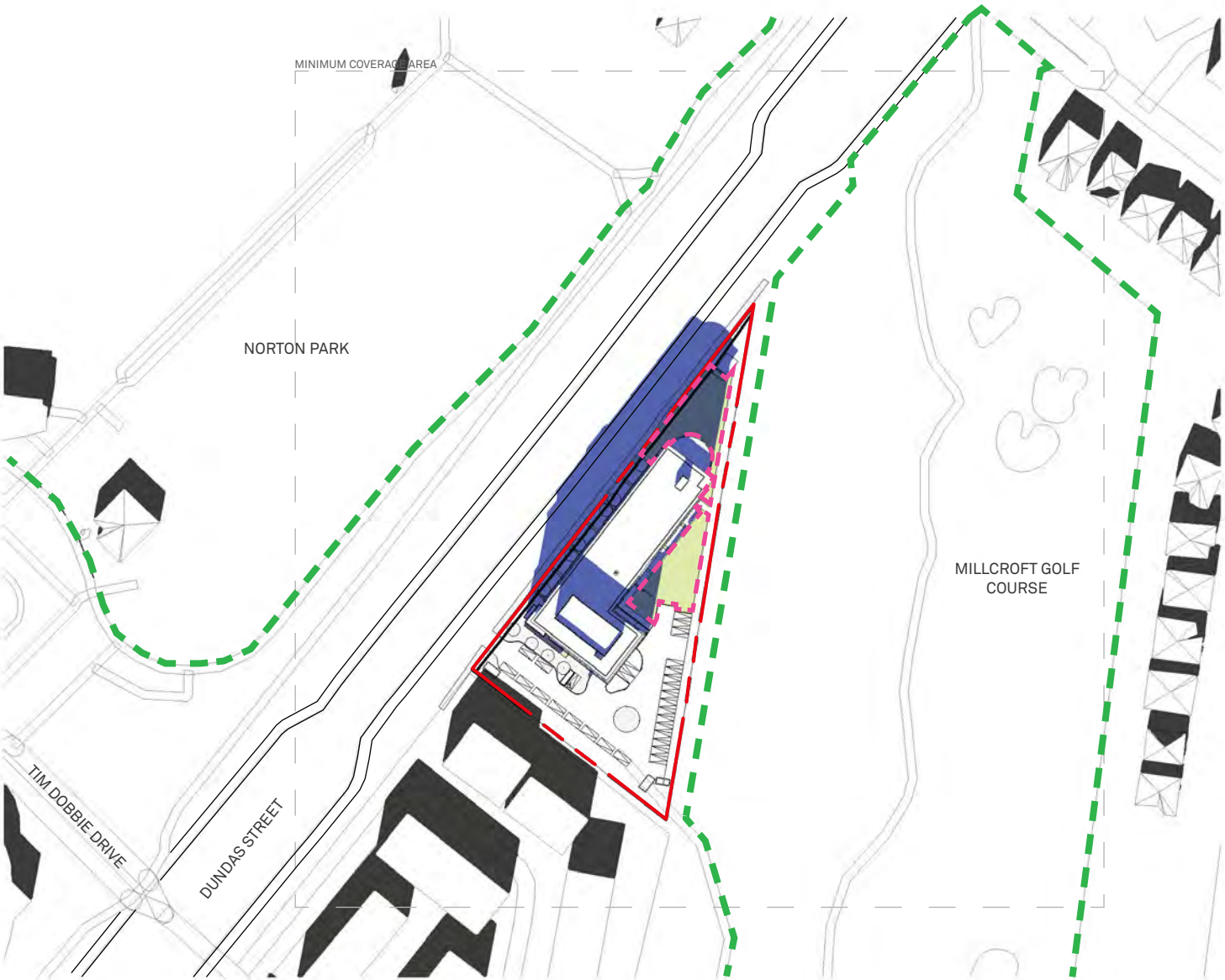
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4.0

WINTER SOLSTICE

- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity
- Minimum Coverage Area

DECEMBER 21st



- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
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- Minimum Coverage Area

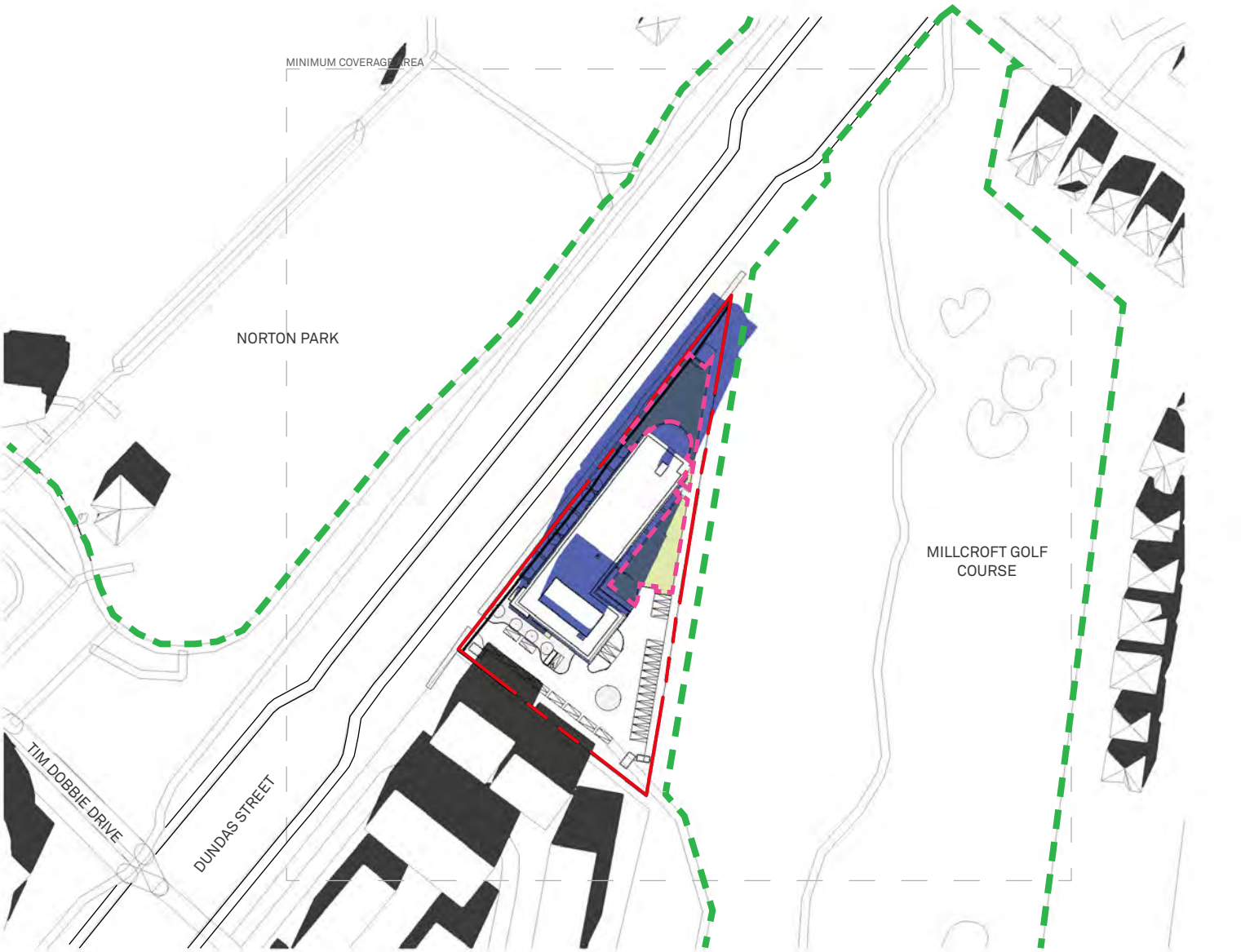
50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
December 21st @ 13:00

N

DECEMBER 21st



Net New Shadows cast on roof surfaces

Net New Shadows cast on ground Surfaces

Shadows cast by existing buildings on all surfaces

Site Boundary

Open Space

Private Outdoor Amenity

Minimum Coverage Area

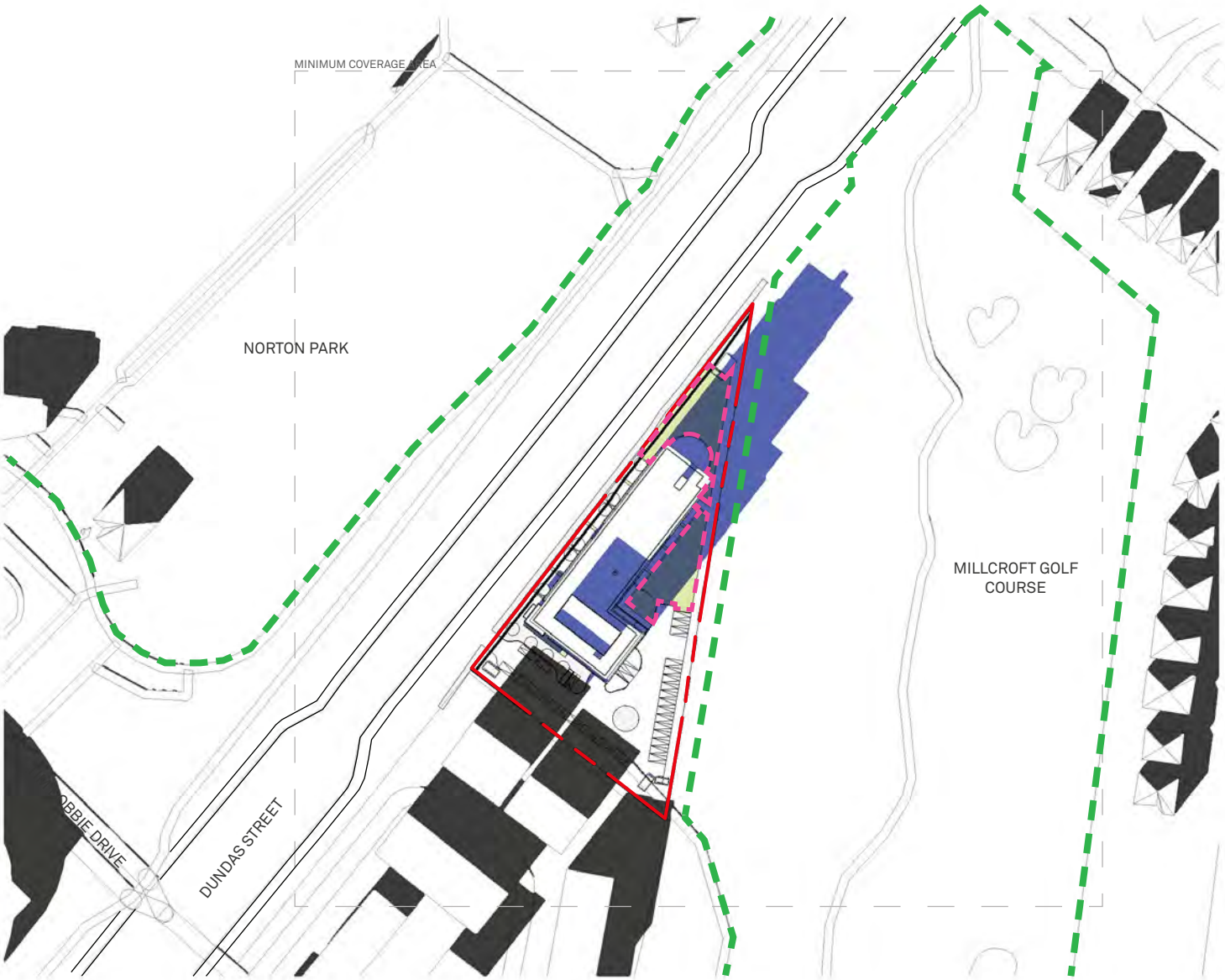
50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
December 21st @ 14:00

N

DECEMBER 21st



50m 100m

Scale = 1:2,000

Millcroft - Area E
4274 Dundas Street, Burlington Ontario
December 21st @ 15:00

N

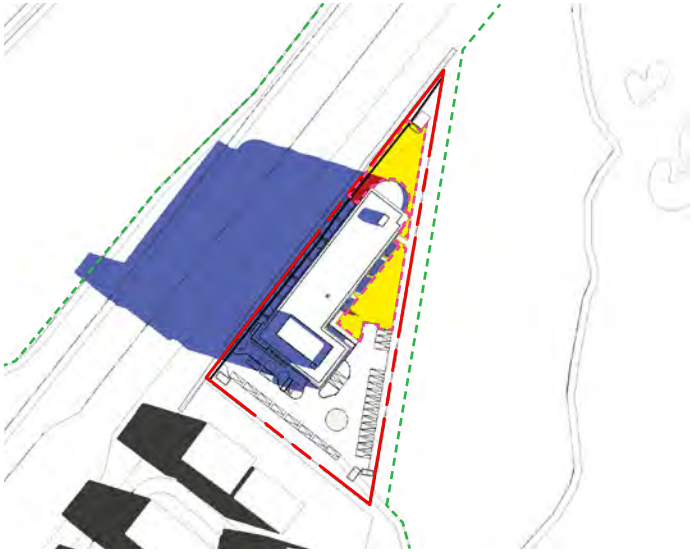
4.0

WINTER SOLSTICE

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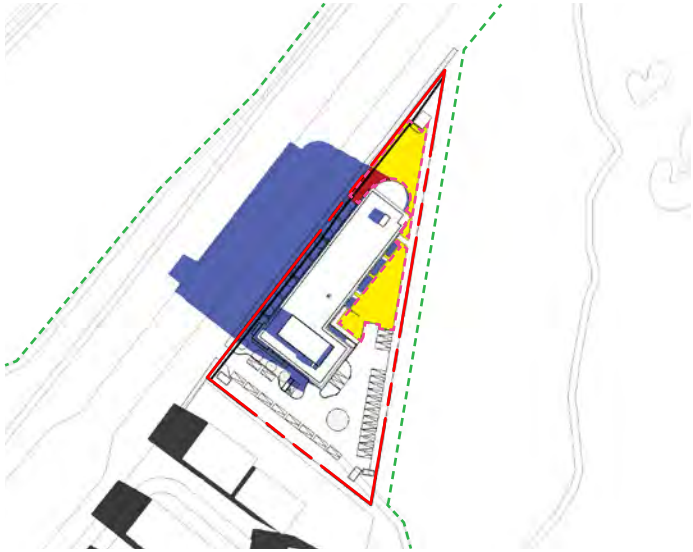
SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 09:00



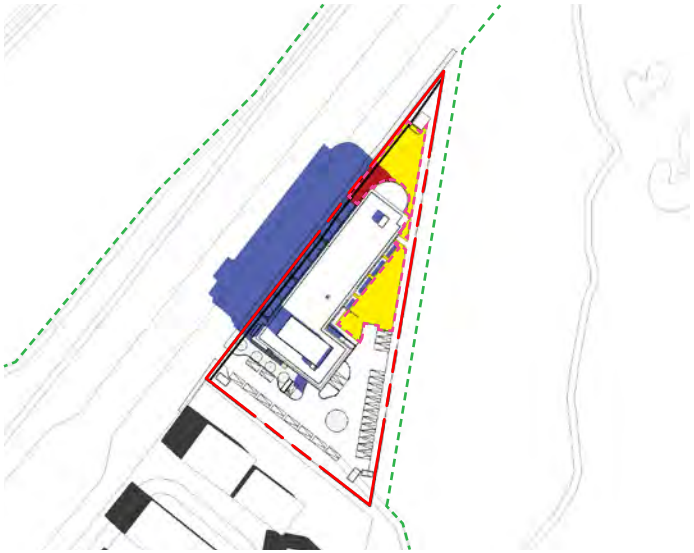
Private Outdoor Amenity Space Total Area: 1,312 m²
Area Exposed to Sunshine ($A_{s(test)}$): 1,225 m²
Area in Shadow: 87 m²

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 10:00



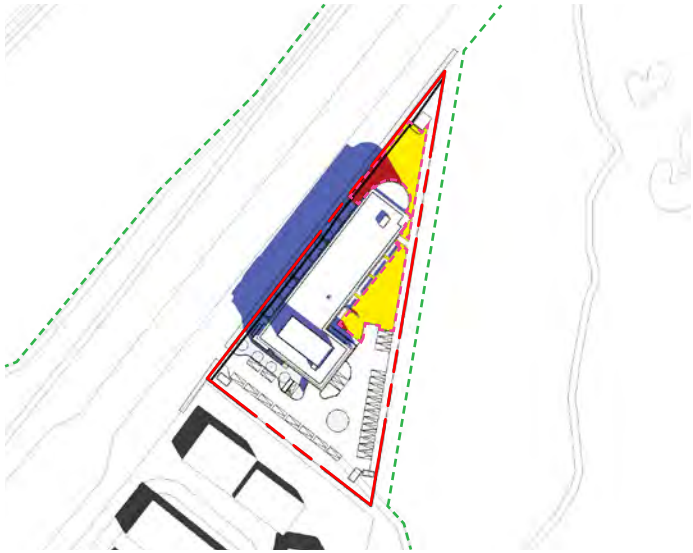
Private Outdoor Amenity Space Total Area: 1,312 m²
Area Exposed to Sunshine ($A_{s(test)}$): 1,218 m²
Area in Shadow: 94 m²

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 11:00



Private Outdoor Amenity Space Total Area: 1,312 m²
Area Exposed to Sunshine ($A_{s(test)}$): 1,194 m²
Area in Shadow: 118 m²

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 12:00



Private Outdoor Amenity Space Total Area: 1,312 m²
Area Exposed to Sunshine ($A_{s(test)}$): 1,136 m²
Area in Shadow: 176 m²

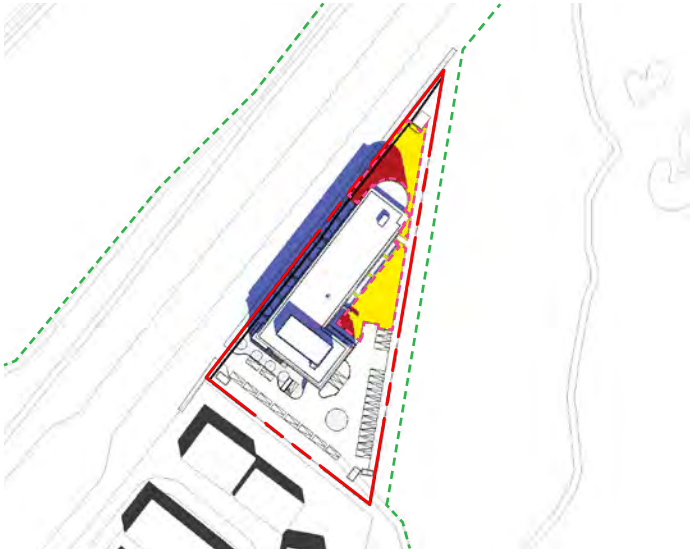
5.0

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS

Private Outdoor Amenity Space

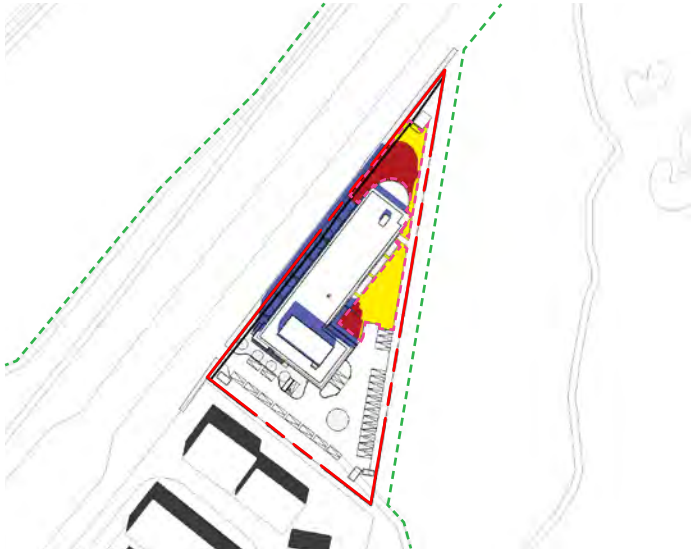
- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 13:00



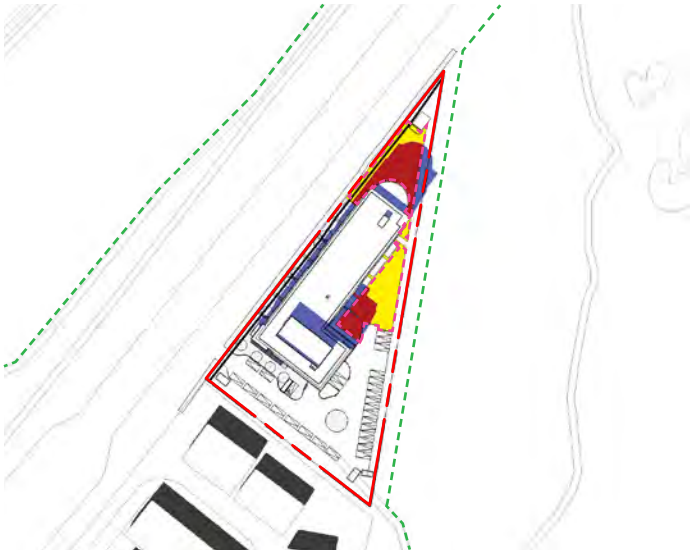
Private Outdoor Amenity Space Total Area: 1,312 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 1,034 m^2
Area in Shadow: 278 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 14:00



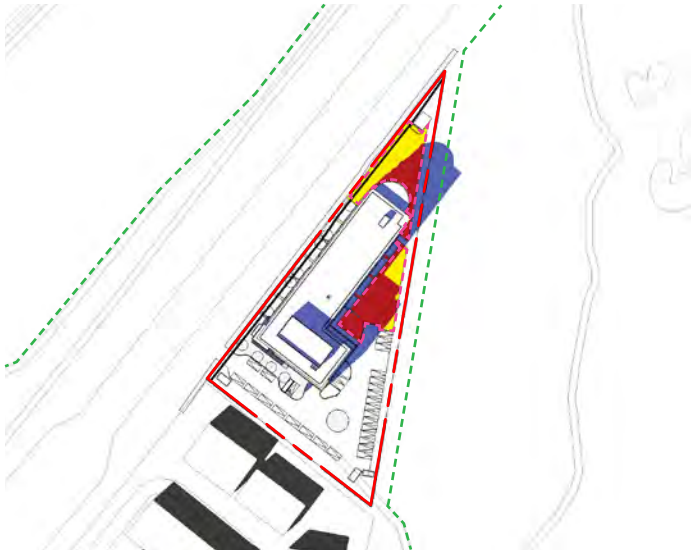
Private Outdoor Amenity Space Total Area: 1,312 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 894 m^2
Area in Shadow: 418 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 15:00



Private Outdoor Amenity Space Total Area: 1,312 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 842 m^2
Area in Shadow: 470 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 16:00



Private Outdoor Amenity Space Total Area: 1,312 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 740 m^2
Area in Shadow: 572 m^2

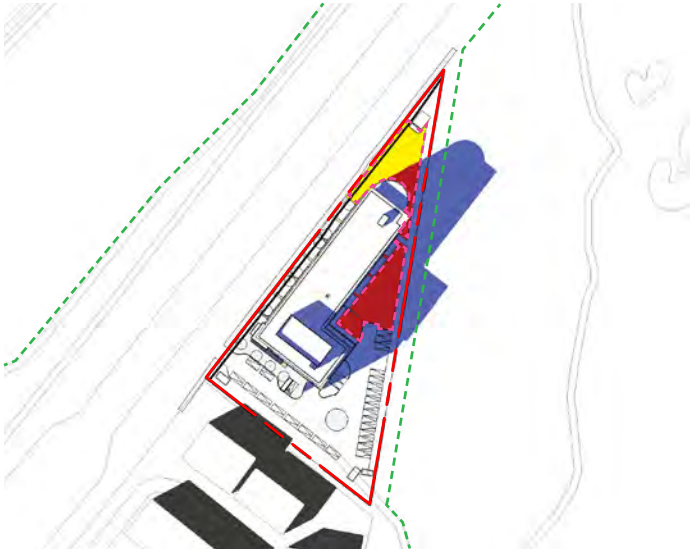
5.0

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS

Private Outdoor Amenity Space

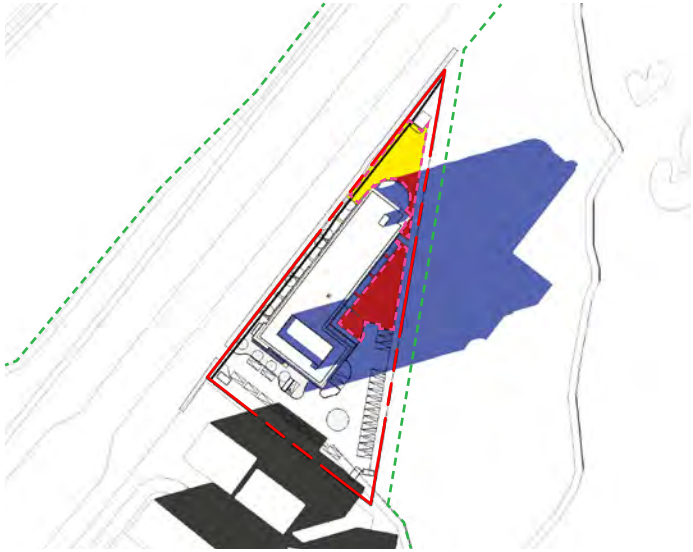
- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 17:00



Private Outdoor Amenity Space Total Area: 1,312 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 724 m^2
Area in Shadow: 588 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st @ 18:00



Private Outdoor Amenity Space Total Area: 1,312 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 713 m^2
Area in Shadow: 599 m^2

5.0

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS

Private Outdoor Amenity Space

- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Private Outdoor Amenity Space - March 21st

1. Total area of private outdoor amenity space (A_T)= 1,312 m^2

2. Areas exposed to sunshine at each hourly test time ($A_{s(test)}$).

09:00 ($A_{s(test)-09:00}$)= 1,225 m^2
10:00 ($A_{s(test)-10:00}$)= 1,218 m^2
11:00 ($A_{s(test)-11:00}$)= 1,194 m^2
12:00 ($A_{s(test)-12:00}$)= 1,136 m^2
13:00 ($A_{s(test)-13:00}$)= 1,034 m^2
14:00 ($A_{s(test)-14:00}$)= 894 m^2
15:00 ($A_{s(test)-15:00}$)= 842 m^2
16:00 ($A_{s(test)-16:00}$)= 740 m^2
17:00 ($A_{s(test)-17:00}$)= 724 m^2
18:00 ($A_{s(test)-18:00}$)= 713 m^2

Number of test times = 10

3. The averages for the nine one-hour intervals ($A_{S(interval)}$):

09:00-10:00 ($A_{s(interval)-09:00-10:00}$) = (1,225 m^2 + 1,218 m^2) /2 = 1,221.5 m^2
10:00-11:00 ($A_{s(interval)-10:00-11:00}$) = (1,218 m^2 + 1,194 m^2) /2 = 1,206 m^2
11:00-12:00 ($A_{s(interval)-11:00-12:00}$) = (1,194 m^2 + 1,136 m^2) /2 = 1,165 m^2
12:00-13:00 ($A_{s(interval)-12:00-13:00}$) = (1,136 m^2 + 1,034 m^2) /2 = 1,085 m^2
13:00-14:00 ($A_{s(interval)-13:00-14:00}$) = (1,034 m^2 + 894 m^2) /2 = 964 m^2
14:00-15:00 ($A_{s(interval)-14:00-15:00}$) = (894 m^2 + 842 m^2) /2 = 868 m^2
15:00-16:00 ($A_{s(interval)-15:00-16:00}$) = (842 m^2 + 740 m^2) /2 = 791 m^2
16:00-17:00 ($A_{s(interval)-16:00-17:00}$) = (740 m^2 + 724 m^2) /2 = 732 m^2
17:00-18:00 ($A_{s(interval)-17:00-18:00}$) = (724 m^2 + 713 m^2) /2 = 718.5 m^2

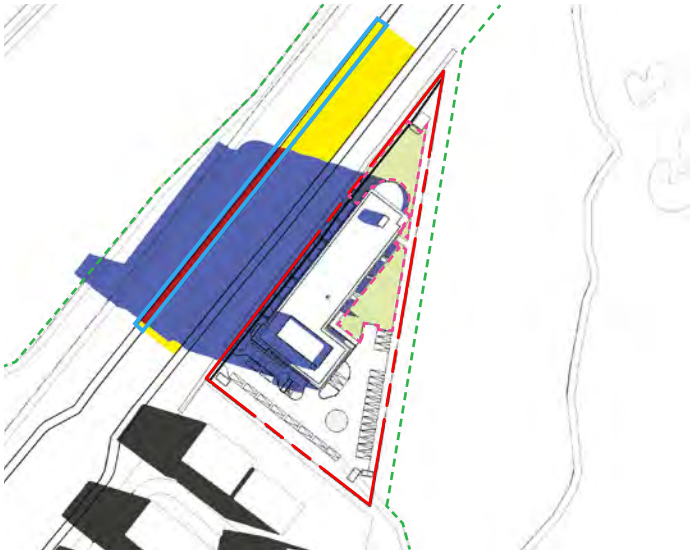
Number of test times = 9

4. The overall average area in sunshine ($A_{S(average)}$) = [Sum of ($A_{S(interval)}$)]/[# of intervals]
= 8,751m^2 / 9 = 972.33 m^2

5. SAF = ($A_{S(average)}$) / A_T
= 972.33 m^2 / 1,312 m^2 = 0.74

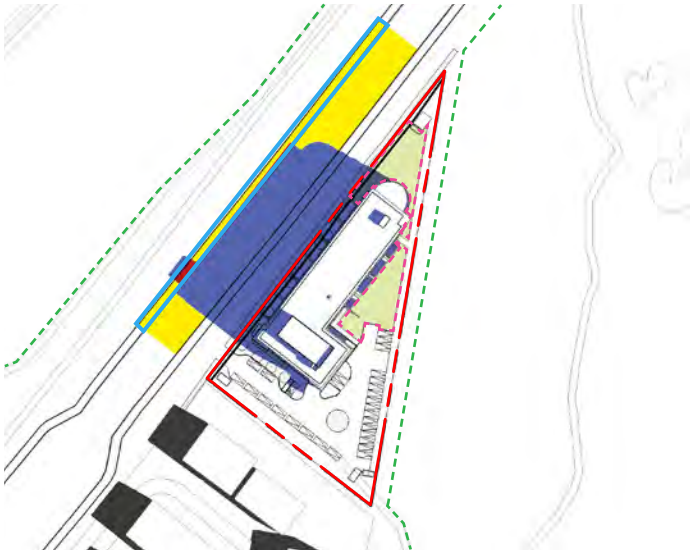
0.74 is greater than 0.22. Therefore, the SAF meets the criteria.

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 09:00



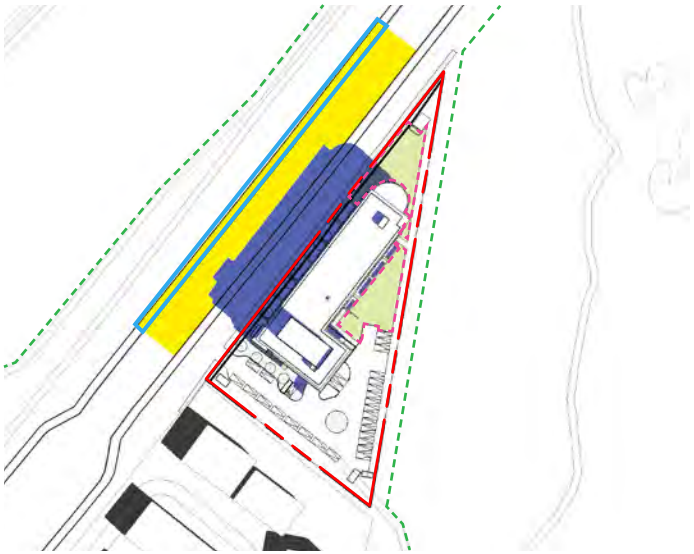
Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 167 m^2
Area in Shadow: 225 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 10:00



Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 297 m^2
Area in Shadow: 95 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 11:00



Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 392 m^2
Area in Shadow: 0 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 12:00



Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 392 m^2
Area in Shadow: 0 m^2

Public Realm and Sidewalks

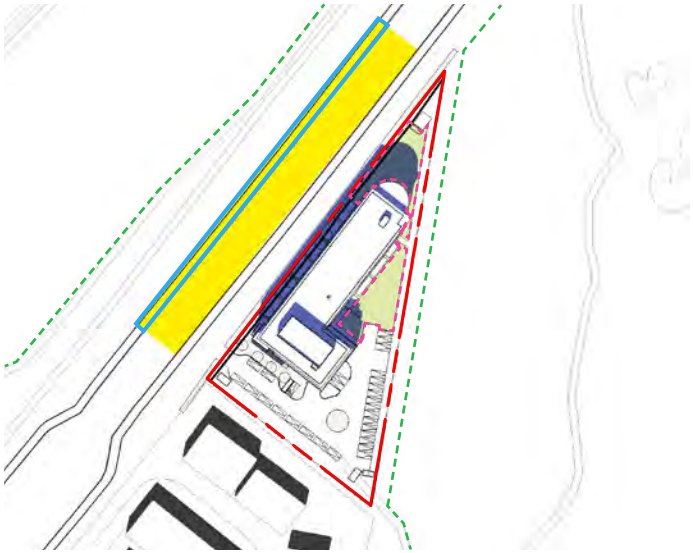
- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 13:00



Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 392 m^2
Area in Shadow: 0 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 14:00



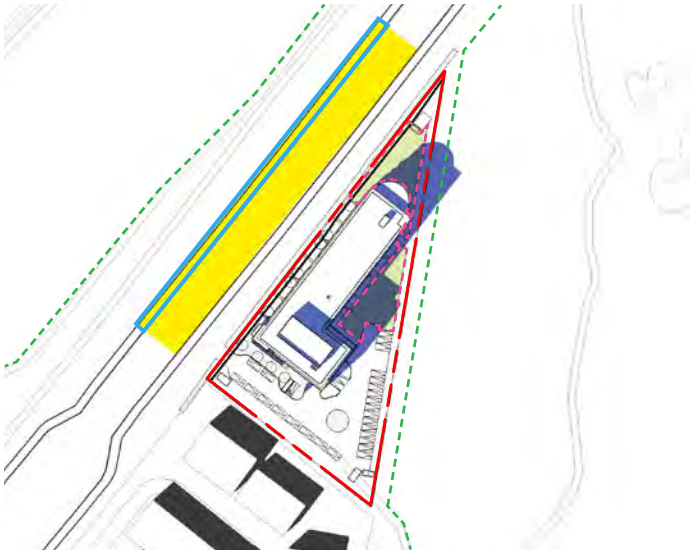
Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 392 m^2
Area in Shadow: 0 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 15:00



Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 392 m^2
Area in Shadow: 0 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 16:00



Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 392 m^2
Area in Shadow: 0 m^2

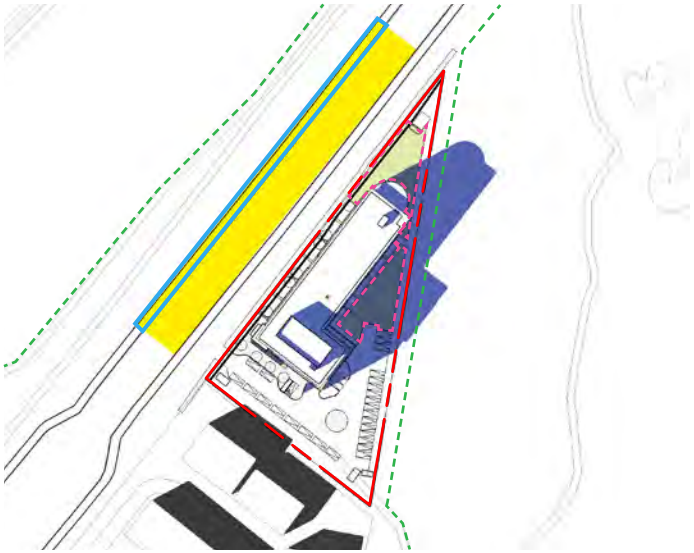
6.0

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS

Public Realm and Sidewalks

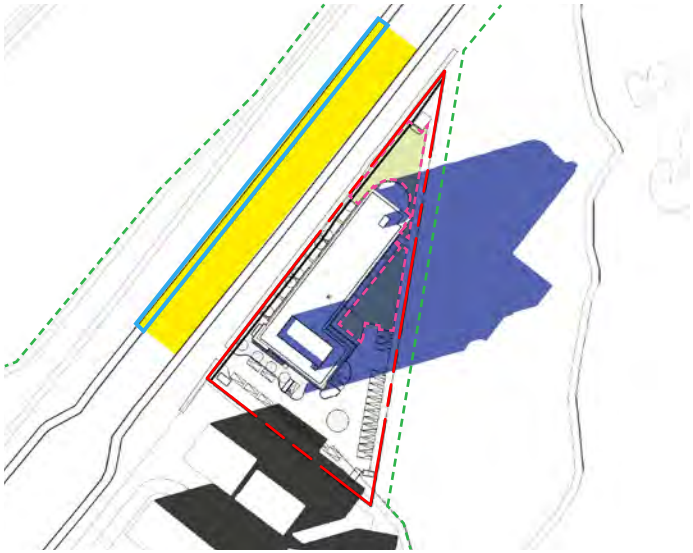
- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 17:00



Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 392 m^2
Area in Shadow: 0 m^2

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS
Public Realm and Sidewalks - March 21st @ 18:00



Total Opposite Boulevard Area: 392 m^2
Area Exposed to Sunshine ($A_{s(test)}$): 392 m^2
Area in Shadow: 0 m^2

Public Realm and Sidewalks

- Net New Shadows cast on roof surfaces
- Net New Shadows cast on ground Surfaces
- Shadows cast by existing buildings on all surfaces
- Site Boundary
- Open Space
- Private Outdoor Amenity

SUN ACCESS FACTOR CALCULATIONS AND ANALYSIS

Public Realm and Sidewalks - March 21st

1. Total area of opposite boulevard (A_T)= 392 m^2

2. Areas exposed to sunshine at each hourly test time ($A_{s(test)}$).

09:00 ($A_{s(test)-09:00}$)= 167 m^2
10:00 ($A_{s(test)-10:00}$)= 297 m^2
11:00 ($A_{s(test)-11:00}$)= 392 m^2
12:00 ($A_{s(test)-12:00}$)= 392 m^2
13:00 ($A_{s(test)-13:00}$)= 392 m^2
14:00 ($A_{s(test)-14:00}$)= 392 m^2
15:00 ($A_{s(test)-15:00}$)= 392 m^2
16:00 ($A_{s(test)-16:00}$)= 392 m^2
17:00 ($A_{s(test)-17:00}$)= 392 m^2
18:00 ($A_{s(test)-18:00}$)= 392 m^2

Number of test times = 10

3. The averages for the nine one-hour intervals ($A_{S(interval)}$):

09:00-10:00 ($A_{s(interval)-09:00-10:00}$) = (167 m^2 + 297 m^2) /2 = 232 m^2
10:00-11:00 ($A_{s(interval)-10:00-11:00}$) = (297 m^2 + 392 m^2) /2 = 344.5 m^2
11:00-12:00 ($A_{s(interval)-11:00-12:00}$) = (392 m^2 + 392 m^2) /2 = 392 m^2
12:00-13:00 ($A_{s(interval)-12:00-13:00}$) = (392 m^2 + 392 m^2) /2 = 392 m^2
13:00-14:00 ($A_{s(interval)-13:00-14:00}$) = (392 m^2 + 392 m^2) /2 = 392 m^2
14:00-15:00 ($A_{s(interval)-14:00-15:00}$) = (392 m^2 + 392 m^2) /2 = 392 m^2
15:00-16:00 ($A_{s(interval)-15:00-16:00}$) = (392 m^2 + 392 m^2) /2 = 392 m^2
16:00-17:00 ($A_{s(interval)-16:00-17:00}$) = (392 m^2 + 392 m^2) /2 = 392 m^2
17:00-18:00 ($A_{s(interval)-17:00-18:00}$) = (392 m^2 + 392 m^2) /2 = 392 m^2

Number of test times = 9

4. The overall average area in sunshine ($A_{S(average)}$) = [Sum of ($A_{S(interval)}$)]/[# of intervals]
= 3,320.5 m^2 / 9 = 368.94 m^2

5. SAF = ($A_{S(average)}$) / A_T
= 368.94 m^2 / 392 m^2 = 0.94

0.94 is greater than 0.50. Therefore, the SAF meets the criteria.

SHADOW STUDY ANALYSIS SUMMARY AND CONCLUSIONS

The shadow study illustrates that the potential shadow impacts of the proposed development on the surrounding context are minimal.
The comprehensive analysis demonstrates that both the incremental and cumulative shadow impacts have nominal impact and no additional mitigation measures are required since the proposed building height and building setbacks will have no impact on any of the adjacent open spaces, outdoor amenity areas and public realm and sidewalks.