

ADDENDUM
WATERLOO METRO QUARTER
SYDNEY, NEW SOUTH WALES



OVERSHADOWING ANALYSIS

RWDI PROJECT #1904405
26 MARCH 2021

SUBMITTED TO

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ABN 86 641 303 871

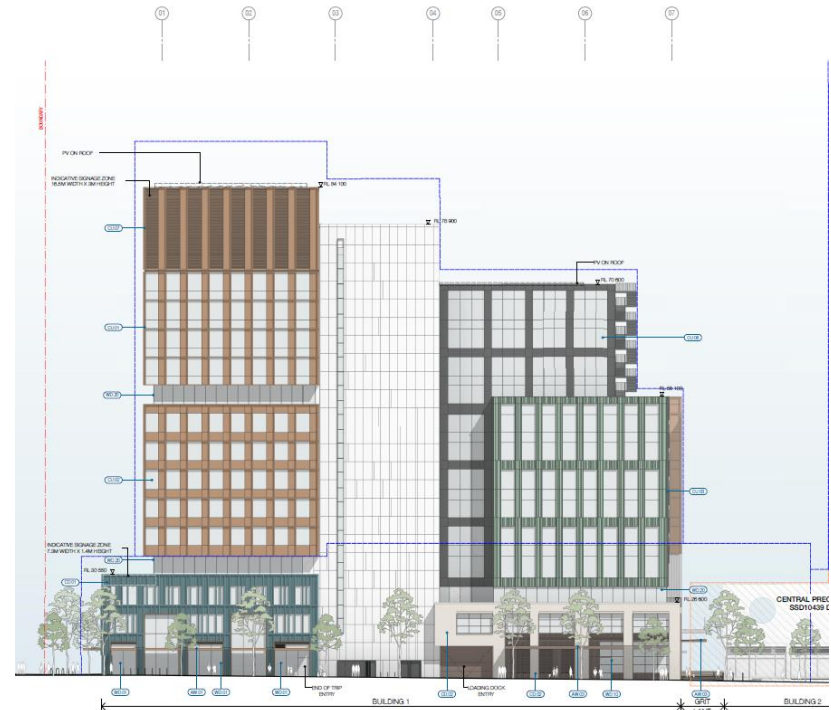
INTRODUCTION



Since the submission of the Environmental Impact Statement Appendix MM – Overshadowing Analysis as part of the Detailed SSDA for the Waterloo Metro Quarter Over Station Development (SSD-10437, SSD-10439, and SSD-10440), the overall height and built form of Building 1 in the Northern Precinct has changed. The revisions include a reduction in height of the building, including the removal of one storey (indicatively shown in the image on the right), and increased in plan dimensions to the south and west for Level 9 to 12.

Additional shadow simulations have been undertaken to demonstrate the impact on surrounding conditions. These have demonstrated that there are no significant changes to the overshadowing and no changes to the conclusions of the original report.

The following pages contain updates to images reflecting the minor changes to those presented in the original EIS Appendix MM: Figures 13 and 14, Appendices 4 through 7.



RESULTS



Neighbouring Residential Properties



Figure 13: Grade Level Areas Where Direct Solar Access is Reduced from At or Above 2 Hours to Less Than 2 Hours on 21 June Due to the Approved DA Envelope Design Scheme (left) and the Proposed Scheme (right)

RESULTS



Neighbouring Residential Properties

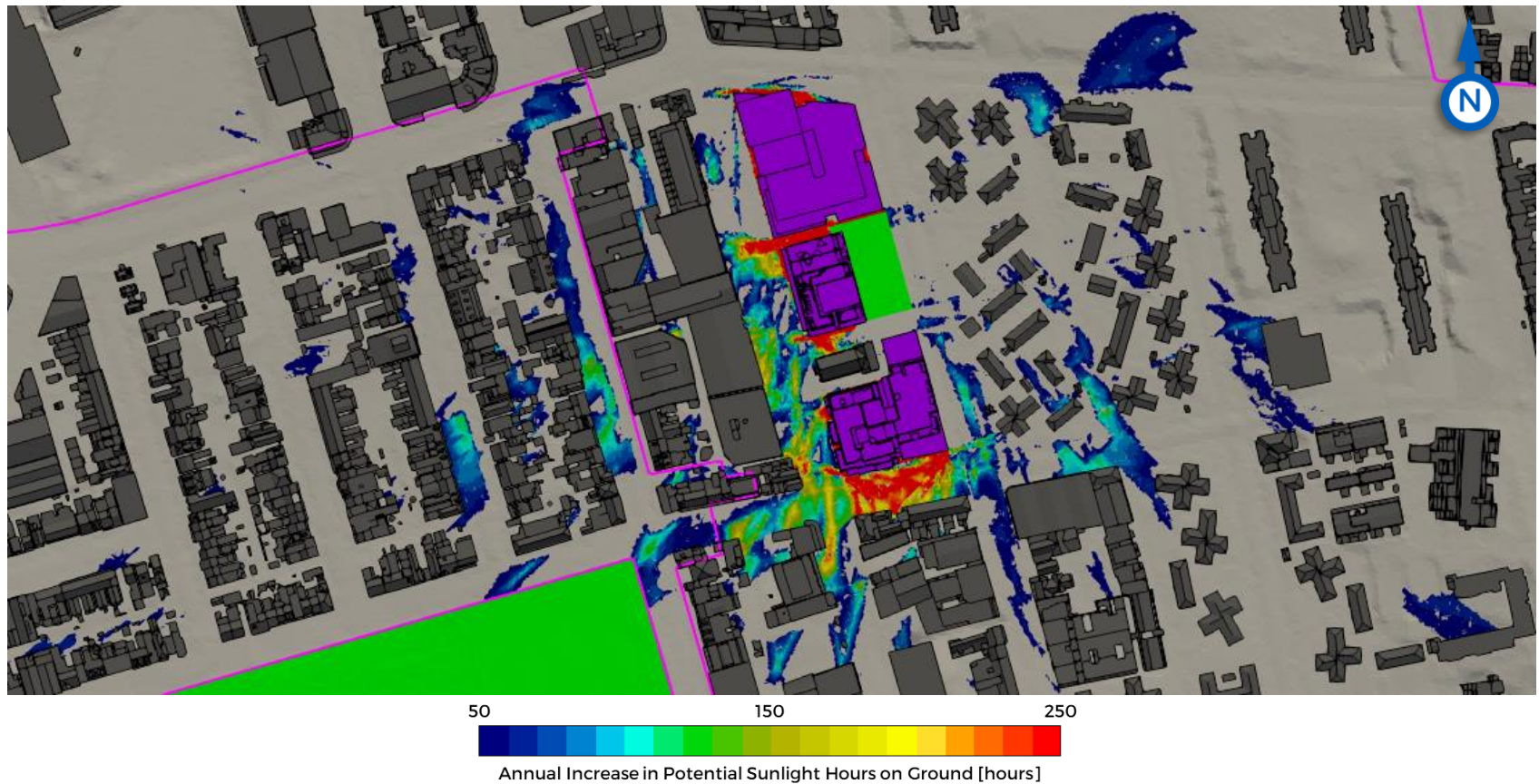


Figure 14: Annual Increase in Potential Sunlight Hours on Ground Due to Proposed Scheme Compared to Approved DA Envelope Design Scheme



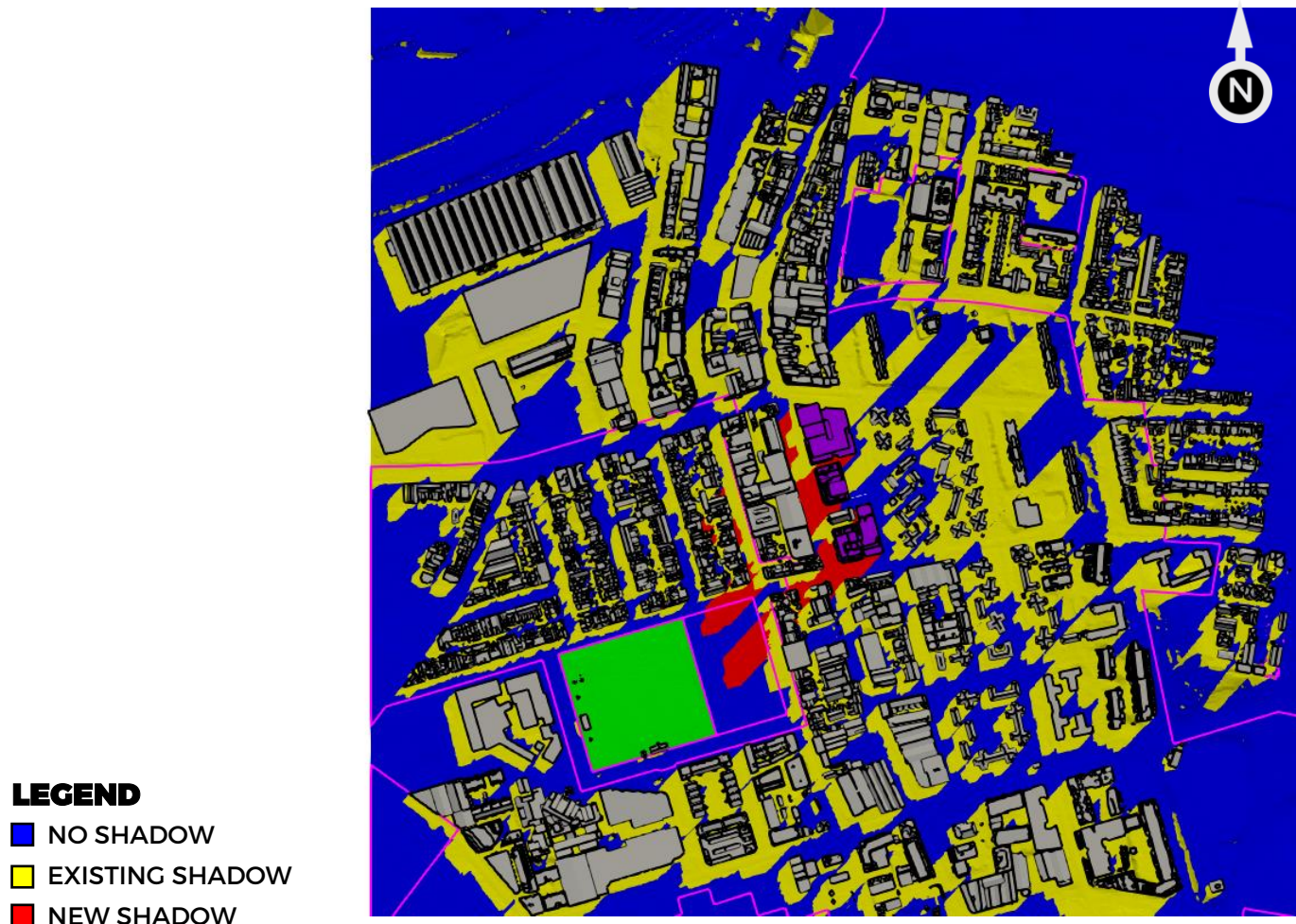
APPENDIX 4

**POINT-IN-TIME SHADOW DIAGRAMS – FULL DOMAIN
21 JUNE**

POINT-IN-TIME SHADOW PLOTS



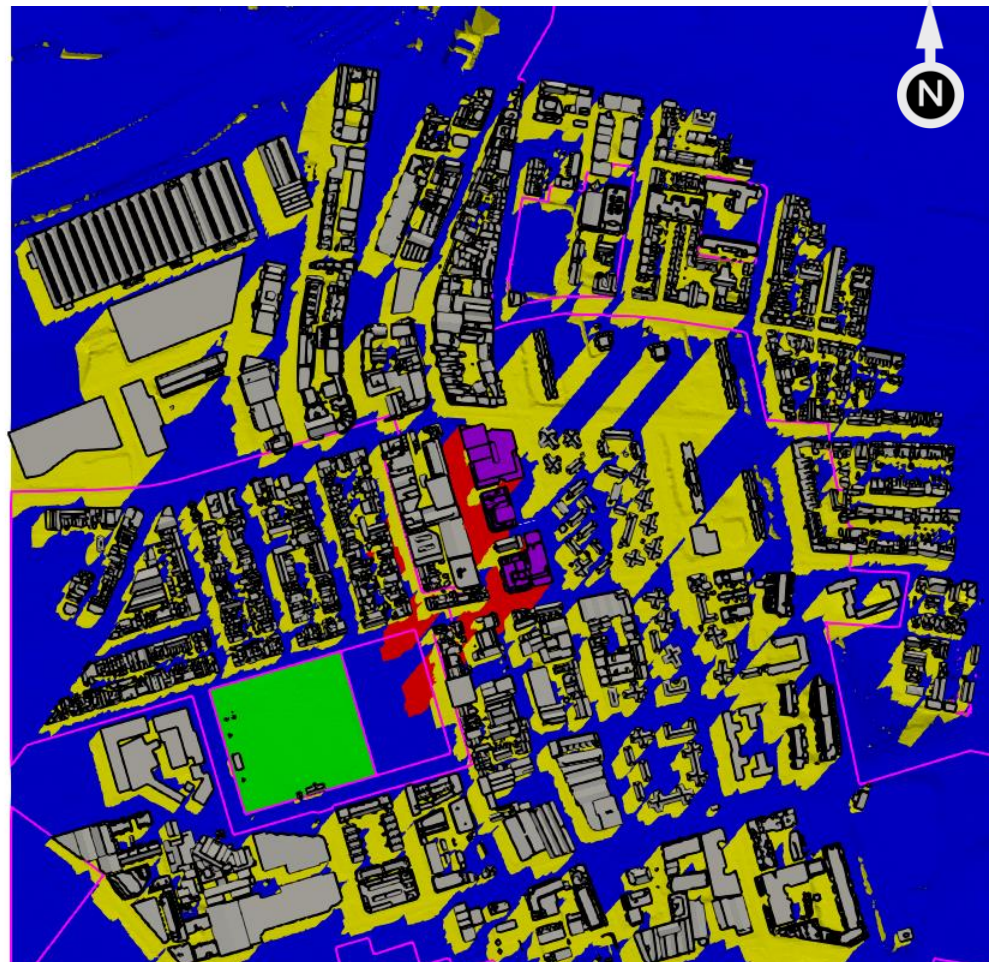
21 June – 9:00 AEST



POINT-IN-TIME SHADOW PLOTS



21 June – 9:15 AEST



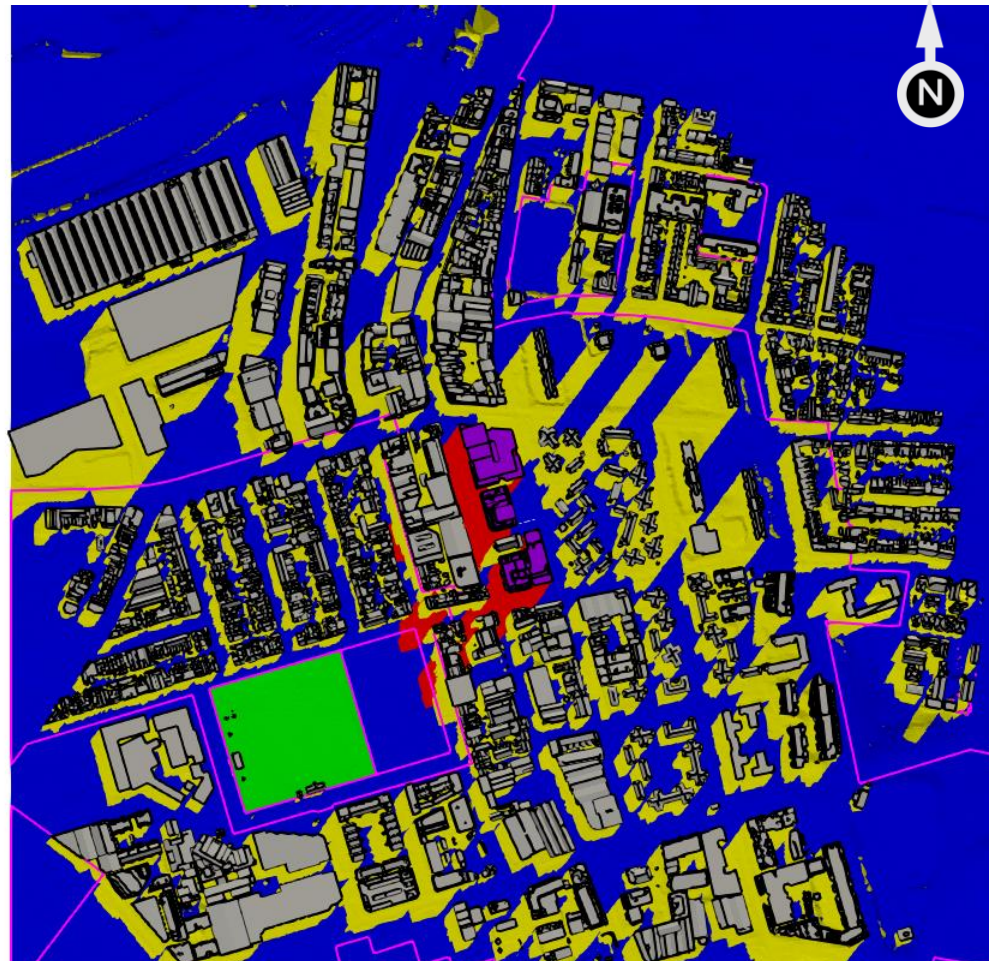
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- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 June – 9:30 AEST



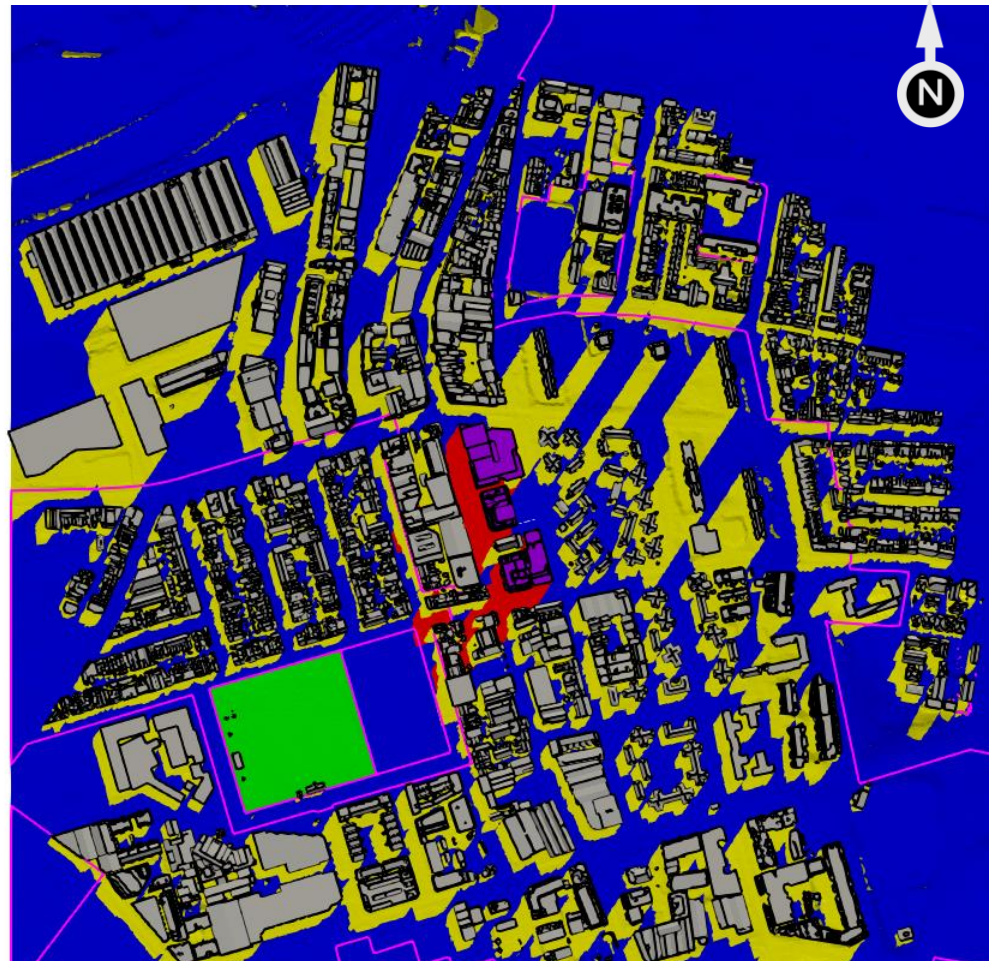
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POINT-IN-TIME SHADOW PLOTS



21 June – 9:45 AEST



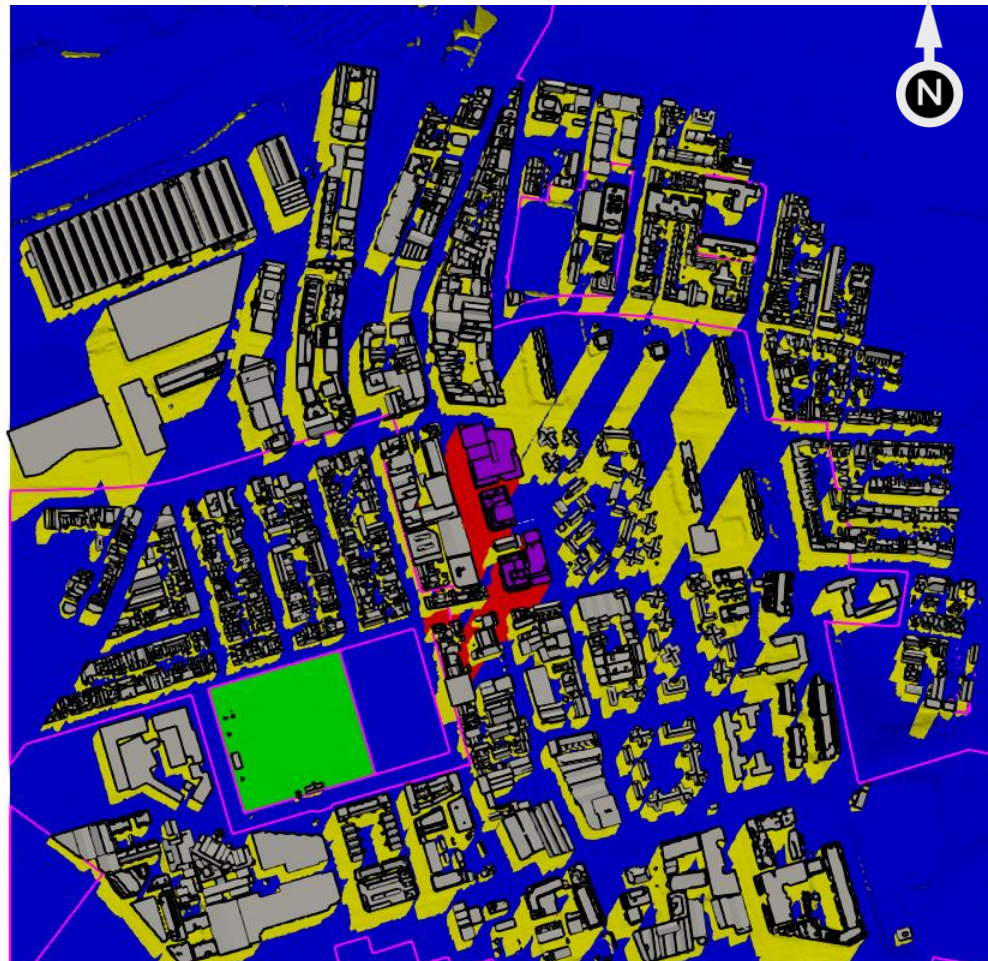
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POINT-IN-TIME SHADOW PLOTS



21 June – 10:00 AEST



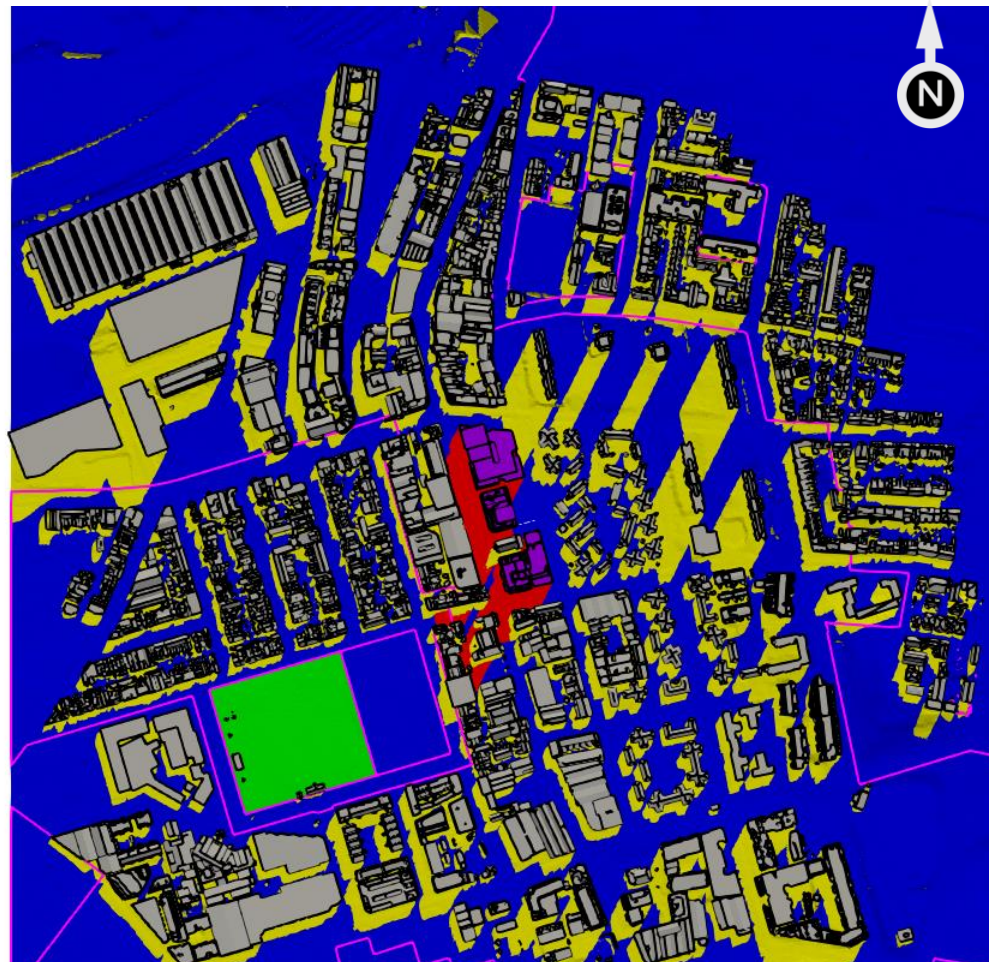
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POINT-IN-TIME SHADOW PLOTS



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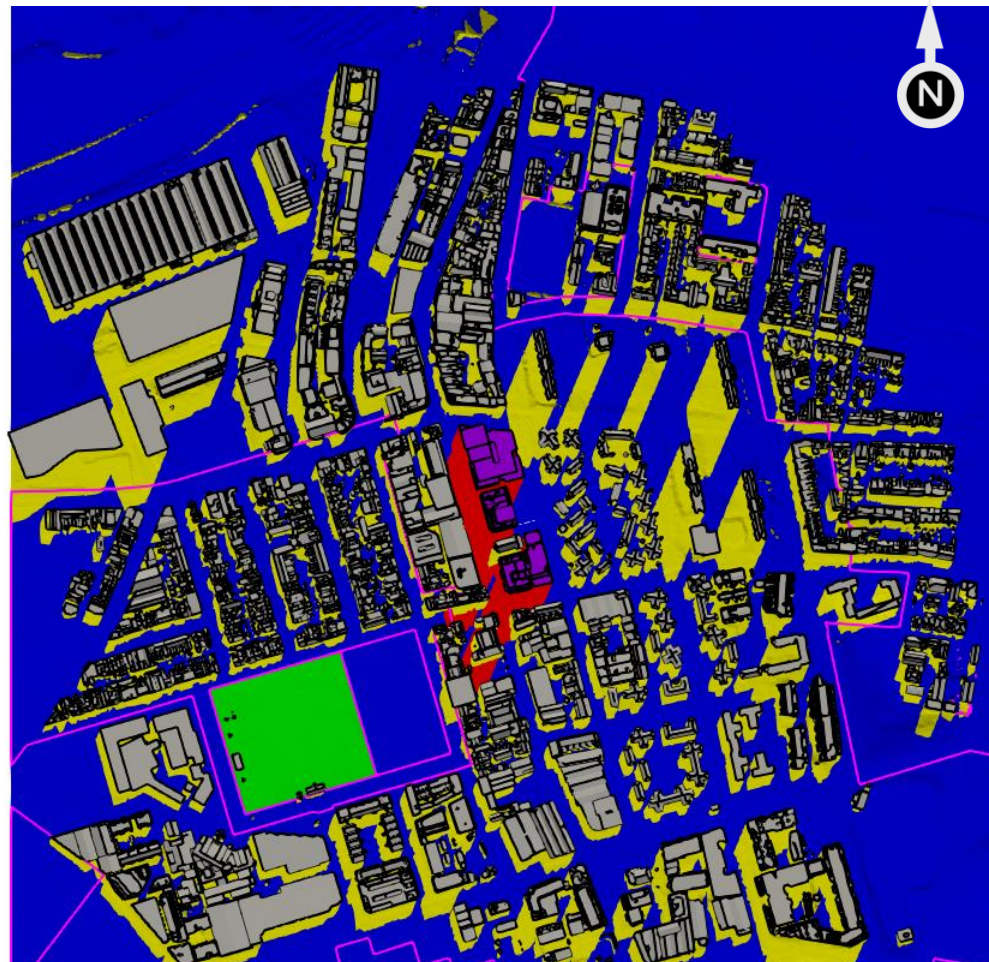
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POINT-IN-TIME SHADOW PLOTS



21 June – 10:30 AEST



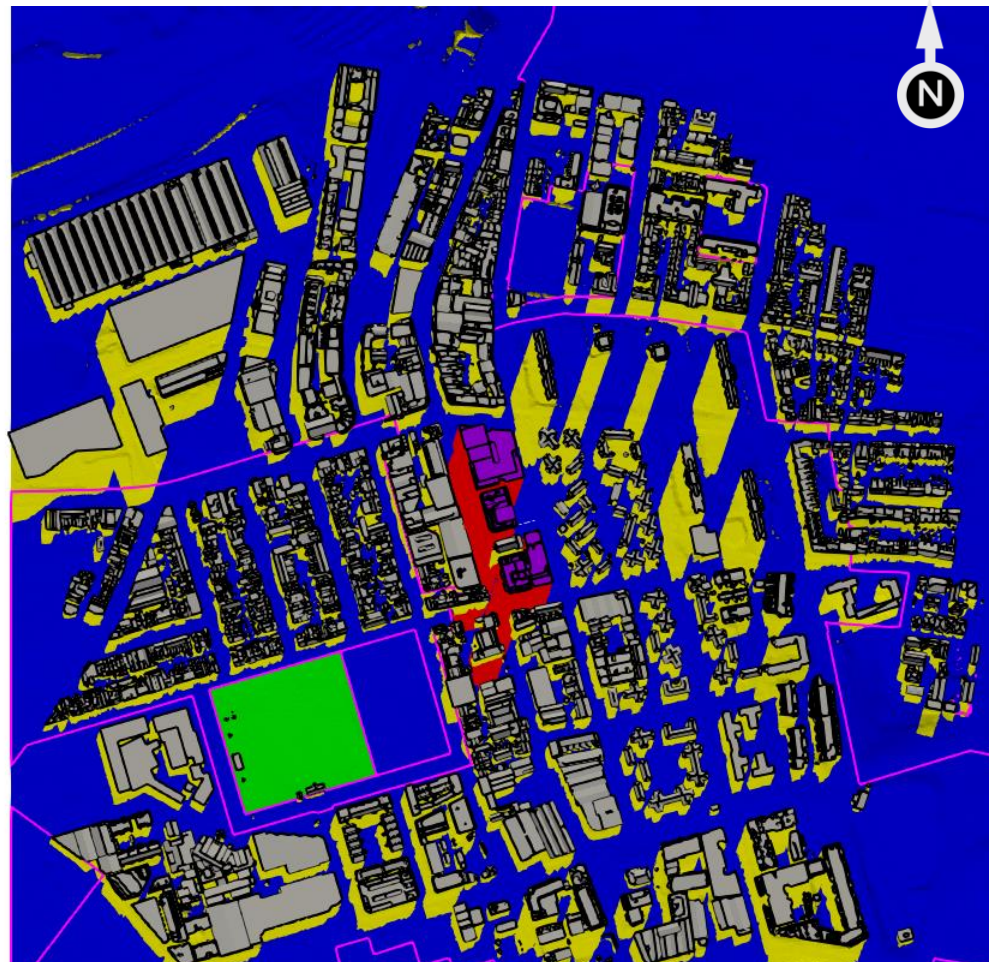
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POINT-IN-TIME SHADOW PLOTS



21 June – 10:45 AEST



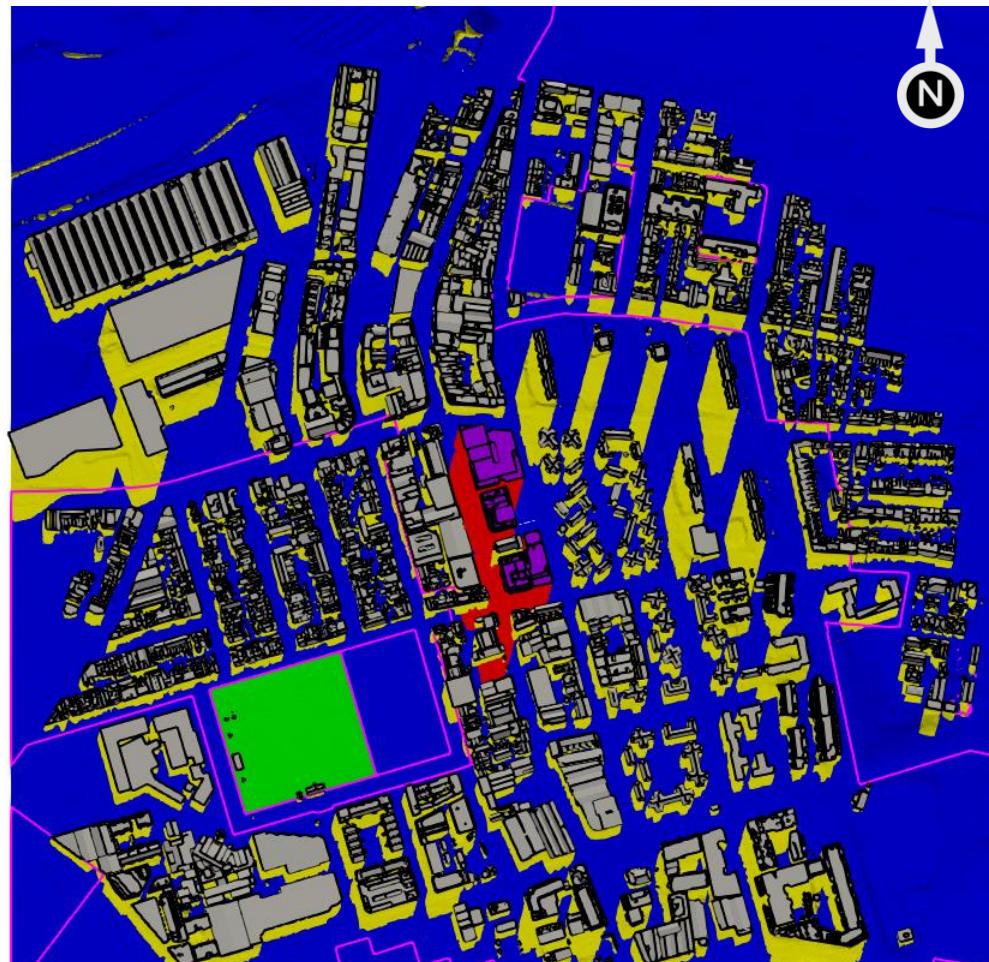
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POINT-IN-TIME SHADOW PLOTS



21 June – 11:00 AEST



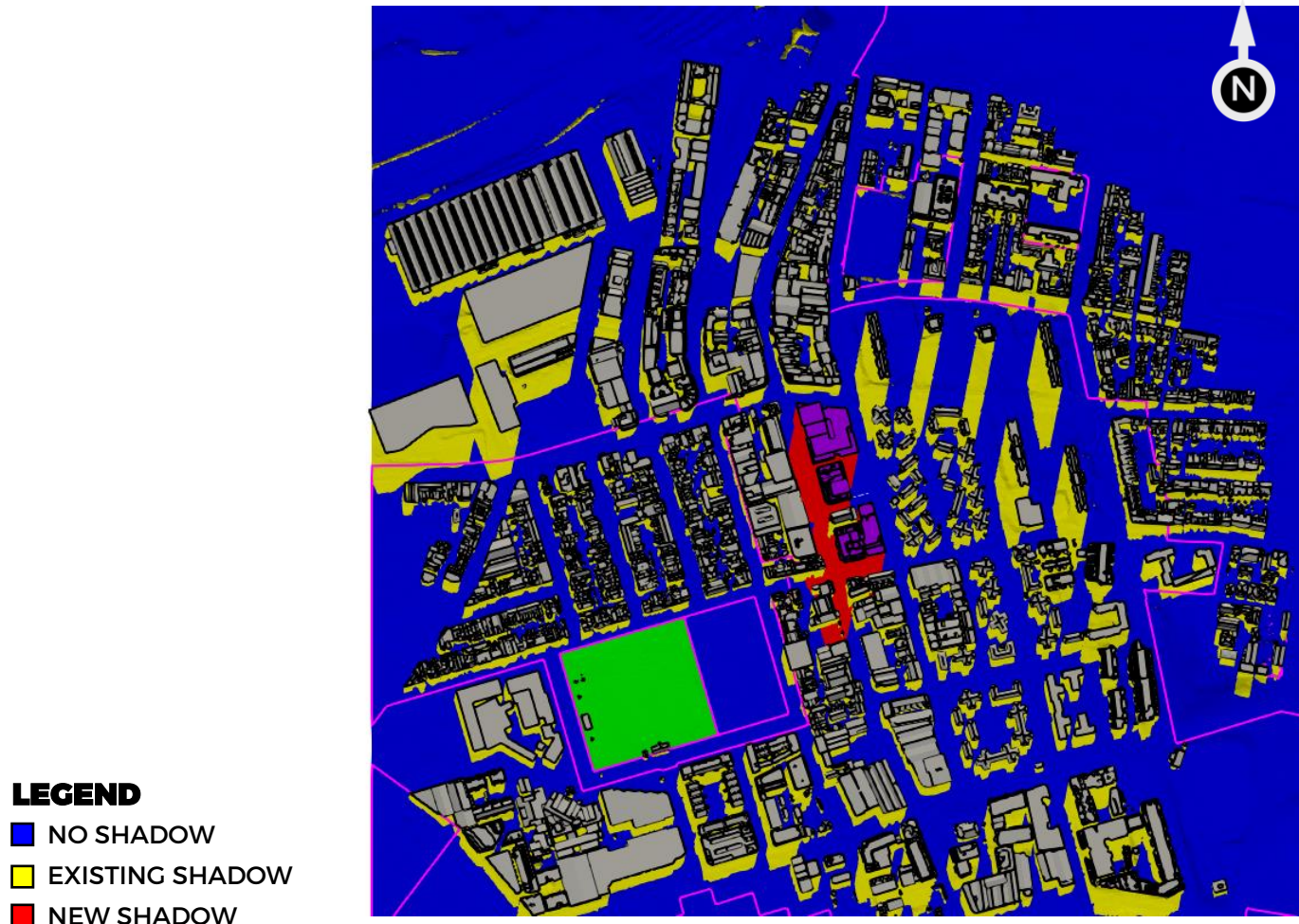
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POINT-IN-TIME SHADOW PLOTS



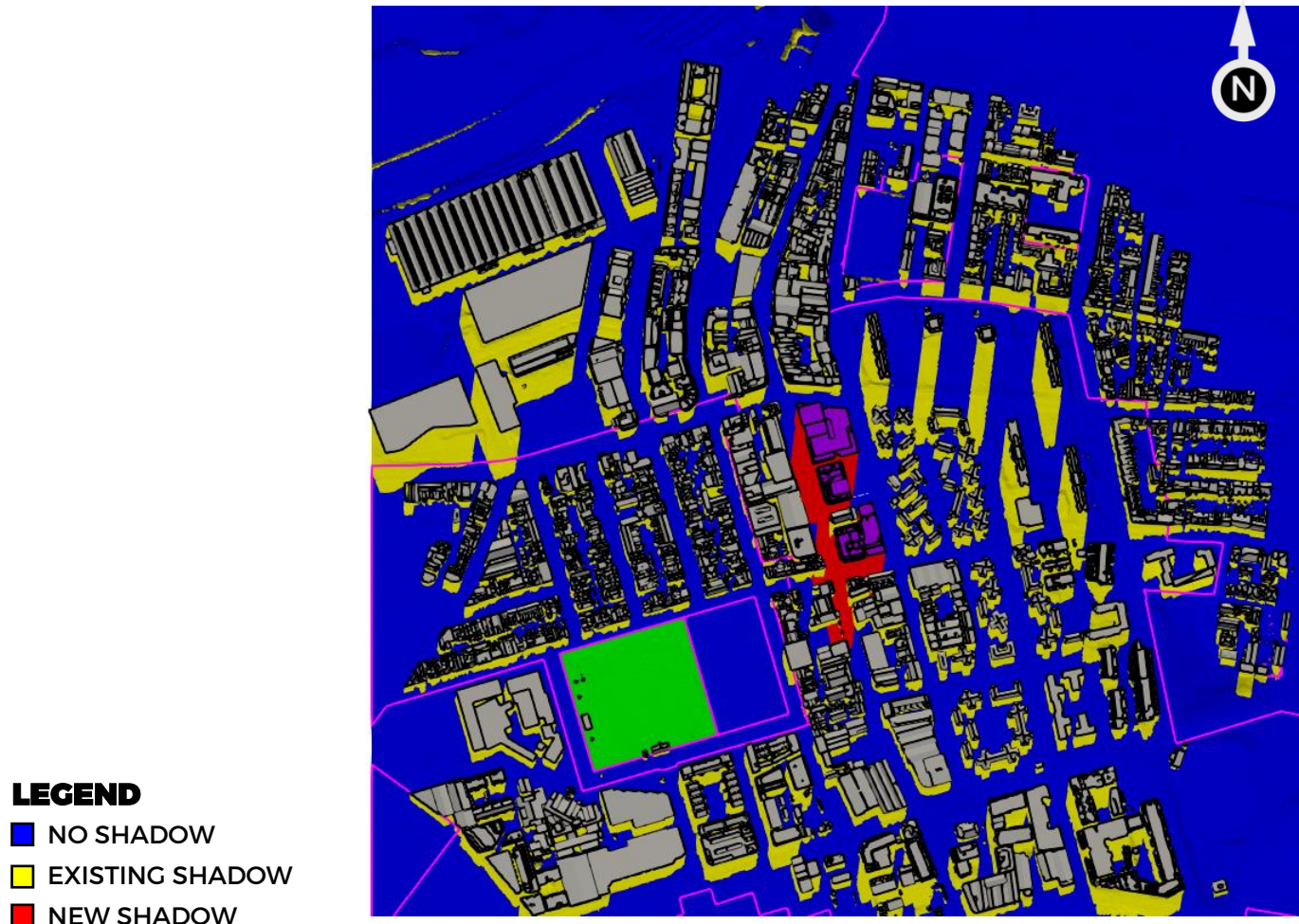
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POINT-IN-TIME SHADOW PLOTS



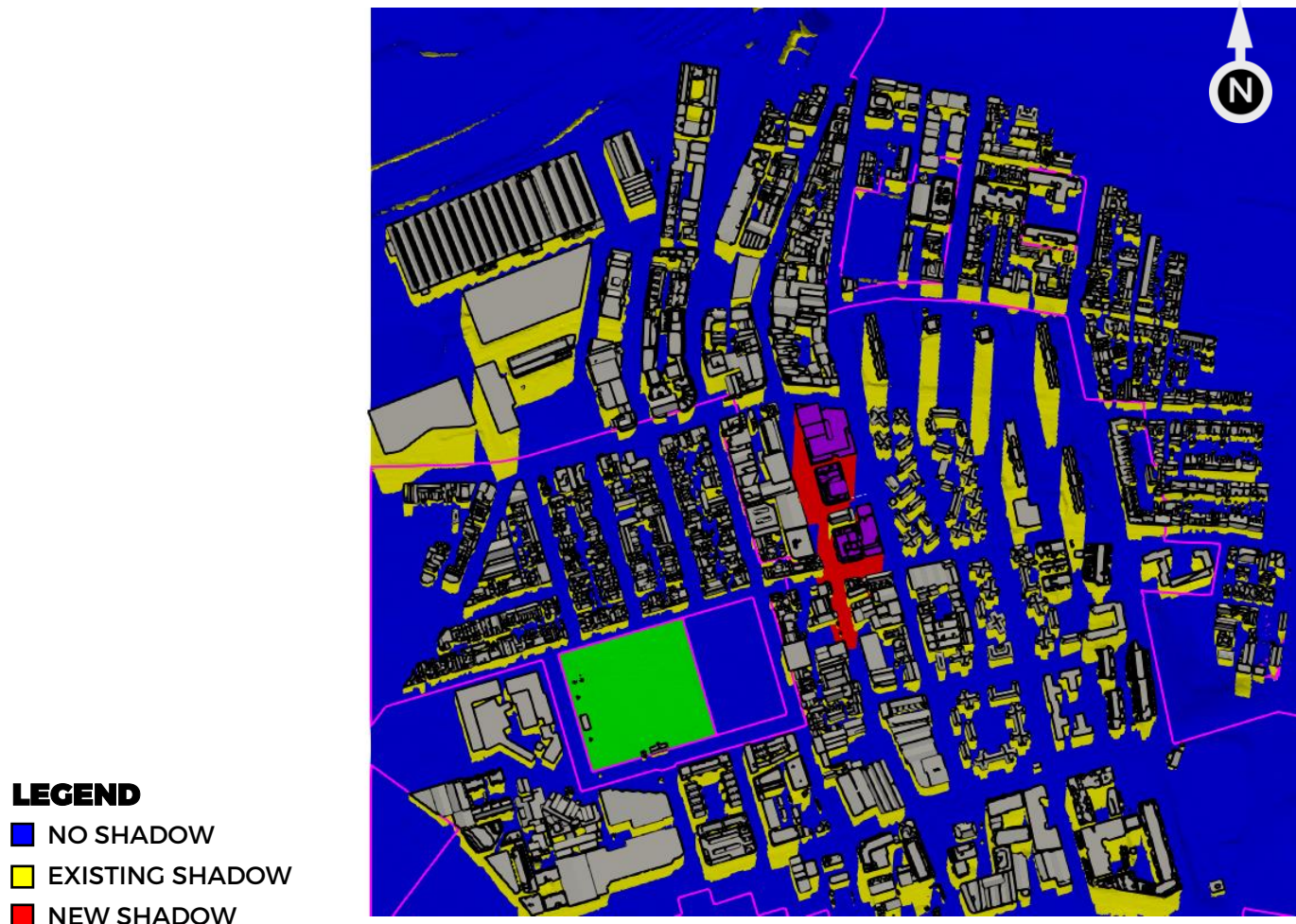
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POINT-IN-TIME SHADOW PLOTS



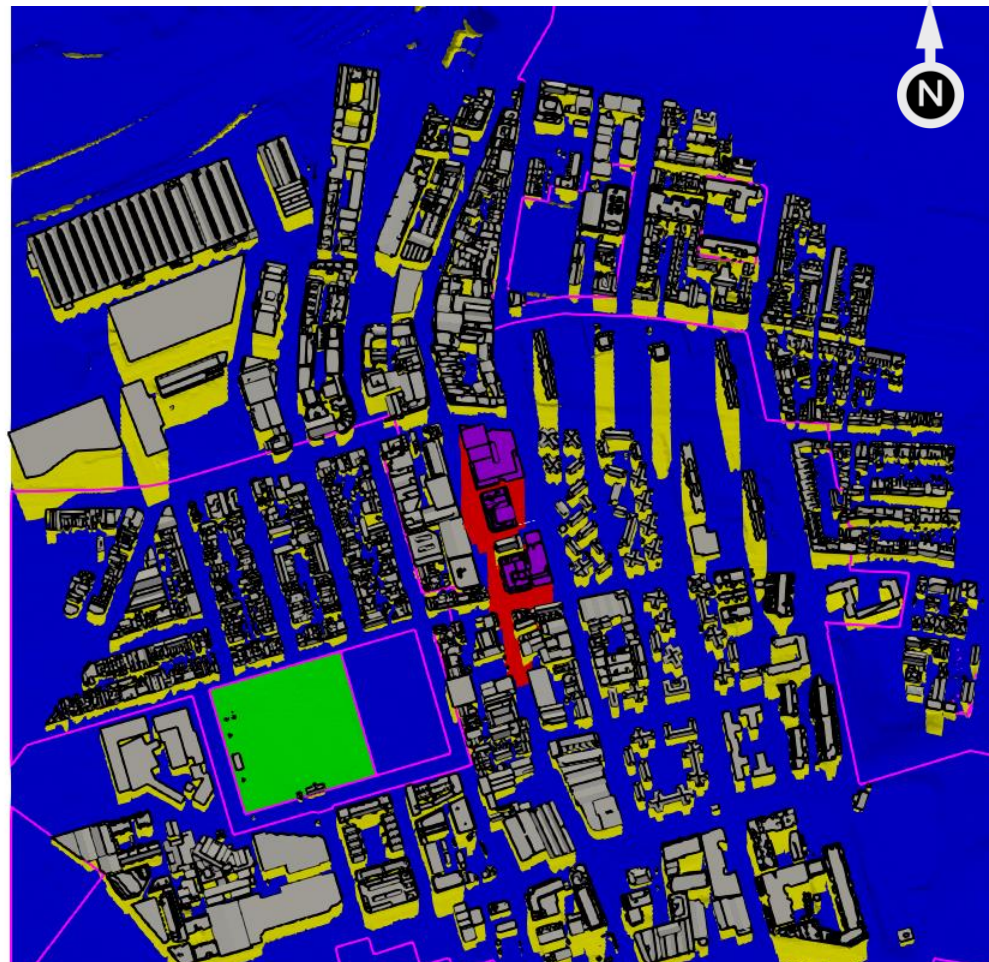
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POINT-IN-TIME SHADOW PLOTS



21 June – 12:00 AEST



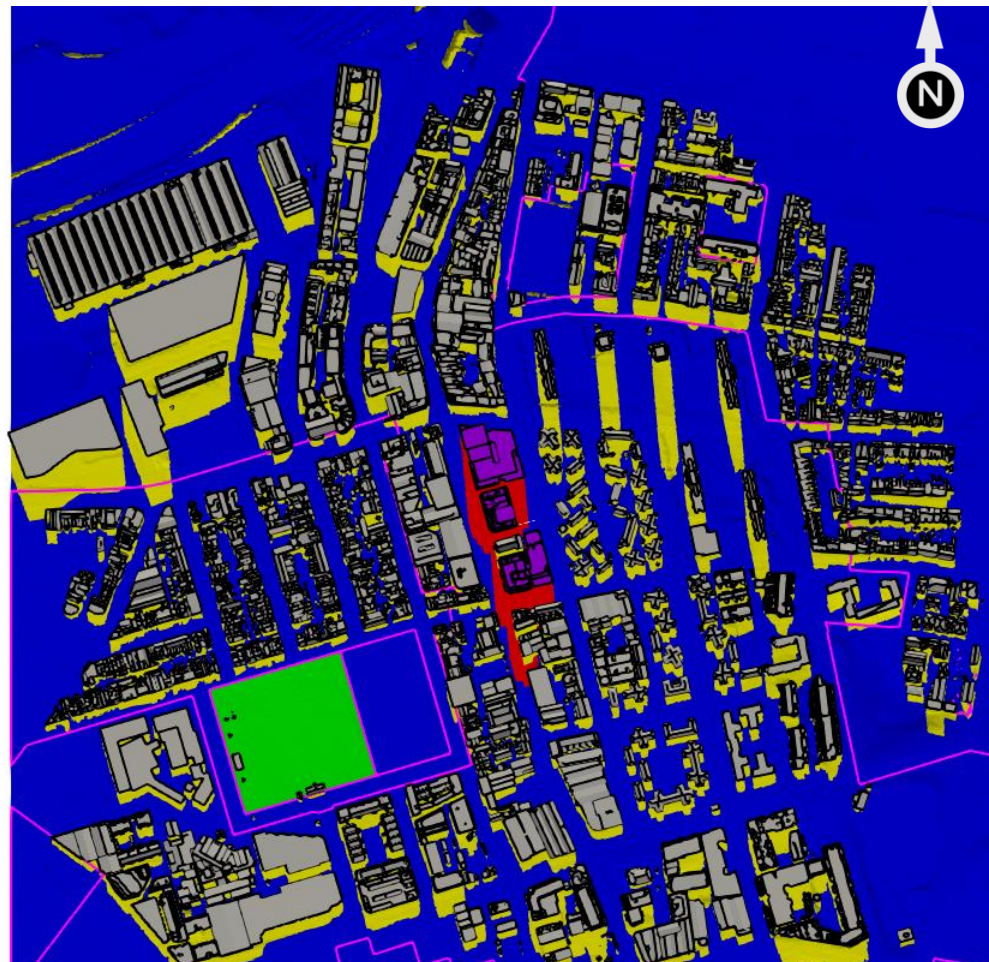
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POINT-IN-TIME SHADOW PLOTS



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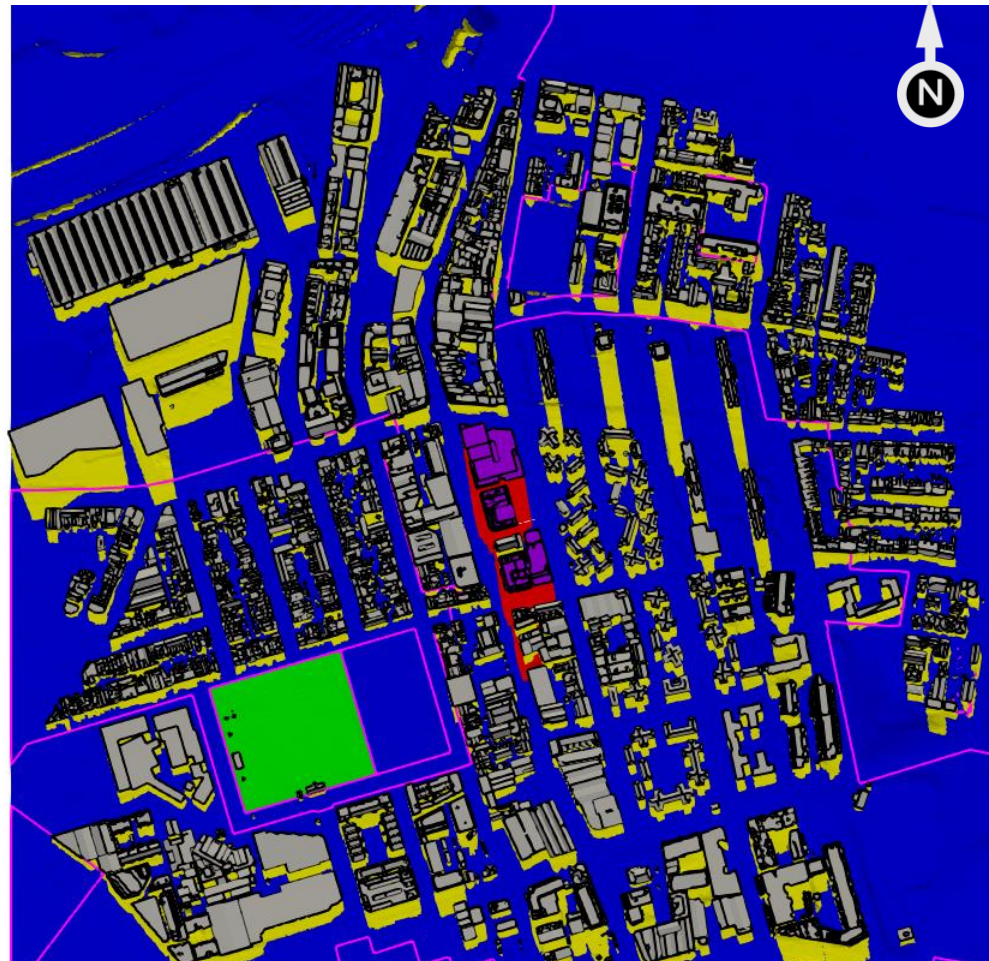
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POINT-IN-TIME SHADOW PLOTS



21 June – 12:30 AEST



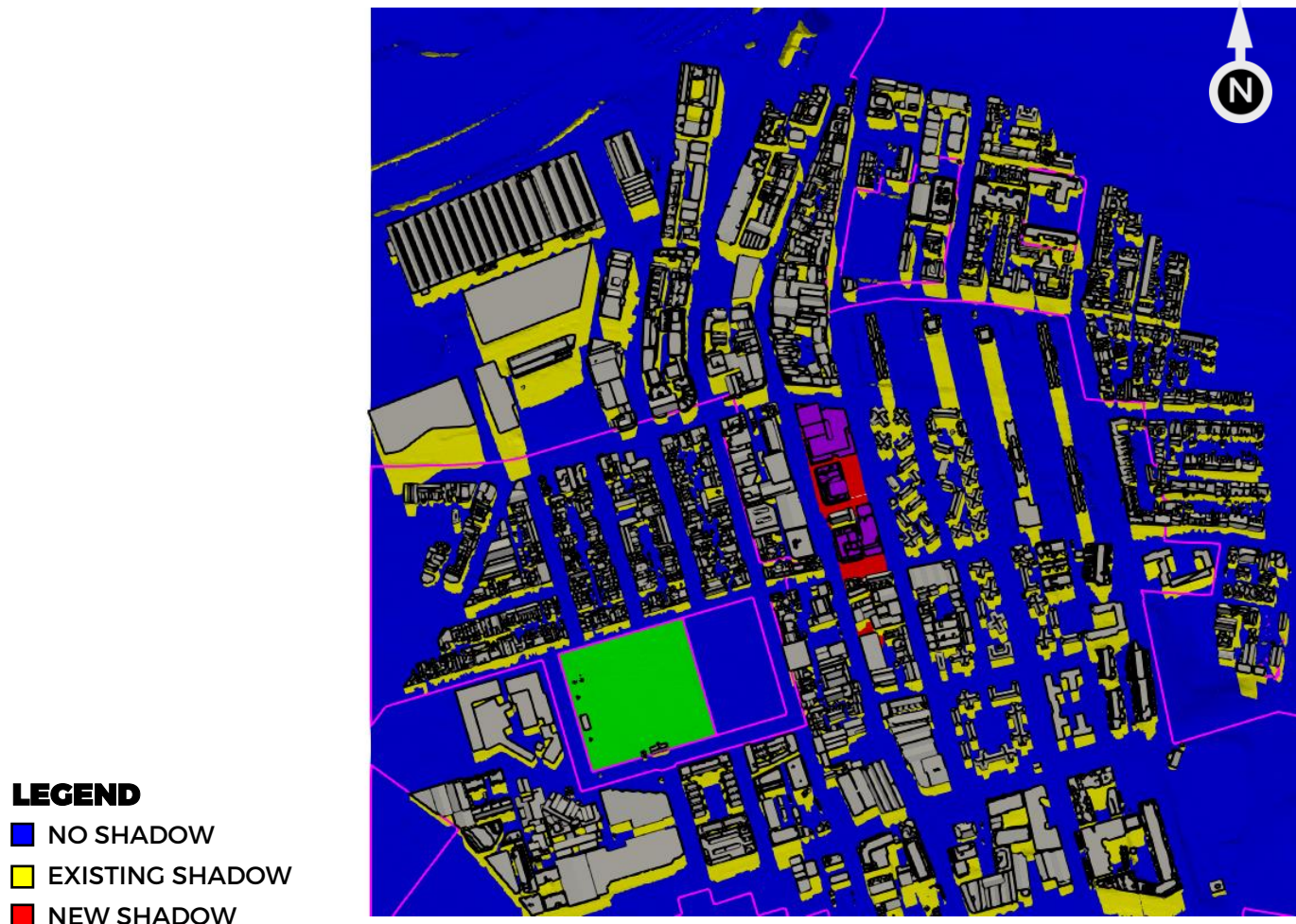
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POINT-IN-TIME SHADOW PLOTS



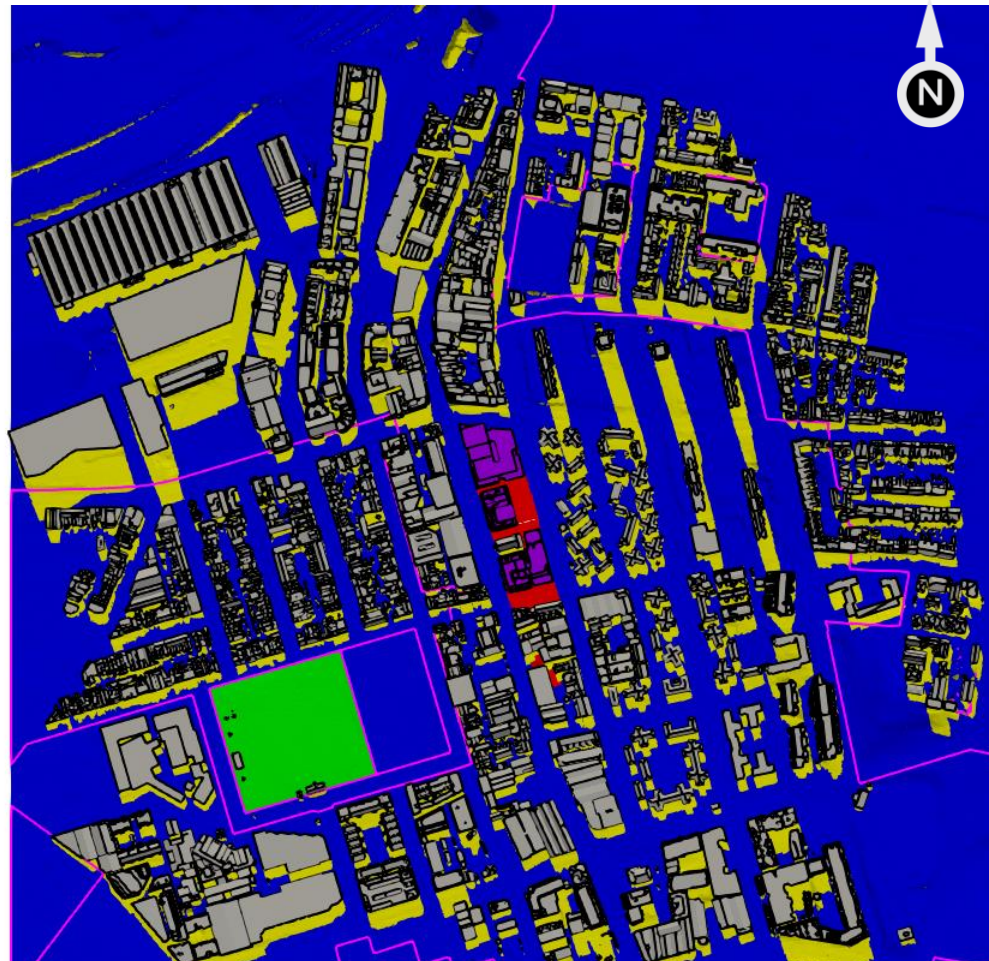
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POINT-IN-TIME SHADOW PLOTS



21 June – 1:00 AEST



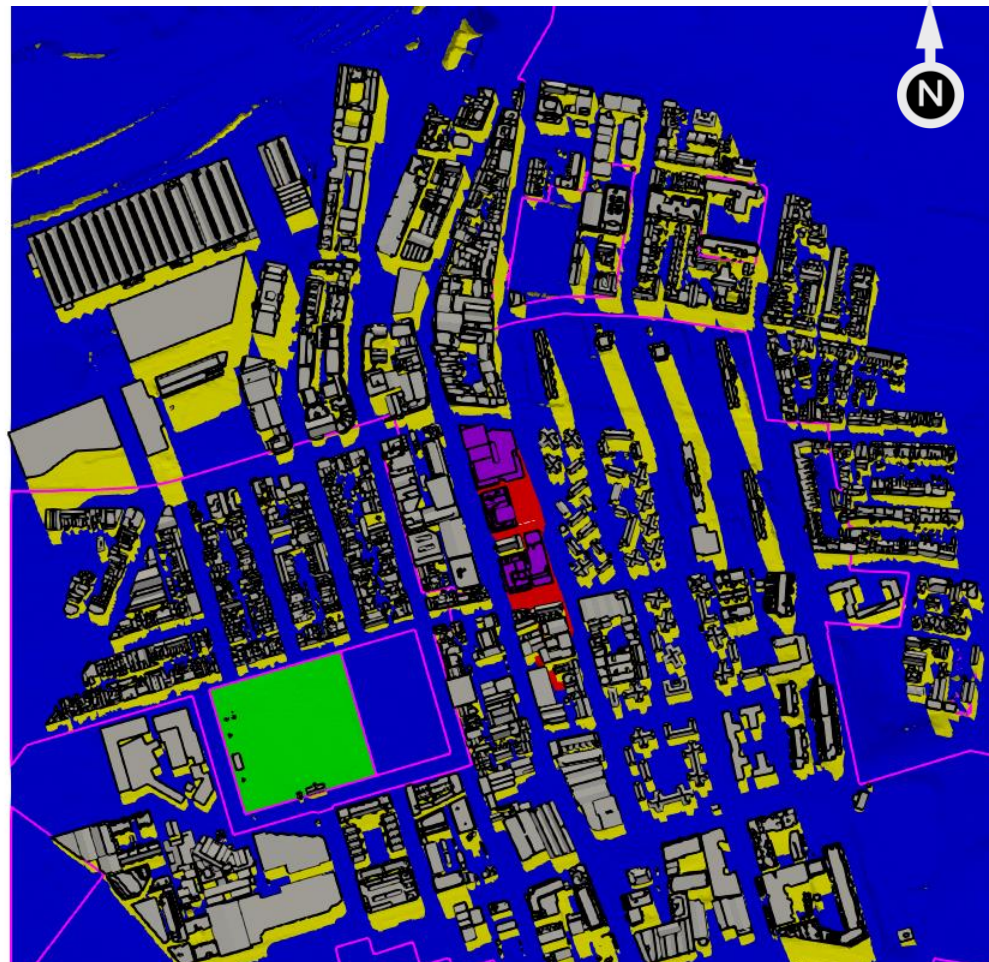
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POINT-IN-TIME SHADOW PLOTS



21 June – 1:15 AEST



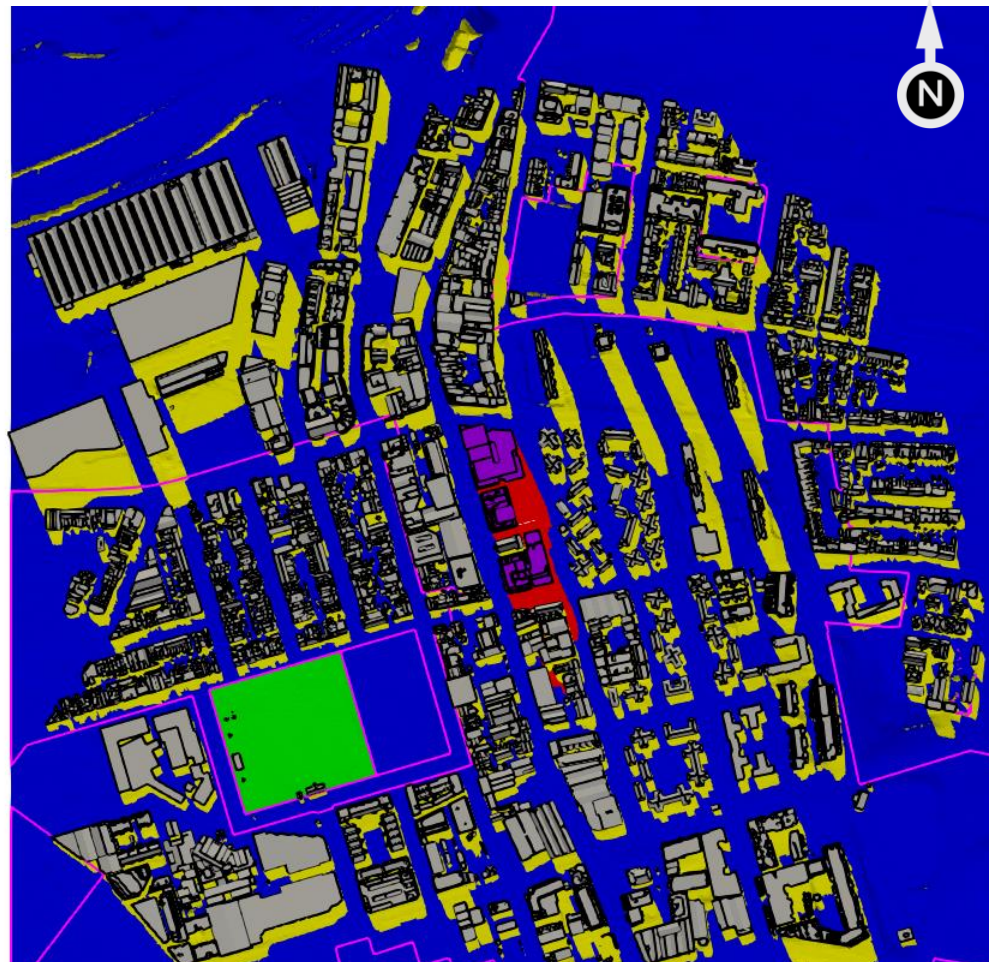
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POINT-IN-TIME SHADOW PLOTS



21 June – 1:30 AEST



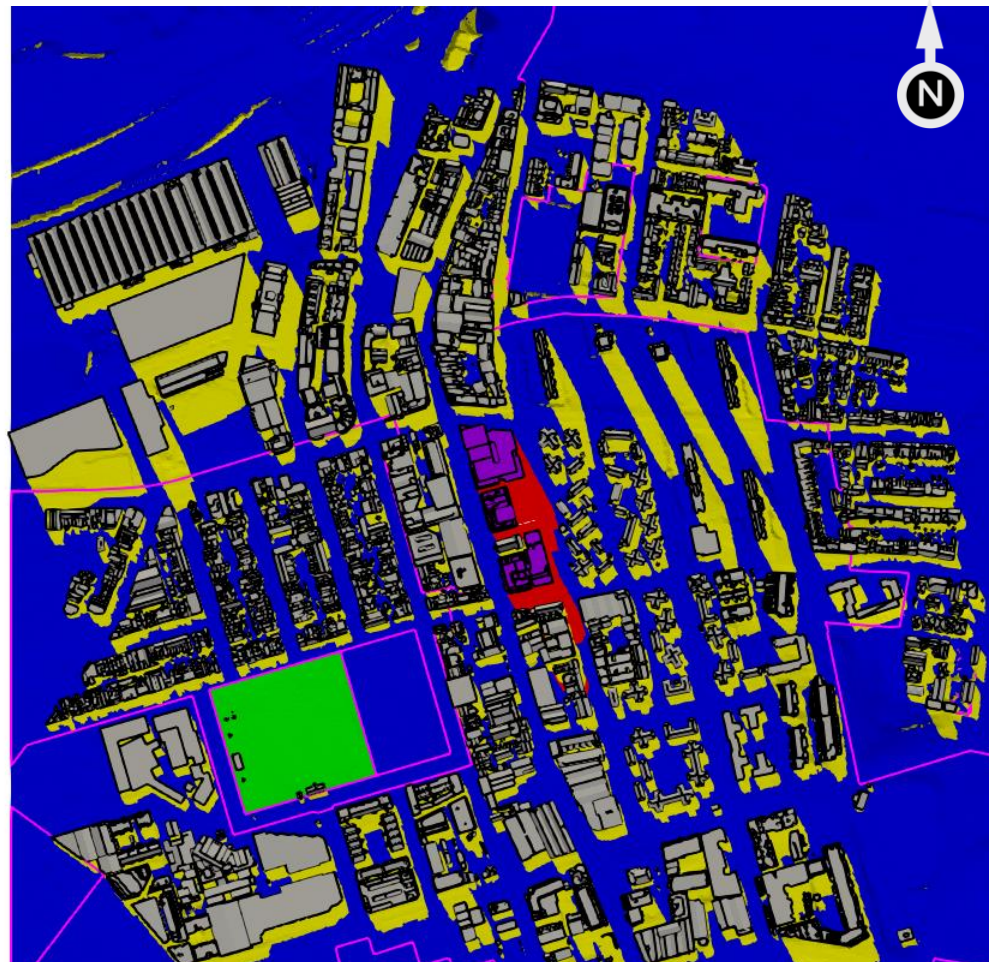
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POINT-IN-TIME SHADOW PLOTS



21 June – 1:45 AEST



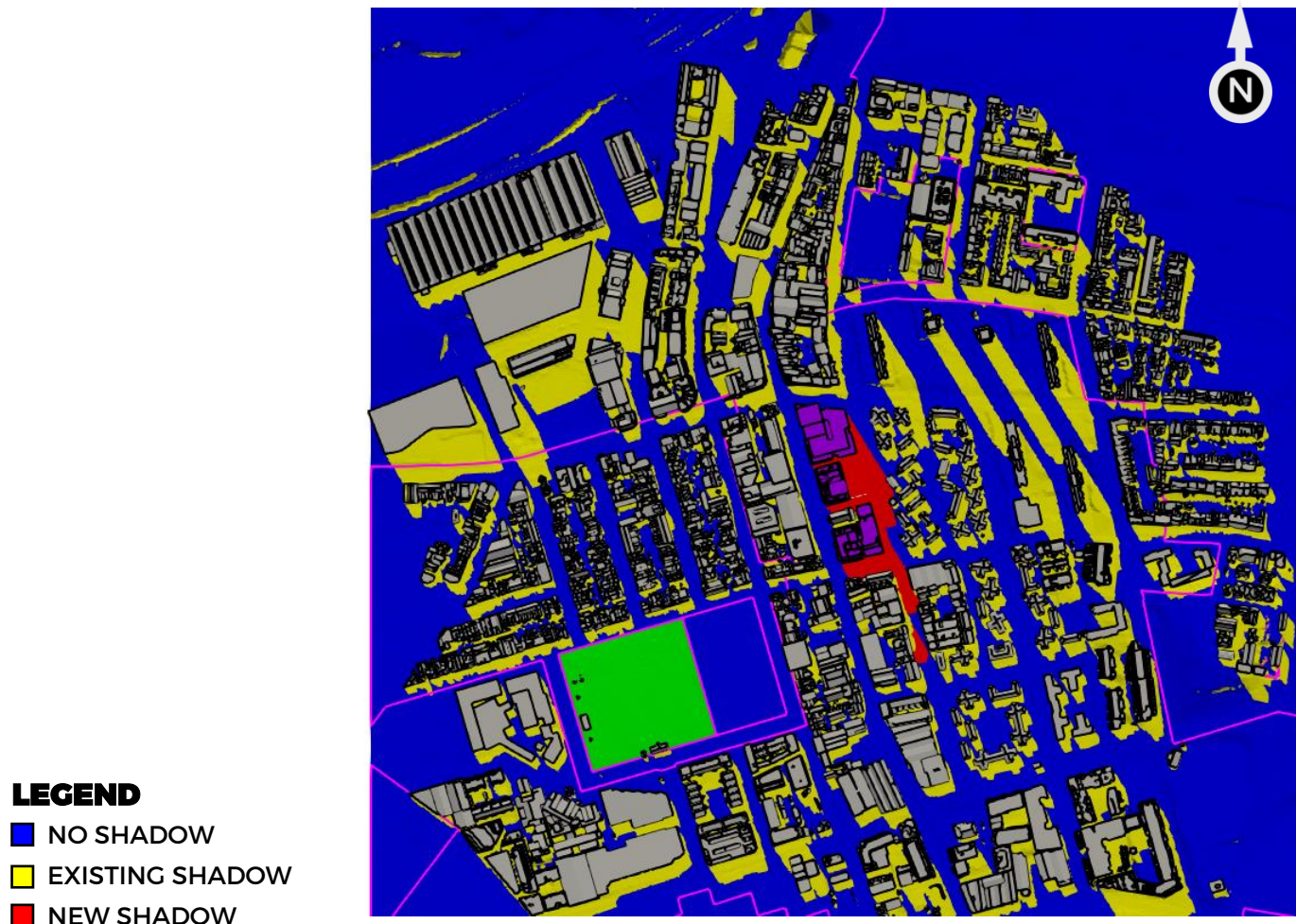
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POINT-IN-TIME SHADOW PLOTS



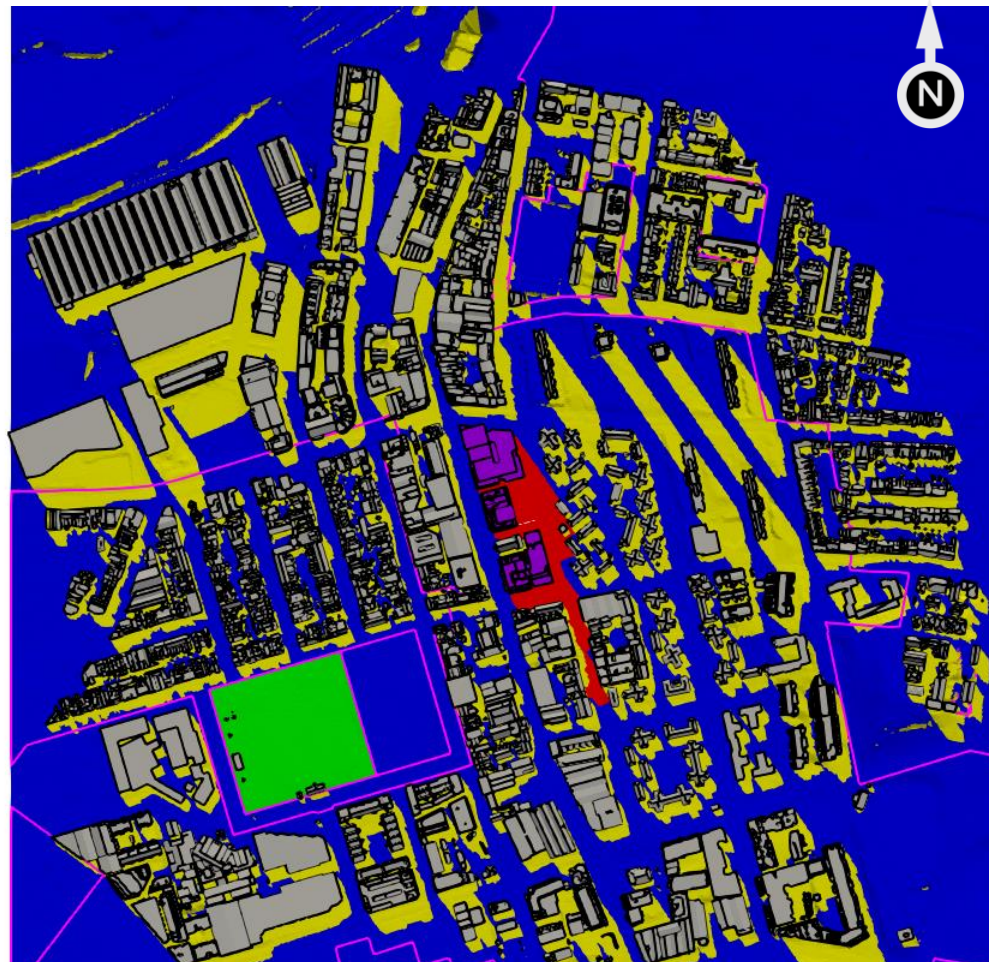
21 June – 2:00 AEST



POINT-IN-TIME SHADOW PLOTS



21 June – 2:15 AEST



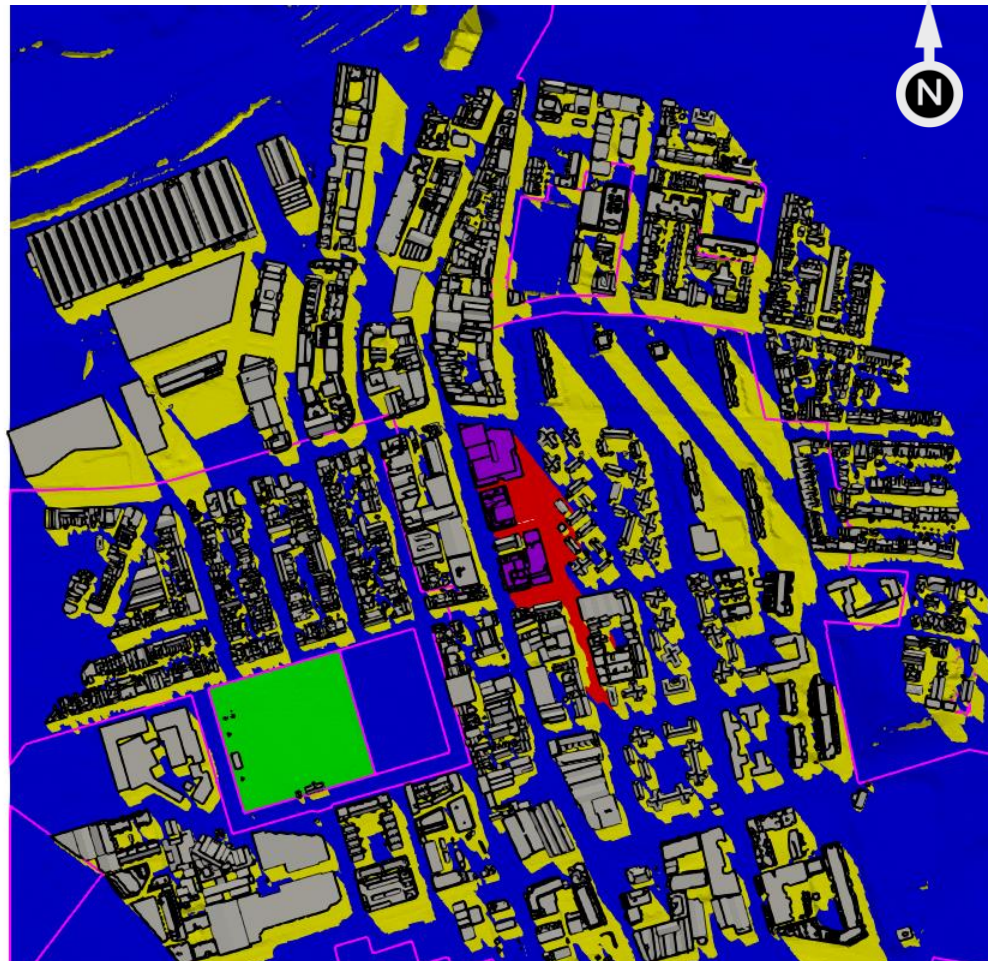
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POINT-IN-TIME SHADOW PLOTS



21 June – 2:30 AEST



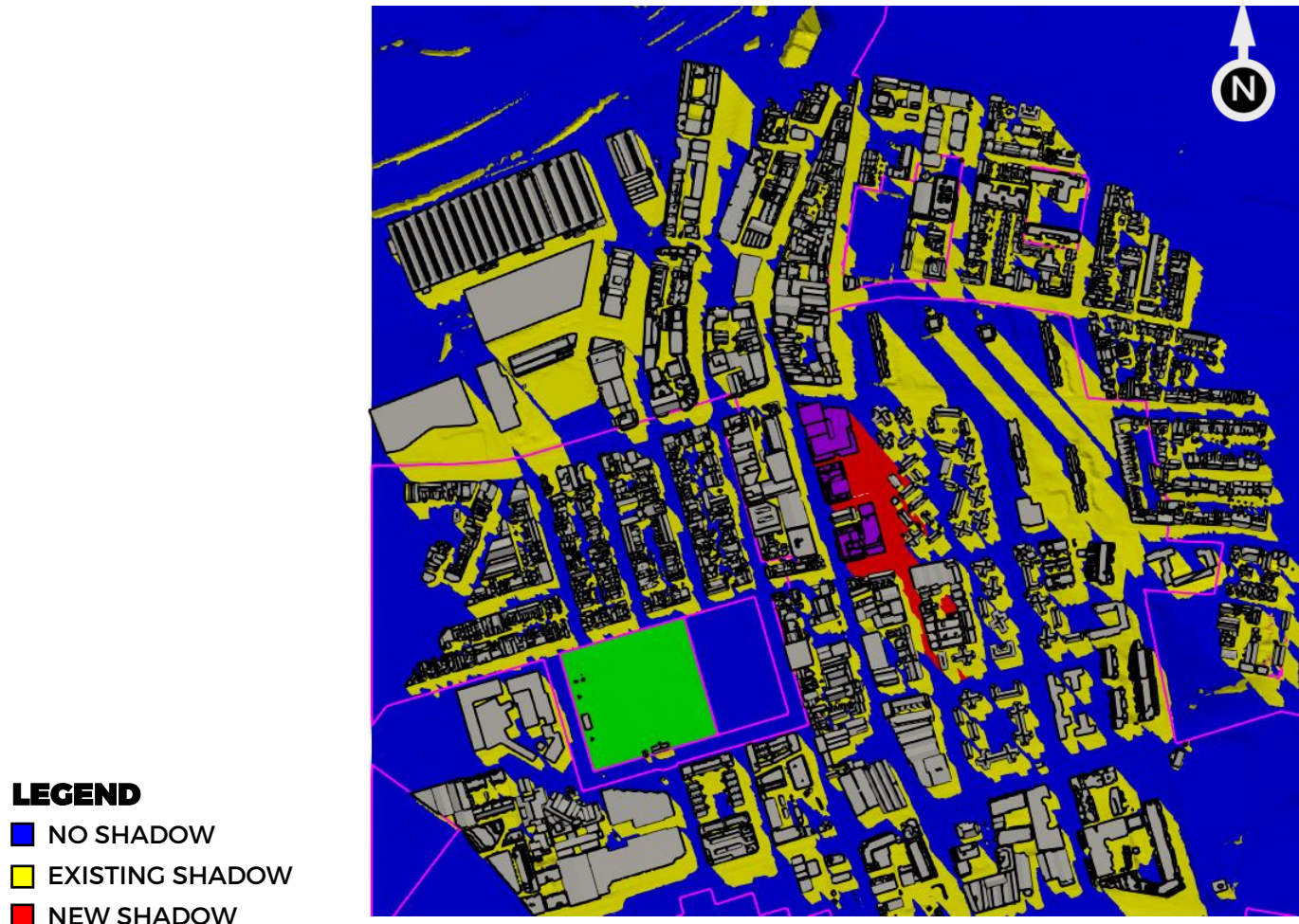
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POINT-IN-TIME SHADOW PLOTS



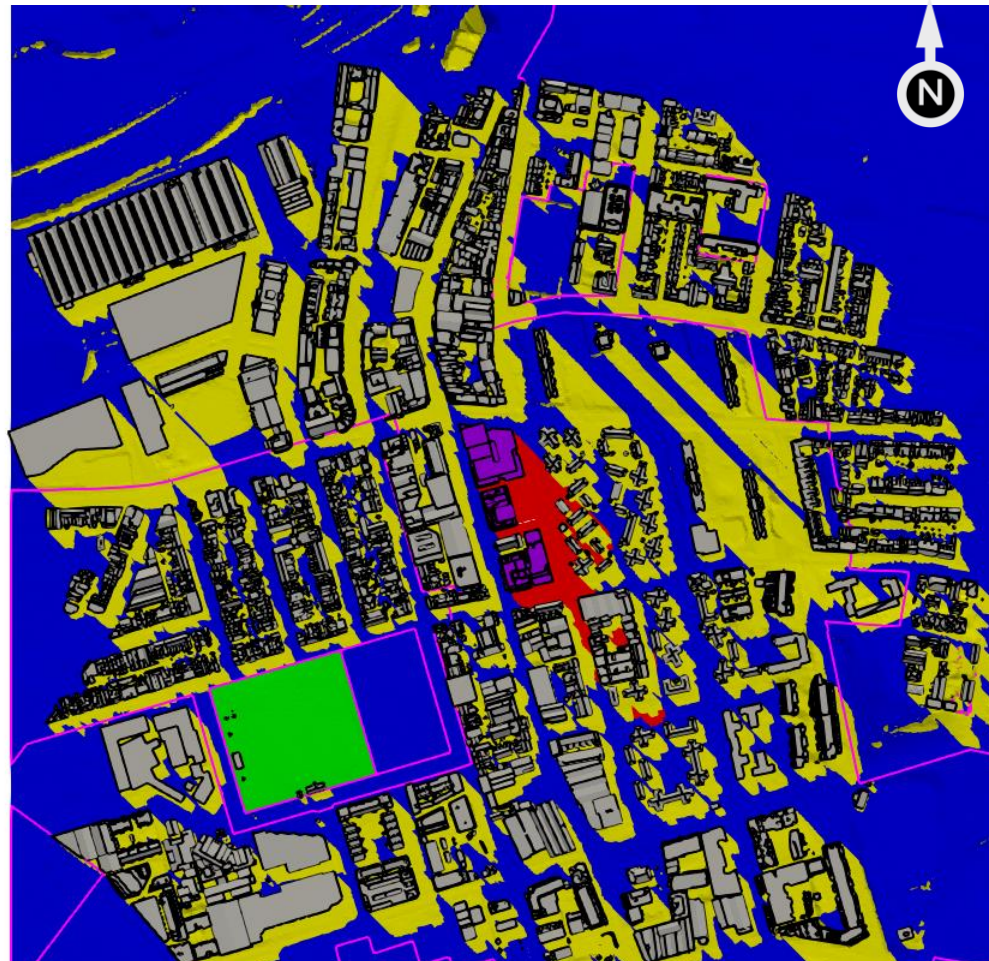
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POINT-IN-TIME SHADOW PLOTS



21 June – 3:00 AEST



LEGEND

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- EXISTING SHADOW
- NEW SHADOW



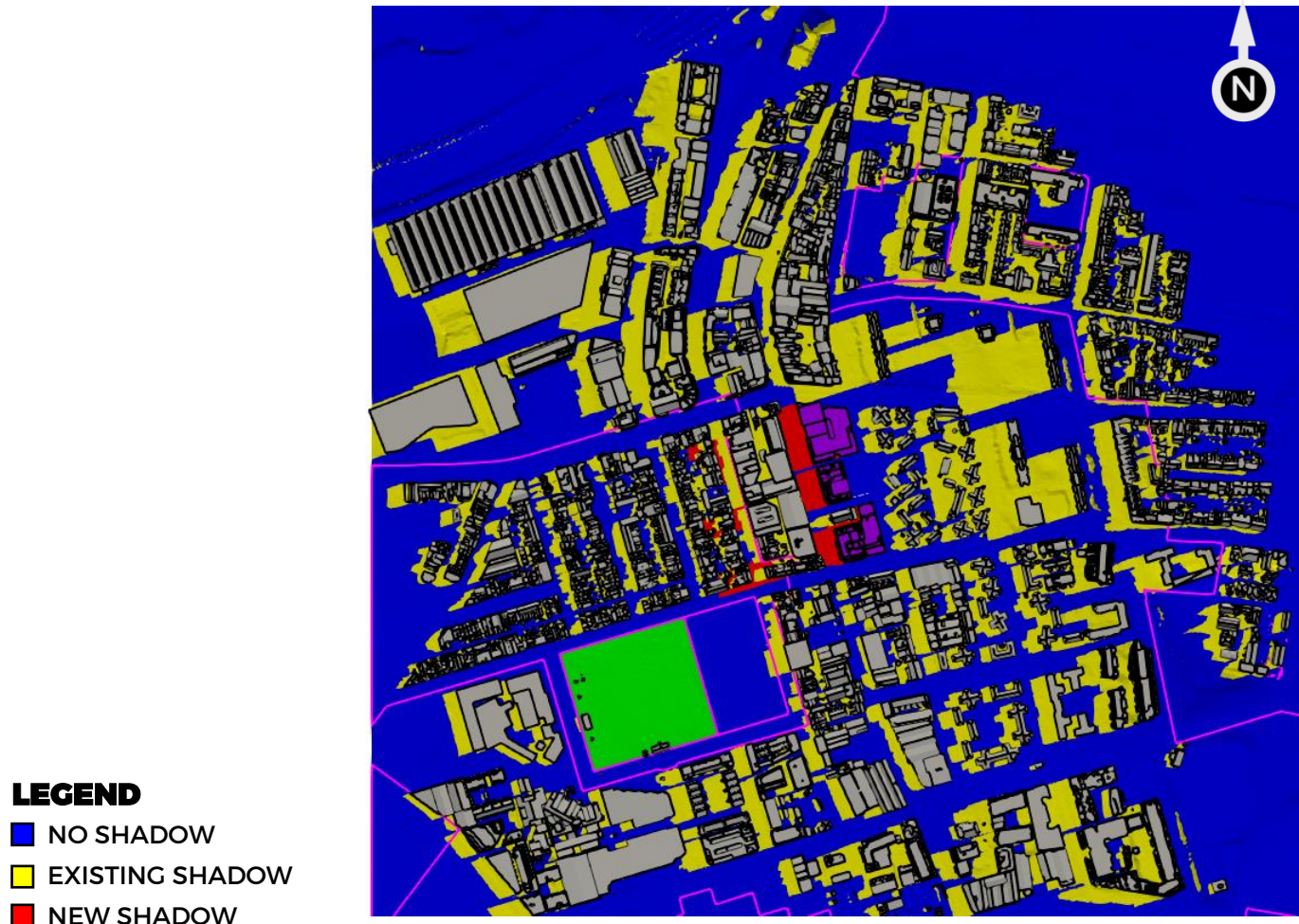
APPENDIX 5

**POINT-IN-TIME SHADOW DIAGRAMS – FULL DOMAIN
21 MARCH**

POINT-IN-TIME SHADOW PLOTS



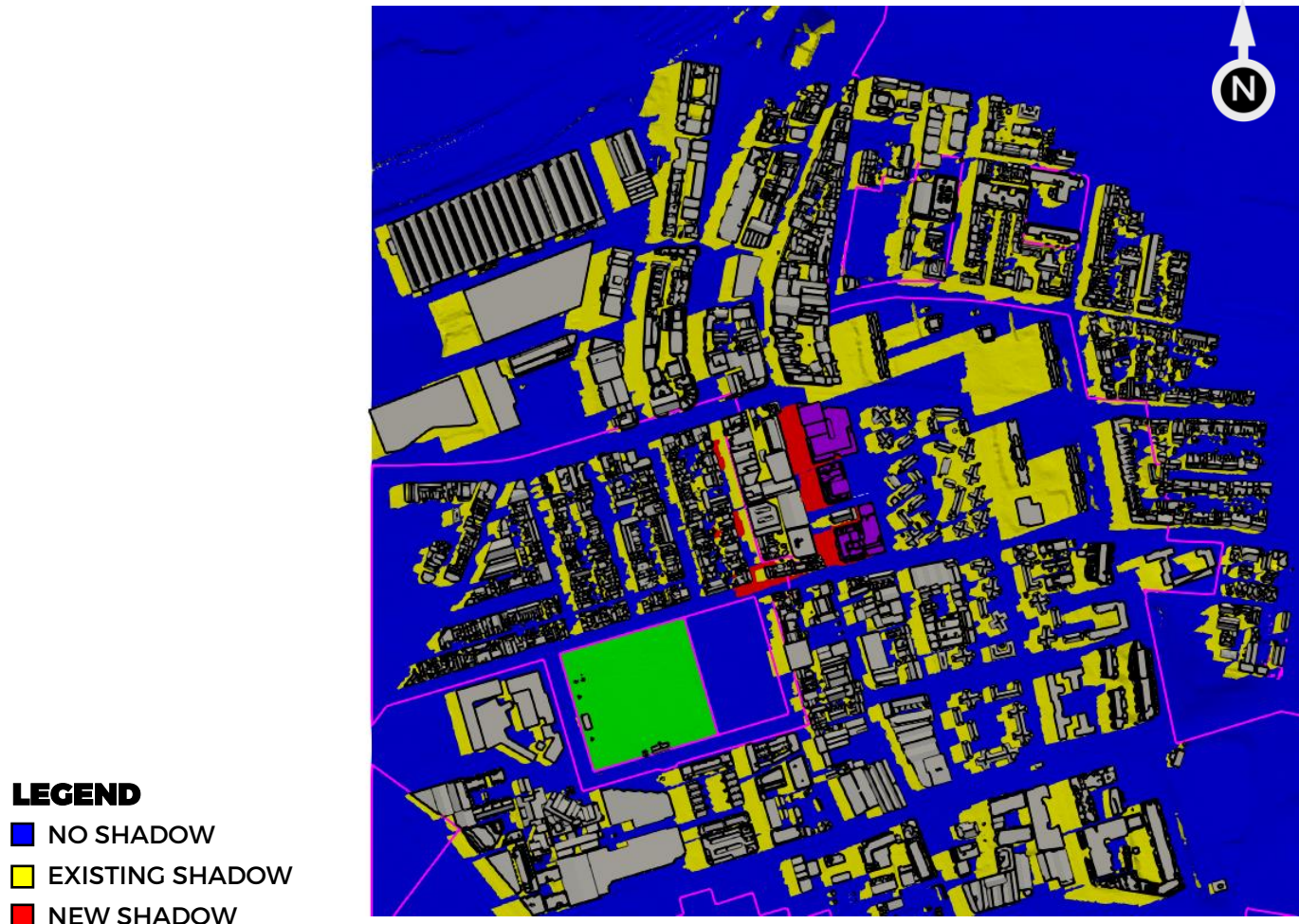
21 March - 9:00 AEDT



POINT-IN-TIME SHADOW PLOTS



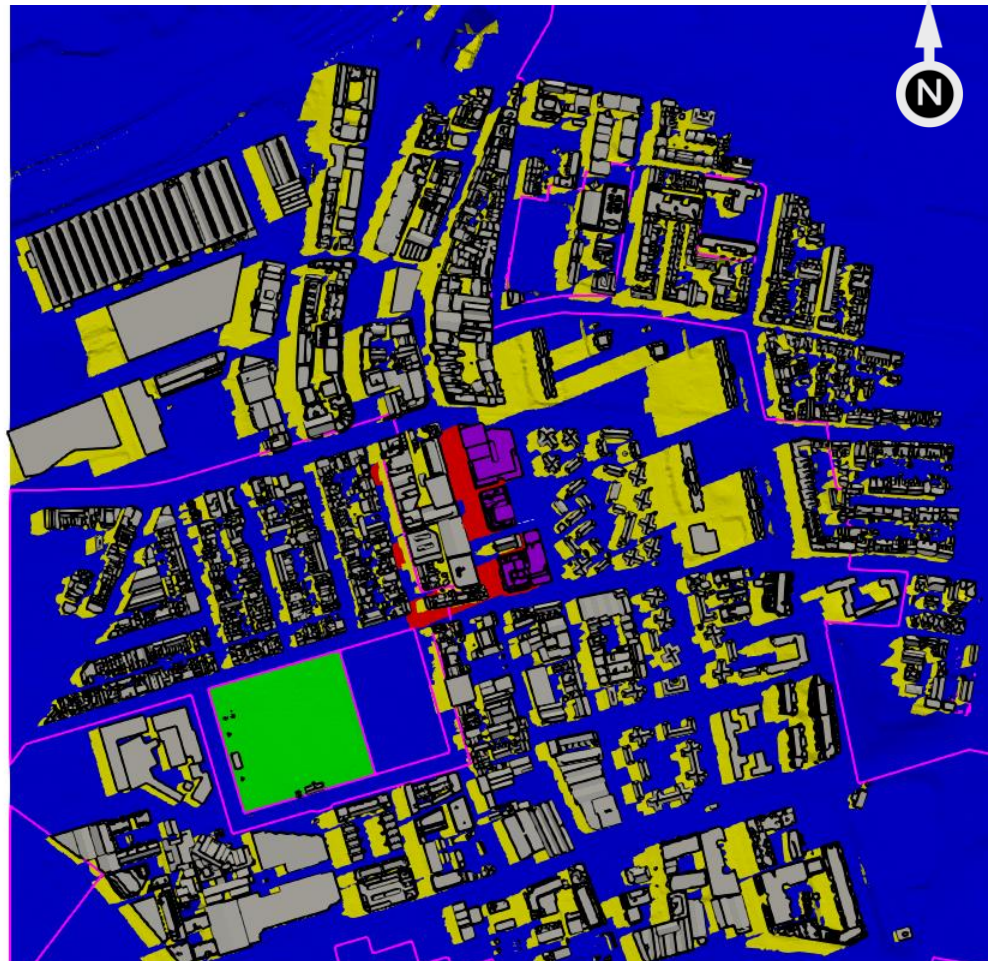
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POINT-IN-TIME SHADOW PLOTS



21 March - 9:30 AEDT



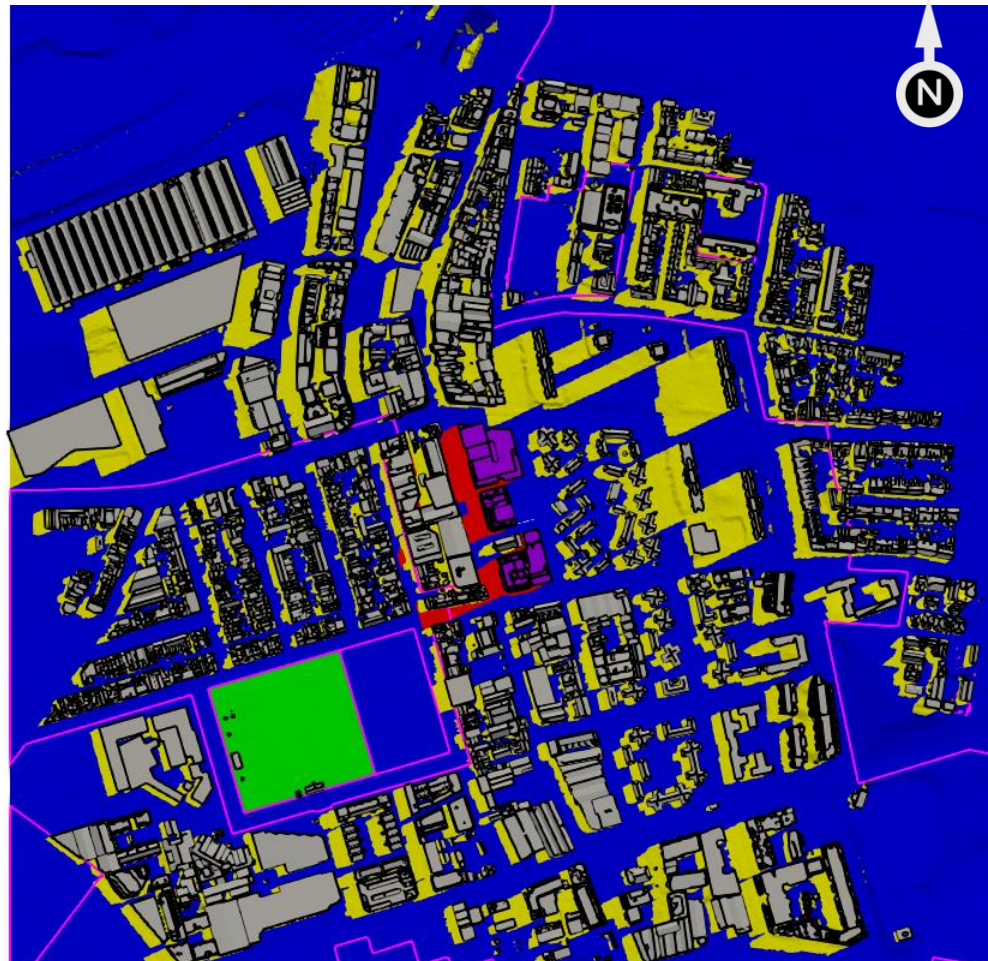
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POINT-IN-TIME SHADOW PLOTS



21 March - 9:45 AEDT



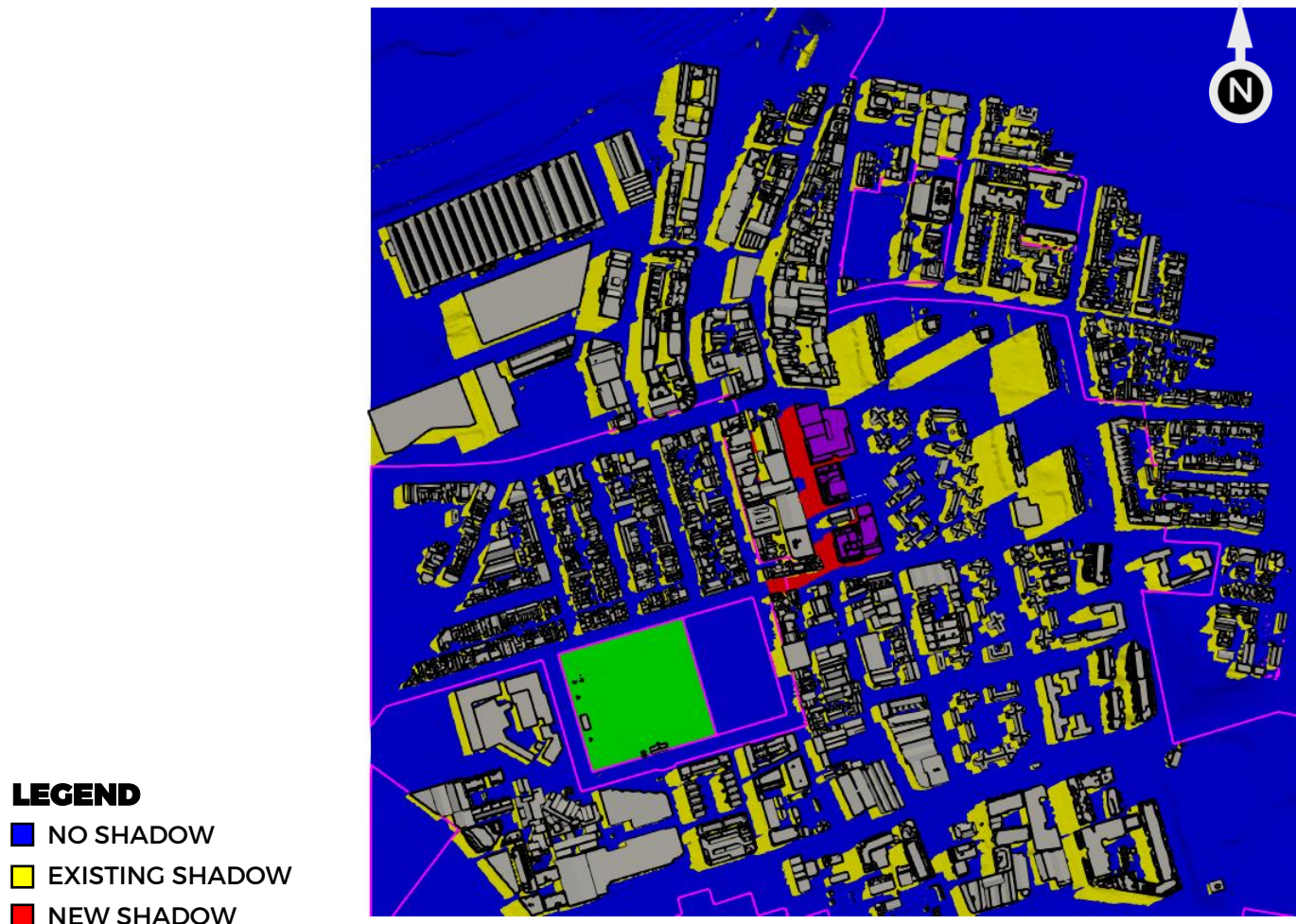
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POINT-IN-TIME SHADOW PLOTS



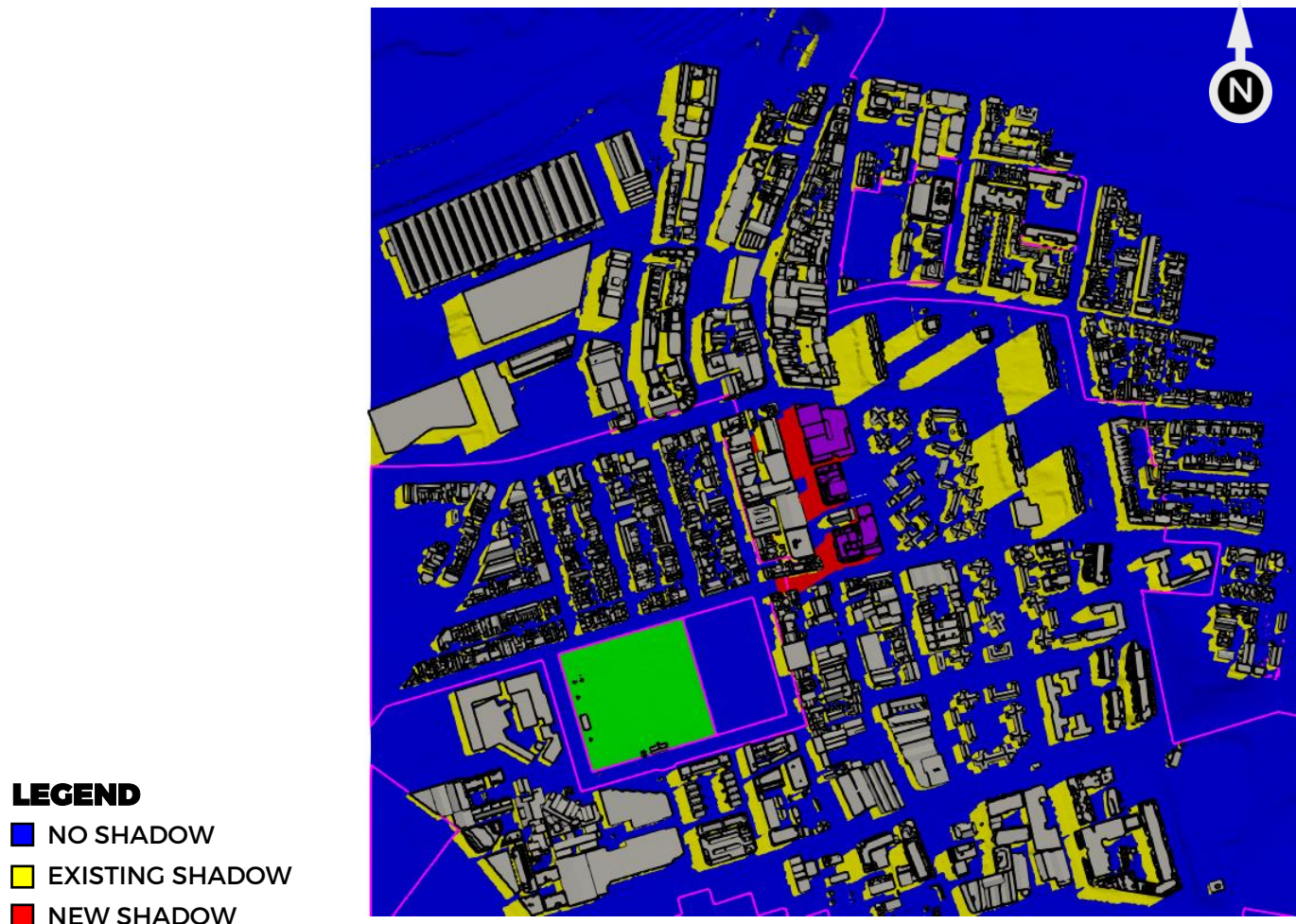
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POINT-IN-TIME SHADOW PLOTS



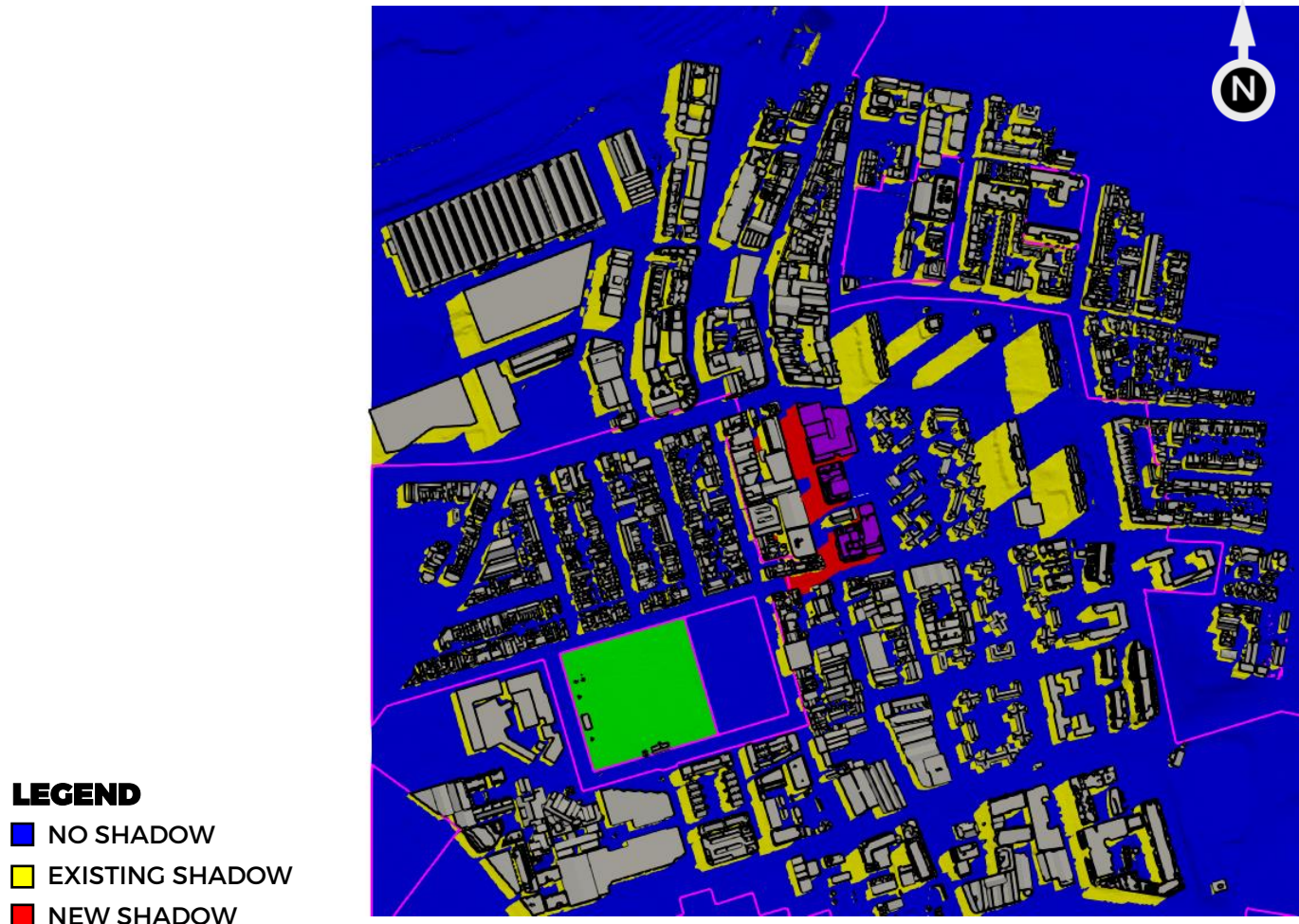
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POINT-IN-TIME SHADOW PLOTS



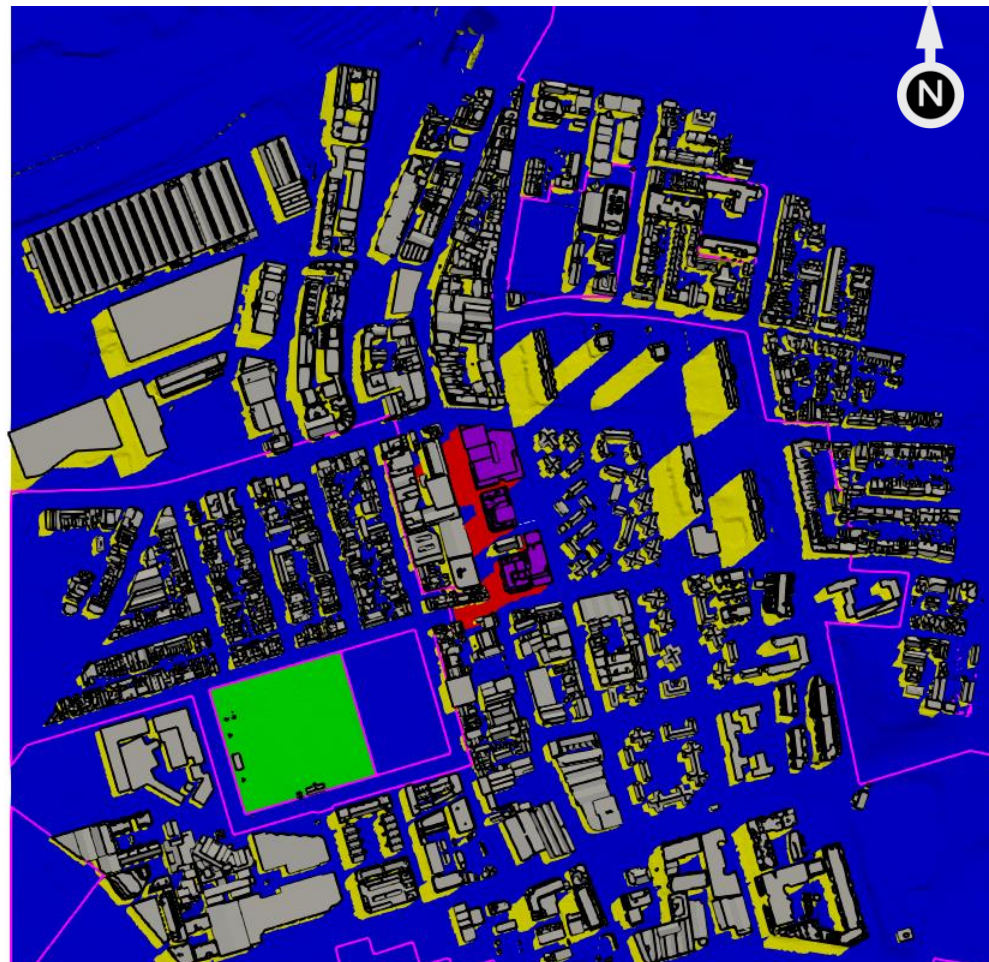
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POINT-IN-TIME SHADOW PLOTS



21 March - 10:45 AEDT



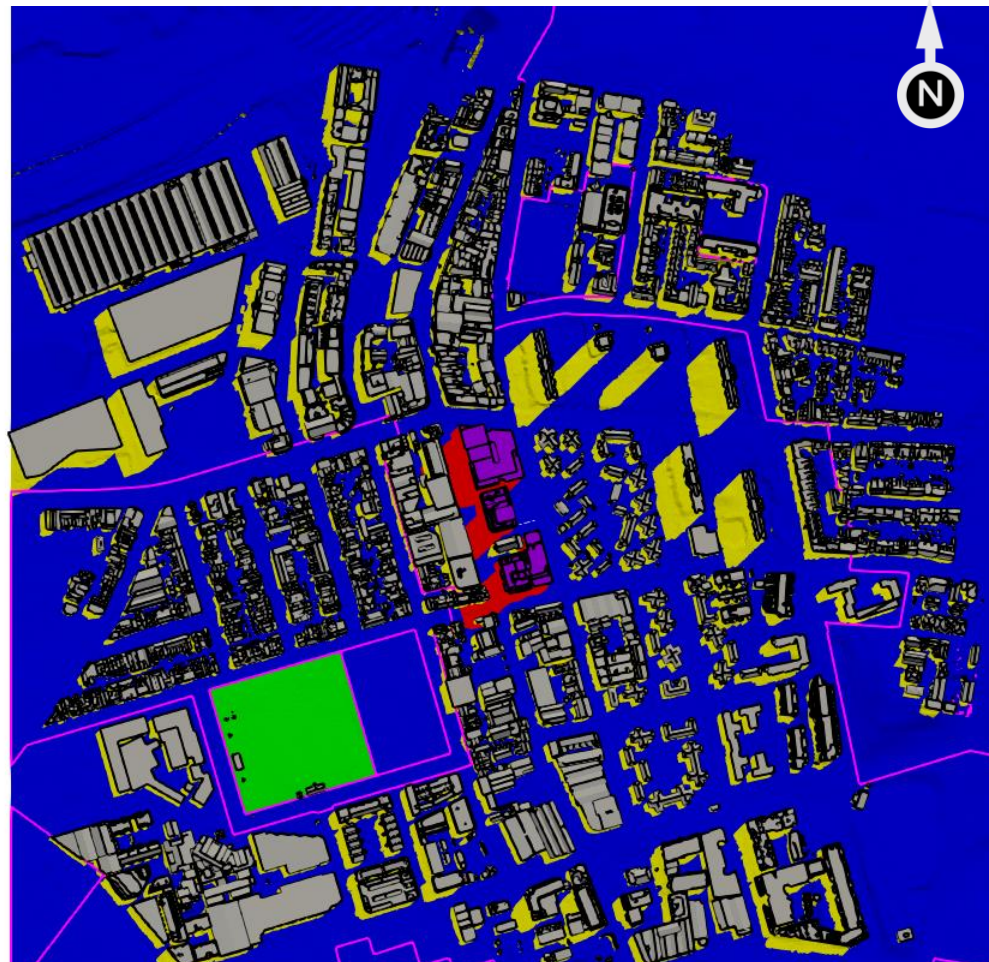
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POINT-IN-TIME SHADOW PLOTS



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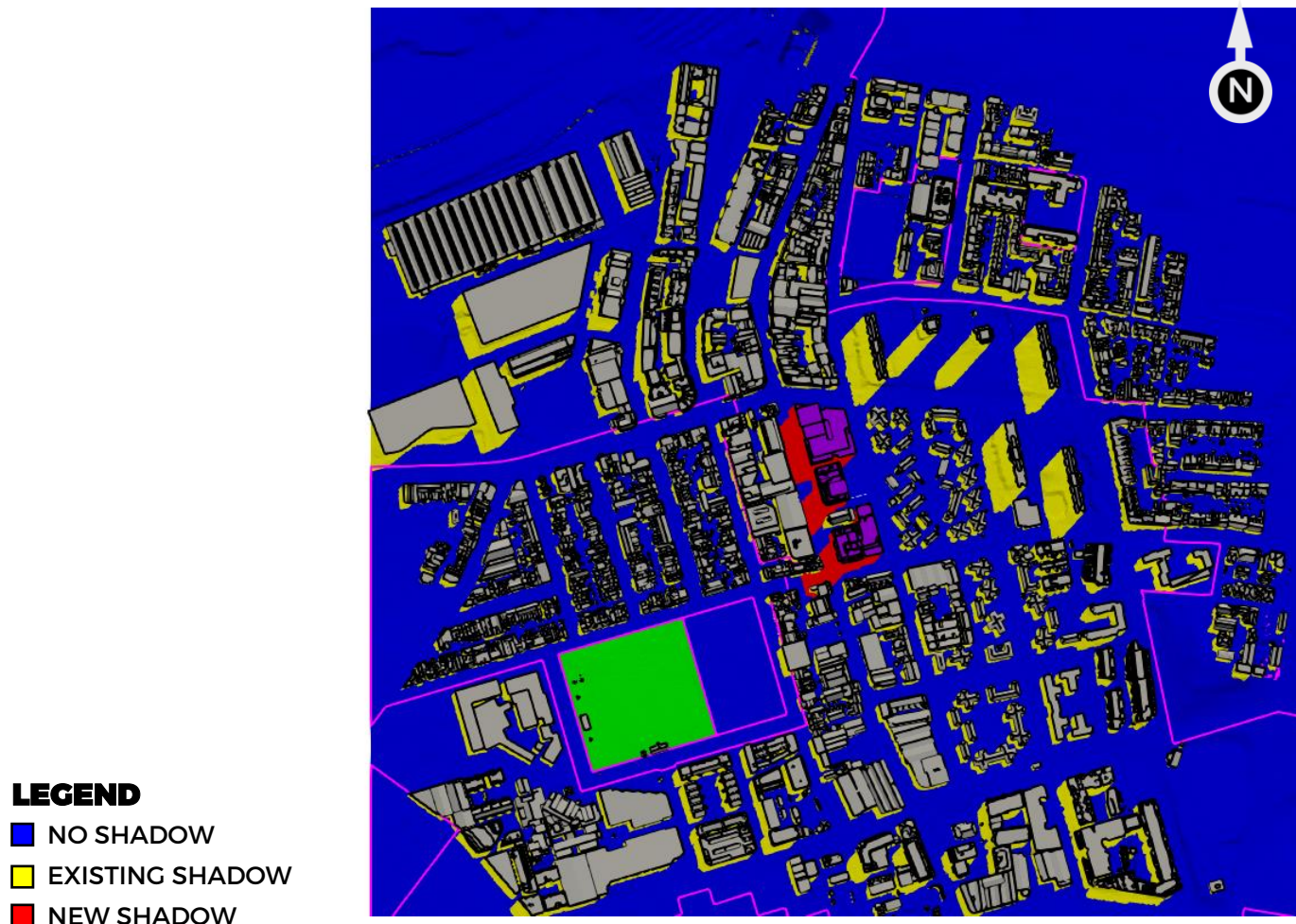
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POINT-IN-TIME SHADOW PLOTS



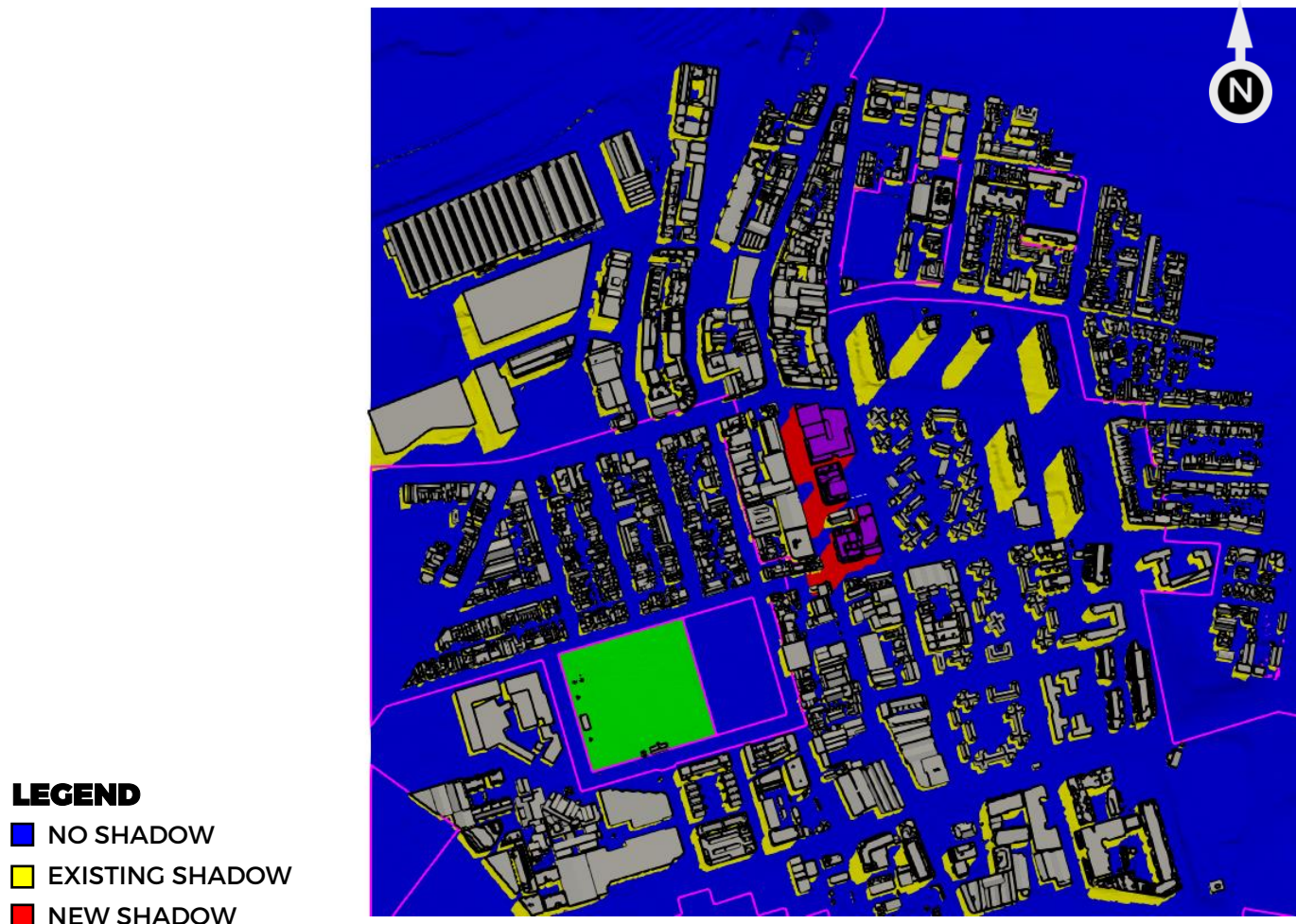
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POINT-IN-TIME SHADOW PLOTS



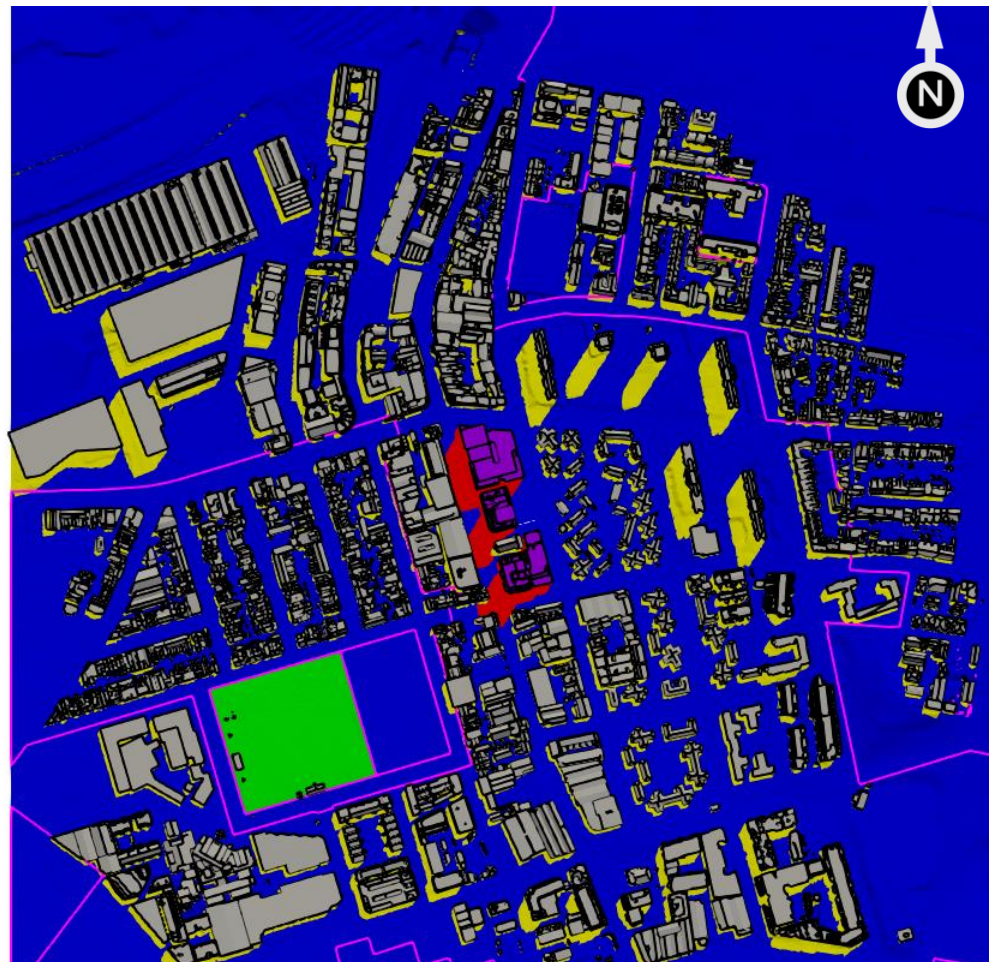
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POINT-IN-TIME SHADOW PLOTS



21 March – 11:45 AEDT



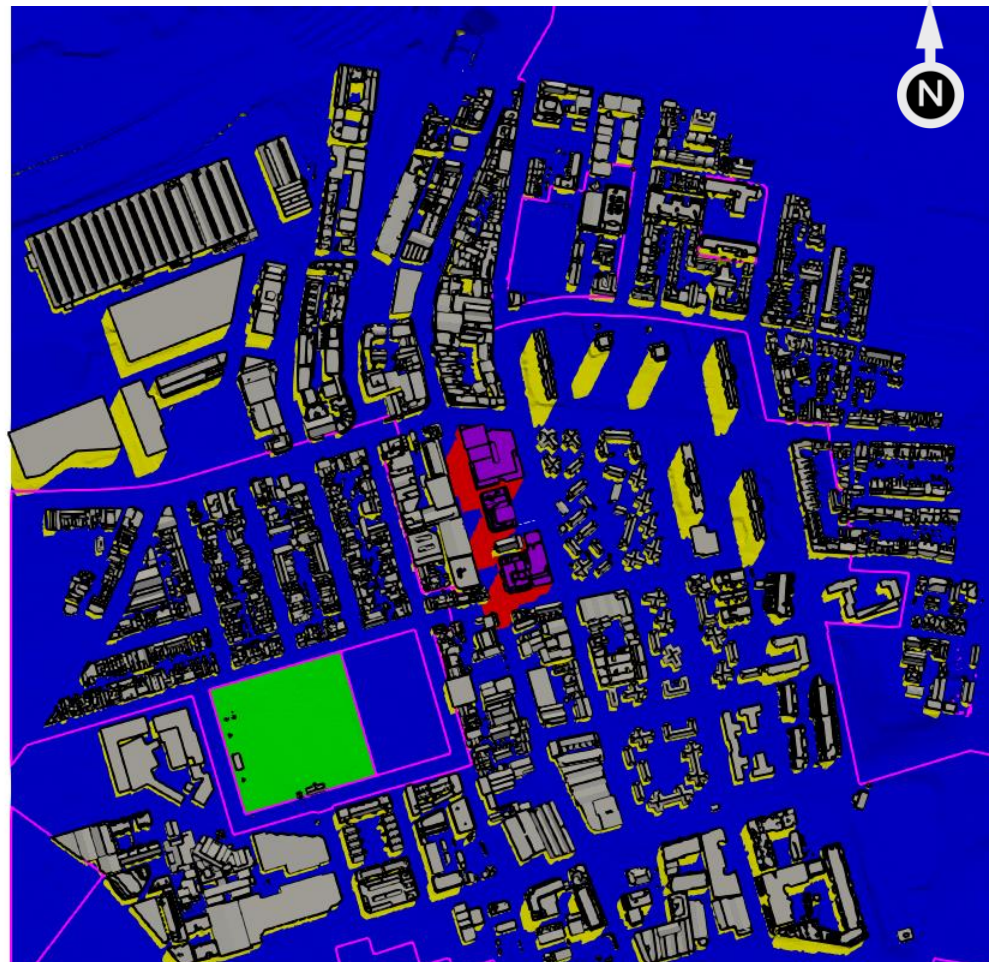
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POINT-IN-TIME SHADOW PLOTS



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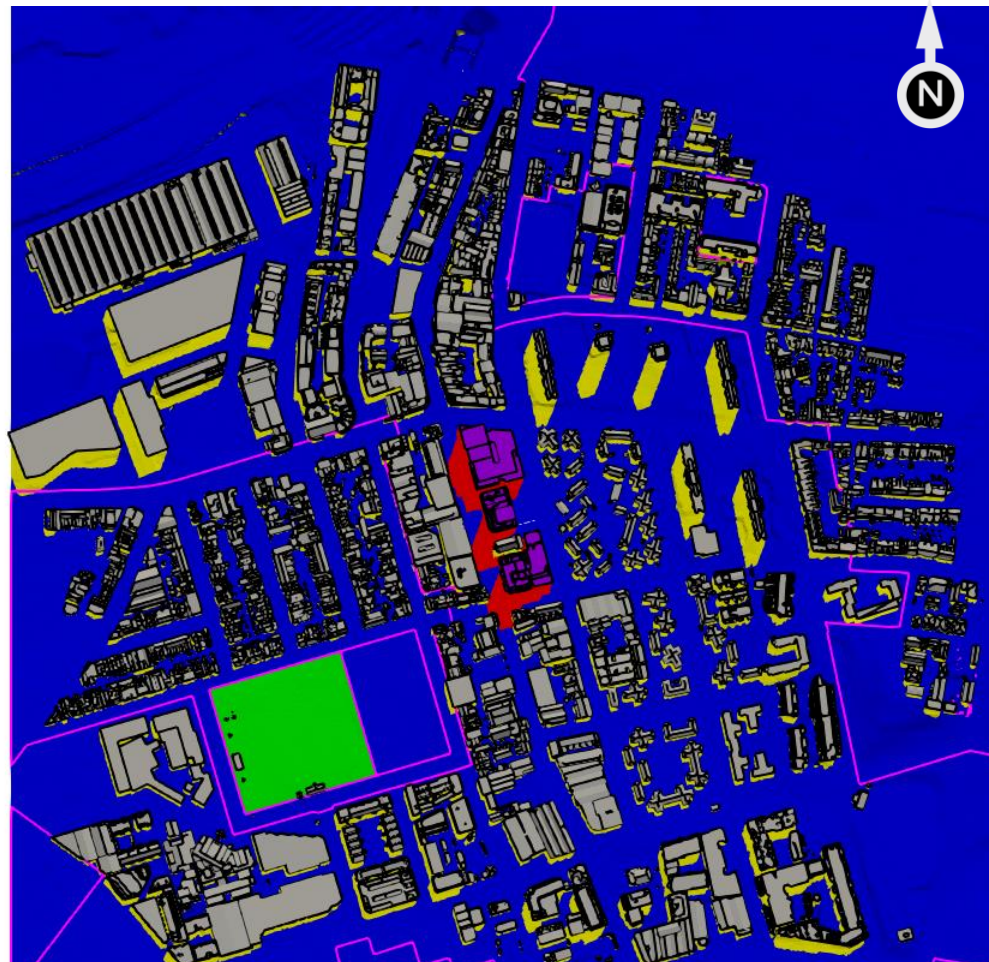
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POINT-IN-TIME SHADOW PLOTS



21 March – 12:15 AEDT



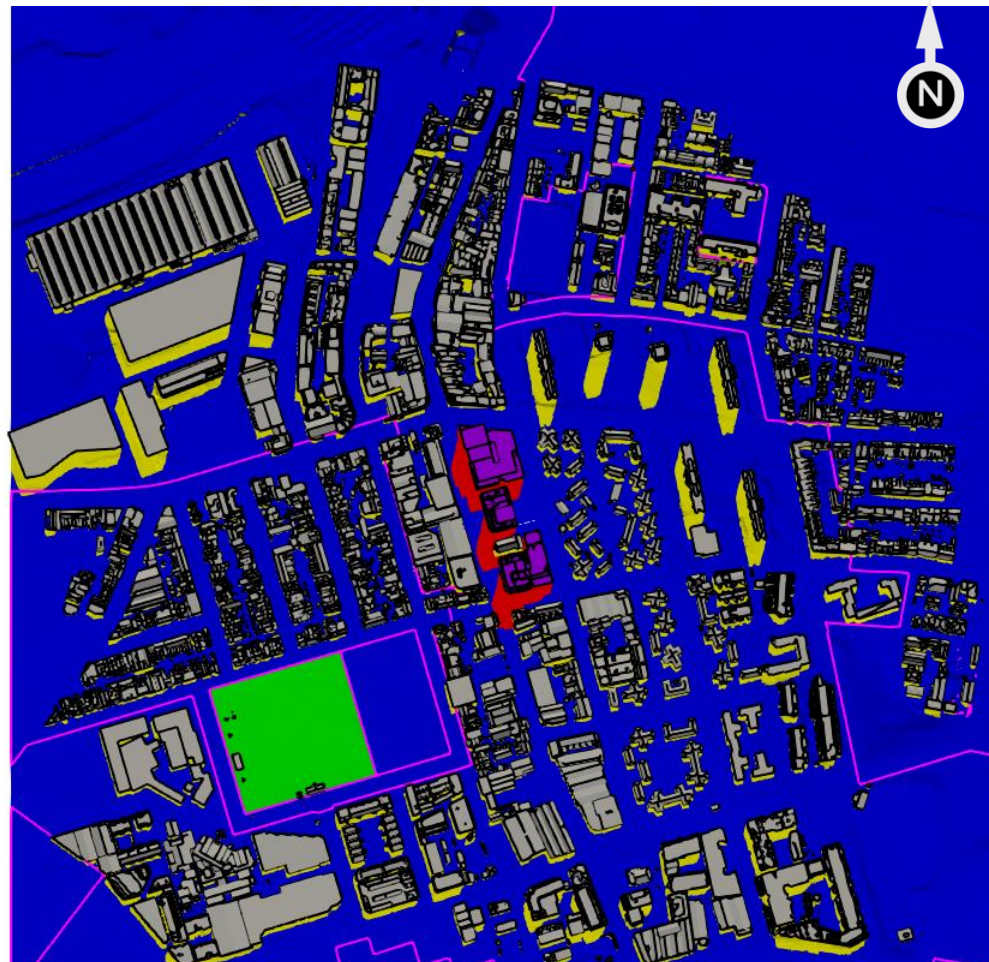
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POINT-IN-TIME SHADOW PLOTS



21 March – 12:30 AEDT



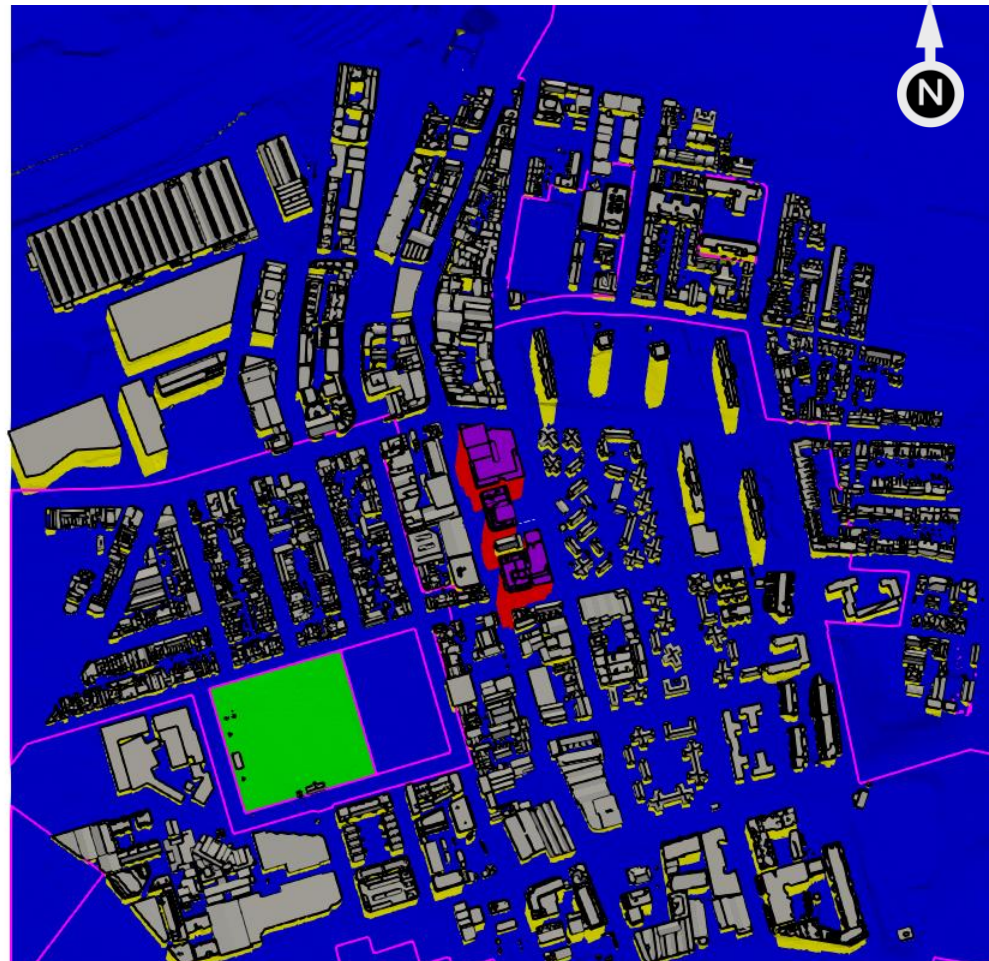
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POINT-IN-TIME SHADOW PLOTS



21 March – 12:45 AEDT



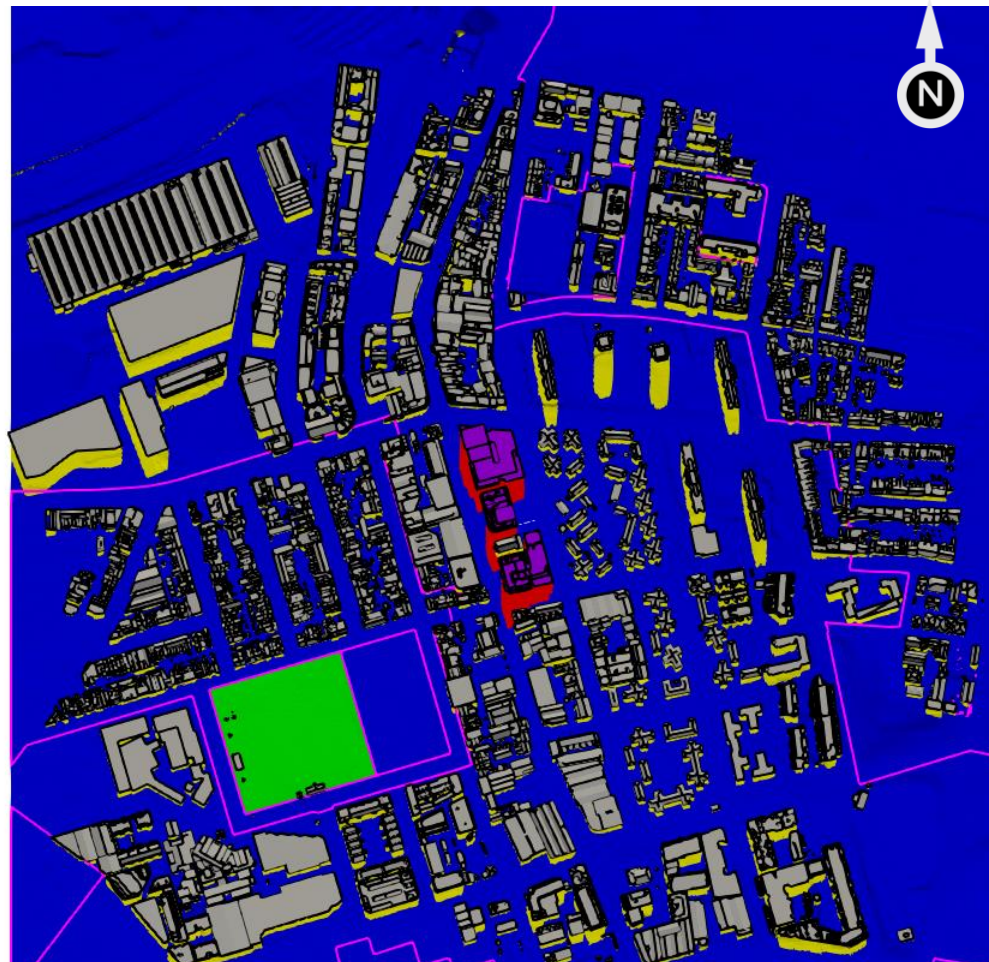
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POINT-IN-TIME SHADOW PLOTS



21 March – 1:00 AEDT



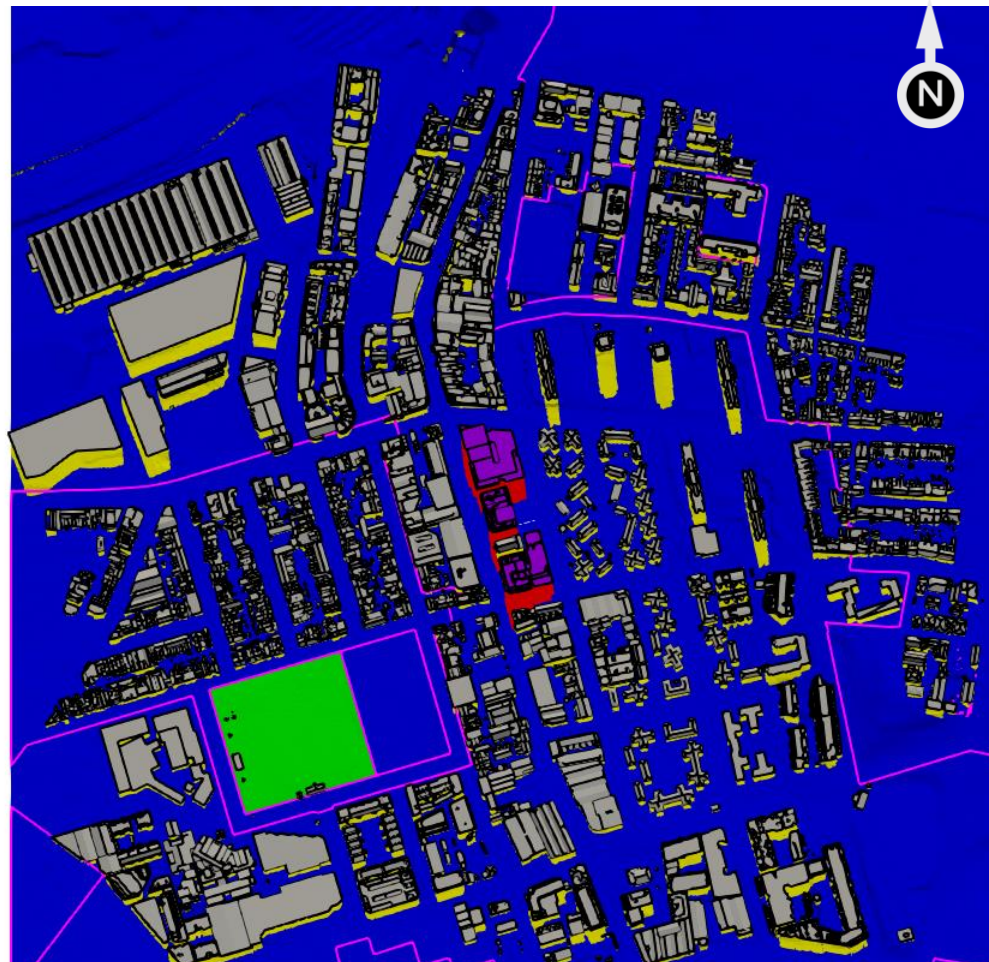
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POINT-IN-TIME SHADOW PLOTS



21 March – 1:15 AEDT



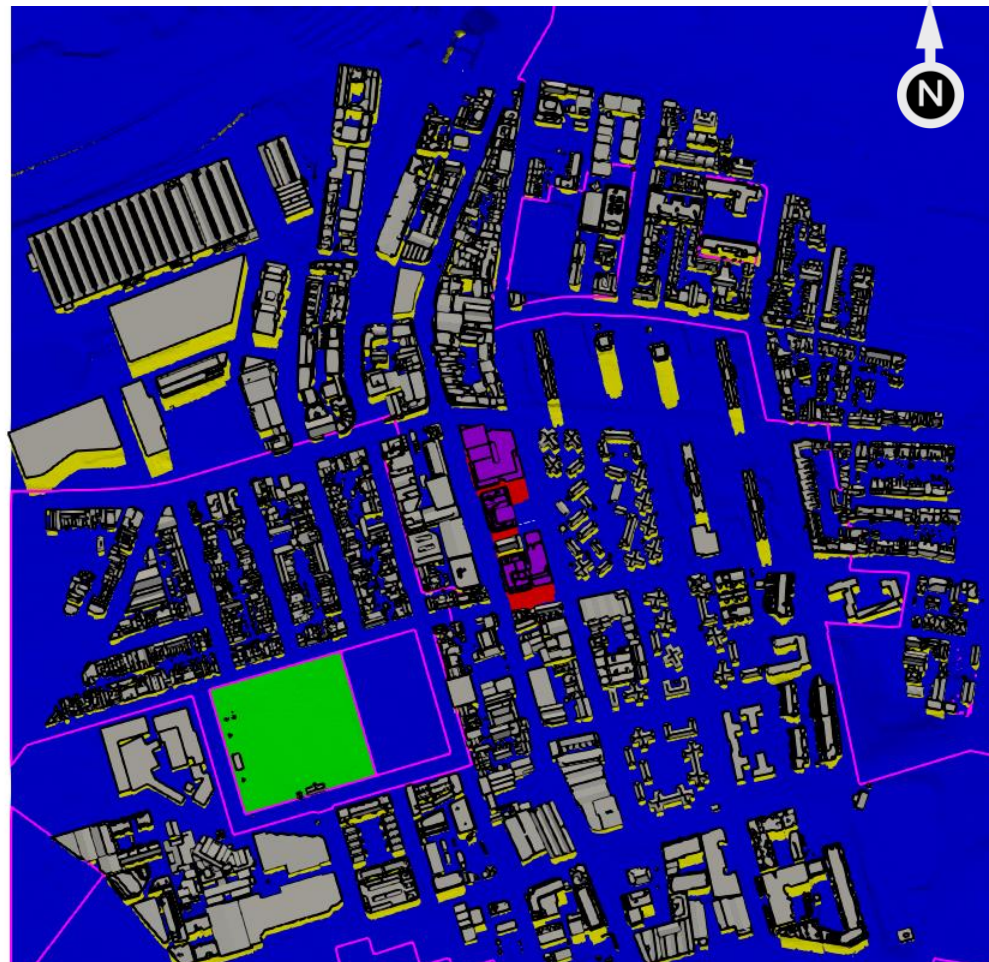
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POINT-IN-TIME SHADOW PLOTS



21 March – 1:30 AEDT



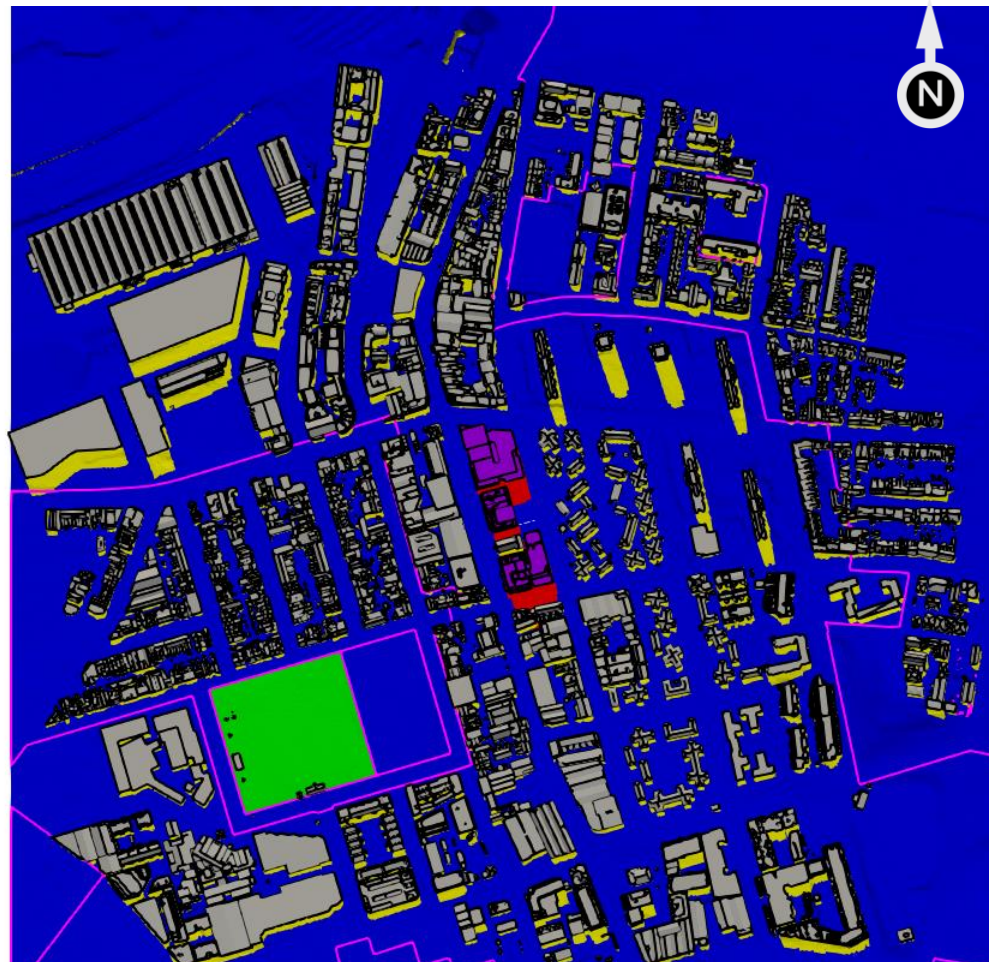
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POINT-IN-TIME SHADOW PLOTS



21 March – 1:45 AEDT



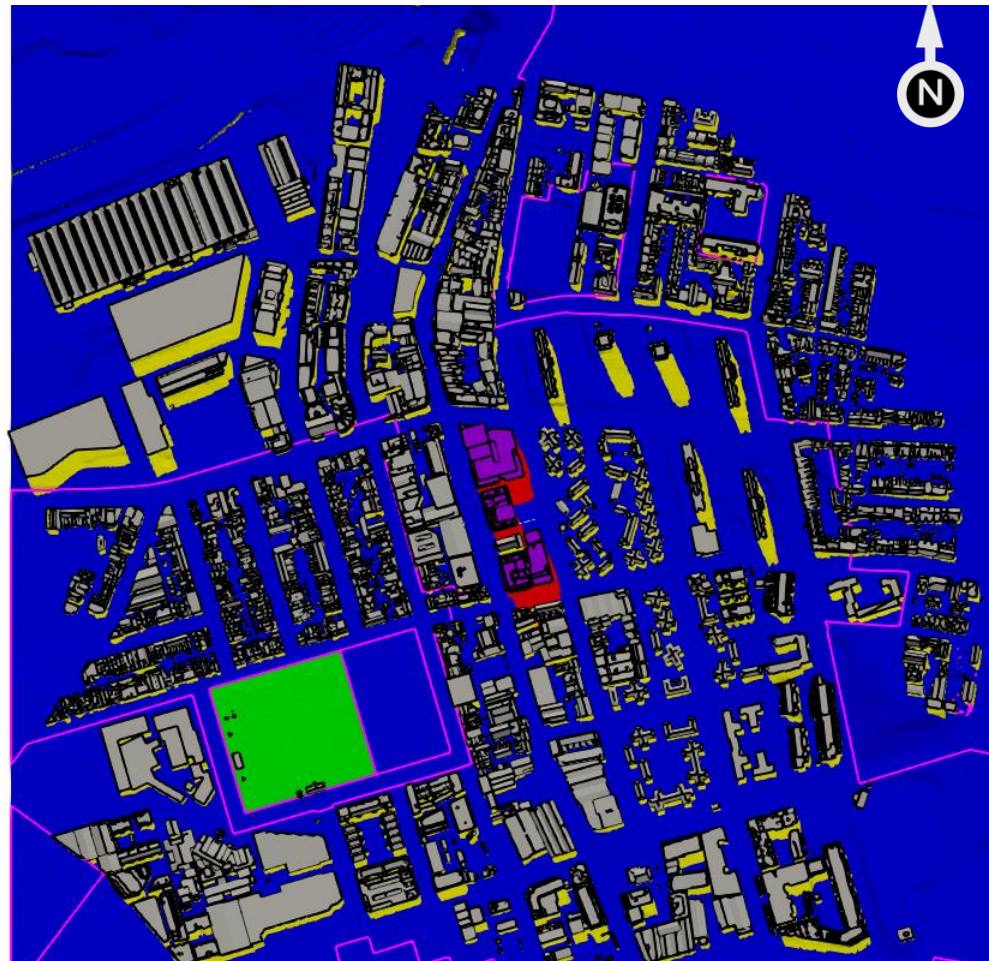
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POINT-IN-TIME SHADOW PLOTS



21 March – 2:00 AEDT



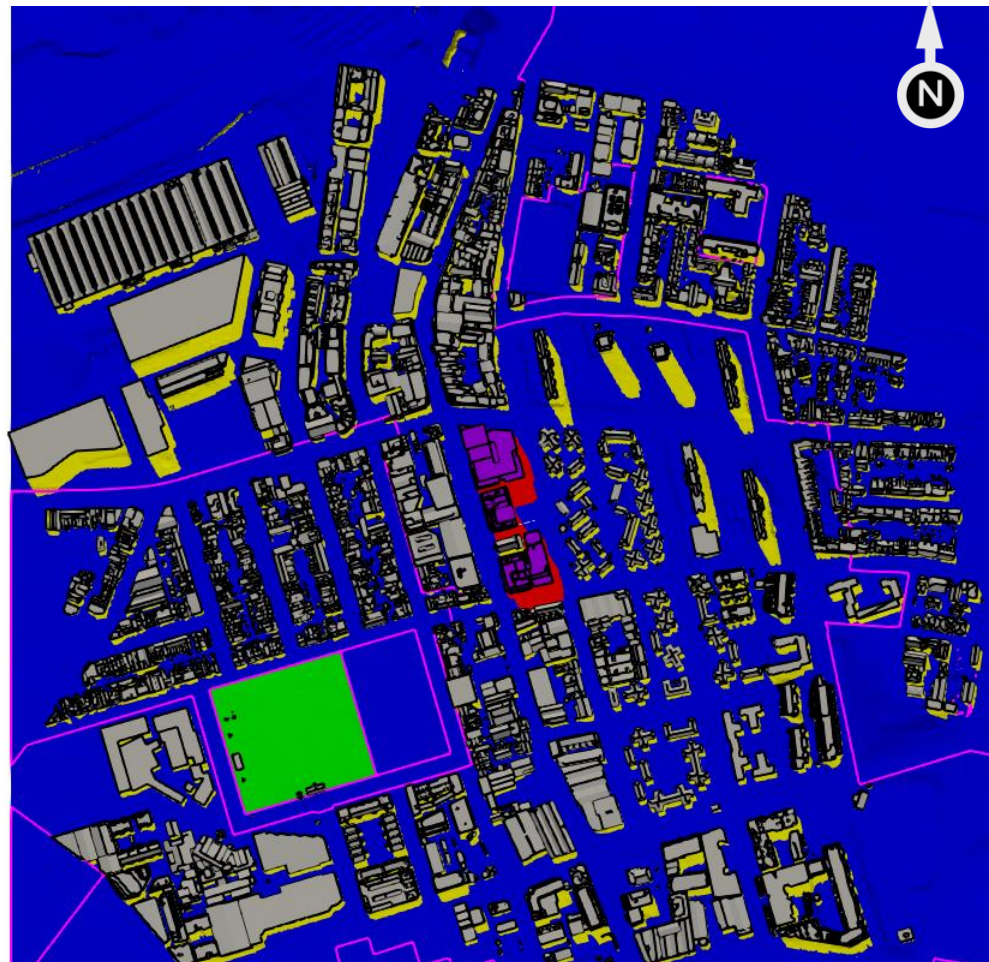
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POINT-IN-TIME SHADOW PLOTS



21 March – 2:15 AEDT



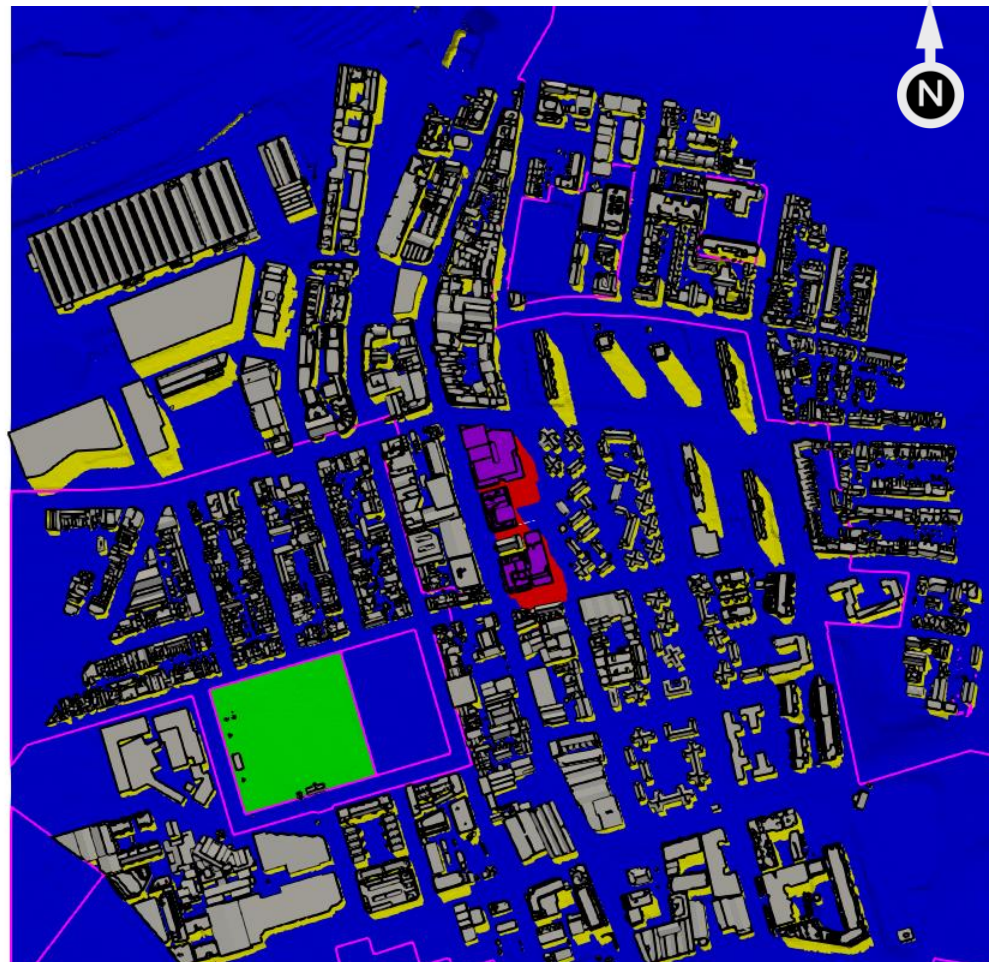
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POINT-IN-TIME SHADOW PLOTS



21 March – 2:30 AEDT



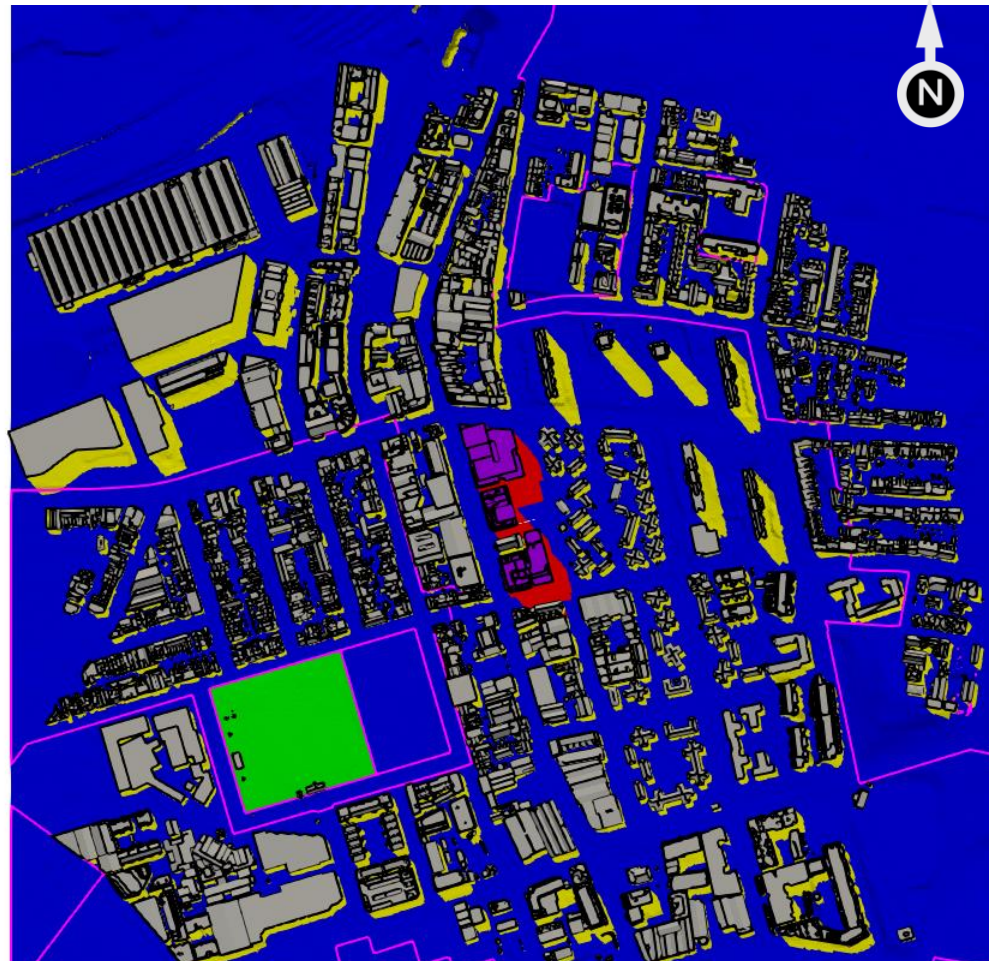
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- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 March – 2:45 AEDT



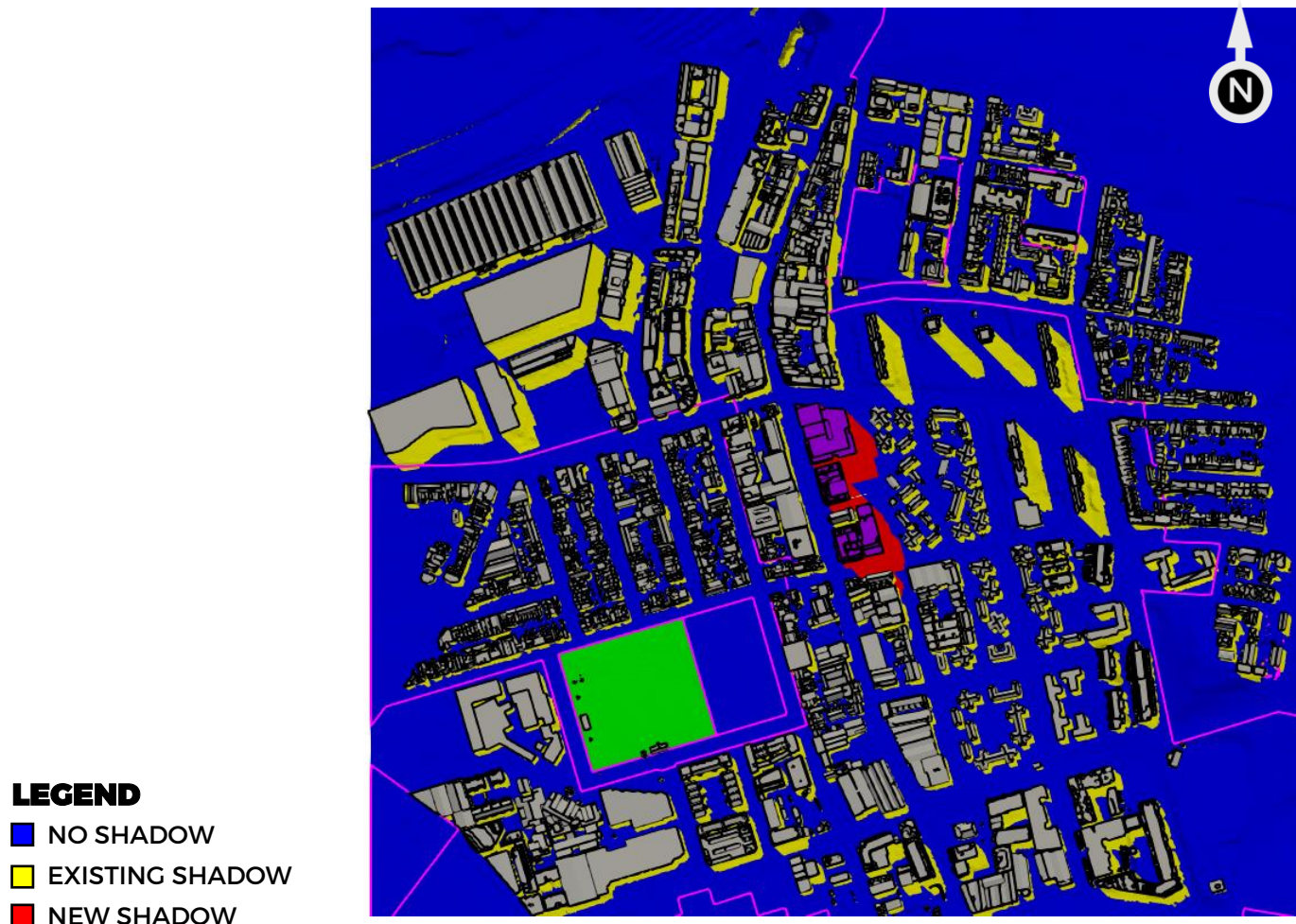
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- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 March – 3:00 AEDT





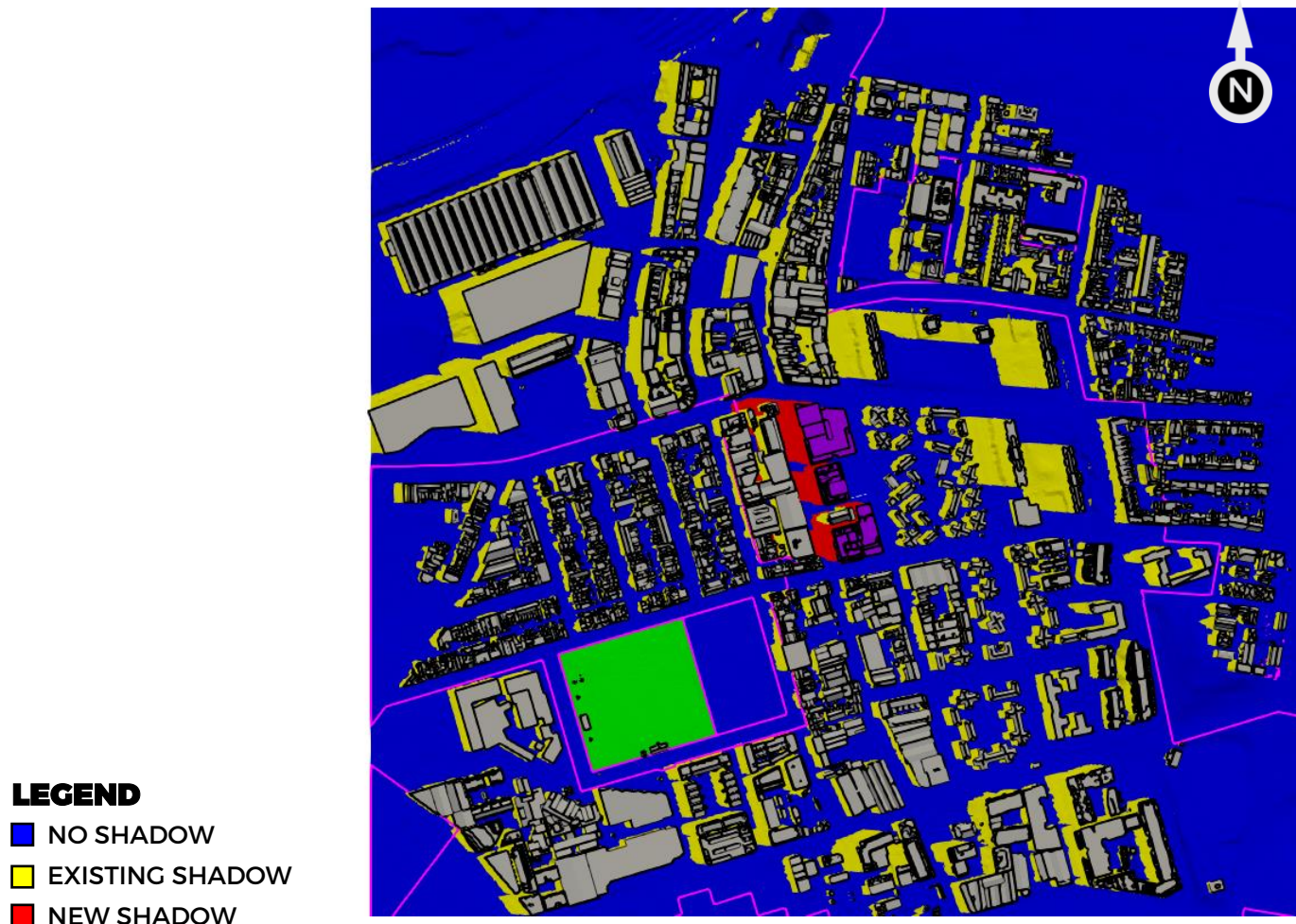
APPENDIX 6

**POINT-IN-TIME SHADOW DIAGRAMS – FULL DOMAIN
21 DECEMBER**

POINT-IN-TIME SHADOW PLOTS



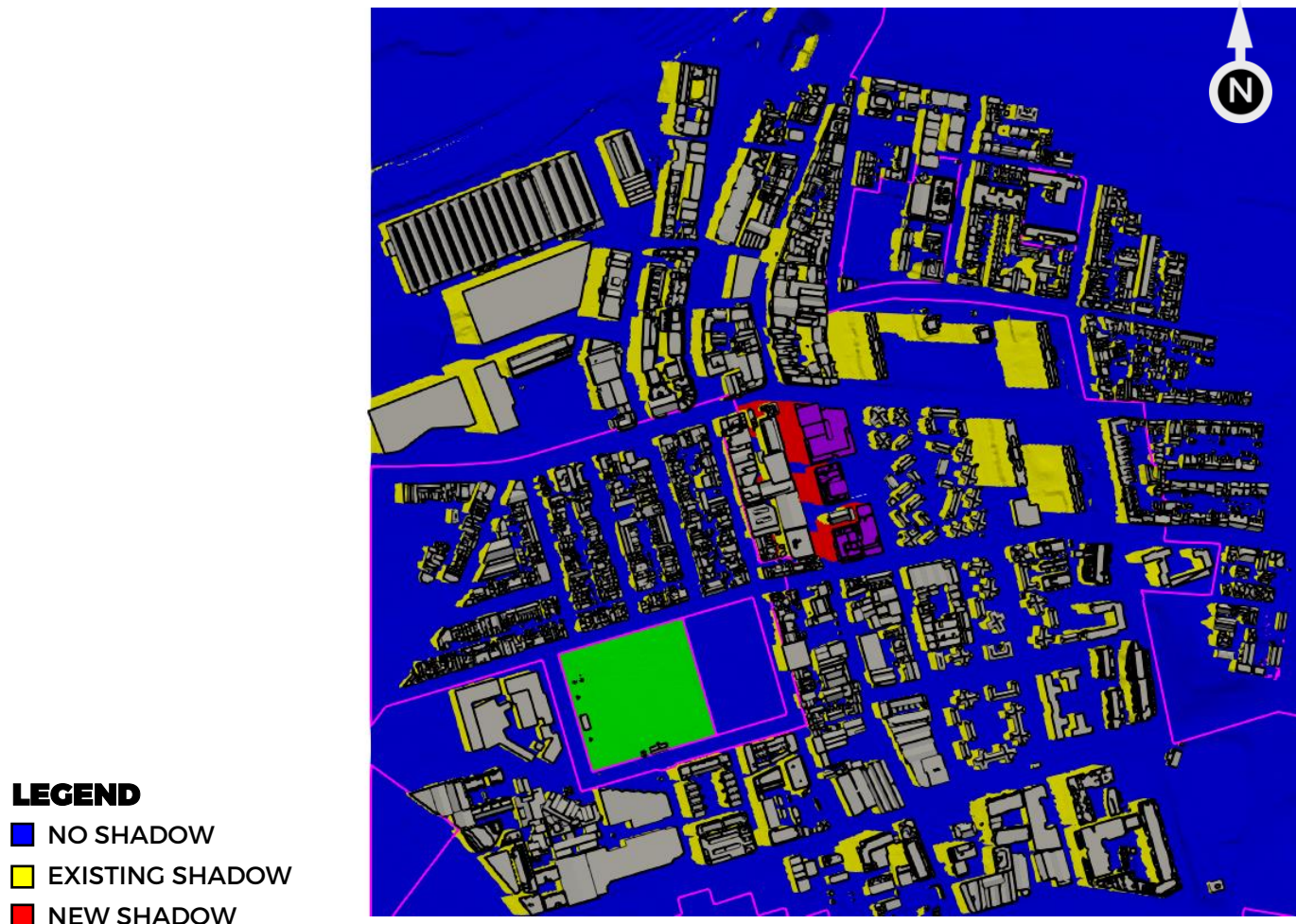
21 December – 9:00 AEDT



POINT-IN-TIME SHADOW PLOTS



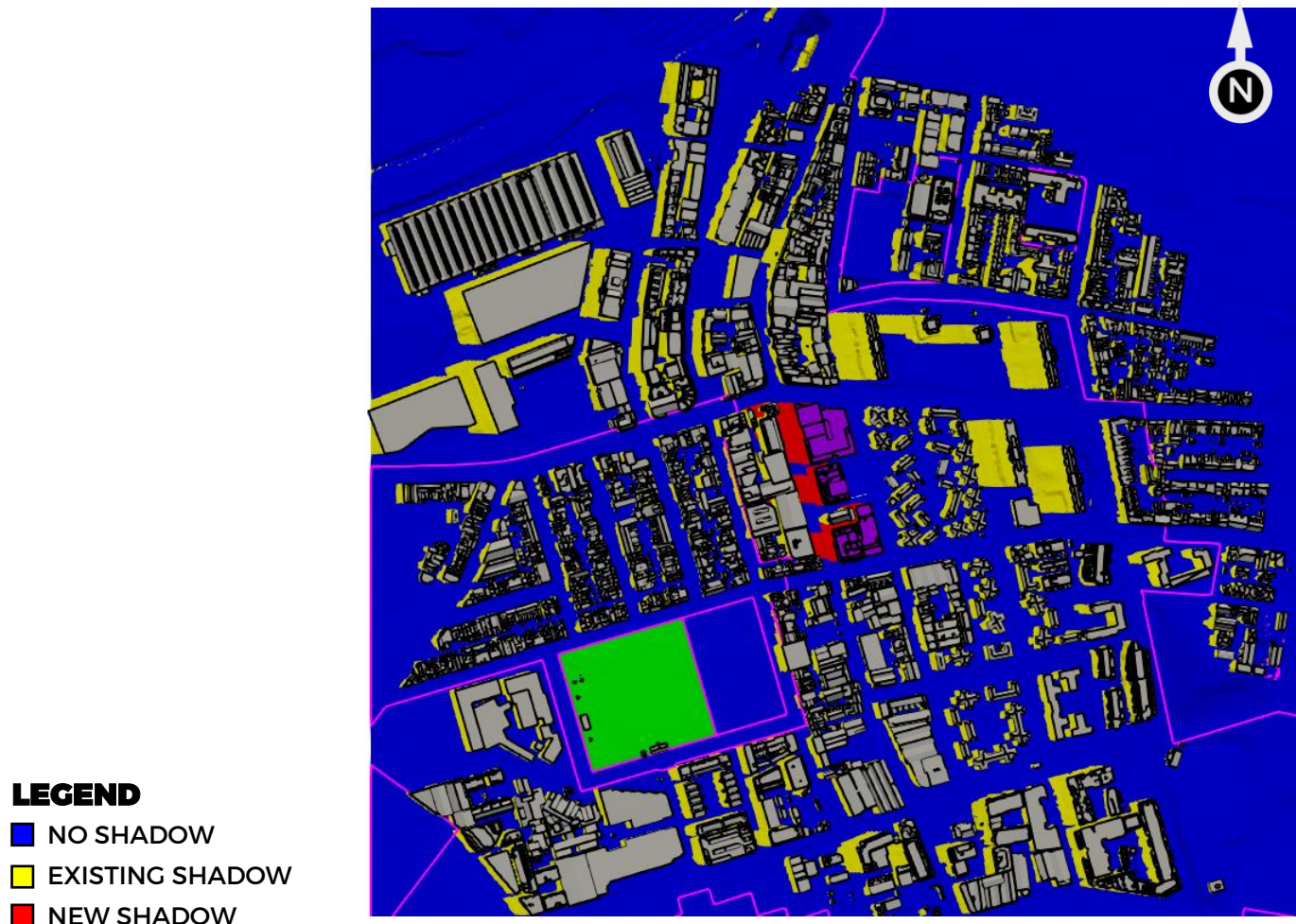
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POINT-IN-TIME SHADOW PLOTS



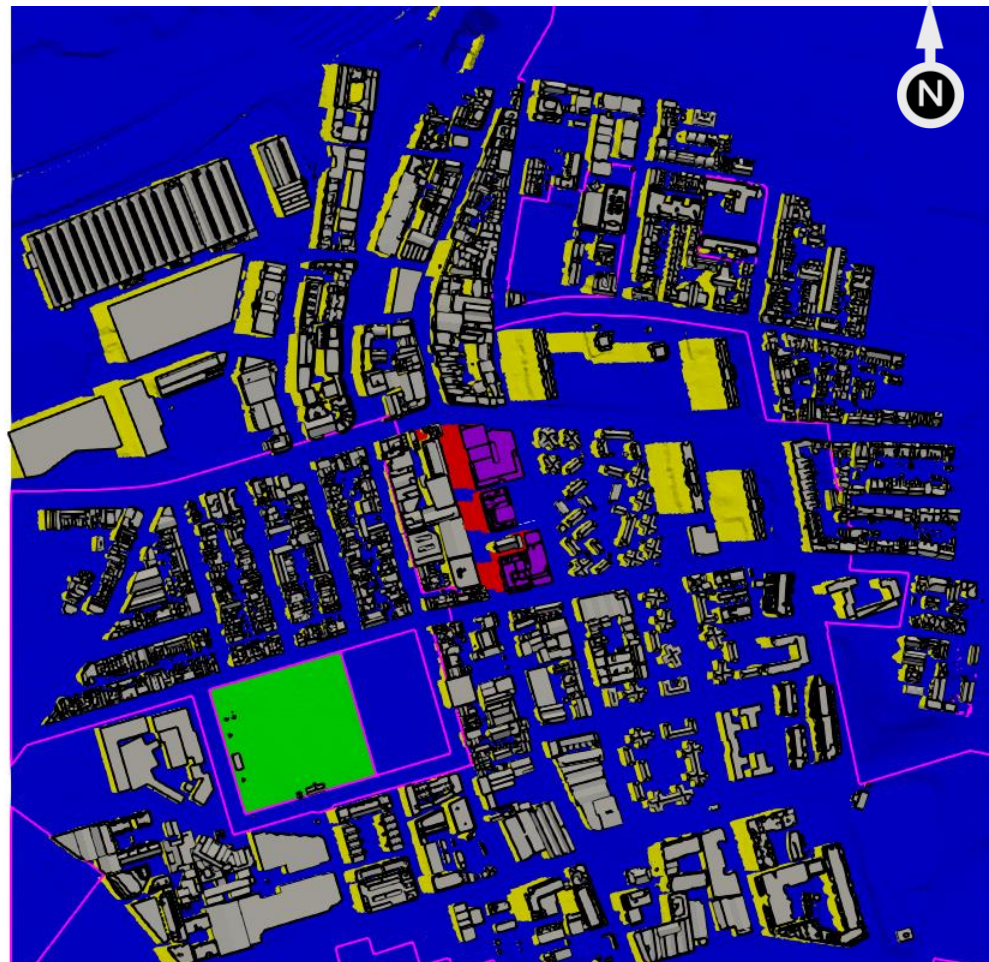
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POINT-IN-TIME SHADOW PLOTS



21 December – 9:45 AEDT



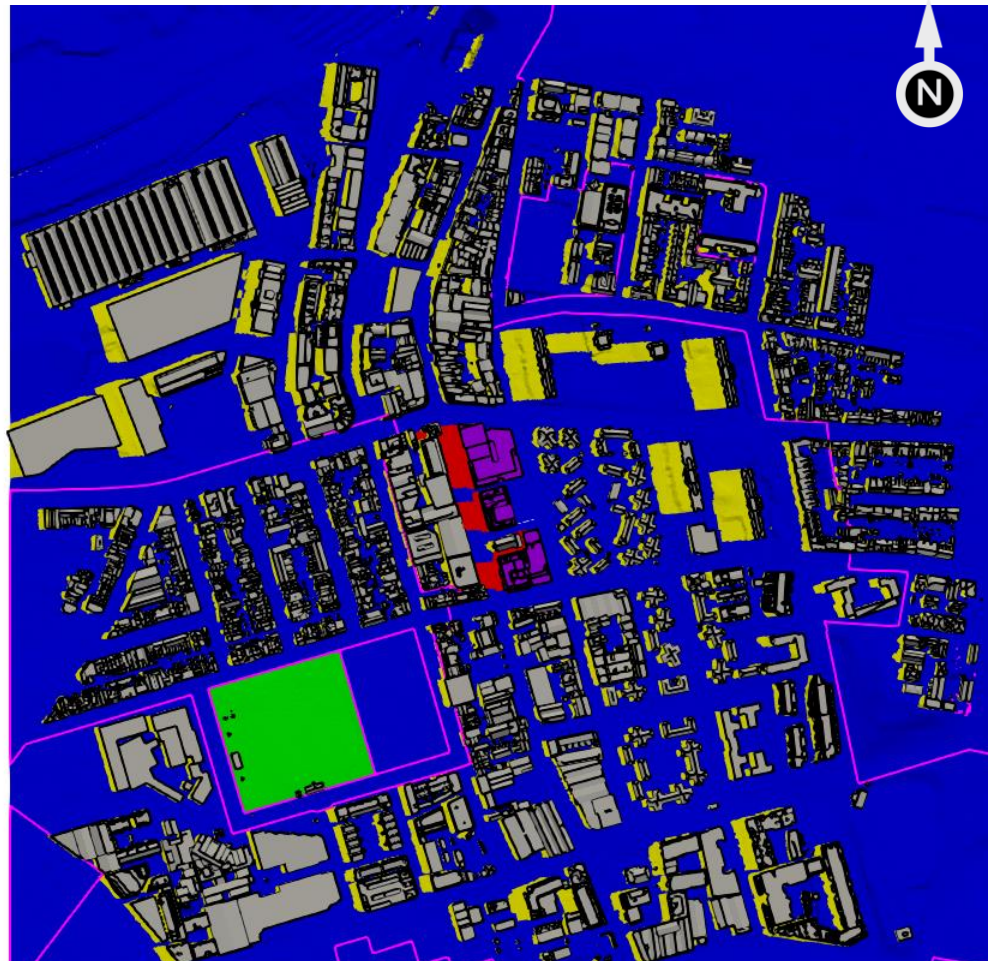
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POINT-IN-TIME SHADOW PLOTS



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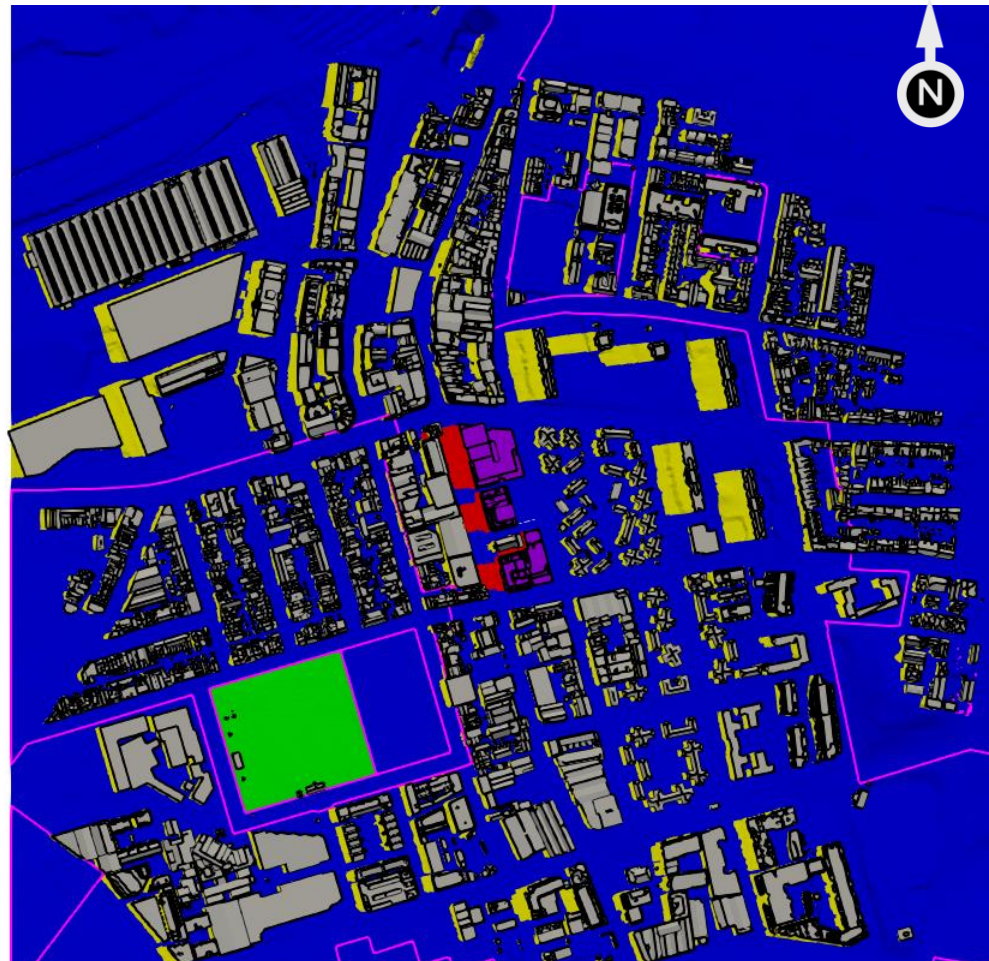
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POINT-IN-TIME SHADOW PLOTS



21 December – 10:15 AEDT



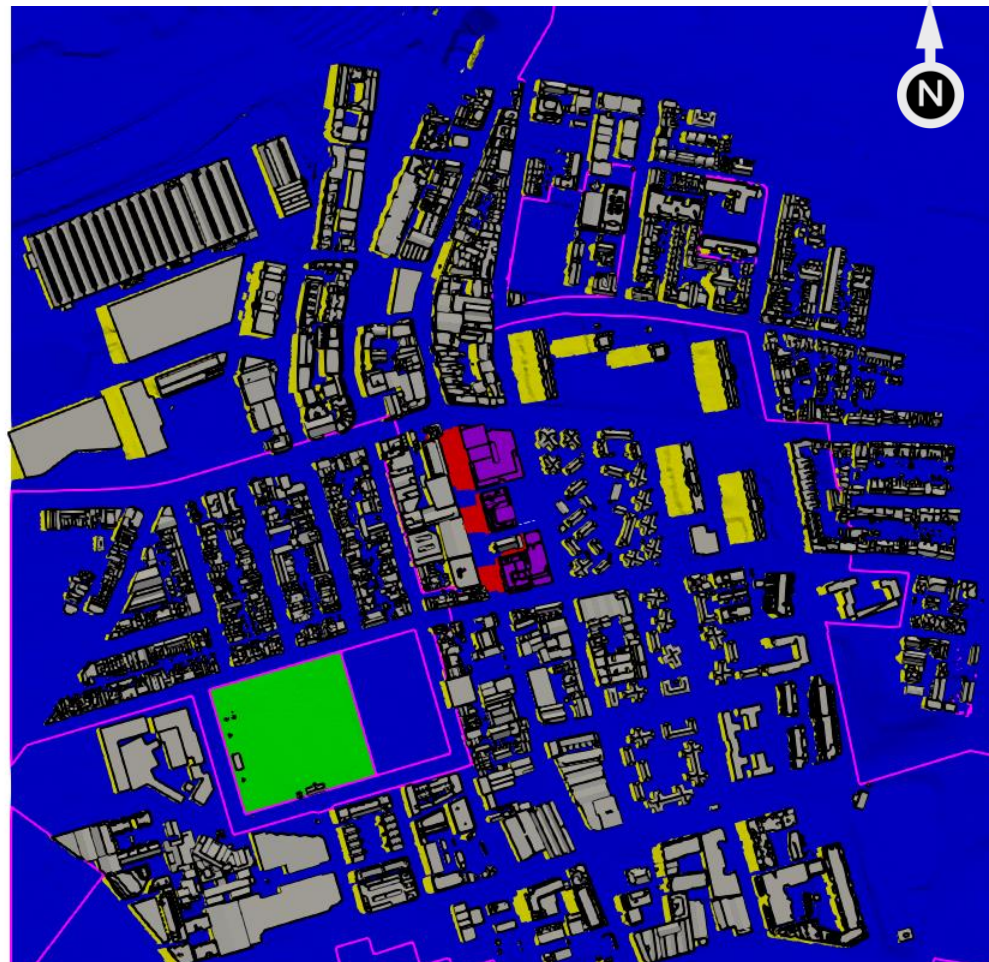
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POINT-IN-TIME SHADOW PLOTS



21 December – 10:30 AEDT



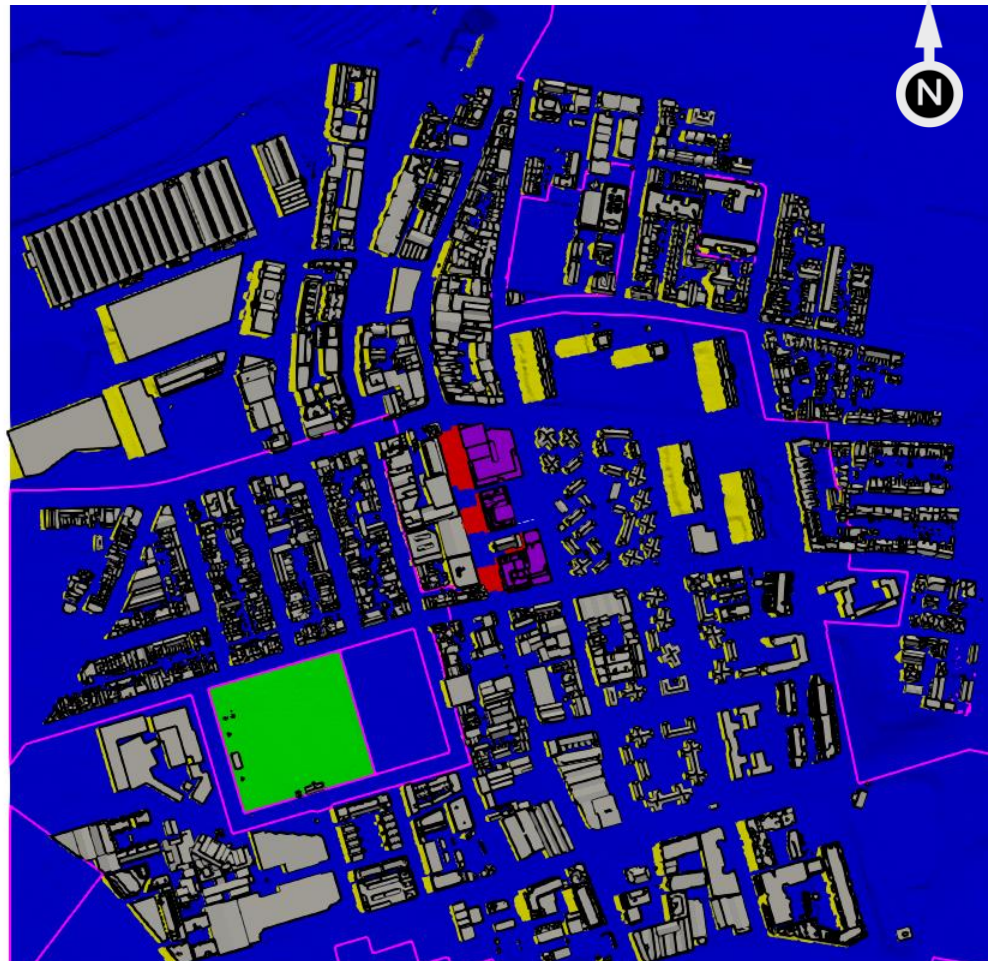
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POINT-IN-TIME SHADOW PLOTS



21 December – 10:45 AEDT



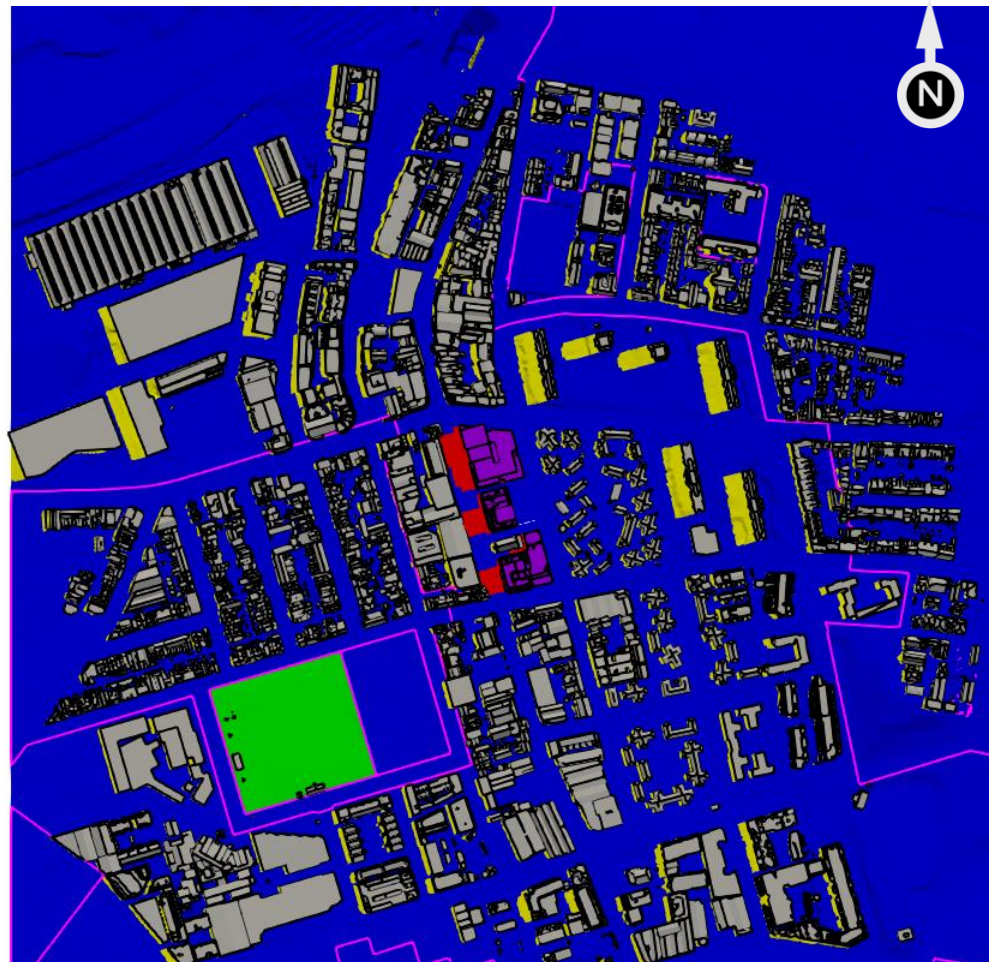
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POINT-IN-TIME SHADOW PLOTS



21 December – 11:00 AEDT



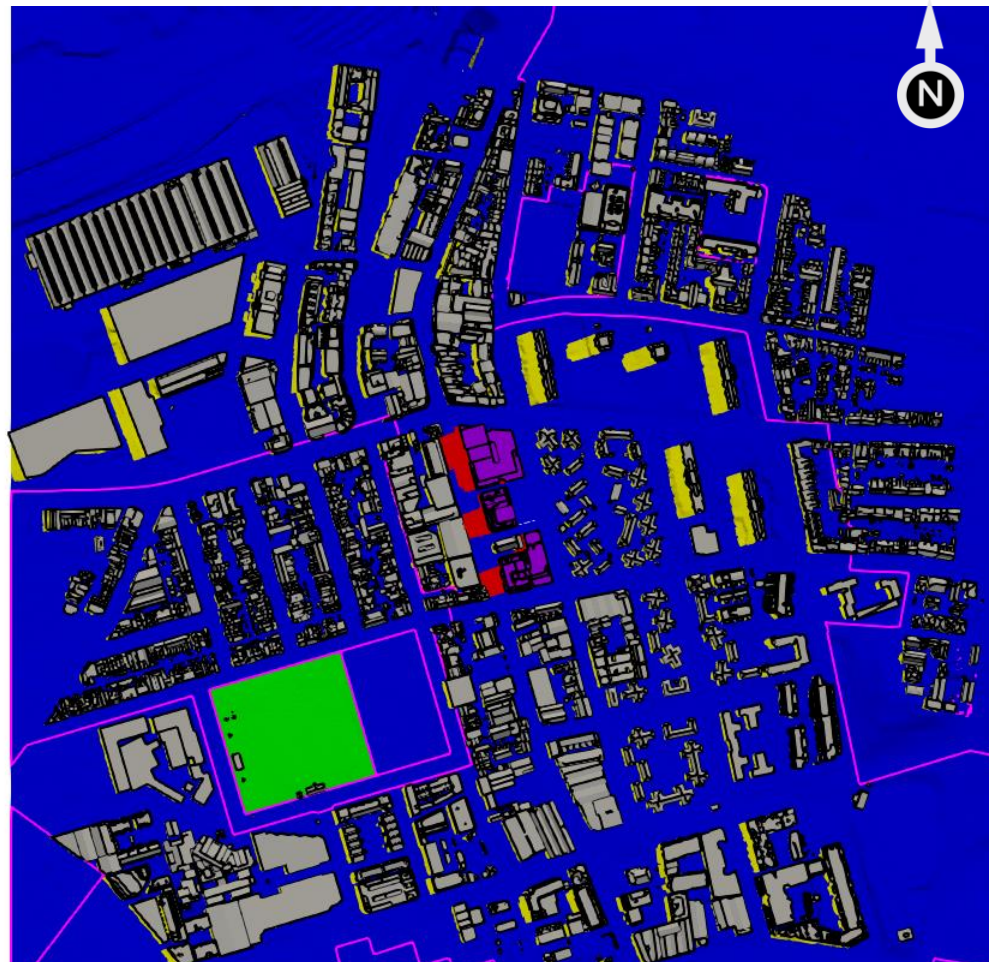
LEGEND

-  NO SHADOW
-  EXISTING SHADOW
-  NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 11:15 AEDT



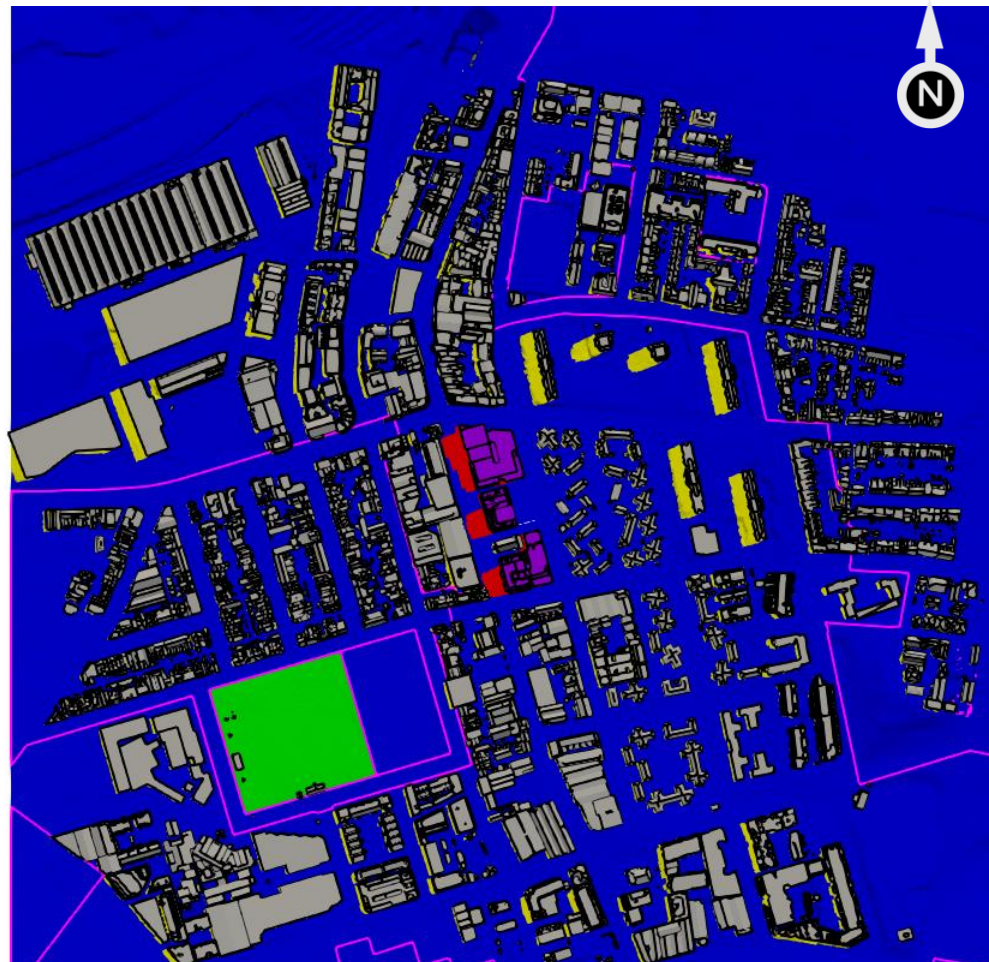
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 11:30 AEDT



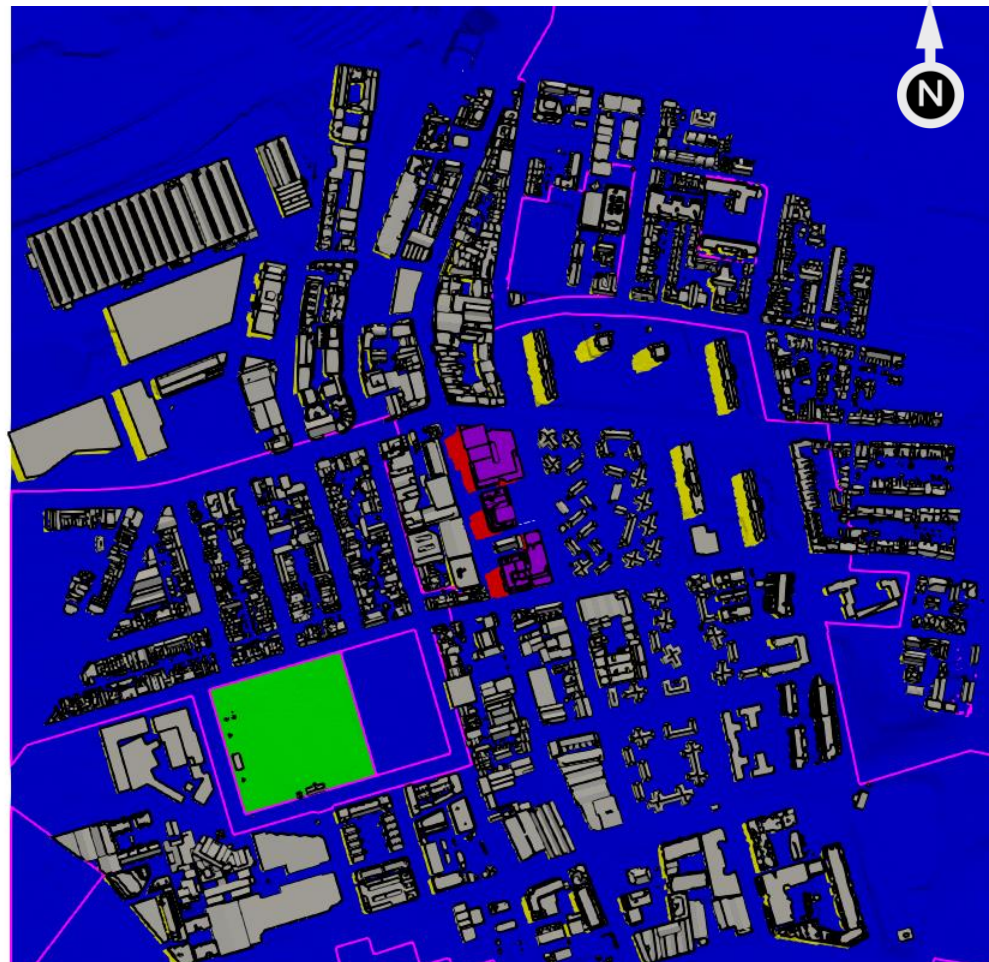
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 11:45 AEDT



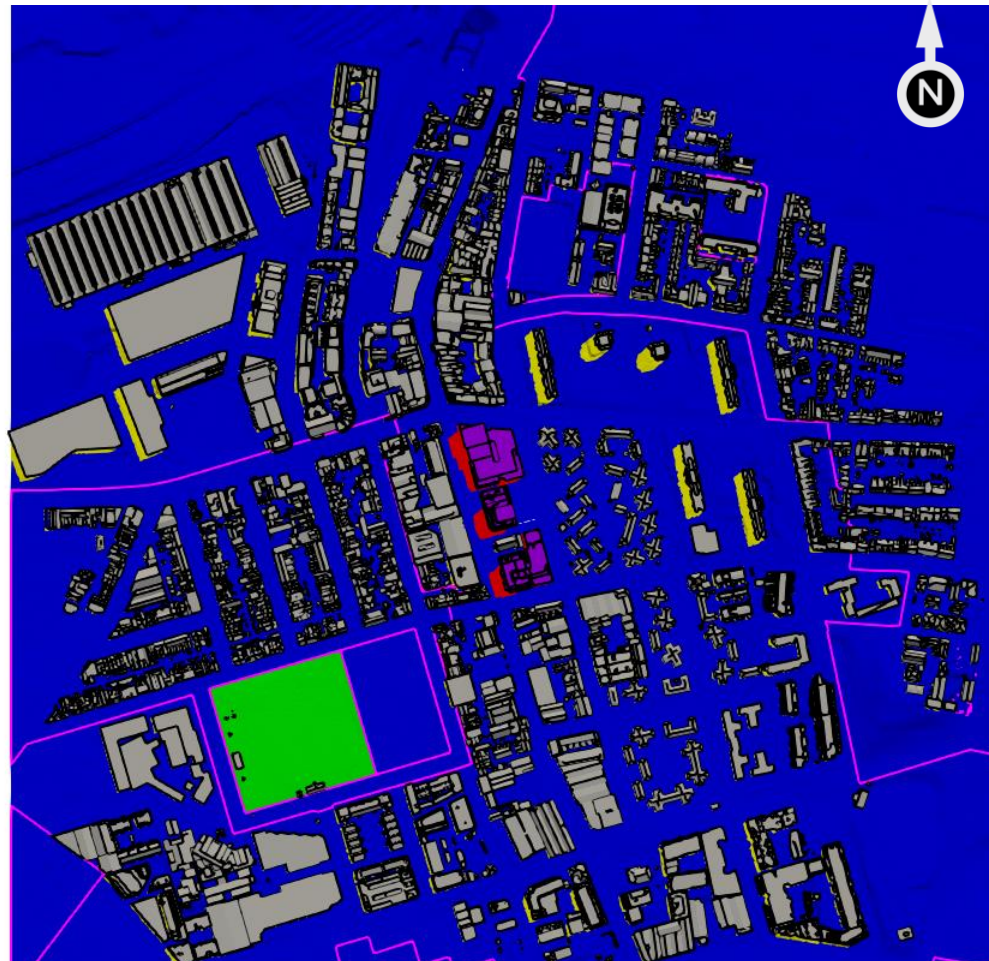
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 12:00 AEDT



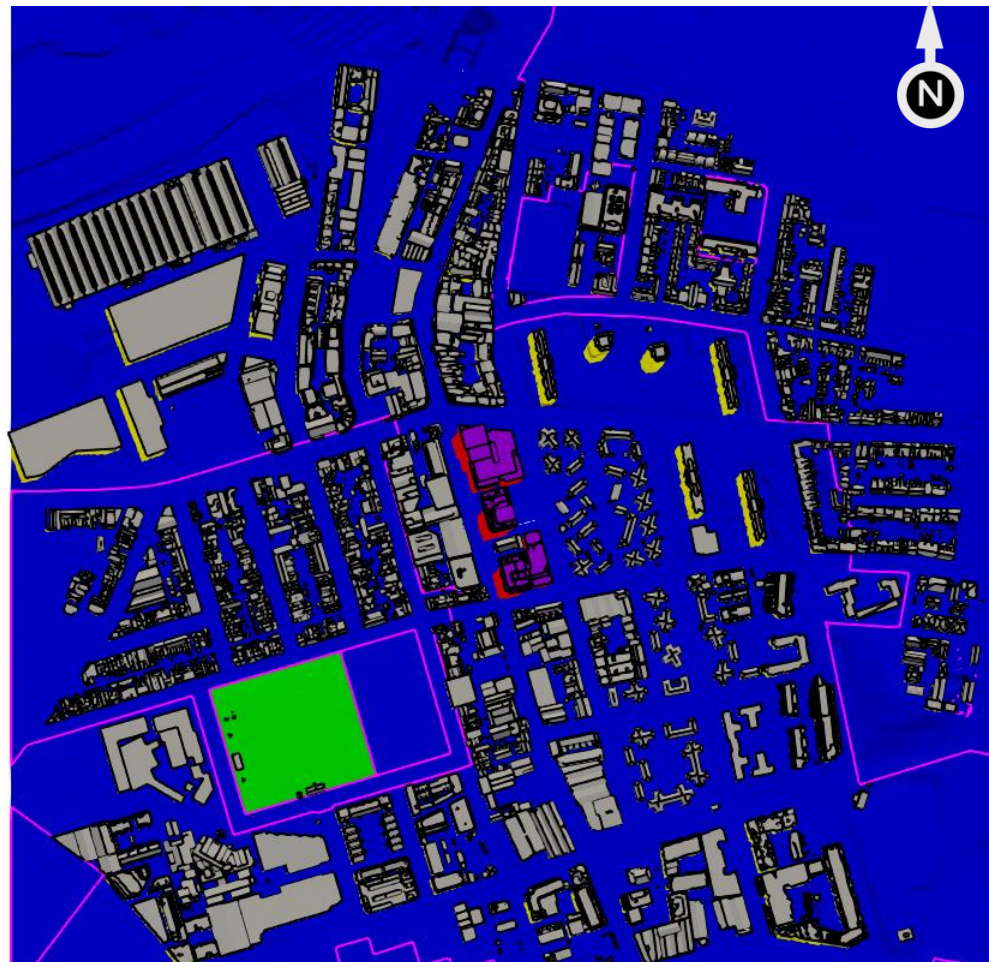
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 12:15 AEDT



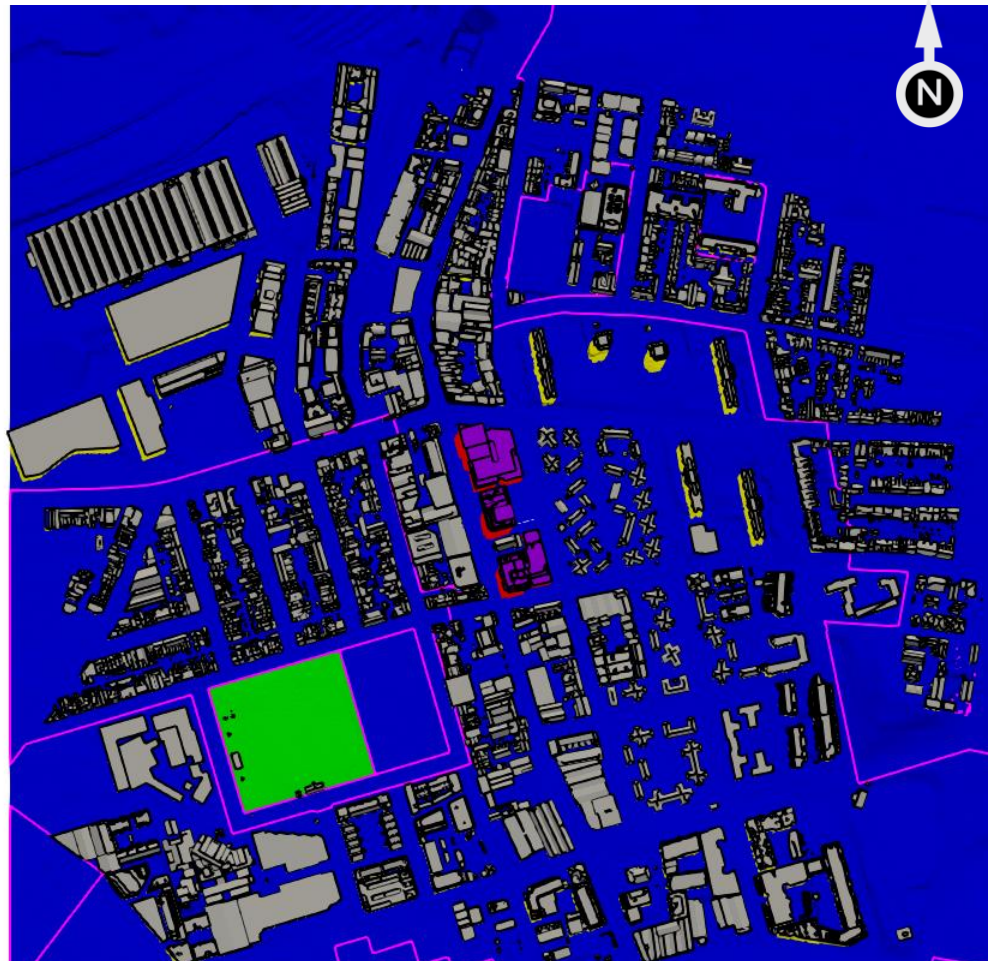
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 12:30 AEDT



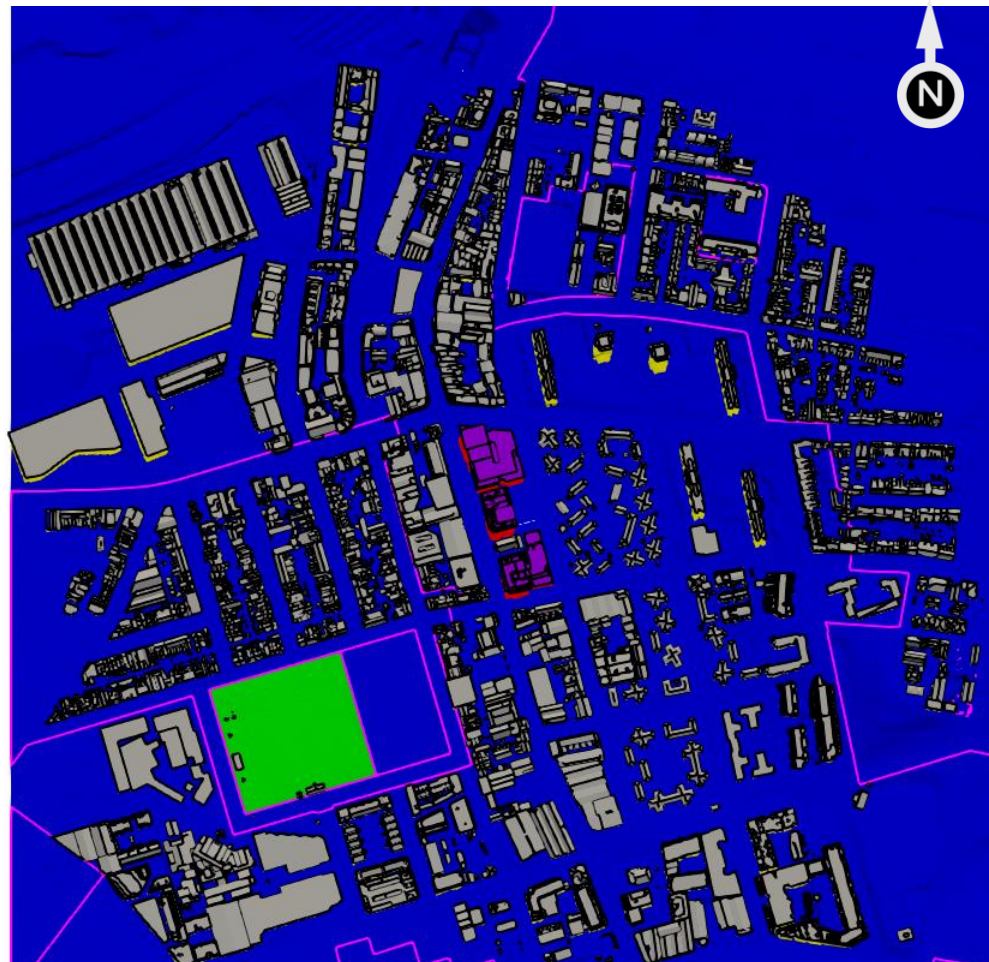
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 12:45 AEDT



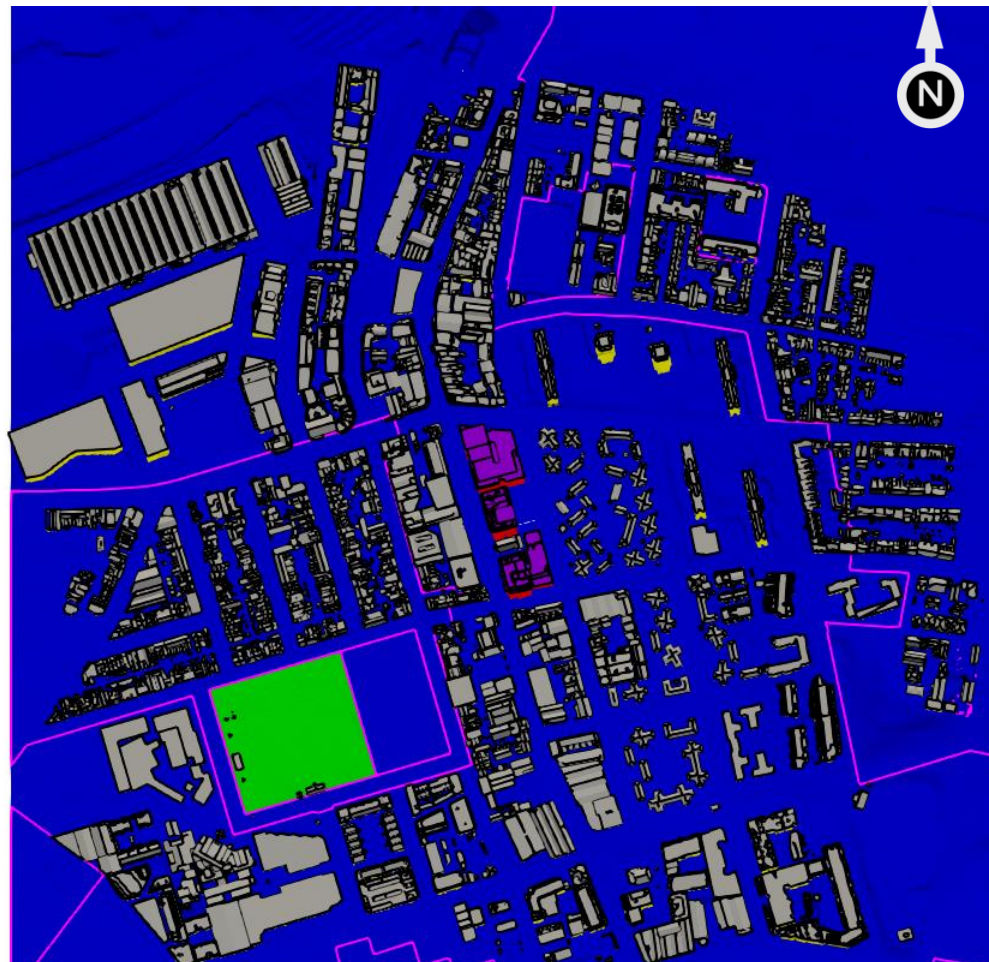
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 1:00 AEDT



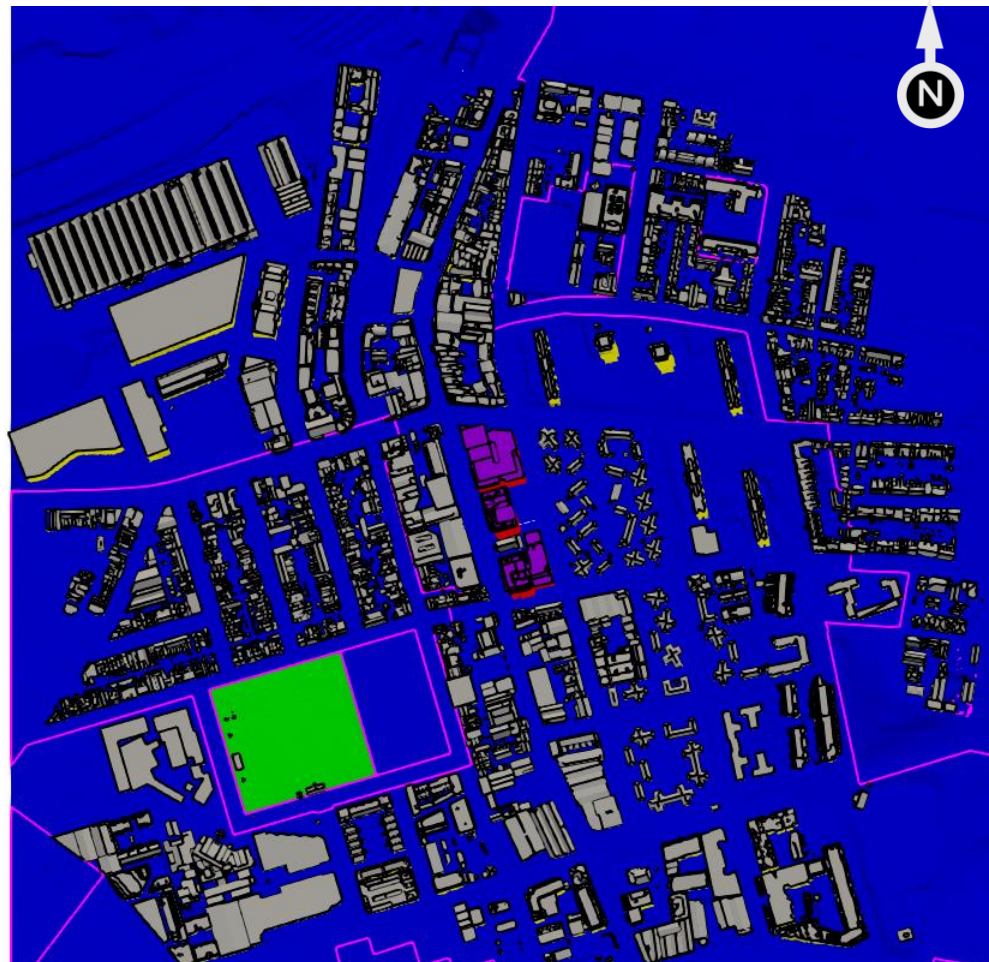
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 1:15 AEDT



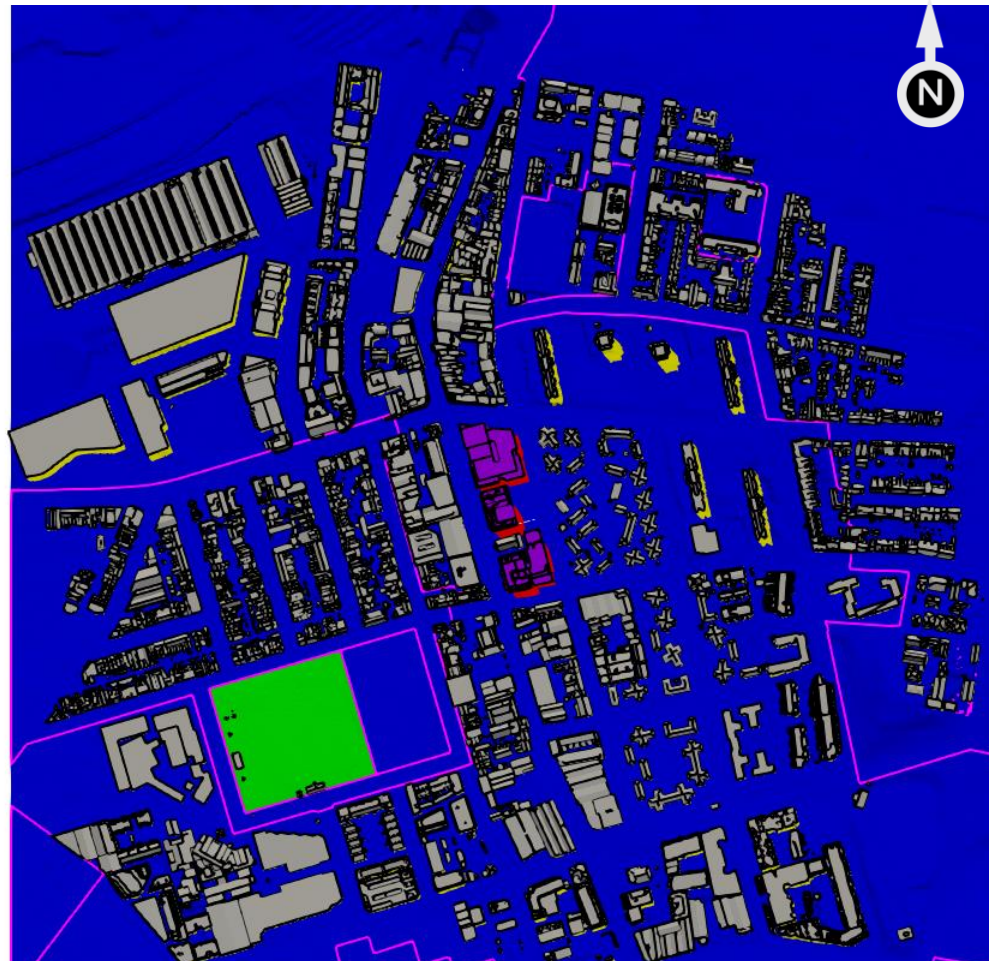
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 1:30 AEDT



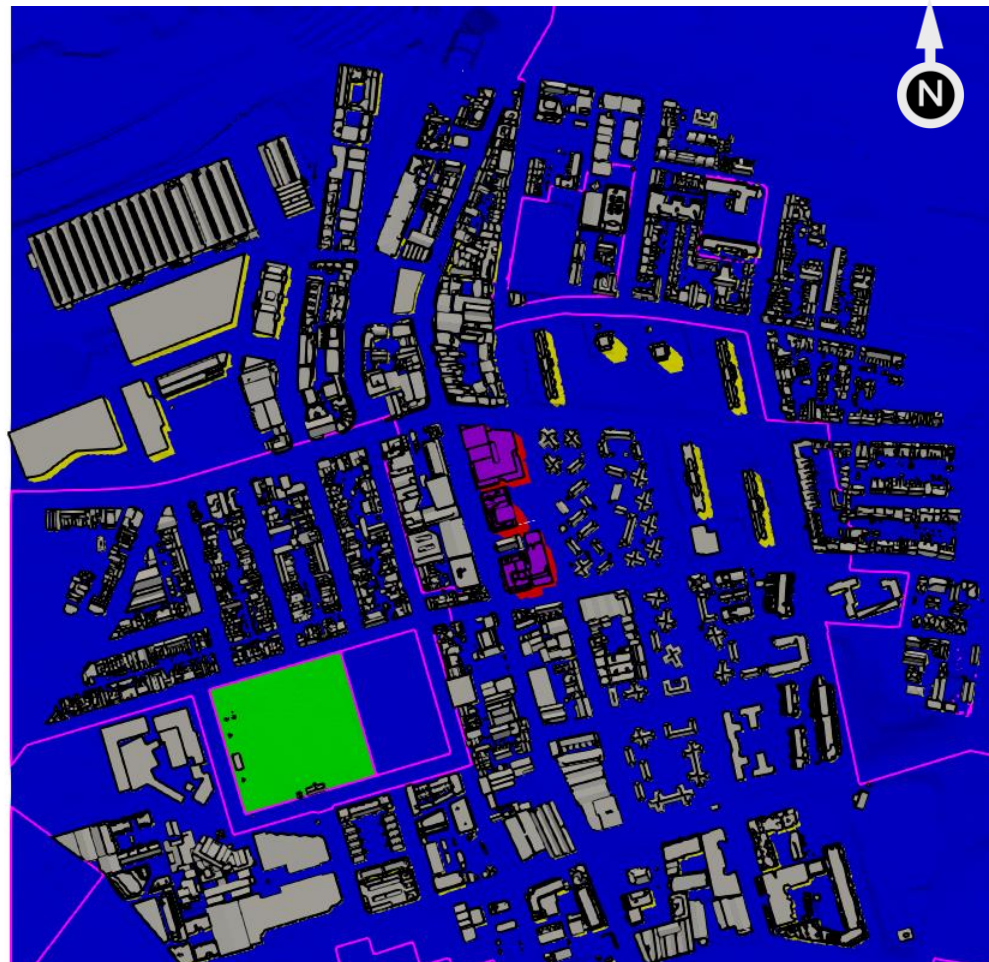
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 1:45 AEDT



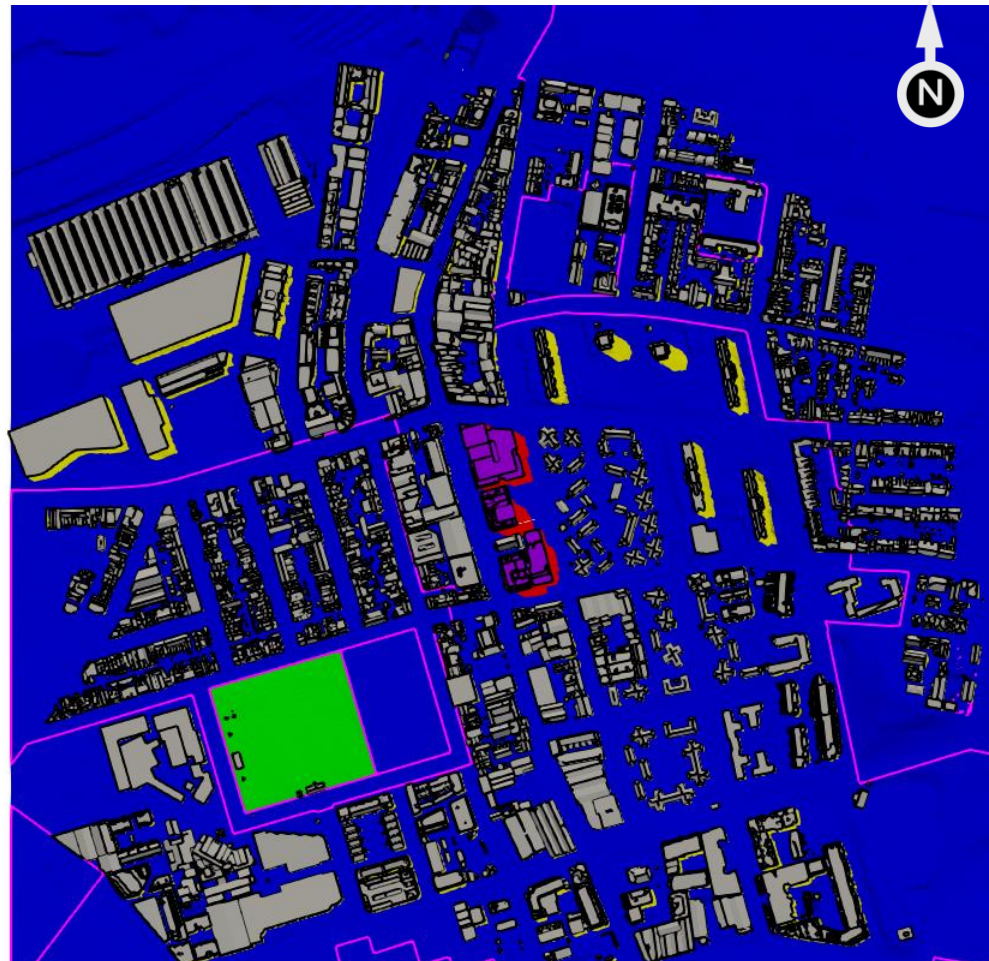
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 2:00 AEDT



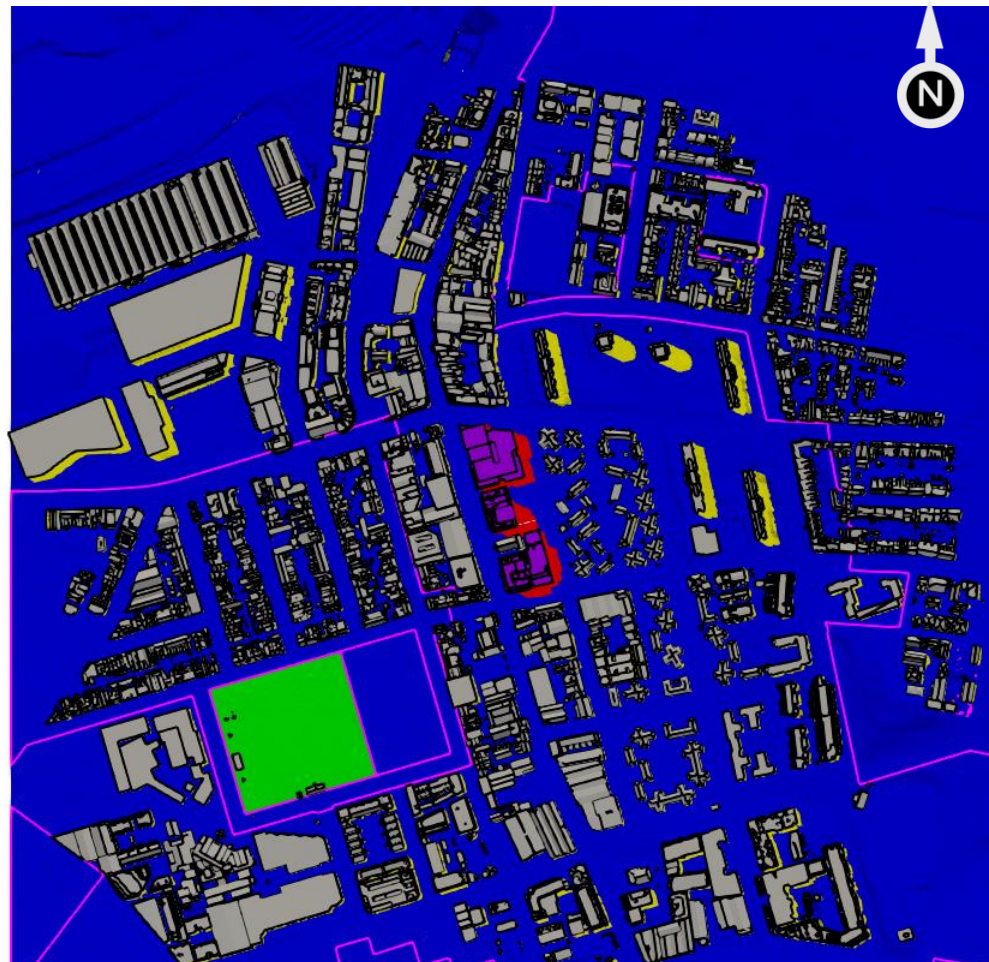
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 2:15 AEDT



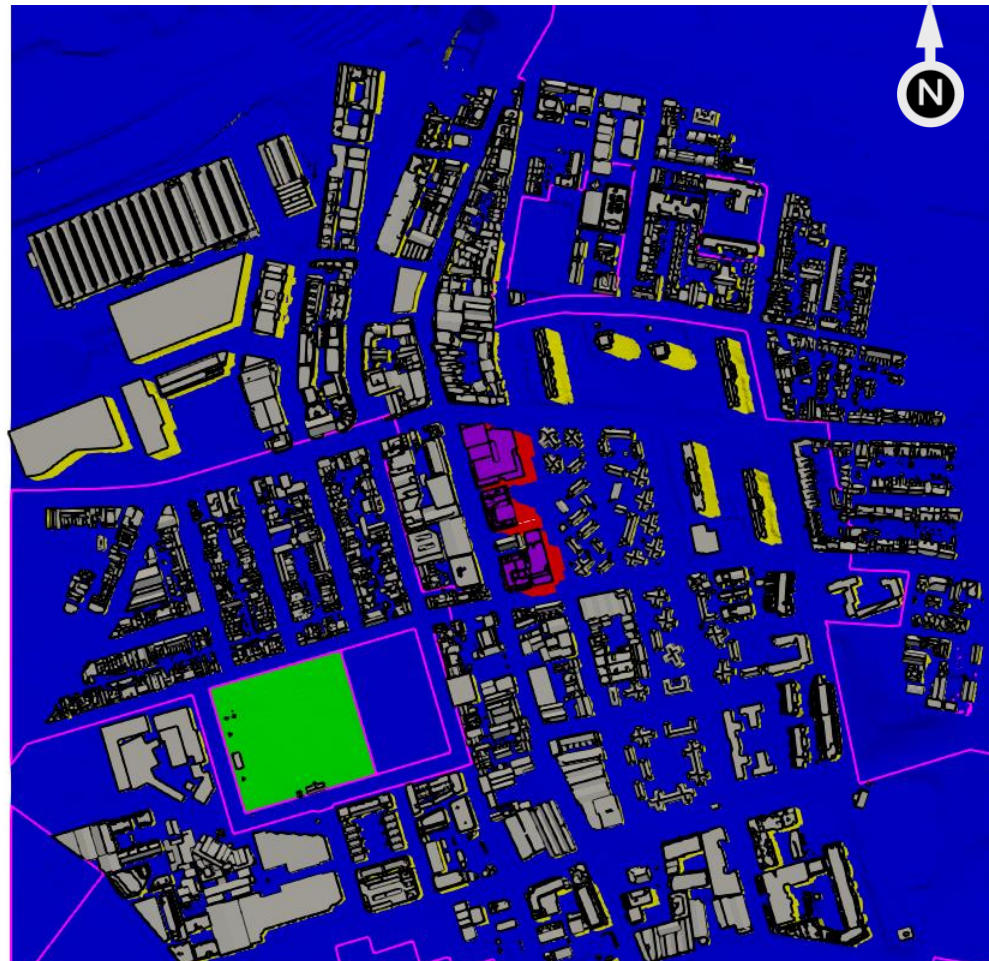
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 2:30 AEDT



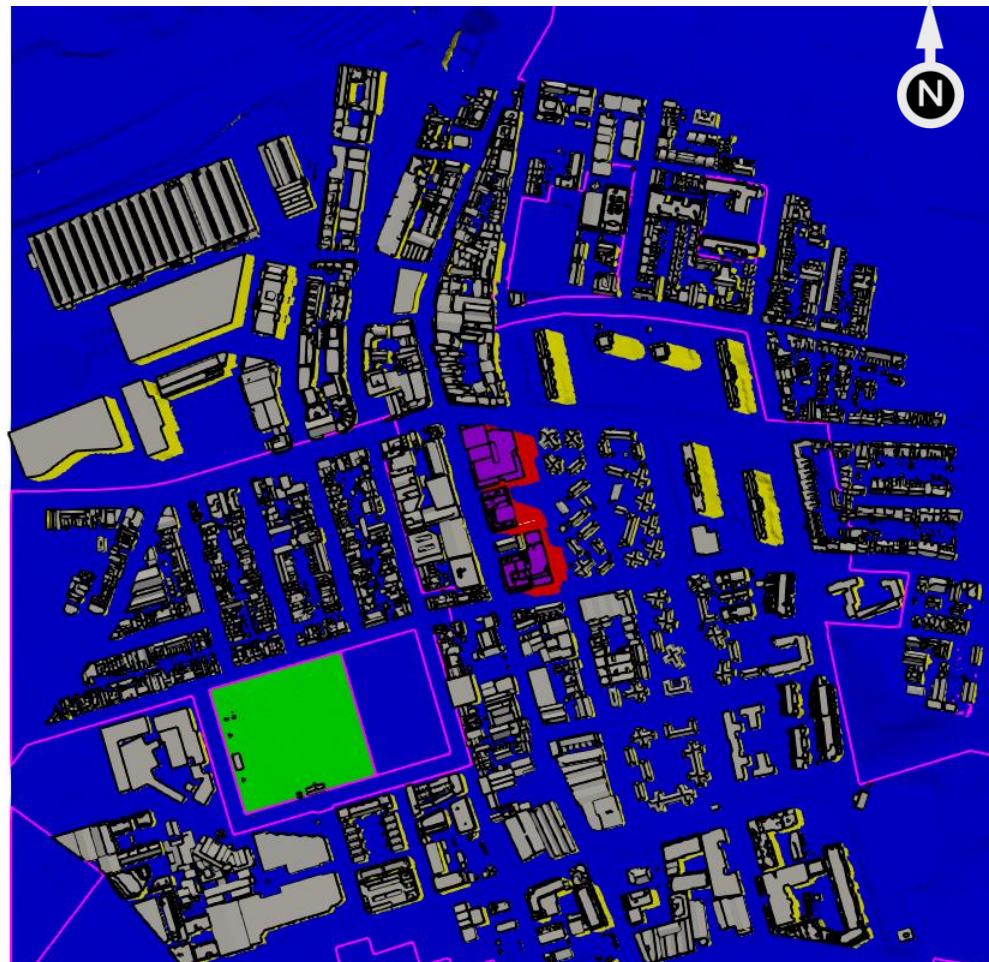
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 2:45 AEDT



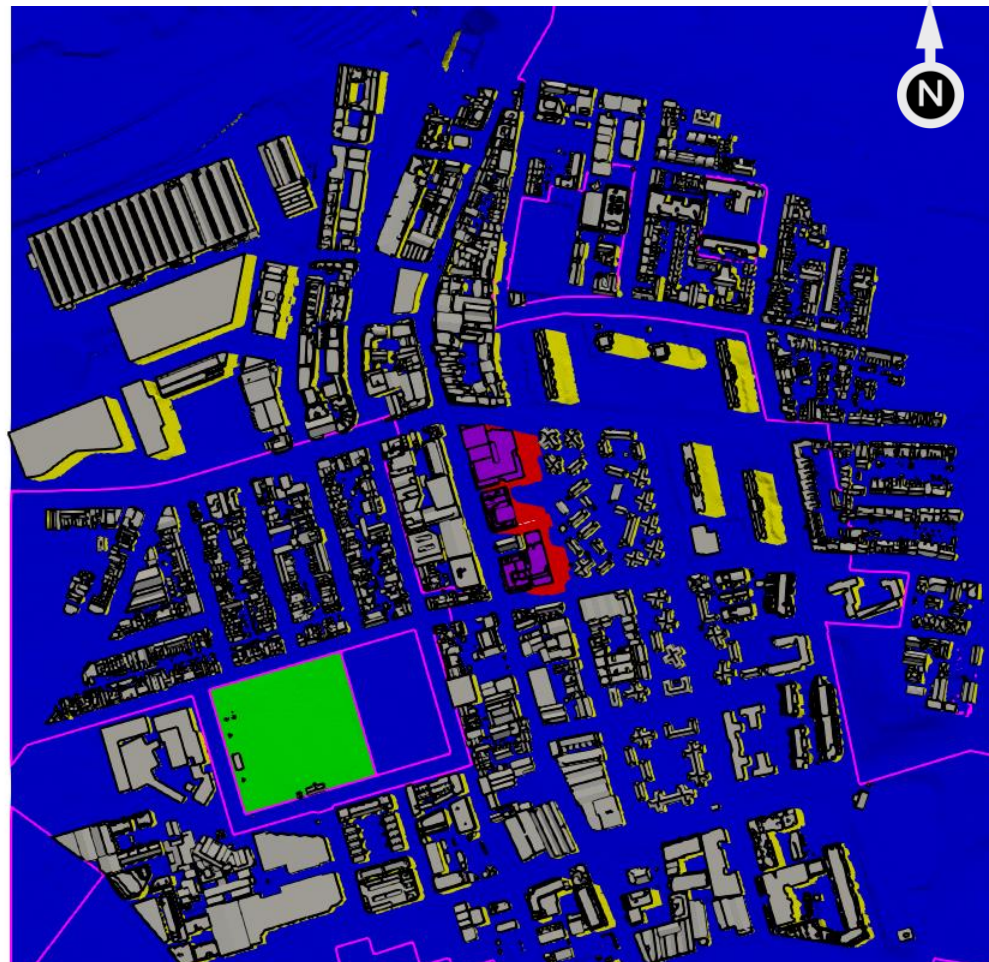
LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW

POINT-IN-TIME SHADOW PLOTS



21 December – 3:00 AEDT



LEGEND

- NO SHADOW
- EXISTING SHADOW
- NEW SHADOW



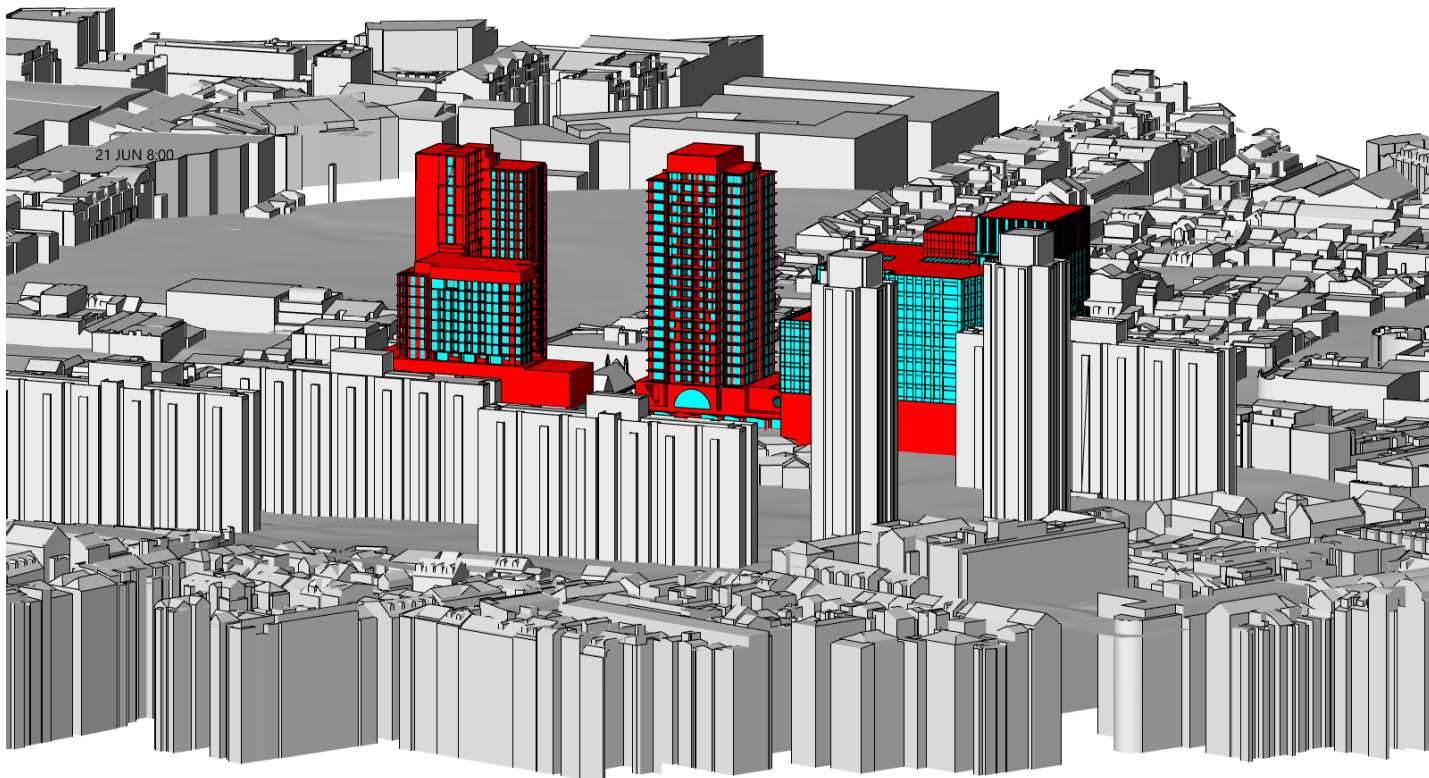
APPENDIX 7

SUN-VIEW DIAGRAMS
21 JUNE

SUN VIEW DIAGRAM



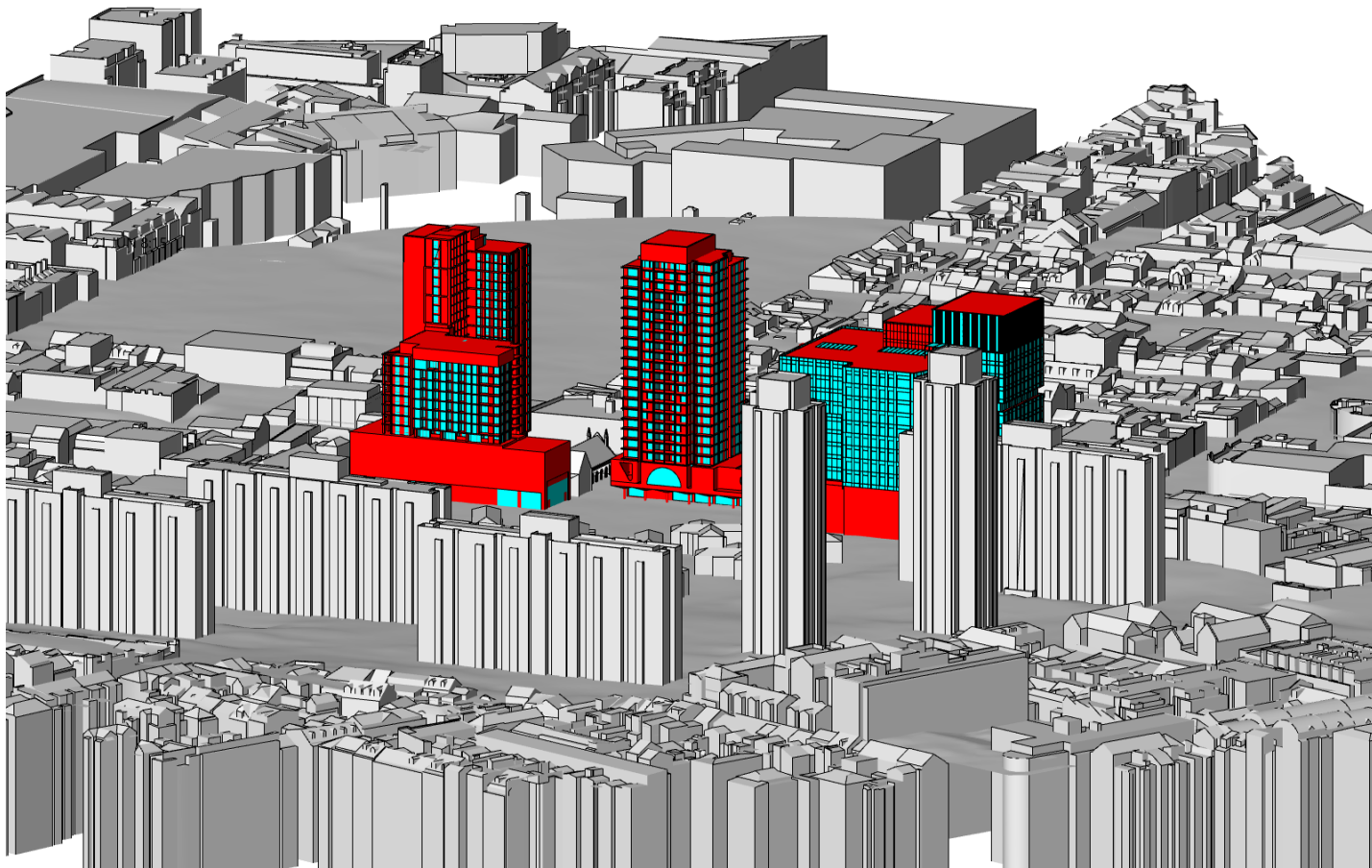
Jun 21 - 08:00 AEST



SUN VIEW DIAGRAM



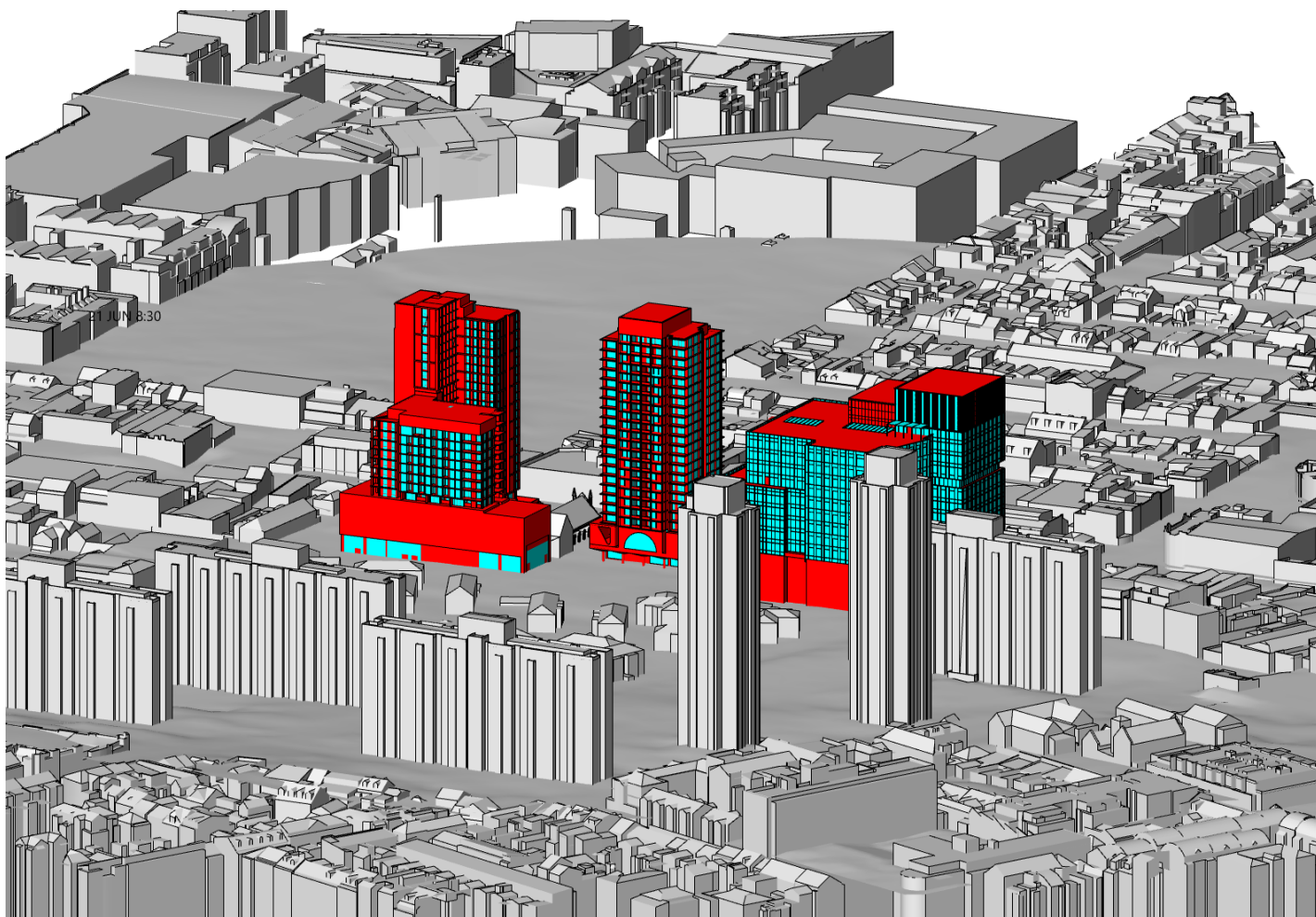
Jun 21 - 08:15 AEST



SUN VIEW DIAGRAM



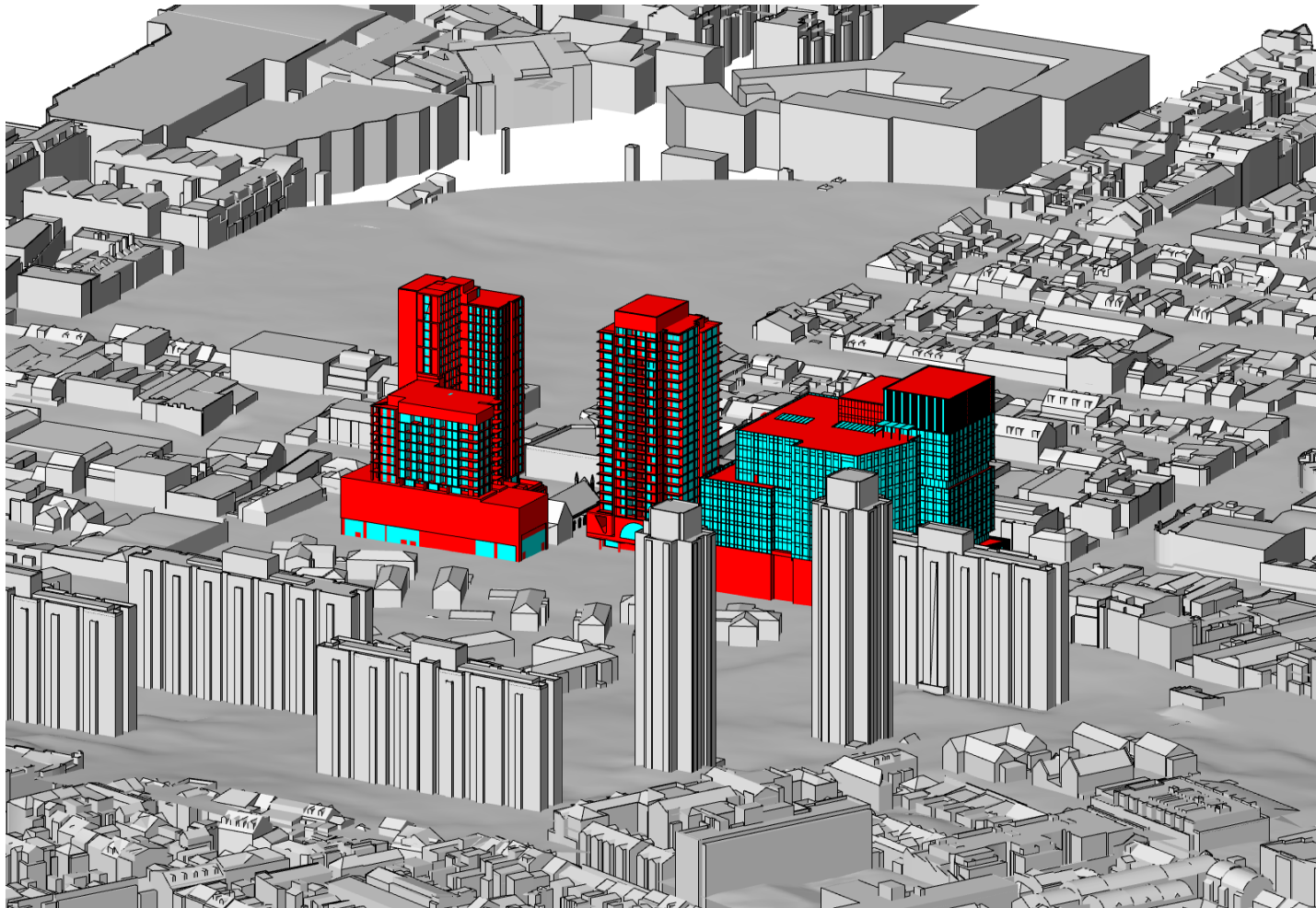
Jun 21 - 08:30 AEST



SUN VIEW DIAGRAM



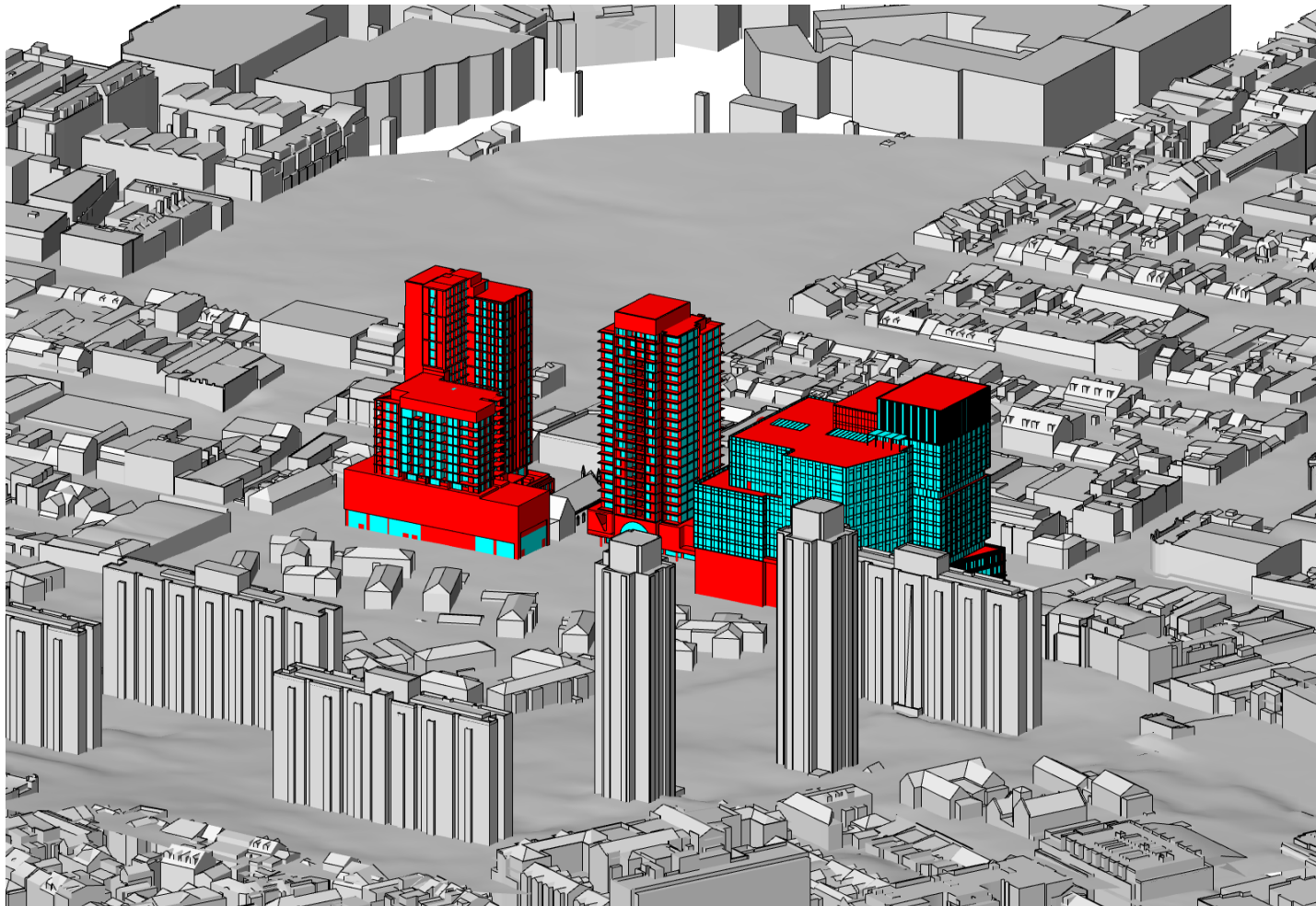
Jun 21 - 08:45 AEST



SUN VIEW DIAGRAM



Jun 21 - 09:00 AEST



SUN VIEW DIAGRAM



Jun 21 - 09:15 AEST



SUN VIEW DIAGRAM



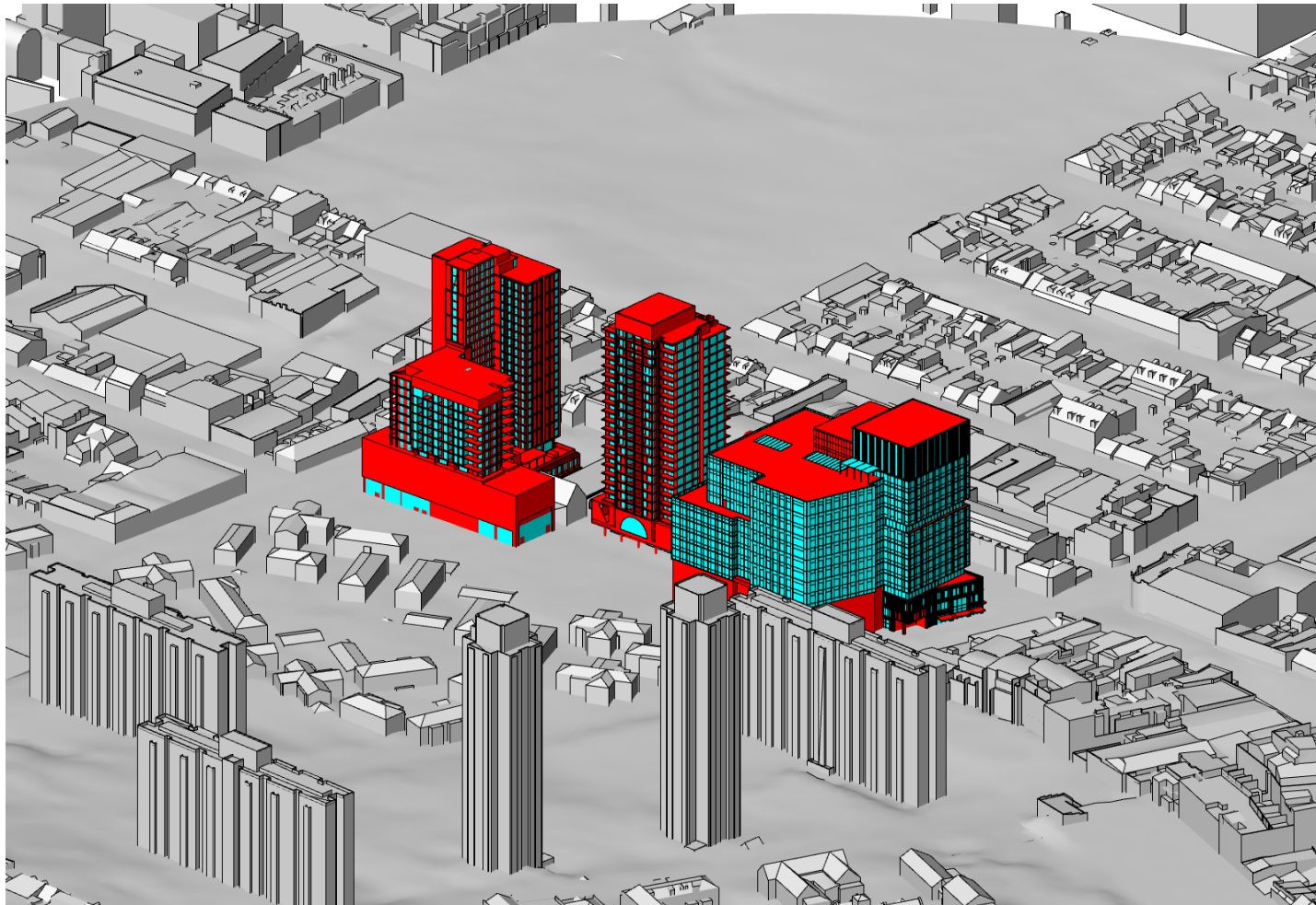
Jun 21 - 09:30 AEST



SUN VIEW DIAGRAM



Jun 21 - 09:45 AEST



SUN VIEW DIAGRAM



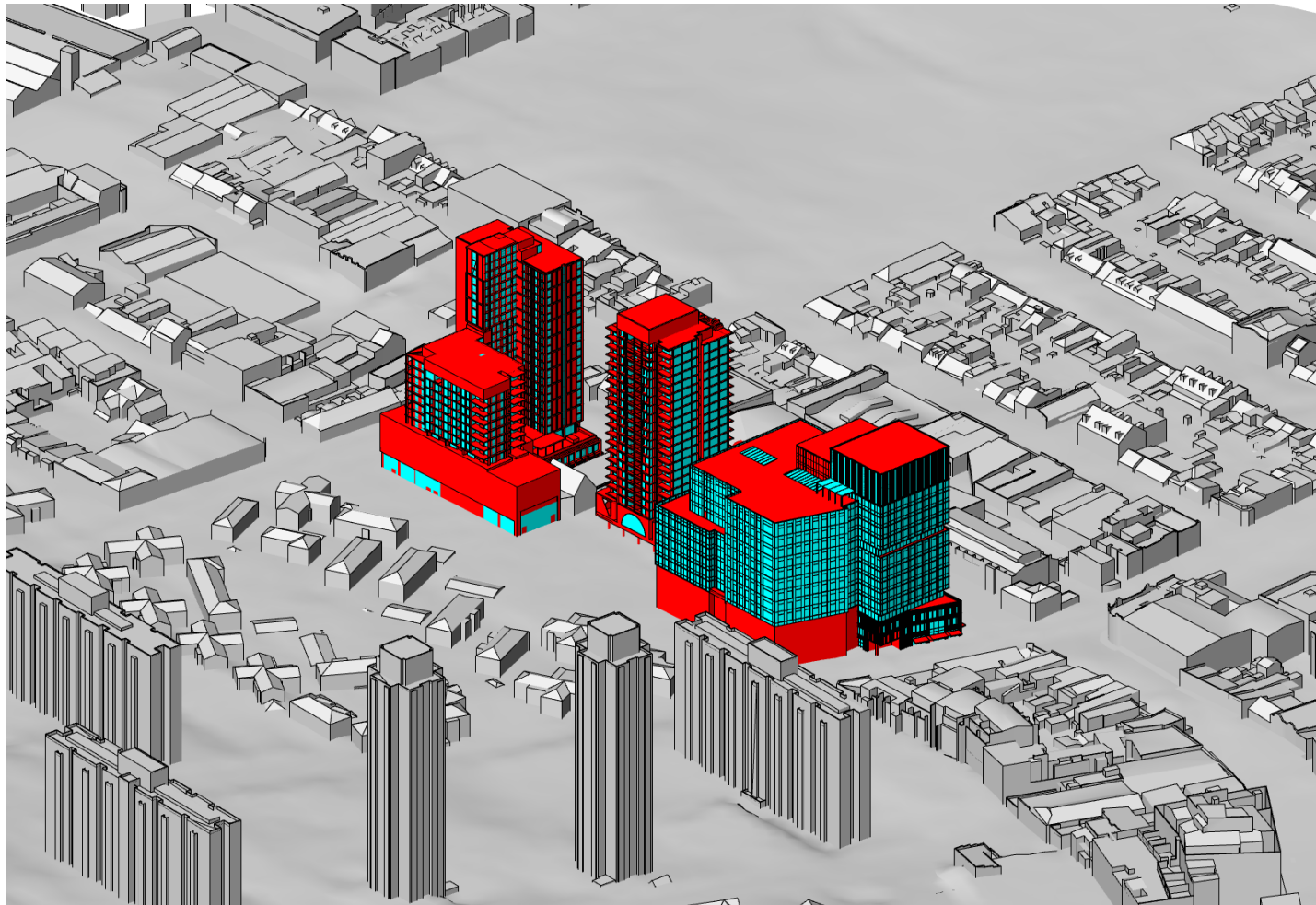
Jun 21 - 10:00 AEST



SUN VIEW DIAGRAM



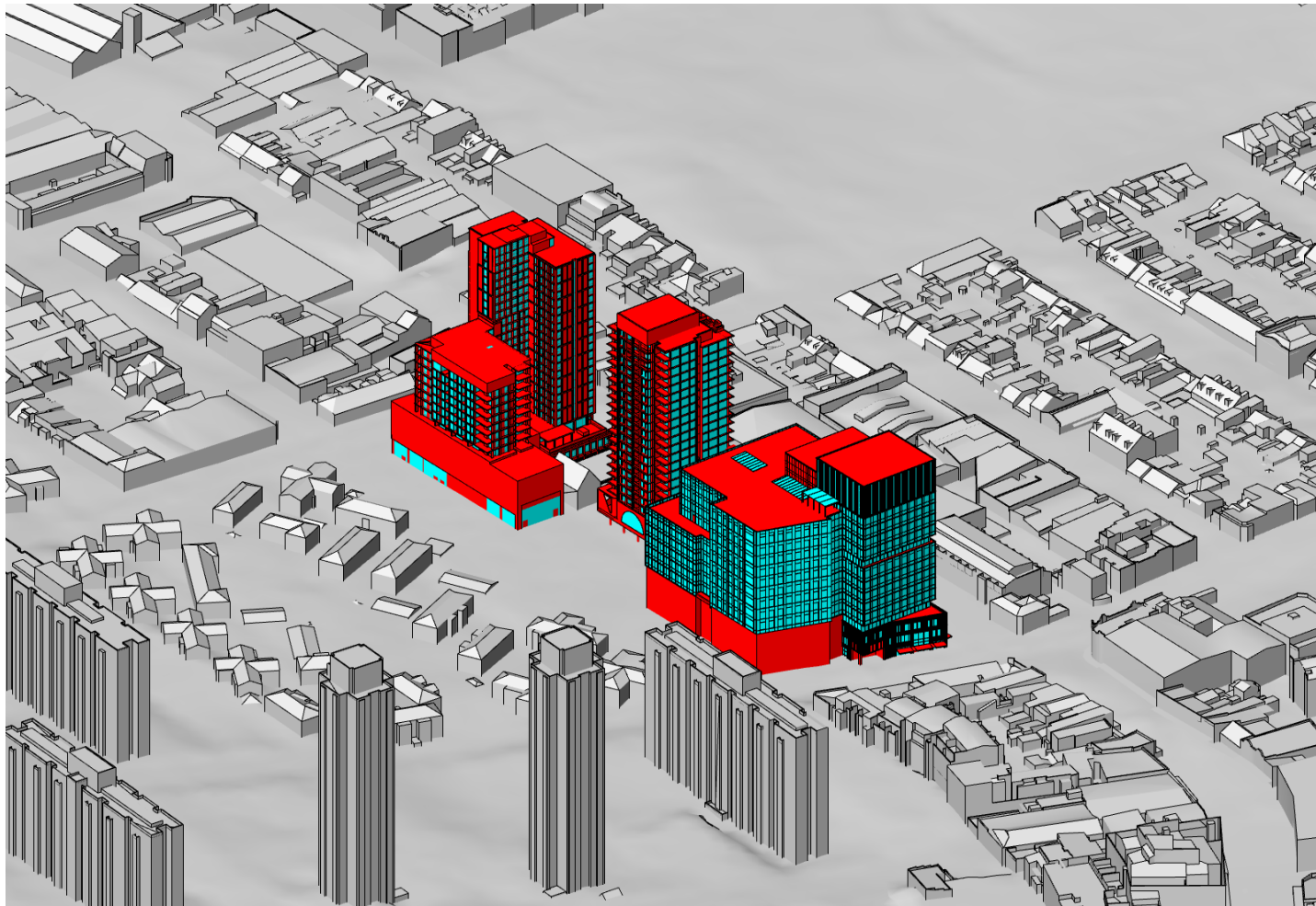
Jun 21 - 10:15 AEST



SUN VIEW DIAGRAM



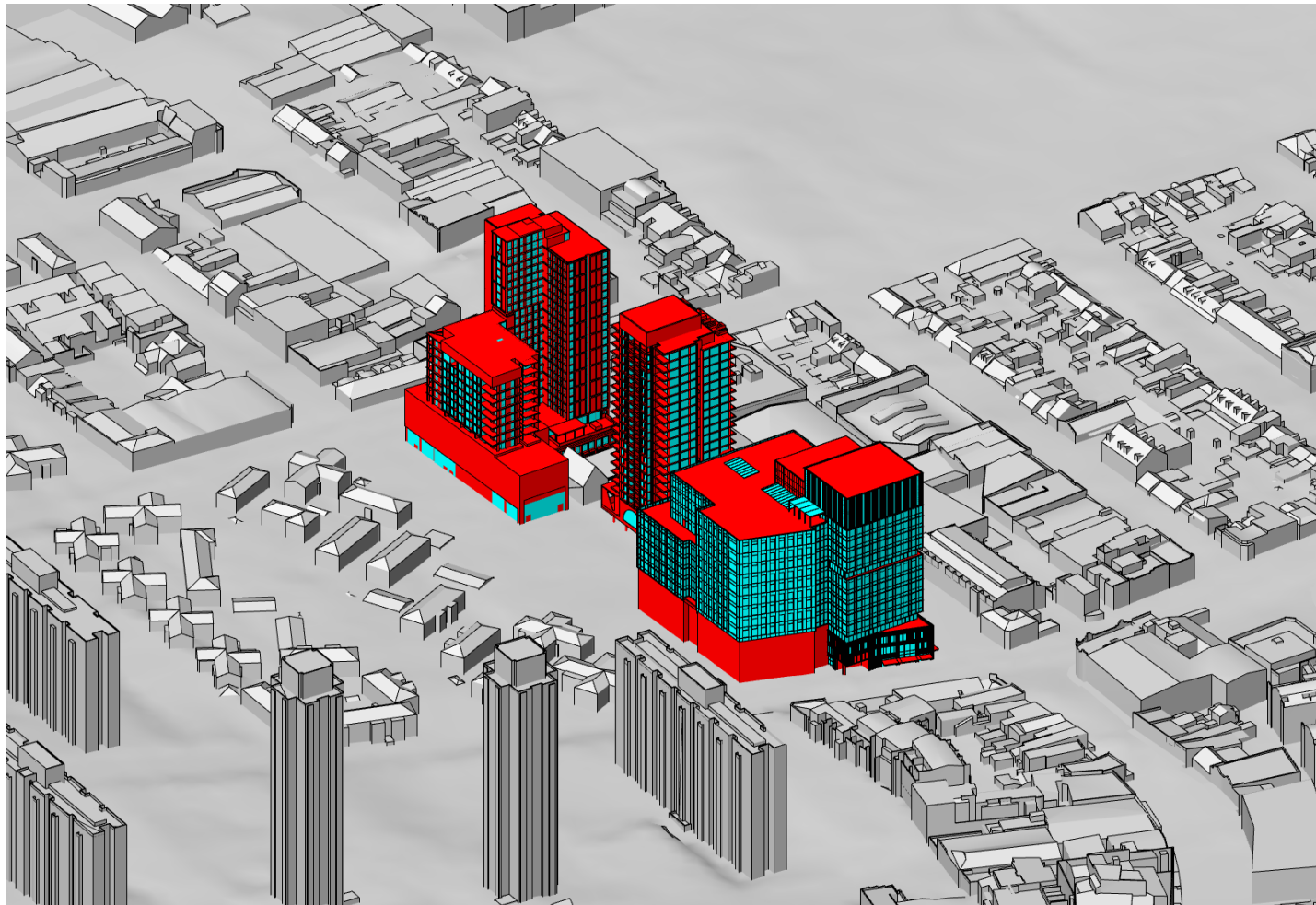
Jun 21 - 10:30 AEST



SUN VIEW DIAGRAM



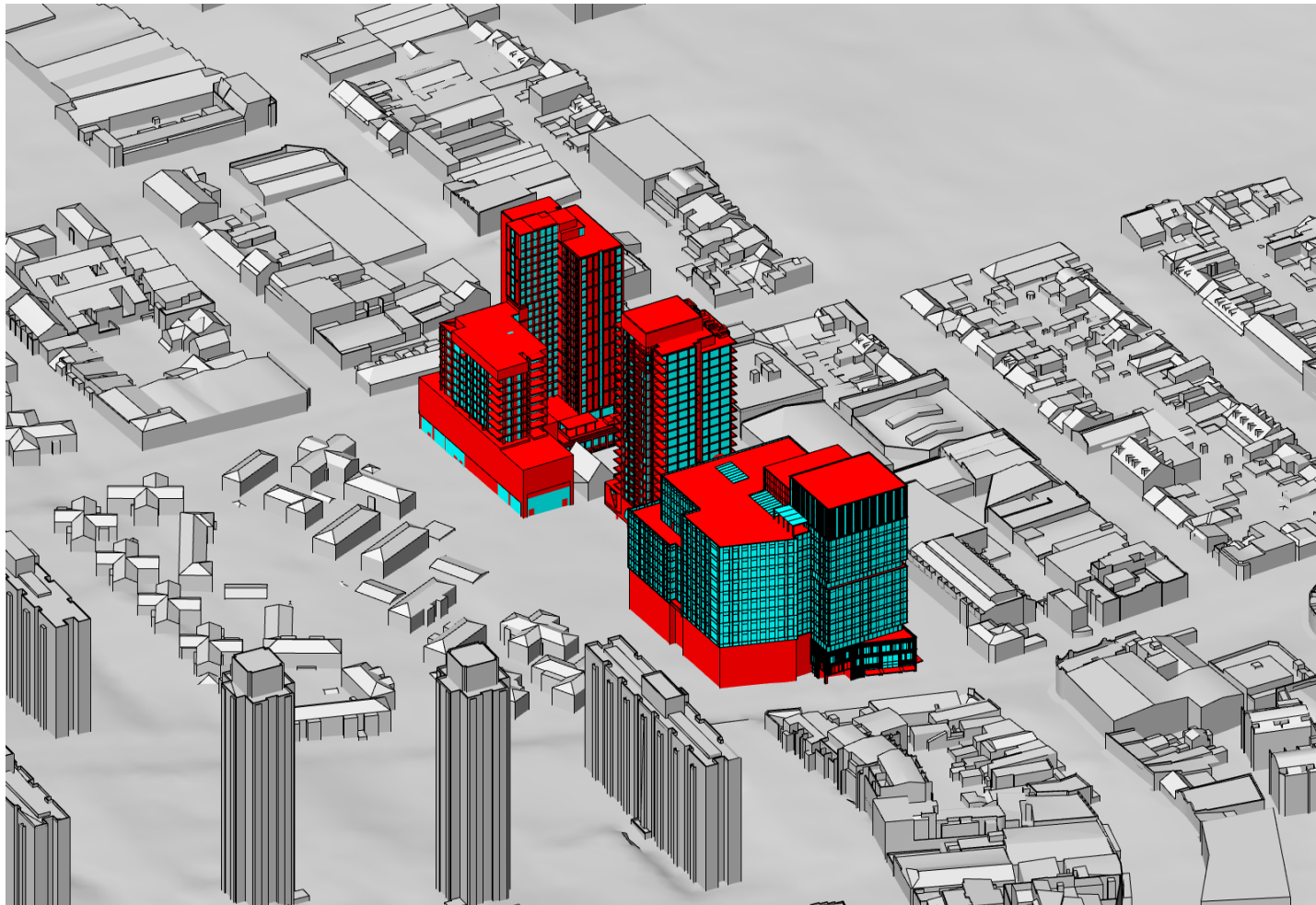
Jun 21 - 10:45 AEST



SUN VIEW DIAGRAM



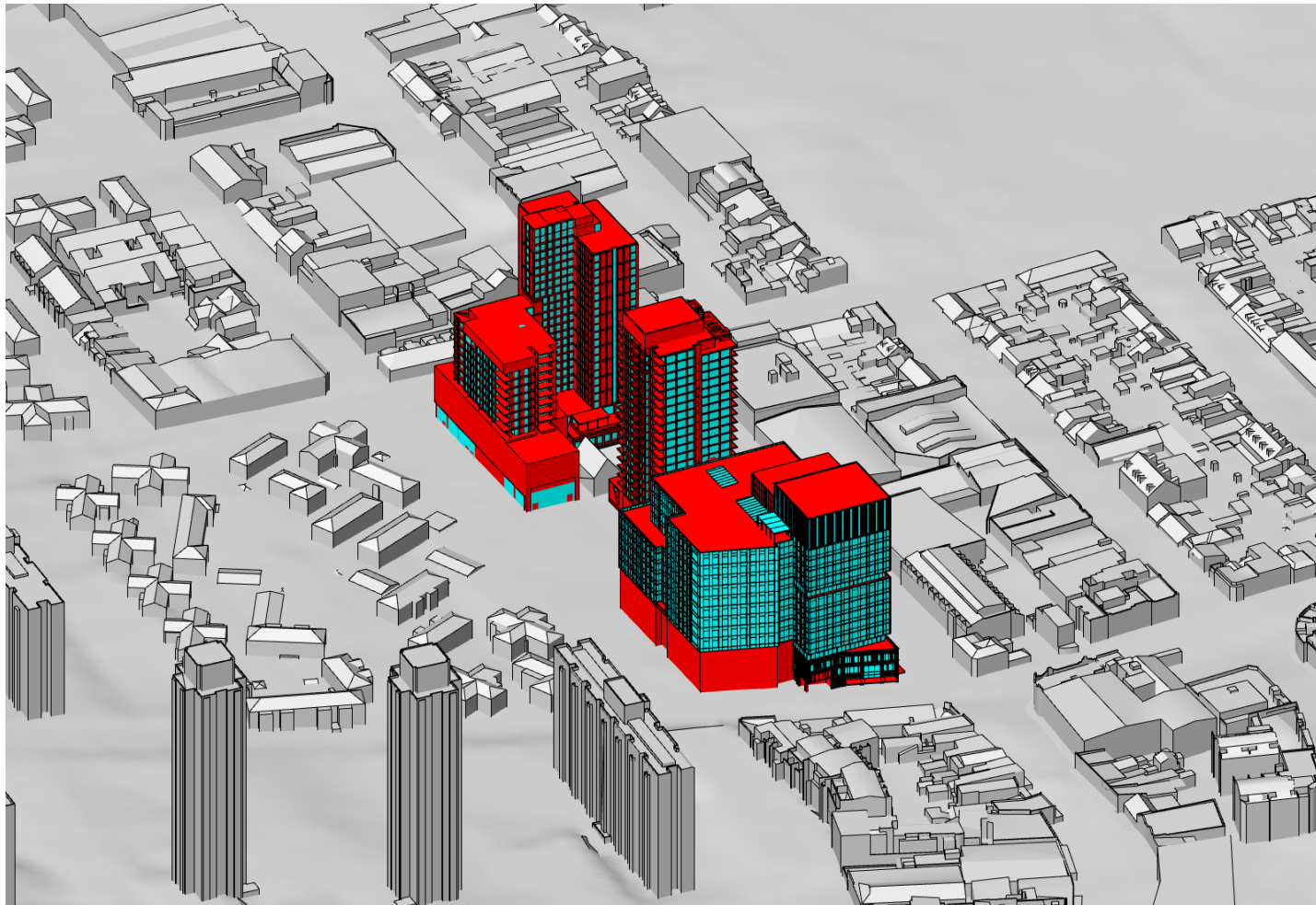
Jun 21 - 11:00 AEST



SUN VIEW DIAGRAM



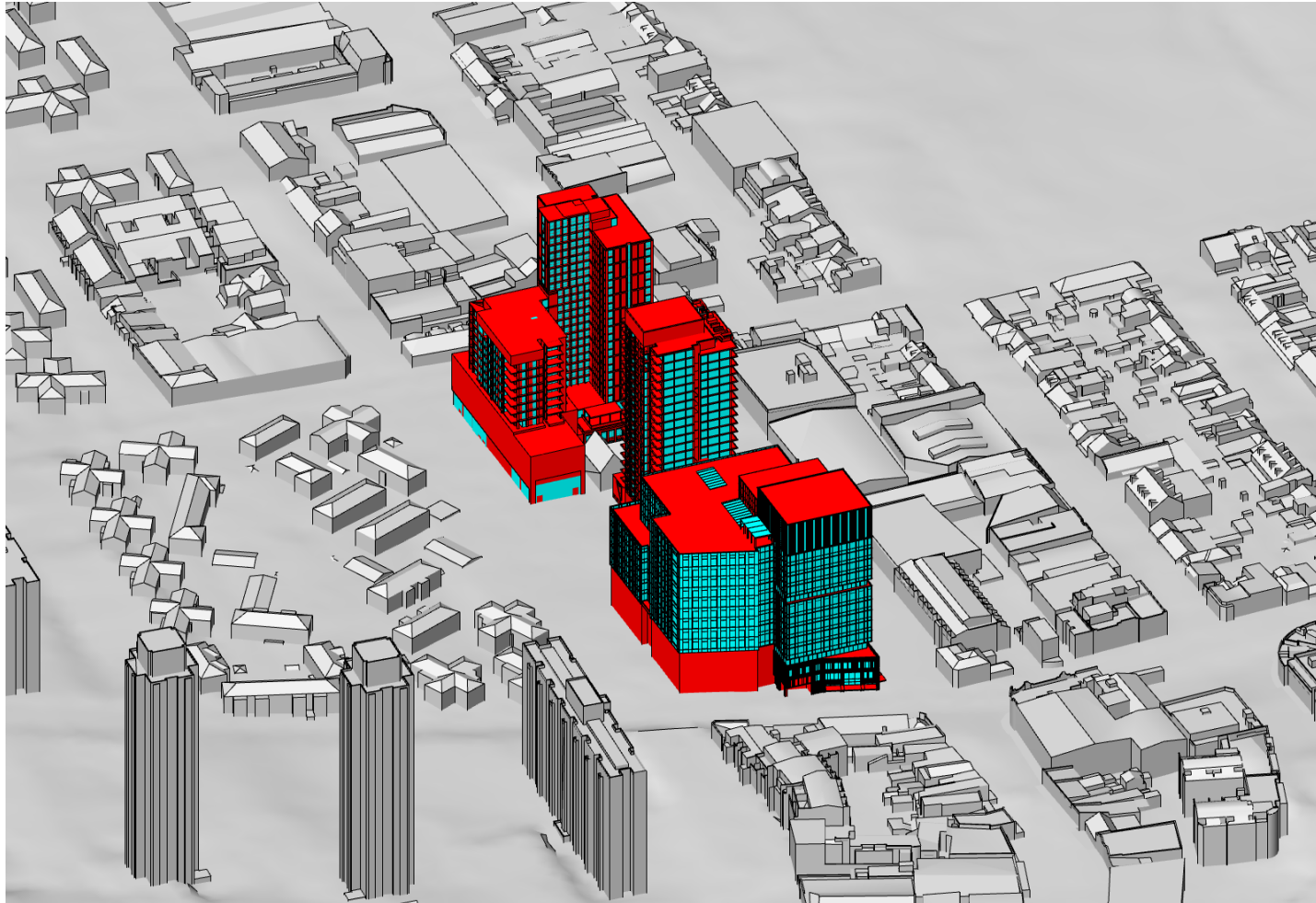
Jun 21 - 11:15 AEST



SUN VIEW DIAGRAM



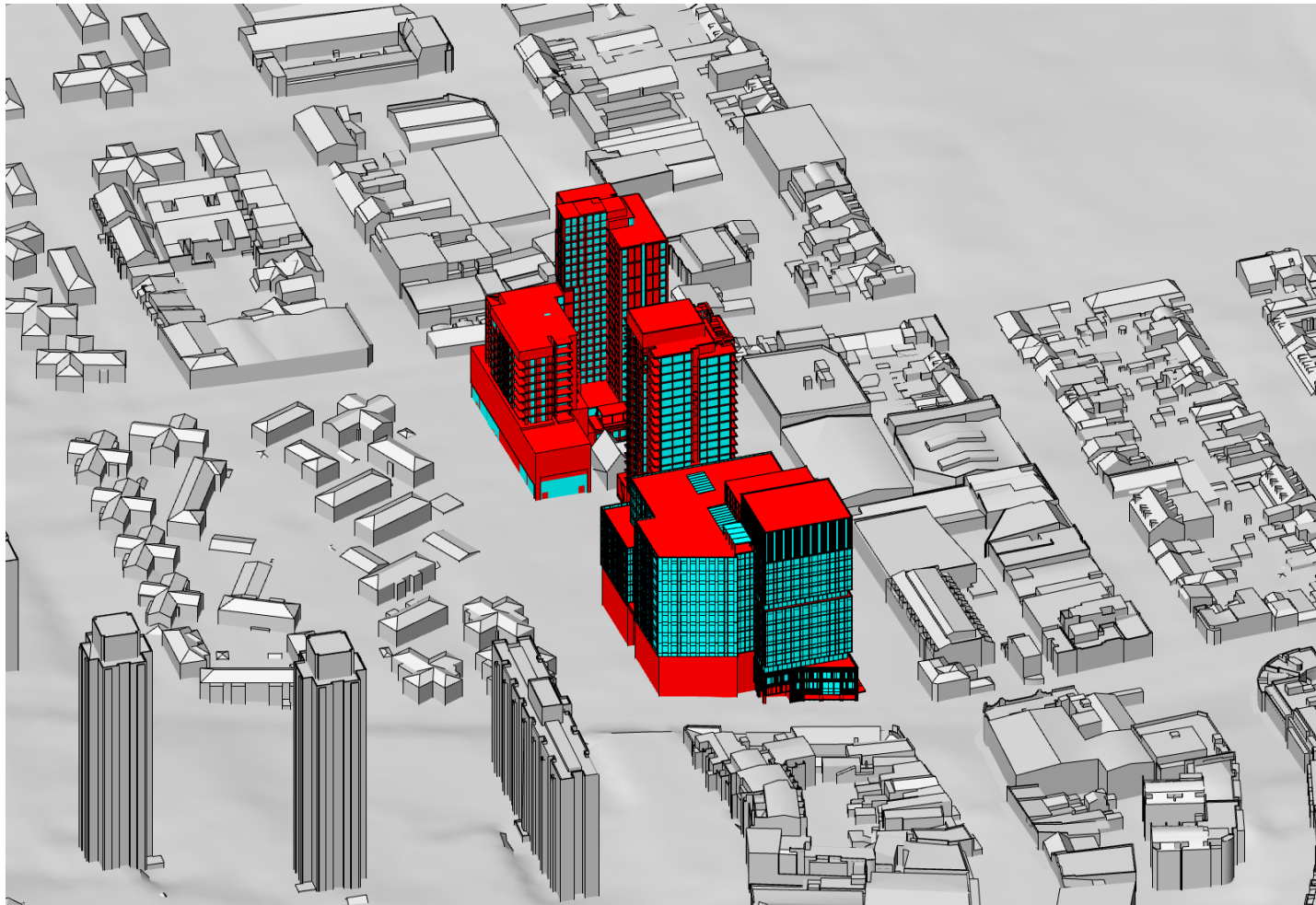
Jun 21 - 11:30 AEST



SUN VIEW DIAGRAM



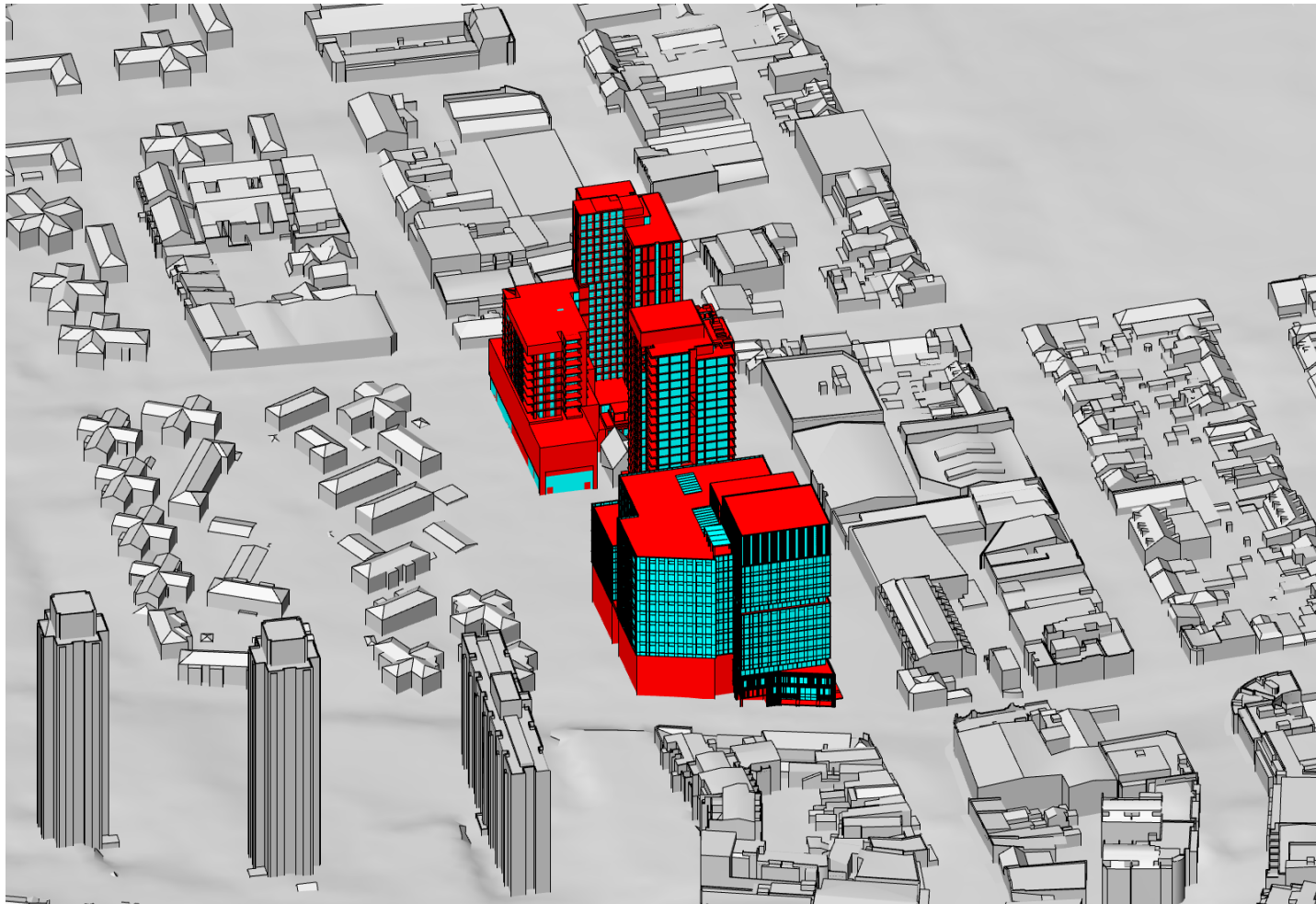
Jun 21 - 11:45 AEST



SUN VIEW DIAGRAM



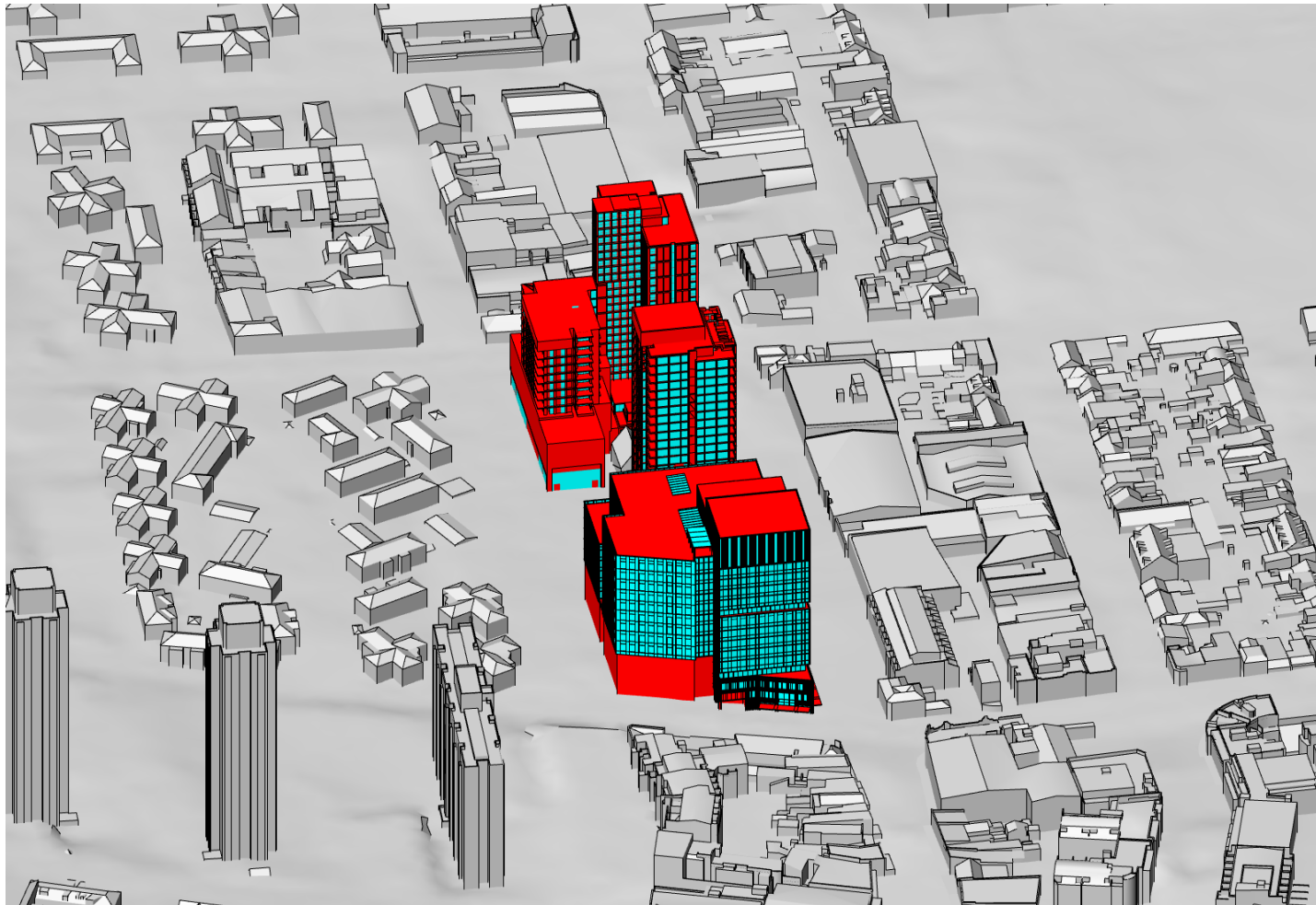
Jun 21 - 12:00 AEST



SUN VIEW DIAGRAM



Jun 21 - 12:15 AEST



SUN VIEW DIAGRAM



Jun 21 - 12:30 AEST



SUN VIEW DIAGRAM



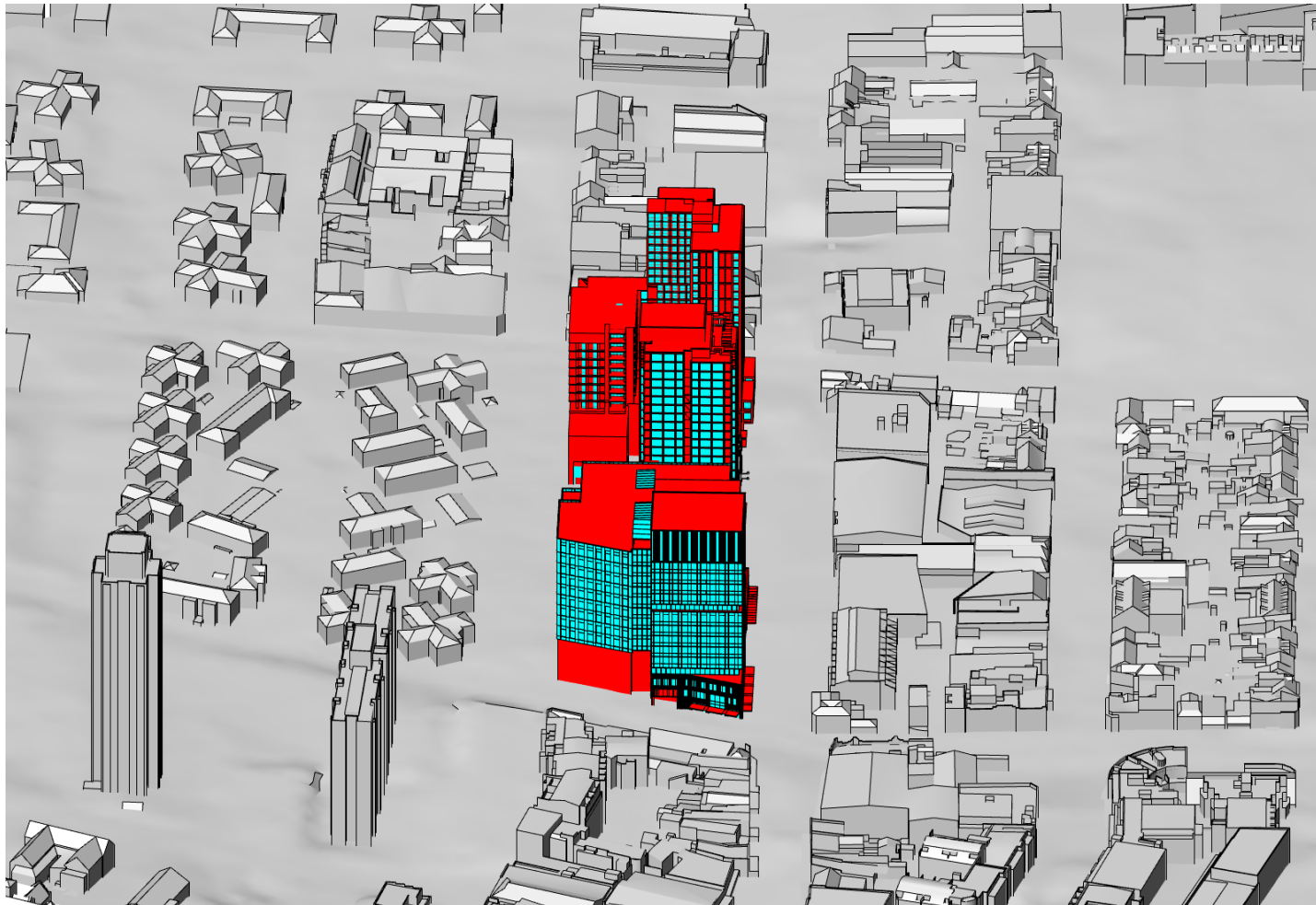
Jun 21 - 12:45 AEST



SUN VIEW DIAGRAM



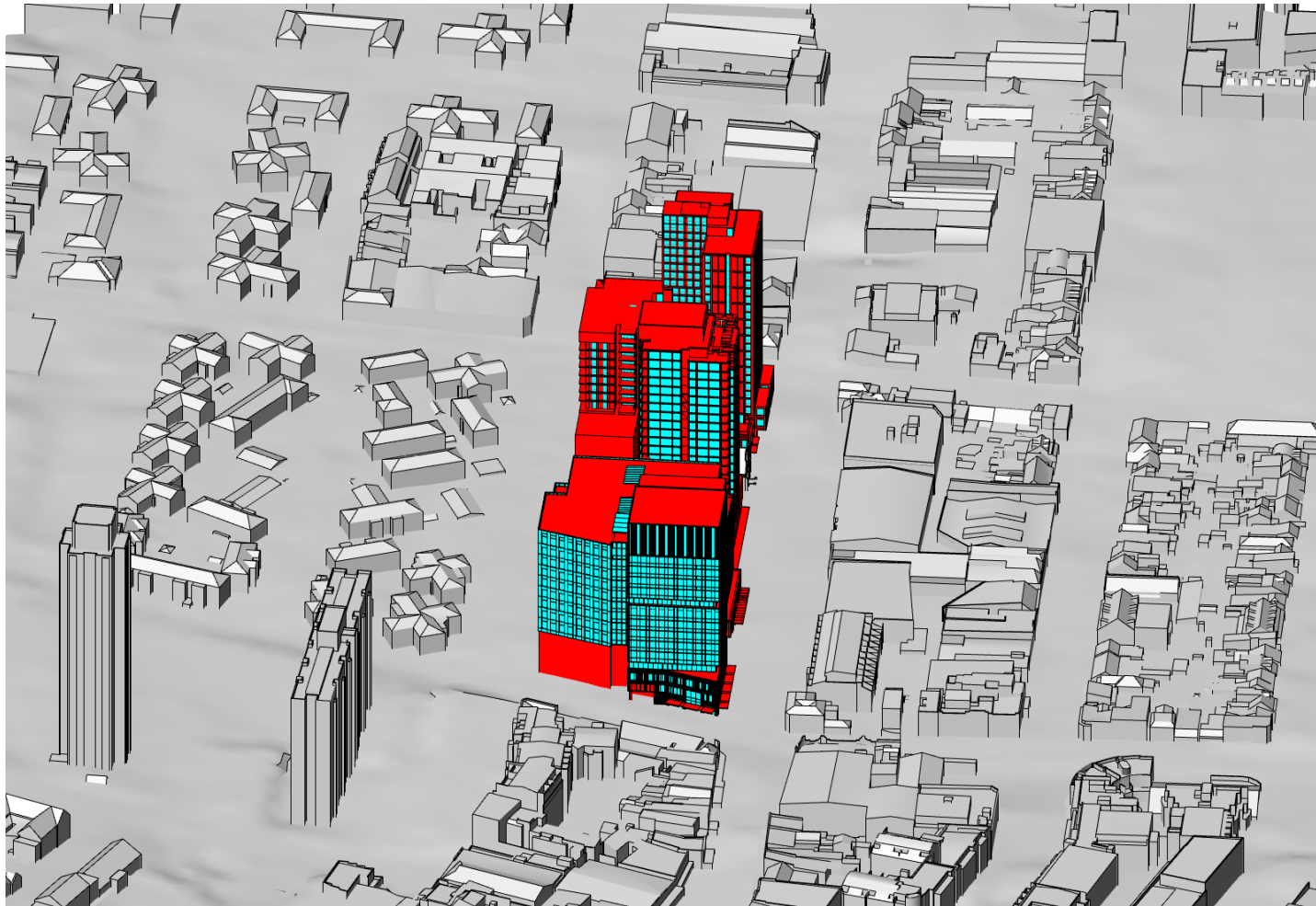
Jun 21 - 13:00 AEST



SUN VIEW DIAGRAM



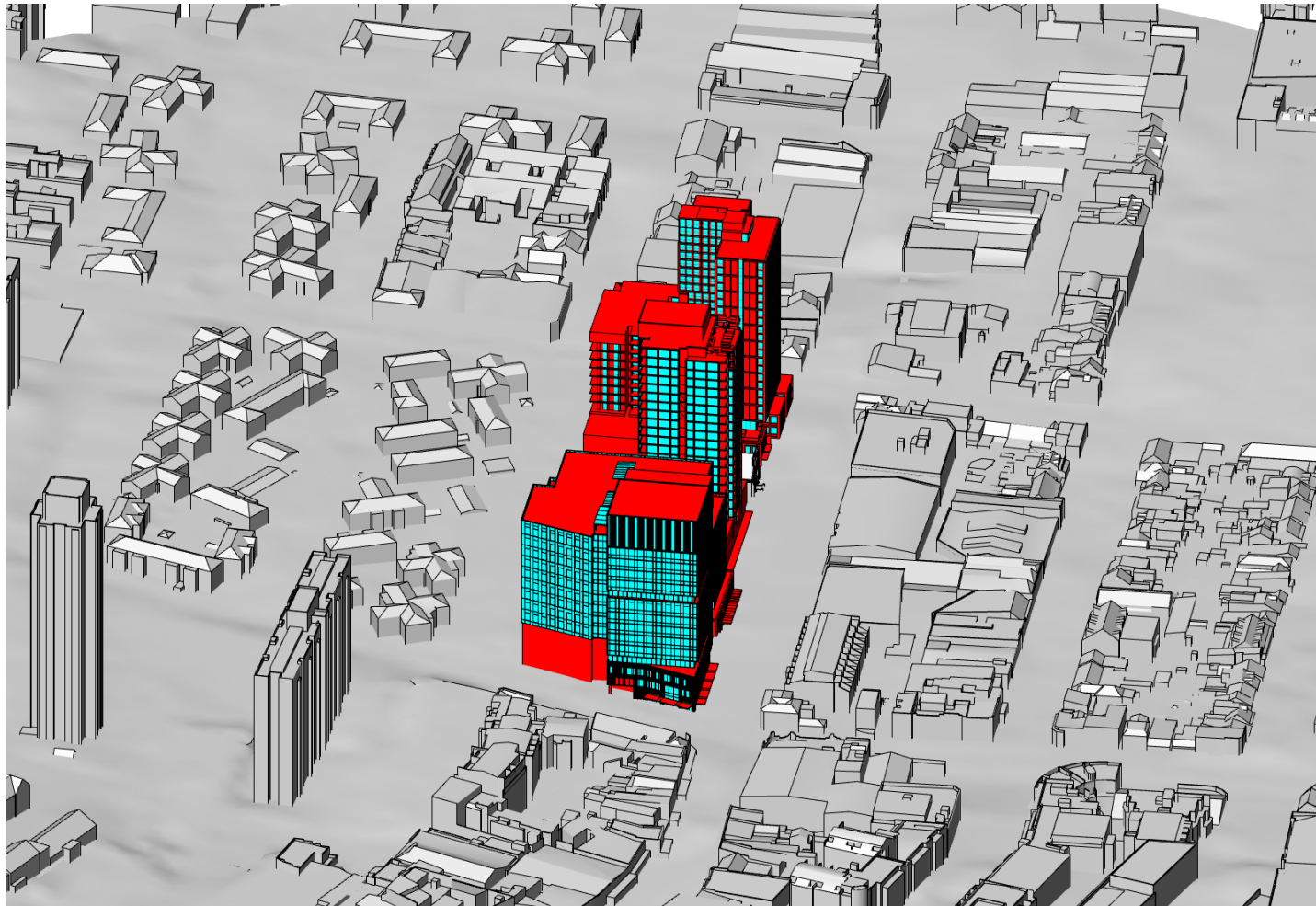
Jun 21 - 13:15 AEST



SUN VIEW DIAGRAM



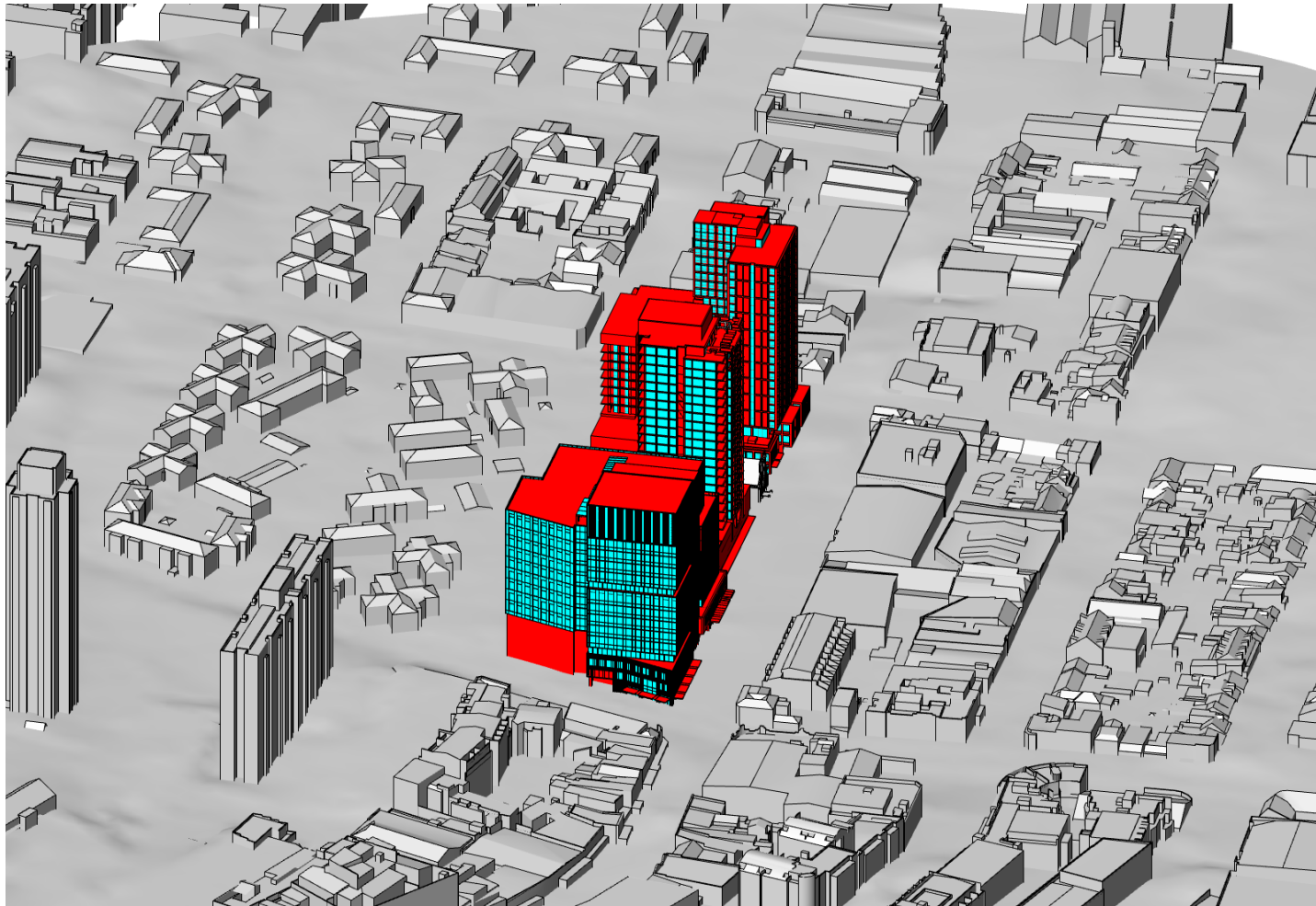
Jun 21 - 13:30 AEST



SUN VIEW DIAGRAM



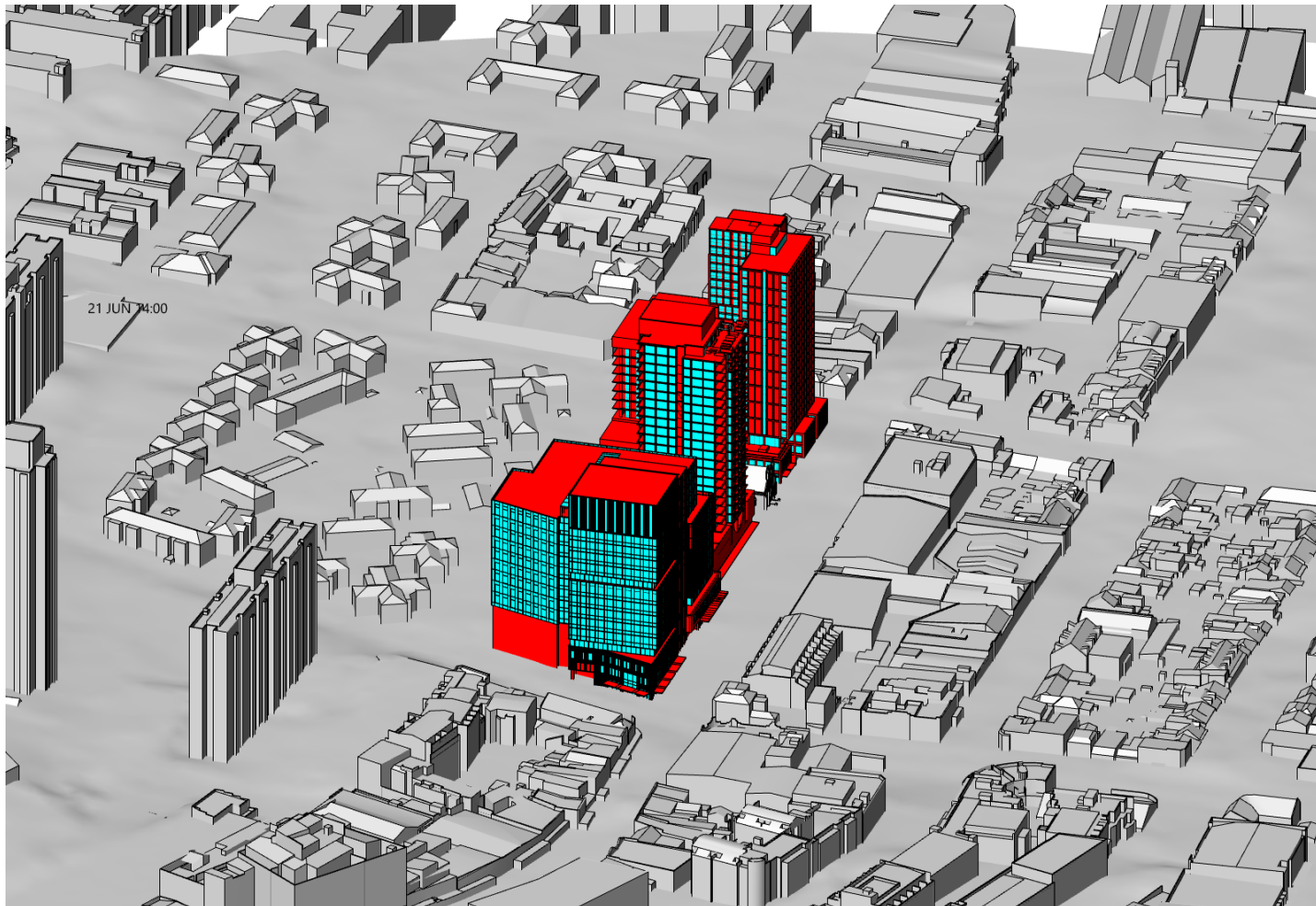
Jun 21 - 13:45 AEST



SUN VIEW DIAGRAM



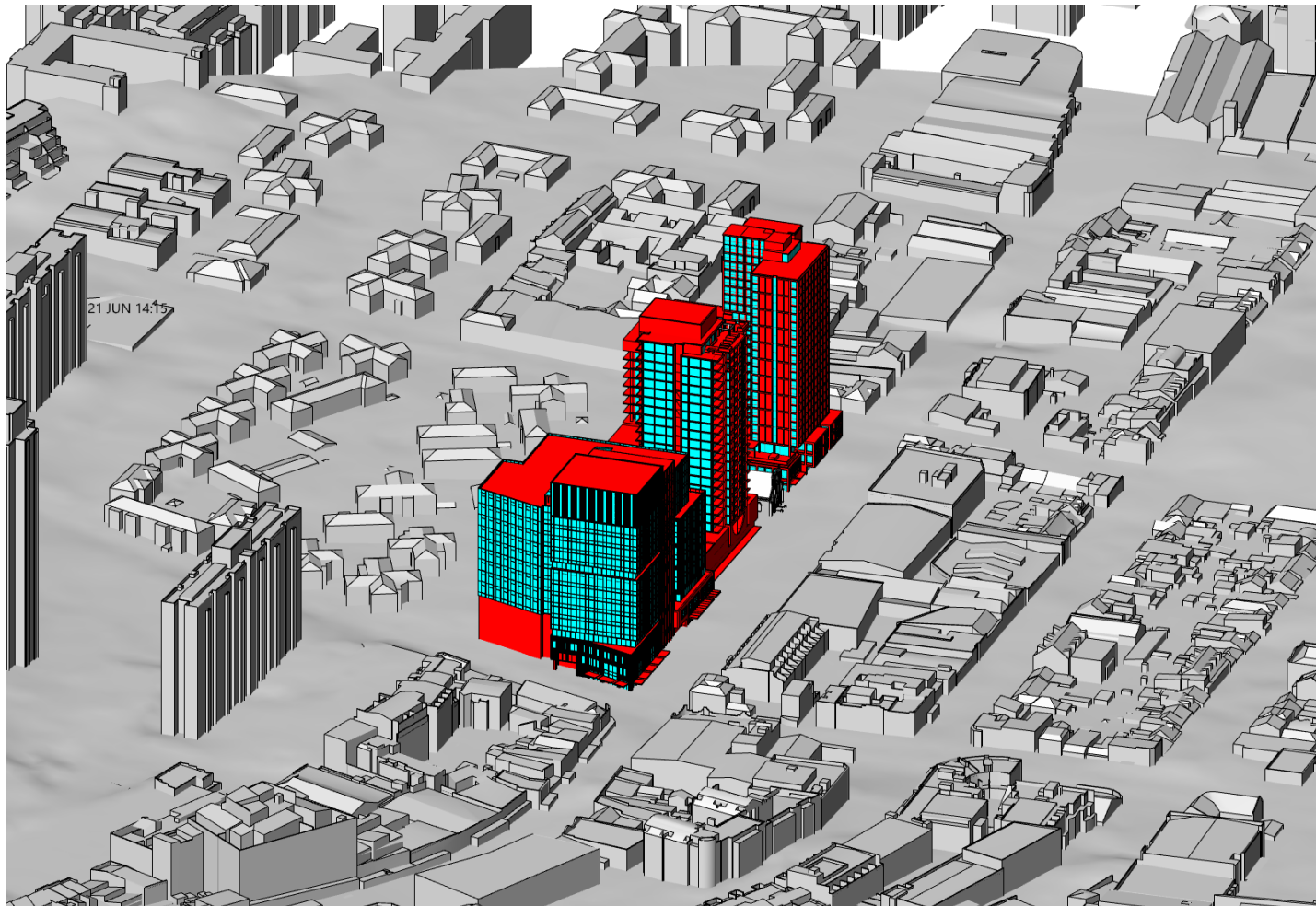
Jun 21 - 14:00 AEST



SUN VIEW DIAGRAM



Jun 21 - 14:15 AEST



SUN VIEW DIAGRAM



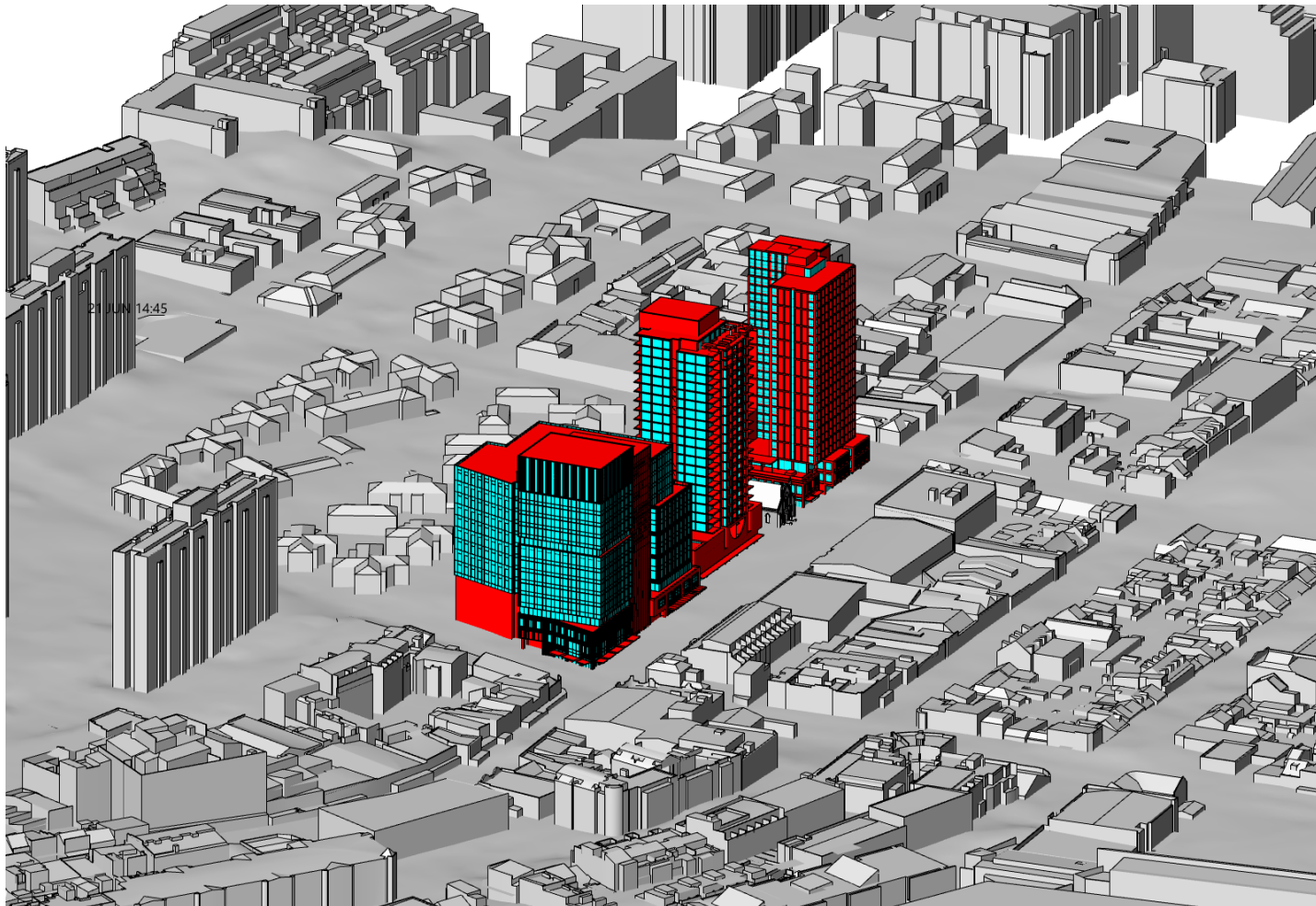
Jun 21 - 14:30 AEST



SUN VIEW DIAGRAM



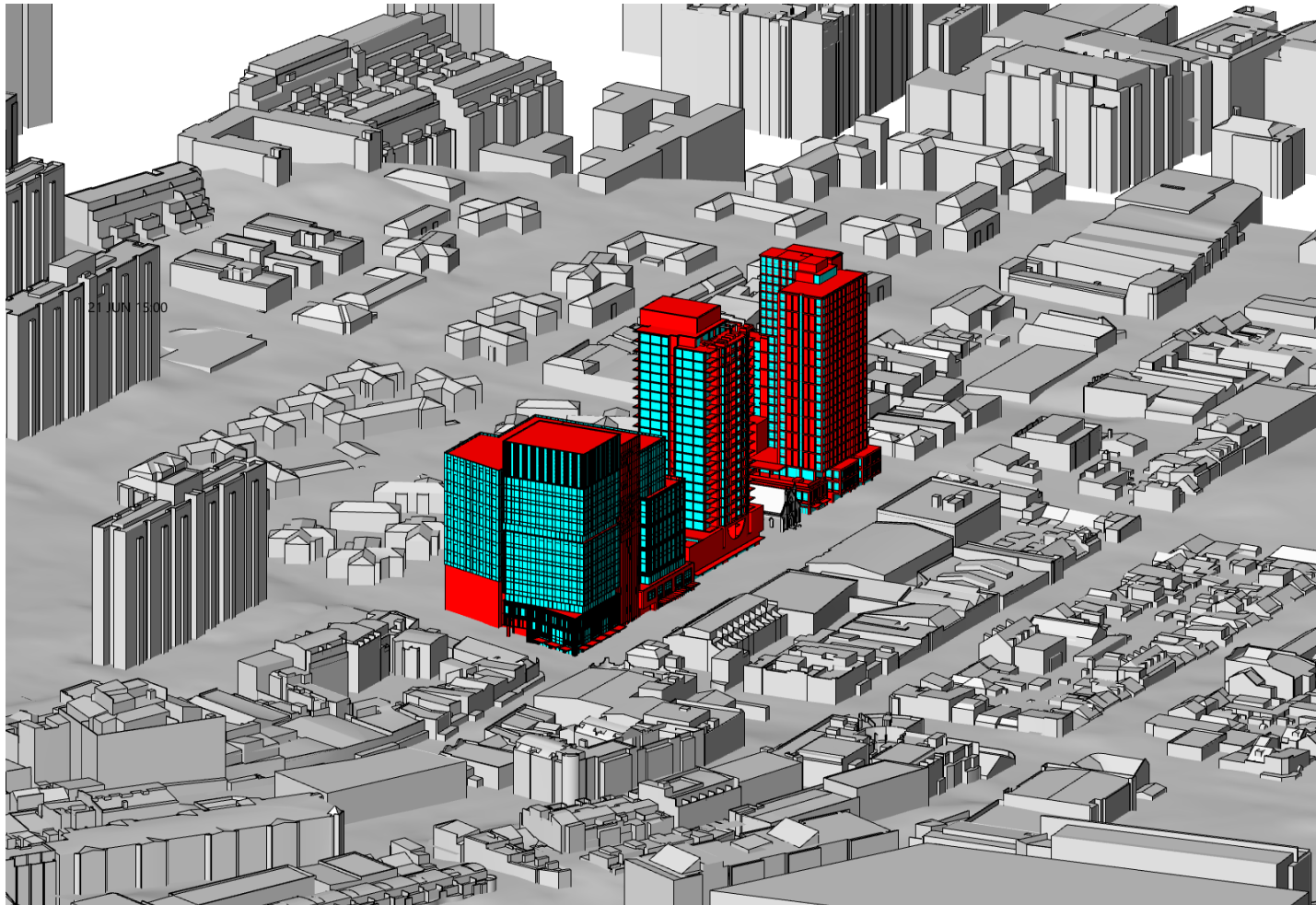
Jun 21 - 14:45 AEST



SUN VIEW DIAGRAM



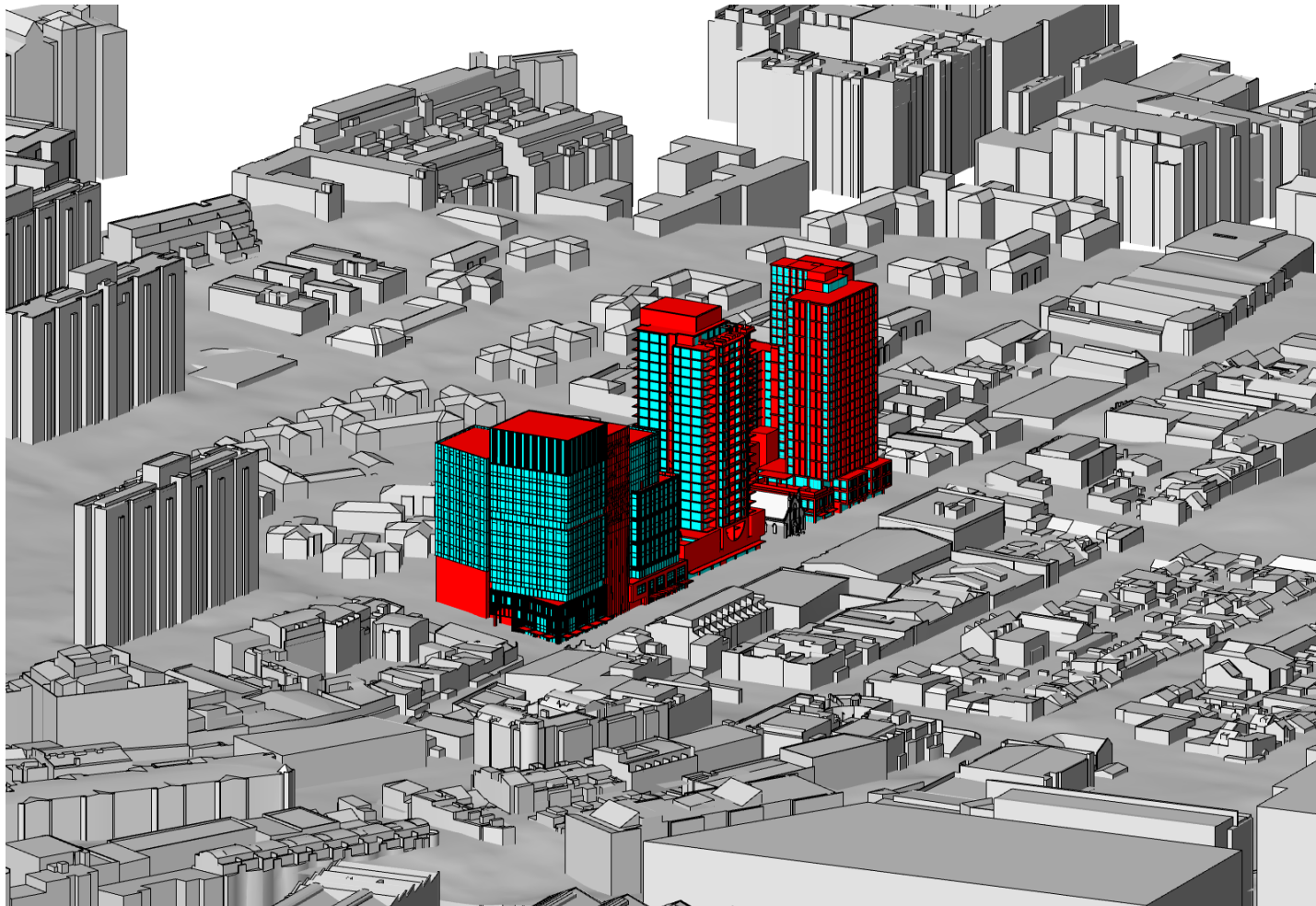
Jun 21 - 15:00 AEST



SUN VIEW DIAGRAM



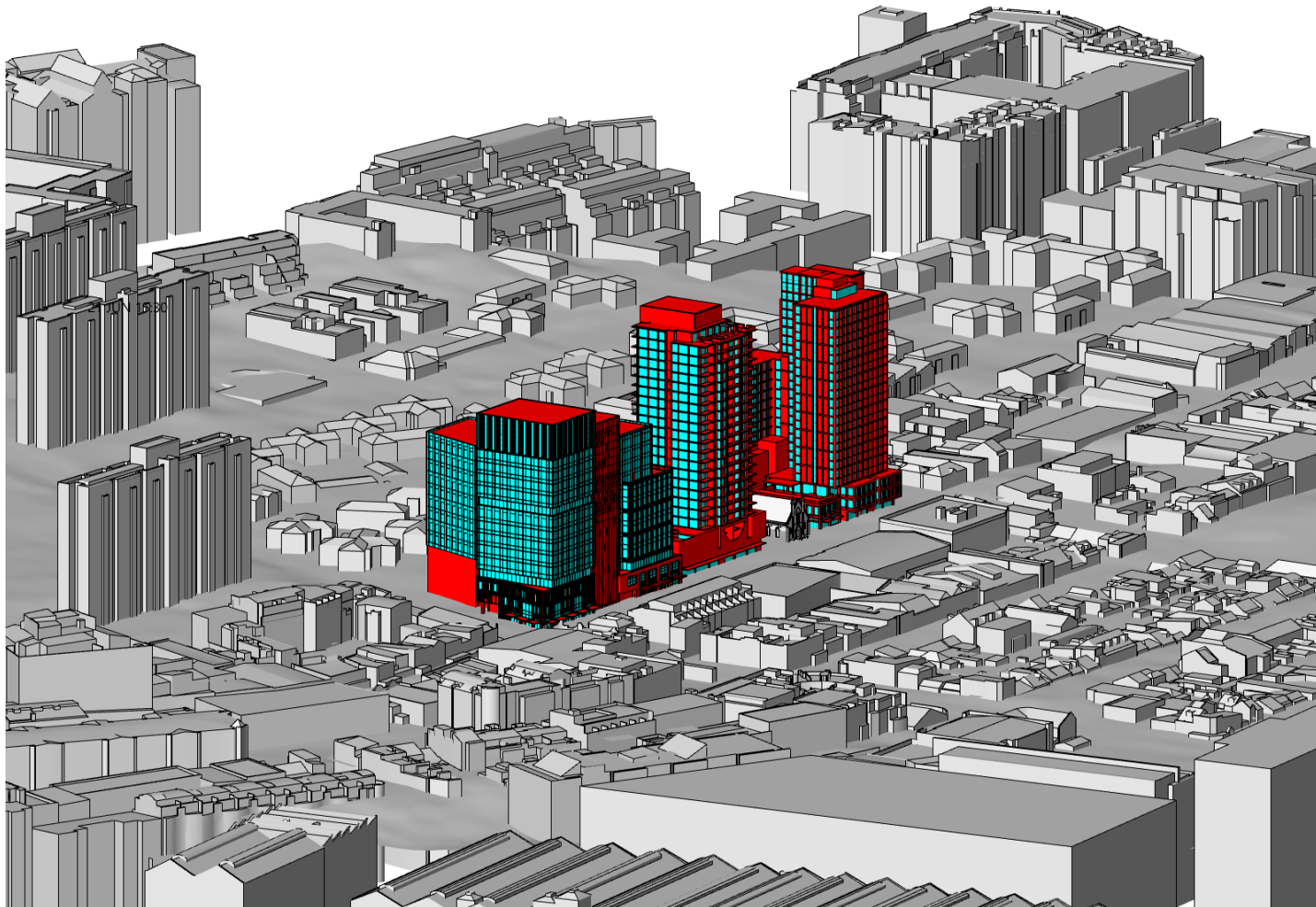
Jun 21 - 15:15 AEST



SUN VIEW DIAGRAM



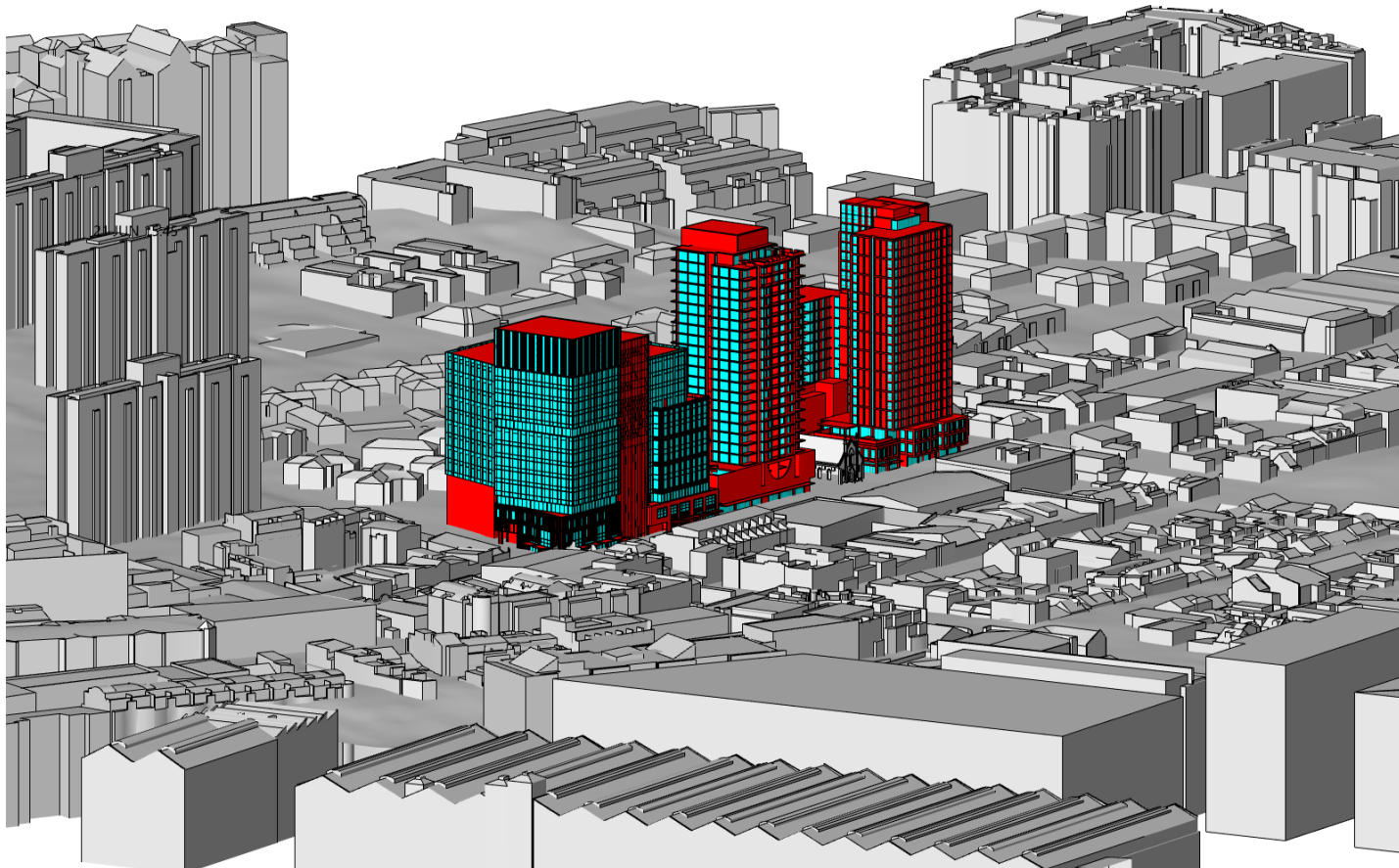
Jun 21 - 15:30 AEST



SUN VIEW DIAGRAM



Jun 21 - 15:45 AEST



SUN VIEW DIAGRAM



Jun 21 - 16:00 AEST

