Sydney Metro West

Environmental Impact Statement

Sydney Olympic Park Over and Adjacent Station Development Concept State Significant Development Application

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Project details	
Sydney Olympic Park Metro Station – Over & Adjacent Station Development	
SSD-35283699	
Lot 58 DP786296 and Lot 59 DP786296 within City of Parramatta	
Applicant details	
Sydney Metro	
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Declaration	
Peter Strudwick	
Urbis	
Declaration	*The undersigned declares that this EIS:* • *Has been prepared in accordance with Division 5 of the Environmental Planning and Assessment Regulations 2021* • *Contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which the EIS relates* • *Does not contain information that is false or misleading* • *Addresses the Planning Secretary's environmental assessment requirements (SEARs) for the project* • *Identifies and addresses the relevant statutory requirements for the project including any relevant matters for consideration in environmental planning instruments* • *Has been prepared having regard to the Department's State Significant Development Guidelines – Preparing an Environmental Impact Statement* • *Contains a simple and easy to understand summary of the project as a whole having regard to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development* • *Contains an accurate summary of the findings of any community engagement* • *Contains an accurate summary of the detailed technical assessment of the impacts of the project as a whole*
Signature	
Date	*24 October 2022*

Glossary and abbreviations

Term	Definition
ADG	Apartment Design Guide
ASD	Adjacent station development
BC Act 2016	*Biodiversity Conservation Act 2016*
Concept and Stage 1 CSSI Approval	SSI-10038, approved 11 March 2021, including all major civil construction works between Westmead and The Bays, including station excavation and tunnelling, associated with the Sydney Metro West railway line
Concept SSDA	A concept development application as defined in Section 4.22 the EP&A Act, as *a development application that sets out concept proposals for the development of a site, and for which detailed proposals for the site or for separate parts of the site are to be the subject of a subsequent development application or applications*
Council	City of Parramatta Council
CSSI	Critical State Significant Infrastructure
Detailed SSDA	The SSD Application(s) to be made after the Concept SSDA, to seek consent for the design and to physically carry out the proposal
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2021*
FSR	Floor Space Ratio
GANSW	The Government Architect NSW
GPOP	Greater Parramatta Olympic Park
Indicative reference scheme	Indicative reference scheme refers to the conceptual architectural plans illustrated in Reference Scheme Drawings (Appendix H) and at Figure 3-8 of this EIS.
OSD	Over station development
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SEPP 65	*State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development*
SOP Master Plan 2030 (2018 Review)	Sydney Olympic Park Master Pan 2030 (2018 Review)
SOP Master Plan 2030 (Interim Metro Review)	Sydney Olympic Park Master Plan 2030 (Interim Metro Review)
SOPA	Sydney Olympic Park Authority

Term	Definition
SSDA	State Significant Development Application
Stage 2 CSSI Application	Application (SSI-19238057) for approval to carry out major civil construction works between The Bays and Sydney CBD including station excavation and tunnelling, associated with the Sydney Metro West railway line. Approved 24 August 2022
Stage 3 CSSI Application	Application (SSI-22765520) seeking approval to carry out rail infrastructure, stations, precincts and operation of the Sydney Metro West line
Sydney Metro West	Construction and operation of a metro rail line and associated stations between Westmead and the Sydney CBD as described in 1.1.1 Sydney Metro West
TfNSW	Transport for NSW

Executive summary

Introduction

Sydney is expanding and the NSW Government is working hard to deliver an integrated transport system that meets the needs of customers now and in the future.

Sydney Metro is Australia's biggest public transport program. Services on the North West Metro Line between Rouse Hill and Chatswood started in May 2019 on this new stand-alone metro railway system, which is revolutionising the way Sydney travels.

The Sydney Metro program of works is shown in Figure ES-1 and includes:

- Sydney Metro North West – opened in May 2019
- Sydney Metro City & Southwest – currently under construction with services to begin in 2024
- Sydney Metro West – currently under construction and due to open in 2030
- Sydney Metro – Western Sydney Airport – currently under construction and due to open when the airport opens for passenger services.

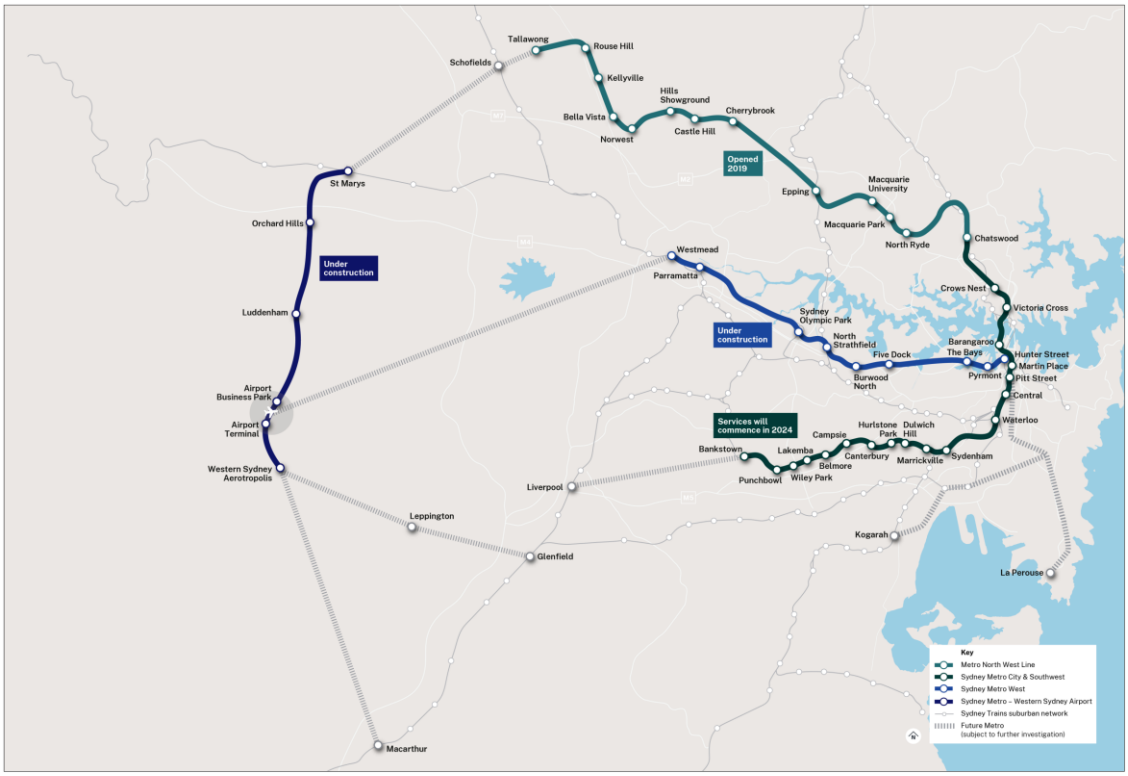

Figure ES-1 Sydney Metro network map

The delivery of Sydney Metro West is critical to keeping Sydney moving, and will:

- comprise a new 24-kilometre metro line with stations confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street (Sydney CBD)
- have a target travel time of about 20 minutes between Parramatta and the Sydney CBD
- link new communities to rail services and support employment growth and housing supply
- relieve the congested T1 Western Line, T9 Northern Line, and T2 Inner West & Leppington Line

- double the rail capacity between Parramatta and the Sydney CBDs
- significantly boost economic opportunities for Greater Parramatta
- support new residential and employment zones along the Greater Parramatta to Sydney CBD corridor, including at Sydney Olympic Park and The Bays – providing improved transport for the additional 420,000 new residents and 300,000 new workers forecast to be located within the corridor over the next 20 years
- allow customers fast and easy transfers with the T1 Western Line at Westmead, T9 Northern Line at North Strathfield, and the Sydney Trains suburban rail network and Sydney Metro in the Sydney CBD
- allow for transfers with the future Parramatta Light Rail Stage 1 at Westmead and Parramatta, as well as the planned Parramatta Light Rail Stage 2 at Sydney Olympic Park
- create an anticipated 10,000 direct and 70,000 indirect jobs during construction.

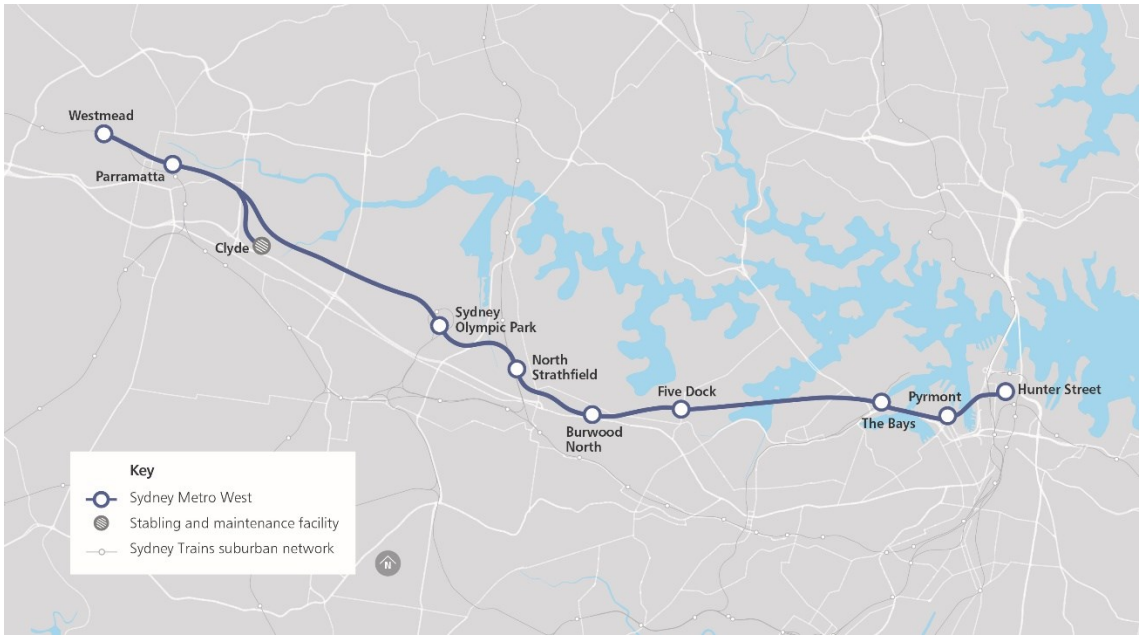

Figure ES-2 Sydney Metro West map

Sydney Metro West is being assessed as a staged critical State Significant Infrastructure (CSSI) application under section 5.20 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and comprises the following applications:

- the Concept and major civil construction work for Sydney Metro West between Westmead and The Bays, including station excavation and tunnelling, associated with the Sydney Metro West railway line (CSSI Concept and Stage 1 approval) was approved on 11 March 2021
- all major civil construction and enabling works between The Bays and the Sydney CBD, including demolition, tunnelling, and station excavation for new metro stations associated with the Sydney Metro West railway line (CSSI Stage 2 application)
- rail infrastructure, including fit-out of tunnels, construction, fit-out, and operation of metro stations and surrounding precincts and operation of the Sydney Metro West line (Stage 3 CSSI application).

Integrated station and precinct development

The CSSI Concept and Stage 1 approval included provisions for future integrated station and precinct development that could provide a range of uses. Integrating a mix of uses and development into the station precinct would contribute to the success of places by:

- encouraging precinct activation and use of Sydney Metro West across different times of the day and week
- creating opportunities to provide facilities which meet customer and community needs, attracting people to stations
- allowing stations to successfully integrate into their urban context and to contribute positively to the character of places at the stations.

Sydney Metro is making provision for over and/or adjacent station developments at Westmead, Parramatta, Sydney Olympic Park, Burwood North, The Bays, Pyrmont and Hunter Street (Sydney CBD) stations. Sydney Metro will continue working closely with the local community and stakeholders so that station precincts become welcoming hubs that build on the local character.

Planning approval approach

This Environmental Impact Statement (EIS) has been prepared to accompany a Concept State Significant Development application (Concept SSDA) for over station development (OSD) and an adjacent station development (ASD) at Sydney Olympic Park metro station. This EIS has been prepared by Sydney Metro and is submitted to the NSW Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Figure ES-3 illustrates the planning approval processes relevant to Sydney Olympic Park metro station and development. The proposed development would be subject to a Detailed SSDA post the determination of this Concept SSDA. The detailed building design will respond to the design considerations established by this Concept SSDA. The Sydney Olympic Park Master Plan 2030 (Interim Metro Review) guides the planning decisions for Sydney Olympic Park metro station precinct.

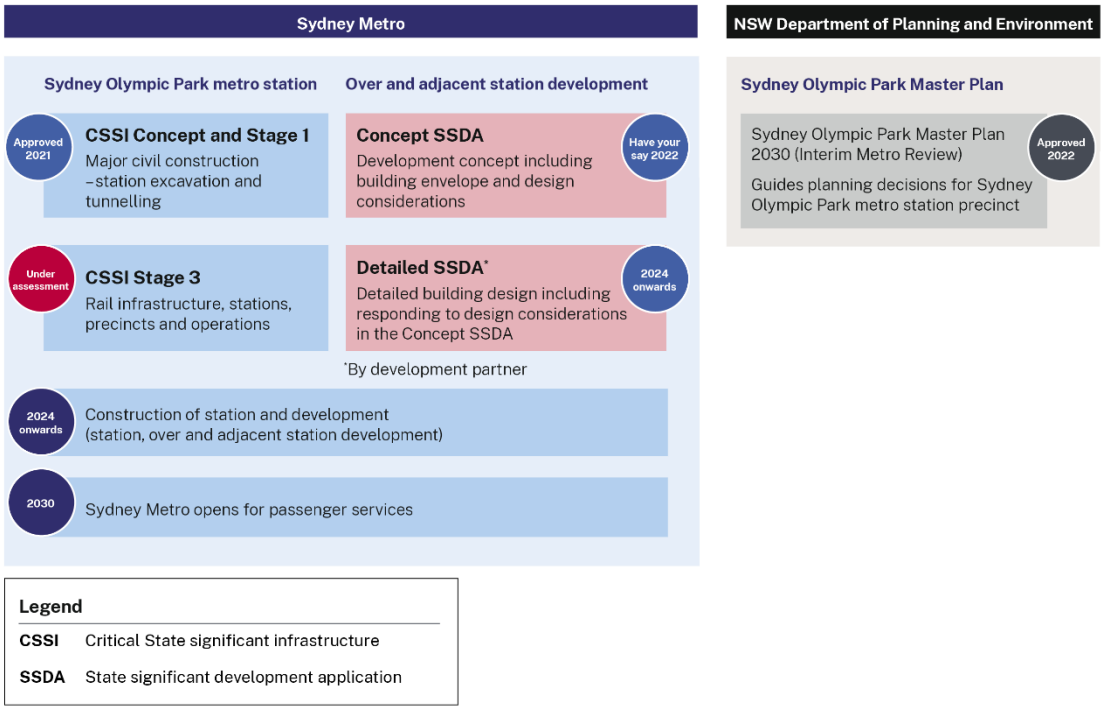

Figure ES-3 Planning approval process

Site location and context

The subject site is generally located at 5-7 Figtree Drive, Sydney Olympic Park within the Parramatta local government area (LGA). The site comprises part of Lot 58 and 59 in Deposited Plan 786296 and is currently owned by Sydney Metro. The site is in the Central Precinct of Sydney Olympic Park and defined as Site 47 in the SOP Master Plan 2030 (Interim Metro Review). The boundary of the Concept SSDA site has been identified within the Sydney Metro landholdings below in Figure ES-4. Site 46 and Site 48 adjoin the Concept SSDA site.

Figure ES-4 Site context map, including SOP Master Plan 2030 site numbers

The proposal

This Concept SSDA seeks consent for a concept proposal, within the meaning of section 4.22 of the EP&A Act for the proposed land uses, maximum building envelopes, maximum building heights, maximum gross floor area, and car parking. The proposal comprises three buildings including one commercial building (Building 1) and two residential accommodation buildings (Buildings 2 and 3).

The Concept SSDA seeks consent for building envelopes above and adjacent to the Sydney Olympic Park metro station, refer to Figure ES-5, including:

- a maximum GFA of 67,370m² for the OSD and ASD components, which is in addition to the station CSSI GFA (approximately 630m²), resulting in a maximum overall GFA of 68,000m^2.
- maximum building envelopes for the following development:
    - Building 1 is a 21 storey (RL 119.00) primarily commercial building incorporating the station services podium (which is subject to the Stage 3 CSSI approval).
    - Building 2 is a 27 storey (RL114.20) mixed use building with retail and commercial uses in the 4 storey podium and residential accommodation above.
    - Building 3 is a 45 storey (RL 171.00) mixed use building with retail and commercial uses in the 4 storey podium and residential accommodation above.
- car parking for up to 358 vehicles in a basement below Buildings 2 and 3.

Future development approvals would be sought for the detailed design and construction of the proposed development. The future approval(s) will be required to be consistent with this Concept SSDA.

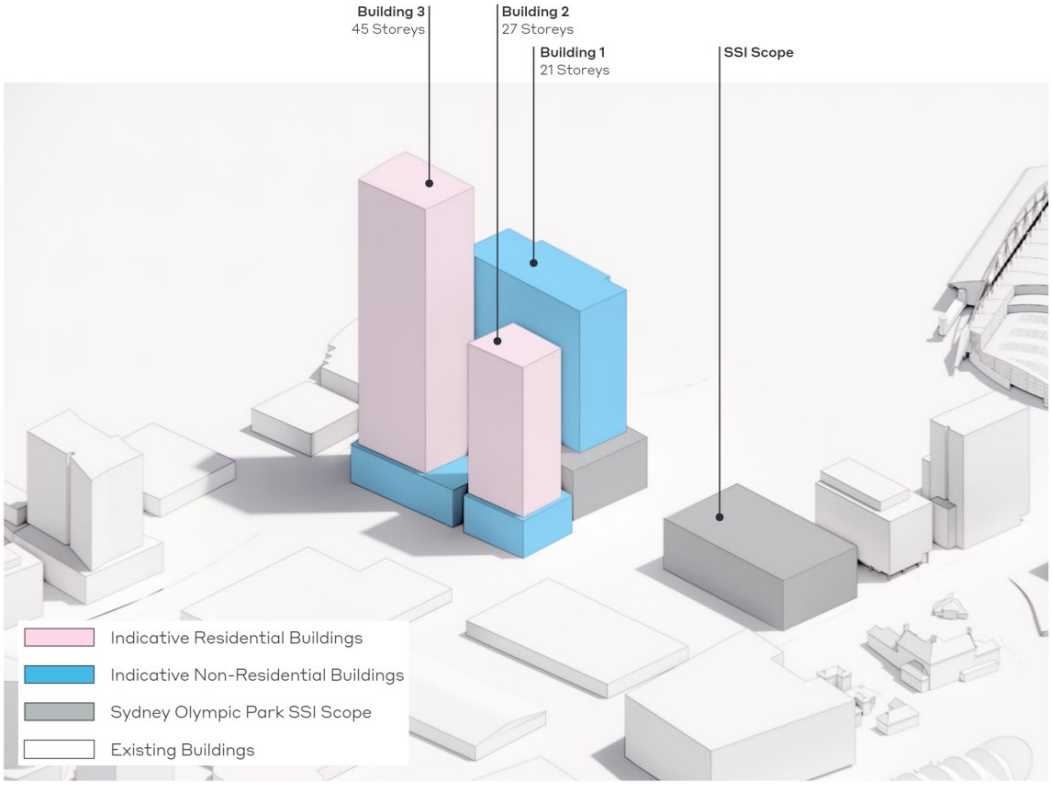

Figure ES-5 Proposed building envelopes

Project need and benefits

The construction of Sydney Metro West represents an exciting opportunity to incorporate global best practice for placemaking and environmentally sustainable development, and to apply innovative thinking to create new city icons. The delivery of integrated station and precinct development enables Sydney Metro to be more than just a transport project, but also a defining city building opportunity that revitalises precincts and communities, leaving a legacy, and shaping Sydney for generations to come.

The proposed development will create a place based outcome that successfully integrates transport infrastructure, open space, ground plane retail, commercial and residential land uses.

The Sydney Olympic Park metro station precinct acknowledges growth opportunities within Sydney Olympic Park and seeks to establish parameters to attract more businesses and residents in a well-connected location reducing reliance on private transport modes whilst continuing to ensure Sydney Olympic Park can operate and function as a world class event and sporting precinct.

In developing the Concept SSDA proposal, alternative designs were explored in consultation with the Sydney Olympic Park Authority (SOPA) and the Sydney Metro Design Advisory Panel during the preparation of the Draft SOP Master Plan 2030 (Interim Metro Review).

The proposal provides for an optimised outcome at the site and a balanced and feasible option as it will:

- establish the maximum gross floor area and land uses for the site
- recognise growth opportunities within Sydney Olympic Park and seek parameters to attract more businesses and residents in a well-connected location reducing reliance on private transport modes
- protect key view corridors from ground level from the town centre to the heritage precinct and to the aquatic centre
- encourage activated street frontages to increase the level of ground plane interaction and vibrancy.

Key impacts and mitigation measures

The key issues identified in the SEARs have been assessed in detail, with specialist reports underpinning the key findings and recommendations identified in the assessment of environmental impacts in Section 6. It has been demonstrated that for each, the likely impacts will either be positive or can be appropriately mitigated.

A summary of the key impacts and mitigation measures is outlined below.

Built form and urban design

The Concept SSDA is consistent with the SOP Master Plan 2030 (Interim Metro Review). The Built Form and Urban Design Report (Appendix E) and the indicative reference scheme provides background and rationale to the proposed development.

The podiums have been designed to integrate with the public domain vision to create active frontages at the human scale. The podiums would be connected to the promenade and through site links allowing for vertical activation and direct solar access to the ground plane.

The design of the three buildings creates a human scale environment around the Central Park area, reflecting the scale of heritage-listed Abattoir Precinct to the north. The building envelopes have been designed to maximise building separation to minimise privacy issues and provide solar access and outlook for all apartments.

The indicative reference scheme also demonstrates that a future detailed proposal could comply with the relevant planning framework including the Apartment Design Guide.

Overshadowing

The proposed development does not have an impact on solar access to major public spaces, as defined by the SOP Master Plan 2030 (Interim Metro Review). Additionally, the overshadowing diagrams demonstrate that the proposed development has no net impact on the solar access performance of the wider SOP Master Plan 2030 (2018 Review) development context.

Residential Amenity

The proposal demonstrates the capability of achieving high levels of residential amenity in the Detailed SSDA. The indicative reference scheme achieves all required separations between Buildings 1, 2 and 3 (24m minimum), as well as between the proposed buildings on adjacent Sites 48 and 46 (24m minimum).

The indicative reference scheme also demonstrates capability to provide a minimum of two hours of sunlight to living areas of 75% of dwellings in Building 2 and 80% of dwellings in Building 3. The indicative reference scheme also achieves more than the required 60% minimum number of apartments receiving natural cross ventilation.

Transport and Access

The traffic modelling undertaken shows that future intersection performance across the local network is similar with and without the Concept SSDA. Minor increases in traffic volume would likely occur at the intersection of Australia Avenue/Figtree Drive during the PM peak, though this is not anticipated to have a detrimental effect on the surrounding road network operation.

Sydney Metro is seeking approval for a maximum of 358 car parking spaces across the site. The basement levels would be located underneath Buildings 2 and 3 and the car parking spaces are provided for Buildings 1, 2 and 3. By providing a lower number of parking spaces per residential dwelling than the SOP Master Plan 2030 (Interim Metro Review) maximum, residents will be encouraged to utilise more sustainable and active transport modes including the metro.

In addition, construction vehicles movements associated with the proposal and development on surrounding sites would likely be restricted or limited during major events at Sydney Olympic Park. Therefore, construction impacts are not expected to impact major events. Events will not be impacted during operation of the proposed development.

Flooding

The results of the hydraulic modelling illustrate that the site is not affected by any riverine or overland flooding mechanism up to the PMF event. The site is only impacted by local stormwater originating from the site itself. The proposed development conditions flood maps have been used to inform the required flood levels within the buildings on site. The buildings would provide the required 0.3 metres freeboard above the nuisance stormwater flooding.

Access and evacuation are readily achievable from the site up to the PMF flood event.

Noise and Vibration

Noise from operation of the buildings is expected to result from major items of plant including heat pumps and cooling towers. Noise mitigation including acoustic louvres and attenuators on the exhaust fans are to be considered during detailed design.

Due to large scale events within the sporting/ entertainment venues in Sydney Olympic Park, the future development at the site will require higher acoustic performance of the outer façade including external glazing. A more detailed analysis for façade treatments would be undertaken during the detailed design of the Detailed SSDA(s).

A detailed construction program would need to be developed by the site contractors for the proposed development, post Detailed SSDA determination, which would include duration and timing of the construction, including in relation to events at nearby venues.

There is no high vibration producing equipment identified in the construction stages. If any high vibration activities are proposed in the later stages, for works identified under the Detailed SSDAs, the impacts of these activities will need to be managed appropriately.

The Noise and Vibration Impact Assessment recommends the following mitigation measures:

- traffic and plant should be treated to meet the established criteria with the use of standard acoustic treatments
- prior to the commencement of major construction works the contractor should develop a detailed Construction Noise and Vibration Management Plan at Detailed SSDA stage
- further investigation should be undertaken in the detail design stage to manage predicted exceedances to non-residential sensitive receivers and nearby commercial receivers
- noise mitigations for the external façade will need to be explored at the Detailed SSDA stage due to high noise events within the sporting and entertainments venues in Sydney Olympic Park
- feasible and reasonable management measures and work practices should be implemented such as the standard mitigation measures outlined in the Sydney Metro Construction Noise and Vibration Strategy
- the indicative operational noise and vibration mitigation measures should be refined as part of the detailed design.

The above recommendations will need to be considered during the detailed design stage and in the subsequent Detailed SSDA(s).

Heritage

The Heritage Impact Statement determines that there is little to no impact from the proposed Concept SSDA on the heritage significance of the Olympic Cauldron or Abattoir Precinct heritage items/area. In summary:

- Given the degree of separation (over 600m), there is no heritage impact on the physical or visual setting of the Olympic Cauldron.
- The proposed development is separated from the Abattoir Precinct by over 130m and by open parkland, pedestrian circulation and the Sydney Metro station box.
- The proposed Building 3 (45 storey tower) is further setback behind the Building 2 (27 storey tower). This additional setback of the larger tower will further reduce any visual impact the development has from important views to and from the Abattoir Precinct (refer to Visual Impact Assessment at Appendix R).
- Significant views to and from the Abattoir Precinct from Olympic Boulevard, Herb Elliott Avenue, Dawn Fraser Avenue and the existing Olympic Park Railway

Station will largely remain as is, with the proposed development blending into the existing built environment.

- The Shadow Impact Analysis (Appendix K) indicates that there are no significant overshadowing impacts from the Concept SSDA building envelopes which will impact the heritage items.

Other environmental impacts

The EIS also assesses the impact of the proposed development with reference to the following environmental issues and finds the expected impacts to be acceptable:

- waste management
- events mode in relation to the Sydney Olympic Park's functioning
- contamination and ground water
- visual impact
- biodiversity
- environmental and Aboriginal cultural heritage
- social impact.

Conclusion and justification

This EIS provides a comprehensive assessment of the expected environmental, social, and economic impacts of the development proposed in this Concept SSDA. This EIS has addressed the requirements of the SEARs (Appendix A), as well as the relevant requirements contained at the EP&A Regulation 2021.

The proposed development can be supported and approved for the following reasons:

- The site is zoned B4 Mixed Use under the Central River City SEPP, and residential, commercial, and retail uses are permitted with consent. The proposed development is consistent with the zone objectives and will ensure Sydney Olympic Park becomes an active and vibrant town centre in an accessible location, maximising public transport patronage and encouraging walking and cycling.
- It is consistent with the strategic planning objectives for the site and supports the NSW Government's investment in public transport infrastructure and the delivery of well-connected place focused communities.
- It will support the growth of Sydney Olympic Park as a key planned employment and housing growth centre.
- It further supports the '30-minute city' concept of the Central River City. The aim of the 30-minute city concept is that residents of Sydney can reach one of three important regional centres in less than a half-hour by walking, biking, or public transport.
- It would take advantage of the NSW Government's investment by creating a vibrant precinct that is well connected to transport and provides opportunities for place-based design and transit-orientated development.
- The proposed building envelopes positively respond to the site conditions and surrounding local context and are considered consistent with the SOP Master Plan 2030 (Interim Metro Review).

- The proposed building envelopes have been developed to enable flexibility for the future Detailed SSDA(s) to facilitate a high-quality development.
- Subject to the various mitigation measures recommended by the specialist consultants, the proposed development would not have any unreasonable impacts on adjoining properties or public domain in terms of traffic, acoustic and environmental impacts.
- The proposed development will deliver genuine economic benefits, particularly in creating full time jobs during construction and will sustain direct and indirect jobs during its ongoing operation.
- It is capable of achieving Design Excellence, subject to the submitted Site Specific Design Guidelines and Sydney Metro West Design Excellence Strategy.
- During construction, it is expected that approximately 372 jobs would be generated over eight years, in addition to 2,247 ongoing jobs directly and a further 1,636 jobs indirectly created during the operation of the development.
- The site is suitable for the proposed development.
- The proposed development is in the public interest.

Next steps

Sydney Metro is seeking consent from the Minister for Planning for the proposed Sydney Olympic Park Metro Station – Over and Adjacent Station Development. Next steps in the process include:

- exhibition of this Environmental Impact Statement for a minimum of 28 days and invitation for the community and stakeholders to make submissions
- consideration of submissions – submissions received by the Secretary of the NSW Department of Planning and Environment would be provided to Sydney Metro who may then be required to prepare and submit:
    - a Submissions Report, responding to issues raised in the submissions
    - an Amendment Report (if applicable), outlining any proposed changes to the proposal to minimise its environmental impacts or to deal with any other issues raised
- determination by the Minister for Planning including, if approved, any conditions of approval.

Consultation with the community and stakeholders would continue throughout the detailed design and construction phases.

1 Introduction

1.1 Background

1.1.1 Sydney Metro West

Sydney is expanding and the NSW Government is working hard to deliver an integrated transport system that meets the needs of customers now and in the future.

Sydney Metro is Australia's biggest public transport program. Services on the North West Metro Line between Rouse Hill and Chatswood started in May 2019 on this new stand-alone metro railway system, which is revolutionising the way Sydney travels.

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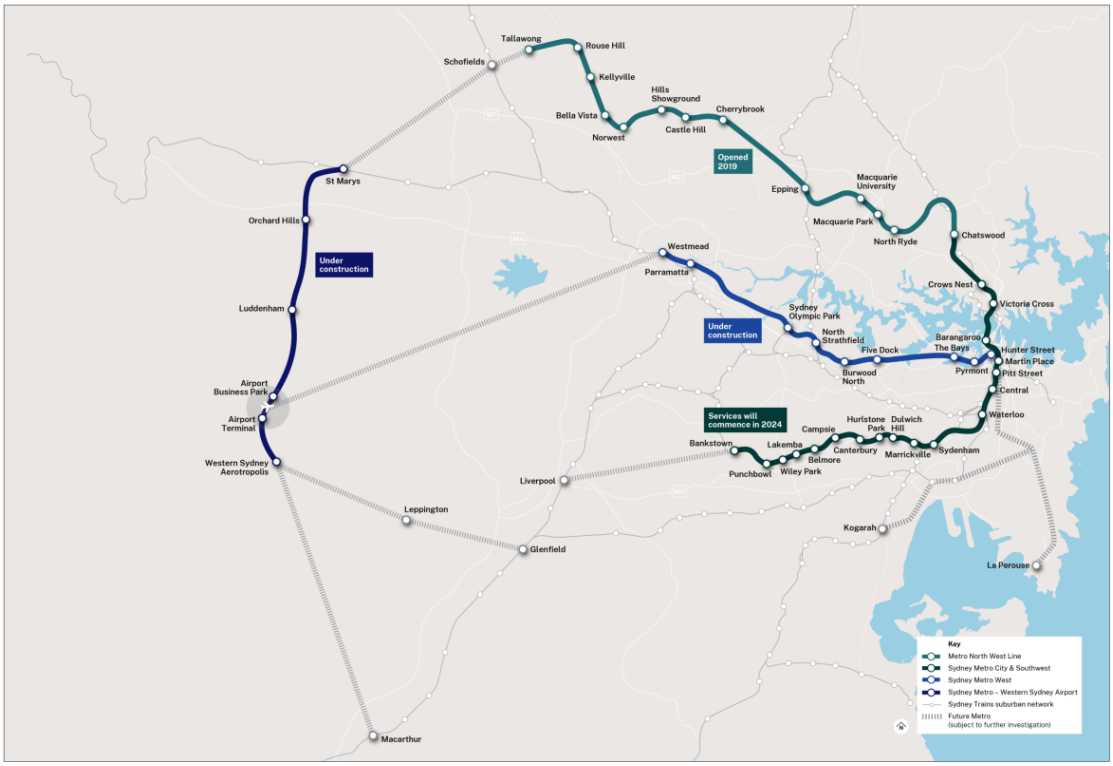

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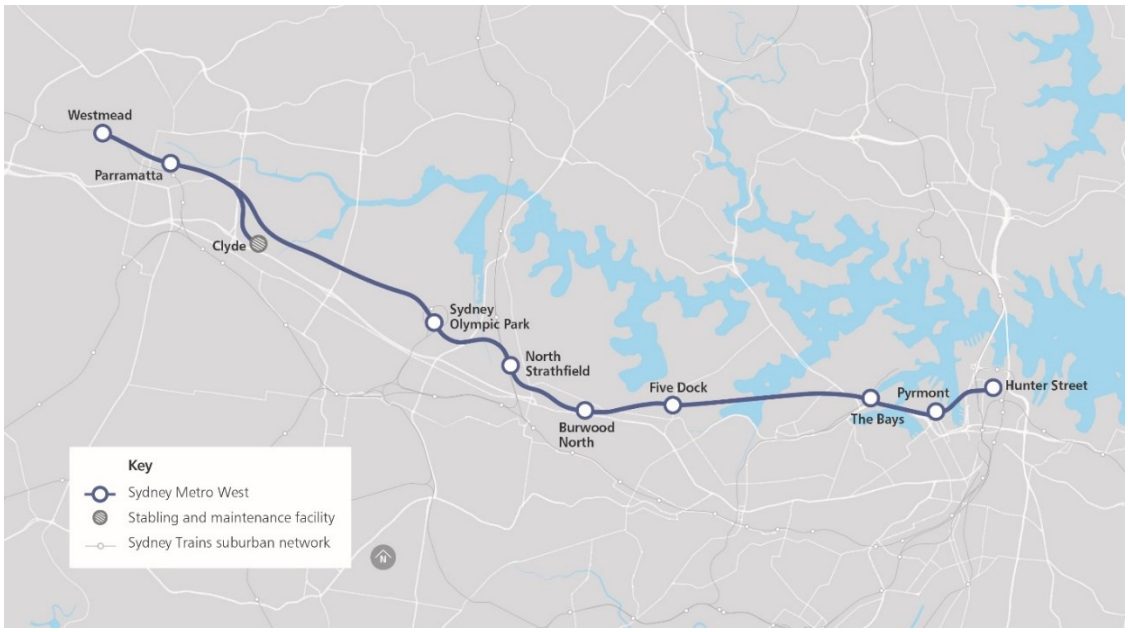
- create an anticipated 10,000 direct and 70,000 indirect jobs during construction.

The main elements of Sydney Metro West are shown in Figure 1-2.



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The SSDA seeks consent for a concept proposal, within the meaning of section 4.22 of the EP&A Act. It seeks consent at a conceptual level for the proposed land uses, maximum building envelopes, maximum building heights, maximum gross floor area, and maximum car parking rates. The proposal comprises three buildings. This consists of one commercial building and two mixed use buildings with retail and commercial uses in the podium and residential accommodation above.

1.1.2 Sydney Olympic Park metro station

Sydney Olympic Park metro station will be located close to Olympic Boulevard and between Herb Elliott Avenue and Figtree Drive, and in close proximity to the Heritage Abattoir Precinct to the north.

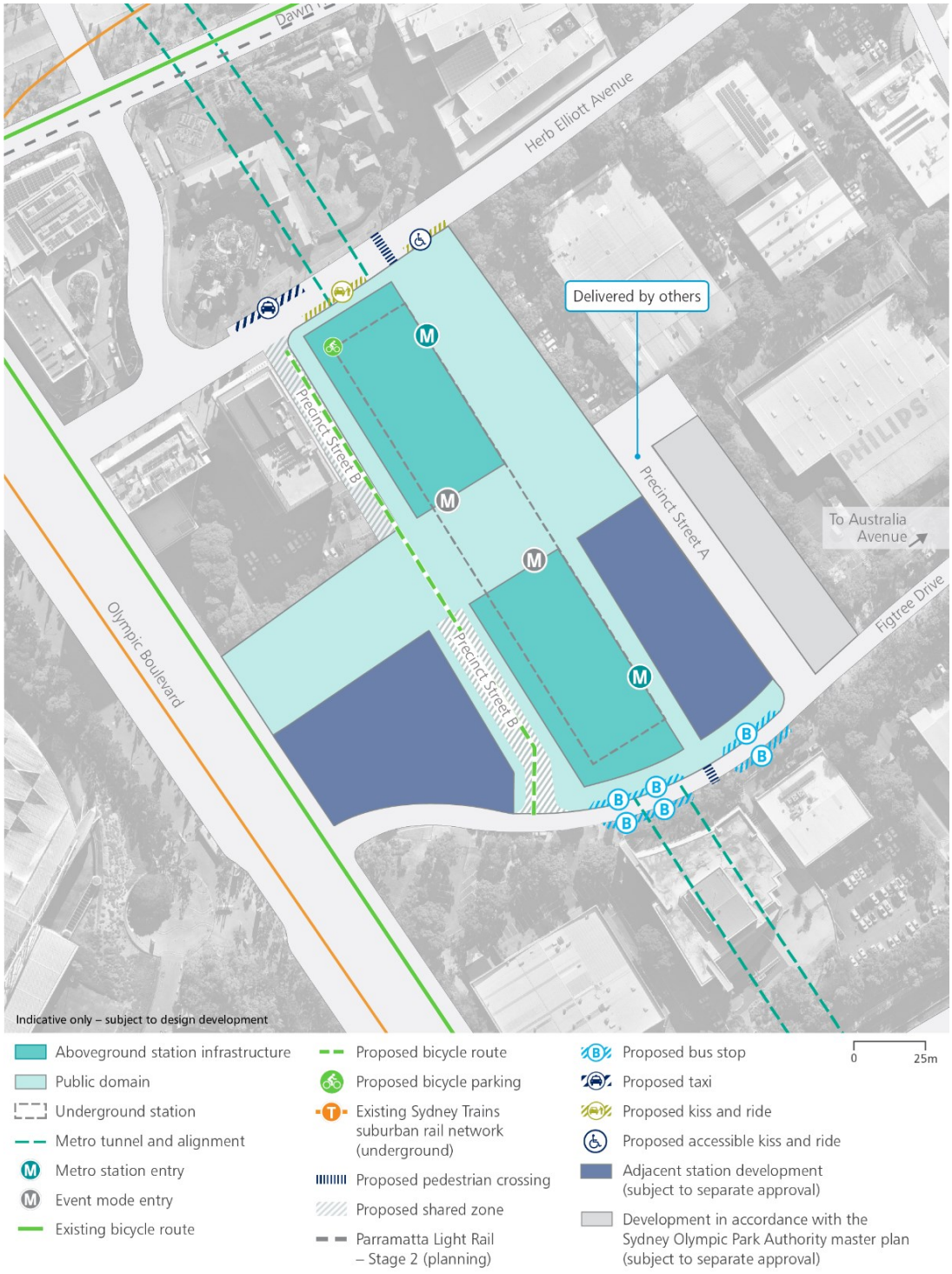


Figure 1-3 Stage 3 CSSI application indicative layout and key design elements

The Sydney Olympic Park metro station precinct is currently characterised by commercial properties – typically being office or retail, as well as educational facilities. High-density residential areas are also located within the precinct.

The broader Sydney Olympic Park metro station precinct is proposed to be a thriving urban centre with a vibrant mix of homes and jobs, as well as a premier destination for cultural, entertainment, recreational and sporting events.

Major civil construction work including station excavation and tunnelling at Sydney Olympic Park was assessed and approved under the Concept and Stage 1 CSSI application. The construction activities required to complete the Sydney Olympic Park

metro station and precinct ready for operation are currently under assessment under the Stage 3 CSSI application.

The Stage 3 CSSI application includes the following related to the Sydney Olympic Park metro station:

- fit-out of tunnels including rail systems for metro train operations
- construction, fit-out and operation of metro station buildings and the surrounding metro precinct
- space for non-station uses at the metro station (e.g. retail and commercial)
- provisioning for over and/or adjacent station development within the metro precinct
- the structural elements and provision for utilities and services for non-station uses (e.g. retail and commercial facilities)
- transport network modifications such as new interchange facilities and integration with other transport nodes
- operation and maintenance of the Sydney Metro West line.

Sydney Olympic Park metro station will consist of an underground station with an island platform in a north-south orientation for day-to-day mode, and two additional side platforms that would provide increased capacity in event mode. Customers would access the station from the main proposed public space running north-south between Herb Elliott Avenue and Figtree Drive.

The public space running north-south between Herb Elliott Avenue and Figtree Drive would also be the main aboveground pedestrian connection to the kiss and ride area on Herb Elliott Avenue, and to the bus interchange located along Figtree Drive to the south.

The Stage 3 CSSI application includes the aboveground station infrastructure (including concourse, station services and space for non-station use) which would be up to about 18 metres above Herb Elliott Avenue (for the northern station entry building) and up to about 31 metres above Figtree Drive (for the southern station entry building).

Sydney Olympic Park metro station (under Stage 3 CSSI application) will include a series of precinct and interchange elements such as:

- bicycle parking
- bus interchange and shelters located on Figtree Drive
- kiss and ride and point-to-point vehicle facilities on Herb Elliott Avenue
- provision of a new street within the vicinity of the proposed station
- two new pedestrian crossings on Herb Elliott Avenue and Figtree Drive, and creation of new public spaces adjacent to the proposed station entrances
- public domain area connecting Olympic Boulevard, Herb Elliott Avenue and Figtree Drive to the metro station, to allow for marshalling and crowd management during major events
- structural elements and provision for utilities and services for non-station uses (e.g. retail and commercial), including structures:
    - connected to the northern station services building to about the same height as the station services building

- connected to the southern station services building to about the same height as the station services building
- fit-out and use of these spaces would be subject to separate approval, where required.

The Sydney Olympic Park metro station would include the following to support the future OSD and ASD:

- structural elements to enable the construction of future over station development, up to a podium level that future development would be constructed above. It is noted the “future development” is the subject of the EIS, and would be subject to future Detailed SSDA(s)
- space for future lobbies, lift cores, access, parking, loading docks and building services for future over station development
- road intersection upgrades at the intersection of Australia Avenue and Figtree Drive, and the intersection of Olympic Boulevard and Figtree Drive, to support access to both the metro station and future adjacent development
- utility connections to support future developments, where required and
- subdivision.

1.2 Proposal overview

This EIS has been prepared to accompany a Concept SSDA for the over and adjacent station development at Sydney Olympic Park metro station. This Environmental Impact Statement has been prepared by Sydney Metro (the applicant for SSD- 35283699) and is submitted to the NSW Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The proposed development will comprise of three new buildings on an area defined as site 47 within the Central Precinct of the SOP Master Plan 2030 (Interim Metro Review). Building 1 is proposed to be a commercial and retail building over Sydney Olympic Park metro station and Buildings 2 and 3 are proposed to be mixed use buildings with commercial and retail uses in the podium and residential accommodation above adjacent to Sydney Olympic Park metro station.

The site in its regional setting is provided in Figure 1-4 below, illustrating the proposed development site within the broader regional context of the inner west.

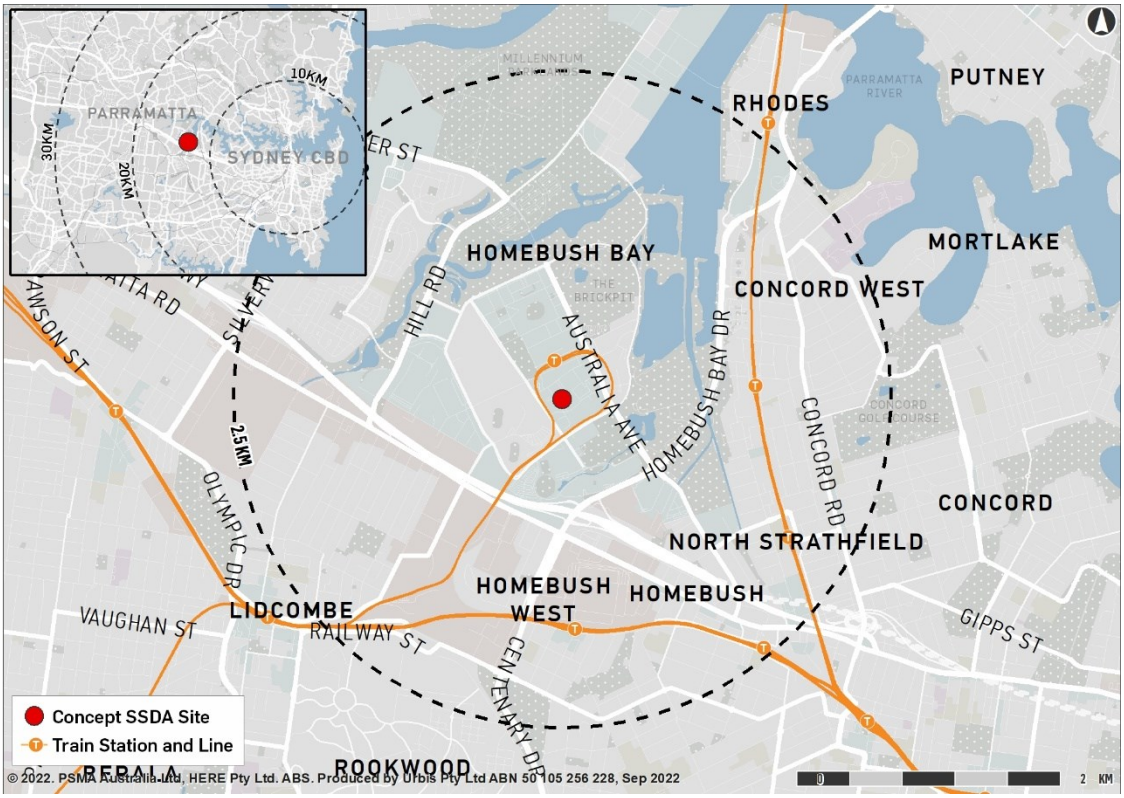


Figure 1-4 Regional Setting Map

The vision for Sydney Olympic Park metro station and its surrounds is to create:

"A thriving urban centre with a vibrant mix of homes and jobs and premier destination for cultural, entertainment, recreation and sporting events." (Stage 3 CSSI).

The Stage 3 CSSI application identifies the following place and design principles for Sydney Olympic Park:

- support the creation of a new town centre and reinforce Sydney Olympic Park as a premier destination for major events in line with the principles outlined in the SOP Master Plan 2030 (Interim Metro Review)
- deliver a station and public domain designed to support day to day activities and flexibility to accommodate major events and periodic large crowds
- facilitate east-west access from Olympic Boulevard to the station and town centre to accommodate event crowds
- enhance permeability with new pedestrian links and connections to places within the wider station precinct supported by active street frontages, and new open spaces
- ensure the station provides easy, safe and intuitive interchange with other modes of transport, during day-to-day operation and events.

The detailed urban design strategies support the implementation of the place and design principles (refer to Stage 3 CSSI application).

Clause 2(f) of Schedule 2 of the *State Environmental Planning Policy (Planning Systems) 2021* identifies Sydney Olympic Park as a site on which development that has a Capital Investment Value (CIV) of more than $10 million is State significant development (SSD). As the development is not permissible without consent under Part 5 of the EP&A Act by the operation of an environmental planning instrument, it is declared to be SSD.

This SSDA seeks consent for a concept proposal, within the meaning of section 4.22 of the EP&A Act. It seeks consent at a conceptual level for the proposed land uses, maximum building envelopes, maximum building heights, a maximum gross floor area, pedestrian and vehicle access, vertical circulation arrangements and associated car parking. Future development approvals would be sought for the detailed design and construction of the proposed development. The future approval(s) will be required to be consistent with this Concept SSDA.

The detailed design and fit-out of the metro station infrastructure will be integrated with the proposed development to facilitate a cohesive station and precinct development. To enable this, the podium envelope of Building 1 is included in the Stage 3 CSSI Application and approval for the podium envelope is not sought under this proposal. Approval for the land uses within the podium (commercial, retail and station uses) associated with the proposed development is sought under this Concept SSDA.

1.3 Purpose and structure of this Environmental Impact Statement

This EIS supports Sydney Metro's application to the Minister for Planning for approval of this proposal as State significant development under Part 4 of the EP&A Act. It addresses the environmental assessment requirements of the Secretary of the Department of Planning and Environment (the Secretary's Environmental Assessment Requirements dated 18 February 2022). The structure and content of the EIS are outlined in the table below.

Table 1 – Structure of Environmental Impact Statement

Chapter	Description
Chapter 1 Introduction (this chapter)	Outlines the key elements of Sydney Metro West and this proposal, including its strategic context, as well as the purpose of this EIS.
Chapter 2 Strategic context	Provides justification of the proposed development and establishes the strategic context of the proposal.
Chapter 3 Project description	Provides a description of the proposed development.
Chapter 4 Statutory context	Provides an outline of the statutory approvals framework, including applicable legislation and planning policies.
Chapter 5 Engagement	Outlines stakeholder and community engagement carried out to date, including during the preparation of this Environmental Impact Statement.
Chapter 6 Assessment of impacts	Provides a detailed summary of the results of the assessment of potential impacts of the project.
Chapter 7 Justification of the proposal	Provides a conclusion including justification for this proposal and an assessment of whether this proposal has achieved the objectives of Sydney Metro West and met the objects of the EP&A Act.
Appendices	
Appendix A	SEARs Compliance Table
Appendix B	Statutory Compliance Table
Appendix C	Stakeholder and Community Engagement Table
Appendix D	Mitigation Measures
Appendix E	Built Form and Urban Design Report

Chapter	Description
Appendix F	Architectural Renders
Appendix G	Building Envelope Drawings
Appendix H	Reference Scheme Drawings
Appendix I	Demarcation Plans
Appendix J	SEPP 65 Assessment Report
Appendix K	Shadow Impact Analysis
Appendix L	Sydney Metro West Design Excellence Strategy
Appendix M	Site Specific Design Guidelines
Appendix N	CPTED Report
Appendix O	Solar Impact Study
Appendix P	Reflectivity Impact Assessment
Appendix Q	Pedestrian Wind Assessment
Appendix R	Visual Impact Assessment
Appendix S	ESD Report
Appendix T	Transport and Access Report
Appendix U	Biodiversity Development Assessment Report (BDAR) Waiver
Appendix V	Noise and Vibration Impact Assessment
Appendix W	Geotechnical Report
Appendix X	Integrated Water Management and Water Quality Plan
Appendix Y	Flooding Assessment
Appendix Z	Contamination Report
Appendix AA	Waste Management Plan
Appendix BB	Aboriginal Cultural Heritage Assessment Report
Appendix CC	Historic Heritage Impact Assessment
Appendix DD	Social Impact Assessment
Appendix EE	Utilities and Infrastructural Servicing Assessment
Appendix FF	Construction Management Statement
Appendix GG	Site Survey Plan

2 Strategic context

2.1 Justification for the project

The construction of Sydney Metro West represents an exciting opportunity to incorporate global best practice for placemaking and environmentally sustainable development, and to apply innovative thinking to create new city icons. The delivery of integrated station and precinct development enables Sydney Metro to be more than just a transport project, but also a defining city building opportunity that revitalises precincts and communities, leaving a legacy, and shaping Sydney for generations to come.

The proposed development will create a place-based outcome that successfully integrates transport infrastructure, open space, ground plane retail, commercial and residential land uses.

The Sydney Olympic Park metro station precinct acknowledges growth opportunities within Sydney Olympic Park and seeks to establish parameters to attract more businesses and residents in a well-connected location reducing reliance on private transport modes while continuing to ensure Sydney Olympic Park can operate and function as a world class event and sporting precinct.

2.2 Strategic context

The following table provides an overview of the consistency of the proposed development with the relevant strategic plans.

Table 2 – Overview of the Strategic Policy Framework

Strategy	Comment
NSW Premier's Priorities	The NSW Premier's Priorities comprise a set of 15 priorities that aim to deliver on key policy matters, including: *A strong economy* *Highest quality education* *Well-connected communities with quality local environments* *Putting customer at the centre of everything we do* *Breaking the cycle of disadvantage.* Two of the priorities are particularly relevant to this concept proposal as detailed below. **A strong economy** The proposed development would create substantial additional employment during the construction phase of the development. Furthermore, the proposal would provide approximately 32,820m² of commercial floor space and 1,760m² of retail floor space that will create employment spaces for a significant number of employees. **Well-connected communities with quality local environments** The proposed development includes retail, commercial and residential uses which would provide multiple opportunities for social integration. Open public spaces delivered under CSSI approval would create opportunities for social engagement. The proposal would provide residential accommodation and employment opportunities close to public transport services.

Strategy	Comment
Greater Sydney Region Plan: A Metropolis of Three Cities	The *Greater Sydney Region Plan* (Region Plan) provides the overarching strategic plan for growth and change in Sydney. It is a 20-year plan with a 40-year vision that seeks to transform Greater Sydney into a metropolis of three cities - the Western Parkland City, Central River City and Eastern Harbour City. Given the availability of land, transport infrastructure and synergies with adjoining areas, Sydney Olympic Park, as part of the Greater Parramatta to Olympic Peninsula (GPOP), has been identified as a strategic centre in the Greater Sydney Commission's *A Metropolis of Three Cities*. The following objectives are relevant to the proposed development: **Objective 1 - Infrastructure supports the three cities**: The proposed development is located immediately over and adjacent to transport infrastructure, in a location which would encourage use of the metro station by future building occupants. **Objective 4 - Infrastructure use is optimised:** The proposed development would provide retail, commercial and residential uses in a location where use of the future metro station can be optimised. **Objective 7 - Communities are healthy, resilient and socially connected:** The location of the residential and commercial uses would encourage the use of public transport, walking and cycling when making journeys. **Objective 10 - Greater housing supply**: The development proposes a substantial boost to housing supply in Sydney and would deliver approximately 316 dwellings at the site. **Objective 11 - Housing is more affordable and diverse**: The Concept SSDA demonstrates the capability to provide an array of different dwelling typologies and sizes in a highly accessible location. **Objective 12 - Great places that bring people together**: The proposal would play a key role in the creation of a high-quality Sydney Olympic Park metro station precinct. **Objective 14 - A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities:** The proposal would contribute to the provision of a 30-minute Central City, by co-locating housing and employment at a site which directly benefits from very strong access to services, employment and transport. **Objective 15 - The Eastern, GPOP and Western Economic Corridors are better connected and more competitive:** The proposal will strengthen the GPOP by contributing to its continued growth.

Strategy	Comment
Our Greater Sydney 2056: Central City District Plan	The *Central City District Plan* (District Plan) is a 20-year plan to manage growth in the context of economic, social and environmental matters to implement the objectives of the *Greater Sydney Region Plan*. The District Plan contains strategic directions, planning priorities and actions that seek to implement the objectives and strategies within the Region Plan at the district-level. The Structure Plan identifies the key centres, economic and employment locations, land release and urban renewal areas, and existing and future transport infrastructure to deliver growth aspirations. Given the availability of land, transport infrastructure and synergies with adjoining areas, Sydney Olympic Park, as part of the Greater Parramatta to Olympic Peninsula (GPOP), has been identified as a strategic centre in the Greater Sydney Commission's *Central City District Plan*. The following objectives are relevant to the proposed development: **C1. Planning for a city supported by infrastructure:** The proposed development aligns with the economic growth and infrastructure investment by placing significant housing and employment floor space directly above the metro station. **C4. Fostering healthy, creative, culturally rich and socially connected communities**: The location of the residential and commercial uses would encourage the use of public transport, walking and cycling when making journeys. Open public spaces would create opportunities for social engagement **C5. Providing housing supply, choice and affordability, with access to jobs, services and public transport**: The proposed development would provide approximately 316 dwellings (subject to a separate detailed SSDA) with high levels of walkability and good transport connections, close to employment opportunities. Increased housing supply would provide greater housing choice and would assist in alleviating the housing pressure. **C6. Creating and renewing great places and local centres and respecting the District's heritage**: The proposed development would contribute to the ongoing renewal of the Sydney Olympic Park metro precinct. **C8. Delivering a more connected and competitive GPOP Economic Corridor:** The proposed development would deliver approximately 316 dwellings and a significant amount of commercial floor space in a highly accessible location. The Concept proposal would assist deliver a more connected and competitive GPOP Economic Corridor.

Strategy	Comment
	C9. Delivering integrated land use and transport planning and a 30-minute city: The proposed development would facilitate the integration of land use and transport planning and contributes to the creation of a walkable and 30-minute city. The proposal would provide commercial, retail and residential uses which are appropriately integrated in an area which is well served by public transport, jobs, goods and services. **C10. Growing investment, business and job opportunities in strategic centres:** Sydney Olympic Park is identified as a strategic centre. The proposed development would provide approximately 34,580m² GFA of commercial and retail land uses, supporting job growth. **C19. Reducing carbon emissions and managing energy, water and waste efficiently:** The proposed development would facilitate the promotion of walkable neighbourhoods and low carbon transport options due to its proximity to the future Sydney Olympic Park metro station.
Future Transport Strategy 2056	The *Future Transport Strategy 2056* comprises an update of the *TfNSW Long Term Transport Master Plan*. This update seeks to not only reflect and build upon the substantial transport infrastructure work undertaken across the NSW since 2012, but also seeks to align strategic transportation policy with planning policy with the intention of aligning the future strategic location of development near transport. This work has been planned for the next 40 years to 2056, in order to provide a range of short, medium and long-term transport objectives which will guide the future development of NSW. The vision and objectives relevant to the site and the proposed development are outlined below. **Encouraging active travel (walking and cycling) and using public transport** The proposed development seeks to deliver residential, commercial and retail uses above and adjacent to the new Sydney Olympic Park metro station. The proposal envisages the provision bicycle parking and end of trip facilities on Level 3 above the station podium (Building 1) and Basement Level 1 of Buildings 2 and 3, however the final locations would be determined in the Detailed SSDAs. This would help to reduce reliance on private vehicles and increase the use of active and public transport. **Connecting people to jobs, goods and services in our cities and regions** The proposed development supports the 30-minute city concept, where people can conveniently access jobs and services within 30 minutes by public or active transport. The proposal would provide residential, commercial and retail uses in an area which is well served by public transport, jobs, goods and services.

Strategy	Comment
Building Momentum: State Infrastructure Strategy 2018-2038	*Building Momentum* is a strategy for the future delivery of infrastructure prepared by Infrastructure NSW. This strategy sets out a number of key directions for NSW, which aim to assist with the development of high-quality infrastructure which meets the needs of Sydney over the next 20 years. The proposed development is aligned with the key recommendations of this strategy as it involves the efficient use of surplus development potential created through the Sydney Metro project. Specifically, the following points are noted: The proposed development is located in an area which benefits from a range of walking and cycling options. Based upon the planning controls in the SOP Master Plan 2030 (Interim Metro Review) the maximum allowable quantum of car parking is: *254 spaces in Building 1* *129 spaces in Building 2* *278 spaces in Building 3* However, Sydney Metro seek approval for a maximum of 358 car parking spaces within six basement levels given the location of the proposed development above and adjacent to the proposed Sydney Olympic Park metro station. By providing a lower number of parking spaces per residential dwelling than the SOP Master Plan 2030 (Interim Metro Review) maximum, residents will be encouraged to utilise public transport, walk and cycle more and use private vehicles less, thereby reducing traffic impacts on the broader road network.
Better Placed – An integrated design policy for the Built Environment of New South Wales	A response to the seven applicable objectives is described in detail in the Design Guidelines Report (Appendix M) and described in Section 6.1.1. A high-level summary is provided below. **Better Fit: Contextual, local and of its place**: A vibrant human-scale public domain would be created along the promenade, plaza and through-site-link where the main entrances to the station and developments are located via adjoining small-scale plazas. **Better Performance: Sustainable, adaptable and durable:** Minimum rating requirements are set to 5 Star Green Star Buildings or equivalent for both commercial and residential part of the development, as outlined in the ESD Report (Appendix S). **Better for Community: Inclusive, connected and diverse:** The proposed development includes retail, commercial and residential uses which would provide multiple opportunities for social integration. Open public spaces would create opportunities for social engagement.

Strategy	Comment
	Better for People: Safe, comfortable and liveable: The proposed diversified uses would provide 24-hour surveillance to public domain areas, buildings and metro entries. **Better Working: Functional, effective and fit for purpose:** The proposal has been designed in a coordinated manner alongside the station development, to provide a development which would work seamlessly between the mixed uses. **Better Value: Creating and adding value:** The proposal would create value and quality of life for future residents, visitors and office workers at the site. **Better Look and Feel: Engaging, inviting and attractive:** Extensive landscaping and public domain improvements would create a vibrant and engaging precinct.
Connecting with Country Draft Framework **Government Architect of NSW (GANSW)** ***Designing with Country Discussion Paper***	The Connecting with Country Draft Framework is a system for developing connections with Country that will inform the planning, design, and delivery of projects in NSW. The framework seeks to improve the health and wellbeing of Country to achieve three strategic goals: *Reduce the impacts of natural events such as fire, drought, and flooding through sustainable land and water use practices* *Value and respect Aboriginal cultural knowledge with Aboriginal people co-leading design and development of all NSW infrastructure projects* *Ensure Country is cared for appropriately and sensitive sites are protected by Aboriginal people having access to their homelands to continue their cultural practices.* A response to the statement of commitment and principles for action (contained within the Connecting with Country Draft Framework) is provided below. *Connect with Country through first languages in collaboration with local community groups and their recognised Aboriginal knowledge-holders. Incorporate shared histories of cultural landscapes into project design principles.* *Connect with Country by engaging with, and responding to, cultural practices led by community groups and their recognised Aboriginal knowledge holders with spiritual links to Country* *Include impacts to Country and culture when evaluating economic, environmental, and social benefits and disadvantages of the project.* *Develop indicators to measure impacts to Country and culture during project formation.* The *Designing with Country Discussion Paper* was finalised by the Government Architect of NSW (GANSW) in March 2020. GANSW's research suggests three essential elements of designing with Country: nature, people, and design. Reflecting on Country and Heritage has been a fundamental design principle which underpins the Concept SSDA. The Built Form and Urban Design Report (Appendix E), states the following in terms of connecting with Country:

Strategy	Comment
	"The contemporary Park nurtures the thriving mangrove and threatened ecological systems of Country amongst the emerging built environment. The future of this place celebrates an ecologically-rich centre, unique to Sydney, that draws knowledges of Country and viable, connected ecosystems through the Masterplan." The proposed building envelopes would provide an opportunity for residential and commercial towers to celebrate views across Western Sydney Plains, over the Parramatta River to the Blue Mountains and therefore connect to the Country, both earth and sky. Opportunities for small scale public areas are available throughout the precinct to provide places to meet and discuss (yarning circles), rest or learn (healing places for youth, man or woman), or exercise are considered essential for healthy and engaged community.
Parramatta Local Strategic Planning Statement	*The Parramatta Local Strategic Planning Statement* (Parramatta LSPS) provides the framework for the City of Parramatta Council to undertake land use planning and decision making over the next 20 years. The planning priorities which are relevant to the site and proposed development are discussed below. **Objective 4. Focus housing and employment growth in the GPOP and Strategic Centres; as well as stage housing release consistent with the Parramatta Local Housing Strategy** The proposed development would provide commercial and residential uses in a location where use of the future Sydney Metro line can be optimised, as well as the broader Sydney public transport network as principal modes of transport. **Objective 7. Provide for a diversity of housing types and sizes to meet community needs into the future** The proposed development would be a substantial boost to housing supply in Sydney and deliver approximately 316 dwellings at the site (subject to a future Detailed SSDA). The Concept proposal would provide the possibility for different dwelling typologies and sizes in a highly accessible location. **Objective 10. Improve active walking and cycling infrastructure and access to public and shared transport** The proposed development includes a range of pedestrian and cycle routes throughout the site. This would enable easy pedestrian connection between different transport services. **Objective 11. Build the capacity of the Parramatta CBD, Strategic Centres, and Employment Lands to be strong, competitive and productive** The proposed development would strengthen the GPOP by contributing to its continued growth. Residents and workers within the proposal would be better connected to the Sydney CBD and Parramatta, which will improve access to employment opportunities.

Strategy	Comment
***Guide to Traffic Generating Developments* (RMS)**	The RMS *Guide to Traffic Generating Developments* (RMS Guide) prescribe the traffic generation considerations relating to major developments. The RMS Guide establishes the grounds for traffic impact assessment in terms of daily traffic volumes and peak traffic volumes for residential, retail and commercial land uses. A Transport and Access Report has been prepared with regard to the RMS Guide. Refer to Appendix T.
Development near Rail Corridors and Busy Roads – Interim Guideline	*Development Near Rail Corridors and Busy Roads* aims to facilitate the effective planning, design and assessment of development in or adjacent to rail corridors and busy roads. This guideline has been addressed in the Noise and Vibration Impact Assessment at Appendix V.
NSW Planning Guidelines for Walking and Cycling	The concept proposal allows for the provision of an area to store bicycles within the proposed buildings. Details regarding the provision of bicycle infrastructure would be further developed through subsequent Detailed SSDA(s).
Sydney Olympic Park Access Guidelines 2015	The purpose of these Guidelines is to provide information concerning the requirements for an accessible built environment that enables independent, equitable and inclusive access for all people. The future Detailed SSDA(s) would be accompanied by an Accessibility Report.
Sydney Olympic Park Event Impact Assessment Guidelines	The proposal would not impact the major event capability of Sydney Olympic Park. Pedestrian and car park access points and infrastructure access nodes would be located in suitable places and developed to suitable standards. Details relating to construction activity would be further examined during detailed design.
Sydney Olympic Park Urban Elements Design Manual	The *Urban Elements Design Manual* seeks to ensure the seamless integration of new urban spaces within the Town Centre with the existing public realm designed to serve major sporting and leisure venues. Ground floor public domain activation has been considered as essential in developing a successful precinct. Smaller, intimate public spaces would be provided throughout the development, along the promenade and adjoining larger public areas in the town centre.
Sydney Olympic Park Environmental Guidelines	The *Environmental Guidelines* seek to set a high standard of environmental performance and work to continually improve the sustainability of Sydney Olympic Park. This Concept SSDA is supported by an ESD Report (Appendix S) which identifies and responds to relevant state and local government policy, and statutory planning instruments in support of the Concept SSDA. Further, the Concept SSDA sets an ESD framework for the proposed development and aligns with the vision and priorities set out in the Sydney Olympic Park Master Plan 2030 (Interim Metro Review), and the sustainability issues and objectives of the *Environmental Guidelines, Sydney Olympic Park 2008*.

Strategy	Comment
Sydney Olympic Park Stormwater and Water Sensitive Urban Design Policy	This policy sets Sydney Olympic Park Authority's requirements for stormwater management associated with development design, planning and construction. This Concept SSDA is accompanied by an Integrated Water Management Plan (Appendix X). The report aims to provide a hydraulic and water quality analysis as well as design of on-site detention systems and water quality treatment measures to demonstrate the feasibility of the proposed development from a stormwater and water quality perspective at a conceptual level. Water sensitive urban design elements are proposed as part of the treatment train that will provide an adequate level of detention and treatment to achieve the stormwater quality targets.
Sydney Olympic Park Safety and Security Policy	The *Safety and Security Management Plan Requirements Policy* (this Policy) requires applicants for development to embed safety and security as an integral part of the process of planning and development. The proposed diverse uses would provide 24 hours surveillance to public domain areas, buildings and metro entries. The proposed retail uses would provide activities through the day. The use of landscaping elements and resistant materials would deter vandalism and graffiti on ground level walls.
Sydney Olympic Park Noise Management Plan	The *Noise Management Plan* outlines how other noise issues (other than noise from major events) are managed within Sydney Olympic Park. A Noise and Vibration Impact Assessment has been prepared (Appendix V) which establishes noise and vibration assessment criteria for the construction and operation of the proposed development. The assessment criteria are based on relevant state guidelines and legislation and are considered appropriate for the proposed development of this nature.

2.3 The site and surrounding context

2.3.1 Site location

The site is generally located at 5-7 Figtree Drive, Sydney Olympic Park within the Parramatta local government area (LGA). The site comprises part of Lot 58 and 59 in Deposited Plan 786296 and is currently owned by Sydney Metro. The site is in the Central Precinct of Sydney Olympic Park and defined as Site 47 in the SOP Master Plan 2030 (Interim Metro Review).

The site is centrally located between the Parramatta CBD and Central Sydney CBD, approximately 13km to the west of Sydney CBD and 11km to the east of Parramatta CBD.

Nearby strategic centres include Burwood and Rhodes and town centres at Auburn and Strathfield. Parramatta is the nearest metropolitan centre containing major infrastructure, commercial and residential development while Strathfield and Burwood are rapidly growing centres also in the vicinity of the site.

The site location is shown in Figure 2-1 and Figure 2-2.

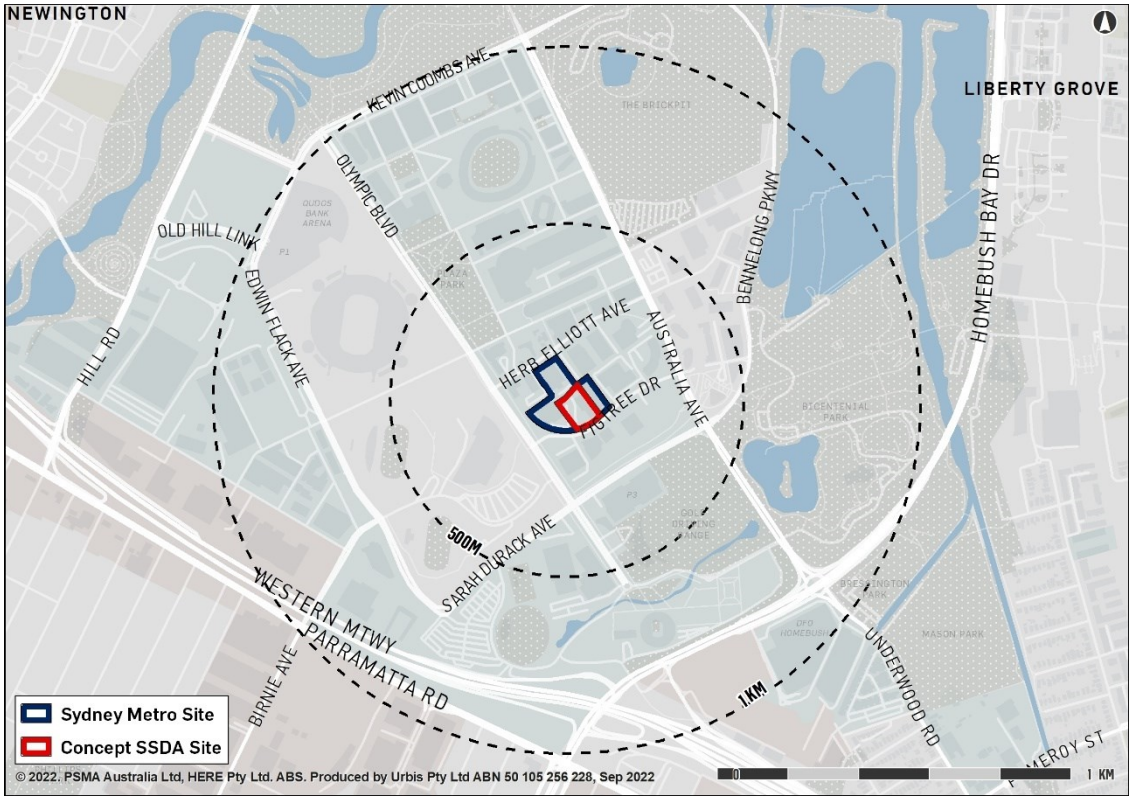


Figure 2-1 Broader site context

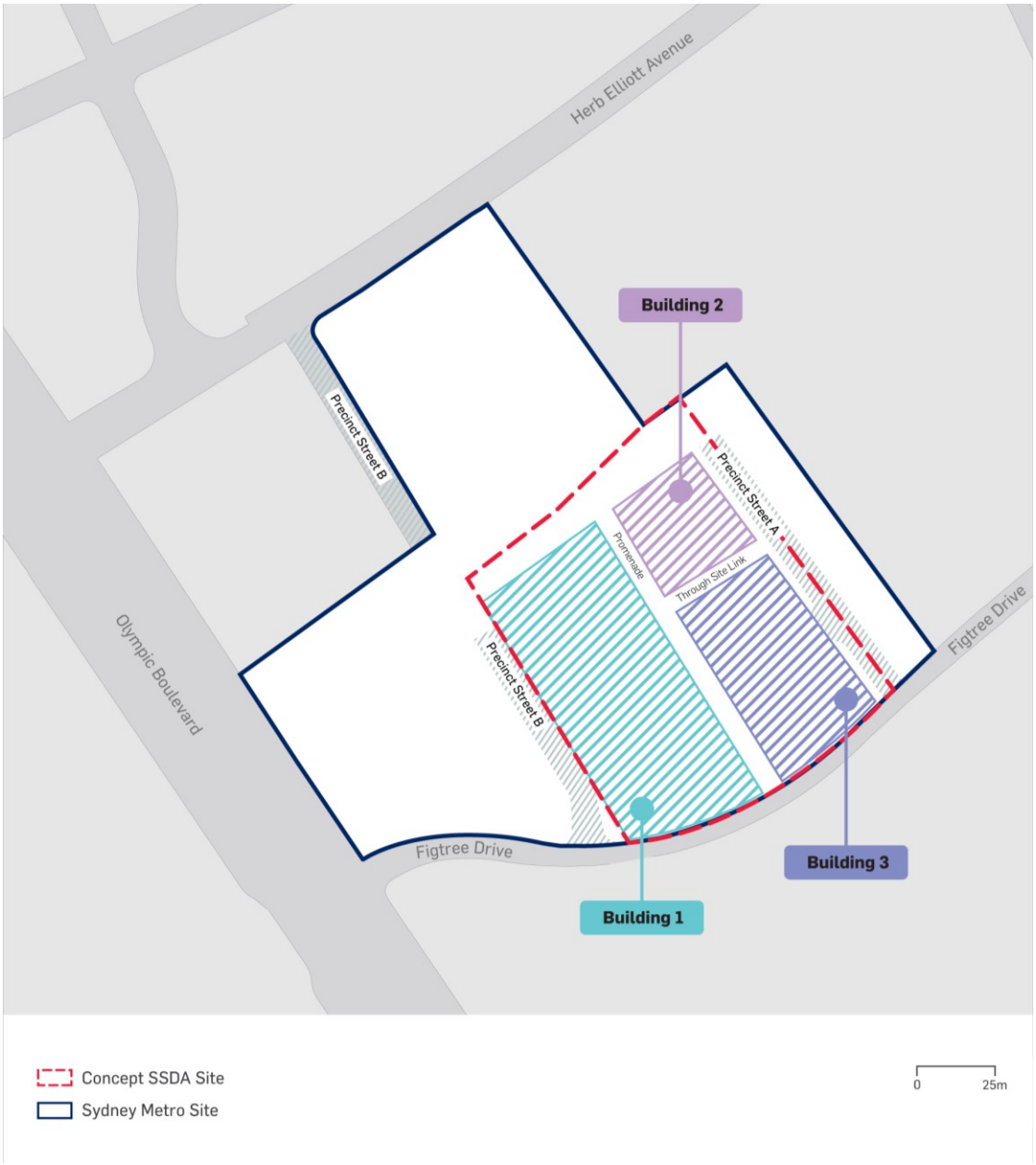


Figure 2-2 Site context

2.3.2 Site description

Works approved under the Stage 1 CSSI are being carried out on the site at present and the previous buildings have been demolished (refer to Figure 2-3 and Figure 2-4). The site currently forms part of the growing town centre with a series of medium and high-rise commercial, residential buildings and hotels with street retail.

As described in Table 3, the site comprises part of Lot 59 in DP 786296 and part of Lot 58 in DP 786296, and is approximately 11,407m^2 in size.

Site photographs demonstrating current site conditions are provided in Figure 2-3 and Figure 2-4.

Table 3 – Site Legal Description

Street Address	Legal Description
5 Figtree Drive, Sydney Olympic Park	Part of Lot 58 DP786296
7 Figtree Drive, Sydney Olympic Park	Part of Lot 59 DP786296

Figure 2-3 View of the site looking north-west

Figure 2-4 View of the site looking west

2.3.3 Surrounding development

The site has an interface with various surrounding land uses which include:

- To the north is the Abattoir Heritage Precinct, which is located on the opposite side of Herb Elliott Avenue. Directly behind the heritage precinct is the Olympic Park Train Station, Sydney Showground and Sydney Olympic Park Sports Hall.
- Qudos Bank Arena and Accor Stadium are located less than 500 metres from the site to the north-west.
- Sydney Olympic Park Aquatic Centre, Sydney Olympic Park Athletic Centre and Warm up Arena are located approximately 500m west of the site
- To the south are various commercial spaces, parks and sporting ovals.
- East of the site is predominantly a mixed-use area with frontage to Australia Avenue. Further east are notable green spaces including Bicentennial Park and Badu Mangroves.

The height and density of the surrounding built form is expected to increase in the future following the implementation of the SOP Master Plan 2030 (Interim Metro Review).

A diagram of the surrounding development is provided in Figure 2-5.

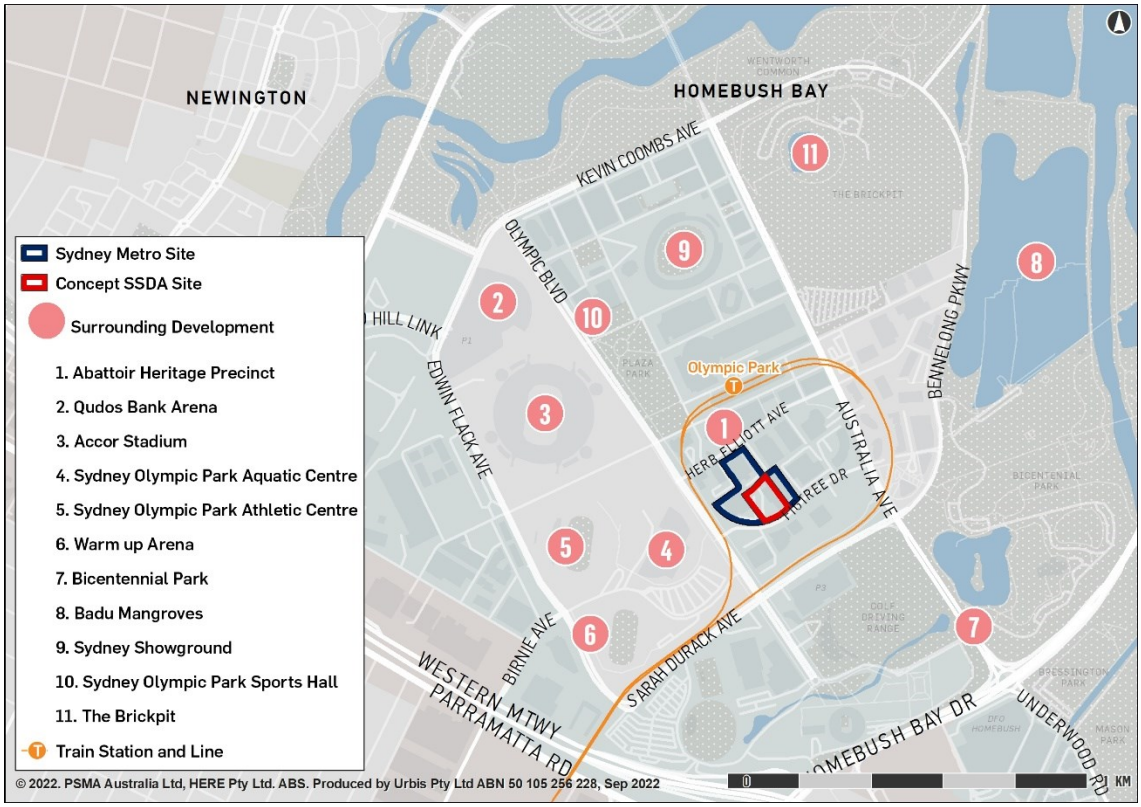


Figure 2-5 Surrounding development

2.3.4 Transport and accessibility

The Sydney Olympic Park metro station precinct is bounded by the following roads:

- Figtree Drive to the south
- Olympic Boulevard to the west
- Herb Elliott Avenue to the north

Figure 2-6 shows the existing transport network surrounding the Sydney Olympic Park metro station precinct.

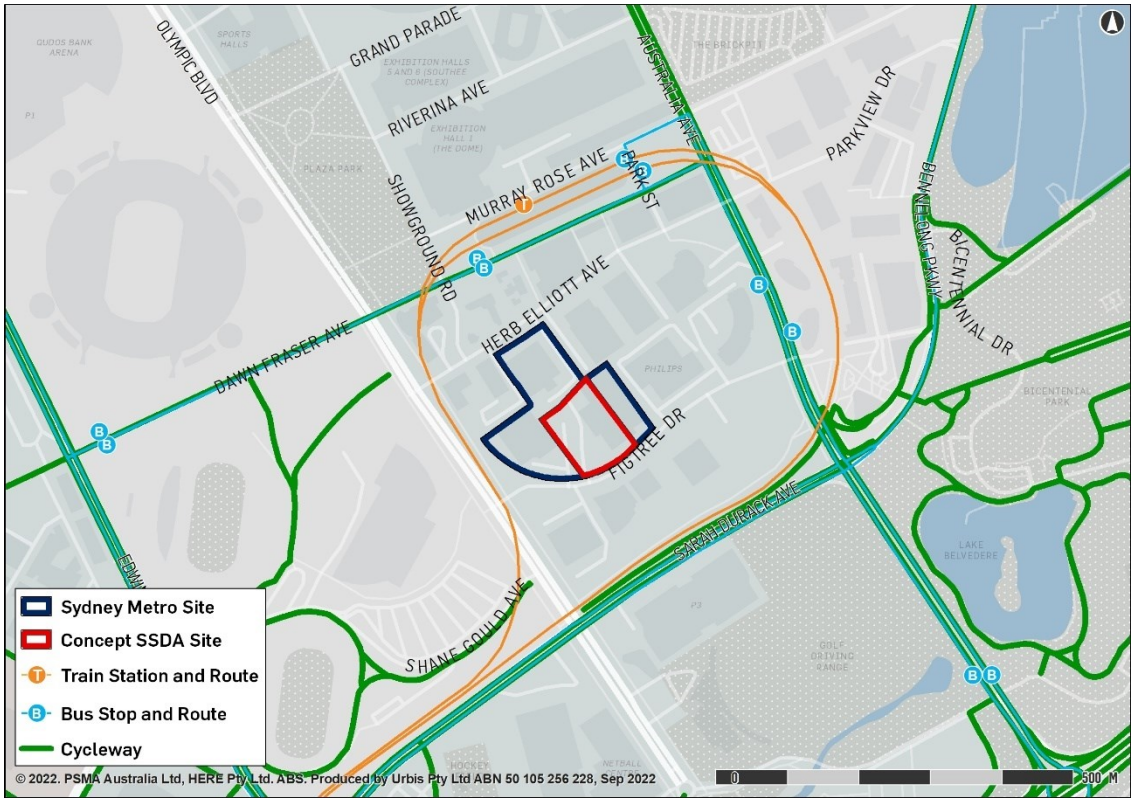


Figure 2-6 Existing transport network

Bus services

Buses provide the primary form of public transport for Sydney Olympic Park. Three bus routes service numerous existing bus stops within Sydney Olympic Park.

The following bus stops are within 100m of the site:

- Dawn Fraser avenue opposite Olympic Park Station
- Sydney Olympic Park, Aquatic Terminal

The bus routes provide services to and from Strathfield, Parramatta, Burwood, Rhodes, Chatswood, and North Ryde.

Rail services

The existing Olympic Park Station is located 200 metres north of the broader metro site as shown in Figure 2-5 and is served by the T7 Olympic Park Line on the Sydney Trains suburban rail network, which operates as a shuttle between Olympic Park and Lidcombe.

Active transport network

The pedestrian network in Sydney Olympic Park is well established, with wide footpaths and large, paved pedestrian areas for the movement and storage of large crowds during events. The existing cycle network is extensive and consists of on-road and off-road cycle routes.

2.3.5 Topography

The site is situated on the highest location in the Central Precinct and is 25.7m above sea level. The centre of the site is the highest point. The site has an approximate fall of 3m in all directions radiating out from the centre. The site or the Central Precinct

does not consist of National Parks, scenic landscapes, conservation areas or culturally important landscapes.

2.3.6 Utilities and infrastructure

The site is serviced by a full range of utilities and services, including stormwater drainage, sewerage, potable water, telecommunications, gas and electrical infrastructure. Appropriate utility and service connections would be provided, as discussed in detail in Section 6.20.

2.3.7 Easements and covenants

The Certificates of Title for Lots 58 and 59 in DP 786296 confirm an easement benefitting both lots is registered on title. As the location of the easement is not within the lots, the easement has no impact on the proposed site area.

2.4 Cumulative impact methodology

The Sydney Olympic Park metro station, once completed and operational, is expected to be a catalyst for change in the Sydney Olympic Park area.

As of September 2022, there are no significant development proposals, under assessment or approved, within the immediate locality that need to be considered from a cumulative impacts' perspective.

This EIS and accompanying specialist reports have considered the cumulative impacts of the following:

- Concept SSDA (this proposal)
- CSSI (i.e., the station and ancillary works)
- Event modes associated with the operation of Sydney Olympic Park
- Site 2A and 2B, Sydney Olympic Park
- Site 43/44 Sydney Olympic Park – Stage 1 and 2 (6 Australia Avenue and 2 Herb Elliott Avenue).

It is noted Site 46 and Site 48, owned by the Sydney Metro, have not been considered as part of the cumulative assessment as they do not meet the criteria established in Table 2 of the DPE's Assessing Cumulative Impact Guide. The timing for the development of these sites is unknown.

The supporting technical studies have used the 'incremental assessment' approach as described by the DPE's Assessing Cumulative Impact Guide by defining the existing baseline condition as being inclusive of the CSSI and then assessed the likely change in baseline condition as a result of the Concept SSDA.

The cumulative impact of the above elements has been assessed and determined to be acceptable subject to appropriate mitigation measures and future design development as part of the future Detailed SSDA(s). This is further considered in Section 6 and 7 of this EIS. It is noted that not every matter has a cumulative impact.

Sydney Metro will continue to monitor for 'future projects' within the vicinity of the site and consider cumulative impacts.

2.5 Feasible alternatives

Under Clause 192 the provisions of *Environmental Planning and Assessment Regulation 2021* (EP&A Regs), and in accordance with *the State Significant Development Guide* prepared by the Department of Planning and Environment (DPE), there is a requirement to analyse any feasible alternatives for SSDAs.

Table 4 outlines three feasible alternatives: Do Nothing, Alternative Design and Proposed Design.

Table 4 – Project alternatives

Options	Assessment
Do Nothing	The 'Do Nothing' alternative would result in the existing buildings on Sydney Metro land being demolished and the new metro station being constructed as per the Stage 3 CSSI Application with no over station or adjacent station development. 'Do Nothing' without any associated development would result in a poor placemaking outcome, lack of activation around the station and would pass up the opportunity to deliver a city shaping project. The 'do nothing' alternative would also be a failure to: • capitalise on significant infrastructure investment • deliver 316 new homes • create 372 construction jobs, 2,247 ongoing jobs directly and a further 1,636 jobs indirectly during the operation of the development. The Sydney Metro West network will provide connectivity to and from Sydney Olympic Park and will be an asset to the overall precinct. The site remaining as is would not result in the best design outcome particularly in respect to the integration of the site with the metro station itself and public domain works.
Alternative Design	Design alternatives have been explored to achieve high quality urban design and environmental outcomes for the site and the wider precinct. Sydney Metro and SOPA have engaged in a master planning exercise to modify the SOP Master Plan (2018 Review) to incorporate the future metro station and adjust the layout of streets, public realm and future buildings envisaged under the Plan. In 2020, Sydney Metro prepared a masterplan and investigated massing options for the precinct. Initially, the SSDA site was proposed to have a large podium, approximately 5 storeys in height, with two towers above with one being residential and the other commercial. Various arrangements and heights were tested for the towers. Early concept design development was undertaken in 2021 when Sydney Metro reviewed alternate options, including the configuration of three towers. Following input from the Sydney Metro Design Advisory Panel (DAP), and in consultation with SOPA, a design principle was adopted to place the tallest buildings along Figtree Drive, with lower scale buildings adjacent to the future central plaza created as part of the station. The DAP also recommended that the height of Building 2 respond to the scale of the Abattoir and achieve a human scale around the town centre noting the SOPA height controls permit 45 storeys. Additionally, the maximum height of Building 1 was set to around 21 storeys above the station box to transition building heights west to Olympic Boulevard and to meet the needs of the commercial office market.

Options	Assessment
Proposed Design	It is considered that this concept proposal provides for an optimised outcome at the site. It is also considered that the proposed development presents a balanced and feasible option as it would: • establish the indicative gross floor area and land uses for the site • recognise growth opportunities within Sydney Olympic Park and seek parameters to attract more businesses and residents in a well-connected location reducing reliance on private transport modes • protect key view corridors from ground level to the town centre, heritage precinct, and the aquatic centre • encourage activated street frontages to increase the level of ground plane interaction and vibrancy • capitalise on significant infrastructure investment • enable the creation of approximately 372 construction jobs over eight years, in addition to 2,247 ongoing jobs directly and a further 1,636 jobs indirectly created during the operation of the development • Allow for approximately 316 new homes in close proximity to public transport and amenity.

3 The proposal

This chapter provides a detailed description of the proposed development and sets out the planning and development framework for future Detailed SSDA(s).

This chapter is informed by the Building Envelope Drawings and Architectural Drawings at Appendix G and Appendix F and the Built Form and Urban Design Report at Appendix E, as well as other supporting information appended to this Environmental Impact Statement (EIS).

3.1 Overview of the proposal

This Concept SSDA seeks consent for building envelopes above and adjacent to the Sydney Olympic Park metro station. The Concept SSDA specifically seeks consent, pursuant to section 4.22 of the EP&A Act, for the following:

- Maximum building envelopes, including maximum building heights, podium height and ground and upper-level setbacks
- Maximum building heights:
    - Building 1 is approximately 21 storeys (RL 119.00) inclusive of plant (comprising 16 storeys over the station services podium)
    - Building 2 is approximately 27 storeys (RL 114.20) inclusive of plant (podium 4 storeys)
    - Building 3 is approximately 45 storeys (RL 171.00) inclusive of plant (podium 4 storeys)
- Land uses within the building envelopes:
    - Building 1: Commercial and retail
    - Building 2: Retail, commercial and residential
    - Building 3: Retail, commercial and residential
- Maximum gross floor area (GFA) of approximately 68,000m², comprising:
    - Approximately 32,790m² of residential accommodation, with potential to deliver approximately 316 dwellings (subject to separate Detailed SSDA)
    - Approximately 1,760m² of retail premises (subject to separate Detailed SSDA)
    - Approximately 32,820m² of commercial premises (subject to separate Detailed SSDA)
    - Approximately 630m² of station uses (subject to Stage 3 CSSI approval)
- A 6 level basement under Buildings 2 and 3 which would provide parking for up to approximately 358 cars (subject to separate Detailed SSDAs)
- Loading, vehicular and pedestrian access arrangements, including flexibility for delivery of all or part of Precinct Street A.

In addition, this Concept SSDA seeks to confirm the following strategies and guidelines for consideration in subsequent Detailed SSDA(s):

- Site Specific Design Guidelines
- Concept strategies including the following:
    - Utilities and services strategies
    - Stormwater, flooding, and drainage strategy
    - Ecologically Sustainable Development strategy.

It is noted that subdivision will likely occur in two stages. The first stage being a subdivision to create separate lots for station and the proposed development uses within the station box. This will occur under CSSI approval. The second stage would be strata subdivision of the proposed development by the future developer (i.e., under future Detailed SSDA approval).

Table 5 provides a numerical breakdown of the Concept SSDA and considers GFA which formed part of the CSSI for the station and Building 1 podium.

The indicative building massing and form for the Concept SSDA are shown in Figure 3-1 and Figure 3-2.

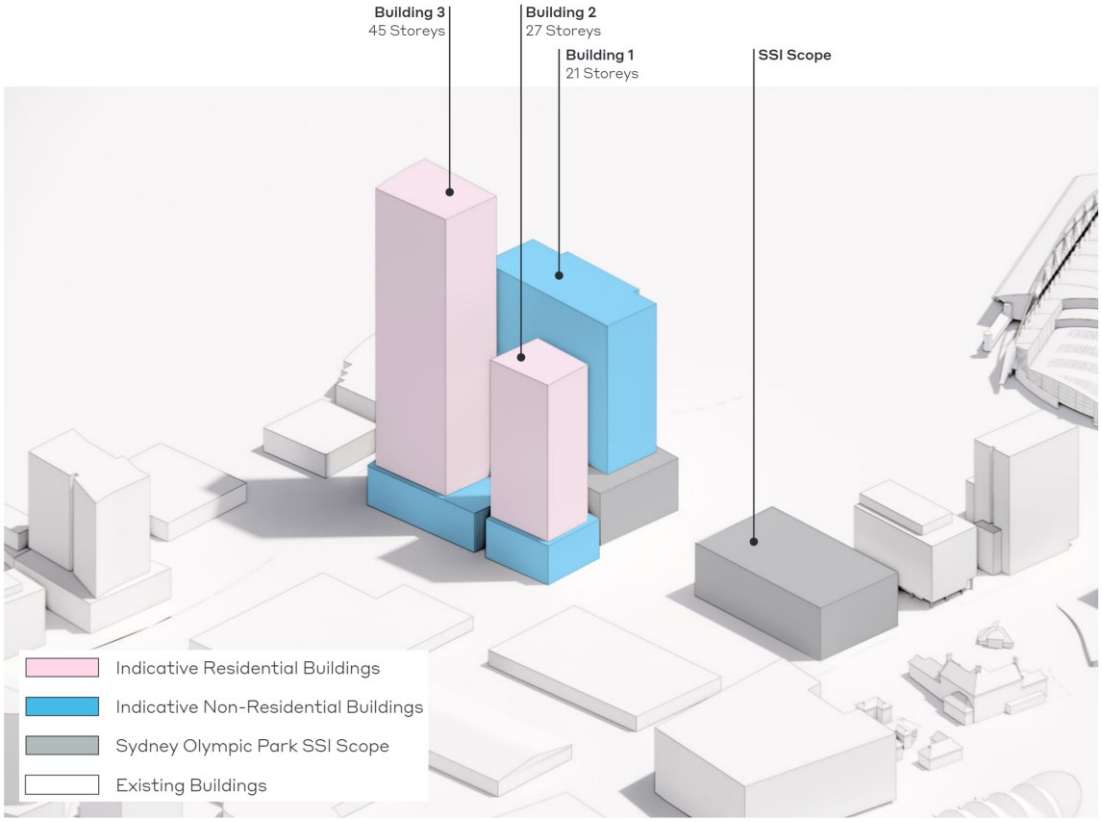


Figure 3-1 SSDA scope and proposed metro station within existing context

Table 5 – Numerical Overview

Concept Plan	Approximate Numerical Overview
Building 1	
Commercial GFA	26,690m^2
Retail GFA	1,200m^2
Station GFA (CSSI)*	630m^2
Height	21 storeys
Building 2	
Residential GFA	9,460m^2
Retail GFA	250m^2
Commercial GFA	2,400m^2
Height	27 storeys
Building 3	
Commercial GFA	3,750m^2
Retail GFA	310m^2
Residential GFA	23,330m^2
Height	45 storeys
Combined	
Site Area	11,407m^2
Residential GFA	32,790m^2
Retail GFA	1,760m^2
Commercial GFA	32,820m^2
CSSI GFA*	630m^2
Total GFA	68,000m^2
Parking	358
FSR*	5.96:1

** GFA and FSR calculations include floor space attributed to the station which will be subject to a separate planning approval process*

3.2 Building envelopes

The proposed building envelopes generally define the possible three-dimensional volume within which future development would likely occur. The built form will consist of two building components, being podiums and tower forms above.

The building envelopes reflect a sound and considered urban design and environmental outcome for the precinct considering the ADG building separation requirements, the surrounding context, solar access, and the principles of the SOP Master Plan 2030 (Interim Metro Review).

The proposed development comprises of three buildings, being:

- Building 1 is primarily a commercial building set to approximately 21 storeys (RL 119.00) over the station services podium. The ground floor podium includes 1,200m² of retail spaces and a foyer and lifts to the commercial building above.

The station services podium is subject to the Stage 3 CSSI approval.

- Building 2 is a mixed use building set to approximately 27 storeys (RL 114.20) with retail and commercial uses within the four storey podium and residential accommodation above.
- Building 3 is a mixed use building set to approximately 45 storeys (RL 171.00) with retail and commercial uses within the four storey podium and residential accommodation above.

The building envelopes have been designed to enable full integration with Sydney Olympic Park metro station. Figure 3-2 below shows the proposed envelopes (in blue and pink) and the Stage 3 CSSI envelope (in grey). The blue in the diagram below represents non-residential use and the pink represents residential uses.

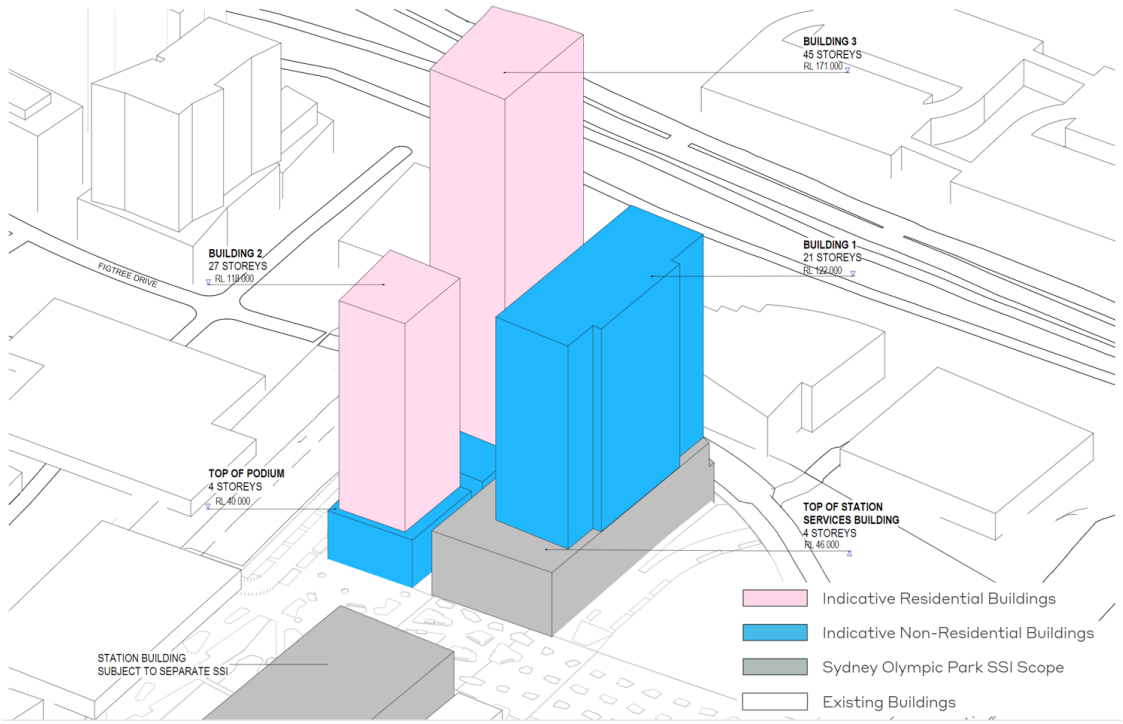


Figure 3-2 SSD scope and Sydney Olympic Park metro station infrastructure

3.3 Gross floor area

The proposed development provides a maximum GFA of 67,370m^2, which is in addition to the station Stage 3 CSSI GFA (approximately 630m^2) resulting in a maximum overall GFA of 68,000m^2. A breakdown of the different land use elements which contribute to the GFA proposed has been provided at Table 6, while a detailed schedule of the GFA based on the indicative design has been provided in Appendix E. The CSSI floor space is not final and is provided for assessment purposes only.

Table 6 – Indicative Gross Floor Area summary

Component	Indicative Area (m^2)
Site Area	11,407
Residential GFA	32,790
Retail GFA	1,760
Commercial GFA	32,820
Indicative CSSI GFA	630
Indicative Total GFA	68,000

3.4 Indicative reference scheme

An indicative reference scheme has been prepared and is detailed in the Reference Scheme Drawings (Appendix H) and illustrated at Figure 3-8.

The intent of this indicative reference scheme is to demonstrate how a building could be established within the proposed envelope while maintaining reasonable environmental amenity outcomes, achieving a practical floor plate that achieves ADG compliance and enabling a positive streetscape presentation and integration with structural and servicing requirements of a metro station. It is noted that no approval is sought for the indicative reference scheme as part of the Concept SSDA, as this would be sought through future Detailed SSDA submissions following competitive design processes being undertaken.

Key features of the indicative reference scheme include:

- A total of 316 residential apartments comprising:
    - Studio/1-bedroom: 60 apartments (19%)
    - 2-bedroom: 180 apartments (57%)
    - 3-bedroom: 76 apartments (24%)
- Provision of 1,760m² of retail GFA at Ground Floor and Mezzanine Level fronting Figtree Drive, the Promenade, the adjacent plaza and Precinct Street A
- Provision of 26,690m² of commercial GFA across level 5-20 of Building 1, levels ground to 4 of Building 2 and levels ground to 3 of Building 3
- Provision of 32,790m² of residential GFA above the podium of Building 2 and 3
- Car parking, servicing and loading is accommodated within the ground and basement levels including provision for up to approximately 358 car spaces and bicycle spaces.

3.5 Pedestrian access and connectivity

Pedestrian movements in the Central Precinct will be centred around the future pedestrian precinct to the north of the metro site, connecting the Abattoir Precinct and aquatic centre, as per Figure 3-3.

Pedestrian access to and around the proposed development is summarised below.

- **Metro station**: Pedestrian access to the metro station is via the promenade which can be accessed via the future station plaza and Figtree Drive and will be delivered through the CSSI approval.

- **Residential uses**: Pedestrian access to Buildings 2 and 3 would be via Precinct Street A to the east. The proposed development includes flexibility to deliver all or part of the length of Precinct Street A and this is subject to consultation with SOPA and discussions regarding development contributions. The final design of Precinct Street A will be determined through the Detailed SSDA in consultation with SOPA. The remainder of the public domain within the wider Sydney metro site will be delivered through the CSSI approval.
- **Commercial lobbies**: Building 1 would be accessed from the station promenade via escalators and lifts close to the station entrance. Access to Building 3 is via the through site link and access to Building 2 is via the future station plaza.

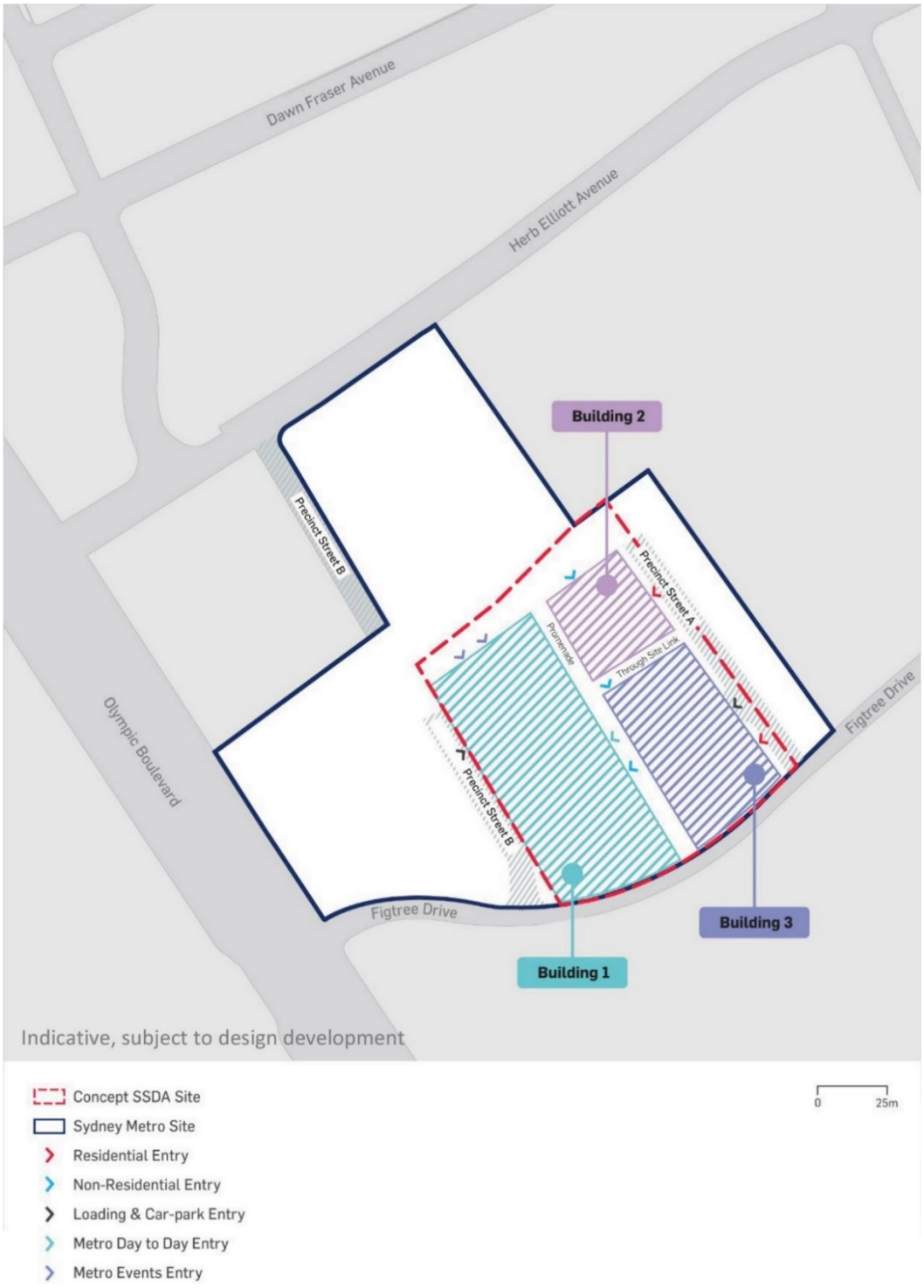


Figure 3-3 Ground plane with access points illustrated

3.6 Vehicular access and parking

Car parking provision

The proposed development includes a basement under Buildings 2 and 3. Preliminary planning demonstrates these spaces can be accommodated within a basement of up to six levels, although this would be the subject of future Detailed SSDAs. An assessment of the car parking rates is provided in Section 6.8.

The basement would be up to six levels and would incorporate parking for up to 358 cars, a loading dock area and services. The basement will include parking for Buildings 1, 2 and 3. Electric vehicle (EV) parking opportunities are also proposed in line with sustainability targets.

The basement car parking in the indicative reference scheme is predominantly located beneath Buildings 2 and 3. A portion of the basement extends beneath Precinct Street A and the plaza. The detailed design of the basement car parking and any proposed stratum subdivision for structures located beneath the public domain would be addressed in Detailed SSDAs.

The main vehicular access to the site is from Figtree Drive through streets defined by the SOP Master Plan 2030 (Interim Metro Review). Precinct Street A will serve as parking, servicing, and loading access for the ASD while Precinct Street B is expected to serve as a street servicing future metro station and the proposed development located directly over the station. Precinct Street B would be delivered as part of Stage 3 CSSI and Precinct Street A would be delivered as part of the subject Detailed SSDA. Final design of Precinct Street A will be determined under the Detailed SSDA in consultation with SOPA.

Car parking levels below Basement Level 1 are to cater for commercial, retail, and residential uses. An example floor plate of a basement levels is illustrated below in Figure 3-4.

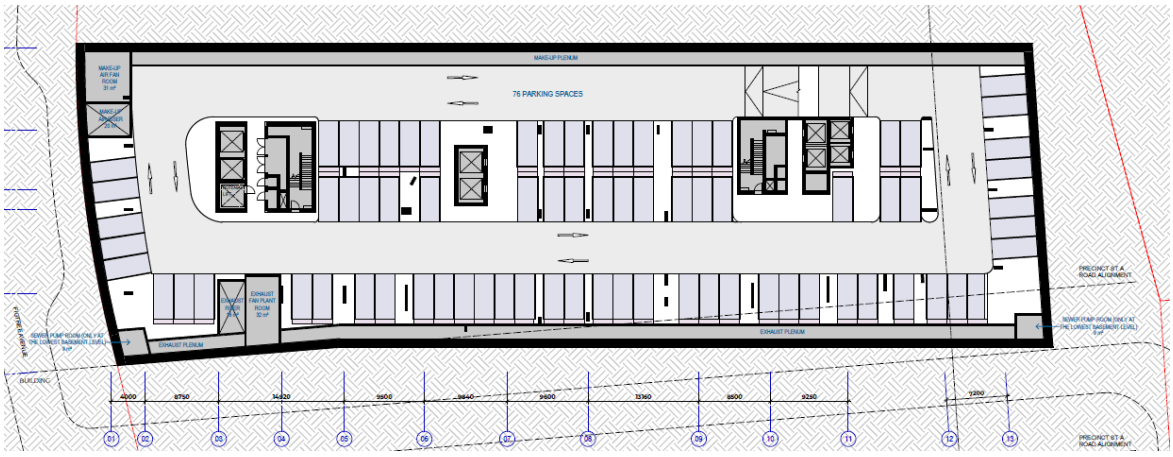


Figure 3-4 Indicative basement car parking layout (Building 2 and 3)

Bicycle parking

Bicycle parking and end of trip facilities are indicatively proposed on Level 3 of Building 1 and in Basement Level 1 of Buildings 2 and 3. The proposal complies with the rates listed in the SOP Master Plan 2030 (Interim Metro Review) which are:

- 1 space per 150m² of commercial GFA and 1 visitor space per 75m²
- 1 space per studio
- 1 space per 1 bedroom dwelling
- 1.2 spaces per 2 bedroom dwelling

- 1.5 spaces per 3 bedroom dwelling
- 2 spaces per 4 bedroom dwelling
- Residential visitors: 0.25 spaces per residential dwelling.

Service vehicles

The indicative reference scheme makes allowances for service vehicles. Precinct Street A will serve as residential, retail and commercial parking, servicing, and loading access while Precinct Street B would serve as a street servicing the future metro station and the proposed development located directly over the station, as illustrated in Figure 3-5. Additional loading dock facilities would be explored further in the Detailed SSDA(s).

Table 7 provides a breakdown of the service vehicle allocation for Building 1 and Buildings 2 and 3.

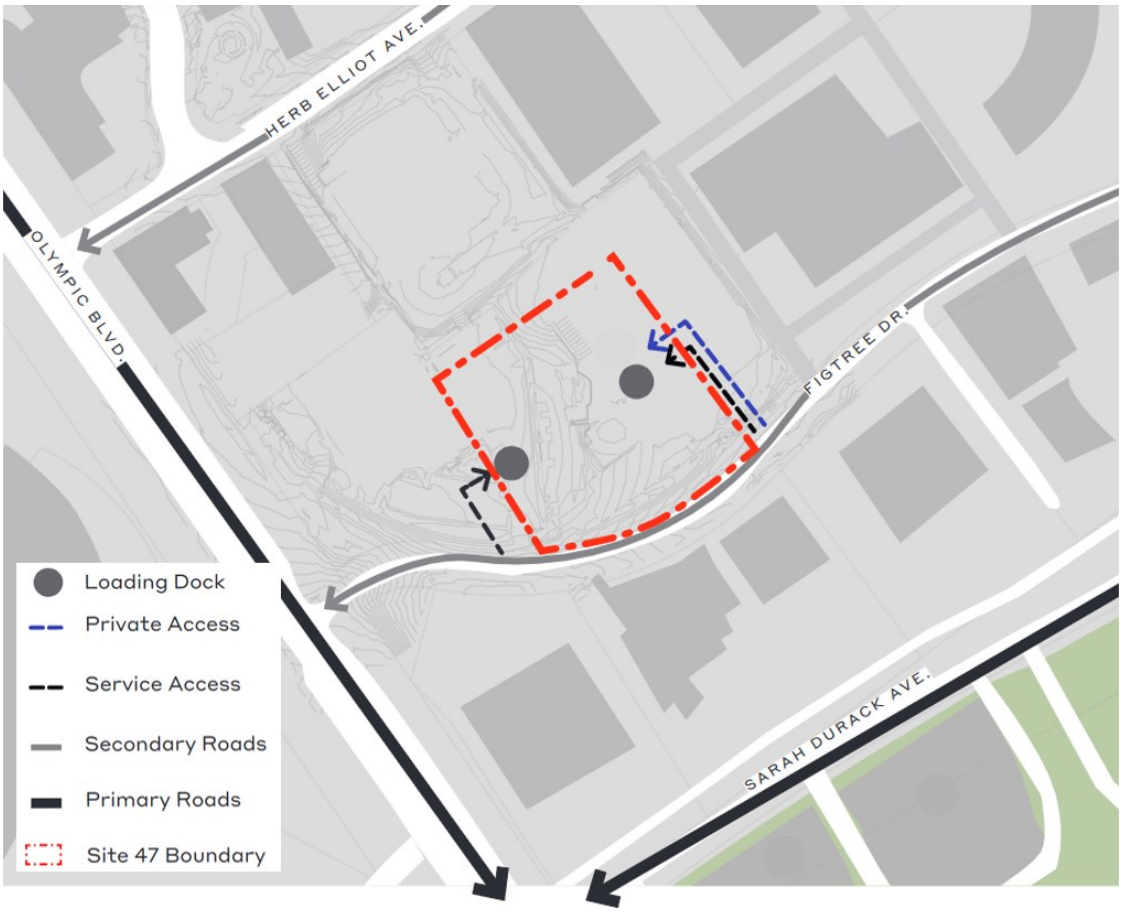


Figure 3-5 Vehicular movements

Table 7 – Service vehicle allocation

Loading docks	B99	SRV	MRV	Service level
Calculated requirements				
Building 1 Ground Floor	5	1	1	96%
Buildings 2 and 3 Basement Level 1	2	2	2	96.9%
Total Requirement	**7**	**3**	**3**	
Provision				
Building 1 Ground Floor	0	1	1	51.1%

Loading docks	B99	SRV	MRV	Service level
Buildings 2 and 3 Basement Level 1	2	2	2	96.9%
Total Provision	**2**	**3**	**3**	
Difference	-5	0	0	
Building 1 Ground Floor (Metro)[1]	0	1	1	

[1]Metro requires 1 SRV and 1 MRV dedicated spaces in Building 1 Ground Floor loading dock. These spaces are not considered in calculated commercial/retail building service level requirements.

3.7 Infrastructure and services

The Utilities and Infrastructure Servicing Assessment (Appendix EE) concludes that indicative connections would include:

- new sewer gravity connections from the proposed station and development site to a proposed sewer main along Figtree Drive to a new pit at the intersection with Olympic Boulevard
- new potable water connection to the proposed station and development site from the existing Sydney Water mains on Figtree Drive and Herb Elliott Avenue.

Additionally, a number of existing services will require relocation as a part of the construction works and future work will be required to provide servicing for the proposed development.

Where utilities and services are not provided under the CSSI approvals, the provision of services for the OSD and ASD would be the responsibility of the future developer and any connections to, or augmentation of existing services would form part of the future Detailed SSDA.

3.8 Design quality guidelines and design excellence strategy

Sydney Metro has prepared Site Specific Design Guidelines (Appendix M) and a Sydney Metro West Design Excellence Strategy (Appendix L) to guide the design of the proposed development. These documents provide a consistent framework for design across the metro station network and proposed development.

The Design Guidelines have been prepared to address the relevant SEARs. Details of the design guidelines and design excellence strategy are discussed separately below.

3.8.1 Design guidelines

Design guidelines have been included for built form, heritage, integration with the public domain and Sydney Metro Park metro station, movement and connectivity and legacy outcomes of the development.

The core precinct design objectives for the proposed development are:

- **Land use and function:** to identify uses that support and contribute to the delivery of unique, attractive and vibrant urban centres that provide a sense of connection and identity for local communities and visitors.
- **Places and spaces:** to ensure the scale of development reflects existing and desired future character of Sydney Olympic Park.
- **Access and connectivity:** to prioritise walking and other modes of active transport in the design of stations, interchanges and associated developments.

- **Environment and sustainability:** to deliver a sustainable development demonstrating excellence against national and international benchmarks and certification systems.

The Design Guidelines identify benchmark projects that demonstrate the design quality aspirations for the proposed development site. These benchmarks have been selected to showcase the minimum quality expected in relation to:

- integrated design outcomes
- showcasing high quality design and contribute positively to the Sydney Olympic Park skyline
- architecture that responds to adjoining buildings and streetscape character and scale
- design that provides a high-quality public space that is integrated, connected, active, safe and comfortable for customers and pedestrians
- high quality entry needs of a civic station and commercial building above, with associated servicing
- materials and finishes that are high quality and appropriate to the context
- integration of public art and public domain elements that contribute to experience place
- façade and services integration that contribute towards best practice sustainability outcomes.

Future Detailed SSDA(s) must consider these design guidelines to ensure they achieve the vision for the site as established in this Concept SSDA.

3.8.2 Design excellence strategy

A Sydney Metro West Design Excellence Strategy (Appendix L) has been prepared to establish a consistent framework for how Sydney Metro would deliver design excellence across the whole project. The strategy builds on Sydney Metro's existing design development and review processes and has been developed in consultation with the NSW Government Architect.

The Strategy draws from the NSW Government Architect's Better Placed and is consistent with the underlying principles of the NSW Government Architect's Design Excellence Competition Guidelines and SOPA's Design Excellence Policy.

Sydney Metro proposes to use the Sydney Metro West Design Excellence Strategy. The Site Specific Design Excellence Strategy is structured around the operation of independent design review panels that support the design development process for the architectural, urban design and infrastructure elements of each precinct throughout three phases of the project:

- Phase 1: Defining expectations
- Phase 2: Reference design and competitive selection
- Phase 3: Design integrity.

The Design Excellence Strategy includes the establishment of two independent design review panels chaired by the NSW Government Architect:

- Design Advisory Panel (DAP) covers Phase 1 and applies to all station precincts. The DAP guide concept design of stations, precincts, and development. It is during Phase 1 that CSSI applications and Concept SSD applications are developed, and approvals sought.
- Design Review Panel (DRP) covers Phases 2 and 3 and applies as follows.

Phase 2 guides reference designs for stations, precincts and development; facilitates a competitive process for Sydney Metro's procurement strategies for detailed design of stations, precincts and development; responds to statutory requirements for design excellence in environmental planning instruments and implements a rigorous design evaluation process.

During this phase, designs for the proposed development will progress to Detailed SSDA(s).

Phase 2 also includes the establishment of separate Sydney Metro managed panels that may comprise select DRP members to review and provide advice on the design evaluation of tender submissions. The Design Excellence Evaluation Panel (DEEP) will facilitate the achievement of design excellence as part of the competitive selection process for Detailed SSDAs while the Tender Design Review Panel (TDRP) will provide guidance on aspects of the CSSI and contract packages.

Phase 3 ensures design integrity is achieved and demonstrated in the design and delivery of stations and development following contract award.

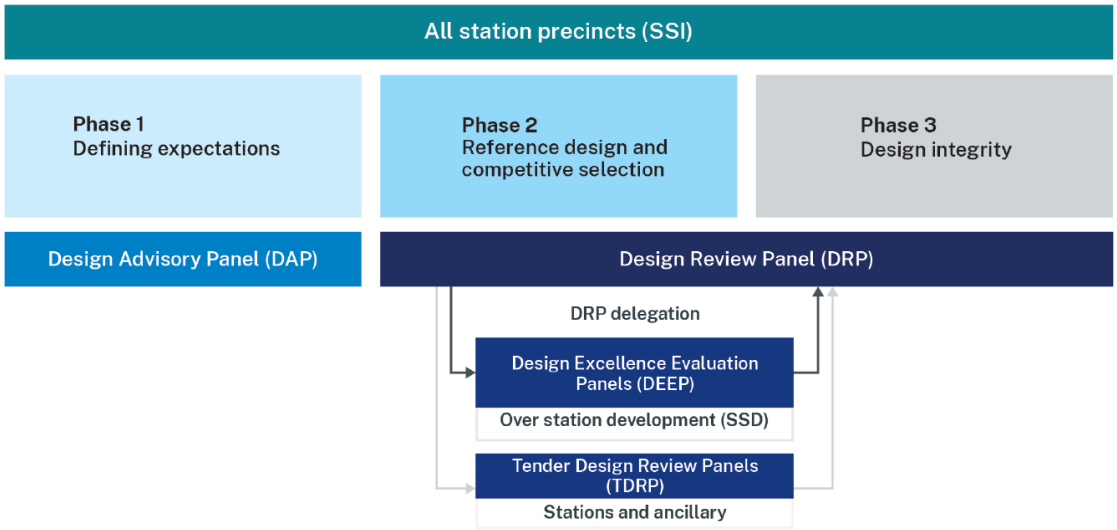


Figure 3-6 Design excellence process

Sydney Metro proposes to use its DEEP process as an alternative to 'design competition' under Appendix 4 clause 30 of the Central River City SEPP.

Sydney Metro is seeking endorsement from the Secretary for the DEEP process to be utilised in lieu of the currently approved Sydney Olympic Park's design competition procedures for Building 1 (as it is integrated with the design and delivery of the station), while Building 2 and 3 will proceed under SOPA's Design Excellence Policy (as it is adjacent to the station and does not have the same interdependency).

The alternative design competition process is discussed in detail in Section 6.1.2 of this EIS.

3.9 Interface levels

The proposed development has been designed to integrate with the Sydney Olympic Park metro station to ensure a cohesive station and precinct development.

To allow for this integration, the Building 1 podium would be delivered under the Stage 3 CSSI application. However, while the physical podium would be delivered under the Stage 3 CSSI application, non-station spaces within the podium which are related to the proposed development are sought under this Concept SSDA.

The CSSI approval will include the structural elements, utilities and services for non-station uses (e.g. commercial and/or retail) within the metro station. The fit-out and use of these spaces is subject to approval under the future Detailed SSDA(s).

The CSSI approval makes provision for over station and adjacent station development including structural elements up to the podium level to enable the construction of future over station development and space for future lobbies, lift cores, access, parking, loading docks and building services. The interface between the station and the proposed development is conceptual in nature and would be resolved through further design refinement. Demarcation plans have been provided in the Built Form and Urban Design Report at Appendix E and separately at Appendix I. In addition, demarcation of station and the proposed development is also depicted below.

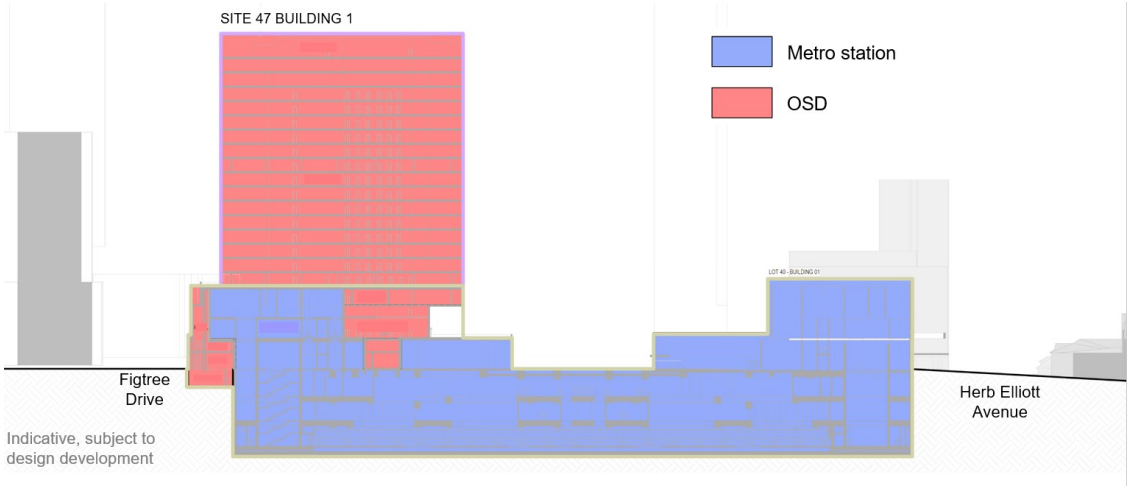


Figure 3-7 Interface level

The proposal includes Precinct Street A, shown in dashed red in the ground floor public domain demarcation plan in Figure 3-8. The remainder of the public domain within the wider Sydney metro site (shown faded) would be delivered through the CSSI approval and is subject to further design development.

Figure 3-8 Ground floor public domain interface

3.10 Ecologically sustainable development strategy

An Ecologically Sustainable Development (ESD) Report (Appendix S) has been prepared to set out an ESD strategy to guide the future Detailed SSDA(s).

Sustainability targets and rating requirements within the report are correlated across a range of current and emerging regulatory, policy, statutory planning and Sydney Metro requirements, and market recognised standards, drivers and trends. Minimum sustainability rating requirements for the proposed development are outlined in Table 8.

Table 8 – ESD strategy

Component	Minimum Rating Requirement
Building 1 – Commercial	*5 star Green Star Buildings*
	5.5 star (+25%) NABERS Energy for Offices (base building) (without GreenPower) (Commitment Agreement)
	4.5 star NABERS Water for Offices *Stretch target: 5 star NABERS Water for Offices* *45% less potable water consumption when compared to a reference building*

Component	Minimum Rating Requirement
Building 2 – Mixed Use Residential tower and retail podium	*5 star Green Star Buildings*
	4.5 star NABERS Energy for Apartment Buildings (without GreenPower) *3.5 star NABERS Water for Apartment Buildings*
Building 3 – Mixed Use Residential tower and Commercial and retail podium	*Average 7 star NatHERS rating* *Minimum individual 6 star NatHERS rating*
	BASIX Energy 40 *BASIX Water 60*

3.11 Timing, stages and sequencing

Sydney Metro's preferred scenario is that the proposed development be completed prior to commencement of Sydney Olympic Park metro station operations. However, staging could be influenced by market conditions, demand and other factors.

Notwithstanding, the method of procurement may be subject to change in the future. As such, this would be confirmed in subsequent Detailed SSDA(s).

The planning process and indicative timing for the various streams under the preferred staging scenario are outlined in Table 9 below.

Table 9 – Preferred staging and indicative timing

Works stream	Indicative timing
Sydney Olympic Park metro station excavation and tunnelling works	2023-2025
Sydney Olympic Park metro station box construction and fit out works (below and above ground, including building grids, column loading, building infrastructure and services to enable the construction of the proposed development)	2025-2028
Proposed development works (above station)	To be determined by a future developer(s)
Proposed development fit out works	To be determined by a future developer(s)
Public domain works	Prior to 2030
Sydney Metro West opens for passenger services	2030

3.12 Subdivision

The Stage 3 CSSI application includes subdivision of the relevant sites, including the station precincts and ancillary facilities as required to allow for separate occupation or development of parts of the land within the station precincts. Subdivision in the Stage 3 CSSI application may be carried out to divide land for the purposes of (but not necessarily limited to):

- the station
- the spaces to be used for non-station uses
- over station development (including within and between the over station development(s) and elements at and below ground level)
- adjacent station development
- public roads and public open space
- the management of residual land.

The CSSI application will allow subdivision to create the individual lots for the station, the development sites, the public domain and the public roads. The CSSI application does not allow strata or stratum subdivision within the proposed development buildings, and this requires separate approval in the detailed SSDA.

Subdivision may be further considered in the Detailed SSDA(s) (but not necessarily limited to):

- Strata subdivision of any basement levels located beneath public roads or public open space which is to be dedicated to SOPA
- Strata subdivision of Building 1 including the subdivision within Building 1
- Strata subdivision of Buildings 2 and 3 (including within the buildings).

Subdivision is not sought under this Concept SSDA.

4 Statutory context

4.1 Key statutory requirements

This chapter describes the statutory planning process for the proposed development and identifies relevant State and local legislation and planning instruments which may apply to the Concept SSDA.

The site is located within Sydney Olympic Park which is administered by Sydney Olympic Park Authority (SOPA). As such, the relevant legislation, planning instruments and policies relating to the site are as follows:

- *Environmental Planning and Assessment Act 1979 (EP&A Act)*
- *Environmental Planning and Assessment Regulation 2021 (EP&A Regulation)*
- *Biodiversity Conservation Act 2016*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Precincts – Central River City) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development* (SEPP 65) and accompanying Apartment Design Guide.

Table 10 – Key Statutory Requirements

Matter	Guidance
Power to grant consent	The EP&A Act establishes the framework for the assessment and approval of development and activities in NSW. The EP&A Act also facilitates the making of environmental planning instruments which guide the way in which development should occur across the State, including State environmental planning policies (SEPPs) and local environmental plans (LEPs). Pursuant to section 4.22 of the EP&A Act, a Concept DA may be made setting out concept proposals for the development of a site, and for which detailed proposals for the site or for separate parts of the site are to be subject of a subsequent development application(s). The proposal in this case is a Concept SSDA. The Minister for Planning is the consent authority for this Concept SSDA as the applicant is a public authority. The Minister may delegate this function to staff within the DPE.
Permissibility	Sydney Olympic Park was declared a State Significant Site (now Precinct) by the Minister for Planning in 2010. Appendix 4 of the *State Environmental Planning Policy (Precincts—Central River City) 2021* (Central River City SEPP) applies to Sydney Olympic Park. The State Significant listing of the precinct sets out statutory planning controls including land use zoning, floor space ratios and height of buildings to guide future development within Sydney Olympic Park. Pursuant to clause 7 of Appendix 4 of the Central River City SEPP, the subject site is zoned B4 Mixed Use. The proposed residential accommodation, commercial premises and retail premises are permitted with consent.

Matter	Guidance
Pre-conditions to exercising the power to grant approval	**State Environmental Planning Policy (Resilience and Hazards) 2021** *State Environmental Planning Policy (Resilience and Hazards) 2021* requires the consent authority to consider whether the subject land of any rezoning or DA is contaminated. If the land requires remediation to ensure that it is made suitable for a proposed use or zoning, the consent authority must be satisfied that the land can be suitably remediated for that purpose. The Contamination Report (Appendix Z) provides a summary of knowledge of contamination within and surrounding the Concept SSDA site, as well as an assessment of the risk of encountering contamination during the construction and operation of the proposed development. The Contamination Report confirms that, based upon the available information, there is moderate risk of groundwater contamination and low risk of soil contamination within the Concept SSDA site. In accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021*, it is likely that the Concept SSDA site can be made suitable for its proposed use, following the completion of any remediation works required.
Mandatory matters for consideration	**Biodiversity Conservation Act 2016** Section 7.9 of the BC Act 2016 requires preparation of a biodiversity development assessment for SSD that is assessed under Part 4 of the EP&A Act. This Concept SSDA will be assessed under Part 4 of the EP&A Act, and, therefore, would normally be required to include a biodiversity development assessment report. However, section 7.9(2) of the BC Act 2016 allows for exemption from the requirement where the development is not likely to have any significant impact on biodiversity values. A request for a waiver for submission of a Biodiversity Development Assessment Report (BDAR) was submitted to the DPE and the Office of Environment and Heritage. Subsequently, a waiver under section 7.9(2) of the BC Act 2016 was issued on 28 February 2022 and is available at Appendix U. Accordingly, a BDAR is not required to be submitted with this EIS.
	State Environmental Planning Policy (Planning Systems) 2021 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 a CIV of more than $10 million is State significant development (SSD). As the development is not permissible without consent under Part 5 of the EP&A Act by the operation of an environmental planning instrument, it is declared to be SSD.
	State Environmental Planning Policy (Precincts—Central River City) 2021 Sydney Olympic Park was declared a State Significant Site (now Precinct) by the Minister for Planning in 2010. Appendix 4 of the Central River City SEPP applies to Sydney Olympic Park. The State Significant listing of the precinct sets out statutory planning controls including land use zoning, floor space ratios and height of buildings to guide future development within Sydney Olympic Park <u>Land use zones:</u>

Matter	Guidance
	Pursuant to Clause 7 of Appendix 4 of the Central River City SEPP, the subject site is zoned B4 Mixed Use. As such, the proposed residential, commercial and retail uses are permitted with consent. The proposed Concept SSDA is consistent with the zone objectives and will ensure Sydney Olympic Park becomes an active and vibrant town centre in an accessible location, maximising public transport patronage and encouraging walking and cycling. <u>Building Height</u> The proposed building heights are outlined below: • Building 1 approximately 21 storeys (RL 119.00) • Building 2 approximately 27 storeys (RL 114.20) • Building 3 approximately 45 storeys (RL 171.00) Pursuant to clause 18 of Appendix 4 of the Central River City SEPP, the maximum building height at the site is 149m. As demonstrated by the building envelope plans, the Concept SSDA complies with the maximum prescribed building height. <u>Floor Space Ratio</u> The maximum floor space ratio to be permitted on site 47 is 7:1. The FSR of the proposed development is 5.96:1. <u>Design Excellence</u> Sydney Metro proposes to use the Sydney Metro West Design Excellence Strategy. The Design Excellence Strategy is structured around the operation of independent design review panels that support the design development process for the architectural, urban design and infrastructure elements of each precinct throughout three phases of the project: • Phase 1: Defining expectations • Phase 2: Reference design and competitive selection • Phase 3: Design integrity. The Design Excellence Strategy includes the establishment of two independent design review panels chaired by the NSW Government Architect: *Design Advisory Panel (DAP) covers Phase 1 applies to all station precincts to guide concept design of stations, precincts and development. It is during Phase 1 that SSI applications and Concept SSD applications are developed, and approvals sought.* *Design Review Panel (DRP) covers Phases 2 and 3 and applies as follows.* Phase 2 guides reference designs for stations, precincts and development; facilitates a competitive process for Sydney Metro's procurement strategies for detailed design of stations, precincts and development; responds to statutory requirements for design excellence in environmental planning instruments and implements a rigorous design evaluation process. Phase 2 also includes the establishment of separate Sydney Metro managed panels that may comprise select DRP members to review and provide advice on the design evaluation of tender submissions. The Design Excellence Evaluation Panel (DEEP) will facilitate the achievement of design excellence as part of the competitive selection process for Detailed SSDA(s) while the Tender Design Review Panel (TDRP) will provide guidance on aspects of the CSSI and contract packages. Phase 3 ensures design integrity is achieved and demonstrated in the design and delivery of stations and development following contract award.

Matter	Guidance
	State Environmental Planning Policy (Transport and Infrastructure) 2021 Schedule 3 of *State Environmental Planning Policy (Transport and Infrastructure) 2021* requires certain traffic generating developments to be referred to TfNSW, which may include the proposed development based on the quantum of GFA proposed. The Concept SSDA will be referred to TfNSW as a traffic generating development. The Concept SSDA may also be referred to the relevant utility service providers to confirm that the siting and layout of the proposed development will not impact on relevant easements and/or infrastructure corridors. Engagement with TfNSW has occurred on numerous occasions through various working groups. Further detail regarding the engagement undertaken is outlined in Section 5 of this EIS.
	State Environmental Planning Policy (Biodiversity and Conservation) 2021 Chapter 10 of the Biodiversity and Conservation SEPP is the relevant planning instrument for land within the Sydney Harbour Catchment. No significant adverse impacts on the Sydney Harbour Catchment are anticipated given the proposal relates to a concept proposal. The subsequent detailed SSDAs will address stormwater run-off, sediment and erosion control, and water quality in greater detail.
	State Environmental Planning Policy 65: Design Quality of Residential Apartment Development *State Environmental Planning Policy 65: Design Quality of Residential Apartment Development* (SEPP 65) was introduced in 2002 and reviewed in 2015. The SEPP aims to improve the design quality of residential flat development. It contains various design principles and provides guidance for evaluating the merit of design solutions. A SEPP 65 Report has been prepared (Appendix J), which demonstrates compliance with the Apartment Design Guide.

4.2 Other relevant legislation and policies

The other relevant legislation and policies relevant to the proposal include the SOP Master Plan 2030 (Interim Metro Review) and the SOP Master Plan 2030 (2018 Review). A detailed assessment of the controls has been included in Appendix B.

5 Engagement

This chapter provides an outline of the consultation and engagement activities carried out and how this engagement has influenced this proposal. It identifies who has been consulted, how the consultation was carried out, the issues raised and the project response.

5.1 Overview of engagement

Sydney Metro has been engaging with the community, stakeholders and industry on Sydney Metro West since 2017. Feedback gathered has helped shape the project, including station locations. Early engagement with the community and stakeholders began in June 2017 and continued into 2018. Further engagement for the project followed the announcement of confirmed station locations between Westmead and The Bays in October 2019.

Specifically, community consultation has occurred at the following stages:

- Stage 1 CSSI approval and Stage 3 CSSI application: Community consultation prior to lodgement of Stage 1 CSSI approval and Stage 3 CSSI application and the public exhibition of the applications by DPE.
- SOP Master Plan (Interim Metro Review): Community consultation (carried out by Sydney Olympic Park Authority) that was undertaken as part of changes to the SOP Master Plan (2018 Review).
- Community and customer insights received during the development of this EIS.

Consultation has proactively sought feedback and comments on Sydney Metro West through different forums and channels to inform the development phase and the scope of issues to be assessed as part of the environmental assessment process. Key stakeholders for Sydney Metro West include (but are not necessarily limited to):

- State government agencies (including but not limited to Department of Planning and Environment, Greater Sydney Commission, other sections of Transport for NSW, NSW Environment Protection Authority, Heritage NSW, Port Authority of NSW and Schools Infrastructure NSW).
- Local government (Cumberland City Council, City of Parramatta, Burwood Council, Strathfield Council, City of Canada Bay, Inner West Council and the City of Sydney).
- Public utilities and business and industry groups near the project.
- Special interest groups including Local Aboriginal Land Councils, Aboriginal stakeholders, and sporting associations and groups.
- The broader community.

5.2 Consultation during preparation of this Environmental Impact Statement

5.2.1 Scoping Report

In February 2022, the Scoping Report for this proposal was made available to the public on the NSW Department of Planning and Environment's Major Projects website. Sydney Metro sent an email to registered stakeholders, and distributed flyers to properties within 500m of the site, informing them of the release of the Scoping Report. Details were also published on the Sydney Metro website and the project's interactive portal.

5.2.2 Key stakeholder engagement

Engagement with public authorities and key stakeholders was undertaken to inform this EIS and is summarised in the table below. A stakeholder engagement table is provided as Appendix C which details how these issues are addressed in the EIS.

Table 11 – Engagement carried out

Stakeholder and engagement method	Issues discussed / raised	Project response
Sydney Olympic Park Authority Ongoing consultation, via fortnightly and monthly coordination meetings with SOPA has informed the Concept SSDA, CSSI and the SOP Master Plan (Interim Metro Review).	The Concept SSDA should be consistent with SOPA's endorsed policies and strategies specifically the SOP Master Plan (Interim Metro Review).	The Concept SSDA is consistent with the SOP Master Plan (Interim Metro Review), including envelope height, FSR, setbacks and active frontages.
	The EIS should detail the proposal's commitment to sustainability and how Green Star minimum standards will be achieved.	The EIS details the proposal's commitment to sustainability and how Green Star minimum standards would be achieved.
	Other topics discussed include: • biodiversity and potential impacts of stormwater runoff • delivery of green infrastructure including deep soil, landscaping, and trees • inconsistency with the then 'Draft' SOP Master Plan (Interim Metro Review) parameters • management of known contamination • management during event modes • cumulative impacts particularly regarding solar access, climatic comfort, and outlook • relationship of proposed uses with the Commercial Demand and Feasibility Assessment by Hill PDA, 2021 • design excellence framework.	• A BDAR waiver has been issued for the Concept SSDA. No further assessment is required in respect to biodiversity. • Public domain initiatives would be addressed during further design as part of the CSSI. • The Concept SSDA is consistent with the SOP Master Plan (Interim Metro Review). • The Contamination Assessment (Appendix Z) considers the potential impacts and concludes the site can be made suitable for the proposed development. • All relevant specialist reports and the EIS address event mode – and cumulative impacts. • The location of the community uses is subject to further discussion with SOPA to agree on the most appropriate location. • The Design Excellence Strategy (Appendix L) outlines the design excellence framework for the site.

Stakeholder and engagement method	Issues discussed / raised	Project response
Department of Planning and Environment Ongoing fortnightly briefing meetings, and attendance at TfNSW meetings (see below). The BDAR Waiver process has presented to DPE an assessment of the proposed development on biodiversity values.	No specific matters of interest or concern have been raised in fortnightly briefings and updates between Sydney Metro and DPE, or via the meetings attended with TfNSW. A BDAR Waiver has been issued.	No specific project response has been required.
Sydney Metro Design Advisory Panel (DAP) and NSW Government Architect Presentations to the DAP relating to Sydney Olympic Park metro station and the Concept SSDA have taken place periodically. DAP advice is recorded by GANSW and informs ongoing design development.	A summary of the main feedback and matters discussed includes: • DAP supported the changes introduced to the proposal to provide variation in built form to consider the relationship to different spaces, heritage items and visual diversity. • Further design development was recommended, with regard to environmental impacts on public space and amenity of future residents. • The DAP requested clarification of the width of setbacks, podium heights and the spacing of residential towers, plus other matters to ensure the delivery of excellent outcomes in design, materiality and amenity. • Feedback on Site-Specific Design Guidelines. suggested inclusion of guidance for Connection to Country, and consistency between envelopes and SOP 2030 Master Plan (Interim Metro Review).	The Concept SSDA is consistent with the SOP Master Plan (Interim Metro Review). The design for the proposed development has evolved since 2017 and design alternatives have been explored to achieve the best urban design and environmental outcomes for the site and the wider precinct. Alternatives have investigated massing options and a range of tower forms and heights. Refinements to the Site-Specific Design Guidelines respond to the advice and comments of the DAP.

Stakeholder and engagement method	Issues discussed / raised	Project response
Transport for NSW Ongoing consultation with TfNSW has informed the Concept SSDA, specifically the transport assessment requirements. The coordination meetings provide ongoing opportunity for inter-agency communication.	Commentary provided around the freight and loading strategy during construction and operation, and space planning for loading and servicing during operation.	Design changes for the loading and servicing of the station and proposed development have been incorporated.
	TfNSW provided a written submission to DPE during the SEARs process.	DPE included the TfNSW requests in the SEARs, which have been addressed in this EIS and its appendices.
	Engagement on the proposed development, with feedback provided by TfNSW on the scope to be covered by the Traffic Impact Assessment and key assumptions to be used.	The Transport and Access Report (Appendix T) responds to the advice provided and matters agreed.
City of Parramatta Council Sydney Metro presented to City of Parramatta in June 2022 providing an overview of the proposed development including the planning pathway and timeframes.	Support for continued engagement with City of Parramatta including further meetings and discussions. Council noted this is a Concept SSDA and the location of the Sydney Olympic Park metro station is fixed.	Sydney Metro will continue to work with City of Parramatta to ensure open dialogue and provide ongoing opportunities for feedback and comments.
	Concern regarding submission timeframes once the Concept SSDA is lodged.	A briefing will be provided to Council during the exhibition period for the Concept SSDA to discuss the proposal and address any questions.
Utilities services Sydney Metro has engaged with utility providers Jemena, NBN Co, Sydney Water and Ausgrid at the CSSI and Concept SSDA stages. Feasibility applications were prepared with the estimated demand of the development and indicative servicing arrangements for authority review and comment. Copies of these feasibility applications and authority responses are contained within the Utilities and Infrastructure Servicing Assessment at Appendix EE.	A response letter was received only from Sydney Water. This confirms the two sewer main connections for the proposed development; the capacity within the trunk system for potable water and recommendations for integrated water management provision via dual-pipe controls. Further consultation to the specific design responses with utility authorities will take place and will be required as part of future applications.	Where utilities and services are not provided under the CSSI approval, the provision of services for the proposed development would be the responsibility of the future developer and any connections to, or augmentation of existing services would respond to the feasibility responses and form part of the future Detailed SSDA.

5.3 Community views

The key issues raised by the community and key stakeholders are summarised in the table below. A detailed community engagement table is provided as Appendix C which details the way in which these issues have been addressed in the EIS.

Table 12 – Community views

Stakeholder and consultation method	Issues discussed/raised	Project response
Concept and Stage 1 CSSI Approval, and Stage 3 CSSI Application The Concept and Stage 1 EIS, and Stage 3 EIS were placed on public exhibition by DPE in 2020 and 2022. During the exhibition periods submissions were invited from stakeholders and the community. Sydney Metro has continued to proactively seek feedback and comment as the project has evolved.	Key issues raised by the community have included: • development and considering alternatives • need for ongoing community and stakeholder engagement • placemaking strategies and principles • transport and traffic, noise and vibration, Aboriginal heritage, non-Aboriginal heritage, visual, surface water, groundwater, contamination, flooding, air quality and biodiversity impacts • sustainability • cumulative impacts; plus • movement; integration of non-car modes with public transport modes or road network • concerns about potential restrictions to property access • Placemaking and design, public domain areas, accessibility, • common station design elements, for example, lifts, bicycle parking.	Response to Submissions Reports present responses to all issues raised in submissions and offer clarifications on some of the information presented in the EIS reports, and the potential environmental impacts of those clarifications where relevant. The reports also provide clarifications on mitigation measures. Sydney Metro West's Place Managers continue to play a vital role in managing relationships and building an understanding of the project with the local community and business.
Connecting with Country and ACHAR Targeted consultation was undertaken with the local Aboriginal community and knowledge holders, including an Aboriginal Focus Group. A copy of the ACHAR methodology was distributed to the RAPs for comment in June 2022 and the ACHAR for comment in August 2022.	Four responses were received to the draft ACHAR methodology for the project. These were consistent in confirming endorsement for the assessment methodology for the ACHAR. There was one response to the draft ACHAR. The response was supportive of the report's recommendations and explained the connection of Aboriginal communities to the land. It requested detailed design allow for interpretation and connecting to country in a culturally appropriate way.	The design to be undertaken for the detailed SSDA(s) will refer to the Design Guidelines, which encourage integration of connecting with country principles. Further, Sydney Metro piloted the Government Architect Office Connect with Country Draft Framework. This Framework should be referred to during design for the detailed SSDA(s).

Stakeholder and consultation method	Issues discussed/raised	Project response
Community and customer insights As part of its on-going community engagement, Sydney Metro has sought community and customer feedback on the following key areas: • overall sentiment about the community's local area and current developments • types of pedestrian amenities and their importance • the importance of maintaining and respecting local heritage • views on public transport integration • sentiments about proposed Sydney Metro developments in the community's local area • how people want to be engaged post-COVID-19 lockdowns.	A summary of the feedback received during preparation of the Concept SSDA is provided below: • general view that the opportunity for revitalisation and development of station precincts and transport oriented development is a positive benefit • support for increased connectivity and transport options • views that Sydney Olympic Park is underutilised when there are no major events • general sentiment that the area around the existing Sydney Trains station lacks diverse retail • support for more cafes, restaurants, a supermarket and hospitality offerings for visitors and locals • general support for the proposed building heights and scale in accordance with the Sydney Olympic Park 2030 Master Plan (Interim Review), noting there were some general concerns about planned development outcomes within the wider precinct. In addition, the following topics were raised, which primarily relate to the broader master planning approach: • parking for visitors • efficient and safe flow of people during peak times or events • guide to park attractions • encourage use of active travel modes • ensure wayfinding integrates with features and attractions beyond the precinct.	This feedback along with future engagement opportunities will continue to inform the project and be considered during the Detailed SSDA process.

5.4 Public exhibition of this Environmental Impact Statement

The NSW Department of Planning and Environment has placed this Environmental Impact Statement on public exhibition for a minimum of 28 days (as per Schedule 1 of the *Environmental Planning and Assessment Act 1979*). During the exhibition period, government agencies, stakeholders and the community can review this Environmental Impact Statement and make a written submission to the NSW Department of Planning and Environment for consideration in its assessment of this proposal.

Sydney Metro has advised stakeholders and the community of public exhibition of this Environmental Impact Statement through a range of print and digital communication channels including a newsletter delivered to properties, emails to registered parties and information provided on the Sydney Metro website and interactive portal.

Consultation activities have met the relevant statutory requirements.

5.4.1 Response to Submissions Report

Sydney Metro will prepare a Submissions Report that responds to the relevant issues raised in submissions to this Environmental Impact Statement. The Submissions Report will be made publicly available on the DPE website. Anyone making a public submission will receive a letter notifying them of the publication of the Submissions Report on the DPE website.

If changes are required as a result of the issues raised in submissions or to minimise environmental impact, these will be set out in the Submissions Report. If this is required, Sydney Metro would prepare the report to address the changes to the design and submit this for review to DPE. This report may be made available for public review.

5.5 Ongoing engagement

Sydney Metro will continue to work with key stakeholders and the local community regarding this proposal, to ensure ongoing opportunities to provide feedback.

During the planning and development phase of the project, Sydney Metro would continue to engage the local community and stakeholders via dedicated place managers. Place managers play a vital role in building and maintaining strong relationships with local communities and businesses during the planning and delivery of the project. Their key role is to engage with the community, address concerns and provide accurate and transparent information to ensure the community's understanding of Sydney Metro West and any potential impacts.

Future engagement and consultation around the planning associated with this proposal would be guided by Sydney Metro's Overarching Community Communications Strategy (OCCS) and any statutory requirements of the SSD. The OCCS includes details on the approach to:

- ongoing consultation with key stakeholders, local councils and other government agencies
- approaches and communication tools to support consultation with diverse communities; people who come from culturally and linguistically diverse backgrounds; speak languages other than English; vulnerable communities; and Aboriginal and Torres Strait Islander communities
- provision of regular updates to the nearby community and development and implementation of a community complaints and response management system.

6 Assessment of impacts

In accordance with clause 276 of the EP&A Regulation, the Planning Secretary of the DPE issued the SEARs for the preparation of this Environmental Impact Statement (EIS) on 18 February 2022. A detailed summary of the individual matters listed in the SEARs and the location of where each requirement is addressed is provided at Appendix A.

6.1 Design quality and design excellence

Sydney Metro has prepared a Sydney Metro West Design Excellence Strategy (Appendix L) and Site Specific Design Guidelines (Appendix M) to guide the future detailed design across the site. These documents provide a consistent framework for design quality and excellence across the Sydney Metro West stations and are applicable to the proposed development.

The Design Guidelines have been prepared considering the relevant Government guidelines, including:

- GANSW Better Placed
- GANSW Implementing Good Design
- GANSW Evaluating Good Design
- GANSW Greener Places
- GANSW Greener Places Design Guide
- GANSW Draft Guide for Heritage
- NSW Local Character and Place Guideline
- SOP Master Plan 2030 (Interim Metro Review)

Details on how design quality would be achieved, and the established design excellence framework are discussed separately below.

6.1.1 Design quality

Design parameters are proposed for built form, heritage, integration with the public domain and Sydney Metro station, movement and connectivity and legacy outcomes of the proposed development to ensure design quality (Appendix M).

The design outcome for the proposed development is underpinned by the following design objectives:

- ensuring an easy customer experience
- being part of a fully integrated transport system
- being a catalyst for positive change
- being responsive to distinct context and communities
- delivering an enduring and sustainable legacy for Sydney.

Design quality is also supported by the GANSW's Better Placed framework which aims to deliver good design outcomes through desired architecture, public places and environments across NSW. The framework provides best practice design processes which align with a clear set of established objectives to achieve the best possible outcomes.

The Design Guidelines (Appendix M) provide place and design principles in accordance with the GANSW's Better Placed framework, including:

- Support the creation of a new town centre and reinforce Sydney Olympic Park as a premier destination for major events in line with the principles outlined in the Sydney Olympic Park 2030 masterplan.
- Deliver a station and public domain designed to support day-to-day activities and flexibility to accommodate major events and periodic large crowds.
- Facilitate east-west access from Olympic Boulevard to the station and town centre to accommodate event crowds.
- Enhance permeability with new pedestrian links and connections to places within the wider station precinct supported by active street frontages, and new open spaces.
- Ensure the station provides easy, safe and intuitive interchange with other modes of transport, during day-to-day operation and events.

A response to the seven applicable objectives is described in detail in the Design Guidelines (Appendix M) and summarised below.

Better Fit: Contextual, local and of its place

The proposed development responds to the SOP Master Plan 2030 (Interim Metro Review) vision by providing activation to every interface of the proposed development. A vibrant human-scale public domain is created along the promenade and laneway where the main entrances to the station and proposed building envelopes are located via adjoining small-scale plazas.

A series of retail opportunities have been identified to support the development of a vibrant town centre in the future.

Better Performance: Sustainable, adaptable and durable

Passive design and lower energy opportunities have been explored through the design, with 70% of the apartments having dual aspect façade orientation. Most of the apartments are arranged around north-eastern and north-western façades providing high solar access to approximately 80% of living areas.

The proposed built form opens towards the east allowing a cool summer breeze to provide natural ventilation for the precinct on summer days, and blocking cold western winds during winter months.

Specific sustainability targets and rating requirements for the site are outlined in the ESD Report (Appendix S). Minimum rating requirements are set to 5 Star Green Star Buildings or equivalent for both commercial and residential components of the proposal.

Better for Community: Inclusive, connected and diverse

The proposal includes retail, commercial and residential uses that will provide multiple opportunities for social integration. Open public spaces will create opportunities for social engagement and assist deliver a sense of community connection.

A mix of apartment typologies provides housing choices for different demographics and living needs. The Design Guidelines (Appendix M) detail the access and connectivity solutions, including a prioritised pedestrian walkway through the Central Precinct as this will enable easy pedestrian connection between different transport services.

Better for People: Safe, comfortable and liveable

The proposed diversified uses would provide 24-hours surveillance to the public domain, buildings and metro station entries. The proposed concept podium envelopes would be broken into finer grain elements with the tower forms stepping back, opening the promenade to the sky and allow for passive surveillance in night hours.

Retail uses along the street would provide vibrant activities throughout the day. Strategically located landscaping elements and the use of resistant materials would deter vandalism and graffiti on ground-level walls.

Better Working: Functional, effective and fit for purpose

The proposal has been designed in a coordinated manner alongside the station development, to provide a development which would work seamlessly between the mixed uses.

Better Value: Creating and adding value

The proposal would create value and quality of life for future residents, visitors and office workers at the site. The proposal would allow for a substantial boost to housing supply in Sydney and would deliver approximately 316 dwellings at the site.

Better Look and Feel: Engaging, inviting and attractive

The proposal would accommodate a diverse mix of uses which would create an active precinct and engaged community. Extensive landscaping and public domain improvements would create a vibrant and engaging precinct.

In summary, the Design Guidelines and the GANSW's frameworks provide robust guidance to achieving high quality design responses. Sydney Metro's Design Excellence Strategy and Design Guidelines have been prepared in accordance with the *State Environmental Planning Policy (Precincts – Central River City) 2021* design excellence provisions and Better Placed.

Any future Detailed SSDA(s) will need to consider these Design Guidelines to ensure that future development achieves the vision for the site as established in this Concept SSDA.

6.1.2 Design Excellence Strategy

A Design Excellence Strategy (Appendix L) has been prepared to establish a consistent framework for how Sydney Metro would deliver design excellence across the site. The Strategy builds on Sydney Metro's existing design development and review processes and has been developed in consultation with the GANSW.

The Strategy draws from the GANSW's Better Placed framework and is consistent with the underlying principles of the GANSW's Design Excellence Competition Guidelines and SOPA's Design Excellence Policy.

SOPA has adopted a Design Excellence Policy endorsed by the GANSW in February 2018. As agreed with SOPA, it is intended to substitute the competitive design process requirements of SOPA's Design Excellence Policy for the built form which is integrated with CSSI (being Building 1), with the design excellence process set out in the Design Excellence Strategy.

As outlined in Section 6 of the Design Excellence Strategy (Appendix L), the full integration of stations and development leads to challenges from a design perspective. In particular:

- Station elements extend into aboveground podiums which form an integral component of the tower over and need careful attention to ensure the building 'reads as a whole' from early design stages through to resolution of reference and final designs.
- The location and integration of station elements with core structural requirements for the development above constrains design freedom and requires design teams for stations and development to work closely to ensure metro operations are not compromised.

- Designs for the station and development need to take into consideration and make provision for delivery strategies where stations and development are built separately.

This approach allows for the evolution of designs through a process that requires station and development teams to work closely for years from early concepts to reference designs through the tender phase.

The iterative design evaluation process through the Design Excellence Evaluation Panel (DEEP) embeds competitive tension and introduces an approach whereby designs for development can benefit from guidance provided by the independent expert panel to ensure that excellence can be achieved.

As Buildings 2 and 3 are adjacent to the new metro station (and not directly integrated with the critical state significant infrastructure), SOPA's Design Excellence Policy will still apply.

The Design Excellence Strategy was endorsed by GANSW on 19 August 2022.

The Design Excellence Strategy is structured around the operation of independent design review panels that support the design development process for the architectural, urban design and infrastructure elements of each precinct throughout three phases of the project.

- Phase 1: Defining expectations
- Phase 2: Reference design and competitive selection
- Phase 3: Design integrity

The Design Excellence Strategy includes the establishment of two independent design review panels chaired by the NSW Government Architect:

- Design Advisory Panel (DAP) covers Phase 1 and applies to all station precincts to guide concept design of stations, precincts and development. It is during Phase 1 that SSI applications and Concept SSD applications are developed, and approvals sought.
- Design Review Panel (DRP) covers Phases 2 and 3 and applies as follows.

Phase 2 guides reference designs for stations, precincts and development; facilitates a competitive process for Sydney Metro's procurement strategies for detailed design of stations, precincts and development; responds to statutory requirements for design excellence in environmental planning instruments and implements a rigorous design evaluation process.

Phase 2 also includes the establishment of separate Sydney Metro managed panels that may comprise select DRP members to review and provide advice on the design evaluation of tender submissions. The DEEP will facilitate the achievement of design excellence as part of the competitive selection process for Detailed SSDA(s) while the Tender Design Review Panel (TDRP) will provide guidance on aspects of the CSSI and contract packages.

Phase 3 ensures design integrity is achieved and demonstrated in the design and delivery of stations and development following contract award.

Sydney Metro are seeking endorsement from the Secretary (pursuant to Appendix 4, clause 30 of Central River City SEPP) for the DEEP process to be utilised in lieu of the currently approved Sydney Olympic Park design competition procedures for Building 1, while Buildings 2 and 3 will proceed under the Sydney Olympic Park design competition procedures.

6.2 Built form and urban design

The Built Form and Urban Design Report at Appendix E and the indicative reference scheme demonstrates the type of development outcome which can be achieved at the site.

The indicative reference design demonstrates that the building envelopes are capable of creating a successful place-based outcome that can integrate transport infrastructure, open space, ground plane retail, commercial and residential land uses.

Specifically, the indicative reference design demonstrates the capacity to provide a fine-grain commercial offering within the building podium which will cater for the needs of the future community. The active frontages along the laneways and streets will support a vibrant town centre while the tower design will create a distinctive skyline that responds to the evolving height, scale and character of the area.

It is noted that the proposed envelopes have also been separately assessed in regard to the various potential impacts which may arise from the built form, including:

- Residential amenity – Further discussed at Section 6.3.1
- Overshadowing and solar access impact – Further discussed at Section 6.3.2 and Section 6.3.3
- Reflectivity impact – Further discussed at Section 6.3.4
- Wind impact – Further discussed at Section 6.3.5
- Visual and view impact – Further discussed at Section 6.4.

6.2.1 Podium element

The proposed Building 2 and 3 podiums have a maximum height of 4 storeys (up to 18m). The street wall and podium heights have been designed to ensure that the height of the street walls make a significant contribution to the experience of place and add uniformity of character on streetscapes and within the public domain. The Building 1 podium would be covered by the separate Stage 3 CSSI approval.

The proposed Concept SSDA seeks approval for a 4 storey podium up to 18m for Buildings 2 and Building 3 with the tower above setback a minimum 2.5m to all edges including the promenade. The podiums would include commercial and retail uses that will cater for the needs of the future community.

The podiums have been designed to integrate with the public domain vision to create active frontages at the human scale. The podiums would be connected to the promenade and through site link allowing for vertical activation and direct solar access to the ground plane.

The commercial podium has been designed to support a range of future uses that would ensure activation throughout the day and evening. This in turn would create lively and safe spaces for pedestrians.

6.2.2 Tower elements

The height of the envelopes plays a key role in defining the scale of the proposed buildings and forming the new Sydney Olympic Park skyline.

The height of Building 1 is limited by the structural capability of the metro station. Therefore, a maximum of 21 storeys (RL 119.00) is proposed which is below the 45 storey maximum allowance under the SOP Master Plan 2030 (Interim Metro Review). The Building 1 tower setbacks vary and include a 2.5m primary setback and nil secondary setback to Precinct Street B (due to structural requirements).

The height of Building 2 has been set to 27 storeys (RL 114.20) which is below the 45 storey maximum allowance under the SOP Master Plan 2030 (Interim Metro Review).

A 2.5m setback requirement would be achieved to Precinct Street A, future town plaza, and the promenade. No setback is proposed to the through-site-link, in accordance with the SOP Master Plan 2030 (Interim Metro Review).

Building 3 has been designed in accordance with the controls set by SOPA along Olympic Boulevard. Building 3 will have a maximum height of 45 storeys (RL 171.00) and will open up to views over the Parramatta River towards the Blue Mountains. A 2.5m setback requirement would be achieved on all frontages, including Precinct Street A, Figtree Drive, and the promenade.

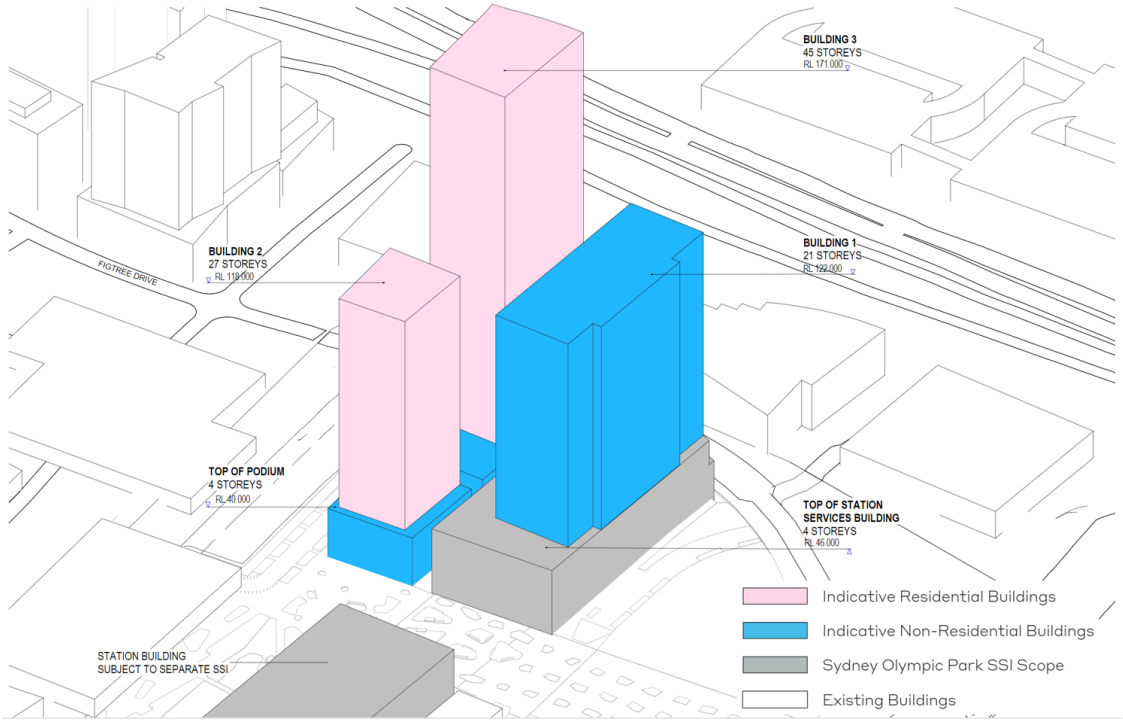


Figure 6-1 Proposed building heights

The design of the three buildings creates a human scale environment around the central park area, reflecting the scale of heritage-listed Abattoir Precinct to the north.

The building envelopes have been designed to maximise building separation to minimise privacy issues and increase solar access and outlook for all apartments, as further discussed in Section 6.3.1 and Section 6.3.3. The proposed heights create a suitable transition from the heritage listed precinct to the town centre.

6.3 Environmental amenity

6.3.1 Residential amenity

The Built Form and Urban Design Report at Appendix E and the indicative reference scheme demonstrates potential land use distribution and layout within the building envelopes for which approval is sought.

The indicative reference scheme demonstrates how a development may be undertaken within the proposed building envelopes and achieve high levels of residential amenity.

An assessment of the indicative reference scheme against the key amenity criteria contained in the Apartment Design Guide (ADG) is discussed in the sections below, and further demonstrated in the SEPP 65 Report (Appendix J). The SEPP 65 Report

also demonstrates how each of the nine principles which underpin SEPP 65 have been addressed as part of the Concept SSDA.

Visual privacy

The ADG requires separation between adjacent windows and balconies to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:

- 24m between habitable rooms / balconies
- 18m between habitable and non-habitable rooms
- 12m between non-habitable rooms

The indicative reference scheme achieves compliance with the minimum separation requirements, specifically:

- A minimum of 24m is proposed between Buildings 1, 2 and 3
- A minimum of 24m is proposed between the proposed buildings and adjacent sites (Site 48 and Site 46).

Therefore, the concept design scheme is compliant with these requirements under the ADG.

Solar access

The ADG requires that living rooms and private open space of at least 70% of apartments are to receive a minimum of two hours direct sunlight between 9am and 3pm in mid-winter. The ADG also seeks to ensure that a maximum of 15% of apartments proposed in a building receive no direct sunlight between 9am and 3pm at mid-winter.

The proposed building envelopes demonstrate that the indicative reference scheme is capable of providing a minimum of two hours of sunlight to living areas of 75% of dwellings in Building 2 and 80% of dwellings in Building 3; and exceeds minimum requirements under the ADG. Further, the indicative reference scheme demonstrates that the proposed envelopes are capable of not exceeding the maximum 15% of apartments with no direct sunlight.

Natural ventilation

The indicative reference scheme has been developed to demonstrate ADG compliance can be achieved for natural ventilation. Design Criteria 4B-3 requires:

1. *At least 60 percent of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed*
2. *Overall depth of a cross-over or cross-through apartment does not exceed 18 metres, measured glass line to glass line"*

The indicative reference scheme achieves more than 60% natural cross ventilation.

75% apartments (15 apartments out of 20 apartments per floor) in the first nine storeys (levels 4 to 8) of Building 2 are cross-ventilated, while there are 66% apartments (20 apartments out of 30 apartments per floor) in Building 3.

Furthermore, the reference scheme shows that all apartments including those at the first nine storeys have balconies and can therefore be adequately ventilated.

Communal open space

A minimum area of communal open space of 25% of the site area is required under the ADG. Of the 25%, a minimum of 50% direct sunlight to the principal useable part of the communal open space is required for a minimum of 2 hours between 9am and 3pm on 21 June (mid-winter).

The indicative reference scheme illustrates communal open space located on both tower rooftops, at Level 25 plant in Building 2, and on the podium rooftops.

This combined space is equal to 31% of the site area and more than 50% of its combined area receives 2 hours or more sunlight during the Winter Solstice between 9am and 3pm. Therefore, the reference scheme complies with this requirement under the ADG.

Apartment mix and size

The apartment mix and size would be determined through the detailed design process in the Detailed SSDA(s). Notwithstanding, the indicative reference scheme demonstrates how the envelopes can achieve a range of apartment types and scales. Table 13 provides an overview of the indicative apartment mix able to be achieved at the site. The indicative apartment sizes comply with the minimum requirements of Objective 4D-1 of the ADG.

Table 13 – Indicative apartment mix

Apartment Type	Number of Apartments	Proportion	Size Range
Studio/1-bedroom	60 apartments	19%	Approx. 61m^2
2-bedroom	180 apartments	57%	Approx. 81m^2 to 101m^2
3-bedroom	76 apartments	24%	Approx. 116m^2 to 126m^2

Lighting

The site is an area of medium district brightness and would be of low sensitivity. This is due to the concentration of hotels and low-rise commercial buildings in this location and adjacent residential towers. Brightly lit sporting, recreational, entertainment and transport facilities nearby, such as the ANZ Stadium and the existing Olympic Park Station, contribute to the high night-time lighting levels.

Additional lighting from the future buildings on the site would be seen in an area of high district brightness where there are brightly lit streets, public domain and other public transport facilities. Lighting impacts at the site would be subject to a future detailed SSDA and would be consistent with the surrounding brightly lit night scene.

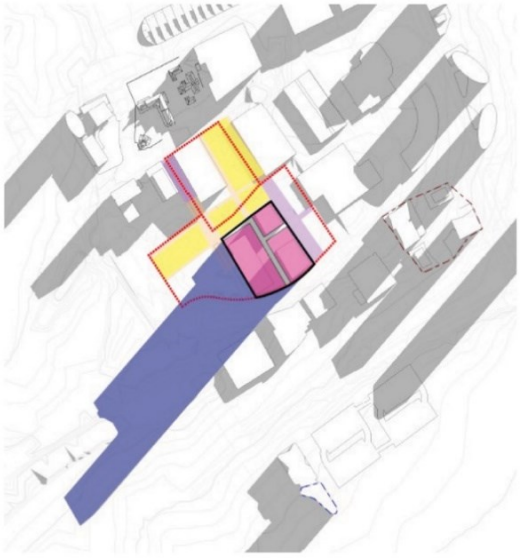
6.3.2 Overshadowing

A Shadow Impact Analysis (Appendix K) has been prepared to demonstrate the overshadowing impacts of the proposal on surrounding properties and public spaces (during summer and winter solstice and spring and autumn equinox). The cumulative impact of the existing and future buildings has also been assessed.

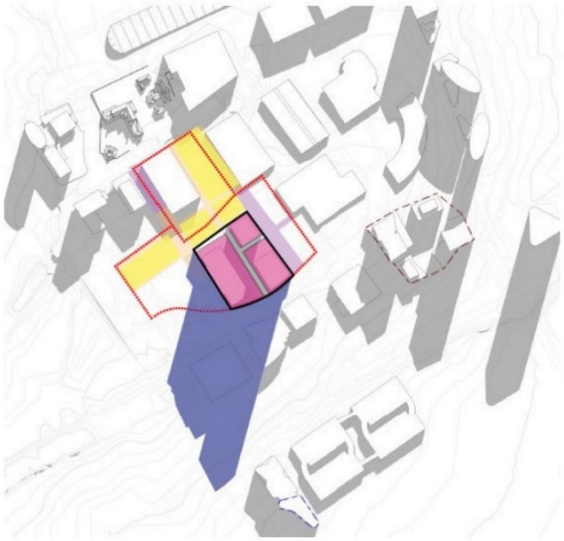
Overshadowing impacts have been prepared against the existing context and future possible context (based on SOP Master Plan 2030 (Interim Metro Review)).

As outlined in the below extracts, the proposed development will not have an overshadowing impact on key areas of public open space defined under the SOP Master Plan 2030 (Interim Metro Review).

Additionally, the proposed development will not significantly overshadow existing, or future residential developments able to be undertaken in accordance with the SOP Master Plan 2030 (Interim Metro Review). The proposed building envelopes and their subsequent overshadowing impacts have been considered by SOPA in their preparation of the SOP Master Plan 2030 (Interim Metro Review). The proposed building envelopes are fully compliant with the SOP Master Plan 2030 (Interim Metro Review). The figures below show the anticipated overshadowing which will result from the proposal in the existing context and the future context (In accordance with the SOP Master Plan 2030 (Interim Metro Review).

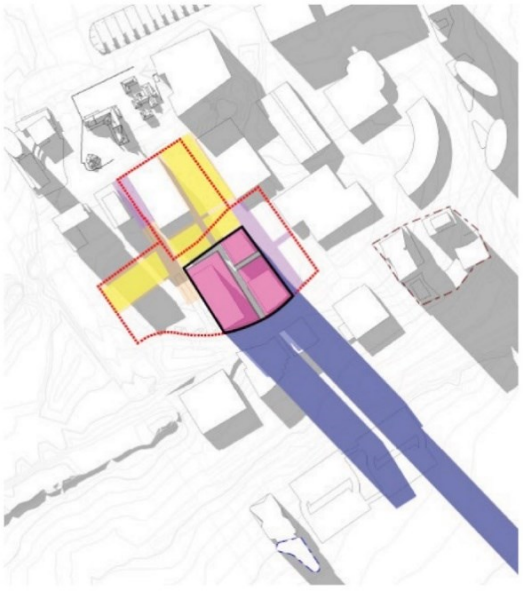


Picture 1 9am Overshadowing



Picture 2 11am Overshadowing

Picture 3 1pm Overshadowing



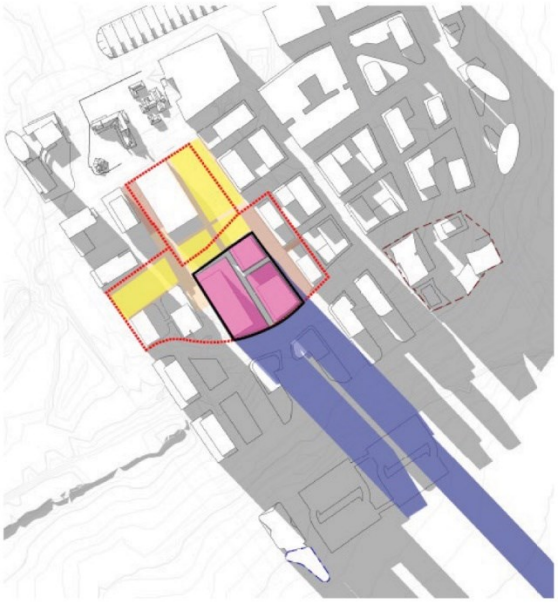
Picture 4 3pm Overshadowing

Figure 6-2 Winter solstice overshadowing impacts (existing condition)

Picture 5 9am Overshadowing

Picture 6 11am Overshadowing

Picture 7 1pm Overshadowing



Picture 8 3pm Overshadowing

Figure 6-3 Winter solstice overshadowing impacts (future condition)

6.3.3 Solar access

A Solar Impact Study (Appendix O) has been prepared to consider the solar access controls outlined in the SOP Master Plan 2030 (Interim Metro Review) and the SOP Master Plan 2030 (2018 Review).

Specifically, Section 8.7 Solar Access of the SOP Master Plan 2030 (Interim Metro Review) requires:

> *"The prescribed proportions of primary public spaces within the Metro Site Area are to achieve a minimum of 2 hours of sunlight between 9am and 3pm at the winter solstice (21 June)."*

The prescribed proportions of primary public open space within the SOP Master Plan 2030 (Interim Metro Review) are identified in Figure 6-4 below.

In addition, the SOP Master Plan 2030 (2018 Review), Appendix A – Development Requirements, Solar Impact Analysis requires:

> *"For any building over 25m, describe the impact of development on solar access to surrounding development to a radius of 100m"*

Figure 6-4 Solar access requirements to public open space (SOP Master Plan 2030 - Interim Metro Review)

Public spaces solar access

Figure 6-5 illustrates that the proposed development does not negatively impact on the primary public spaces identified in the metro site area.

Table 14 demonstrates that the required proportion of primary public spaces maintains a minimum of 2 hours of sunlight between 9:00am and 3:00pm at the winter

solstice. The proportion of the primary public spaces that achieve the solar access requirements when considering the proposed development is also presented.

Overall, the proposed development demonstrates an improvement to the solar access performance of the primary public spaces (identified in Figure 6-5 below) compared to the required percentages.

Table 14 – Solar access performance of the primary public spaces

Public Space	Required	Achieved
Central Urban Park	75%	100%
West End Plaza	60%	89%
Central Plaza	55%	92%
East End Plaza	90%	100%

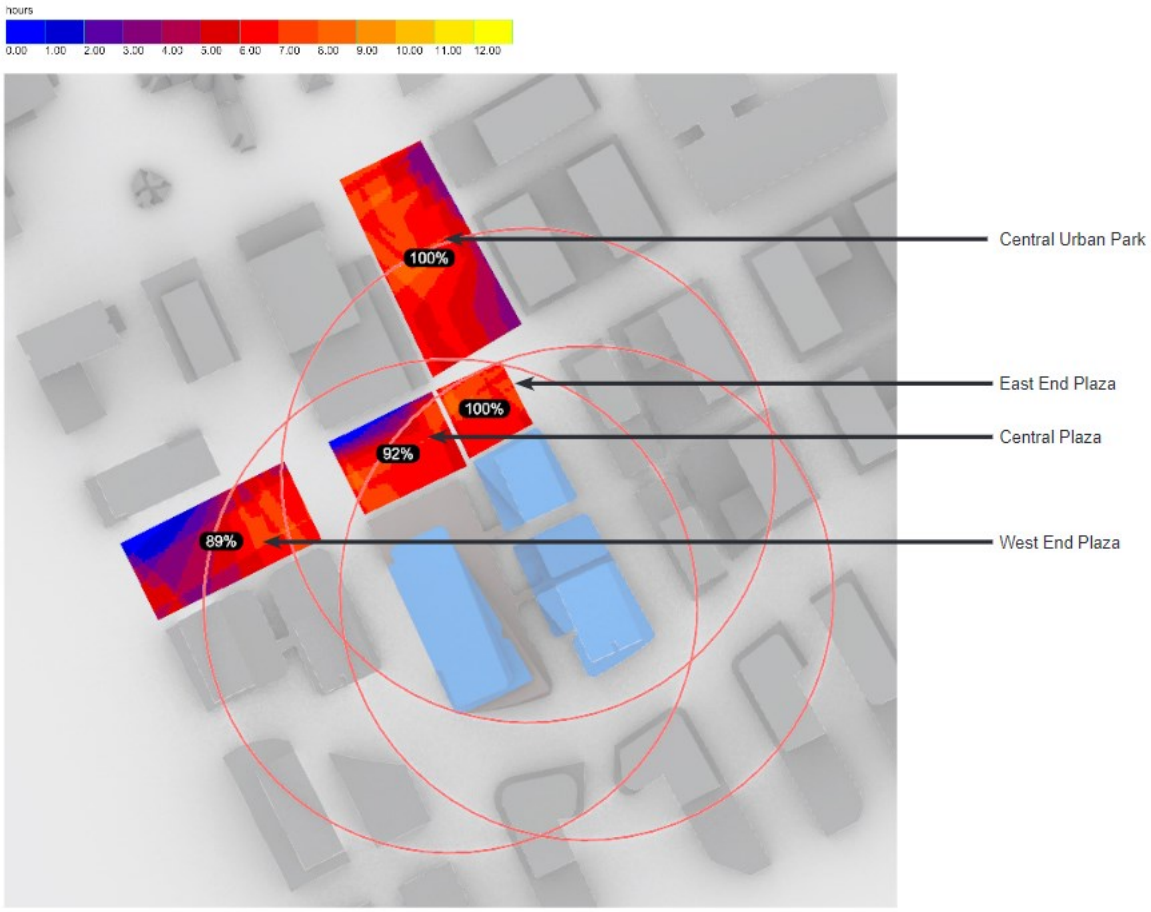


Figure 6-5 Solar access achieved to public open space

Surrounding development solar access

Given the proposed development is over 25m in height, an assessment of the impacts of the development on solar access to surrounding development to a radius of 100m is required.

Figure 6-6 illustrates the comparison between the existing context within 100m radius of the proposed development site and the future context within a 100m radius considering the SOP Master Plan 2030 (Interim Metro Review).

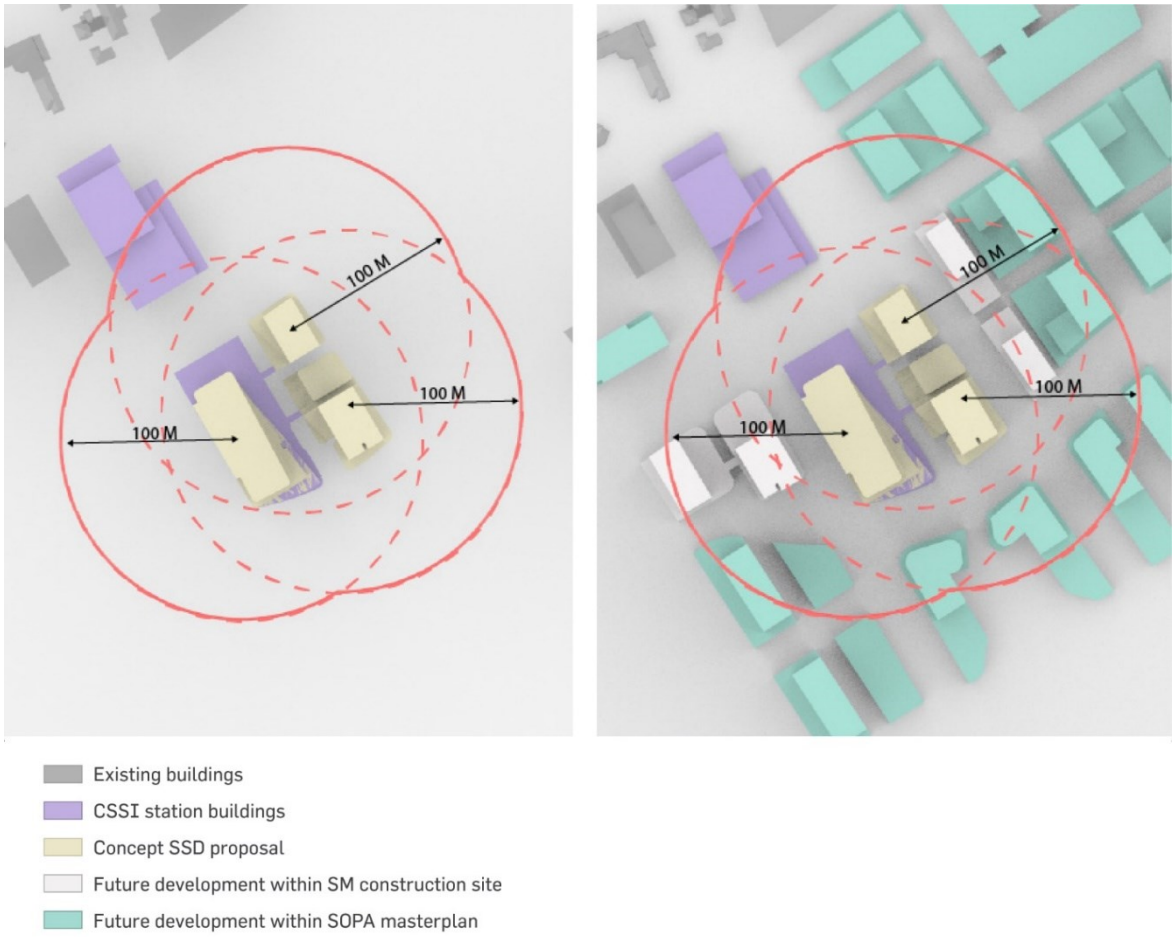


Figure 6-6 SSD scope within the existing context compared to potential future development envisaged by SOP Master Plan 2030 (Interim Metro Review)

An assessment between the baseline solar access performance of the SOP Master Plan 2030 (Interim Metro Review) against the proposed development demonstrates that the proposed development has a negligible impact on the solar access performance, as illustrated in the following figures.

Overall, adequate solar access is maintained to the surrounding public spaces and adjoining development sites (within 100m). It is noted that the proposal improves solar access to adjoining properties and the public domain when compared to a height compliant scheme, as Buildings 1 and 2 are significantly below the 45 storey height outlined in the SOP Master Plan (Interim Metro Review).

Figure 6-7 below shows the baseline solar impact of the SOP Master Plan (Interim Metro Review) scheme without the proposed development. Figure 6-8 shows the impact of the SSD scope on the Sydney Olympic Park context.

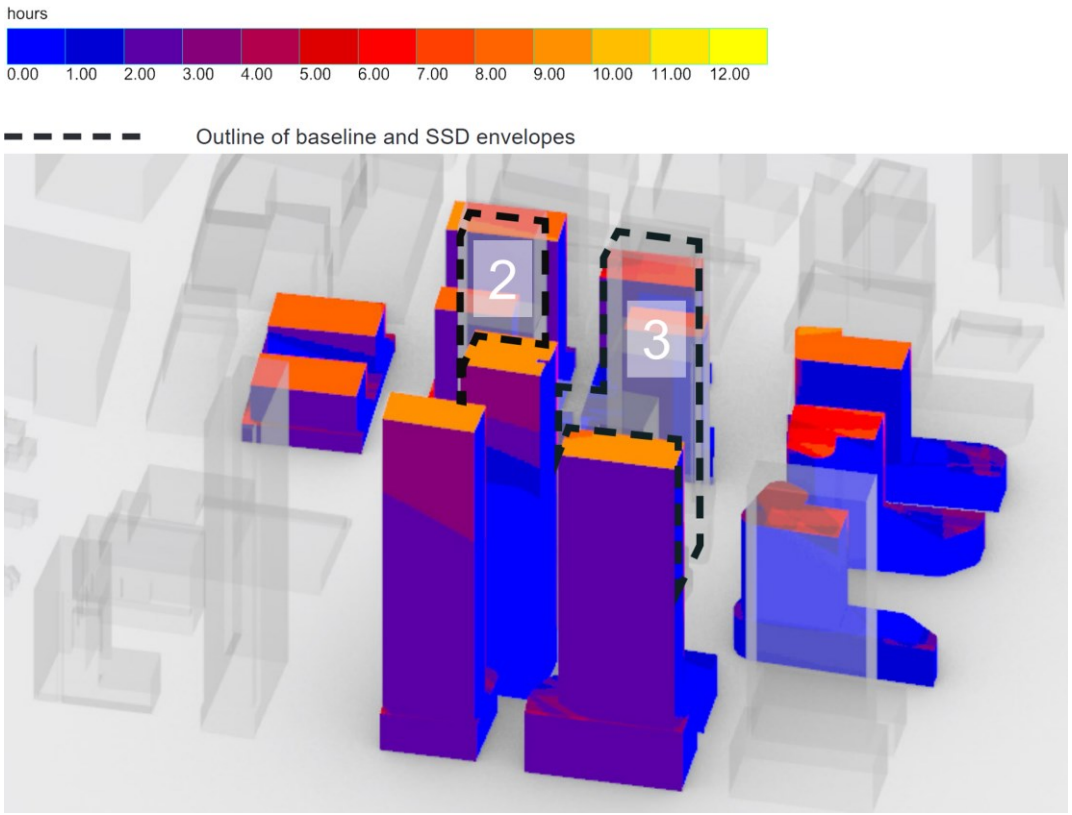


Figure 6-7 Baseline solar access performance of the SOP Master Plan 2030 (2018 Review) context – south west perspective

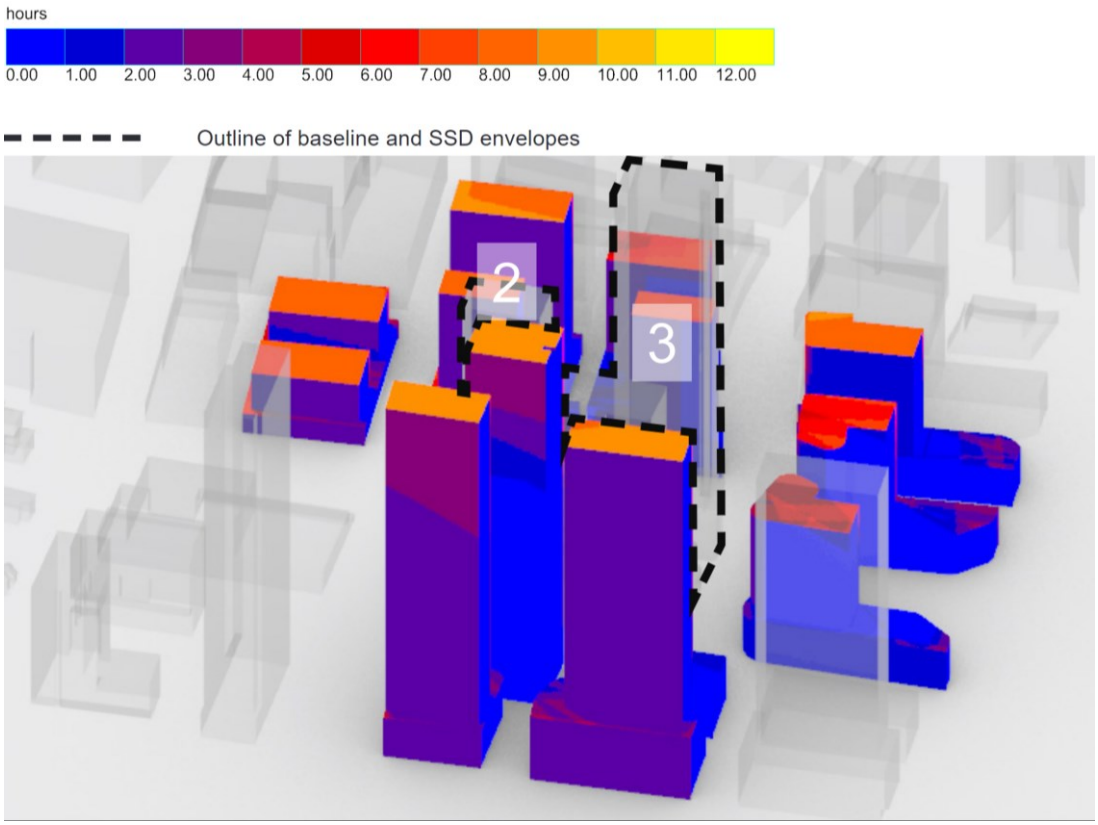


Figure 6-8 SSD scope solar access performance on the SOP Master Plan 2030 (2018 Review) context – south west perspective

Figure 6-9 below shows the baseline solar impact of the SOP Master Plan scheme without the proposed development. Figure 6-10 shows the impact of the SSD scope on the Sydney Olympic Park context.

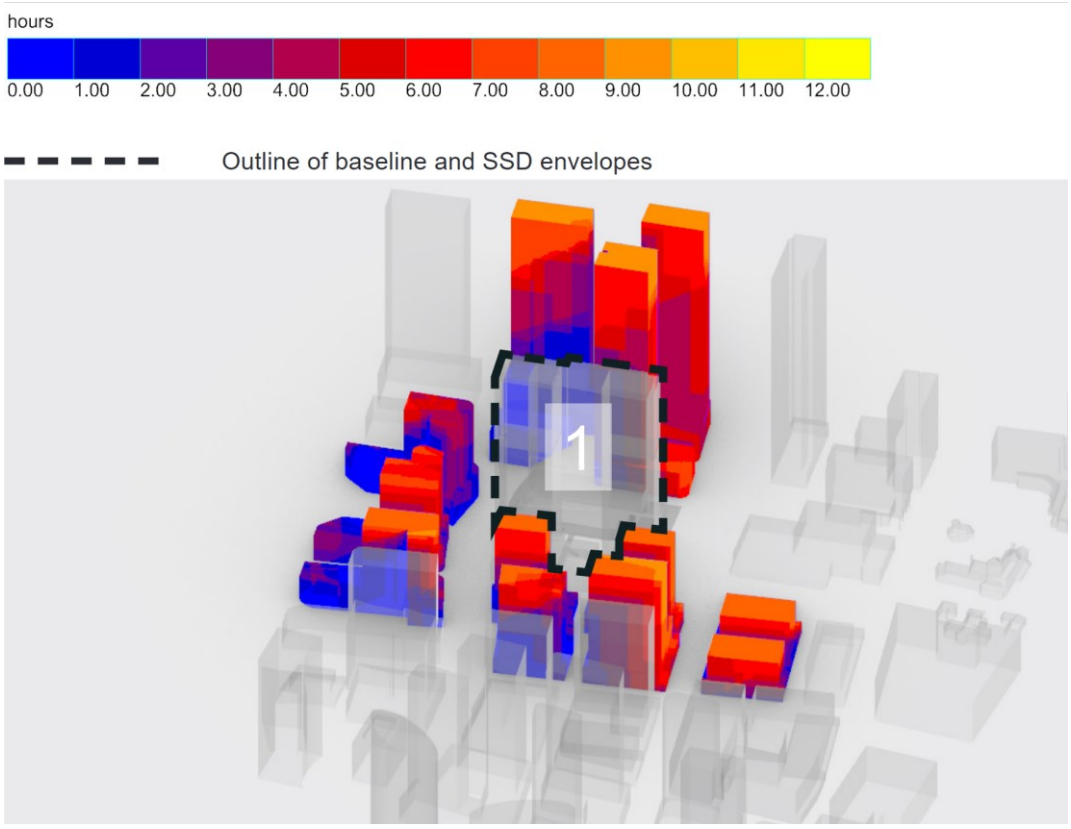


Figure 6-9 Baseline solar access impact of the SOP Master Plan 2030 (2018 Review) context – north east perspective

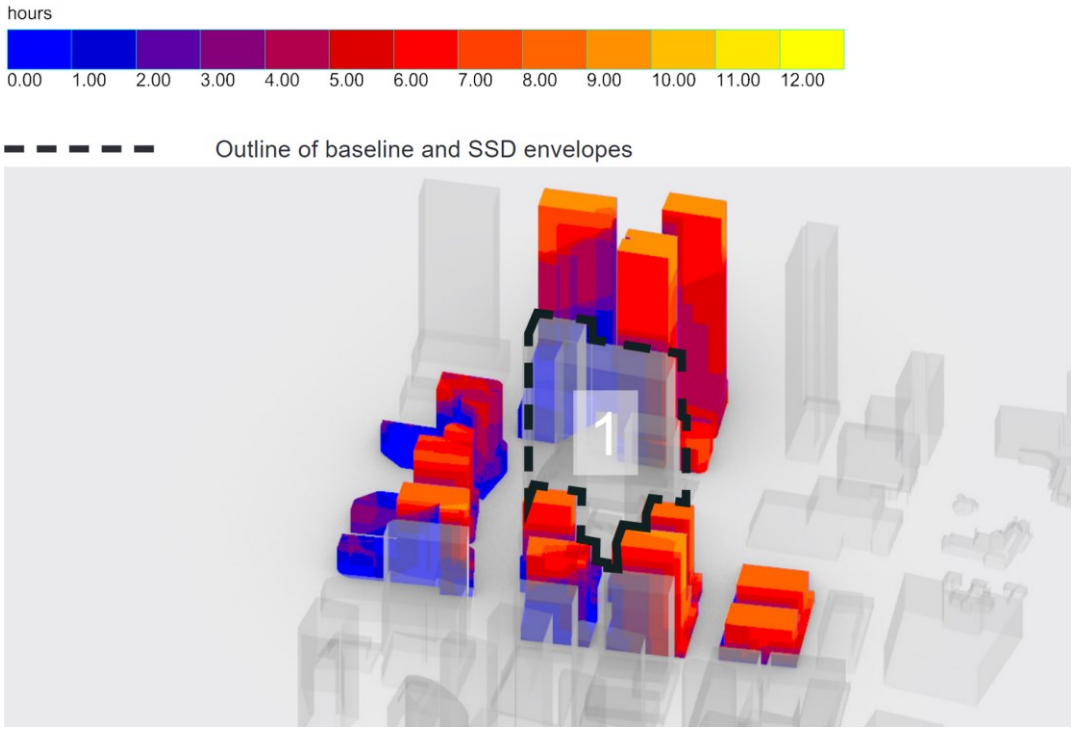


Figure 6-10 SSD scope solar access impact on the SOP Master Plan 2030 (2018 Review) context – north east perspective

In summary, the figures above demonstrate that the proposed development has no net impact on the solar access performance of the SOP Master Plan 2030 (2018 Review) development context.

6.3.4 Reflectivity

A Reflectivity Impact Assessment (Appendix P) has been prepared to assess the proposal for any glare resulting from sun light reflecting off the façade and any impact on vehicles and pedestrians moving around the site and/or nearby roads.

Methodology

The Reflectivity Assessment has been prepared in accordance with the method outlined by Hassall (1991) of the University of New South Wales, which has been widely used to assess reflections off building projects in Sydney.

The analysis assumes the facades are entirely glass without any obstructions by way of external elements, to understand the risk of glare hazard on surrounding roads and pedestrians.

Glare analysis simulations were completed across six different local road routes and multiple pedestrian locations centred around the region of interest. Luminescence values across the year are calculated and, if in exceedance of the 500 cd/m2 threshold are presented for each route and pedestrian location for Site 47.

Assessment

The glare analysis simulations across six different local road routes and pedestrian locations showed seven instances where risk of disability glare is present. Given that pedestrians are likely able to move and/or look away from the glare source, risk of disabling glare affecting pedestrians is low.

Two of the proposed routes had assessment locations that were expected to exceed the 500 cd/m^2 limit at points along the route. The routes that are expected to pose a glare risk are:

- Route 3: Drivers travelling west-south-west along Figtree Drive
- Route 4: Drivers travelling east along Figtree Drive.

Mitigation measures

Implementation of several mitigation strategies will reduce impact of disabling glare to at-risk drivers and people utilising the surrounding precinct. The following mitigative strategies would be further explored during preparation of the Detailed SSDA(s):

- Using a less reflective glazing to reduce the amount of light that is reflected from the façade.
- Using a non-reflective material or materials with increased roughness to control the impact of reflections.
- Introducing a non-reflective structure, design, or landscaping that would shield the glazed façade and help to control the impact of reflections.
- Incorporating different built forms to help disperse light reflections. Concave-built forms should be avoided as these will instead concentrate sunlight, exacerbating the glare risk.

6.3.5 Wind impacts

A Pedestrian Wind Assessment has been provided at Appendix Q. The Pedestrian Wind Assessment provides a qualitative assessment of the likely impacts of the proposed building envelopes on local pedestrian-level wind conditions.

The wind tunnel results form the basis for the assessment, which has been made against the industry-standard Lawson comfort criteria. The wind tunnel model and test were undertaken in accordance with relevant Australian standards and industry best-practice guidelines.

Methodology

The Lawson comfort criteria defines comfort wind speeds as the exceedance of threshold wind speeds occurring less than 5% of the time (i.e., 95th percentile wind speeds). The value of 5% has been established as giving a reasonable allowance for extreme and relatively infrequent winds that are tolerable within each category.

The development, surrounding terrain, local built environment and approach flow were modelled at the necessary accuracy to satisfy the AWES-QAM-1-2019. Atmospheric wind was simulated according to AS/NZS 1170.2:2011 profiles and the local wind environment modelled via statistical analysis of Bureau of Meteorology (BOM) historical weather data.

Assessment

The results of the assessment indicate that wind speeds are generally compliant with the intended usage of each area of the proposed development, when assessed against the Lawson comfort criteria.

However, there are some areas that will require further mitigation to ensure that the wind conditions are suitable for their intended use. These areas of concern are located around the proposed retail frontages on the northeast corners of Buildings 2 and 3. These areas do not meet the Lawson siting criteria without appropriate mitigation measures being implemented.

Mitigation measures

Based on the wind tunnel results, some areas will require wind treatments to ensure the desired comfort and safety criterion are achieved. The following mitigative strategies would be further explored during preparation of the Detailed SSDA(s):

- Fixed or retractable canopies or awnings to protect patrons.
- Balustrading along the top of the podiums alongside the east-west through site link to funnel along the side of the buildings and away from the pedestrian link.
- Landscape screening in critical positions. These trees would need to be mature and evergreen to be an effective mitigation strategy.
- Roughing elements such as banners to diffuse the energy contained in the wind.

6.4 Visual impact

Overview

A Visual Impact Assessment (VIA) has been prepared to assess the potential visual impacts of the proposed development (Appendix R). The VIA details the view impacts considering the current site conditions and the proposed site situation. The VIA methodology is separated into three stages, as summarised below:

- assessment of visual effects on baseline factors
- assessment of visual effects and visual impacts
- significance of residual visual impact on existing and future character

The VIA establishes the visual character of the site and its immediate surrounds to be used as a baseline factor against which to judge the level of change caused by the proposed development.

Methodology

The methodology employed for the VIA is based on a combination of established methods used in NSW including the Guideline for landscape character and visual impact assessment, Environmental Impact Assessment practice note EIA -NO4 prepared by the Roads and Maritime Services December 2018 (RMS LCIA) and research developed by Dr Richard Lamb (Richard Lamb and Associates (RLA)).

Although the content and purpose of the RMS LCIA is to assess the impact on the aggregate of an area's built, natural and cultural character or sense of place rather than solely on views, it provides useful guidance as to the logic and process of VIA.

The methodology identifies objective information about the existing visual environment, analyses the extent of visual effects on those baseline characteristics and unlike other methods, considers the importance of additional relevant information including view place sensitivity, compatibility and visual absorption etc. Separating objective facts from subjective opinion provides a robust and comprehensive matrix for analysis and final assessment of visual impacts.

Existing environment

The surrounding visual context of Sydney Olympic Park includes a developed core with a wide range of large floor plate commercial buildings as well as high density residential and hotel developments. This core is surrounded by large sporting facilities including stadium and event structures and large areas of paved and soft open space including plazas, parklands, and environmental conservation lands.

The wider visual context includes significant areas of open space, including wetlands, Sydney Olympic Park facilities and Bicentennial Park. Within the wider visual context, particularly to the north of Sydney Olympic Park are large areas of wetlands and a number of waterways including Haslams Creek, Homebush Bay and the Parramatta River.

Assessment

A visual catchment analysis has been prepared to determine which elements of the proposal may be visible to surrounding areas. The extent of the visual catchment is illustrated in viewshed map (Figure 6-11).

The viewshed map concludes that the upper most part the proposed Building 2 and Building 3 are likely to be visible dependent on intervening built form and vegetation, from distant locations including large areas of Sydney Olympic Park, Bicentennial Park, Newington, Meadowbank, Putney, and Rhodes.

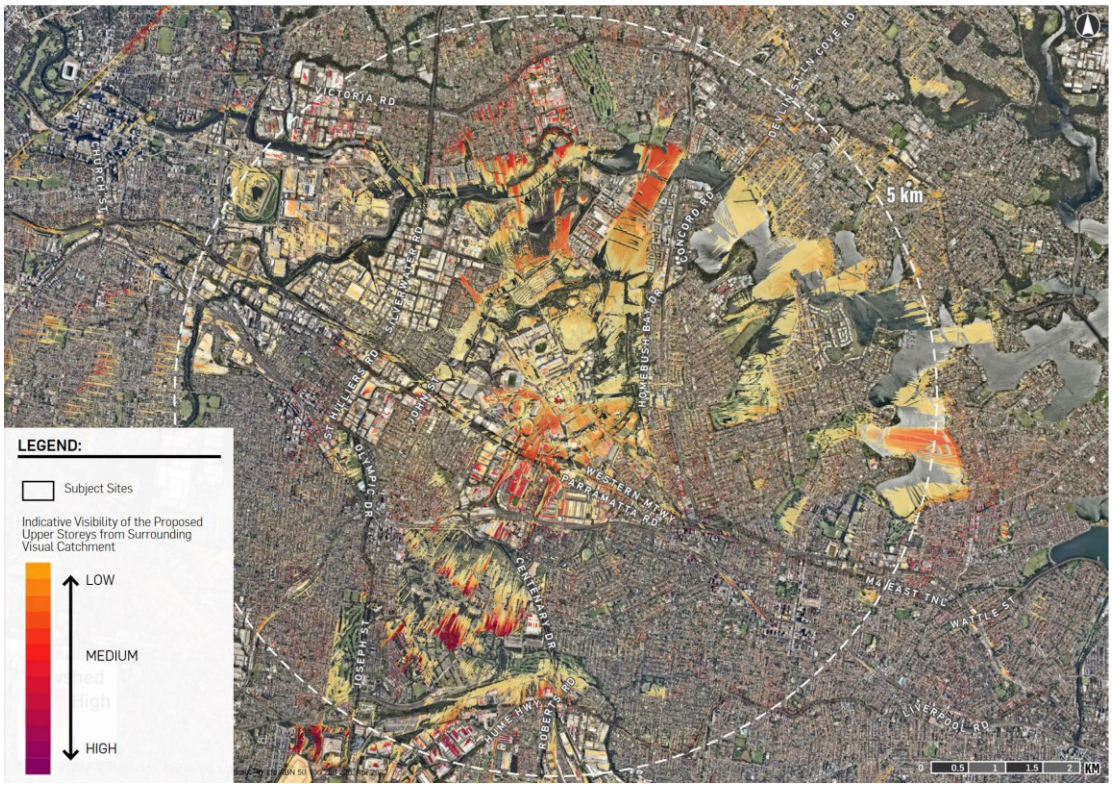


Figure 6-11 Viewshed map showing the indicative visibility of the upper storeys of the proposed envelopes from surrounds

In addition to a viewshed analysis, a range of views have been assessed including close, medium and distant views so that a representative sample of the types of views that are likely to be experienced by the public are considered. The ten views chosen to be assessed are outlined in Figure 6-12.

Figure 6-12 View location map

Of the ten views analysed, the visual impact of one view was rated as medium, while the remaining nine views were rated as either low or negligible.

View 9 (from the corner of Showground Road and Murray Rose Avenue) has been identified as a medium visual impact, as the proposal will add a new contemporary built form into the view, as shown in Figure 6-13. However, the proposal does not block heritage façades or views to heritage items. The proposed envelopes do not create any significant view blocking effects.

The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline.

Figure 6-13 Proposed visual impacts from Showground Road and Murray Avenue

In summary, the proposed development creates medium to low visual effects on the majority of baseline factors such as visual character, scenic quality and view place sensitivity from public domain view locations in most views.

The built forms proposed are not dissimilar in character, height or form to those within the surrounding visual context and the emerging context under the SOP Master Plan 2030 (Interim Metro Review).

From distant views, the proposal is viewed within a wide visual composition amongst existing buildings, which reduces the visibility and visual impact of the proposal. In this regard, the significance of the visual change (impact) was rated as medium or lower in all views, with the majority rating being low.

The visual impact of the proposed development is considered acceptable, considering the context.

6.5 Public space

6.5.1 Delivery of public spaces

Public spaces would be delivered partly under the Stage 3 CSSI and the Concept SSDA via future development partners through Detailed SSDA(s).

The delivery and design of the public spaces adjacent to the present proposal forms part of the CSSI, as illustrated in Figure 6-14.

The proposed development includes flexibility to deliver all or part of the length of Precinct Street A, subject to consultation with SOPA and discussions regarding development contributions. Precinct Street A is shown within the dashed red area in the public domain demarcation plan in Figure 6-14. The remainder of the public domain within the wider Sydney metro site would be delivered through the CSSI approval.

The Design Guidelines (Appendix M) and Design Excellence Strategy (Appendix L), which have been prepared in support of this Concept SSDA, aim to ensure the design of public spaces are high quality and integrate into the final design of the buildings subject to this SSDA.

The site has the potential to become a central destination for Sydney Olympic Park due to its relationship with the Central Urban Park to the north and Precinct Street A to the east. As outlined in the Design Guidelines, the main goal for the public spaces is to be truly active with a variety of uses, ranging from retail to fine-grain commercial to contribute to the wider community.

Furthermore, retail and commercial uses catering to the future residents and metro users would be located at ground level, adjoining public domain, to improve the overall users' experience and provide a high-level of amenity.

Precinct Street A will serve as parking, servicing, and loading access while Precinct Street B is expected to serve as a street servicing the future metro station and the proposed development located directly over the station. Precinct Street B would be delivered as part of Stage 3 CSSI and Precinct Street A forms part of the Concept SSD application scope and it would be delivered in whole or part by the future developer of Buildings 2 and 3, in consultation with SOPA. The final design of Precinct Street A will be determined through the Detailed SSDA, also in consultation with SOPA.

Detailed SSDAs will need to integrate with the public space design that is set out in the Stage 3 CSSI application. It is noted that the CSSI scope (shown faded in Figure 6-14 below) is subject further design development and not part of this application.

Figure 6-14 Public domain demarcation plan

6.5.2 Crime Prevention Through Environmental Design

A Crime Prevention Through Environmental Design (CPTED) Report (Appendix N) has been prepared to assess the proposal against the six key principles of CPTED which are natural surveillance, natural access control, territorial reinforcement, image and management / maintenance, activity support and site/target hardening.

The CPTED Assessment makes recommendations relating to crime prevention elements and treatments to be incorporated in the development design to minimise risk or likelihood for crimes to occur.

Methodology

The methodology included a policy review, desktop site analysis to determine crime profile and assessment and recommendations.

Mitigation measures

The following mitigation measures are recommended to be incorporated in future detailed design of the proposal:

- Natural surveillance: the design of the ground floor areas and immediate floors above should maximise surveillance opportunities. Ensure all building layouts in the precinct do not contain blind spots or concealment opportunities.
- Natural access control: a security lighting strategy is to be prepared. The future landscaping elements are to be in accordance with the CPTED principles.

- Territorial reinforcement: future development is to incorporate a signage and wayfinding strategy.
- Management and maintenance: ongoing maintenance and upkeep of the site is to be managed by the building managers of the proposed development.
- Activity support: ensure the proposed development building designs seek to avoid spaces or dark areas where loitering and vagrancy can take place.
- Site/ target hardening: create an access control strategy for both pedestrians and vehicles that delineates security zones such as public, semi-public, semi-private, private and restricted.

The assessment has found that the concept design proposed has incorporated a number of CPTED principles and provides adequate opportunity for the implementation of further CPTED principles in the future design.

6.6 Trees and landscaping

Reflecting on Country and heritage has been a fundamental design principle which underpins the landscape and public domain concept of the Concept SSDA. Opportunities for public open space have been provided throughout the ground level of the proposal. Places to meet and discuss, rest or learn, or exercise are shown in the SOP Master Plan 2030 (Interim Metro Review).

Building upon this narrative, presence of natural elements in the new town centre has been considered as essential in creating healthy environment for the future community. Green terraces are presented as one of the potential major shading elements which could bring parklands deep into the development.

The Design Guidelines (Appendix M) outlines opportunities for landscaping throughout the development and provides guidance for future development at the site. This includes providing a tree canopy area, integration of landscaping through residential facades and landscaping through the public domain and podiums.

Opportunities for landscaping at ground level are shown in Figure 6-15. The landscaping opportunities related to the Concept SSDA are illustrated by the red dashed line. The proposed development includes Precinct Street A.

The landscape opportunities include a station plaza and a town centre park with open lawn and nature playground. The new station is being considered as a location for green roofs. The extent and location of green roofs would be developed in subsequent design phase in coordination with potential building activation at these upper levels.

Future detailed design would ensure that the public domain areas create clear and legible connections around the metro station entrances. The following targets have been set for tree planting in each area by the SOP Master Plan 2030 (Interim Metro Review):

- Station Boulevard = 30%
- Station Plaza = 10%
- Town Centre Plaza = 15%
- Town Centre Park = 30%
- Streets = 20%

Preliminary landscape tests have indicated that proposed design can achieve the tree canopy coverage targets with Precinct Street A. Trees and landscaping would be considered further at the Detailed SSDA(s) stage once the detailed design has

progressed. The Concept SSDA demonstrates that the site planning and layout provides opportunities for landscaping and green infrastructure.

Figure 6-15 Tree canopy opportunities

6.7 Ecologically sustainable development (ESD)

Section 192(f) of the *Environmental Planning and Assessment Regulation 2021* requires consideration of the principles of ecologically sustainable development (ESD). ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle
- intergenerational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing, and incentive mechanisms.

An Environmentally Sustainable Development (ESD) Report has been included at Appendix S. The report identifies the design initiatives and features of the proposed development that hold the potential to reduce the overall environmental impact. An assessment against the ESD principles is outlined below:

Precautionary principle

The precautionary principle is that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The ESD Report states there is no threat of serious or irreversible environmental damage posed by the proposed development. Proactive measures to prevent environmental degradation will be included within the design, construction, and operation phases of the proposed development, such as implementing:

- an environmental management system (EMS) to manage its environmental impacts on site
- an environmental management plan (EMP) that covers the scope of the construction activities.

During construction, the EMS and EMP will demonstrate a formalised systematic and methodical approach to planning, implementing, and auditing for environmental management to deliver a high level of performance in operation. The buildings will:

- be set up for optimum ongoing management that is supported by appropriate metering and monitoring systems
- set environmental performance targets (see ESD Report Section 5), be designed and tested for airtightness, and undertake commissioning and building tuning
- be handed over to the facilities management team and building users with operations and maintenance information
- be independently verified through the involvement of an independent commissioning agent.

Intergenerational equity

The principle of inter-generational equity is that the present generation should ensure the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.

Intergenerational equity is promoted by establishing high density residential development immediately proximate to metro facilities and thereby reducing demand for vehicular travel.

The proposed development would maintain the health, diversity, and productivity of the environment for future generations by minimising the consumption of energy, water and waste by targeting the ESD targets in Table 15.

Conservation of biological diversity and ecological integrity

The principle of biological diversity is that the conservation of biological diversity and ecological integrity should be a fundamental consideration. The proposed development is considered highly unlikely to have significant biodiversity impacts as the development is limited to highly modified areas, containing planted native and exotic vegetation only. Biological diversity will be promoted through the proposed landscape strategy and planting.

Furthermore, a BDAR waiver has been granted for the proposed development and is included at Appendix U.

Improved valuation, pricing and incentive mechanisms

The principle of Improved valuation, pricing and incentive mechanisms is that environmental factors should be included in the valuation of assets and services.

During construction, the Environmental Management System and Environmental Management Plan, prepared by the main contractor, will demonstrate a formalised

systematic and methodical approach to planning, implementing and auditing for environmental management. During operation, environmental performance targets would be set and verified.

Environmental factors are addressed by the Concept SSDA through the definition of an ESD framework, as outlined in Table 15. Specifically, the ESD framework comprehensively demonstrates the integration of best practice sustainable building principles into the design of the proposed development. The table below demonstrates how the proposal will meet or exceed the relevant industry recognised building sustainability and environmental performance standards.

Table 15 – ESD framework

Element	
Building 1	Target a 5-star Green Star Buildings rating. Demonstrate that the annual energy and water consumption is less than a 5.5-star (+25%) NABERS Energy for Offices and 4.5-star NABERS Water for Offices budget, respectively. Deliver at least a 45% reduction in annual water consumption when compared to a Green Star reference building. A minimum 5 star NABERS Water rating target has been established for Building 1.
Building 2 and Building 3	Target a 5-star Green Star Buildings rating. Achieve an average 7-star NatHERS rating for all residential dwellings and not less than an individual 6-star NatHERS rating for any residential dwelling. Exceed the performance provisions of the NCC, NSW 2 Energy efficiency performance requirements. Meet or exceed the BASIX Energy 40 and a BASIX Water 60 target for high-rise residential flat buildings. Demonstrate that the annual energy and water consumption of the shared services is less than a 4.5-star NABERS Energy for Apartment Buildings and 3.5-star NABERS Water for Apartment Buildings budget, respectively. Deliver a 30% reduction in annual water consumption when compared to a reference building. Minimum 4.5 star NABERS Water for Apartments and BASIX Water 60 rating targets have been established for Buildings 2 and 3.
Climate Positive Pathway	A Climate Positive Pathway has been established to: Achieve a 40% reduction in upfront carbon emissions over a reference building. Demonstrate a 20% reduction in energy use over a reference building. Prepare a Zero Carbon Action Plan. Source 100% of the building's energy from renewables. Eliminate or offset high global warming potential refrigerants. Offset 100% of residual embodied emissions.
Sustainable Transport Initiatives	Sustainable transport initiatives have been defined to: Reduce the emissions attributed to private vehicle use by 40% and VKT by 20%. Encourage walkability by demonstrating there are a range of diverse amenities within 400 m. Limit speed to 10 km/h for roads within the site. Improve active mode uses by 90%.

Minimising greenhouse gas emissions

Further, the proposed development will minimise greenhouse gas emissions by:

- Implementing a climate positive pathway. The climate positive pathway sets a Whole Life Carbon Vision that leverages the World Green Building Council's Advancing Net Zero program that is working toward total sector decarbonisation by 2050.
- Harnessing proven emissions reduction technologies.
- Driving credible reductions in:
    - upfront carbon (the emissions caused in the materials production and construction phases of the lifecycle before the building or infrastructure begins to be used) and
    - operational carbon (the emissions associated with energy used to operate the building or in the operation of infrastructure).
- Avoiding locking in fossil fuels through avoidance of installing fossil-fuel infrastructure and appliances.
- Installing systems that use low impact refrigerants.
- Empowering consumers and businesses to make sustainable choices by investing in the electrification of space heating services, and retail and residential cooking to accelerate the decarbonisation of the built environment.
- Purchasing 100% renewable electricity for base building and shared services operations.
- Making allowance for 20% of the total electrical demand of EV charging for all car parking spaces to support future EV charging capacity.
- The proposed development will minimise material consumption through the life of the proposed development by:
    - the development of a waste management plan that addresses waste management during construction and operation
    - identification and quantifying of the various waste streams which may be generated from construction and operation
    - the provision of relevant management strategies for effective storage, reuse/recovery, treatment and/or disposal of waste generated
    - embracing circular economy principles, transitioning away from a traditional linear economy of take, make, use and dispose.

6.8 Transport, traffic, parking and access

Overview

A Transport and Access Report has been provided at Appendix T. This report presents the findings of the assessment, identifies potential transport related impacts of the proposal and outlines mitigation measures and management procedures to address identified impacts.

Methodology

The methodology to assess the traffic, parking and access impacts of the proposal includes:

- identification of the existing transport conditions in the study area
- assessment of the potential transport impacts resulting from the Concept SSDA
- assessment of the potential transport impacts during construction of the Concept SSDA
- identification of recommendations and potential mitigation measures to avoid, minimise and manage traffic impacts associated with the Concept SSDA.

In addition, the Transport and Access Report considers the cumulative impact of the Concept SSDA, the CSSI (Sydney Olympic Park metro station), an event at Sydney Olympic Park and the following developments:

- Site 2A and 2B, Sydney Olympic Park
- Site 43/44 Sydney Olympic Park – Stage 1 and 2 (6 Australia Avenue and 2 Herb Elliott Avenue).

Parking impacts

The proposed provision of car, motorcycle and bicycle parking for the Concept SSDA has been detailed and referenced against the requirements of the SOP Master Plan 2030 (Interim Metro Review). The SOP Master Plan 2030 (Interim Metro Review) provides the following car parking rates.

Table 16 – Car parking summary

Land use	SOP MP 2030 (Interim Metro Review) parking rates (maximum)	Maximum permissible spaces per building		
		Building 1	Building 2	Building 3
Commercial	1 per 110m² GFA	237	22	34
Retail (local)	1 per 70m² GFA	17	4	4
1 bedroom residential	0.6 per dwelling			46
2 bedroom residential	0.9 per dwelling		59	103
3 bedroom residential	1.2 per dwelling		26	46
Residential visitor	0.2 per dwelling		18	46
	Total	**254**	**129**	**278**

Transport impacts

An assessment of the existing intersection performance in the vicinity of the Concept SSDA site has been undertaken using Signalised and Un-signalised Intersection Design and Research Aid (SIDRA) Intersection 9 software. Base year traffic models were developed to replicate existing traffic conditions for a morning and evening peak hour.

The number of vehicle trips in the AM and PM peak have been based on the (former) RMS *Guide to Traffic Generating Developments* for residential trips by number of units and constrained by the parking provision. For commercial trips, the vehicles trips were estimated in line with benchmarked precincts and other assumptions.

SIDRA Intersection 9 has been used to test how the road network and key intersections surrounding the Concept SSDA site may operate in the forecast 2036 year. The future year traffic impact assessment considered two scenarios, including:

- 2036 future year with metro and without the Concept SSDA
- 2036 future year with metro and with the Concept SSDA.

Construction impacts

The impacts of the construction on the transport network have been assessed including road network, active transport links and public transport. Construction traffic modelling would be undertaken for the detailed SSDA.

Parking impacts assessment

As per the SOP Master Plan 2030 (Interim Metro Review), the proposed development has a maximum indicative parking rate of:

- 254 spaces in Building 1
- 129 spaces in Building 2
- 278 spaces in Building 3
- Total: 661 spaces.

Although this gives a total of 661 spaces, Sydney Metro seek approval for a maximum of 358 car parking spaces across the site. The indicative reference scheme indicates this could be provided within up to six basement levels.

The basement levels are to be located underneath Buildings 2 and 3 and the car parking spaces are provided for Buildings 1, 2 and 3.

By providing a lower number of parking spaces per residential dwelling than the SOP Master Plan 2030 (Interim Metro Review) maximum, plus measures such as bicycle parking, car share and implementation of a Green Travel Plan, a shift to sustainable transport modes would be encouraged and impacts on the road network would be reduced.

The SOP Master Plan 2030 (Interim Metro Review) states that accessible car parking should comply with AS/NZS 2890.6-2009, which in turn specifies that no less than 2% of parking spaces should be accessible. The number of accessible parking spaces will comply with AS/NZS 2890.6-2009 and would be confirmed at a later stage in the design process.

Transport assessment

The road network performance has been modelled for the future year 2036. The traffic demand has been based on 2021 counts with an agreed growth factor applied, calculated using outputs extracted from the Public Transport Project Model (PTPM) model, which includes the Concept SSDA. A cumulative (over the next 14 years)

growth rate of 1.07 has been applied. An additional scenario, with Sydney Olympic Park metro station but without the Concept SSDA was also assessed.

Table 17 illustrates the intersection performance with and without the Concept SSDA in the AM and PM peaks.

Table 17 – Future intersection modelled performance (2036)

Intersection	AM Peak				PM Peak			
	Without SSD		With SSD		Without SSD		With SSD	
	Ave delay (sec)	LOS	Ave delay (sec)	LOS	Ave delay (sec)	LOS	Ave delay (sec)	LOS
Australia Avenue and Sarah Durack Avenue	*46*	*D*	*41*	*D*	*72*	*E*	*72*	*E*
Olympic Boulevard and Sarah Durack Avenue	*22*	*C*	*23*	*C*	*27*	*C*	*26*	*C*
Olympic Boulevard and Figtree Drive[1,2]	*4*	*A*	*4*	*A*	*4*	*A*	*4*	*A*
Olympic Boulevard and Herb Elliott Avenue[1]	*2*	*A*	*3*	*A*	*2*	*A*	*3*	*A*
Australia Avenue and Herb Elliott Avenue	*48*	*D*	*36*	*D*	*39*	*D*	*39*	*D*
Australia Avenue and Figtree Drive[1,2]	*13*	*B*	*16*	*B*	*14*	*B*	*26*	*C*

[1]Level of service of worst movement
[2]Buses for future network approval included

The traffic modelling undertaken shows that future intersection performance across the local network is similar with and without the Concept SSDA. Minor increased congestion occurs at the intersection of Australia Avenue/Figtree Drive during the PM peak, though this is not anticipated to have a detrimental effect on the surrounding road network operation.

Slightly decreased intersection performance at this location may be caused by private and service vehicle movements to and from the Concept SSDA between Precinct Street A, Precinct Street B and Figtree Drive.

The proposed development is not anticipated to have a detrimental effect on the surrounding road network operation. The road network is expected to continue to operate at acceptable levels of service.

The site is fully accessible and connected to public transport. The proposal is within the same block as the new Sydney Olympic Park metro station and within a short walking distance to the existing Olympic Park station and bus interchange on Figtree Drive.

Bicycle parking

Bicycle parking and end of trip facilities are intended to be included in future Detailed SSDA(s). Cyclists would benefit from proposed new active travel connections and end of trip facilities for commercial retail workers, and residents. Pedestrian connectivity within the Central Precinct will be prioritised, with the future pedestrian promenade and plaza running through the precinct. The reference scheme design shows commercial end of trip and bicycle parking facilities in Building 1 are accessible via a dedicated lift within the building's loading dock area that faces onto Precinct Street B. The commercial and retail bicycle parking and end of trip facilities and residential bicycle parking are shown as being accessible through a lift in the lobby of Building 3.

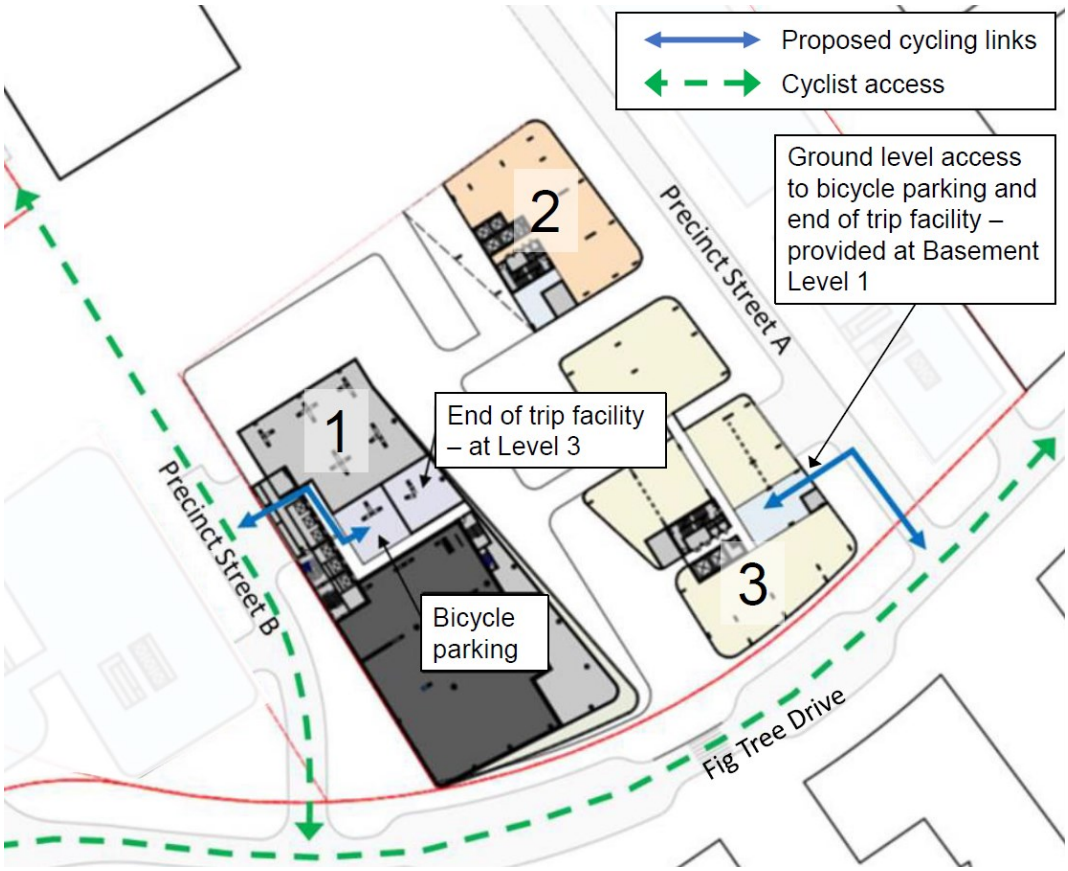


Figure 6-16 Access and egress routes for cyclists

The SOP Master Plan 2030 (Interim Metro Review) requires the following minimum number of bicycle parking spaces:

- 1 space per 150m² of commercial GFA and 1 visitor space per 75m²
- 1 space per studio
- 1 space per 1 bedroom dwelling
- 1.2 spaces per 2 bedroom dwelling
- 1.5 spaces per 3 bedroom dwelling
- 2 spaces per 4 bedroom dwelling
- Residential visitors: 0.25 spaces per residential dwelling.

The proposal is capable of complying with the SOP Master Plan 2030 (Interim Metro Review) bicycle parking requirements. The number of bicycle parking and the design of the spaces would be confirmed in future Detailed SSDAs.

Construction impacts

The Construction impact assessment has examined three scenarios:

- Scenario 1 – the CSSI and proposed development are constructed concurrently by constructing the transfer slab first and then building in both directions.
- Scenario 2 – the station is constructed first and ready for operation. Concept SSDA development construction may still be incomplete or soon ready to commence after station construction is completed. This means that some or all Concept SSDA construction is likely to still be underway upon opening of the station.
- Scenario 3 – the station is constructed first and ready for operation. The Concept SSDA development is built at a later stage, with timing yet to be determined. This creates two distinct construction periods for the station and Concept SSDA development.

Scenario 1 represents Sydney Metro's preferred option as it would provide for completion of the full integrated station development and therefore the optimum public benefit at the site at the earliest date possible. However, given that the delivery of the proposed development could be influenced by a number of factors, Scenarios 2 or 3 could also occur.

The highest frequency of construction vehicles, both light and heavy, would be expected during non-peak hours when around 6 light and 6 heavy vehicles would be expected an hour. If construction Scenario 1 is adopted, that number would increase by 12 light vehicles and 12 heavy vehicles for construction of the station.

On-site car parking would be provided for construction staff under construction Scenario 1 with an estimation of 3 light vehicles accessing the site during peak hours and 6 during non-peak hours for the construction of the SSDA. During Scenarios 2 and 3, no on-site parking would be provided. Workers would be expected to generally use public transport including metro, train, and buses to access the site.

Public transport services and cycling links would not be impacted as a result of construction activities under any of the proposed scenarios.

Major events

Each scenario is not anticipated to impact on the operation of major events. During major events, under Scenario 1, Olympic Boulevard would be closed between Dawn Fraser Avenue and Figtree Drive, and people accessing the metro station would be directed south down Olympic Boulevard to the plaza. To facilitate pedestrian entry from Olympic Boulevard into plaza, a small break would be provided in the central median of Olympic Boulevard, directly opposite the plaza entry.

There would be no impact on this arrangement during construction under Scenarios 2 and 3 as the public domain would be open for pedestrians to allow pedestrian movements to and from the station.

Cumulative impact

Cumulative impacts directly associated with the Concept SSDA have been assessed, in addition to the cumulative impacts associated with the CSSI and the following developments:

- Site 2A and 2B, Sydney Olympic Park
- Site 43/44 Sydney Olympic Park – Stage 1 and 2 (6 Australia Avenue and 2 Herb Elliott Avenue).

A review of the publicly available construction information indicates that Homebush Bay Drive, Australia Avenue, and Herb Elliott Avenue form the primary construction

vehicle routes for the construction of Site 2A and 2B, Sydney Olympic Park and Site 43/44 Sydney Olympic Park. Australia Avenue also forms part of the primary and secondary construction routes for this proposal.

No information about the estimated number of construction vehicles for the construction of Site 2A and 2B, Sydney Olympic Park and Site 43/44 Sydney Olympic Park is publicly available. However, the number of construction vehicles is anticipated to be low and would have a minimal impact on the road network and intersections at the vicinity of the Concept SSD site.

Construction traffic modelling would be undertaken at the detailed stage of the SSDA to ensure that changes to traffic arrangements would not result in significant impact on network performance.

No cumulative impacts on the public transport or walking infrastructure are anticipated as a result of the construction of Site 2A and 2B, Sydney Olympic Park and Site 43/44 Sydney Olympic Park.

Similarly, construction vehicles movements associated with the proposal and development on surrounding sites such as Site 2A and 2B, Sydney Olympic Park and Site 43/44 Sydney Olympic Park, would likely be restricted or limited during major events at Sydney Olympic Park and therefore are not expected to impact on the operation of those major events. Events will not be impacted during operation of the proposed development.

Mitigation measures

The following mitigation measures are proposed for the Concept SSDA:

- Active travel user safety should be prioritised on Precinct Street B. it is anticipated that high volumes of cyclists and other vulnerable users will use this link during peak hours to access the end of trip facilities in Building 1. Low speeds and appropriate signage should be provided to reduce the likelihood of conflict with vehicles.
- Provision of car share spaces in basements to reduce the need for individual car ownership and conform to the Parramatta DCP. It is noted that the Parramatta DCP does not specifically apply to the site, however there are no directly relevant car share provisions for parking in Sydney Olympic Park.
- A detailed Construction Traffic Management Plan for adoption during the construction phase should be prepared as part of the future Detailed SSDA(s).
- A Travel Plan should be created to reduce car trips and encourage the use of sustainable transport as part of the future Detailed SSDA(s).
- The number of accessible parking spaces is to comply with AS/NZS 2890.6-2009.

6.9 Biodiversity

Section 7.9 of the BC Act 2016 requires preparation of a BDAR for SSD that are assessed under Part 4 of the EP&A Act. This Concept SSDA will be assessed under Part 4 of the EP&A Act, and, therefore, would normally be required to include a BDAR.

However, section 7.9(2) of the BC Act 2016 allows for exemption from the requirement where the development is not likely to have any significant impact on biodiversity values.

A request for a waiver for submission of a BDAR was submitted to the DPE and the Office of Environment and Heritage.

Subsequently, a waiver under section 7.9(2) of the BC Act 2016 was issued on 28 February 2022 and is provided at Appendix U. Accordingly, a BDAR is not required to be submitted with this EIS.

6.10 Noise and vibration

Overview

A Noise and Vibration Impact Assessment (Appendix V) has been prepared to assess the noise and vibration during construction and operation of the proposed development and provides a preliminary assessment in terms of impacts at the nearest sensitive receiver locations. Feasible and reasonable noise and vibration mitigation measures will be considered to reduce the impacts below the stipulated criteria.

Methodology

In order to assess the baseline noise levels at the site, baseline noise monitoring was undertaken as part of the Concept and Stage 1 CSSI. The monitoring included ambient and background noise logging and was completed between March and July 2019. Attended noise monitoring has not been undertaken as part of this assessment.

The Noise and Vibration Impact Assessment utilised the *EPA Interim Construction Noise Guideline* (ICNG, 2009) to assess construction noise and provide mitigation measures. A detailed construction and operational noise and vibration impact assessment and management plan would need to be prepared once the construction methods known as part of the Detailed SSDAs.

Assessment

Construction noise impacts

Noise levels have been predicted for the proposed construction scenarios which are outlined in section 6.21.

The nearest residential receiver is more than 100m from the construction works, therefore construction noise impacts are expected to be limited. An exceedance of less than 5 dB has been predicted at the nearest residential receiver.

The preferred integrated delivery of the proposed development and Sydney Olympic Park metro station may lead to concurrent construction of some components of the station and proposed development. A detailed construction program would need to be developed by the site contractors for the proposed development, post Detailed SSDA determination, which would include duration and timing of the construction.

Further, the main access routes for construction vehicles would be determined at a later stage and the potential noise impacts at sensitive receivers would be assessed accordingly. Given the existing traffic volumes through the site, low construction traffic frequency and the ability of workers to use the existing public transport network, the traffic noise impacts from construction activities are likely to be negligible.

Construction vibration impacts

The vibration impacts generated by the works would be primarily during the basement excavation stage. The magnitude of the impacts would be largely controlled by the excavation approach and the equipment used. The details of the equipment will be confirmed by the contractor at post Detailed SSDA.

Exceedances of the human response criteria could occur up to 100m away. These impacts are typical for a project of this nature and highlight the importance of appropriate consideration in the Construction Noise and Vibration Management Plan (CNVMP) in use by the delivery partner.

Operational noise impacts

Noise generated by the proposed development is expected to be controlled by major items of plant, including:

- heat pumps
- cooling towers
- stair pressurisation fans
- generators.

The cooling towers would be expected to be located on the roof of the building towers. Noise mitigation including acoustic louvres and attenuators on the exhaust fans would be considered during detailed design. The cumulative impact of noise emissions from plant associated with the operation of the buildings would also be assessed during detailed design.

Event noise

Due to high noise events within the sporting/ entertainment venues in Sydney Olympic Park, the future development at the site would require noise mitigations for the external façade. A more detailed analysis for façade treatments would be undertaken during the detailed design of the Detailed SSDA(s).

Operational vibration impacts

No operational vibration impacts are anticipated subject to the implementation of the below mitigation measures.

Mitigation measures

The Noise and Vibration Impact Assessment recommends the following mitigation measures:

- Traffic and plant should be treated to meet the established criteria with the use of standard acoustic treatments.
- Prior to the commencement of major construction works the contractor should develop a detailed CNVMP at the Detailed SSDA stage.
- Further investigation should be undertaken in the Detailed SSDA stage to manage predicted exceedances to non-residential sensitive receivers and nearby commercial receivers.
- Feasible and reasonable management measures and work practices should be implemented such as the standard mitigation measures outlined in the Sydney Metro Construction Noise and Vibration Strategy.
- Noise mitigations for the external façade will need to be explored at the Detailed SSDA stage based on the scenario of high noise events within the sporting and entertainments venues in Sydney Olympic Park.
- The indicative operational noise and vibration mitigation measures should be refined as part of the detailed design. These indicative mitigation measures include:
    - Acoustic treatment for mechanical plant such as cooling towers, heat pumps, stair pressurisation and generators.
    - Acoustic treatment for all major equipment installed, these could include acoustic barriers around rooftop plant, robust construction of plant room, acoustic louvers, acoustic attenuators for mechanical ductwork, acoustic mufflers in generator exhaust systems, internal lining of ductwork and selection of low noise plant.

- All major equipment, installed as part of the proposed development, should be mounted on isolation mounts.
- Acoustic treatments, such as attenuators, acoustic louvres and mufflers, should be incorporated into the design as required to meet the emergency operations noise emission criteria.
- Testing of emergency equipment, such as generators, should be scheduled during day-time periods to minimise sleep disturbance.
- Incorporate an indicative glazing thickness of 10.38mm thick laminated glass on the required facades for office and residential uses.
- During detailed design where more information about traffic movements is available, car park noise emission should be assessed to ensure compliance with the environmental noise criteria.
- During detailed design where more information about loading dock movements is available, these noise emissions should be assessed to ensure compliance with the environmental noise criteria.

The above recommendations would need to be considered in the subsequent Detailed SSDA(s).

6.11 Ground and water conditions

Overview

A Geotechnical Report (Appendix W) provides a geotechnical assessment including anticipated subsurface ground condition and other geotechnical conditions associated with the Concept SSDA.

A summary of the assessment and recommended mitigation measures are provided below.

Methodology

The interpretations and assessments made are based on project specific geotechnical site investigation data and historical site information data from projects carried out in proximity to the proposed development site.

Assessment

The site has a relatively thin cover of anthropogenic ground (filling) which overlies residual soils of the siltstones of the Ashfield Shale. The underlying bedrock is Ashfield Shale underlain by Mittagong Formation and Hawkesbury Sandstone. A review of acid sulfate soil risk mapping indicates that the site has a low chance to be affected by acid sulfate soils.

Investigations completed under the prior CSSI application identified the potential for groundwater to be contaminated with nutrients, metals, hydrocarbons, volatile organic compounds, perfluorooctanesulfonic acid, asbestos and land fill gas.

Excavation of the basements to Buildings 2 and 3 has been considered as part of the Concept SSDA and will subject to further assessment as part of the Detailed SSDAs. It is expected that these excavation works will cause groundwater inflow. During excavation groundwater dewatering would occur, and groundwater would be extracted, tested, and treated as required, prior to being dispersed. There are no groundwater dependant ecosystems within the Concept SSDA study area.

Cumulative water quality impacts are not likely as the proposed development mitigation measures would be implemented and wastewater treated so that all discharges would maintain the existing water quality.

The geotechnical assessment concludes the commercial and residential developments with basements for Buildings 2 and 3 should be practicable within the proposed scheme. However, some geotechnical challenges exist, including:

- High groundwater table and the potential for rapid increase in groundwater level to the ground surface during heavy/intense rain events or flooding.
- Interaction with existing structures such as the metro station box and running tunnels (such as the Metro West tunnels and the Sydney Trains tunnels). This may result in increased site retention and foundation costs and impact on the construction program.
- The risk associated with underground services along the site boundaries in the brown-field environment. The retention system design will have to consider the risk of excavation induced ground movements on existing services and structures.

The soils within the proposed development construction site are predominantly residual clays and are unlikely to be highly erodible. However, sediment or dust may be problematic during construction under adverse conditions such as during very wet or dry weather conditions. Erosion and sediment control would be managed using standard construction methods managed in accordance with a Construction Environmental Management Plan (CEMP) and Material Management Plan.

Geotechnical information available within Building 1 footprint is considered reasonable. The geotechnical data available within Buildings 2 and 3 footprints is limited but is considered adequate for the assessment at concept stage. Further investigations of soil conditions and potential groundwater impacts may be required as part of the Detailed SSDAs.

While the site contains a number of geotechnical challenges including the presence of high groundwater table, acid sulphate soils and working in brownfield environment, it is considered that these challenges can be adequately addressed through the implementation of the following mitigation measures.

Mitigation measures

Based on the findings of this geotechnical assessment, the following recommendations are made:

- While the site contains a number of geotechnical challenges these challenges can be adequately addressed through the utilisation of industry standard design and construction techniques and practices.
- The ground conditions assumed in design can vary from actual site conditions that may be encountered during construction. To reduce the impact of such potential variations, further geotechnical investigation will need to be carried out prior to or as part of detailed design.

Based on the assessment using available geotechnical data and experience on similar ground conditions, the site is considered suitable for its intended use.

6.12 Stormwater and wastewater

Overview

A Preliminary Integrated Water Management Plan (Appendix X) provides an analysis of the existing stormwater quantity and quality conditions for the site. The report aims to provide a hydraulic and water quality analysis as well as design of on-site detention systems and water quality treatment measures to demonstrate the feasibility of the

proposed development from a stormwater and water quality perspective at a conceptual level.

Methodology

The Integrated Water Management and Water Quality Plan summarises existing stormwater and water quality conditions and details the required upgrades, infrastructure and protection measures required. The following thresholds and controls guided the assessment process:

- Stormwater discharge from development site shall have no adverse impacts on upstream and downstream drainage systems as per Sydney Olympic Park Authority's Stormwater Management and Water Sensitive Urban Design.
- Development site stormwater quality to meet Sydney Olympic Park Authority targets.
- Overall, the Integrated Waste Management and Waste Quality Plan follows the below methodology:
    - Undertaking a desktop review of publicly available data to characterise existing surface water (baseline) conditions at the proposal site including climate, catchment history, topography, hydrology, the soil landscape and environmental values.
    - Reviewing relevant legislation, plans, policies and guidelines for water management within NSW and local council.
    - Identifying the types of surface water impacts which may occur due to the proposal.
    - Identifying mitigation measures to address potential surface water impacts.

Following the above methodology, the Integrated Water Management Plan concludes that adequate water quality and stormwater designs are suitable for the site development.

Assessment

Baseline assessment

A combination of feature survey, SOPA GIS data and utility survey has been used to develop an understanding of the existing drainage network, which includes identifying locations of existing pits and pipes and also understanding discharge locations. To enable design progression, numerous assumptions have been made to build the existing drainage model.

The existing drainage network surrounding the proposed development site has been split into the following catchment areas:

- Figtree Drive
- Olympic Boulevard North
- Olympic Boulevard South
- Herb Elliott Avenue
- Dawn Fraser Avenue.

SOPA have advised that the stormwater pipe network within its boundary was designed to cater for the 5% AEP storm event. The existing drainage network has been modelled using the ILSAX hydrological model for numerous storm events and temporal patterns.

The model created for the analysis has assumed that the private properties within the project boundary have on-site detention systems in line with current SOPA standards. Analysis of the survey CAD files from RPS (received as part of the utility survey undertaken on 24/07/2020) suggests the internal road and car parking networks are not connected to any on-site detention system, and therefore it assumed only the roof areas are connected to on-site detention system.

To replicate historical pre-development conditions, all roof areas have been modelled as pervious area. This approach has been taken at early concept stage to ensure that a conservative value for on-site detention requirements is calculated and ensure no adverse impacts are caused by inadvertently increasing flows through the downstream system.

In terms of stormwater quality measures, no treatment measures such as biofiltration systems, basins or wetlands have been sighted within the project area.

Proposed stormwater design

The proposed stormwater drainage and runoff system for the site will comply with the main design considerations summarised below:

- Post development stormwater runoff connections into existing drainage infrastructure will match the predevelopment case where feasible.
- On-Site Detention is to be situated above the 100-year ARI flood levels to facilitate discharge into potentially fully charged stormwater pipes.
- Management of water quantity to ensure no increase in stormwater discharge rate from the sites for the 1EY and 100-year ARI storms.

A DRAINS model was developed to assess the existing hydrological and hydraulic conditions for the site and revised to estimate the stormwater discharge from the site under the proposed future conditions.

The stormwater design is at a conceptual level and will ultimately be resolved as part of the future Detailed SSDA(s). The proposed stormwater strategy is to provide on-site detention systems, two external on-site detention tanks, sized at 750 and 600m³, were proposed to intercept the runoff from the external areas and the northern station building. Additional on-site detention tanks were also proposed for the southern station building and within Site 47. A summary of the on-site detention detail is provided in Table 18 and Figure 6-17.

Table 18 – On-site detention tank details

On-Site Detention Tank	Volume (m3)
1	750
2	600
3	240
4	160
5	160

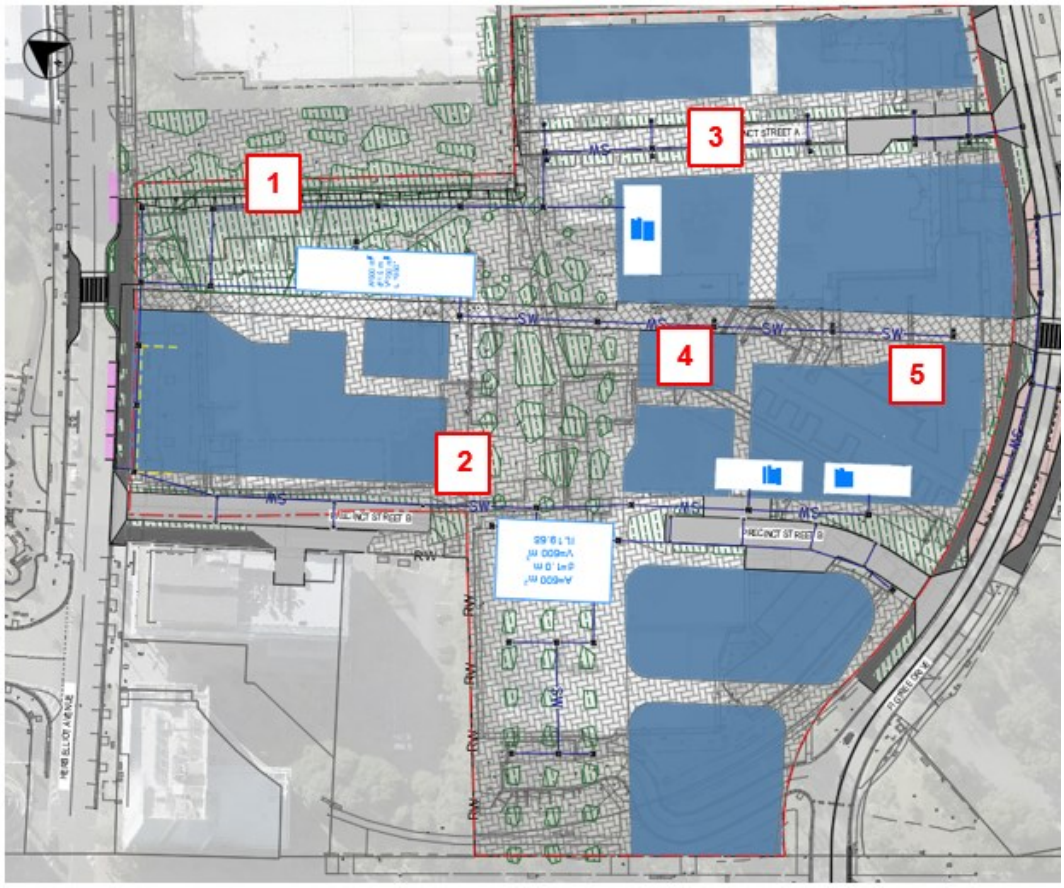


Figure 6-17 Proposed on-site detention tank locations

Proposed stormwater quality strategy

The design has been underpinned by Water Sensitive Urban Design (WSUD) principles. The following treatments are proposed to be implemented within the project site:

- rainwater tank
- stormfilters
- gross pollutant traps
- bio-retention basin (rain gardens/tree pits).

Given the stage of design, it is likely there are more opportunities to implement WSUD treatments throughout the site and the MUSIC model and WSUD designs would be refined as design progresses.

Mitigation measures

Future work that is required to finalise the stormwater and water quality design includes:

- design of connection to existing council drainage system
- final on-site detention requirements based on the finalised architectural scheme
- further authority coordination as required.

The building design is subject to further design development and future developer(s) will need to prepare Detailed SSDAs which would need to assess the following:

- final on-site detention requirements based on the finalised architectural scheme

- design of Ecological Sustainable Design initiatives and coordination with stormwater strategy
- further authority coordination as required.

6.13 Flooding

Overview

A Flooding Assessment (Appendix Y) summarises the assessment of flooding associated with the proposed development, including the identification of the pre-development and development scenarios in respect to hydraulic impacts and flooding immunity requirements. The Flooding Assessment also examines the potential effects of climate change and the relevant provisions of the NSW Floodplain Development Manual.

The baseline conditions for the assessment include the works undertaken as part of the Concept and Stage 1 CSSI approval and proposed under Stage 3 CSSI application. The proposed development cannot be constructed before the station and therefore it is appropriate to include the CSSI works and mitigation measures in the baseline conditions.

Methodology

The proposed development has been modelled to consider the 100-year Probable Maximum Flood (PMF), as well as the associated probable maximum flood hazard levels, in order to determine the overall risk of flooding for the site under existing conditions as well as post-development conditions including a sensitivity analysis for climate change case.

Specifically, hydraulic modelling has been undertaken for the 5% and 1% AEP flood events with an appropriate increase in rainfall adopted to reflect climate change projections to the year 2100, based on Australian Rainfall and Runoff 2019 (ARR2019).

The Flooding Assessment follows the below methodology:

- Summarise the baseline flooding conditions, and detail required upgrades.
- Identify infrastructure and protection measures required to satisfy the relevant flooding standards.
- An assessment against the NSW Floodplain Development Manual.
- Assessment of the potential impacts of the development on flooding that consider flood events up to the PMF, which focuses on:
    - potential increases in flood risk and flood affectation on adjacent properties and assets as well as potential impacts to any emergency management arrangements
    - land use compatibility in relation to flood hazard
    - where required, outline the mitigation and management measures.
- The 1% AEP flood event and the five per cent Annual Exceedance Probability flood event (5% AEP flood event) will incorporate allowances for climate change impacts including:
    - Design for permanent infrastructure completed as part of this study would incorporate allowance for climate change consistent with Representative Concentration Pathways (RCP) 8.5 in the year 2100. The RCP8.5 refers to the upper range projection of greenhouse gases

concentrations in the atmosphere as adopted by the Intergovernmental Panel on Climate Change in 2014 for the assessment of climate change impacts.

- Rainfall intensity uplift 21.3% in accordance with Australian Rainfall and Runoff Guidelines 2019.

Following the above methodology, the Flooding Assessment concludes that the site is only impacted by local stormwater originating from the site itself, which is explored further below.

Assessment

Baseline assessment

The flood modelling was used to assess the baseline and development conditions. The baseline modelling includes the works undertaken as part of the Concept and Stage 1 CSSI approval and proposed under Stage 3 CSSI application.

The baseline flooding conditions are as follows:

- Discharge from the site is primarily north towards Herb Elliott Avenue, flowing over the road formation and continuing north along Showground Road. In Herb Elliott Avenue to the north of the site there is local ponding near the intersection with Showground Road.
- Discharge into Figtree Drive at the south of the site leads to flooding within the roadway, which is generally confined to the kerb and channel drainage in the 5% AEP climate change flood event. In the 1% AEP climate change flood event, the flood increases marginally with flood depths of up to approximately 0.13 metres within the road. In the PMF flood event, the flooding overtops the Figtree Road kerbs and flows to the south. Flood depths in the PMF flood event on the road are up to 0.31 metres.
- Flood hazard in the area of the site and the adjacent streets in the 5% AEP climate change and 1% AEP climate change flood events is generally low, with the area predominantly in the H1 category. There are localised areas of H2 to H5 to the north of the site on Showground Road within the kerb, which is due to the high flow velocity in excess of 2 metres per second. In the PMF flood event, there are localised areas of high hazard with a category of H5, primarily due to high velocity. The full width of Showground Road is H5 category in the PMF flood event.
- Access and evacuation from the site are generally safe during flood events, with only localised areas with high flow velocity which would be unsafe for pedestrians and vehicles. Showground Road would not be suitable for access or evacuation during the PMF flood event due to the high hazard.

Assessment of proposed development

The site is affected by localised stormwater originating from the buildings and landscaping areas on the site. The stormwater is shallow nuisance type flooding, with only small, localised areas exceeding 0.1 metres in depth in the 1% AEP climate change design flood event. In the PMF event, the stormwater depth on the site is generally below 0.3 metres. The nature of flooding around the ASD development is shallow nuisance stormwater flooding. The ground floor levels for proposed development and basement entry will adopt the 1% AEP climate change level with the inclusion of 300mm freeboard, which exceeds the PMF flood level within the site.

The water surface levels in the 1% AEP climate change flood around the subject buildings are presented in Figure 6-18. Where no flooding is modelled, the floor levels for retail and other uses within the buildings would be located 300mm above the top

of kerb adjacent to the entrances and are noted on the figure. Note, the levels on the figure are inclusive of the 300mm freeboards.

The current design includes a basement entrance to Building 3, which will include a loading dock and car parking area. The current floor levels and basement entrance level for the proposed development have not yet been set and the design is ongoing. Consideration to prevent direct rainfall of flooding from entering the basement should be accounted for in the design of the basement entrance.

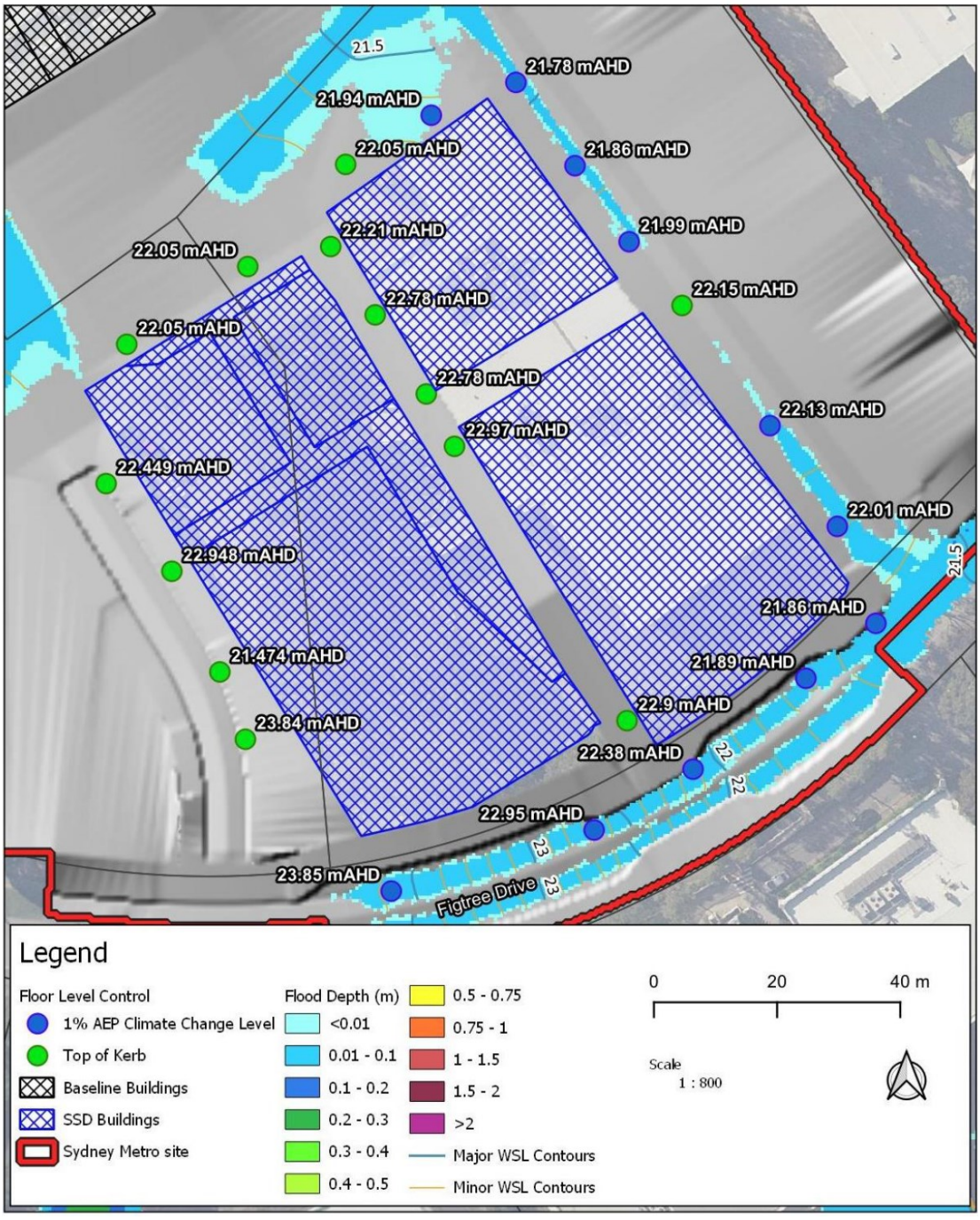


Figure 6-18 Flood planning diagram

The results of the hydraulic modelling illustrate that the site is not affected by any riverine or overland flooding mechanism up to the PMF event. The site is only impacted by local stormwater originating from the site itself. The development conditions flood maps have been used to inform the required flood levels within the buildings on site to provide the required 300mm freeboard above the nuisance stormwater flooding.

Furthermore, access and evacuation are readily achievable from the site up to the PMF flood event. The proposed development will not worsen flood hazard or trafficability on adjacent roads.

Cumulative impact

For the purpose of providing a high-level assessment, impacts directly associated with the Concept SSDA, in addition to the cumulative impacts associated with the CSSI and the following developments have been considered:

- Site 2A and 2B, Sydney Olympic Park
- Site 43/44 Sydney Olympic Park – Stage 1 and 2 (6 Australia Avenue and 2 Herb Elliott Avenue)

The proposed development has no effect on the overland flooding within or downstream of the site up to the 1% AEP climate change flood event and only minimal on-site impacts in the PMF flood. The project is outside the area of influence of the Site 43/44 development and therefore cumulative impacts are not expected in up to the 1% AEP flood event.

Mitigation measures

The following recommendations and mitigation measures are proposed:

- Further consultation will be undertaken where relevant with the Sydney Olympic Park Authority and the City of Parramatta Council during the Detailed SSD preparation.
- To ensure that flood-associated risks are appropriately managed and mitigated at the site, the ground floor of the proposed development and entrance to the underground basement should include 300mm freeboard above the 1% AEP flood level or top of kerb. The 1% AEP including 300mm freeboard is higher than the PMF flood level on the site.
- An emergency management plan which considers high hazard in adjacent roads during very rare and extreme flood events would be prudent to manage risk to life associated with access or egress from the site.

6.14 Hazards and risks

The proposal is not adjacent to or on land in a pipeline corridor. Therefore, a hazard analysis is not required. The SEARs relating to hazards and risks does not apply.

6.15 Contamination and remediation

Overview

A Contamination Report (Appendix Z) assesses the risk of encountering contamination during construction and operation of the proposed development. The Contamination Report also determines if the site is suitable for development and if further detailed site investigations are required to assess contamination.

Methodology

The methodology carried out for this contamination assessment involved:

- A desktop review of available information relevant to the site to understand the existing environment, the potential risk for contamination and the potential impacts. The study area comprises the site boundary and a 500-metre buffer from the boundary of the Concept SSDA site.

- The desktop review included an assessment of the Detailed Site Investigation (DSI) completed by ERM (2022) and the Sydney Metro (2020b) contamination assessment for the Stage 1 CSSI approval (Technical Paper 8).
- Consideration of the contamination status following construction of the station box under the Stage 1 CSSI approval and construction of the Station under Stage 3 CSSI application, prior to the Concept SSDA construction activities commencing.
- Identification of areas of environmental concern and assessment of potential impacts during construction and operation from contamination (with no mitigation measures) to environmental and human receptors.
- Identification of contamination receptors and exposure pathways and ranking these in terms of risk using a prioritisation methodology to illustrate the potential harm.
- Identification of appropriate mitigation and management responses for contamination, or where further investigation or remediation may be required.

Assessment

Based on the findings of the desktop review and site inspections, a number of known and potential sources of contamination areas of environmental interest (AEI) were identified within the study area.

AEI identified within the study area have been categorised as low, moderate, and high potential contamination impact. These categorisations have factored in the results of the Detailed Site Investigation undertaken by ERM (2022).

The AEI (moderate risk and above) associated with the Concept SSDA site are summarised below and in Figure 6-19.

- AEI 30 - uncontrolled landfilling (former Golf Driving Range Landfill – Sarah Durack Avenue, Sydney Olympic Park), known areas of waste and groundwater contamination.
- AEI 31 - uncontrolled landfilling (Aquatic Centre Landfill – Shane Gould Avenue, Sydney Olympic Park), known areas of waste and groundwater contamination.
- AEI 32 - uncontrolled landfilling (Bicentennial Park Landfill – Bicentennial Drive, Sydney Olympic Park), known areas of waste.
- AEI 33 - former abattoir, inappropriate chemical storage and use, waste disposal and burials.

Figure 6-19 Contamination areas of environmental interest – moderate and above

These sources of potential contamination were identified by Sydney Metro (2020b and 2021) as part of the Stage 1 CSSI Approval. It is anticipated that remediation of the station box construction footprint would be completed prior to construction of the proposed development. Given that the proposed development would involve construction activities outside of the footprint of those identified in the CSSI, contamination may remain present within the Concept SSDA site.

Through a review of the available information (ERM 2022, Golder Douglas Partners 2021 and Sydney Metro 2020a-c) it is possible that the following contaminants of potential concern could be present within the Concept SSDA site at the time of construction activities commencing:

- nutrients in groundwater– nitrates and phosphates
- asbestos in soils
- arsenic, copper, iron, nickel and zinc in groundwater
- hazardous ground gases – methane
- Per- and poly- fluoroalkyl substances in soils.

Mitigation measures

Based on the available information, there is a moderate risk of groundwater contamination and a low risk of soil contamination within the Concept SSDA site.

In accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021*, it is likely that the Concept SSDA site can be made suitable for its proposed use, following the completion of any remediation works required.

6.16 Waste management

A Waste Management Plan (WMP) has been prepared (Appendix AA) to identify the waste requirements related to construction and operation, identify the relevant waste streams, and outline the relevant management strategies. This WMP is indicative and subject to revision upon detailed design.

The WMP outlines management measures to manage, reuse, recycle and safely dispose of construction and operational waste.

Construction phase:

The anticipated waste streams generated during the construction phase are summarised in the table below.

Table 19 – Construction waste streams

Waste stream and volume	Recovery potential	Reuse/ recycling onsite	Reuse/ recycling offsite	Disposal/ treatment
Excavation material – medium	High	Reuse for landscaping.	Reuse where possible within the project or send off site for recycling.	All soil extracted would be stockpiled and subject to laboratory analysis prior to reuse or removal.
Timber – low	High	Timber shall be reused in construction.	Small timber offcuts and untreated timber should be placed in skips and sent to local recycling facilities.	Minimal disposal requirements expected.
Concrete – low	High	Clean fill or aggregate in pavements.	Sent to local recycling facility for reuse on other developments.	No disposal required.
Bricks and tiles – low	High	Clean fill or aggregate in pavements.	Sent to local recycling facility for reuse on other developments.	No disposal required.
Metal – low	High	Limited opportunities for onsite reuse.	Sent to a metal recycler.	No disposal required.
Glass – low	High	Limited opportunities for onsite reuse.	Sent to a glass recycler.	No disposal required.
Other – N/A	N/A	Reuse as appropriate.	Segregate and recycle where possible.	Drop off at disposable facilities.

Sustainable design should be thoroughly considered during the detailed design phase, where it presents opportunities to incorporate waste minimisation and resource efficiency. Measures may include:

- incorporation of used materials or materials with recycled content which contribute to landfill diversion targets
- enabling the purchase of materials in shape/dimension and form that minimises the creation of off- cuts/waste
- considering what will happen to the materials specified when they reach the end of their useful life. Where possible, elements should be designed for repair, modular repair, recycling at the end of life or safe disposal.

The following measures are recommended for the minimisation of construction waste:

- use of prefabricated elements where possible
- material reuse
- any excavated materials could be carefully stored in segregated piles for subsequent reuse on the site wherever possible. These excavated materials should be reused as deposition material for infilling or landscaping
- avoid over-purchasing and accurate delivery times, ensuring materials are ordered for delivery shortly before they are used on the project would also avoid possible damage and therefore wastage
- use of take back schemes.

Operational phase

In keeping with the reduce, reuse, recycle hierarchy to waste management, it is recommended that the following measures are taken to allow owners and occupiers to participate in best practice operational waste management:

- explore segregation of organic waste from the residual stream within commercial premises
- explore the viability of small-scale organic waste treatment. Treatment via composting has the potential to recycle the organic waste into a product which may be used within the development green areas, offset the use of imported materials and reduce emissions due to transport and disposal
- introduce paper and cardboard balers in buildings with high paper and cardboard arisings
- facilities management to engage with City of Parramatta in delivery of waste handling training to increase awareness of waste avoidance activities for staff, residents and visitors.

The waste generation rates are summarised in the table below.

Table 20 – Operational waste rate estimations

Use	Units	Residual waste	Recycling
Commercial	Litres/100m²/ day	8	6
Retail (non-food sales)	Litres/100m²/ day	80	70
Residential	Litres/ unit/ week	80	40

The required bin collection frequency is summarised in the table below.

Table 21 – Operational waste rate estimations

Use	Waste stream	Collections per week
Commercial	Residual waste	2 x weekly
	Recycling	2 x weekly
Retail	Residual waste	2 x weekly
	Recycling	2 x weekly
Residential	Residual waste	2 x weekly
	Recycling	2 x weekly

The minimum waste area targets are outlined in the table below.

Table 22 – Waste requirements

Element	Use	Area required m^2 (excluding manoeuvring space)	Area required m^2 (including manoeuvring space and 0.15m clearance between bins)
Building 1	*Retail*	*$9m^2$*	*$21m^2$*
	Commercial	*$14m^2$*	*$31m^2$ plus $12m^2$ for bulky waste*
Building 2	*Residential*	*$7m^2$*	*$16m^2$ plus $20m^2$ for bulky waste*
	Commercial	*$2m^2$*	*$5m^2$*
	Retail	*$2m^2$*	*$5m^2$ plus $8m^2$ for bulky waste*
Building 3	*Residential*	*$16m^2$*	*$37m^2$ plus $48m^2$ for bulky waste*
	Commercial	*$2m^2$*	*$5m^2$*
	Retail	*$3m^2$*	*$8m^2$ plus $8m^2$ for bulky waste*

Based on the expected waste generation from the concept design and assumptions, the area and spaces allocated for operational waste storage and collection for the proposed development are considered to be sufficient. A detailed WMP for the operational phase of the development would be prepared and submitted as part of the Detailed SSDA(s).

6.17 Aboriginal cultural heritage

Overview

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared (Appendix BB) to identify Aboriginal cultural heritage values within the study area, conduct consultation with Aboriginal stakeholder groups and to assess impacts to Aboriginal heritage that may result from the proposal.

Methodology

The methodology to assess the impacts to Aboriginal heritage that may result from the proposal include:

- Assessment of the Aboriginal cultural heritage values of the study area and identification of any specific areas of cultural significance.
- Assessment of archaeological potential for the study area.
- Aboriginal stakeholder consultation.
- Preparation of a methodology for archaeological management including test excavation and salvage where required.

Assessment

An assessment of the cultural heritage significance of an item or place is required in order to form the basis of its management. *The Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) provides guidelines for heritage assessment with reference to the *Burra Charter* (Australia ICOMOS 2013). The assessment is made in relation to four values or criteria:

- Social: The spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people.
- Historic: associations of a place with a historically important person, event, phase or activity in an Aboriginal community.
- Scientific: the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which it may contribute to further understanding and information.
- Aesthetic: the sensory, scenic, architectural and creative aspects of the place.

An assessment against each value or criterion is provided below:

- Social: One RAP commented that the area was highly significant to Aboriginal people because Aboriginal people have taken care of the land for thousands of years and are connected to the land through their lore, kinship and customs and connected with each other through waterways. Aboriginal people have a long oral history of knowledge about the land and caring for country.

  There was also one response to the draft ACHAR as sent to the RAPs on 5 August for comment. The response was supportive of the report's recommendations. Further, it identified that many waterways run near the SOP study area, which would have been used by the Aboriginal people and supported flora and fauna, allowing Aboriginal people to thrive. It also requested that where possible, flora and fauna are regenerated through the project and opportunities included to allow for interpretation and connecting to country in a culturally appropriate way.
- Historic: No comment was made on the historical values specific to the study area. However continuous connection to land over thousands of years was stated as significant.
- Scientific: As there are no AHIMS sites in the study area, there are no archaeological values in the site, and therefore there is no scientific significance.
- Aesthetic: No comment was made on the aesthetic values specific to the study area although connection to the land is significant and includes intangible values.

The study area does not hold any archaeological scientific values. As no archaeological finds have been discovered in the study area, the impact of the

proposed development has been assessed has having no harm and no cumulative impacts to the Aboriginal heritage of the region.

Mitigation measures

Based on the results of this assessment and in accordance with Aboriginal heritage guidelines mandated in the standard industry SEARs, the following recommendations are made:

- As the proposal does not include excavation, there would be no impact on any Aboriginal archaeological heritage values and it is recommended that further assessment is not required until the Detailed SSDA stage.
- If changes are made to the proposal that may result in impacts to areas not assessed by this ACHAR, further assessment would be required.
- If any aboriginal objects, or potential objects, are uncovered during the proposed development, all work in the vicinity should cease immediately and The Sydney Metro Unexpected Heritage Finds Procedure followed. A qualified archaeologist should be contacted to assess the find.
- If human remains, or suspected human remains, are found during the proposed development, all work in the vicinity should cease, the site should be secured, and the NSW Police and Heritage NSW should be notified, and The Sydney Metro Unexpected Heritage Finds Procedure and Exhumation Management Procedure should be followed.

6.18 Environmental heritage

Overview

A Historic Heritage Impact Statement (HHIS) has been prepared (Appendix CC) to address the extent of impact on heritage items in the vicinity of the site including built and landscape items, conservation areas, views and settings.

The HHIS addresses the impacts of the development on State and locally listed heritage items in proximity to the site. The HHIS identifies the following State and local heritage items located in the vicinity of the site:

- State Heritage Register (SHR) Listing No. 01839 - Olympic Cauldron at Sydney Olympic Park.
- State Environmental Planning Policy (Precincts – Central River City) 2021 items:
    - State Abattoirs HCA (Item A)
    - Abattoir Heritage Precinct Sydney Olympic Park (Within Item A)
    - Olympic Cauldron at Sydney Olympic Park (Item C).
- State Regional Environmental Plan No.24 (Homebush Bay Area) 1993 items:
    - State Abattoir locality - The Vernon Buildings, the Maiden Gardens and the Railway Garden within the Historic Abattoir Administration Precinct (Item 1)
    - State Abattoir locality – The Avenue of Palms (Item 2)
    - State Abattoirs Heritage Conservation Area (Area No.1).

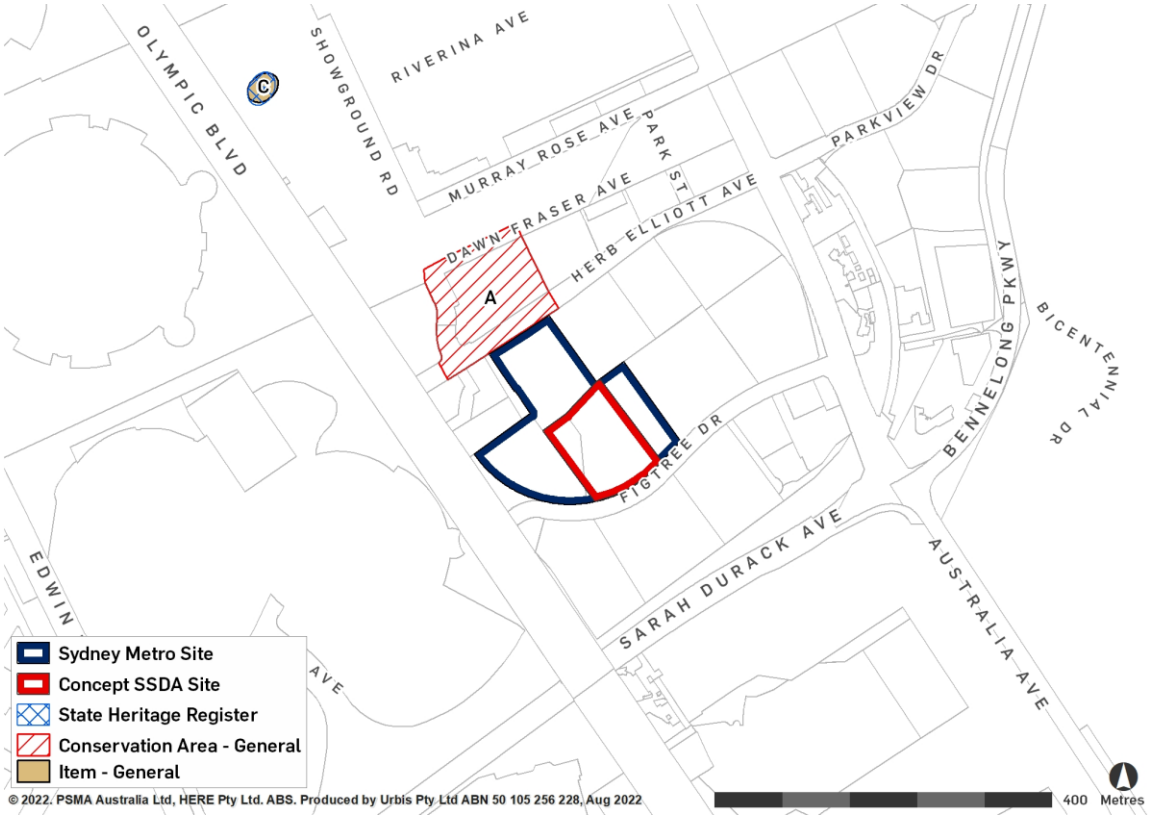


Figure 6-20 Location of heritage items in vicinity of site

The Statement of Significance for each of the listed heritage items within the immediate locality is provided below.

Table 23 – Statement of significance for surrounding State and locally listed heritage items

Listed heritage item	Statement of Significance
SHR Listing No. 01839 - Olympic Cauldron at Sydney Olympic Park	The Olympic Cauldron at Sydney Olympic Park is of State historic significance as the culmination of the opening ceremony of the Sydney Olympic Games on 15 September 2000 and a reminder of Sydney's success and honour in having hosted the Millennium Games.
State Abattoirs HCA (Item A)	The Abattoir Heritage Precinct is of State significance as an intact and extant component of the Homebush State Abattoirs, dating from 1913-1988. The State Abattoirs was Australia's largest and most modern abattoir during this period, responsible for the centralised control of meat slaughtering, sale and distribution in Sydney. As such, the site is extremely rare.
Abattoir Heritage Precinct Sydney Olympic Park (Within Item A)	As per State Abattoirs HCA (Item A) above.
Olympic Cauldron at Sydney Olympic Park (Item C)	As per Item 1 above.

State Abattoir locality - The Vernon Buildings, the Maiden Gardens and the Railway Garden within the Historic Abattoir Administration Precinct (Item 1)	The State Abattoirs were developed between 1913 and 1988. Significant remnant elements within the former abattoir site include a collection of five distinctive Federation style buildings designed by Government Architect Walter Liberty Vernon, set within attractive landscaped gardens that were designed by Government Botanist and Director of Sydney Botanic Gardens Joseph Maiden.
State Abattoir locality – The Avenue of Palms (Item 2)	While the 'Avenue of Palms' was previously included within the curtilage of the SEPP State Abattoirs HCA/Abattoir Heritage Precinct, it has been excised from the HCA/item since 31 August 2018.
State Abattoirs Heritage Conservation Area (Area No.1)	As per Item 2 above.

Overall, the Historic Heritage Impact Statement determines that the proposed Concept SSDA is capable of having acceptable heritage impacts if mitigated in the detailed design phase. In summary:

- Given the degree of separation (over 600m), there is nil heritage impact on the physical or visual setting of the Olympic Cauldron.
- The proposed development is separated from the Abattoir Precinct by over 130m and by open parkland, pedestrian circulation and the Sydney Metro station box.
- The three proposed buildings all incorporate a tower. The podiums for Building 2 and 3 are proposed to be 4 storey. The tower portions are further setback, with the two closest buildings (Building 1 and 2) being of 21 and 27 storeys. The proposed 45 storey tower is further setback behind the 27 storey tower. This additional setback of the larger tower will further reduce any visual impact the development has from important views to and from the Abattoir Precinct. The visual impact of the proposed development has been considered in the VIA.
- Significant views to and from the Abattoir Precinct from Olympic Boulevard, Herb Elliott Avenue, Dawn Fraser Avenue and the existing Olympic Park Railway Station will largely remain as is, with tower development blending into the existing built development. The addition of a new park (to be delivered under the CSSI approval) adjacent to the Abattoir Precinct will allow new publicly accessible significant views across to the precinct. The visual impact of the proposed development has been considered in the VIA and extracted below. As shown on viewpoints 02 and 06 below, the proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline.

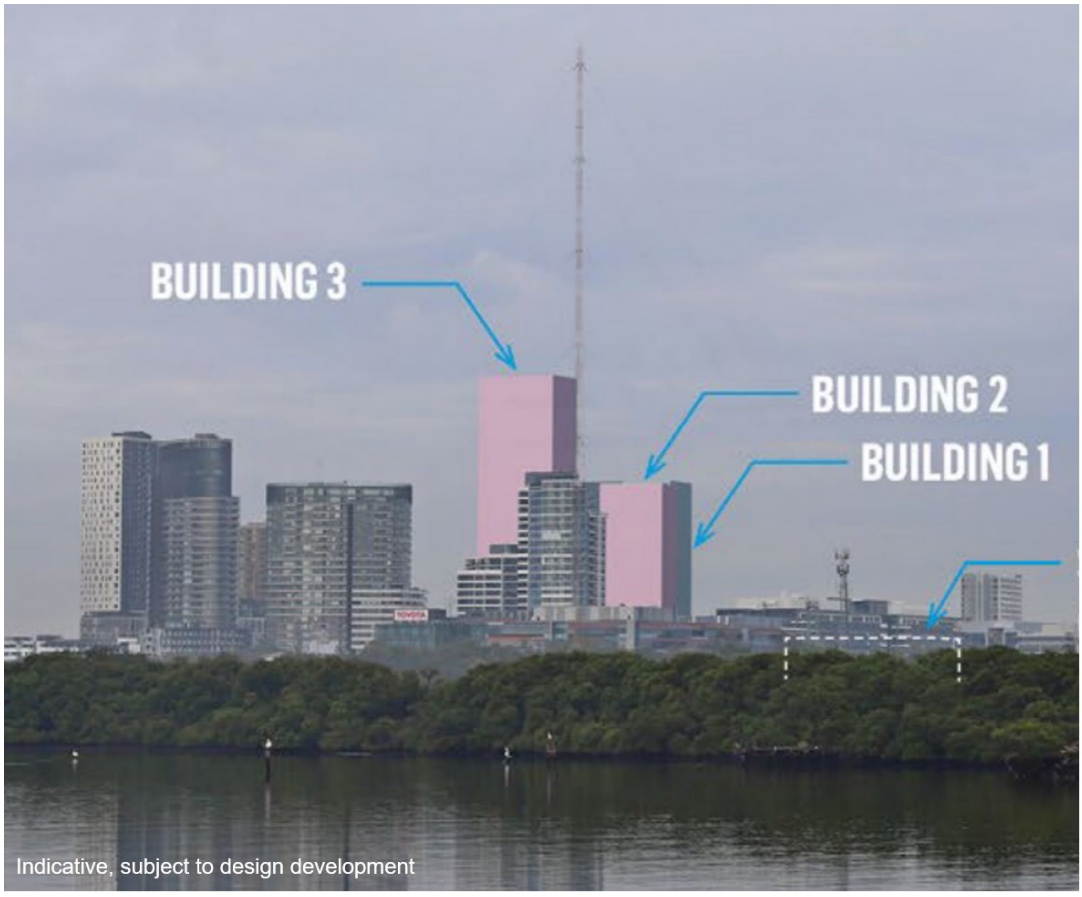


Figure 6-21 View from Lewis Berger Park

Figure 6-22 View from Treillage Observation Tower, Bicentennial Park

- The Shadow Impact Analysis (Appendix K) indicates that there are no significant overshadowing impacts from the Concept SSDA building envelopes because the heritage items are located to the north of the site.

Therefore, the proposed development has little to no impact on the heritage items within the vicinity.

Mitigation measures

The Heritage Impact Statement determines that there is little to no impact from the proposed Concept SSDA on the heritage significance of the Olympic Cauldron or Abattoir Precinct heritage items/area. Therefore, no need for mitigation measures is identified.

6.19 Social impact

Overview

A Social Impact Assessment (SIA) has been prepared to identify and analyse the potential positive and negative social impacts associated with the proposed development. The SIA has been prepared in accordance with the DPE *Social Impact Assessment Guideline for State Significant Projects* (SIA Guidelines). It involves a detailed and independent study to scope potential social impacts, identify appropriate mitigation measures and provide recommendations aligned with professional standards and statutory obligations.

Methodology

Table 24 outlines the methodology undertaken to prepare the SIA. The methodology was informed by the guidance contained within DPE's SIA Guidelines.

Table 24 – SIA Methodology

Background review	Impact scoping	Assessment and reporting
Review of surrounding land uses and site visit Review of relevant state and local policies to understand potential implications of the proposal Analysis of relevant demographic data to understand the existing community	Review of site plans and technical assessments Consultation with Sydney Olympic Park Authority and review of previous consultation outcomes to identify potential impacts Identification of impacted groups and initial scoping of impacts	Assessment of significant impacts considering management measures Provision of recommendations to enhance positive impacts, reduce negative impacts and monitor ongoing impacts

Assessment

A community profile has been developed for the suburb of Sydney Olympic Park, based on Australian Bureau of Statistics data. Key characteristics of the community include:

- small households of young adults
- high density, rental living predominant
- high rates of public transport use
- culturally and linguistically diverse
- high median rent and housing stress
- high unemployment rates (9%) compared to the Parramatta LGA rates (7%) and Greater Sydney (6%)
- workforce in predominately professional, managerial, clerical, administrative and service-sector roles
- strong population growth.

A range of impacts were assessed including:

- access to health services
- engagement with Aboriginal culture
- increased employment opportunities in an accessible location
- increased housing supply in an accessible location
- increased activation of the site
- access to suitable open space and social infrastructure
- potential impacts to residential amenity from noise and construction works
- access to diverse and healthy food options.

The six latter social impacts identified above are considered to result in moderate to high impacts and have been assessed further. The table below summarises the potential social impacts associated with the proposed development.

Table 25 – Summary of potential social impacts

Description of impact	Impacted groups	Overall impact rating
Potential for increased employment opportunities in an accessible location through the development of greater commercial and retail building envelopes	Sydney Olympic Park residents Workers in surrounding suburbs, particularly those connected by the Sydney Metro West line	Very high positive impact
Increased housing supply in an accessible location through the integration of residential use with the new Sydney Olympic Park metro station	Sydney Olympic Park residents Parramatta LGA community	High positive
Potential for increased activation of the site throughout the day and evening	Sydney Olympic Park residents, workers and visitors	Medium positive
Access to local social infrastructure and open space areas	Sydney Olympic Park residents Incoming residential population	Neutral
Potential impact to residential amenity from noise and other emissions from cumulative construction works and operational noise	Sydney Olympic Park residents	Neutral
Access to diverse and healthy food options	Sydney Olympic Park residents Incoming residential population	Neutral

Mitigation measures

The following recommendations are provided to further manage the potential impacts from the proposal:

- During subsequent SSD applications, develop an employment strategy to encourage end occupiers to include targets for local hires and inclusion and diversity.
- As part of the preparation of detailed SSDA(s), assess the quantity of affordable housing achievable within the development. This should align with the amount required in relevant state and local policies and strategies.
- Consider flexible residential floor plans to enable a diverse housing mix.
- Implement all recommendations identified in the CPTED Assessment.
- Provide key design principles around activation and safety in the Design Excellence Strategy or Design Guidelines to ensure these measures are incorporated through the subsequent detailed SSD applications.
- Prepare and implement a Plan of Management(s) for all key building uses as part of future detailed SSD applications to help further manage crime and safety on site. The Plan of Management may include details around operating hours, operational safety and security measures, noise management and patron capacity.
- Consult with the local resident and business community during future detailed SSD applications to understand the type of evening activity or retail uses which are desired on site, and to keep them informed of the new offerings to the area.
- Assess the demand for social infrastructure and open space generated by future residents and workers within the development, and the way in which future detailed SSDA(s) can contribute to meeting this demand.
- Identify the social infrastructure and open space provision, works in kind and/or development contributions to be provided to meet the needs of future residents and workers within the development, having regard to the SOP Master Plan 2050 and Sydney Olympic Park Infrastructure Contributions Framework (ICF).
- Seek to implement the mitigation measures and recommendations provided by the NVIA.
- During the detailed SSDA stages, consider creation of retail spaces which could accommodate additional fresh food offerings.

Based on this assessment and the above social impacts, the Concept SSDA is likely to have a medium positive impact on the community. The overall impact assessment is influenced by the likelihood of the proposal to increase employment opportunities and housing supply in a highly accessible location.

The overall positive impact of the proposal could be further enhanced through the implementation of the SIA recommendations.

6.20 Infrastructure requirements and utilities

Overview

A Utilities and Infrastructure Servicing Assessment has been prepared to identify existing infrastructure, identify required augmentation, outline the connection strategy and provide key considerations for each utility/service associated with the indicative reference scheme (Appendix EE).

Where utilities and services are not provided under the CSSI approval, the provision of services for the OSD and ASD would be the responsibility of the future developer and any connections to, or augmentation of existing services would form part of the future Detailed SSDA.

Methodology

The utilities and infrastructure servicing assessment methodology is summarised as:

- Desktop investigation: 'Dial Before You Dig' enquiries.
- Review and coordination with station utility servicing requirements.
- Undertaking utility assessments and demand modelling.
- Incorporating sustainability initiatives.
- Development and submission of feasibility applications to each utility authority with projected demands.

The site is currently serviced by the following services:

- Stormwater: Stormwater assets within the public road reserve are owned and maintained by Sydney Olympic Park Authority (SOPA). Stormwater assets within private property are expected to be the responsibility of the landowners, although this is to be confirmed. The desktop information indicates the presence of a number of stormwater assets in the area.
- Wastewater: Wastewater servicing is provided by the Sydney Water Corporation (SWC), which directs wastewater within the proposed development site area to the SOPA Water Reclamation Management Scheme (WRAMS) water treatment plant at the corner of Old Hill Link and Edwin Flack Avenue.
- Potable Water: Potable water at the Sydney Olympic Park metro station precinct is currently supplied by Sydney Water from the Prospect Water Filtration Plant and the Sydney Desalination Plant (when required) through the Potts Hill Water Delivery System.
- Recycled Water: Recycled water servicing is provided by SWC. Treated wastewater from the reclamation plant, along with water held at Brickpit storage, is sent to the water treatment plant on Marjorie Jackson Parkway, near Bennelong Parkway, where it is treated before being supplied back to SOPA venues.
- Telecommunications: Telecommunications servicing are provided by Telstra, Optus, Uecomm, Vocus, Vodafone and TPG.
- Electrical: Electrical servicing is provided by Ausgrid.
- Gas: Gas servicing is provided by Jemena.

Assessment

Indicative development profiles based on the architectural targets were provided to estimate the future servicing demand.

Where utilities and services are not provided under the CSSI approval, the provision of services for the OSD and ASD would be the responsibility of the future developer and any connections to, or augmentation of existing services would form part of the future Detailed SSDA.

Demand modelling has been based on indicative development yields for the purpose of considering lead-in utility infrastructure requirements. A summary of the results is presented below.

Stormwater

The proposed stormwater works are outlined in detail in Section 6.12 and Appendix X – Integrated Water Management Plan. The recommended stormwater works include the construction of stormwater pipe network and associated storage and rainwater tanks (hydraulics) within the development and Water Sensitive Urban Design (WSUD) treatment measures, including:

- rainwater tank
- stormfilters
- gross pollutant traps
- bio-retention basin (rain gardens/tree pits).

Wastewater

To allow for construction and servicing of the development, the following alteration works are required:

- protect DN300mm VC pipe on Herb Elliott Avenue from new kiss and ride works
- protect the DN225mm VC and DN150mm VC gravity pipes on Herb Elliott Avenue within the site boundary for use as a connection back to the sewer mining pressure main
- protect DN150mm VC gravity pipe crossing Australia Avenue at the Figtree Drive intersection from intersection upgrade works
- new sewer gravity connection from Site 47 to existing gravity main within No. 5 Figtree Drive
- new sewer gravity connection from Site 40 to existing sewer main on along Herb Elliott Avenue.

Potable water

To allow for construction and servicing of the proposed development, the following alteration works are required:

- protect 1 x DN200mm and 1 x DN250mm DICL pipes along Herb Elliott Avenue between Australia Avenue and Olympic Boulevard
- relocate 2 x DN100mm, 1 x DN150mm and 1 x DN200mm DICL pipes along Figtree Drive between Australia Avenue and Olympic Boulevard
- protect DN150 DICL in-trench pipes crossing Australia Avenue at the Figtree Drive intersection
- new water supply for fire systems and domestic water connection to Site 47 (including station services) from the existing water main on Figtree Drive
- new water supply for fire systems and domestic water connection to the station building from the existing water main on Herb Elliott Avenue.

Recycled water

To allow for construction and servicing of the development, the following alteration works are required:

- relocate DN150mm DICL in-trench pipe along Figtree Drive between Australia Avenue and Olympic Boulevard away from bus interchange work
- protect DN100mm DICL in-trench pipe crossing Australia Avenue at the Figtree Drive intersection

- a potential new recycled water connection from Site 47 to existing recycled water main on Figtree Drive
- a potential new recycled water connection from Site 40 to existing recycled water main on Herb Elliott Avenue.

Telecommunications

To allow for construction and servicing of the development, the following alteration works are required:

- protect 3 x Optus OF cables, 2 x TPG OF cables, 2 x Uecomm OF cables, Vocus OF cables and 1 x Telstra OF conduit bank along Herb Elliott Avenue between Australia Avenue and Olympic Boulevard
- protect 2 x Telstra OF conduit banks along Figtree Drive
- protect NBN OF cables in 5 x conduits along Figtree Drive
- protect Telstra OF conduits on Herb Elliott Avenue
- a potential new telecommunications connection from Site 40 to the existing conduit on Herb Elliott Avenue
- a potential new telecommunications connection from Site 47 from the existing conduit on Figtree Drive
- a potential new telecommunications connection from Site 47 to a proposed communications conduit along Precinct Street A connecting back to Figtree Drive.

Electrical

To allow for construction and servicing of the development, the following alteration works are required:

- installation of new HV cable crossing Herb Elliott Avenue and connecting into Lot 132 DP1889734 (No. 8 Herb Elliott Avenue)
- relocate three streetlighting poles on Figtree Drive between Australia Avenue and Olympic Boulevard
- decommission one HV ground substation and associated cabling (3 x 11kV and 3 x LV) along Figtree Drive between Australia Avenue and Olympic Boulevard
- decommission one HV chamber substation and associated cabling (4 x 11kV and 2 x LV) along Herb Elliott Avenue between Australia Avenue and Olympic Boulevard
- protect 7 x 11kV and 5 x LV underground cables outside the excavation area on Herb Elliott Avenue between Australia Avenue and Olympic Boulevard
- protect 2 x 11kV and 2 x LV cables along Herb Elliott Avenue between Park Street and Showground Road
- protect 4 x 11KV, 4 x LV and 1 x streetlighting LV cables along Figtree Drive between Australia Avenue and Olympic Boulevard
- a potential new electrical connection from Site 47 to the existing electrical cable on Figtree Drive
- a potential new electrical connection from Site 47 to a proposed electrical cable on Precinct Street A to the existing electrical cable on Figtree Drive
- a potential new electrical connection from Site 40 to the existing electrical cable on Herb Elliott Avenue.

Gas

To allow for construction and servicing of the development, the following alteration works are required:

- protect DN75mm MP nylon pipe along Figtree Drive between Australia Avenue and Olympic Boulevard
- a new regulator set will be required
- one 110mm PE main interconnection in Herb Elliott Avenue and one main upgrade in Olympic Boulevard will be required
- a potential new gas connection from Site 40 to the existing gas main on Herb Elliott Avenue
- a potential new gas connection from Site 47 to the existing gas main on Figtree Drive
- a potential new gas connection from Site 47 to a proposed gas main on Precinct Street A, which connects to the existing gas main on Figtree Drive.

Utility authority consultation

Feasibility applications were prepared with the estimated demand of the development and indicative servicing arrangements for authority review and comment:

- Sydney Water
- NBN Co.
- Ausgrid
- Jemena.

Copies of these feasibility applications and authority responses are contained within the Utilities and Infrastructure Servicing Assessment at Appendix EE.

It is noted that only a response letter has been received from Sydney Water. Further consultation to the specific design responses with utility authorities will be required as part of future applications. This will further facilitate the cumulative impacts assessment.

Cumulative impact

There is limited information regarding the estimated demand of utility requirements of neighbouring sites. Utility providers are to determine the effective demand of all sites and coordinate utility works to ensure adequate servicing.

Appropriate diversions, protections and utility upgrades will be facilitated by utility provider inputs following completed consultations.

Any cumulative impacts on utility infrastructure will be discussed with utility providers and be noted during the construction of Site 2A and 2B, Sydney Olympic Park and Site 43/44 Sydney Olympic Park.

No additional mitigation measures will be required for the site.

Conclusion

The assessment has concluded that servicing is available to the proposed development site with indicative connections for each service being:

- new sewer gravity connections from the proposed station and development site to a proposed sewer main along Figtree Drive to a new pit at the intersection with Olympic Boulevard
- new potable water connection to the proposed station and development site from the existing Sydney Water mains on Figtree Drive and Herb Elliott Avenue.

Additionally, a number of existing services will require relocation as a part of the construction works and future work will be required to provide servicing for the proposed development.

The building design of the proposed development is subject to further design development as part of Detailed SSDAs. Requirements to ensure adequate servicing include:

- further coordination with utility agencies on lead-in infrastructure connections and any amplifications of existing assets
- further utility investigation including slit trenching and obtaining Quality Level A survey information of existing utility assets
- implementation of selected sustainability initiatives in the building design and revised demand modelling to determine the impacts on the required lead-in infrastructure
- formal connection applications for utility services through appropriate channels such as Water Service Coordinators and Accredited Service Providers
- development of formal utility relocation and connection packages to the utility agencies including any protection details of existing utility assets.

Further information will be included as part of Detailed SSDAs.

6.21 Construction, operation and staging

Overview

A Construction Management Statement (CMS) (Appendix FF) outlines the approach the proposed development could take to deliver the works within the safety and environmental compliances required to be adhered to. The CMS highlights the key principles of constructability and the key mitigation measures to be taken to ensure the community are considered and impacts are kept to a minimum.

Assessment

A Construction Environmental Management Framework (CEMF) has been prepared for the site under the Stage 3 CSSI Application which details the construction impacts associated with the site. The construction, operation and staging for the proposed development would also be subject to detailed SSDAs but should align with the principles in the CEMF for the Stage 3 CSSI Application, especially if construction activity for the development is occurring concurrently with the station construction.

The following three possible staging scenarios have been identified for delivery of the integrated station development.

- Scenario 1: proposed development construction would be completed prior to commencement of Sydney Olympic Park metro station operations.

- Scenario 2: proposed development construction would commence during Sydney Olympic Park metro station construction but completed after Sydney Olympic Park metro station operations commence.
- Scenario 3: proposed development construction would commence after Sydney Olympic Park metro station is operational.

Cumulative impact

The following construction projects are the subject of separate SSDAs and could be in delivery at the same time as this proposal development:

- Sydney Olympic Park, Site 2 (2A and 2B), Lot 71, DP 1134933
- Sydney Olympic Park, Site 43 & 44, Lot 56, DP 773763 and Lot 72, DP 1134933.

A review of the publicly available construction information indicates that Homebush Bay Drive, Australia Avenue, and Herb Elliott Avenue form the primary construction vehicle routes for the construction of Site 2A and 2B Sydney Olympic Park and Site 43/44 Sydney Olympic Park. Australia Avenue also forms part of the primary and secondary construction routes for this proposal.

No information about the estimated number of construction vehicles for the construction of Site 2A and 2B, Sydney Olympic Park and Site 43/44 Sydney Olympic Park is publicly available. However, the number of construction vehicles is anticipated to be low and would have a minimal impact on the road network and intersections at the vicinity of the Concept SSD for Sydney Olympic Park metro station.

Construction traffic modelling would be undertaken at the detailed stage of the SSDA to ensure that changes to traffic arrangements would not result in significant impact on network performance.

Cumulative impacts on the public transport are not anticipated as a result of the construction of the projects. In addition, cumulative impacts on the pedestrian infrastructure are not anticipated as a result of the construction of the projects.

Mitigation measures

The CMP concludes that the proposed development is suitable from an accessibility perspective subject to the implementation of the following mitigation measures:

- Appropriate diversions would be established to safely guide pedestrians around work zones in accordance with Construction Traffic Management Framework (CTMF).
- Appropriate diversions would be established to safely guide pedestrians around work zones in accordance with CTMF.
- Limited construction vehicle movements during major events in accordance with CTMF.
- Parking alternatives to be identified within the precinct in consultation with Sydney Olympic Park Authority (SOPA) and in accordance with parking management plan and CTMF.
- CTMF outlines mitigation measures that would be implemented to minimise impacts during major events which would be detailed in future Construction Traffic Management Plans.

6.22 Contributions and public benefit

Detailed SSDAs would be subject to the Sydney Olympic Park Local Infrastructure Contributions Framework (ICF).

A determination of this Concept SSDA will not trigger a contribution as the determination does not authorise the carrying out of development without further consent. The value of the contribution would be determined as part of the future Detailed SSDA(s). At that stage, the precise floor space and specific details would be known.

Sydney Metro is currently negotiating a developer agreement, within the ICF, with SOPA for public domain works being delivered as part of the CSSI.

In addition, as there is no CSSI requirement to build Precinct Street A, it would be up to the future developer of this proposal to deliver this road (or part thereof) and negotiate any offsets for these works with SOPA.

7 Justification of the proposal

This section provides a comprehensive evaluation of and justification for the project having regard to its economic, environmental, and social impacts, including the principles of ecologically sustainable development.

It assesses the potential benefits and impacts of the proposed development, considering the interaction between the findings in the detailed assessments and the compliance of the proposal within the relevant controls and policies.

In summary, this Concept SSDA seeks consent at a conceptual level for the proposed land uses, maximum building envelopes, maximum building heights, maximum gross floor area, pedestrian and vehicle access, vertical circulation arrangements and associated car parking. Future Detailed SSDA(s) would be sought for the detailed design and construction. The proposed development has been carefully considered to minimise its potential impacts, as explored below.

7.1 Minimise impacts of the project

The parameters of the Concept SSDA have been carefully resolved to minimise potential impacts. The mitigation measures included in the technical reports are recommendations only based on the indicative reference scheme and would be subject to further development and refinement as part of subsequent Detailed SSDA(s).

The indicative design and construction measures to minimise impact are outlined in detail in Appendix E and summarised below.

Design

- Future Detailed SSDA(s) to consider and implement the Design Guidelines and Design Excellence Strategy.

Reflectivity

- Using a less reflective glazing would reduce the amount of light that is reflected from the façade.
- Using a non-reflective material or materials with increased roughness would control the impact of reflections.
- Introducing a non-reflective structure, design, or landscaping that shields the glazed façade would help to control the impact of reflections.
- Incorporating different built forms can help disperse light reflections. Concave-built forms should be avoided as these would instead concentrate sunlight, exacerbating the glare risk.

Wind

- Consider fixed or retractable canopies or awnings to protect patrons.
- Balustrading along the top of the podiums alongside the east-west through site link to funnel wind along the side of the buildings and away from the pedestrian link.
- Install landscape screening in critical positions. These trees would need to be mature and evergreen to be an effective mitigation strategy.
- Roughing elements such as banners would diffuse the energy contained in the wind.

Transport, traffic and parking

- Prioritise active travel user safety on Precinct Street B. It is anticipated that high volumes of cyclists and other vulnerable users would use this link during peak hours to access the end of trip facilities in Building 1. Low speeds and appropriate signage should be provided to reduce the likelihood of conflict with vehicles.
- Prepare a detailed Construction Traffic Management Plan as part of the future Detailed SSDA for adoption during the construction phase.
- Create a travel plan to reduce car trips and encourage the use of sustainable transport as part of the future Detailed SSDAs.

Noise and vibration

- Develop a detailed Construction Noise and Vibration Management Plan (CNVMP) at Detailed SSDA stage.
- Undertake further investigation in the detailed design stage to manage predicted exceedances to non-residential sensitive receivers and nearby commercial receivers.
- Implement feasible and reasonable management measures and work practices such as the standard mitigation measures outlined in the Sydney Metro Construction Noise and Vibration Strategy.
- Refine the indicative operational noise and vibration mitigation measures during detailed design. These indicative mitigation measures include:
    - Acoustic treatment for mechanical plant such as cooling towers, heat pumps, stair pressurisation and generators.
    - Acoustic treatment for all major equipment installed, these could include acoustic barriers around rooftop plant, robust construction of plant room, acoustic louvers, acoustic attenuators for mechanical ductwork, acoustic mufflers in generator exhaust systems, internal lining of ductwork and selection of low noise plant.
    - All major equipment, installed as part of the proposed development, should be mounted on isolation mounts.
    - Acoustic treatments, such as attenuators, acoustic louvres and mufflers, should be incorporated into the design as required to meet the emergency operations noise emission criteria.
    - Testing of emergency equipment, such as generators, should be scheduled during day-time periods to minimise sleep disturbance.
    - The preliminary assessment recommends an indicative glazing thickness of 10.38mm thick laminated glass for office and residential uses.
    - During detailed design where more information about traffic movements is available, car park noise emission should be assessed to ensure compliance with the environmental noise criteria.
    - During detailed design where more information about loading dock movements is available, these noise emissions should be assessed to ensure compliance with the environmental noise criteria.

Ground and water conditions

- While the site contains a number of geotechnical challenges including the presence of joins/faults and high groundwater, it is considered that these challenges can be adequately addressed through the utilisation of industry standard design and construction techniques and practices.
- Ground conditions assumed in design may vary from actual site conditions encountered during construction. To reduce the potential for this variation, further geotechnical investigation should be carried out prior to detailed design and subsequent construction.

Flooding

- Further consultation would be undertaken where relevant with the Sydney Olympic Park Authority and the City of Parramatta Council during the Detailed SSD preparation.
- To ensure the ground floor of the development proposal and entrance to the underground basement are flood free a 300mm freeboard above the 1% AEP flood level or top of kerb has been included. The 1% AEP including 300mm freeboard is higher than the PMF flood level on the site.
- An emergency management plan which considers high hazard in adjacent roads during very rare and extreme flood events would be required during detailed design to manage risk to life associated with access or egress from the site.

Social impact

- During subsequent SSD applications, develop an employment strategy to encourage end occupiers to include targets for local hires and inclusion and diversity.
- As part of the preparation of detailed SSDA(s), assess the quantity of affordable housing achievable within the development. This should align with the amount required in relevant state and local policies and strategies.
- Consider flexible residential floor plans to enable a diverse housing mix.
- Implement all recommendations identified in the CPTED Assessment.
- Provide key design principles around activation and safety in the Design Excellence Strategy or Design Guidelines to ensure these measures are incorporated through the subsequent detailed SSD applications.
- Prepare and implement a Plan of Management(s) for all key building uses as part of future detailed SSD applications to help further manage crime and safety on site. The Plan of Management may include details around operating hours, operational safety and security measures, noise management and patron capacity.
- Consult with the local resident and business community during future detailed SSD applications to understand the type of evening activity or retail uses which are desired on site, and to keep them informed of the new offerings to the area.
- Assess the demand for social infrastructure and open space generated by future residents and workers within the development, the planned provision in the wider precinct, and the way in which future detailed SSDA(s) can contribute to meeting this demand.
- Identify the social infrastructure and open space provision, works in kind and/or development contributions to be provided to meet the needs of future residents and workers within the development, having regard to planned provision through

the SOP Master Plan 2050 and Sydney Olympic Park Infrastructure Contributions Framework (ICF).

- Action the mitigation measures and recommendations provided by the NVIA
- During the detailed SSDA stages, consider creation of retail spaces which could accommodate additional fresh food offerings.

Infrastructure requirements and utilities

- Further coordination would be undertaken with utility agencies on lead-in infrastructure connections and any amplifications of existing assets.
- Further utility investigation would be undertaken including slit trenching and obtaining Quality Level A survey information of existing utility assets.
- Sustainability initiatives would be explored in the building design and, where necessary, revised demand modelling prepared to determine the impacts on lead-in infrastructure.
- Submit formal connection applications for utility services through appropriate channels such as Water Service Coordinators and Accredited Service Providers.
- Where necessary, formal utility relocation and connection packages would be prepared and submitted to the utility agencies including any protection details of existing utility assets.

Construction

- Appropriate diversions would be established to safely guide pedestrians around work zones in accordance with Construction Traffic Management Framework (CTMF).
- Limit construction vehicle movements during major events in accordance with CTMF.
- Investigate parking alternatives within the precinct in consultation with Sydney Olympic Park Authority (SOPA) and in accordance with parking management plan and CTMF.
- CTMF outlines mitigation measures that would be implemented to minimise impacts during major events which would be detailed in future Construction Traffic Management Plans.

7.2 Consistency with strategic context

The proposed development is consistent with the strategic planning objectives for the site as it would capitalise on the NSW Government's investment in public transport infrastructure by locating additional jobs and housing above a new metro station in Sydney Olympic Park.

The construction of Sydney Metro West represents an exciting opportunity to incorporate global best practice for placemaking and environmentally sustainable development, and to apply innovative thinking to create new city icons.

The proposed development would take advantage of the NSW Government's investment by creating a vibrant precinct that is well connected to transport and provides opportunities for place-based design and transit-orientated development.

The Sydney Olympic Park metro station precinct acknowledges growth opportunities within Sydney Olympic Park and seeks to establish parameters to attract more businesses and residents in a well-connected location, reducing reliance on private transport modes while continuing to ensure Sydney Olympic Park can operate and function as a world class event and sporting precinct.

Specifically, the proposed development is consistent with the following key strategic plans:

- NSW Premier's Priorities: The proposed development would assist in strengthening the economy by creating significant construction and operational job opportunities as well as the delivery of employment floor space. In addition, the proposed development would deliver a well-connected precinct with quality local environments.
- Greater Sydney Region Plan: A Metropolis of Three Cities: The proposal would support integrated land use and transport planning by providing jobs and housing above a new metro station, which is consistent with the regional plan.
- Central City District Plan: The proposed development would assist in realising the potential of the GPOP. The proposed development aligns with the economic growth and infrastructure investment by placing significant housing and employment floor space directly above Sydney Metro infrastructure.
- Future Transport Strategy 2056: The proposed development seeks to deliver residential, commercial and retail uses above and adjacent to the new Sydney Olympic Park metro station. The proposal provides scope for significant space for bicycle parking on-site to reduce reliance on private vehicles and increase the use of active and public transport. In addition, the proposed development supports the 30-minute city concept.

Overall, the proposed development is consistent with the strategic planning objectives for the site and would support the Government's investment in public transport infrastructure and the delivery of well-connected place focused communities.

7.3 Compliance with statutory requirements

The proposed development is considered compliant with the statutory requirements and the SOP Master Plan 2030 (Interim Metro Review) for the following reasons:

- The proposal development is consistent with the objectives of the EP&A Act including facilitating ESD and the achievement of strategic aims of Regional and State Planning Policies.
- The site is zoned B4 Mixed Use under the Central River City SEPP, where residential, commercial, and retail uses are permitted with consent.
- The proposed Concept SSDA is consistent with the zone objectives and would assist Sydney Olympic Park becoming an active and vibrant town centre in an accessible location, maximising public transport patronage and encouraging walking and cycling.
- The proposed development is consistent with the maximum building height control and FSR control.
- The proposal is capable of achieving design excellence, subject to the submitted Design Guidelines and Design Excellence Strategy. Sydney Metro is seeking endorsement from the Secretary (pursuant to Appendix 4, clause 30 of the Central River City SEPP) for the DEEP process to be utilised in lieu of the currently approved Sydney Olympic Park design competition procedures for Building 1, while Building 2 and 3 would proceed under the traditional Sydney Olympic Park design competition procedures.
- The EIS and supporting documents have adequately addressed the requirements of the SEARs to enable assessment and determination of the application.
- The DPE have determined that the proposed development would not be likely to have any significant impacts on biodiversity and therefore a BDAR is not required.

- The indicative reference scheme demonstrates that the building envelopes can comply with the relevant planning controls including the ADG and the SOP Master Plan 2030 (Interim Metro Review).

7.4 Economic, social, and environmental outcomes

Economic

The delivery of the proposed development would make a significant positive contribution to Sydney Olympic Park by providing additional employment-generating floor space in a well-connected area, provision of direct and indirect employment, and will contribute to housing supply.

During construction, it is expected that approximately 372 jobs would be generated over eight years, in addition to 2,247 ongoing jobs directly and a further 1,636 jobs indirectly created during the operation of the development.

The proposed development would facilitate the delivery of additional housing in a well-connected area, approximately 316 apartments (subject to the detailed design within future Detailed SSDA(s), therefore supporting delivery of diverse housing to meet the needs of the population and contribute to housing choice and affordability. The Concept SSDA demonstrates the capability to provide a mix of different dwelling typologies, including 1, 2, and 3-bedroom apartments.

Social

The proposed development is likely to have a medium positive impact on the community.

The overall impact assessment is influenced by the likelihood of the proposal to increase employment opportunities and housing supply in a highly accessible location. Based on the assessment in the SIA, the key social impacts of the proposal are:

- increased employment opportunities
- increased housing supply in an accessible location
- increased activation of the site
- access to suitable open space and social infrastructure
- potential impacts to residential amenity from construction and operational noise
- access to diverse and healthy food options.

The overall impact of the proposal could be further enhanced through the implementation of the SIA recommendations.

Environmental

The EIS provides a comprehensive assessment of the environmental outcomes of the Concept SSDA.

The proposed development is acceptable from an environmental outcome perspective, subject to mitigation measures, for the following reasons:

- The proposed building envelopes are capable of complying with the ADG.
- The building envelopes have been designed to maximise building separation to minimise privacy issues and increase solar access and outlook for all apartments.
- The surrounding public spaces would maintain a minimum of 2 hours of sunlight between 9:00am and 3:00pm at the winter solstice and improve on the requirements outlined in the SOP Master Plan 2030 (Interim Metro Review).

- The envelopes can be designed to minimise reflectivity and wind impacts through the detailed design phase with appropriate mitigation measures.
- The design of the public spaces would be subject to future Detailed SSDA(s). However, the Design Guidelines and Design Excellence Strategy would ensure the design of public spaces are high quality and integrate into the final design.
- The proposed development would create medium to low visual effects on the majority of baseline factors such as visual character, scenic quality and view place sensitivity from public domain view locations in most views.
- The proposal also maximises opportunities for green infrastructure, consistent with Greener Places. This can be through the potential provision of green roofs, private and communal gardens and winter gardens for higher residential uses.
- The ESD strategy sets ambitious targets and design initiatives that hold the potential to reduce the overall environmental impact.
- The proposed development seeks concept approval for a reduced number of parking spaces across the site than otherwise would be permitted, and thereby encourages residents and workers to shift to sustainable transport modes and reduce impacts on the broader road network.
- DPE have determined that the proposed development would not be likely to have any significant impacts on biodiversity and therefore a BDAR is not required.
- The proposed development would have a negligible heritage impact on the heritage items within the vicinity and, overall, would be a positive heritage outcome through the introduction of an additional park area directly opposite the heritage items.
- The site is capable of being serviced by all utilities, subject to upgrades.
- The proposed built forms proposed are not dissimilar in character, height or form to those within the surrounding visual context and the emerging context under the Sydney Olympic Park Master Plan 2030 (Interim Metro Review).
- Based on the assessment using available geotechnical data and experience on similar ground conditions, the proposed development is considered suitable for the site.

7.5 Conclusion

This EIS provides a comprehensive assessment of the environmental, social and economic impacts of the proposed development from this Concept SSDA. This EIS has addressed the requirements of the SEARs (Appendix A) so far as possible, having regard to the conceptual nature of the proposed development. The EIS has also addressed the relevant requirements contained in section 192 and 193 the EP&A Regulation.

It is concluded that the proposed development can be supported and approved for the following reasons:

- The site is zoned B4 Mixed Use under the Central River City SEPP, where residential, commercial, and retail uses are permitted with consent. The proposed Concept SSDA is consistent with the zone objectives and will ensure Sydney Olympic Park becomes an active and vibrant town centre in an accessible location, maximising public transport patronage and encouraging walking and cycling.

- The proposed development is consistent with the strategic planning objectives for the site and supports the Government's investment in public transport infrastructure and the delivery of well-connected place focused communities.
- The proposed development would support the growth of Sydney Olympic Park as a key planned employment and housing growth centre.
- The proposed development supports the '30-minute city' concept of the Central River City.
- The proposed development would create a vibrant precinct that is well connected to transport and provides opportunities for place-based design and transit-orientated development.
- The proposed building envelopes positively respond to the site conditions and surrounding local context and are consistent with the SOP Master Plan 2030 (Interim Metro Review).
- The proposed building envelopes have been developed to enable flexibility for the future Detailed SSDA(s) to facilitate a high-quality development.
- Subject to the various mitigation measures recommended by the specialist consultants, the approval would not have any unreasonable impacts on adjoining properties or public domain in terms of traffic, acoustic and environmental impacts.
- The project would deliver economic benefits particularly in creating full time jobs during construction and will sustain direct and indirect jobs during its ongoing operation.
- The site is required to undergo a design alternatives arrangement (Building 1) and design competition (Building 2 and 3) to ensure design excellence is achieved.
- During construction, it is expected that approximately 372 jobs would be generated over eight years, in addition to 2,247 ongoing jobs directly and a further 1,636 jobs indirectly created during the operation of the development.
- The site is suitable for the proposed development.
- The proposed development is in the public interest. The proposal would contribute to the provision of a 30-minute Central City, co-locating housing and employment at a site which directly benefits from very good access to services, employment and transport.