

5.7 SHADOWING IMPACTS

The introduction of a taller form on the subject site will create additional over shadowing beyond the shadows that would be cast by the current height controls of 13.5m.

A shadow analysis has been prepared by the project architects to test the massing at a maximum building height of 22m for the site. The findings of the analysis have informed the preferred massing option for the site. Further detailed studies should be prepared as part of future development applications for the subject site.

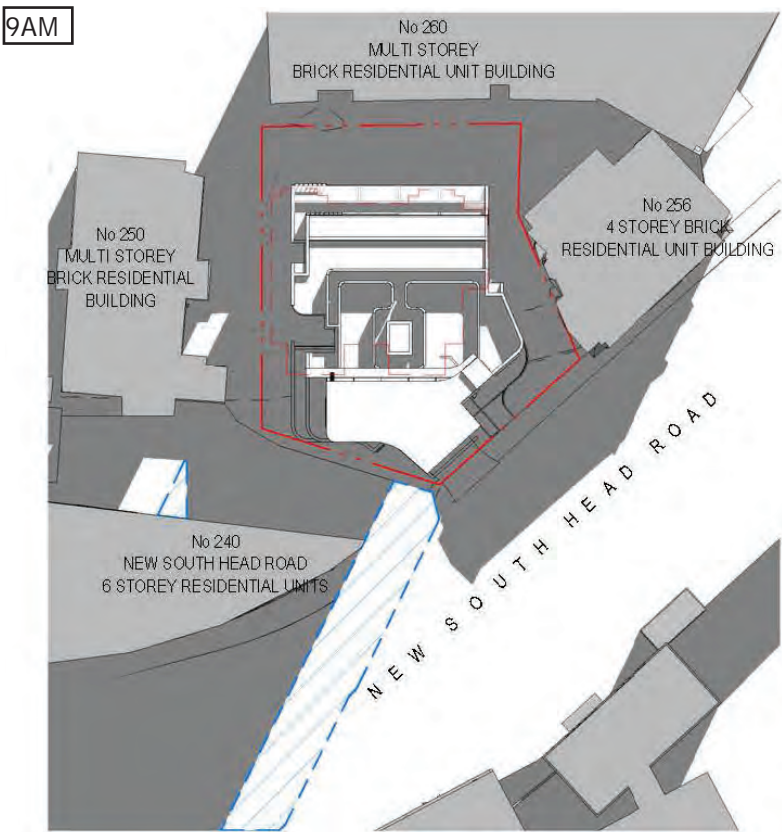


Figure 50. Shadow analysis 9am 21st of June (Antoniades Architects).

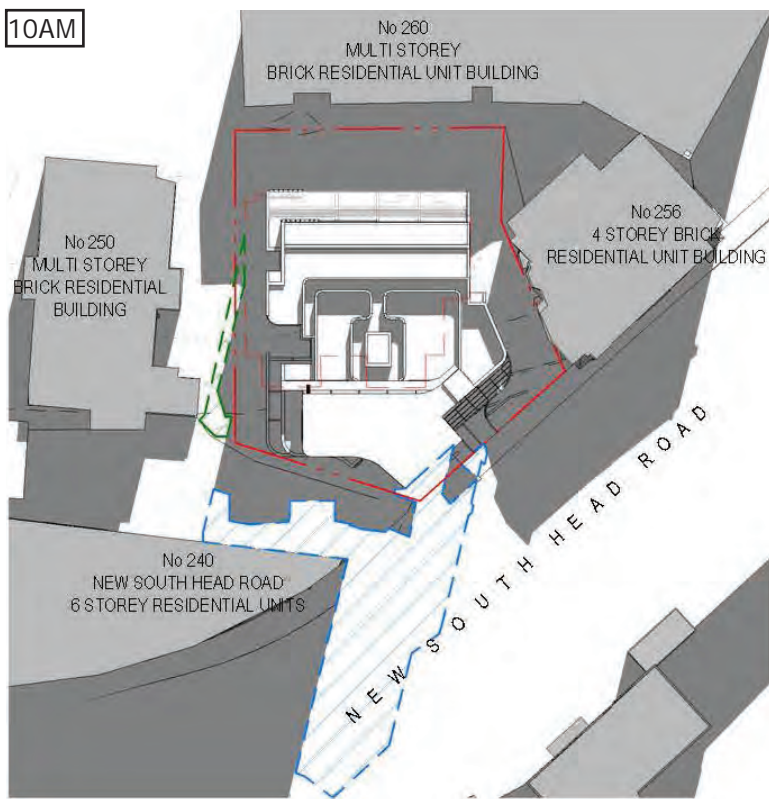


Figure 51. Shadow analysis 10am 21st of June (Antoniades Architects).

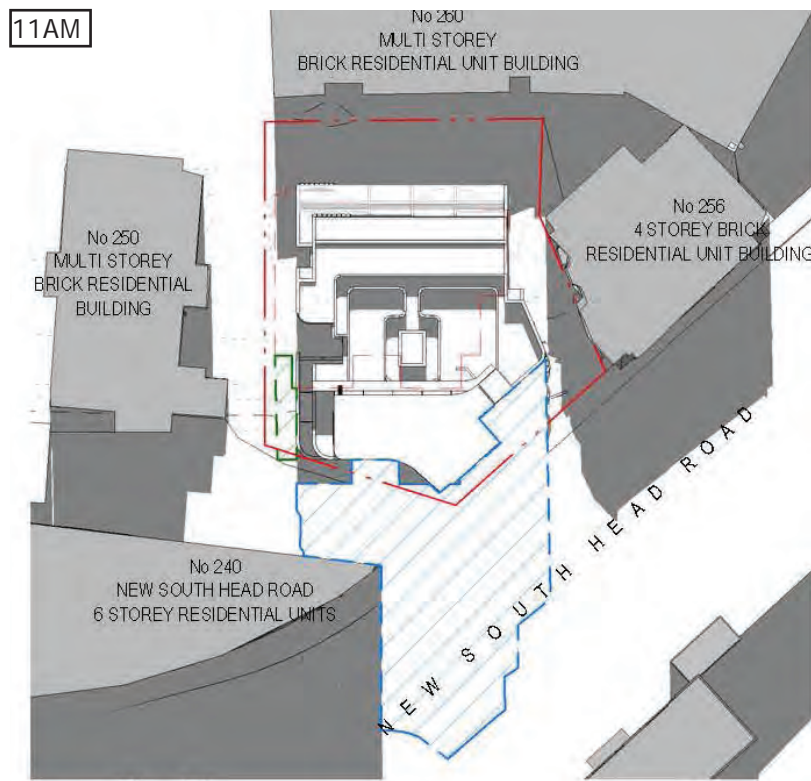


Figure 52. Shadow analysis 11am 21st of June (Antoniades Architects).

Key

- Existing Building
- Existing Shadow
- Proposed Shadow
- Reduced Shadow

The site's side boundaries to the east and west, whilst the front boundary is to the south. Some additional overshadowing will be created resulting in the following:

No. 240 New South Head Road

- Approximately 10am-12pm - Minor additional overshadowing to the residential development to the south at No. 240 New South Head Road however, as demonstrated in the sun-eye diagrams on the following pages, only a few units are impacted during the morning hours.
- 1-3pm - No additional overshadowing impacts occur to the residential development at No. 240 New South Head Road. The additional overshadowing will fall on the road surface and pedestrian areas.

No. 256 New South Head Road

- Approximately 1-3pm - Limited additional overshadowing will also impact the residential development to the east at No. 256 New South Head Road during the afternoon. This is demonstrated in the sun-eye diagrams on the following pages.

Public domain

- 9am-3pm - The majority of additional overshadowing impacts associated with the proposal will impact the road surface and public domain areas.

The shadow study prepared by Antionades Architects shows the additional shadow cast is beyond the existing condition will largely impact the public domain and areas which are already overshadowed by tree canopies. GMU found the level of overshadowing to be reasonable given the dense urban context and the existing compromised boundary relationships.

The following pages include sun-eye diagrams prepared by Antoniades Architects. The diagrams demonstrate solar access and potential overshadowing impacts associated with the indicative scheme.

Key

Existing Building

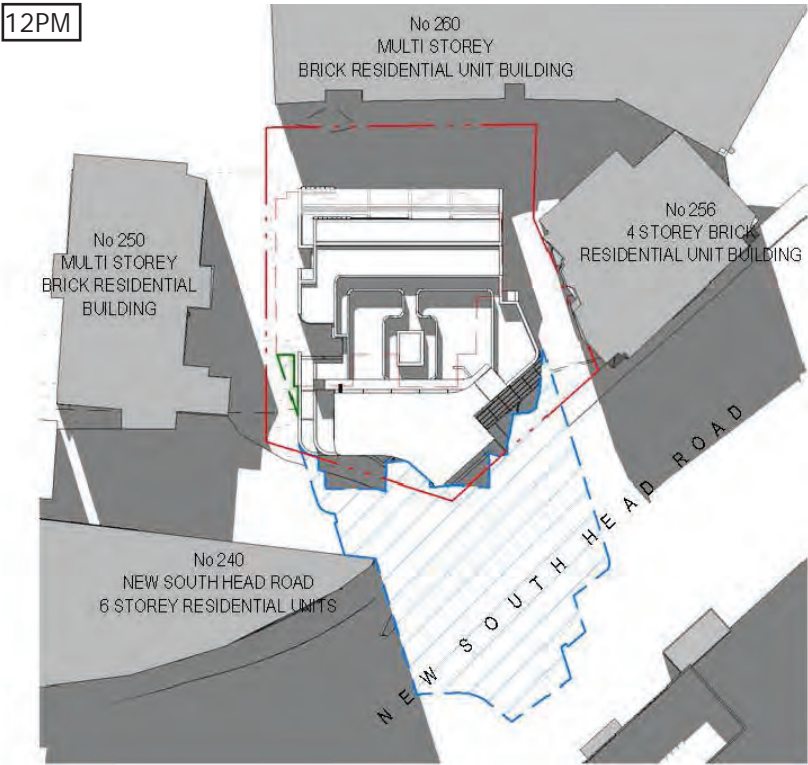
Existing Shadow

Figure 53. Shadow analysis 12pm 21st of June (Antoniades Architects).

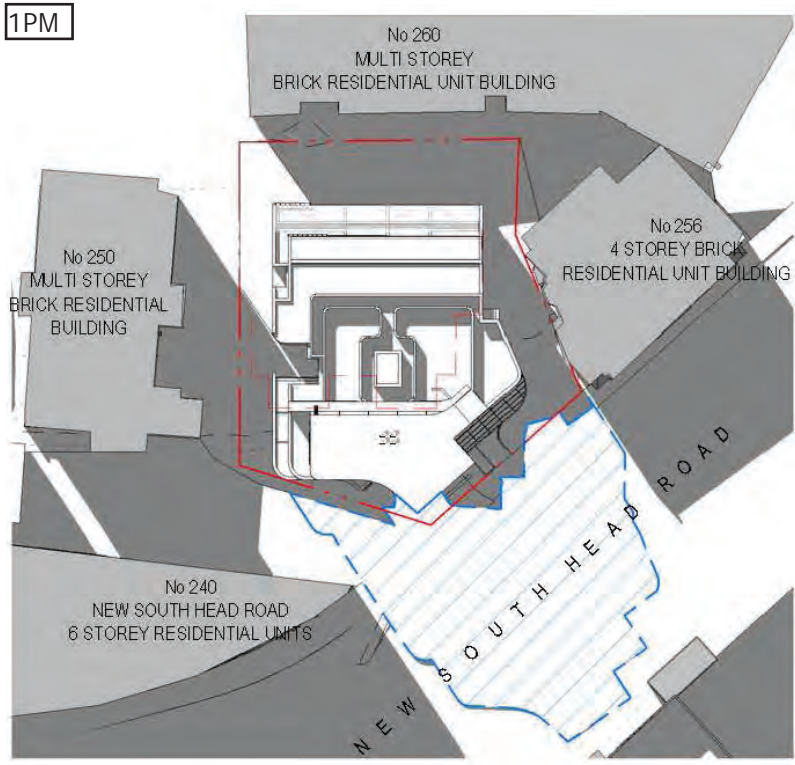


Figure 54. Shadow analysis 1pm 21st of June (Antoniades Architects).

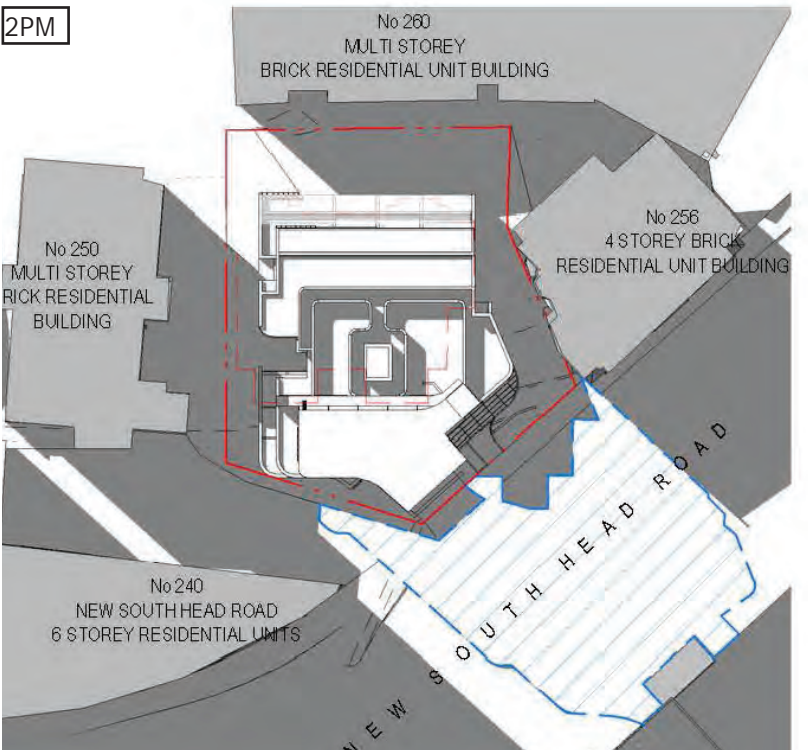


Figure 55. Shadow analysis 2pm 21st of June (Antoniades Architects).

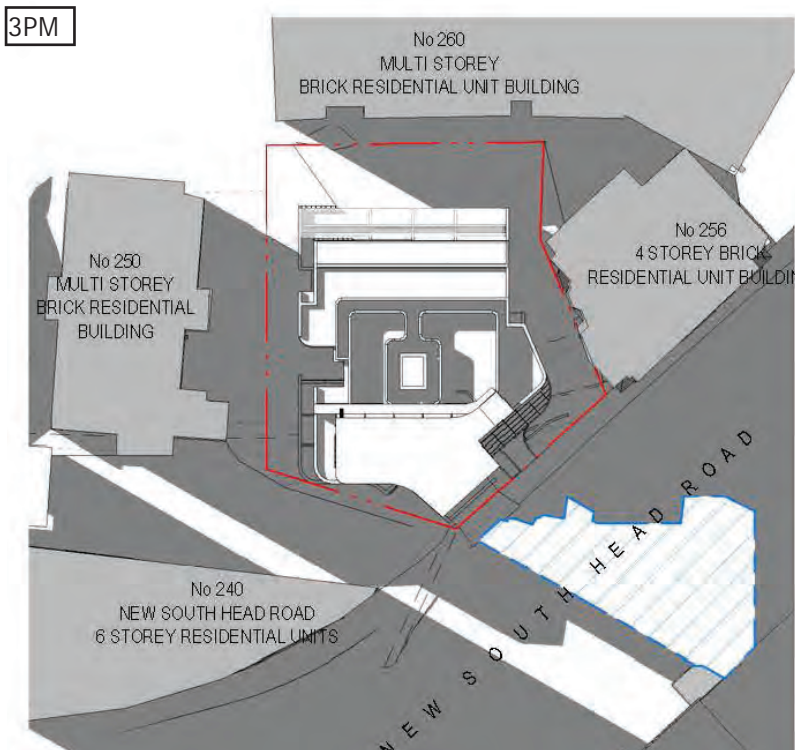


Figure 56. Shadow analysis 3pm 21st of June (Antoniades Architects).

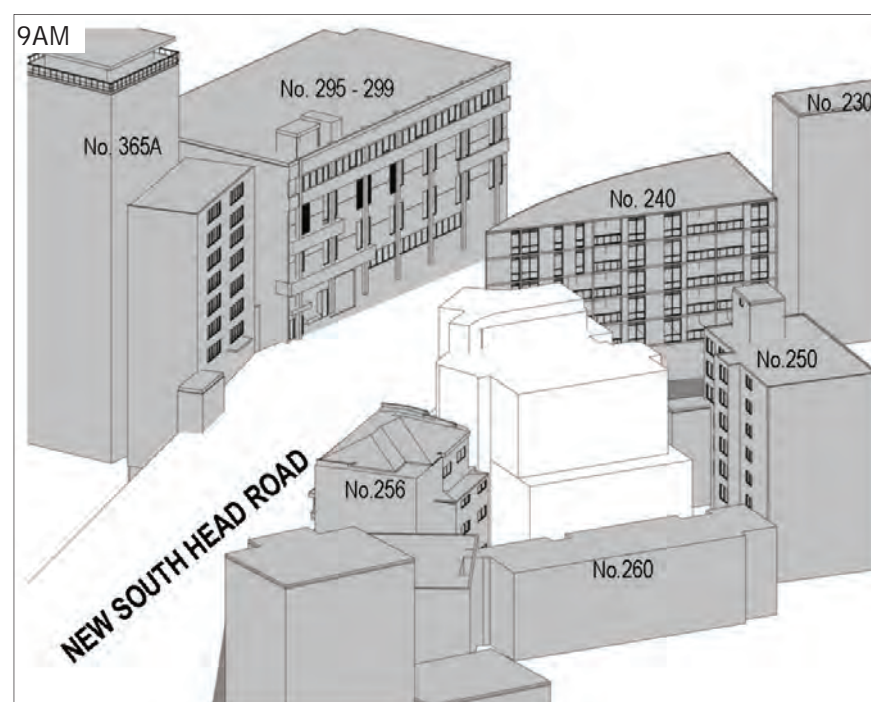


Figure 57. Sun-eye diagram 9am 21st of June (Antoniades Architects).

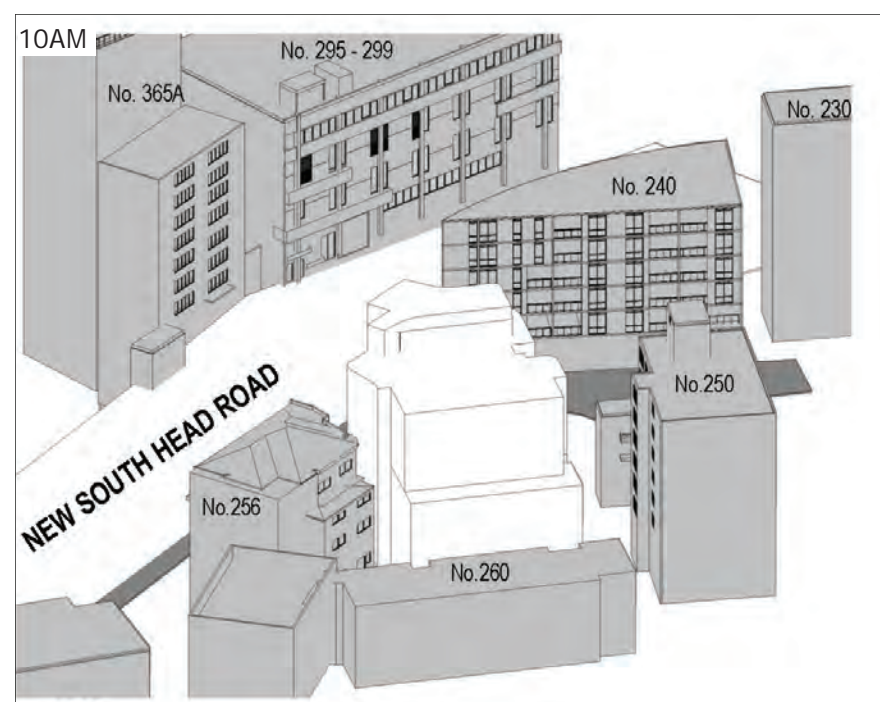


Figure 58. Sun-eye diagram 10am 21st of June (Antoniades Architects).

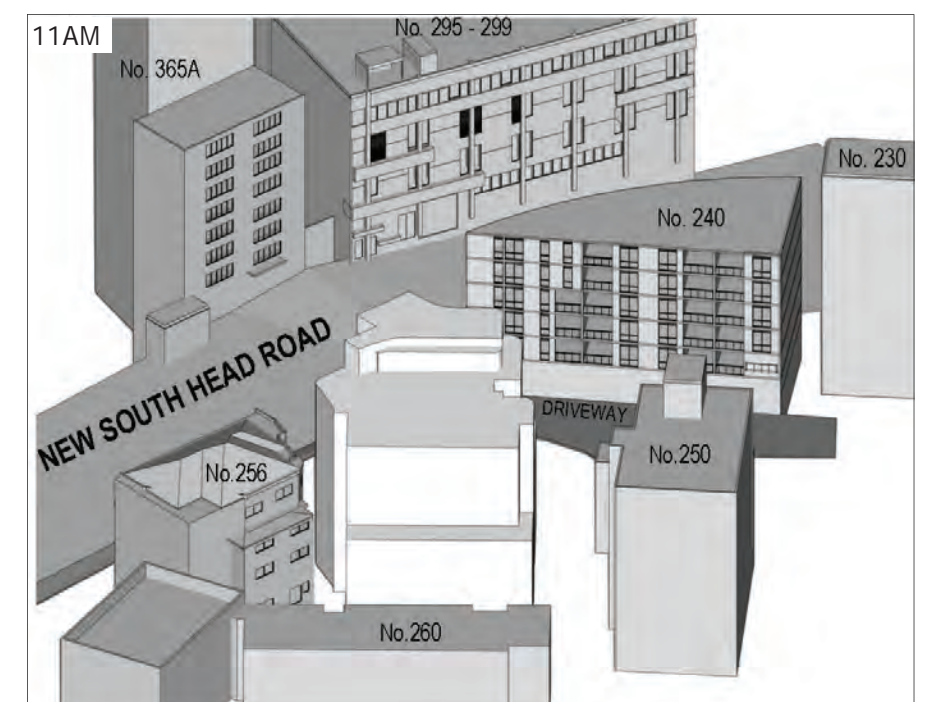


Figure 59. Sun-eye diagram 11am 21st of June (Antoniades Architects).

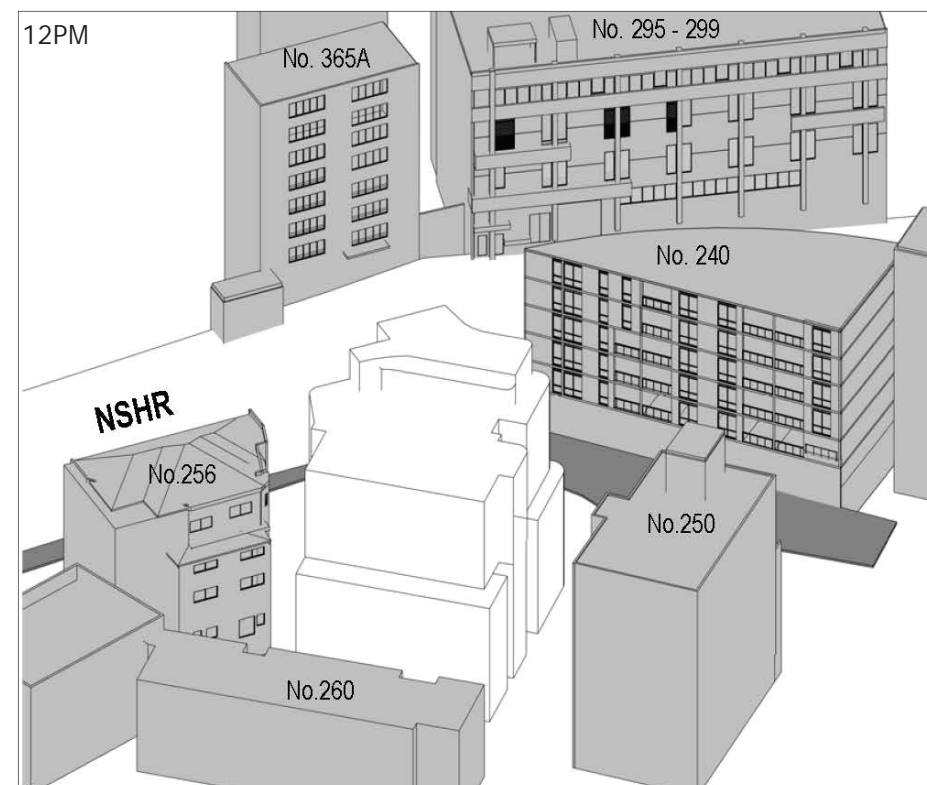


Figure 60. Sun-eye diagram 12pm 21st of June (Antoniades Architects).

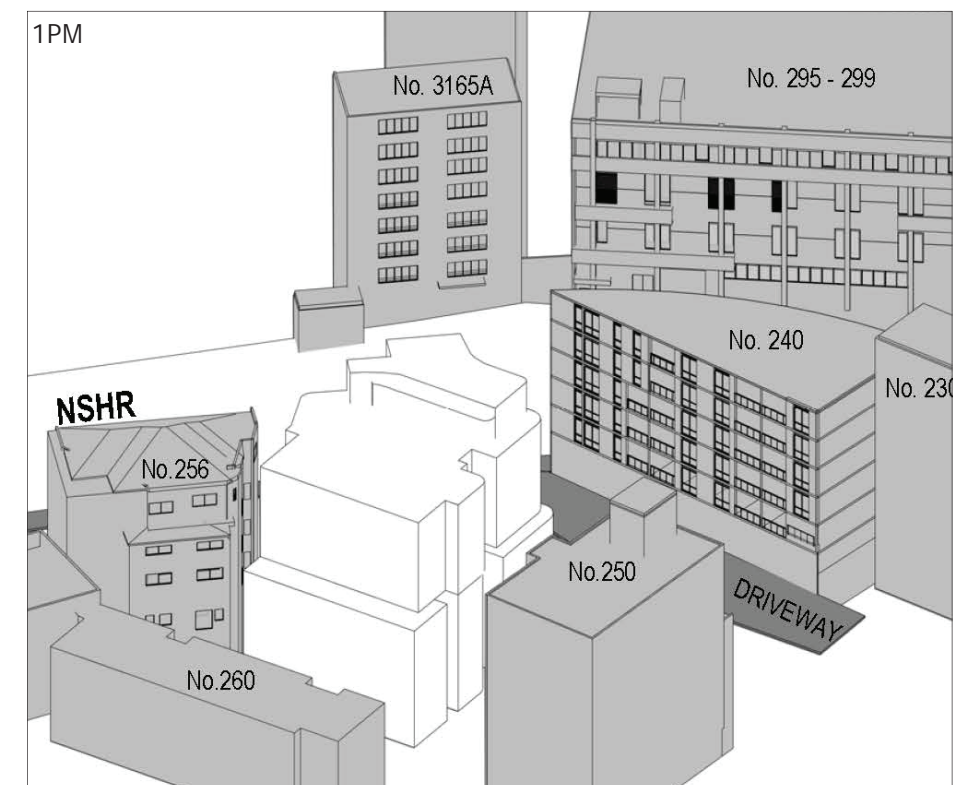


Figure 61. sun-eye diagram 1pm 21st of June (Antoniades Architects).

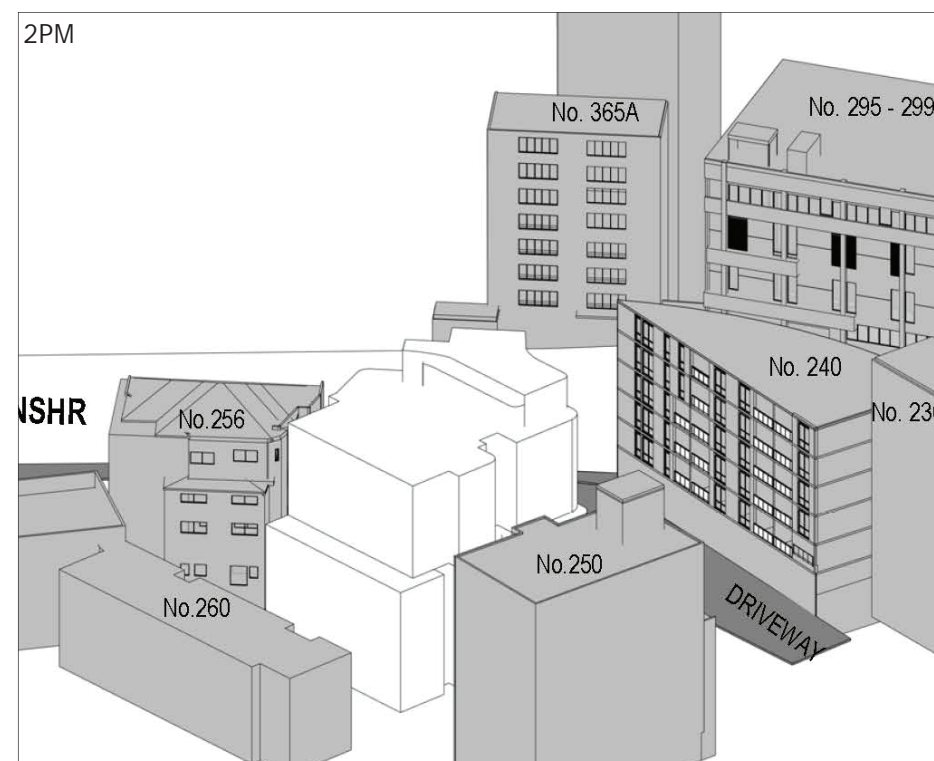


Figure 62. Sun-eye diagram 2pm 21st of June (Antoniades Architects).

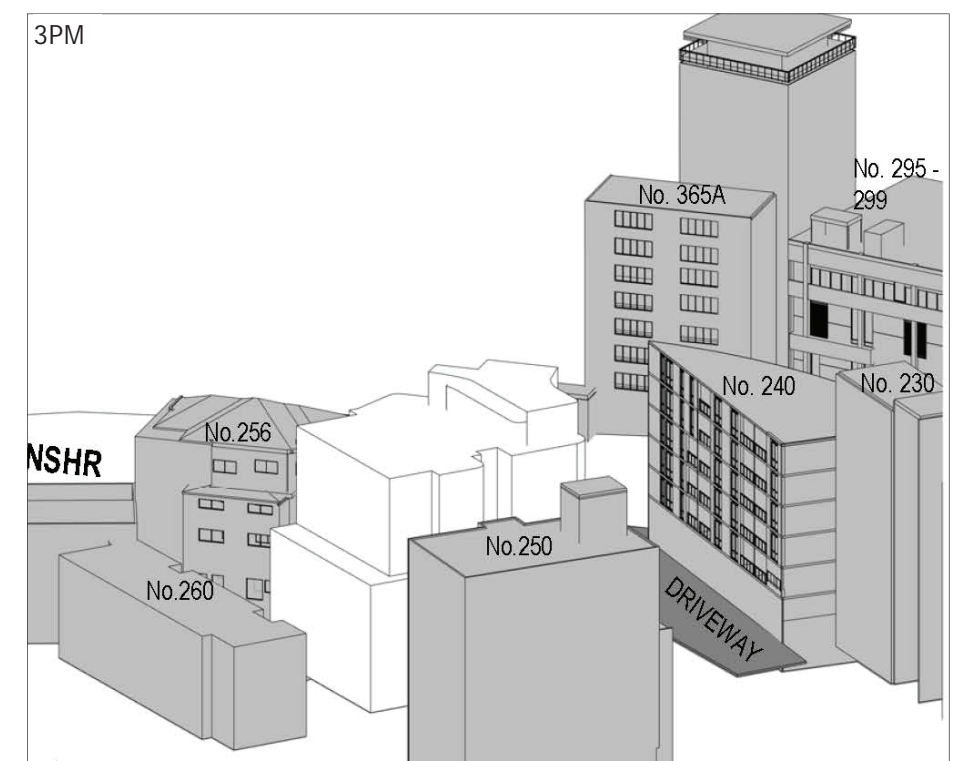


Figure 63. Sun-eye diagram 3pm 21st of June (Antoniades Architects).

5.8 APARTMENT DESIGN GUIDELINES

To ensure good levels of residential amenity are achievable, Antoniades Architects have tested the typical layouts to ensure ADG requirements for solar access and cross ventilation are met. The findings are summarised in the diagrams below. Units meeting the solar access requirement of 2 hours are marked with a sun marker.

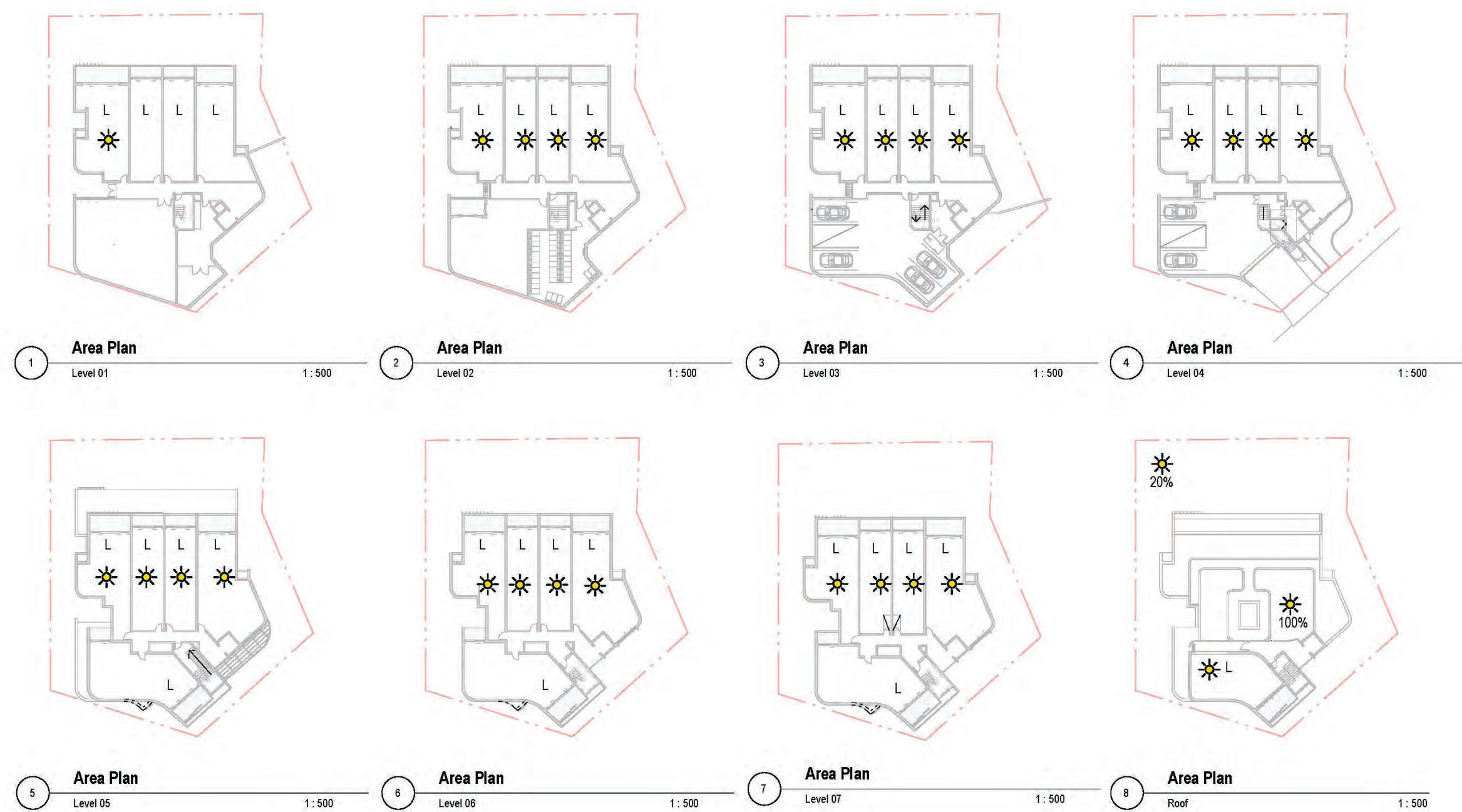
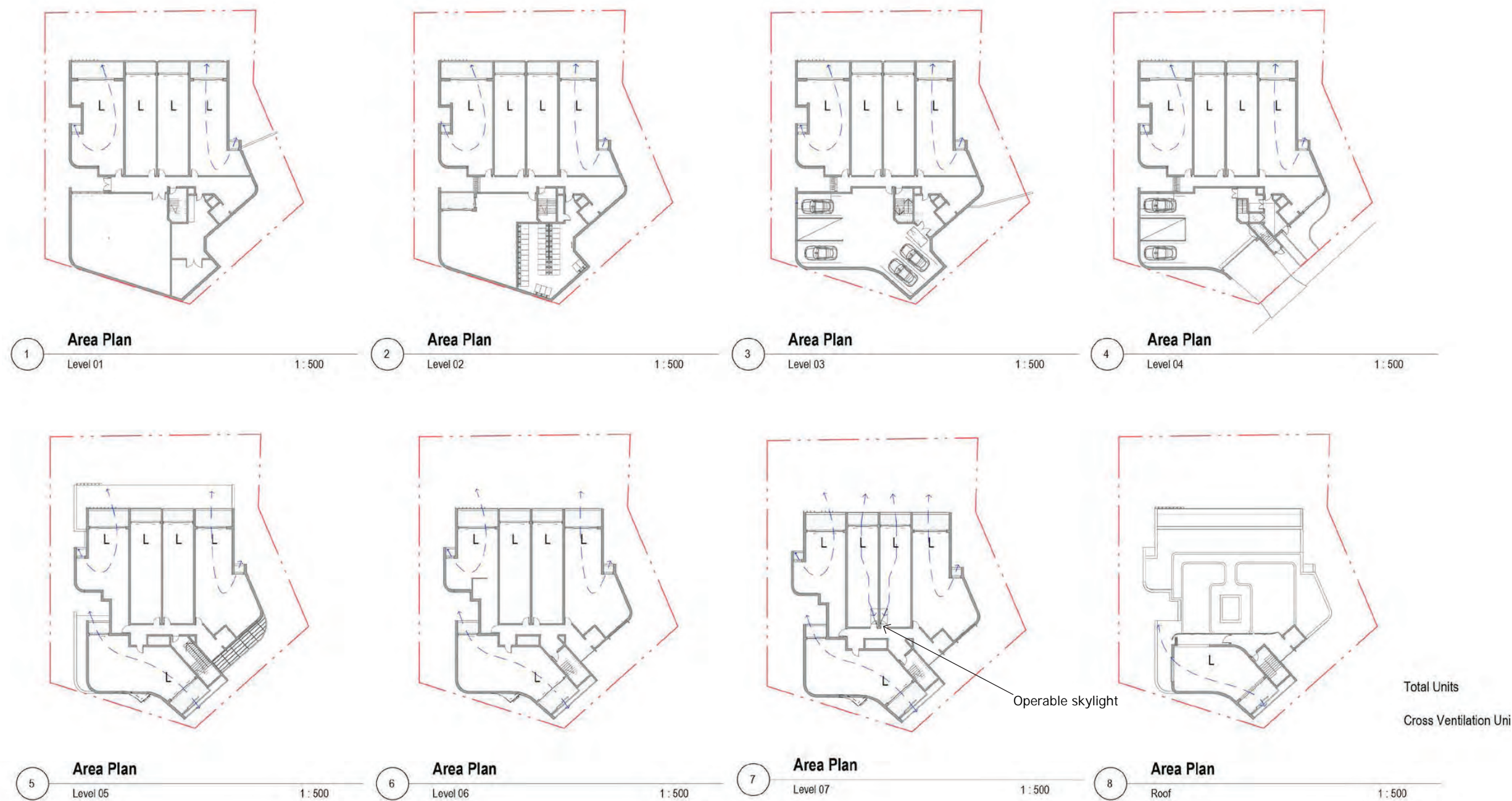


Figure 64. Solar access diagrams (Antoniades Architects).

According to the information provided by Antoniades Architects, 78.8% of units (26 units of 33 units) achieve minimum 2 hours of solar access during mid-winter. This is in accordance with ADG guidelines. Only 2 units receive less than 15mins solar access which equates to 6% of the total number of units.

233.8sqm Communal Open Space is provided which equates to 25% of the total site area. Testing demonstrates that more than 50% of the principal usable communal open space receives 2 hours of solar access during mid-winter. This outcome is appropriate for the site and consistent with ADG guidelines.

Units meeting the ADG cross ventilation requirements are shown in the diagrams below. Units receiving natural cross ventilation are marked with a linear airflow symbol.



According to the information provided by Antoniades Architects, 60.6% of units (20 units of 33 units) achieve natural cross ventilation. This is in accordance with ADG guidelines.

Figure 65. Cross ventilation diagrams (Antoniades Architects).

5.9 SECTION CONCLUSION

View impacts demonstrated by the Antoniades Architects would need to be subject to further court certifiable testing to confirm the preliminary findings once access to adjoining units is granted.

View impacts are considered to be reasonable and consistent with the Desired Future Character for the area. However, whilst a change in controls for an increased development scale may introduce minor additional overshadowing impacts, the habitable rooms of the adjoining development to the south at No. 240 New South Head Road still achieves reasonable levels of solar access.

Rigorous testing and sculpting of the built form has taken place to ensure accurate mitigation and reduced levels to adjoining sites and the wider area. Other benefits include streetscape proportions, enhanced landscape character and improved aesthetic value created by re-development of the subject site.

6. URBAN DESIGN GUIDELINES



6.1 URBAN DESIGN GUIDELINES

To guide future development on the site, GMU have developed the following site specific design principles and guidelines.

MAXIMUM BUILDING HEIGHT

Building height principles:

- Achieve a building height which is harmonious to its context and the future revitalisation of the Edgecliff and Double Bay Centres.
- Achieve a built form which responds to the sloping topography.
- Achieve a scale and built form proportions to complement the streetscape profile along the northern side of New South Head Road, transitioning from the lower scale developments in Double Bay (east) to the taller forms located within the Edgecliff Town Centre area (west).
- Minimise adverse visual impacts to adjoining residential properties.
- Provide built form proportions which do not visually dominate the streetscape.

Controls:

- Provide a maximum height of 22m.
- Provide a maximum 5 storey streetwall height to New South Head Road.
- Provide floor-to-ceiling heights to meet ADG guidelines.

BUILDING SETBACKS

Setback principles are:

- Setbacks are to complement the existing and future character of the area.
- Provide adequate separation to adjoining properties to allow for good amenity outcomes and landscape opportunities.
- Provide front setbacks in response to the predominant streetscape alignments.

Controls:

- Setback distances should generally be consistent with Fig. 66
- Setback the upper levels to ensure it presents as visually recessive when viewed from adjoining properties to the north. setback for upper levels should be consistent with Fig 66.

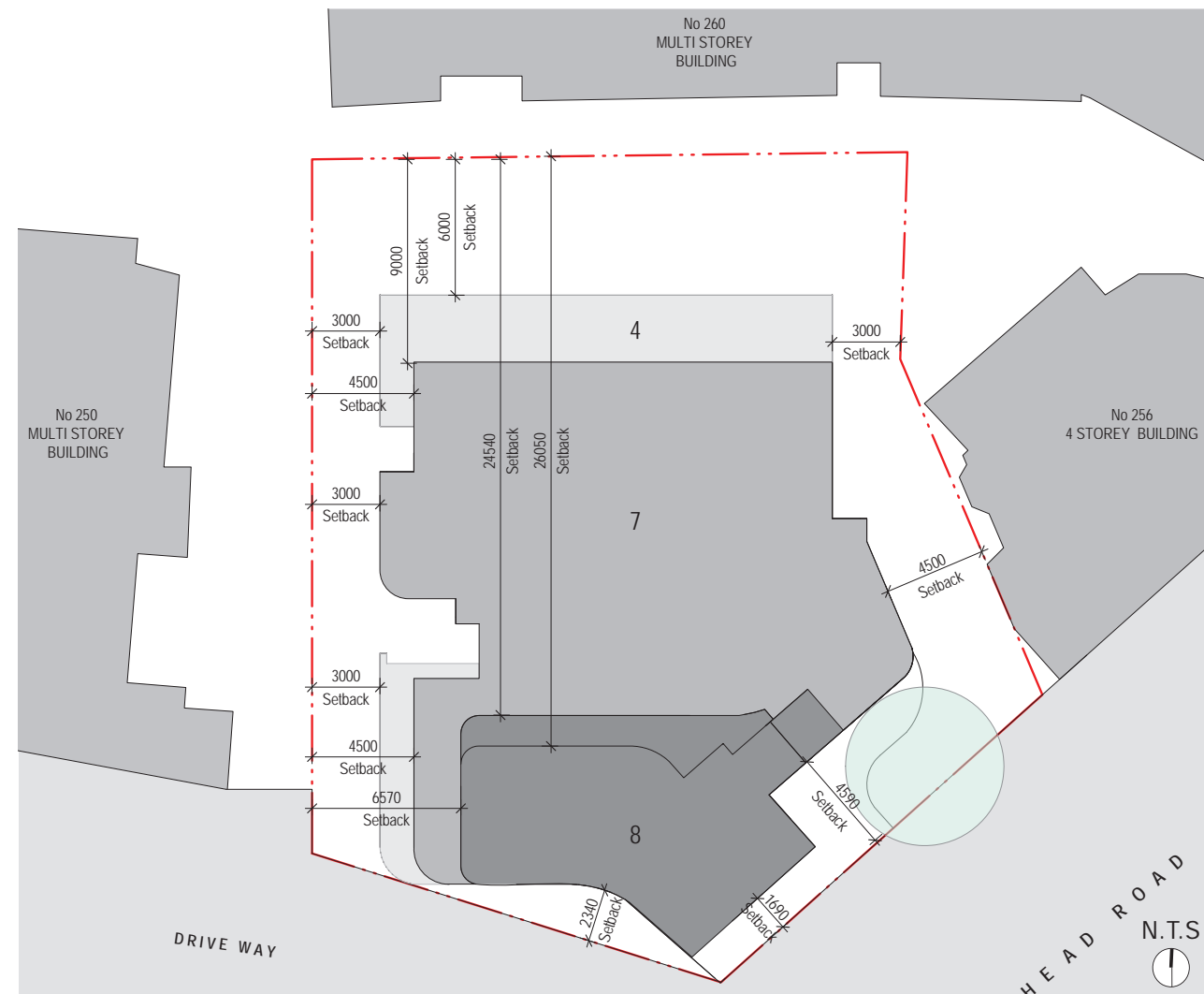


Figure 66. Setback diagram (Antoniades Architects).

OPEN SPACE AND LANDSCAPING

Open space and landscape principles are:

- Landscape opportunities should be provided to the streetscape, side and rear boundaries to complement the landscape character of the area.
- The landscape treatment provided should complement the existing area and enhance the streetscape presentation.
- Future landscaping should contribute to the canopy coverage.
- Deep soil areas should be generous enough to allow for substantial landscape screening to side and rear boundaries, to mitigate privacy impacts and visually screen the development when viewed from adjoining properties.
- Substantial landscaping should be provided to side boundaries to improve the visual quality of the site edges.

Controls:

- Provide a minimum 6m wide deep soil area should be provided along the northern (rear) boundary to accommodate mature trees.
- Retain the large Jacaranda tree to the south eastern corner of the site as an important character element within the streetscape.
- Prioritise native species and low-water consumption plant selection.
- Provide communal open space consistent with ADG guidelines.

ACCESS

- Principles for site access should seek to:
- Consolidate the vehicular entry and minimise its visual intrusion.
- Improve the pedestrian interface where possible.
- Design pedestrian entries to complement the streetscape and minimise amenity impacts to adjoining sites.

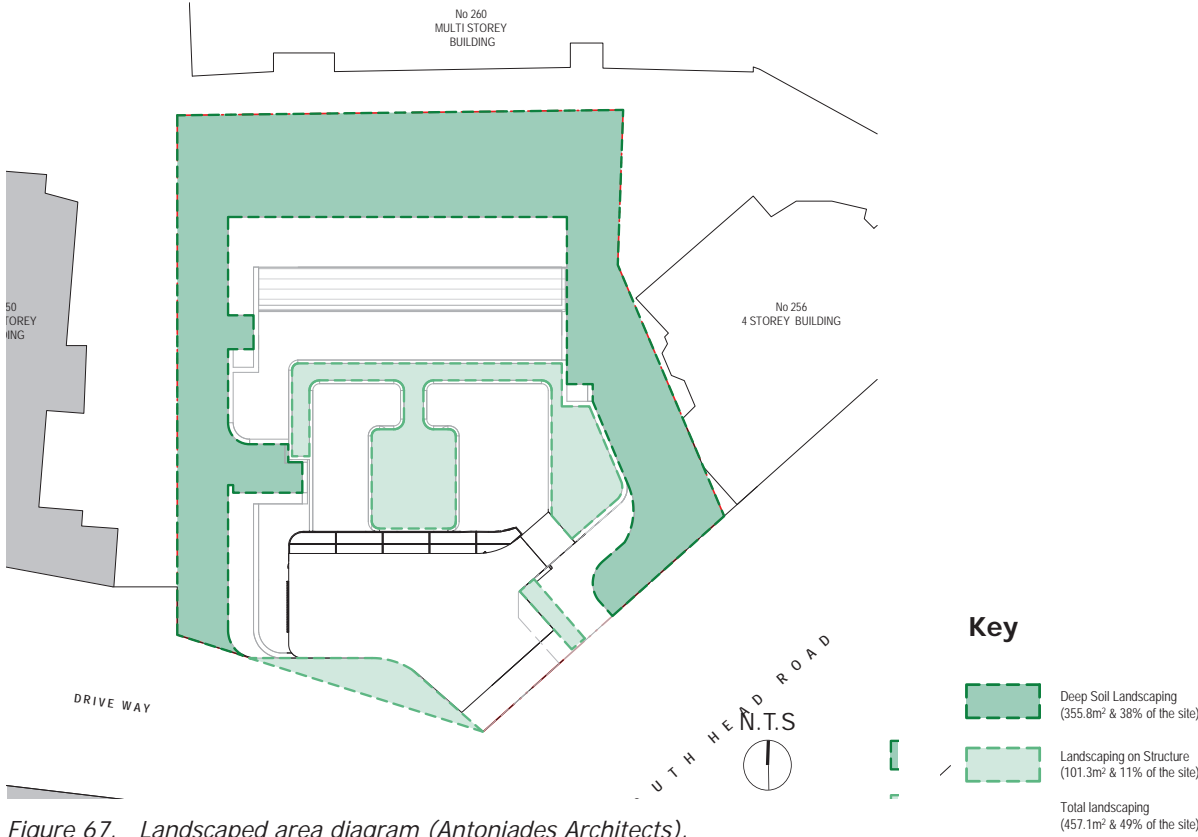


Figure 67. Landscaped area diagram (Antoniades Architects).

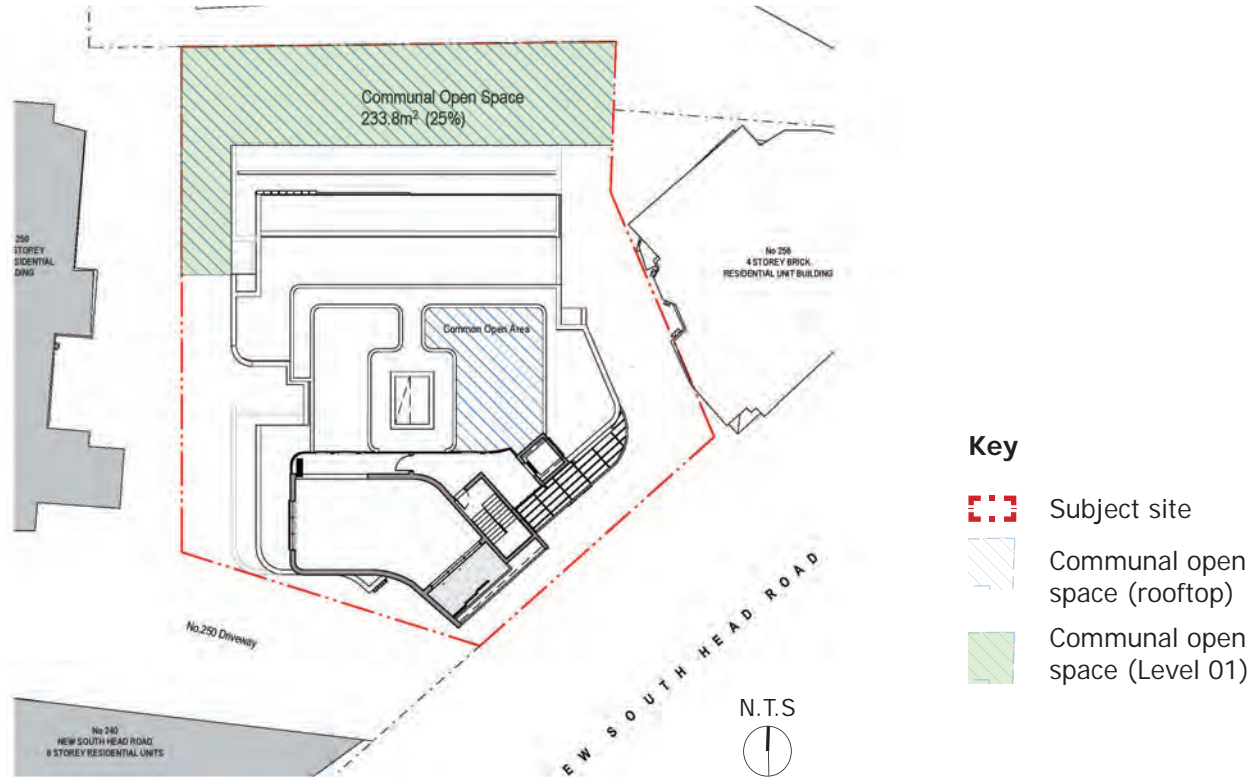
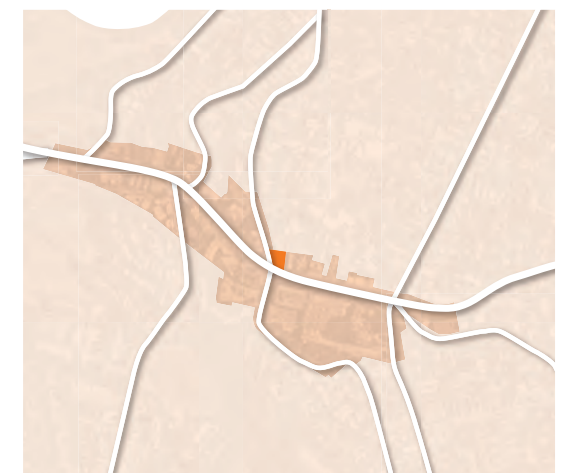


Figure 68. Indicative location of communal open space (Antoniades Architects).

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7. RECOMMENDATIONS



7.1 DEVELOPMENT OUTCOMES (INDICATIVE)

The proposed building height and FSR have the ability to facilitate a development of up to 8 storeys on the site. The indicative proposal provides 33 units with a mix of studios, one and two bedroom apartments. The proposed height and FSR also accommodate on-site facilities including bicycle spaces, storage and a gymnasium.

Indicative development outcomes are included in the Indicative Scheme (Appendix A).

7.2 PROPOSED STATUTORY CONTROLS

GMU recommend that the following statutory controls in Council's LEP be amended:

HEIGHT OF BUILDINGS

The current permissible height applicable to the site is 13.5m (WLEP). The proposal seeks to amend the maximum permissible height, by adoption of two layers of height control:

- 22m for the site generally; however incorporates
- A second height control which limits future development to a height level which will provide a compatible scale to New South Head Road. Please refer the Planning Proposal Report by GSA Planning (March 2020).

FLOOR SPACE RATIO

The current maximum Floor Space Ratio (FSR) applicable to the site is 1.3:1. The proposal seeks to amend the control to allow for the following:

- 2.6:1 across the site.

To ensure the capacity for future development to provide a compatible scale to New South Head Road, we propose a second layer of height control is adopted for the site. Please refer to Planning Proposal Report prepared by GSA Planning (March 2020).

7.3 CONCLUSIONS

GMU and the project team have undertaken extensive analysis of the site and the area. We have adopted an evidence-based approach to our investigations of the likely future development of the Edgecliff and Double Bay localities, to understand the role of the site relative to both local centres.

GMU consider it appropriate to provide a development scale on the site which responds to recent approvals nearby and thereby improve the streetscape profile by transtioning to the taller developments close to the Edgecliff centre and Edgecliff train station. The proposed height responds to the sloping site, delivering a sympathetic response to the natural terrain and the unique landforms characterising the area. The proposal aims to maximise the site's potential and regenerate the existing facility whilst achieving a good contextual fit.

Future redevelopment of the site will complement local strategic aims, delivering diverse housing close to the public transport hub and unique life style amenity.



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8. APPENDIX A - INDICATIVE SCHEME

