

SHADOW ANALYSIS

1034 McGarry Terrace &
1117 Longfields Drive
Mixed Use Building
OPA No.: 1212



Prepared for:

1897365 Ontario Inc.
205-928 Laporte St.,
Rockland, ON, K2K 1M7
613-446-9972

Prepared by:

Kristopher Benes,
Open Plan Architects Inc.
2305 Hillary Ave.,
Ottawa, ON K1H 7J2

February 5, 2018

1034 McGarry Terrace & 1117 Longfields Drive Mixed Use Building - Shadow Analysis

The following analysis studies the shading impacts of the proposed mixed-use development located at 1034 McGarry Terrace & 1117 Longfields Drive, Ottawa, ON. This document has been prepared by Kristopher Benes, OAA, of Open Plan Architects Inc. as a submission requirement for site plan control application.

The proposed development is equivalent to the as-of-right development as it adheres to all zoning regulations for this site. *Figure 1* illustrates the proposed building heights and massing used in this study. The site coordinates used for this analysis are as follows: 45.2722 N Latitude and 75.7407 W Longitude.

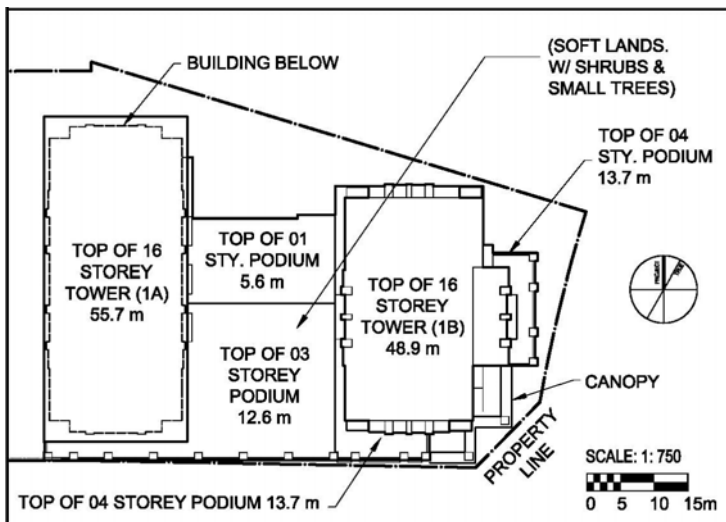


Figure 1: as-of-right/proposed development – heights and massing

A discussion of the shadow impacts on shadow sensitive areas follows. A detailed analysis of the hourly intervals during the 3 seasonal study periods may be found in *appendix A – Shadow Diagrams*.

1034 McGarry Terrance & 1117 Longfields Drive Mixed Use Building - Shadow Analysis

Shadow Impacts:

<i>Location</i>		<i>Impact</i>	<i>Mitigation Measures</i>
1	Proposed public plaza at Longfields Drive and Marketplace Avenue (public Space)	The area at equinox only sees an impact from approximately 13:00 onwards. The average shading over 5 intervals is <50%. Furthermore, no net increase in shading is being proposed.	None required.
2	Proposed rooftop patio (communal amenity area)	The area is exposed to sun light for 3 consecutive hourly intervals between 11:00 and 15:00 on both June 21 st and September 21 st . Furthermore, no net increase in shading is being proposed.	None required.
3	The Court at Barrhaven retirement home (ground level residential private outdoor amenity space)	The area is unaffected by shadows during summer solstice. During the equinox the shading begins to impact as of the 10 am interval up to the 11 am interval. The site then re-emerges into sunlight for the 12 pm interval, is again shaded during the 1 pm interval but is completely out of the shadow impact by the 2 pm interval. Therefore, there are not more than 2 constative hourly intervals of impact. Furthermore, no net increase in shading is being proposed.	None required.

1034 McGarry Terrance & 1117 Longfields Drive Mixed Use Building - Shadow Analysis

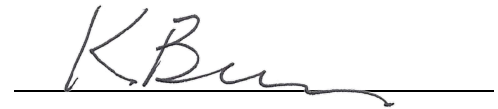
Mitigation Measures:

Even though the proposed development is in keeping with the regulation in force and is, therefore, as-of-right, certain measures were employed during the massing process to mitigate impacts and resulted in the proposal shown here. These measures include incorporation of the city's guidelines regarding minimum tower separation of 23 m, maintaining relatively compact tower floor plates and orientation of the two towers with the long axis north-south.

Approvals and Signature:

Open Plan Architects Inc.

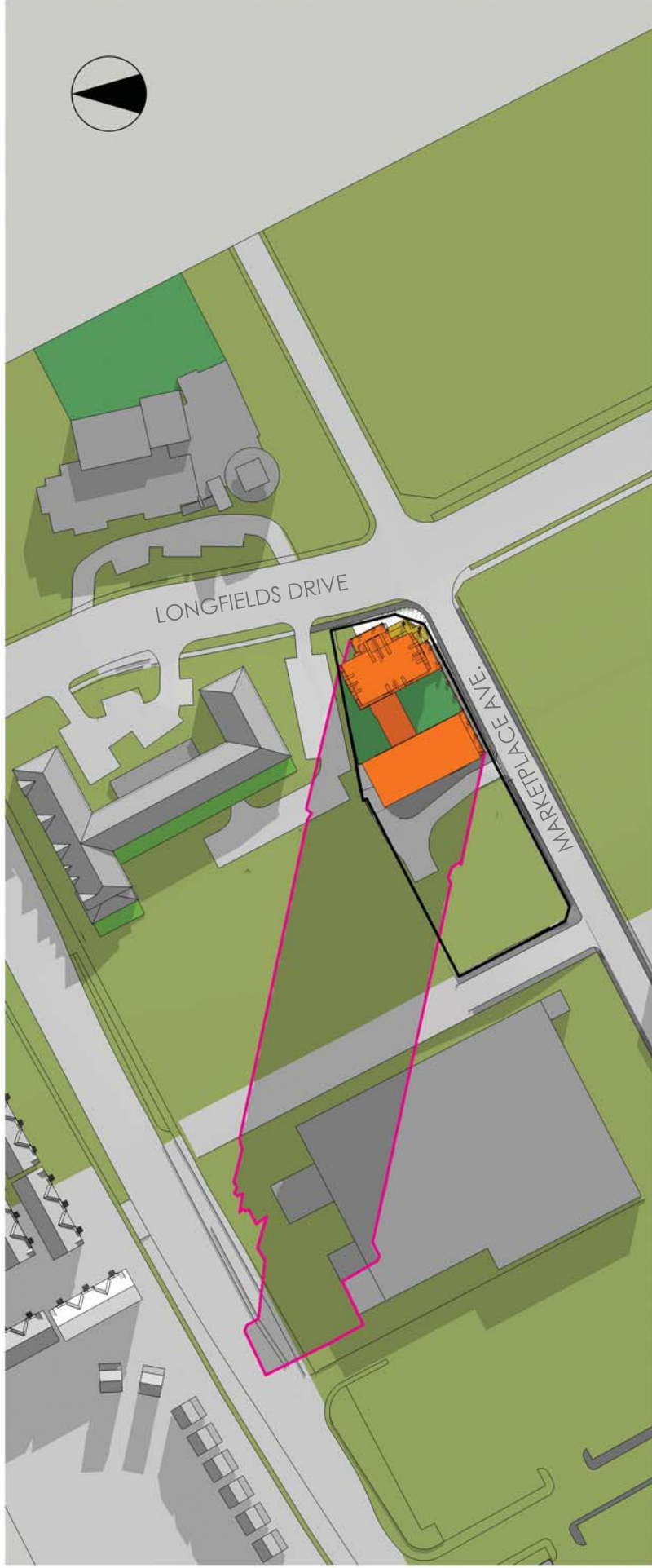
Kris Benes, OAA

A handwritten signature in dark ink, appearing to read 'K. Benes', is written over a horizontal line.

Appendix A - Shadow Diagrams

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

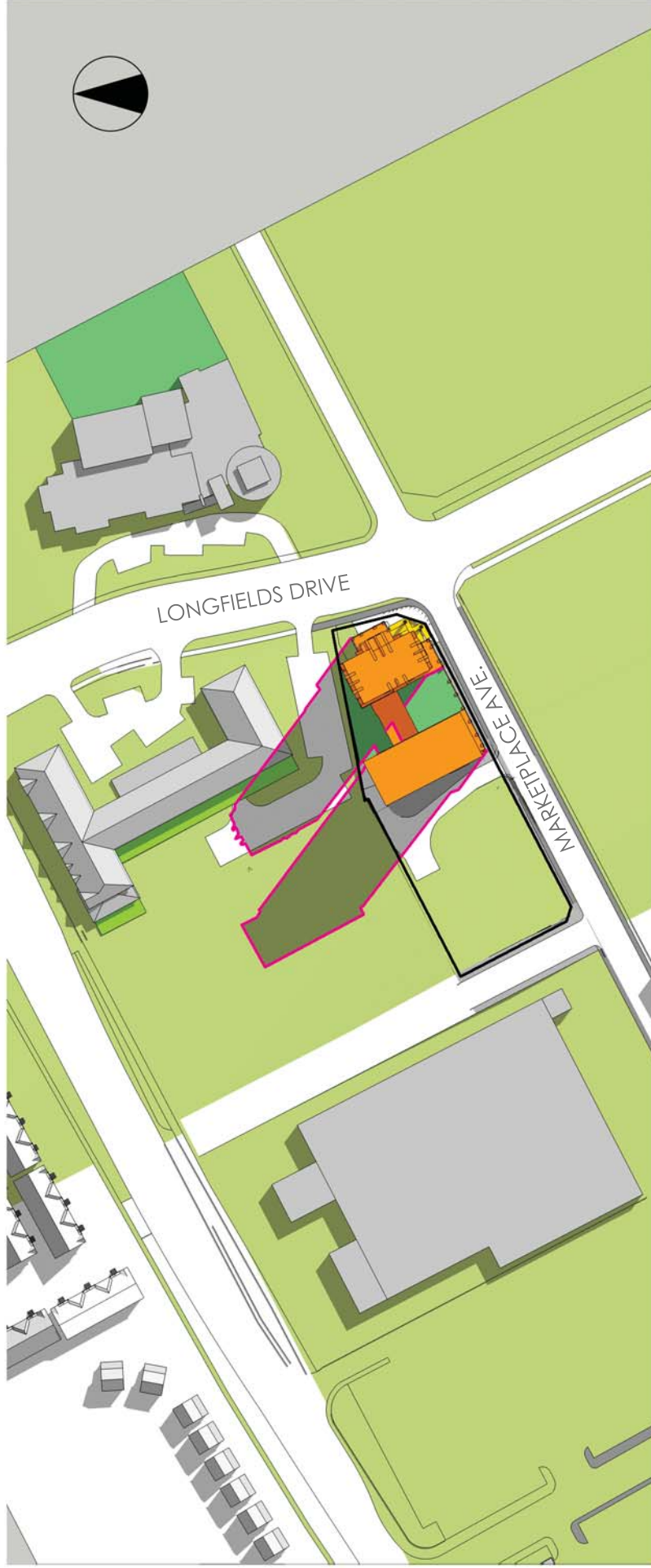
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: SEPTEMBER 21 TEST TIME: 08:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

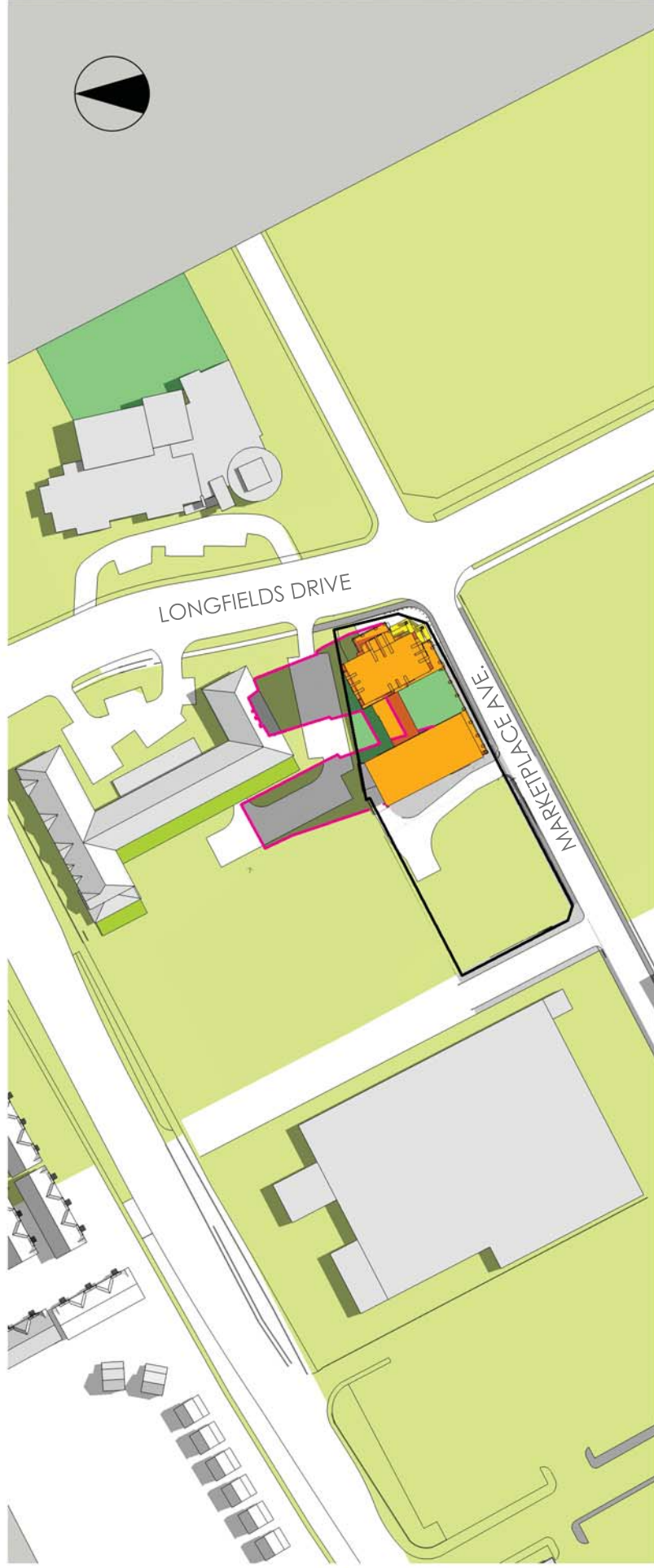
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: SEPTEMBER 21 TEST TIME: 10:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

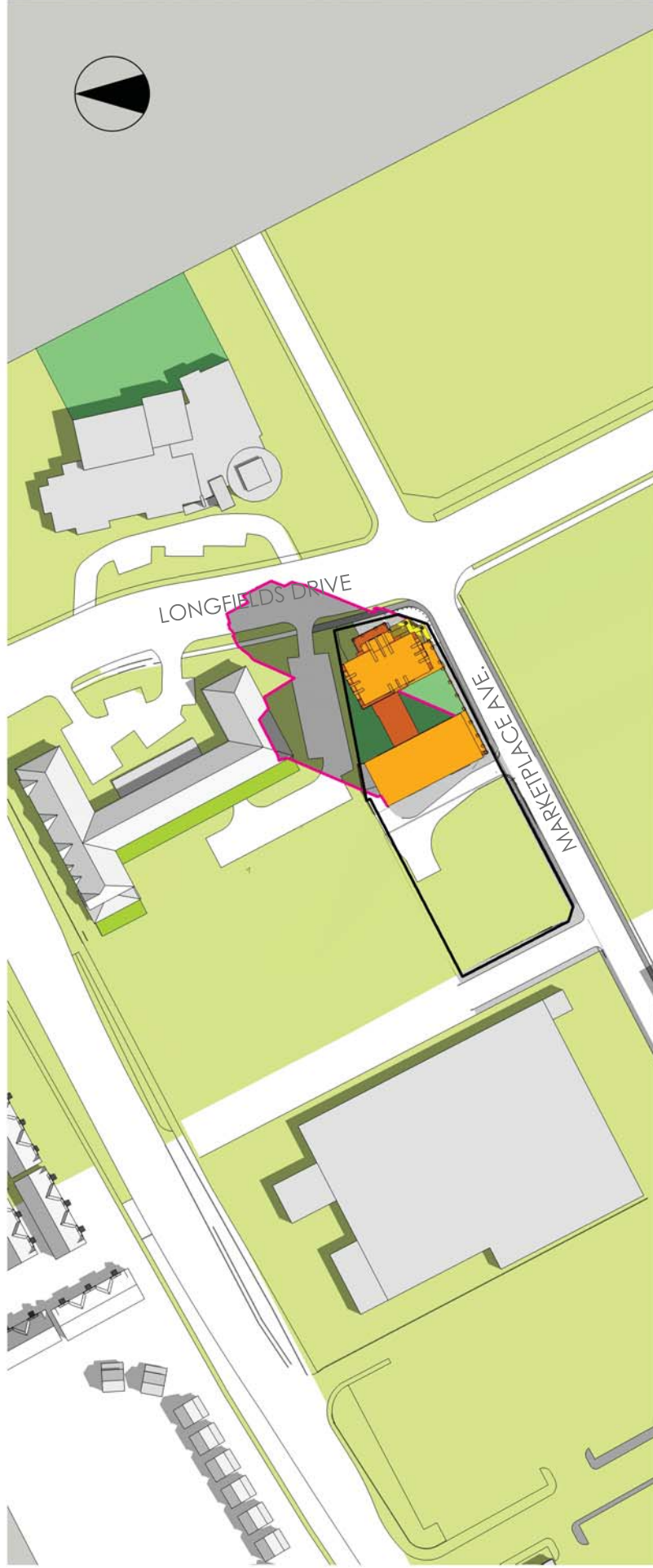
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: SEPTEMBER 21 TEST TIME: 12:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

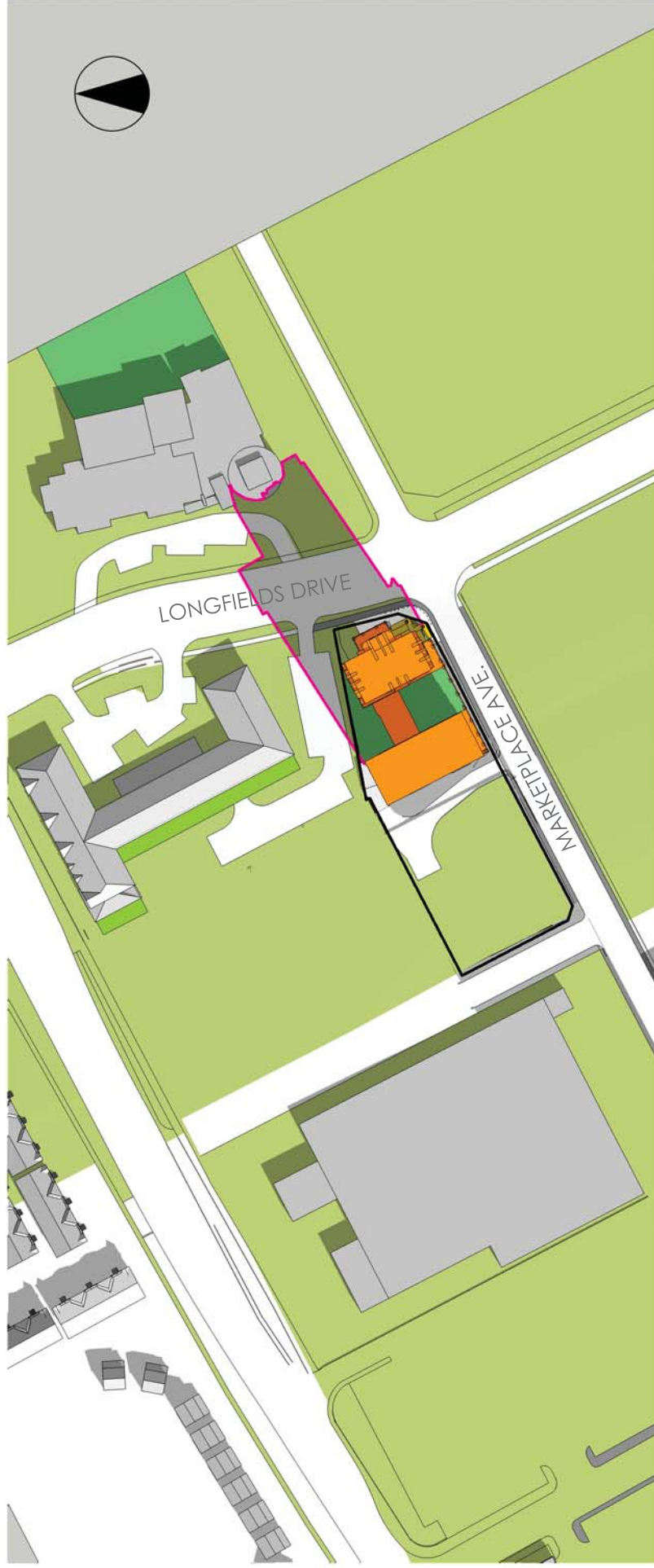
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: SEPTEMBER 21 TEST TIME: 14:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

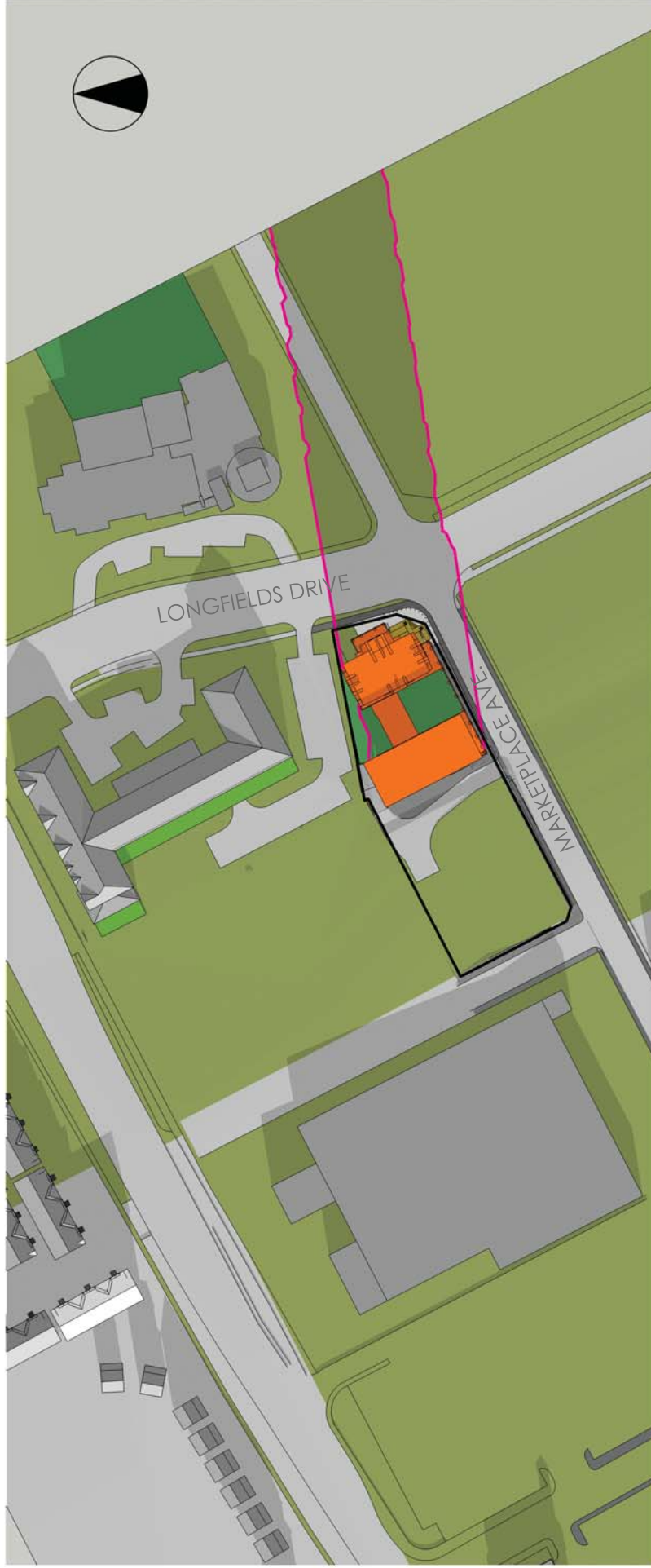
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: SEPTEMBER 21 TEST TIME: 16:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

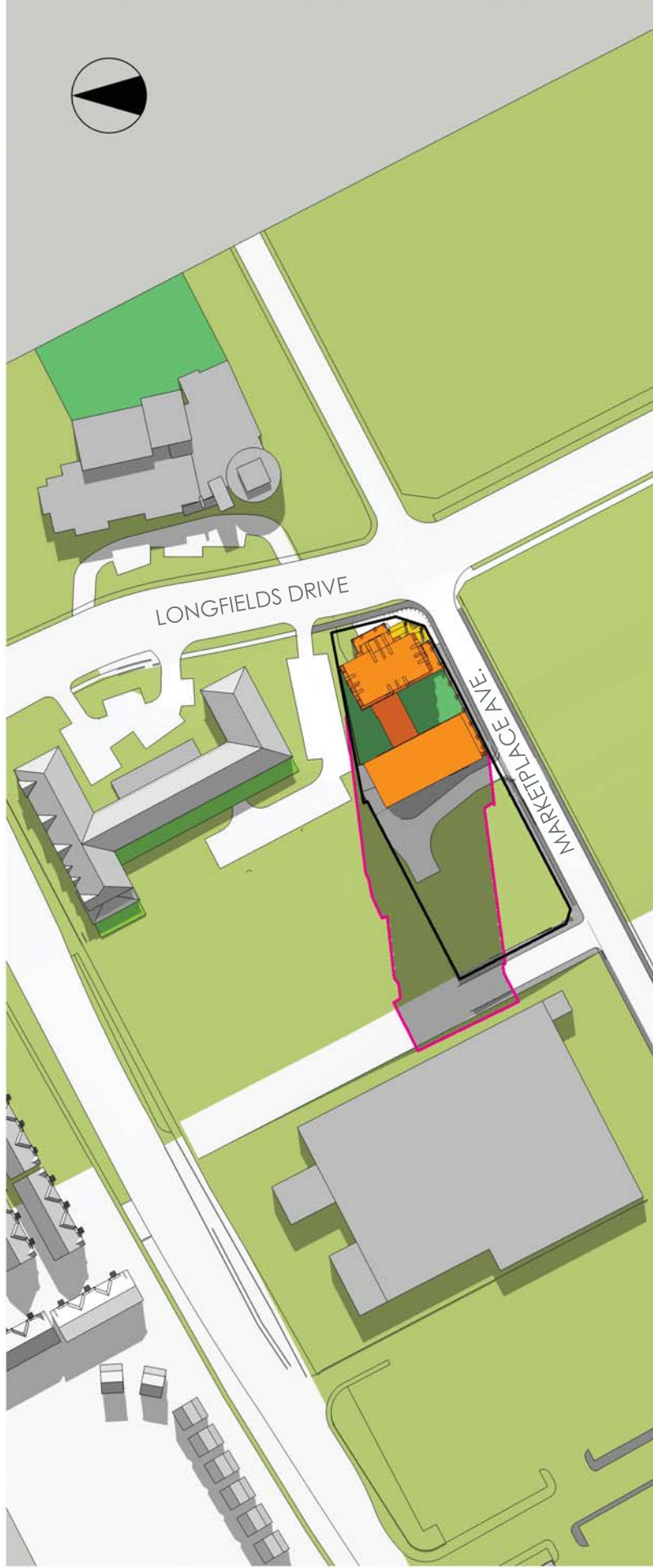
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: SEPTEMBER 21 TEST TIME: 18:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

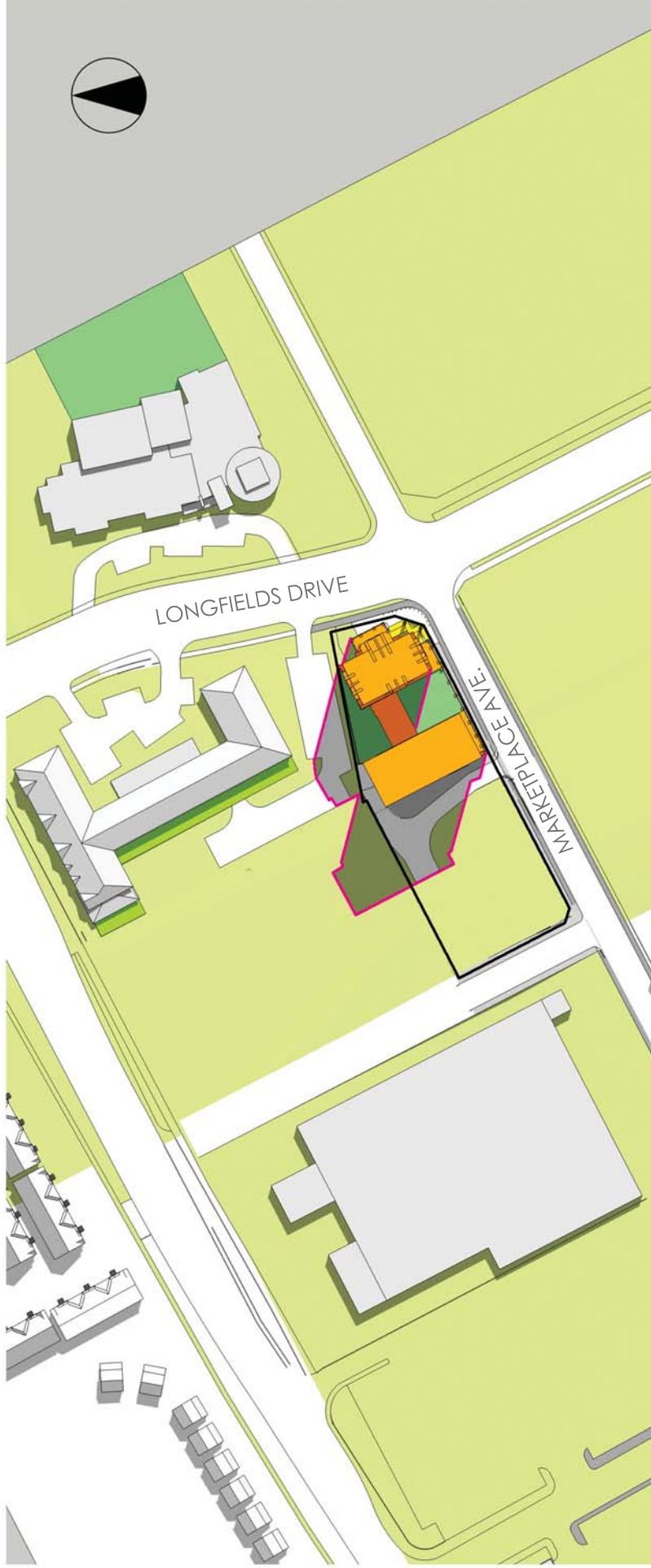
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: JUNE 21 TEST TIME: 08:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

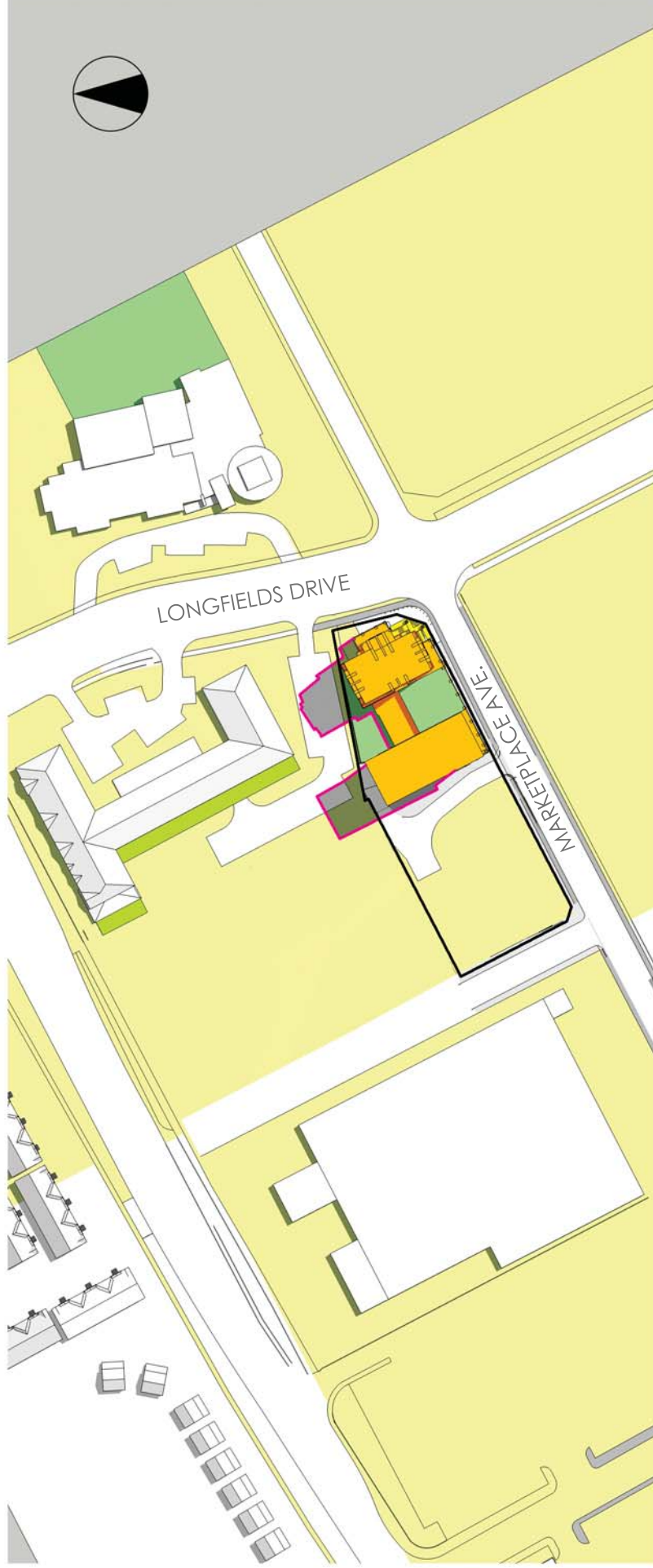
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: JUNE 21 TEST TIME: 10:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

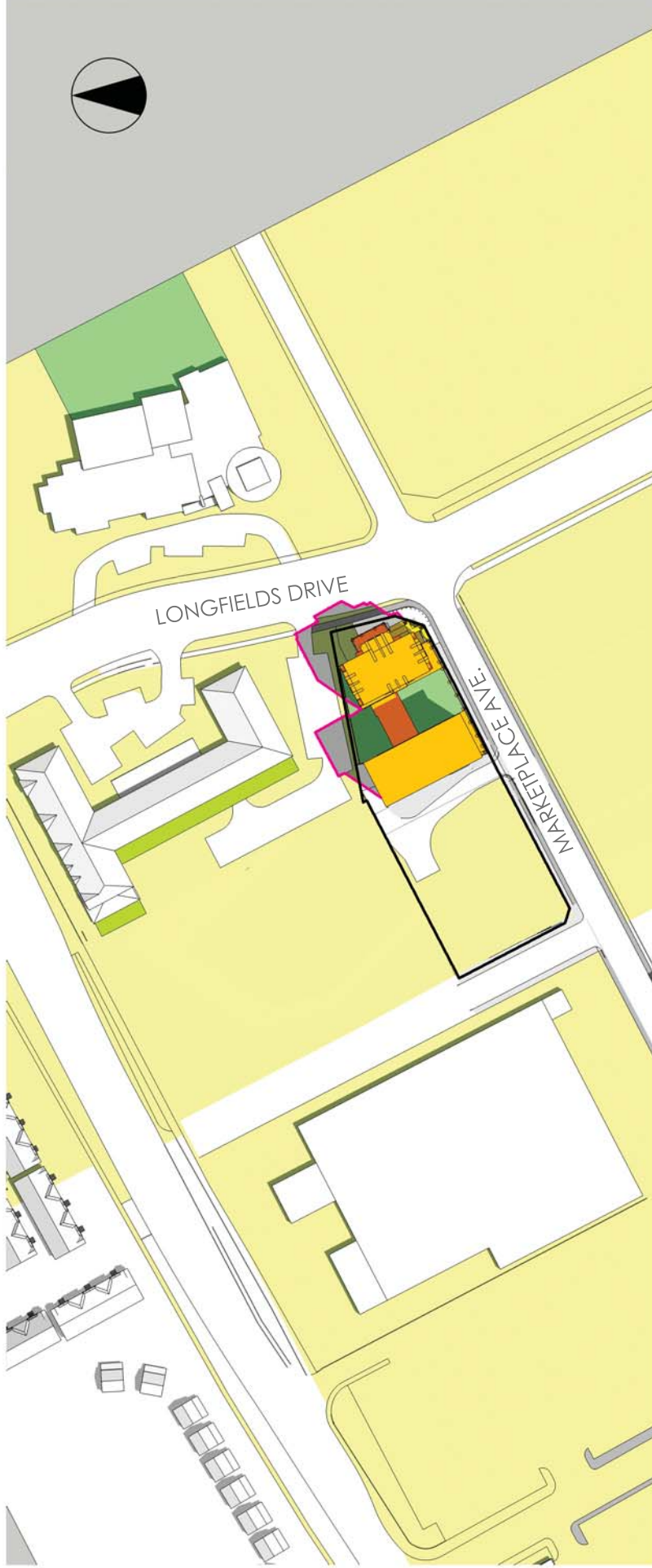
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: JUNE 21 TEST TIME: 12:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

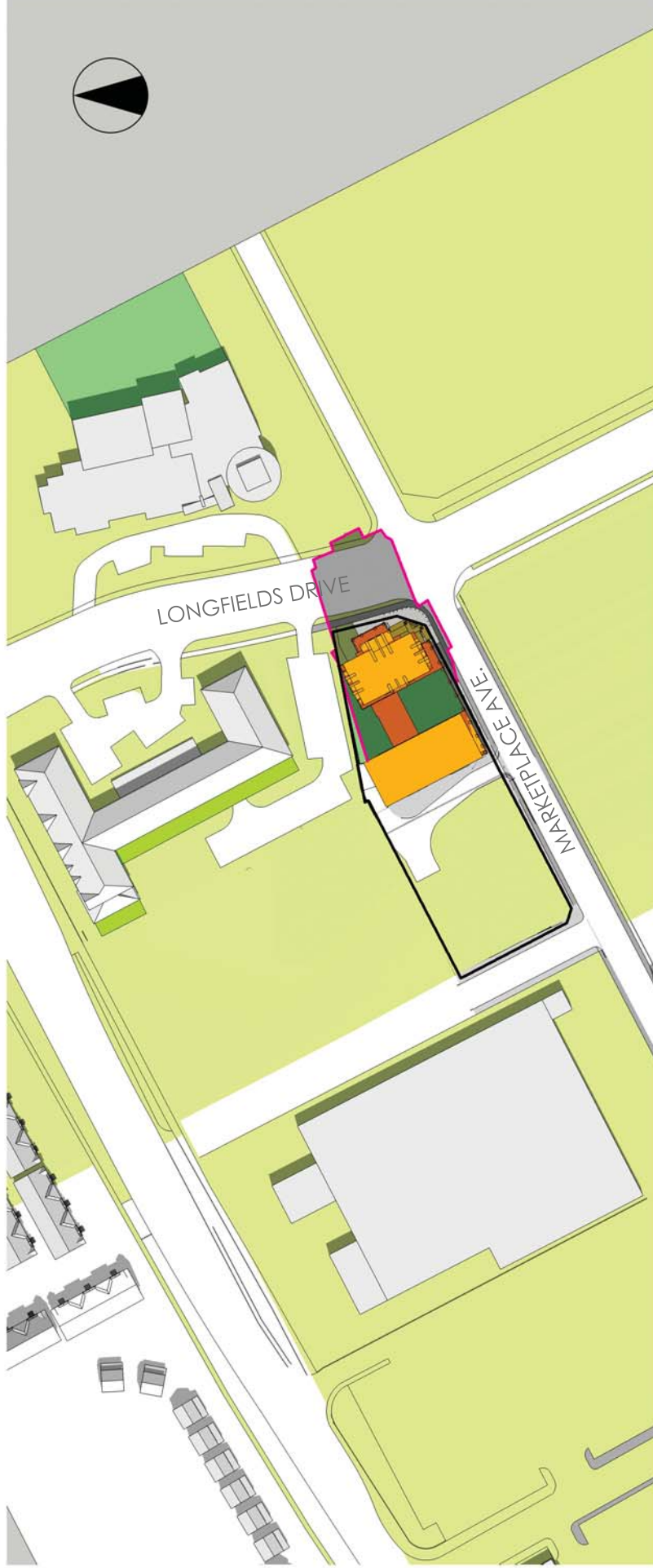
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: JUNE 21 TEST TIME: 14:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

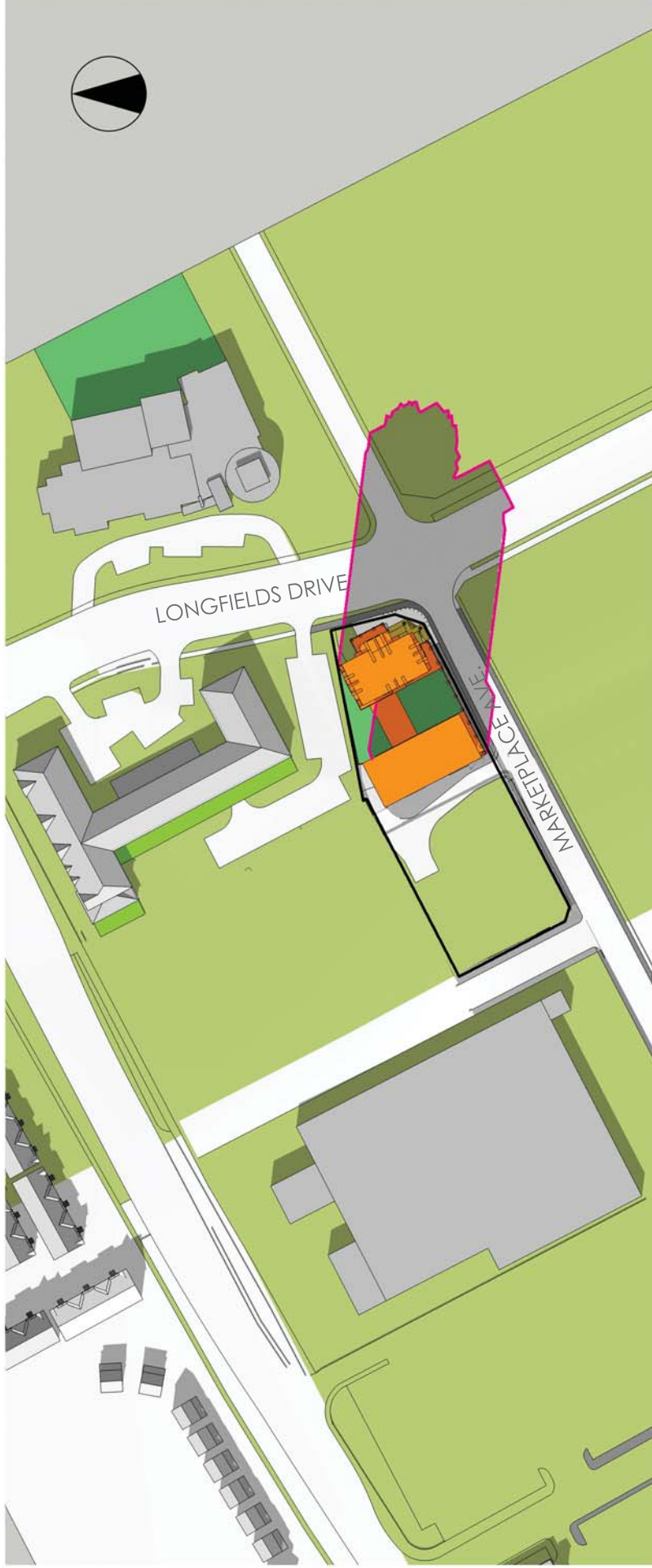
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: JUNE 21 TEST TIME: 16:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

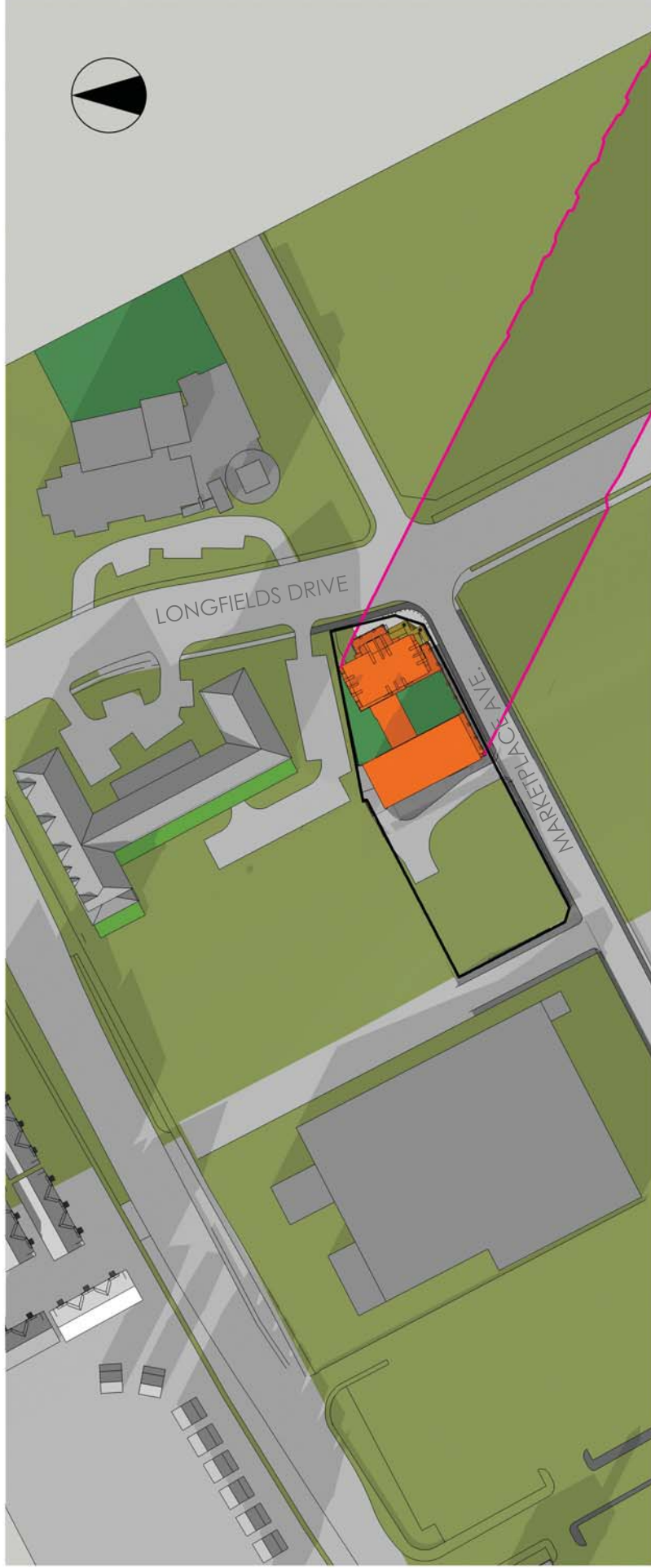
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: JUNE 21 TEST TIME: 18:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

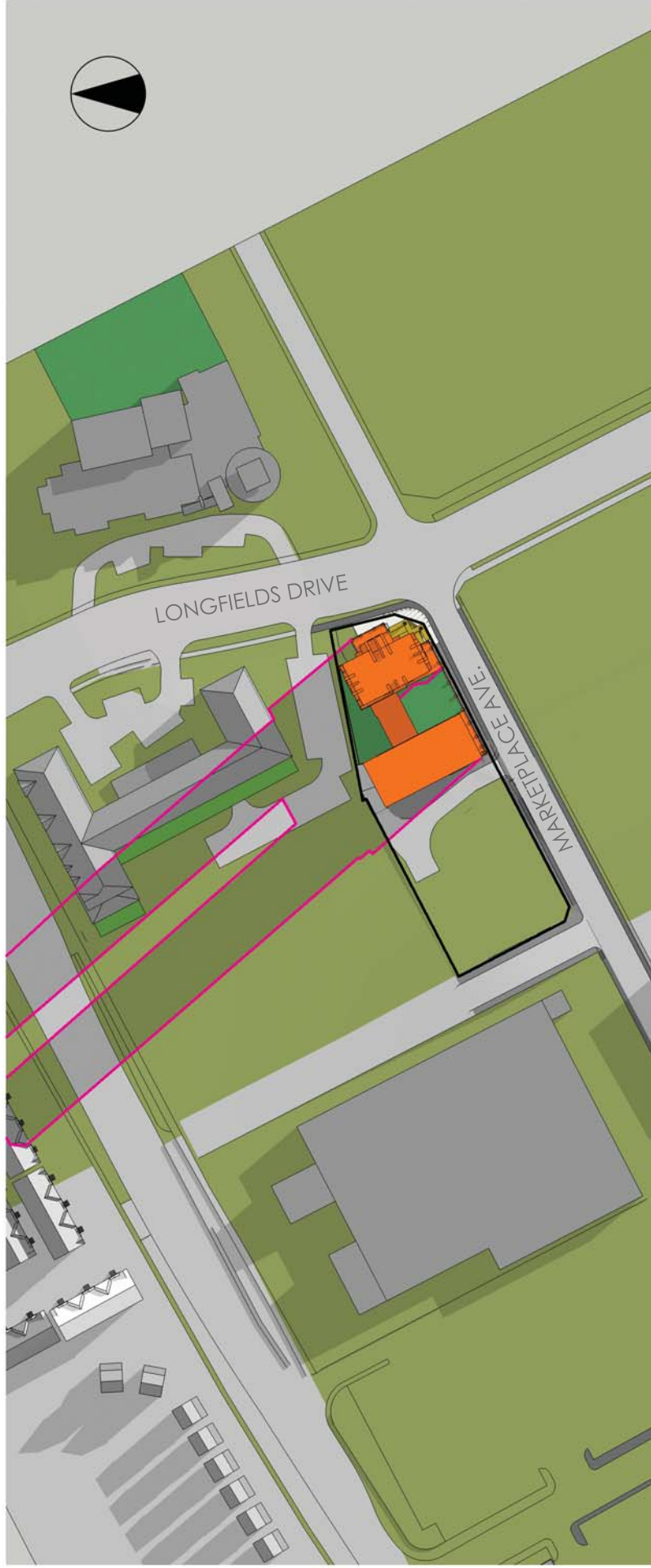
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: JUNE 21 TEST TIME: 20:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

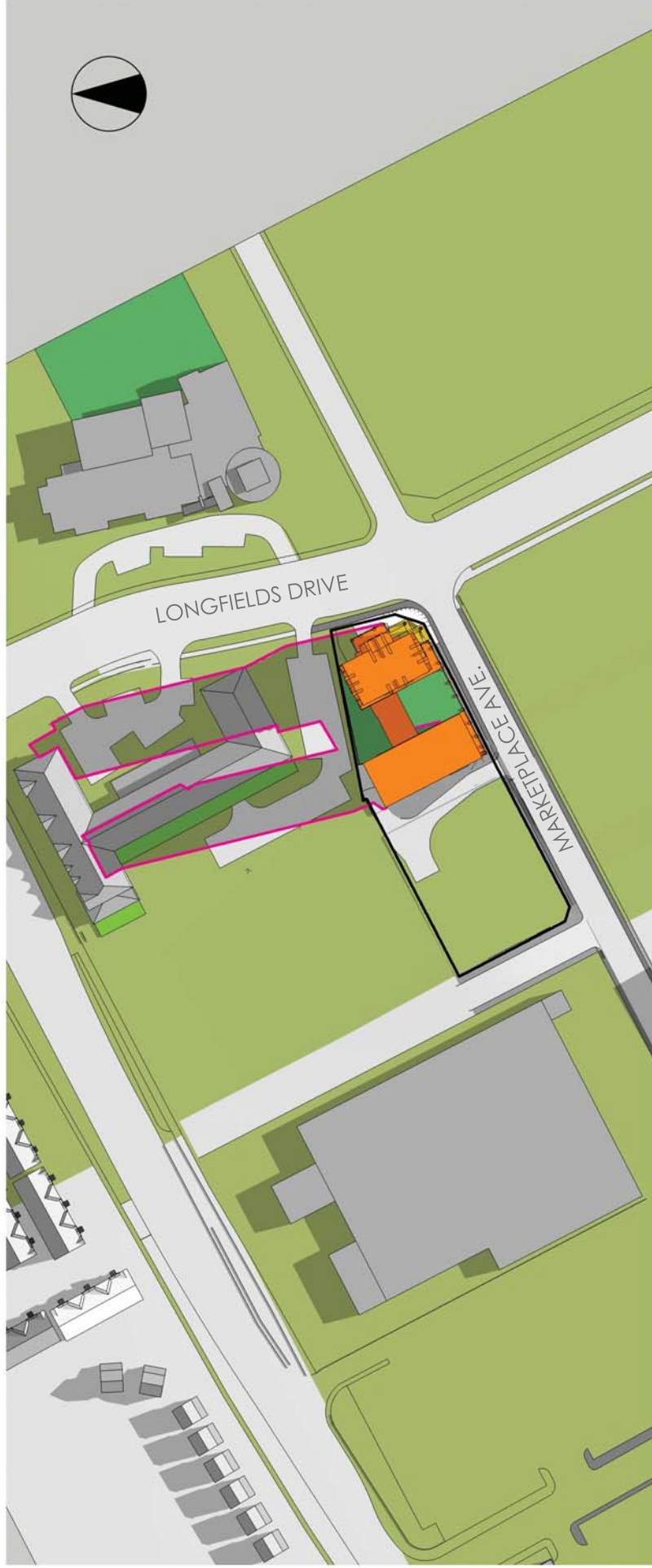
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: DECEMBER 21 TEST TIME: 09:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

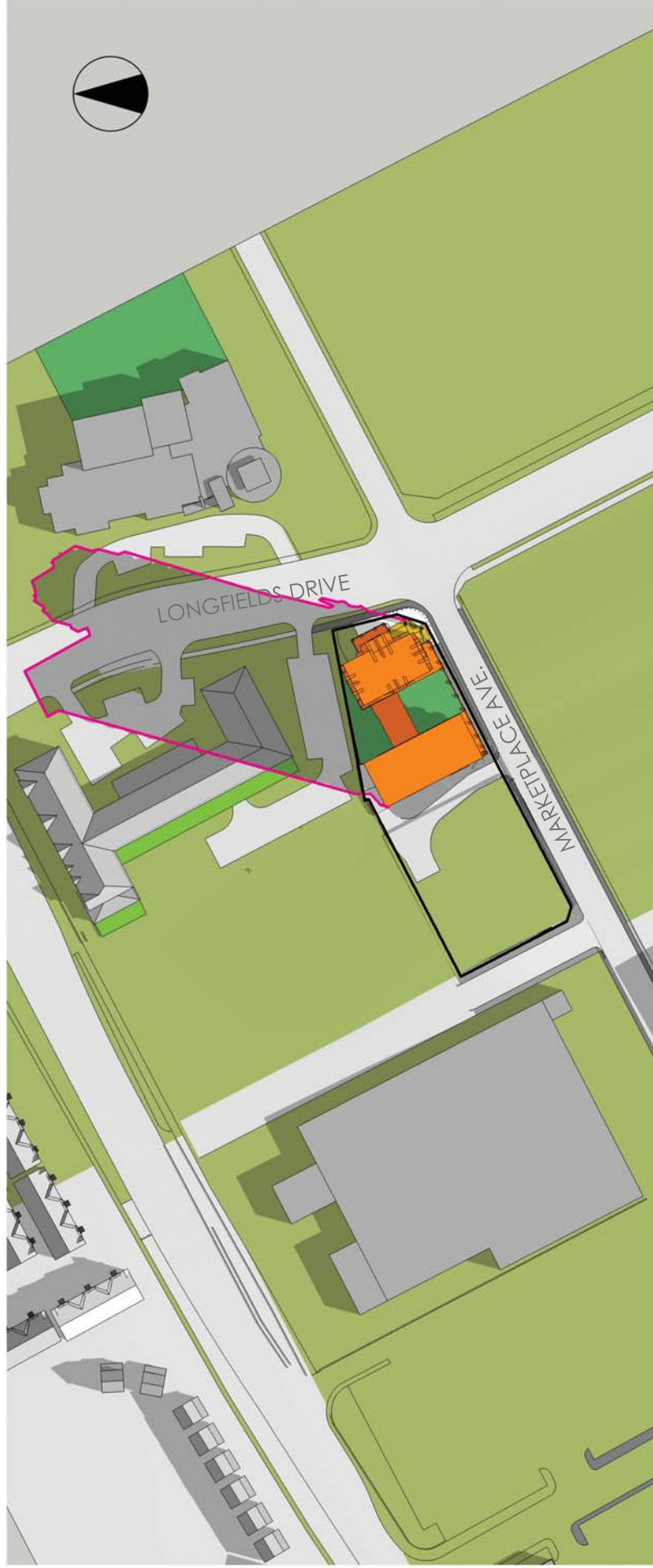
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: DECEMBER 21 TEST TIME: 11:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

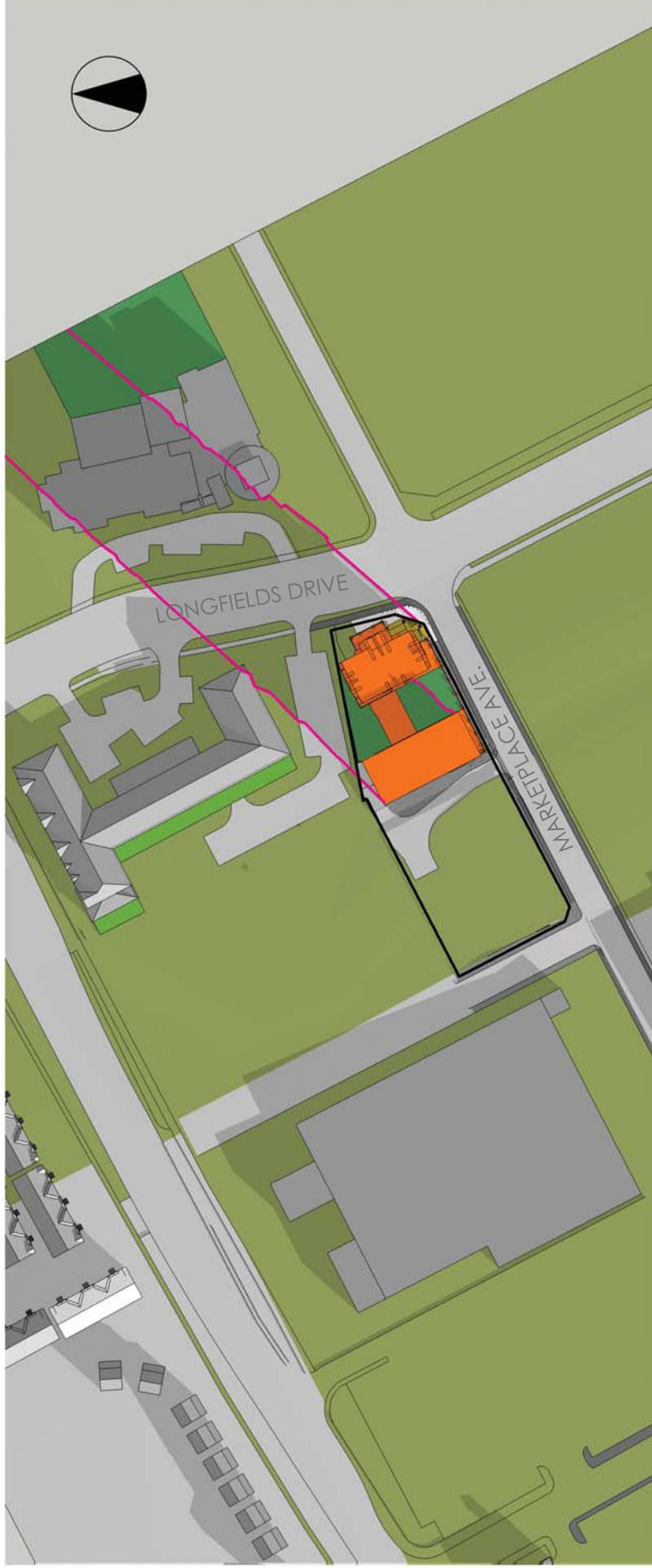
NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: DECEMBER 21 TEST TIME: 13:00

PROPOSED DEVELOPMENT
 PUBLIC SPACE
 COMMUNAL AMENITY AREA
 GROUND LEVEL RESIDENTIAL PRIVATE OUTDOOR AMENITY SPACE
 PROPOSED SHADOW OUTLINE

NOTE: THE PROPOSED DEVELOPMENT = THE AS-OF-RIGHT DEVELOPMENT SHADOW OUTLINE. THE NET NEW SHADOW IMPACT IS ZERO.



TEST DATE: DECEMBER 21 TEST TIME: 15:00