

Appendix K

Shadow Impact Analysis

July 2025

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Sydney
Metro
West

Sydney Olympic Park

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FUNCTION	POSITION	NAME	DATE
Author	Team Leader/Environment Consultant	Nathaniel Steward/Lily Chapman	NS/LC
Technical Checker	Project Leader	Anthony Chow	AC
Technical Reviewer	Principal in Charge	John Prentice	JP
Coordinator	Senior Project Manager	Stephen Spacey	SS
Approver	EDA Technical Lead	Mike Barron	MB

Amendment Record

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Executive Summary

This Shadow Impact Analysis supports Amending Concept Development Application (Amending Concept DA) that modifies a Concept State Significant Development Application (Concept SSDA) submitted to the Department of Planning, Housing and Infrastructure (DPHI) pursuant to part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act). The Amending Concept DA is made under section 4.22 of the EP&A Act.

The Concept SSDA for over station development (OSD) and adjacent station development (ASD) at the Sydney Olympic Park site was approved in August 2024. The concept approval sets out the building envelopes, land uses, gross floor areas and car parking requirements which the detailed design of buildings (lodged under separate Detailed SSDAs) must be consistent.

The Amending Concept DA seeks consent to modify the existing concept approval for the Sydney Olympic Park OSD Building 1, by amending the building envelope to redistribute floor space to suit a new residential land use. The Amending Concept DA will establish new parameters for Building 1 which the design of the future built form will be assessed against within future Detailed SSDA(s).

The Amending Concept DA does not propose to amend the existing concept approval as it relates to Building 2 and Building 3 and any information related to these buildings is consistent with the original SSDA.

The Shadow Impact Analysis undertakes an analysis of the overshadowing impacts of the proposed OSD and ASD envelopes on existing surrounding properties and public spaces (during winter solstice and spring and autumn equinox) at hourly intervals between 9am and 3pm. The analysis also assesses the overshadowing impacts on proposed future surrounding built form shown in the approved Sydney Olympic Park Master Plan. The proposed OSD and ASD envelopes of 27, 34 and 45 storeys are within the maximum 45 storey height controls.

Introduction

1.1 Sydney Metro West

Sydney Metro West is a new underground railway which will double rail capacity between Greater Parramatta and the Sydney Central Business District (CBD), transforming Sydney for generations to come. The once-in-a-century infrastructure investment will provide fast, reliable, turn up-and-go metro services with fully accessible stations, link new communities to rail services and support employment growth and housing supply.

Stations have been confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street. Two potential station locations are being investigated west of Sydney Olympic Park including one at Rosehill Gardens which could support a significant increase in housing.

Sydney Metro West station locations are shown in Figure 1

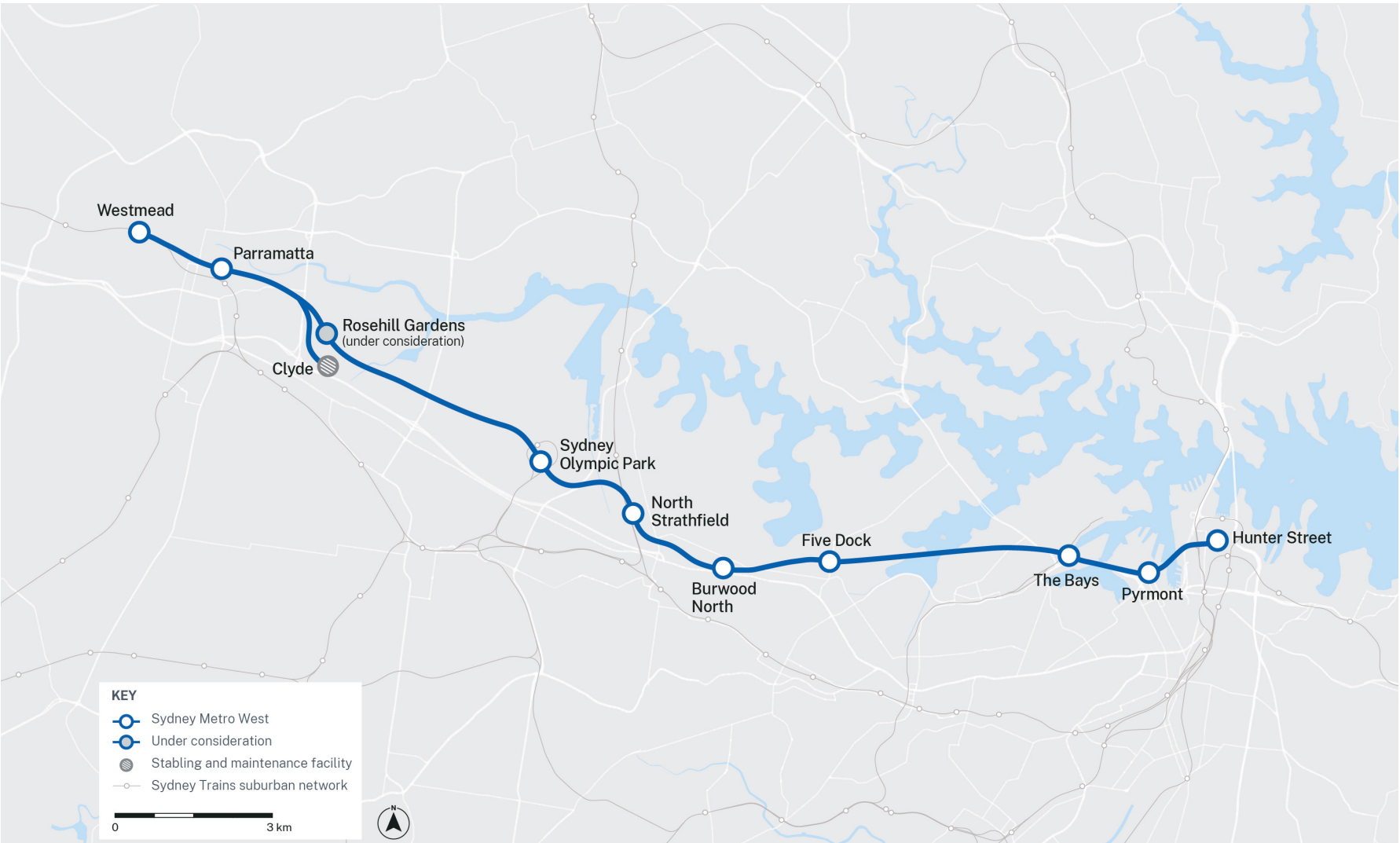


Figure 1 Sydney Metro West

1.2 Background and planning context

Sydney Metro is delivering Sydney Olympic Park metro station in accordance with the Metro West Critical State Significant Infrastructure (CSSI) approvals. The over and adjacent station developments at Sydney Olympic Park are to be delivered under State Significant Development (SSD) consent(s) subject to the provisions of Part 4 of the Environmental Planning and Assessment Act 1979.

1.2.1 Critical State Significant Infrastructure

The State Significant Infrastructure (SSI) planning approval process for the Sydney Metro West metro line, including delivery of station infrastructure, has been broken down into several planning application stages, comprising the following:

- › Concept and Stage 1 CSSI Approval (SSI-10038) – All major civil construction works between Westmead and The Bays including station excavation, tunnelling and demolition of existing buildings (approved 11 March 2021)
- › Stage 2 CSSI Application (SSI- 19238057) – All major civil construction works between The Bays and Hunter Street Station (Approved 24 August 2022)
- › Stage 3 CSSI Application (SSI- 22765520) – Tunnel fit-out, construction of stations, ancillary facilities and station precincts between Westmead and Hunter Street Station, and operation and maintenance of the Sydney Metro West line (Approved 25 January 2023).

1.2.2 State Significant Development Application

Development consent was granted on 28 August 2024 for the Concept SSD (SSD-35283699) for Sydney Olympic Park Over and Adjacent Station Development. The Concept SSD provides conceptual approval for building envelopes, land uses, maximum building heights, a maximum gross floor area, pedestrian and vehicle access and associated car parking. This Amending Concept Development Application (Amending Concept DA) seeks to amend the Concept SSD (SSD-35283699) for the building envelope and description of development for Building 1.

The SSD will be undertaken as a staged development with the Concept SSD and subsequent Amending Concept DA being consistent with the meaning under Section 4.22 of the EP&A Act which seeks conceptual approval. A subsequent Detailed SSDA(s) is to be prepared by a future development partner which will seek consent for detailed design and construction of the development.

The proposed development is SSD as clause 2(f) of Schedule 2 of *State Environmental Planning Policy (Planning Systems) 2021* identifies Sydney Olympic Park as a site on which development that has an estimated development cost of more than \$10 million is SSD.

1.2.3 NSW Government Priority for Housing

In April 2023, the NSW Government announced it would conduct an independent review into Sydney Metro. The final Sydney Metro Review report, which was released on 7 December 2023, supports the NSW Government's priority to address the undersupply of housing across the State.

The report identified an enhanced Sydney Metro West and supported the requirement for the project to be leveraged as a key driver of additional housing for the people of NSW. The new Sydney Metro West stations and the surrounding precincts were identified as opportunities to enable a large expansion of housing supply, and new employment and liveability opportunities. Maximising these new precincts as significant housing and city-shaping investments, with catalytic land use change triggered by the public transport intervention, especially at Sydney Olympic Park, was referenced.

In line with the NSW Government's priority to significantly increase housing supply in locations close to Sydney Metro West, the Amending Concept DA seeks to change the land use of the Building 1 tower from commercial to residential.

1.3 Purpose of the report

This Shadow Impact Analysis supports a Concept SSDA submitted to the Department of Planning, Housing and Infrastructure (DPHI) pursuant to part 4 of the EP&A Act. The Concept SSDA is made under section 4.22 of the EP&A Act. It seeks approval for an amended concept for the building envelope and description of development for the Sydney Olympic Park OSD Building 1 under SSD-35283699. No change is proposed to Building 2 and Building 3.

This report has been prepared to specifically respond to the Secretary's Environmental Assessment Requirements (SEARs) issued for the Amending Concept SSDA on a date to be confirmed which states that the environmental impact statement (EIS) is to address the following requirements:

ITEM	SEARs requirement	Where addressed in report
6. Environmental Amenity	Assess amenity impacts on the surrounding locality, including lighting impacts, reflectivity, solar access, visual privacy, visual amenity, view loss and view sharing, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential or other sensitive land uses must be demonstrated.	This report
	Provide a solar access analysis of the overshadowing impacts of the development within the site, on surrounding properties and public spaces(during winter solstice and spring and autumn equinox) at hourly intervals between 9am and 3pm, when compared to the existing situation and a compliant development (if relevant).	This report

The site and proposal

2.1 Introduction

The Amending Concept DA is a new application submitted under Section 4.22 of the EP&A Act. The process is enabled by Section 4.17(1)(b) of the EP&A Act which modifies the existing Concept SSD consent to permit the proposed residential land use.

The Amending Concept DA seeks approval for an amended building envelope and description of development for the Sydney Olympic Park Over Station Development (OSD) Building 1 under SSD-35283699. No change is proposed to Building 2 and Building 3.

2.2 Site location and description

The site of Building 1 is located within Sydney Olympic Park and is situated within the City of Parramatta Local Government Area. The site is in the Central Precinct of Sydney Olympic Park and comprises part of Site 47 in the Master Plan 2030 (Interim Metro Review). The broader metro site is bound by Herb Elliott Avenue to the north, Olympic Boulevard to the west and Figtree Drive to the south as shown in Figure 2.

As described in Table 1, the site for Building 1 comprises part of Lot 58 in DP 786296 and part of Lot 59 in DP 786296 and is approximately 5,657 m2 of land.

Table 1 - Site legal description

Street Address	Legal Description
5 Figtree Drive, Sydney Olympic Park	Lot 58 in DP 786296 and part of Lot 59 in DP 786296

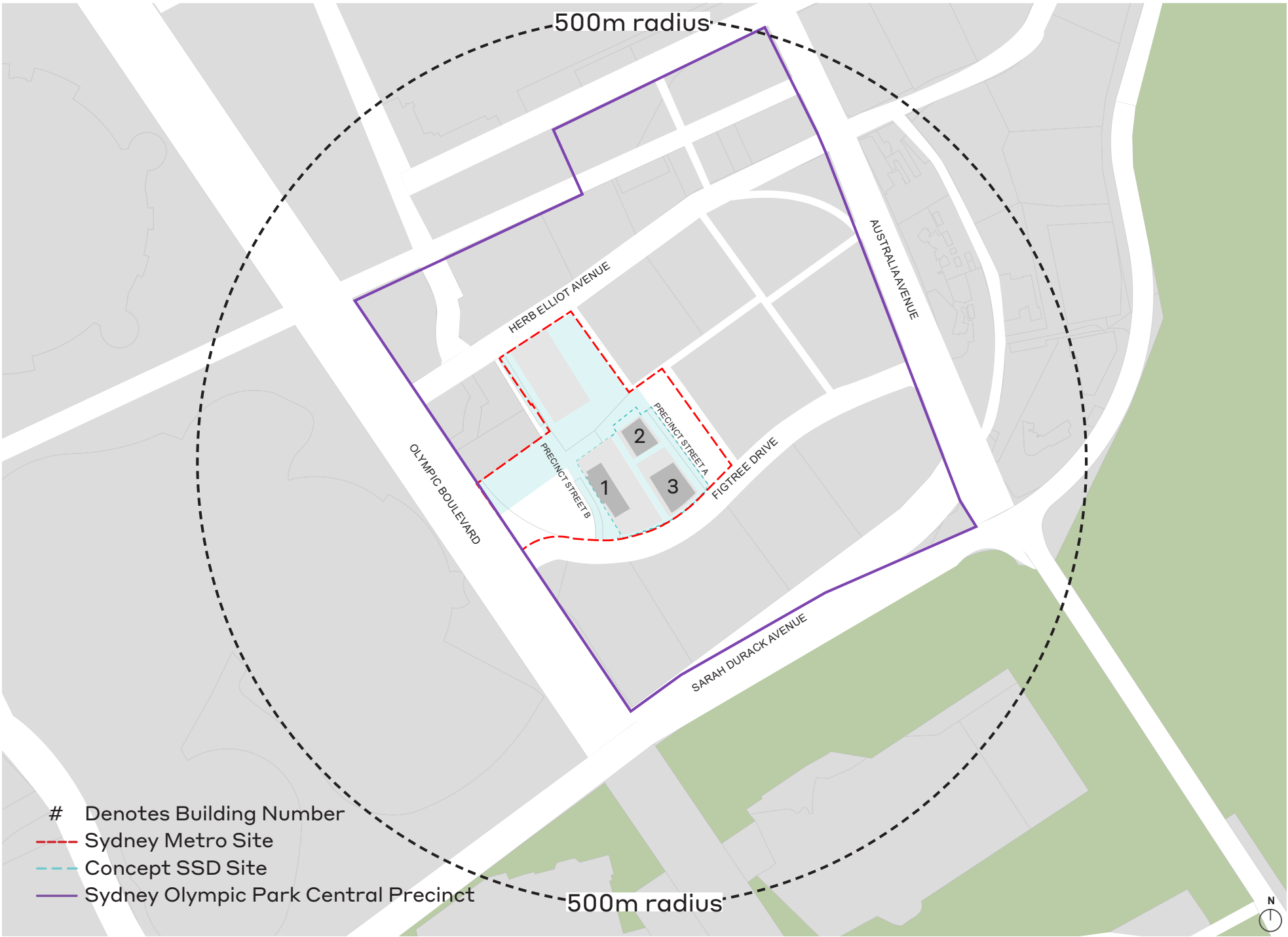


Figure 2 Sydney Olympic Park metro station location precinct

2.3 Proposed development overview

This Amending Concept DA seeks consent at a conceptual level for an amended building envelope and description of development for Sydney Olympic Park OSD Building 1. The Amending Concept DA will establish new parameters for Building 1 which the design of the future built form will be assessed against within future Detailed SSDA(s).

In line with the NSW Government's priority to significantly increase housing supply in locations close to Sydney Metro West, the Amending Concept DA seeks to change the land use of the Building 1 tower from commercial to residential.

The proposed development seeks to amend the building envelope and description of development for Building 1 (under SSD-35283699) through:

- › Converting the land use of the commercial building (above the podium) to a residential use with an associated 22,875m² of residential GFA (approx. 191 dwellings)
- › Reducing the commercial GFA from 26,690 m² to 1,183 m² and retail GFA from 1,200 m² to 791 m² to be delivered within the podium
- › Increasing the maximum building height from RL 122.00 to RL 151.00 and number of storeys from 21 to 34
- › Amending the building envelope of Building 1 to redistribute floor space to suit a new residential land use.

The approved and proposed amended building envelope for Building 1 is provided in Figure 3 and Figure 4, respectively. The proposed development will not exceed the permissible building height for the site under the State Environmental Planning Policy (Precincts – Central River City) 2021 (Central River City SEPP) and the SOP Master Plan 2030 (Interim Metro Review).

No changes are proposed to Building 2 and Building 3 in the form in which they have been approved under the Concept SSD (SSD-35283699), or to the approved car parking for a maximum of 358 vehicles in a basement below Buildings 2 and 3. In addition, no changes are proposed to loading, vehicular, bicycle and pedestrian access arrangements as provided in the Concept SSD.

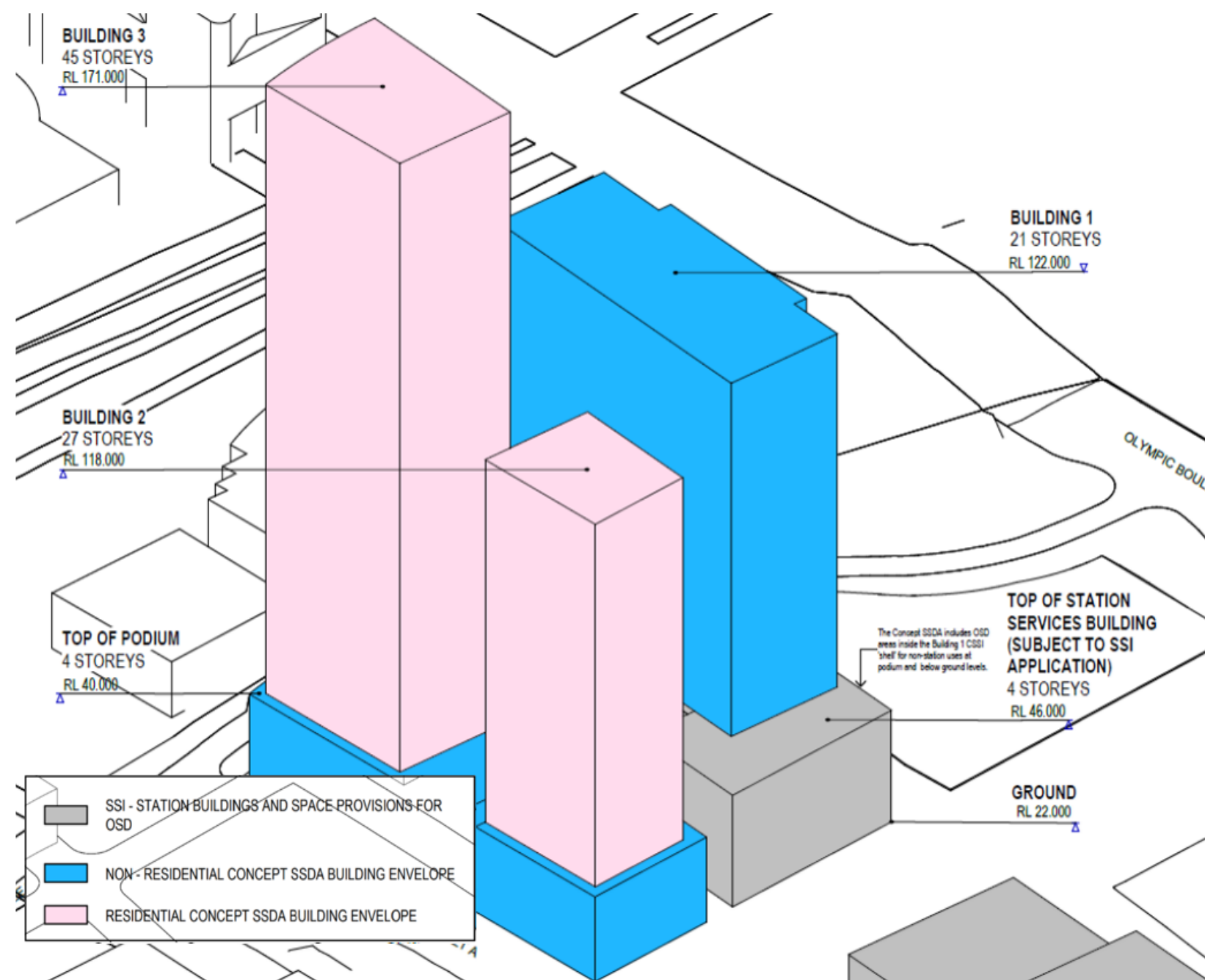


Figure 3: Sydney Olympic Park OSD & ASD (SSD-35283699) approved building envelopes

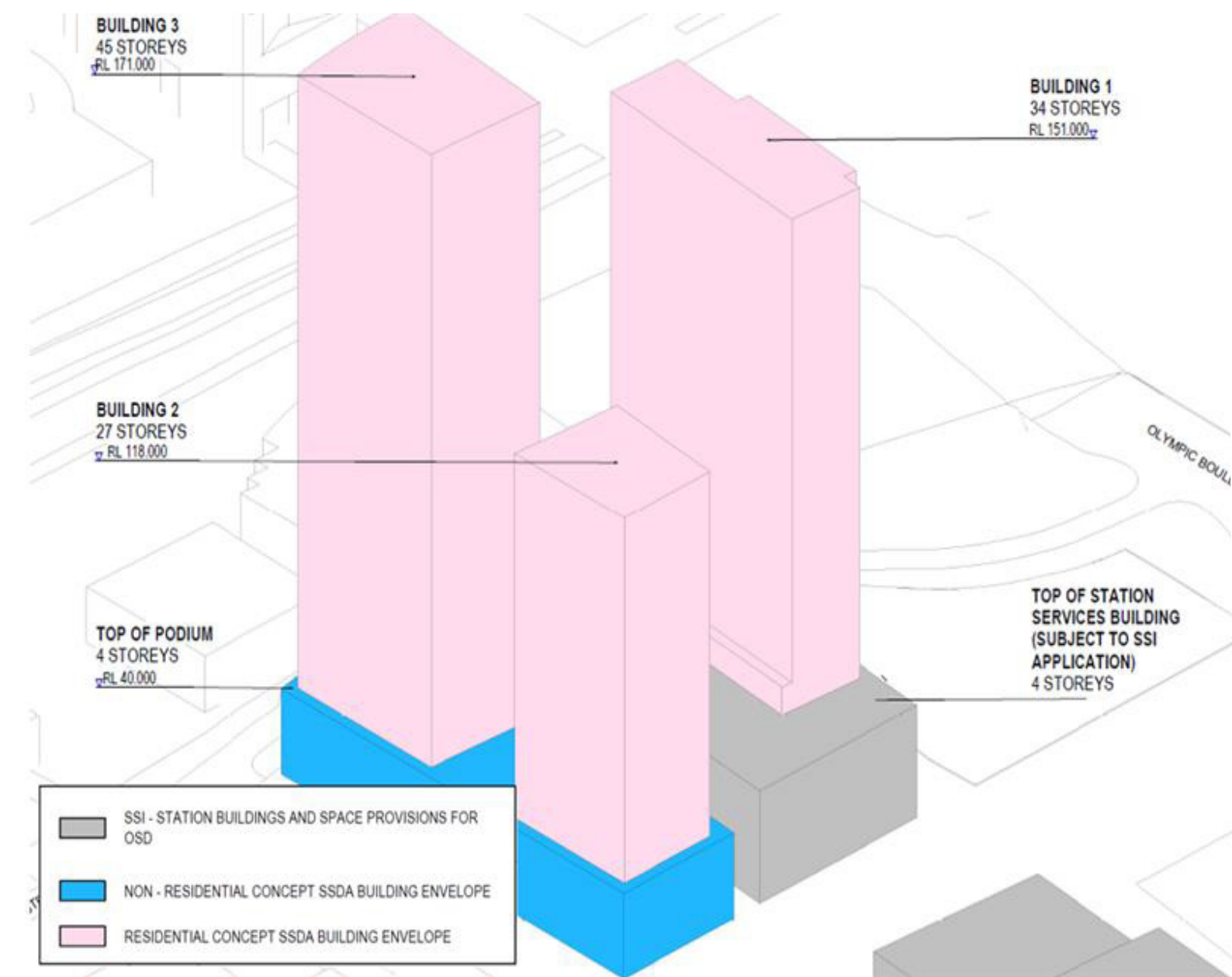


Figure 4: Sydney Olympic Park OSD Building 1 amended building envelope

Table 2 provides a numerical overview of proposed changes to the Concept SSD (SSD-35283699) for Building 1. Table 3 provides a numerical summary of the overall changes to the Concept SSD including maximum GFA and total number of dwellings.

Table 2 - Numerical overview of proposed changes to Building 1

Concept Plan	Approved Numerical Overview	Proposed Numerical Overview
Residential GFA	0m2	22,875m2
Commercial GFA	26,690m2	1,183m2
Retail GFA	1,200m2	791m2
Station GFA (CSSI)	Approx. 884m2	Approx. 994m2
Total GFA (ex. CSSI)	27,890m2	24,849m2
Height RL	122	151
Residential GFA	21	34

Table 3 - Numerical overview of proposed changes to the Concept SSD (SSD-35283699)

Concept Plan (SSD-35283699)	Approved Overall Numerical Overview	Proposed Overall Numerical Overview
Residential GFA	33,150m2	56,037m2
Commercial GFA	33,537m2	6,880m2
Retail GFA	1,289m2	1,625m2
Station GFA (CSSI)	Approx. 884m2	Approx. 994m2
Total GFA (ex. CSSI)	68,076m2	64,542m2
Dwellings	316	507
Car parking spaces	358	No change

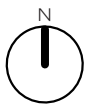
Overshadowing Impact on Existing Context



3.1 Autumn Equinox

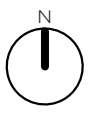
3.1.1 21 March - 9:00am





3.1.2 21 March - 10:00am





3.1.3 21 March - 11:00am





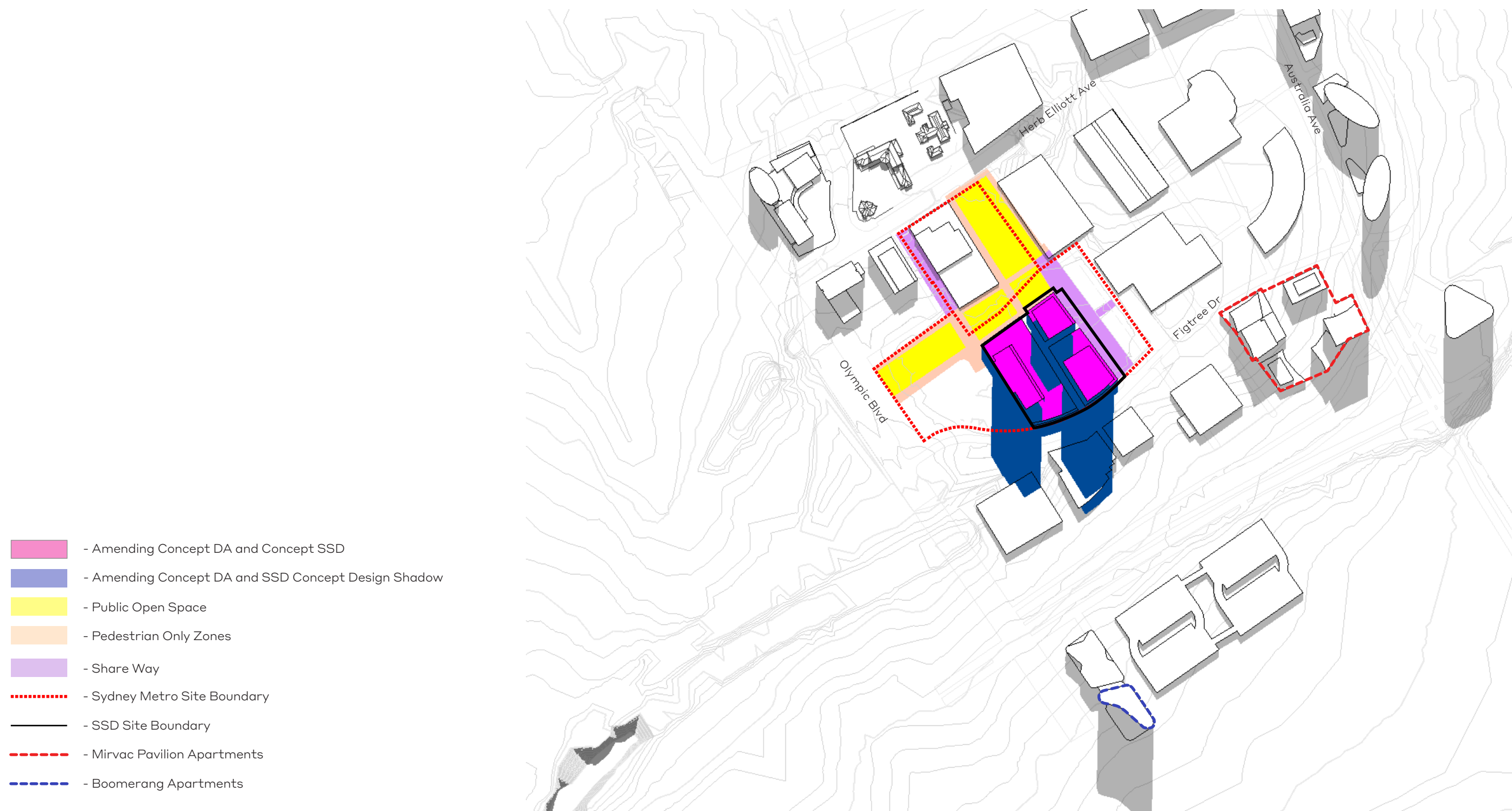
3.1.4 21 March - 12:00pm



- Amending Concept DA and Concept SSD
- Amending Concept DA and SSD Concept Design Shadow
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- Pedestrian Only Zones
- Share Way
- Sydney Metro Site Boundary
- SSD Site Boundary
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- Boomerang Apartments



3.1.5 21 March - 1:00pm



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3.1.6 21 March - 2:00pm



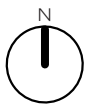


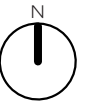
3.1.7 21 March - 3:00pm



3.2 Winter Solstice

3.2.1 21 June - 9:00am





3.2.2 21 June - 10:00am





3.2.3 21 June - 11:00am

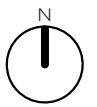




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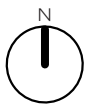


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3.2.5 21 June - 1:00pm





3.2.6 21 June - 2:00pm





3.2.7 21 June - 3:00pm

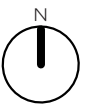


3.3 Spring Equinox

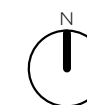
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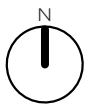
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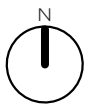
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3.3.4 23 September - 12:00pm



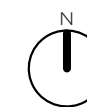
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3.3.6 23 September - 2:00pm



3.3.7 23 September - 3:00pm



Overshadowing Impact on 2030 SOPA Masterplan Context

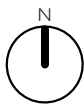


4.1 Autumn Equinox

4.1.1 21 March - 9:00am

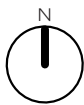


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4.1.2 21 March - 10:00am

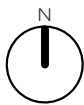




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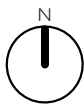


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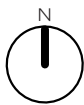
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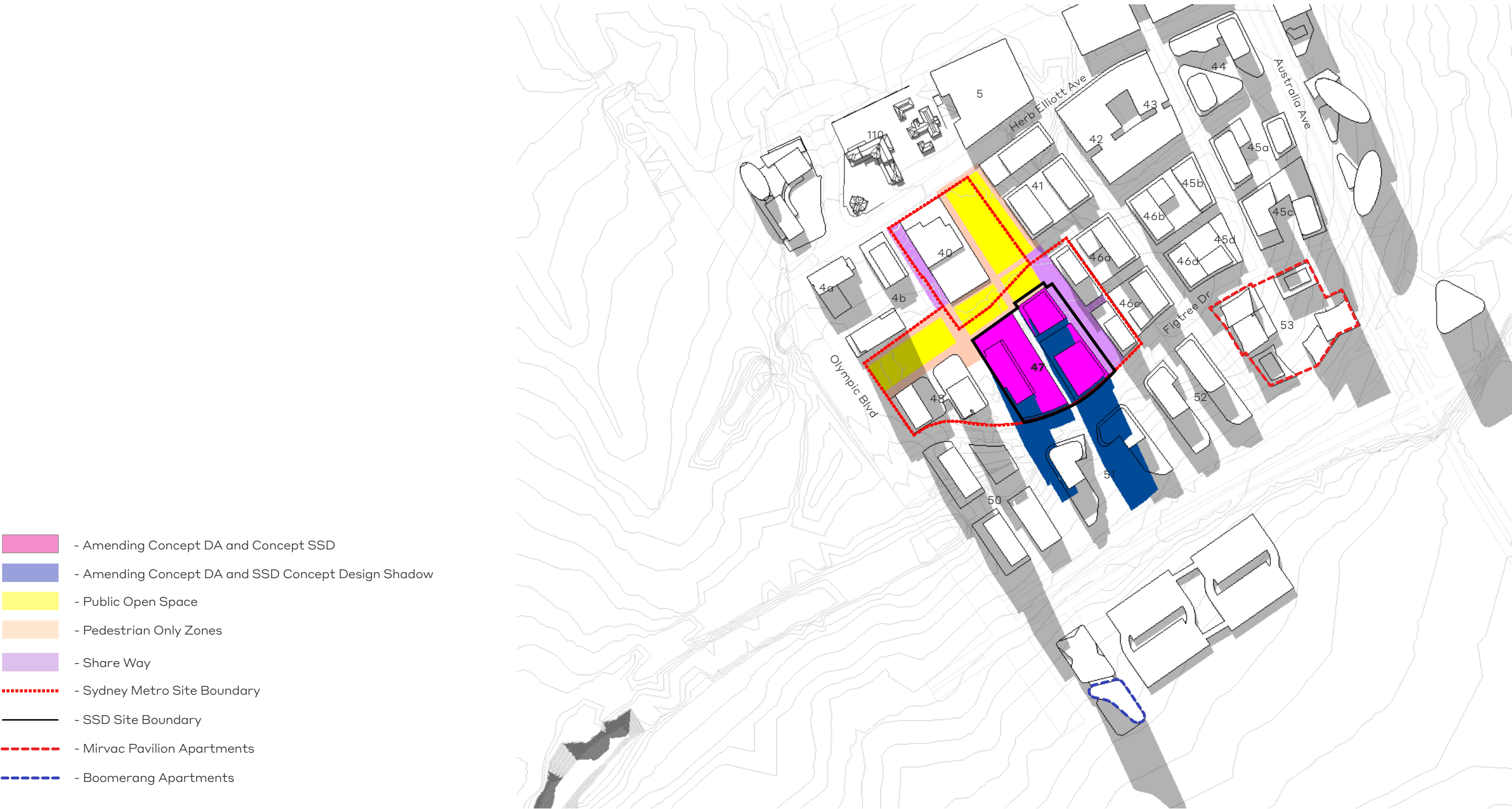


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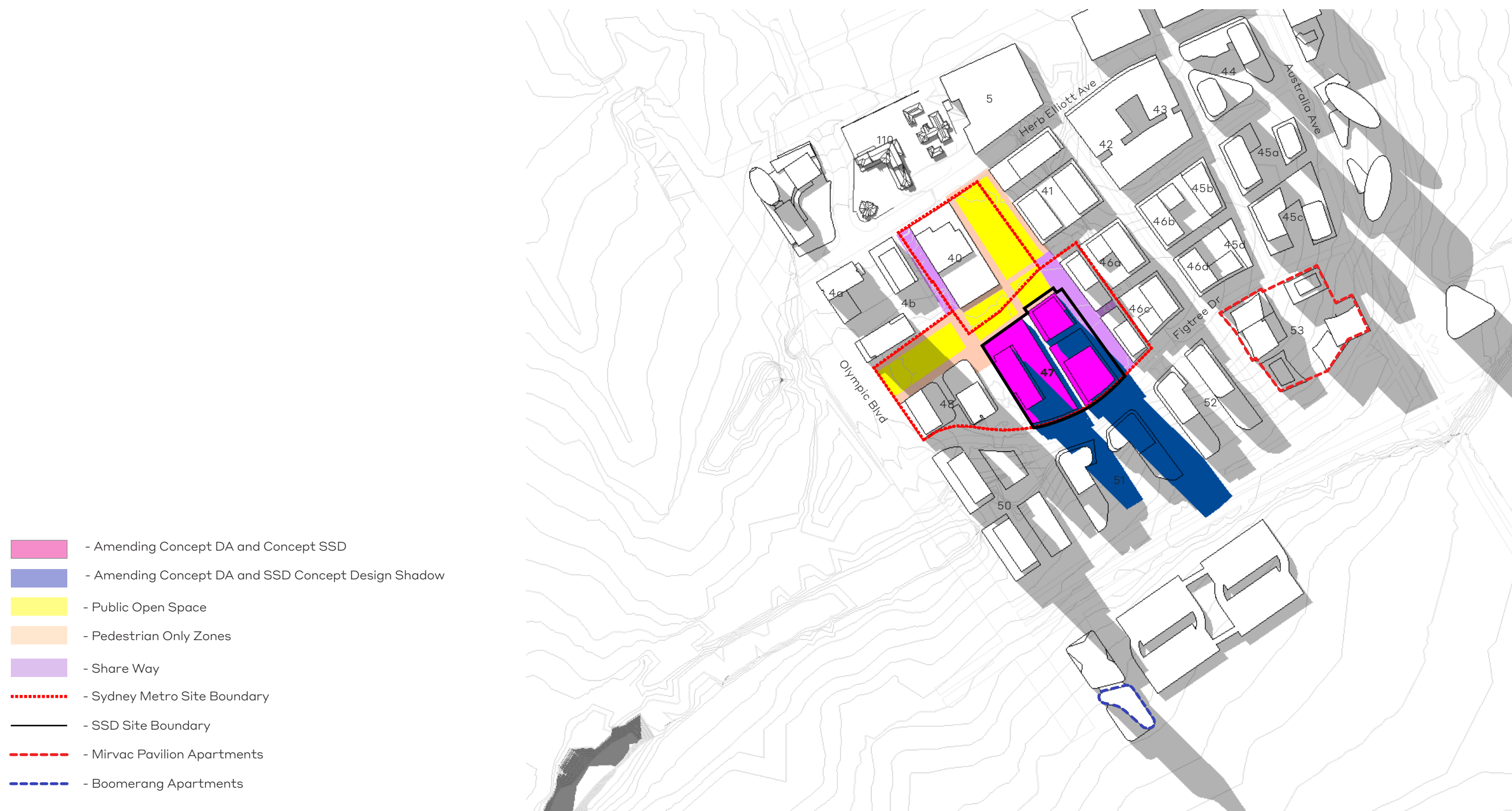


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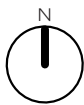
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4.2 Winter Solstice

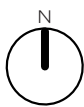
4.2.1 21 June - 9:00am





4.2.2 21 June - 10:00am





4.2.3 21 June - 11:00am

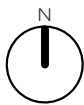




4.2.4 21 June - 12:00pm



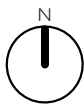
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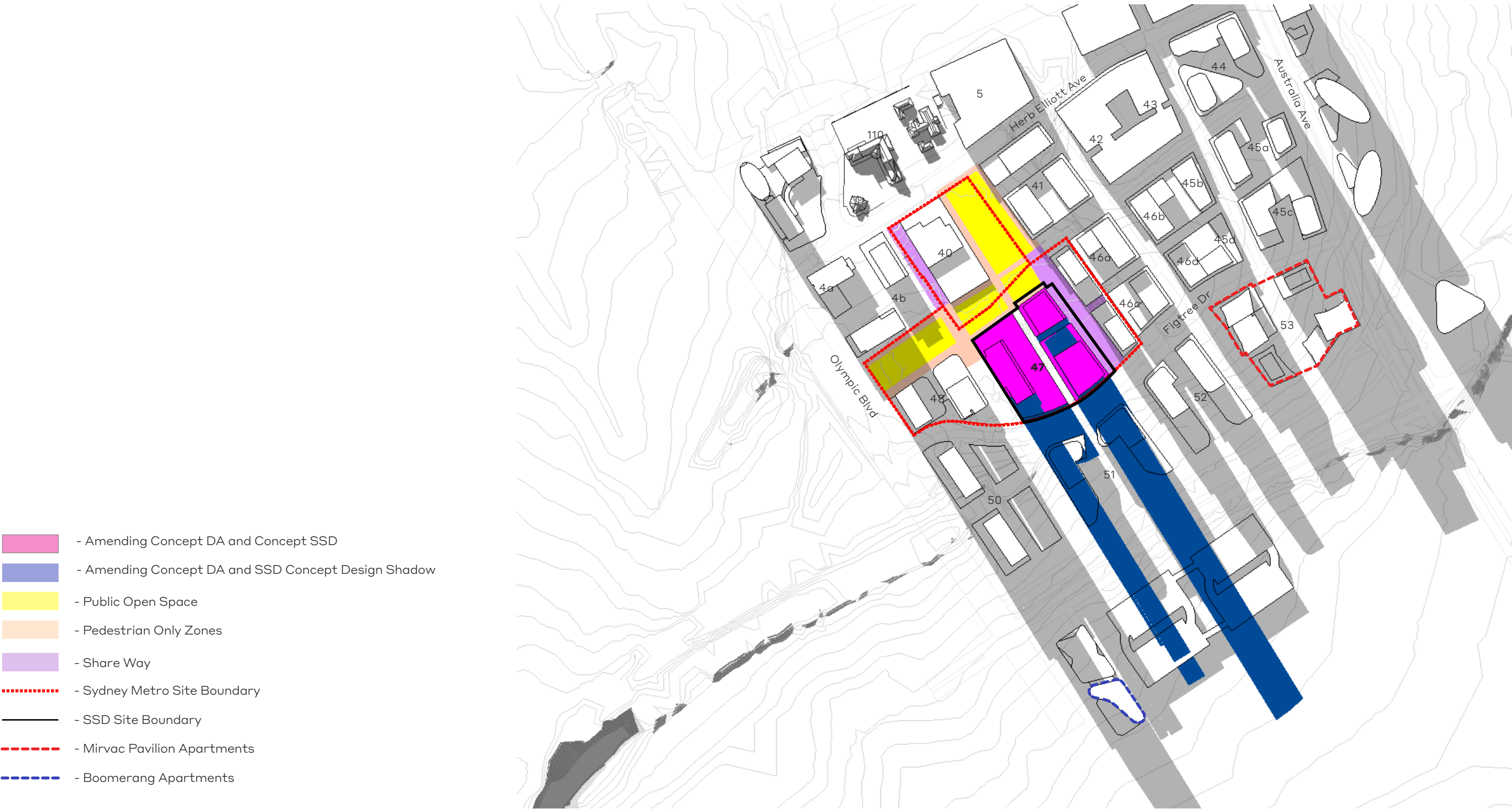
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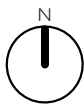


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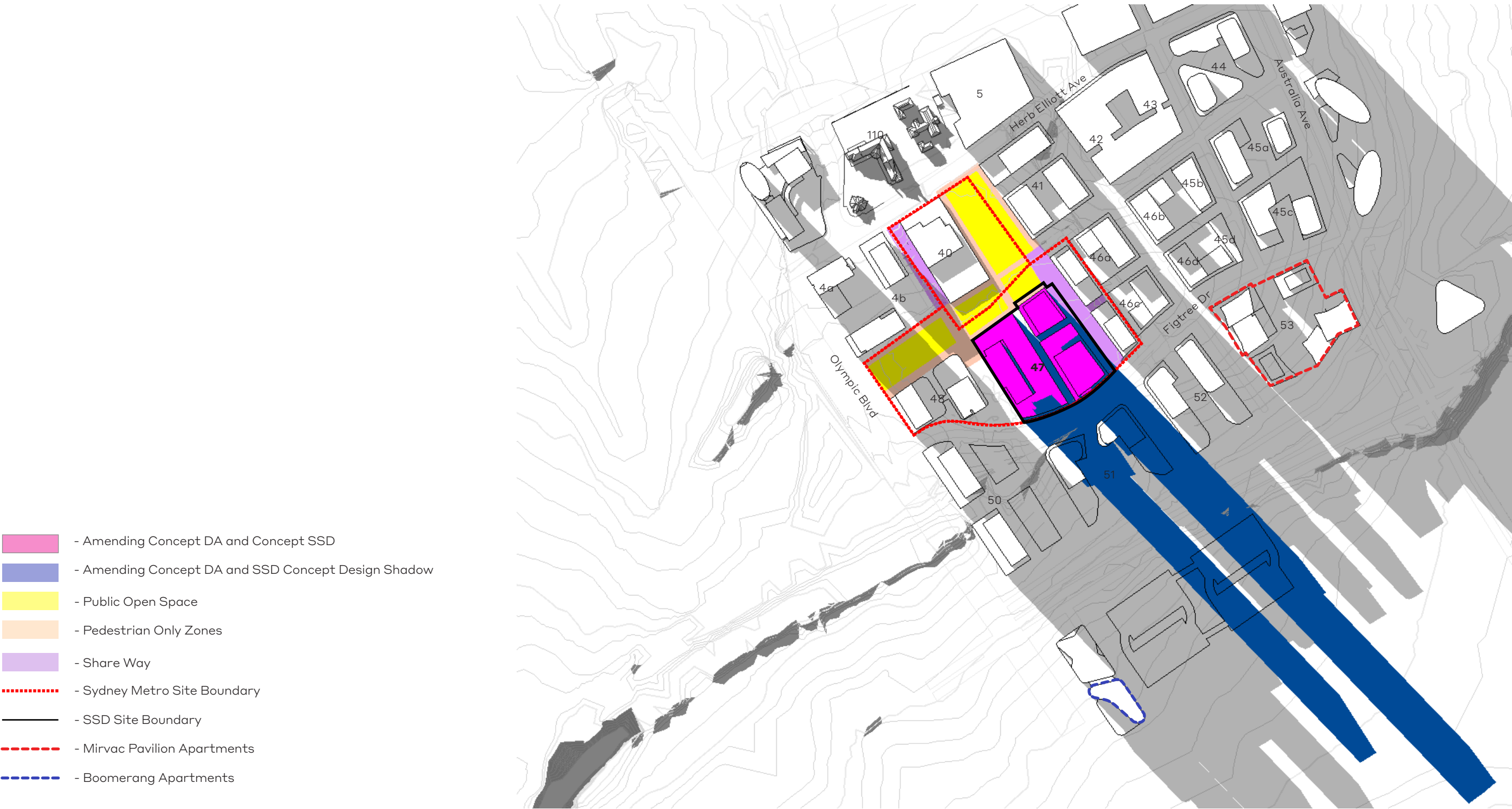


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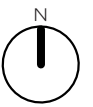


4.2.7 21 June - 3:00pm



4.3 Spring Equinox

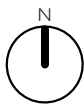
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4.3.2 23 September - 10:00am

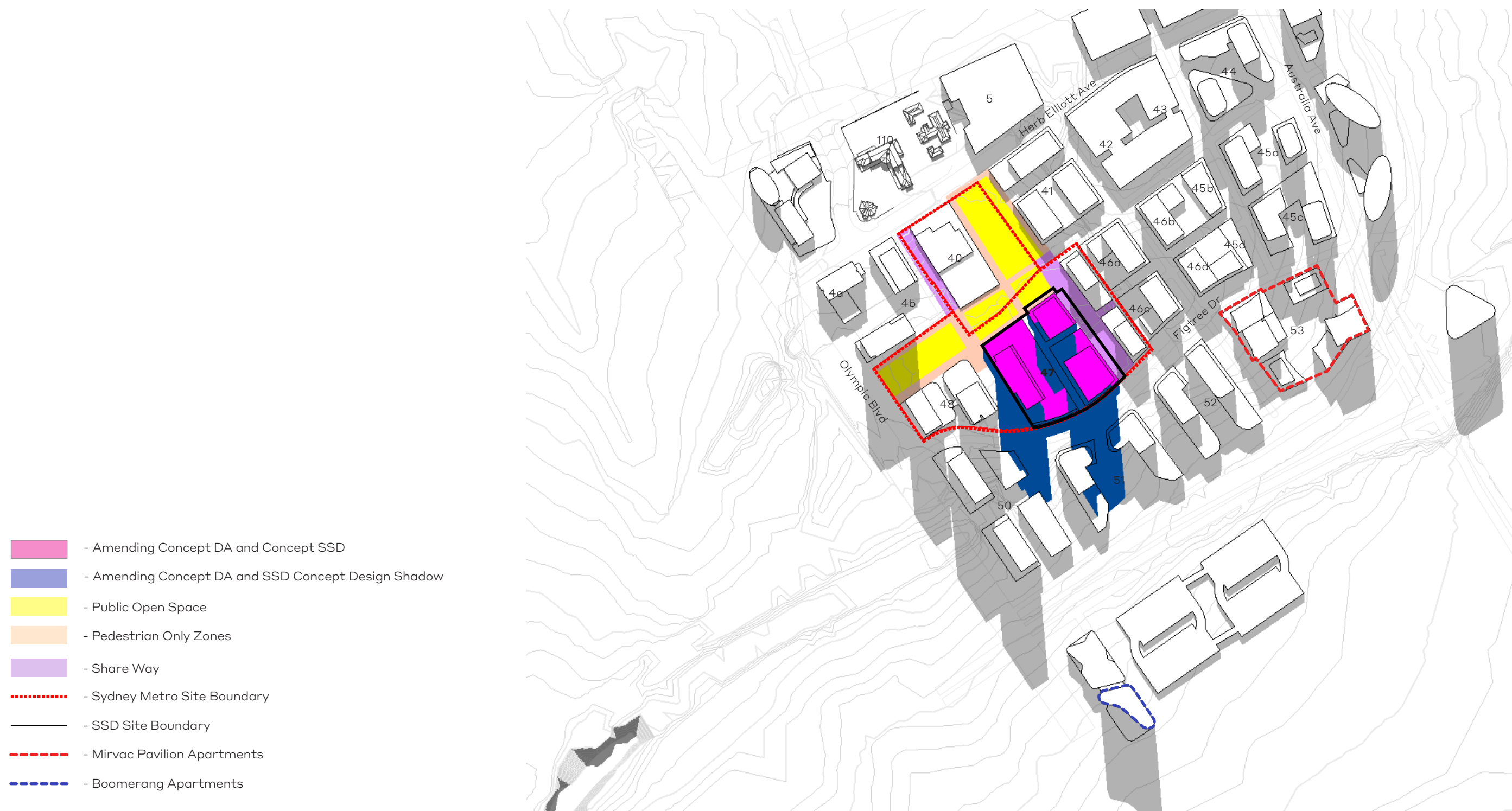




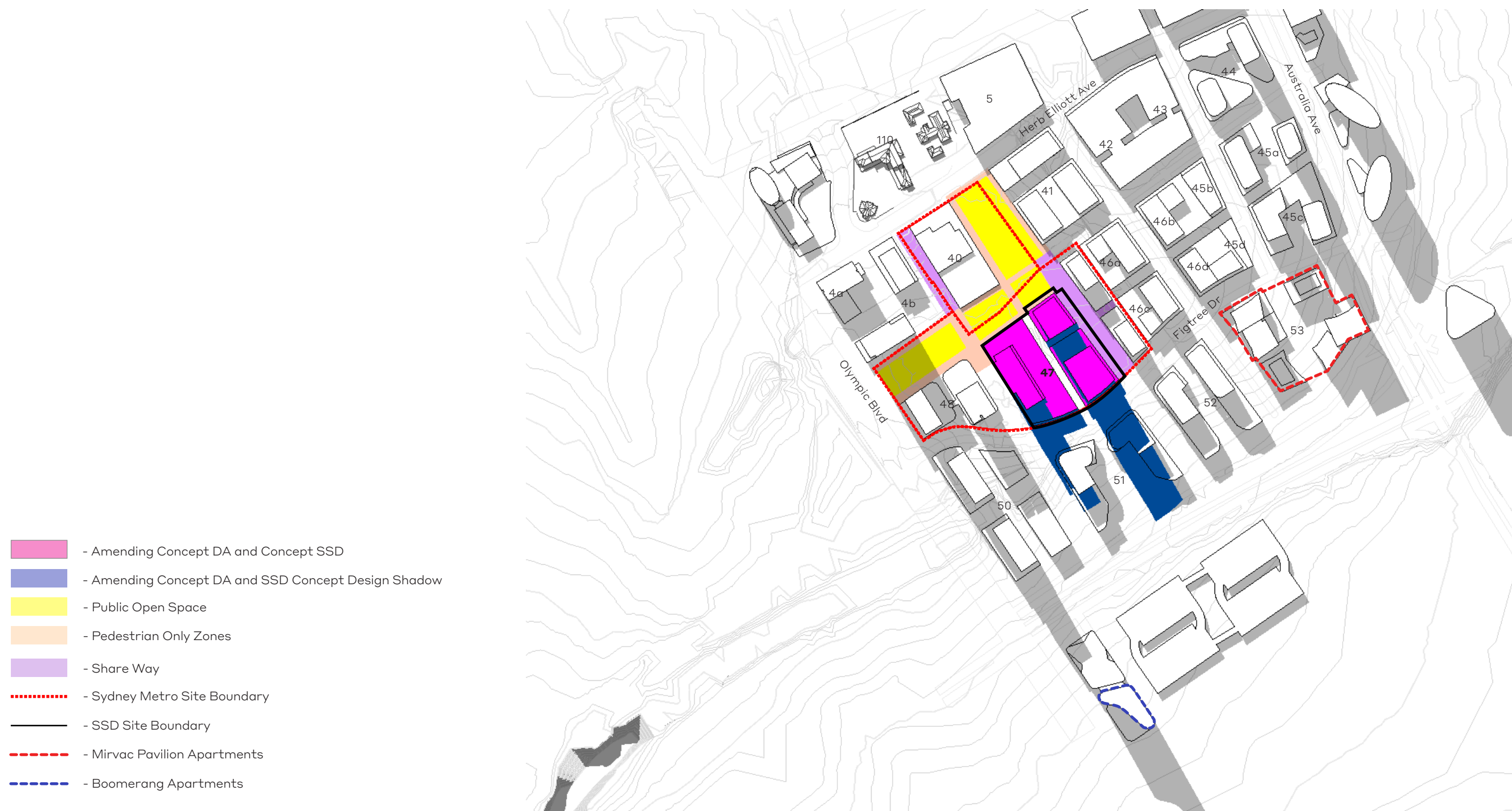
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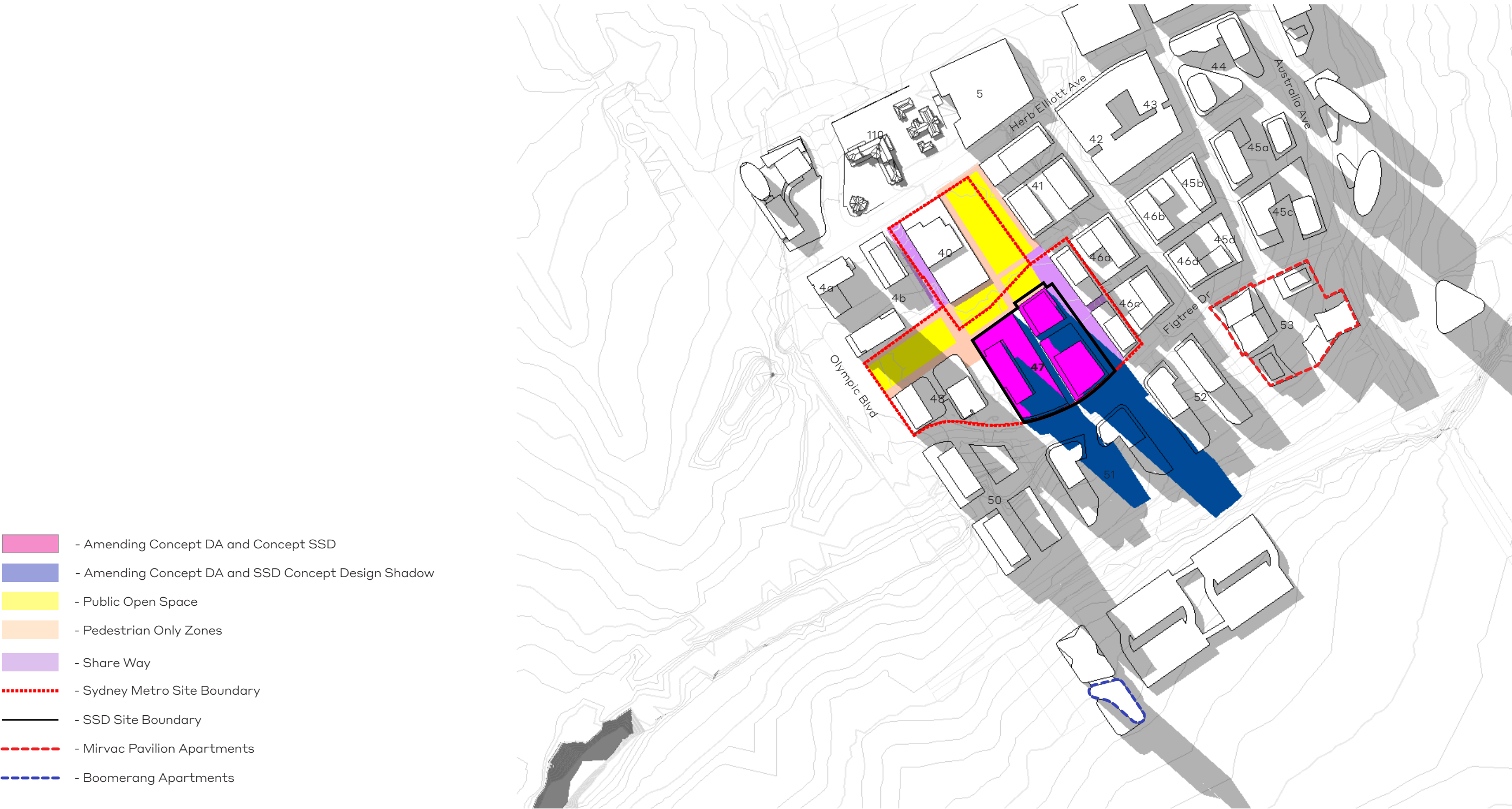
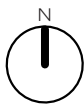
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4.3.5 23 September - 1:00pm



4.3.6 23 September - 2:00pm



4.3.7 23 September - 3:00pm



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Conclusion

This Shadow Impact Analysis undertakes a high level analysis of the overshadowing impacts of the proposed Amending Concept SSDA for Building 1 and the associated approved development (under SSD-3528399) on existing properties. The analysis also assesses the overshadowing impacts on proposed future surrounding built form shown in the approved Sydney Olympic Park Master Plan. The proposed Building 1 envelope of 34 storeys is within the maximum 45 storey height controls from SOPA.

The analysis demonstrates the impacts of the proposed Building 1 envelope is capable to provide solar access for both existing properties and the potential future envelopes for the precinct shown in the Master Plan.

This analysis completed via plan does not take into account the planning of residential units in the future envelopes. Further detail planning within the future envelopes would be required to confirm solar access compliance.