Sydney Metro West

Environmental Impact Statement

Pyrmont Over Station Development

February 2024

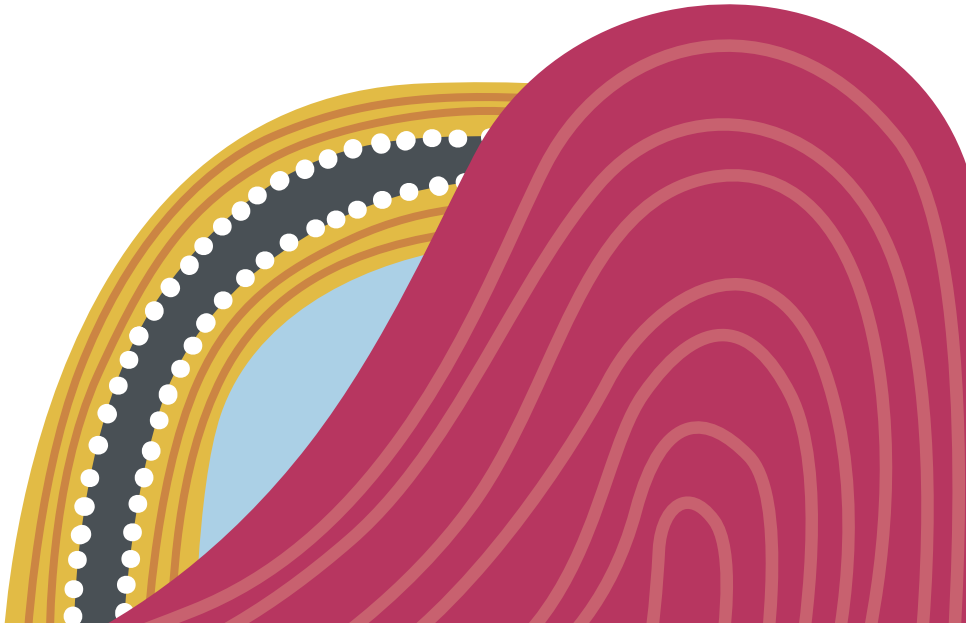
sydneymetro.info

NSW GOVERNMENT

sydney METRO

Acknowledgement of Country

Sydney Metro pays respect to Elders past and present, and recognises and celebrates the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.



Cover Image: Caption.

Environmental Impact Statement

Sydney Metro West

Pyrmont Station Over Station Development

Concept State Significant Development Application

February 2024 | Version: 8 (Final)

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Declaration

Project details	
Project Name:	Pyrmont Metro Station – Over Station Development
Application Number:	SSD-49620481
Project Address:	Lot 1 in DP 620352 and Lot 1 DP 657429 within City of Sydney
Applicant details	
Applicant name:	Sydney Metro
Applicant address:	Sydney Metro West, PO Box K659, Haymarket, NSW 1240
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Declaration by registered environmental assessment practitioner	

Name: Jacqueline Parker	
Registration number:	68278
Organisation registered with:	Planning Institute of Australia

Declaration	The undersigned declares that this EIS: • Has been prepared in accordance with Clause 192 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	15 February 2024

Glossary and abbreviations

Term	Definition
ADG	Apartment Design Guide
BC Act 2016	*Biodiversity Conservation Act 2016*
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*
CNVMP	Construction Noise and Vibration Management Plan
Council	City of Sydney Council
CSSI	Critical State Significant Infrastructure
CTMP	Construction Traffic Management Plan
Design Guidelines	Pyrmont Peninsula Design Guidelines
Design Report	Pyrmont Urban Design Report
Detailed SSDA	The SSD Application to be made after the Concept SSDA, to seek consent for the design and to physically carry out the proposal
DCP 2012	Sydney Development Control Plan 2012
DPHI	Department of Planning, Housing and Infrastructure
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
FSR	Floor Space Ratio
GANSW	Government Architect NSW
HAP Contribution	Housing and Productivity Contribution
LSPS	Sydney Local Strategic Planning Statement
NMLs	Noise monitoring locations
OSD	Over station development
PPPS	Pyrmont Peninsula Place Strategy
Pyrmont Peninsula sub-precinct master plans	Sub-precinct master plans for sites in Pyrmont Peninsula. The master plans build on the priorities set out in the Pyrmont Peninsula Place Strategy and provide high-level guidance on how the sub-precincts could develop over the next 20 years. Direction 1.15 issued by the Minister for Planning for the Implementation of the Pyrmont Peninsula Place Strategy has been updated to apply the sub-precinct master plans to land use and planning control changes.
SDPP	Station Design Precinct Plan

Term	Definition
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SEPP (Housing)	State Environmental Planning Policy (Housing) 2021
SEPP BASIX	State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
SEPP (Biodiversity and Conservation)	State Environmental Planning Policy (Biodiversity and Conservation) 2021
SEPP (Resilience and Hazard)	State Environmental Planning Policy (Resilience and Hazards) 2021
SEPP (Sustainable Buildings)	State Environmental Planning Policy (Sustainable Buildings) 2022
SIC	Special Infrastructure Contribution
SLEP 2012	Sydney Local Environmental Plan 2012
SSDA	State Significant Development Application
Stage 1 CSSI Approval	Application SSI-10038 including all major civil construction works between Westmead and The Bays, including station excavation and tunnelling, associated with the Sydney Metro West railway line (approved 11 March 2021)
Stage 2 CSSI Approval	Application SSI-19238057 for major civil construction and enabling works between The Bays and the Sydney CBD, including demolition, tunnelling, and station excavation for new metro stations (including Pyrmont Metro Station), associated with the Sydney Metro West railway line (approved 24 August 2022)
Stage 3 CSSI Approval	Application SSI-22765520 to carry out 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 (approved 26 January 2023)
Sydney Metro West	Construction and operation of a metro rail line and associated stations between Westmead and the Sydney CBD as described in Section 1.1 of this EIS
TfNSW	Transport for NSW
Transport and Infrastructure SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021

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 0-1 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 expected to open in 2032
- Sydney Metro – Western Sydney Airport – currently under construction and due to open when the airport opens for passenger services

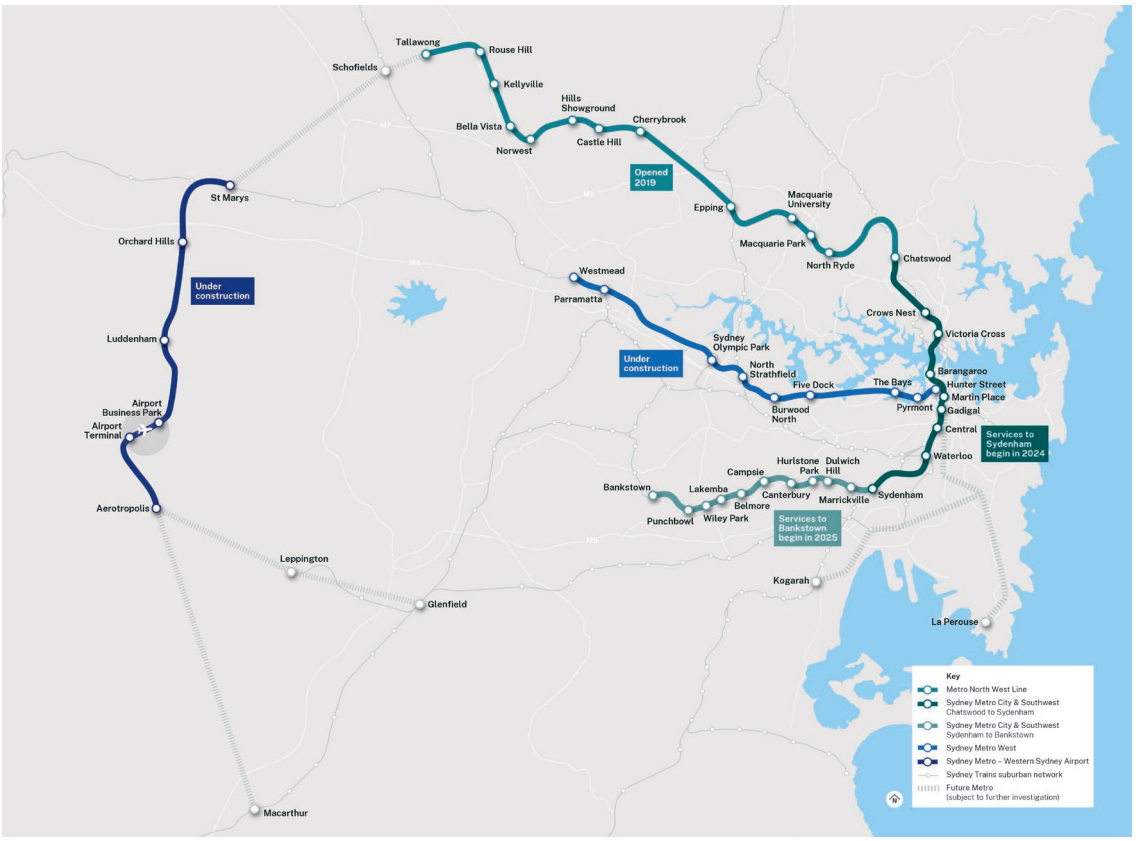

Figure 0-1 Sydney Metro network map

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 in the Sydney CBD. Two potential station locations are being investigated west of Sydney Olympic Park, including one at Rosehill Gardens which could support a significant increase in housing.
- provide fast, reliable turn-up-and-go metro services with fully accessible stations

- link new communities to rail services and support employment growth and housing supply
- 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 Pyrmont – 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 0-2 Sydney Metro West alignment map

Sydney Metro West is being assessed as a staged critical State Significant Infrastructure (CSSI) Approval 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 Approval) was approved on 24 August 2022

- 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 Approval) was approved on 26 January 2023.

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 selected 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) at Pyrmont Station. This EIS has been prepared by Sydney Metro and is submitted to the NSW Department of Planning, Housing and Infrastructure (DPHI) pursuant to Part 4 of the EP&A Act.

The development is within the Sydney Metro West railway corridor, is associated with railway infrastructure, and is for commercial premises and residential accommodation with a Capital Investment Value (CIV) that exceeds $30 million. Therefore, the project is declared State Significant Development (SSD) pursuant to Schedule 1, 19(2)(a) of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP).

Figure 0-3 illustrates the planning approval processes relevant to Pyrmont 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 Local Environmental Plan 2012* (SLEP 2012) and other relevant statutory planning instruments guide the planning decisions for the Pyrmont Station and development.

Planning process

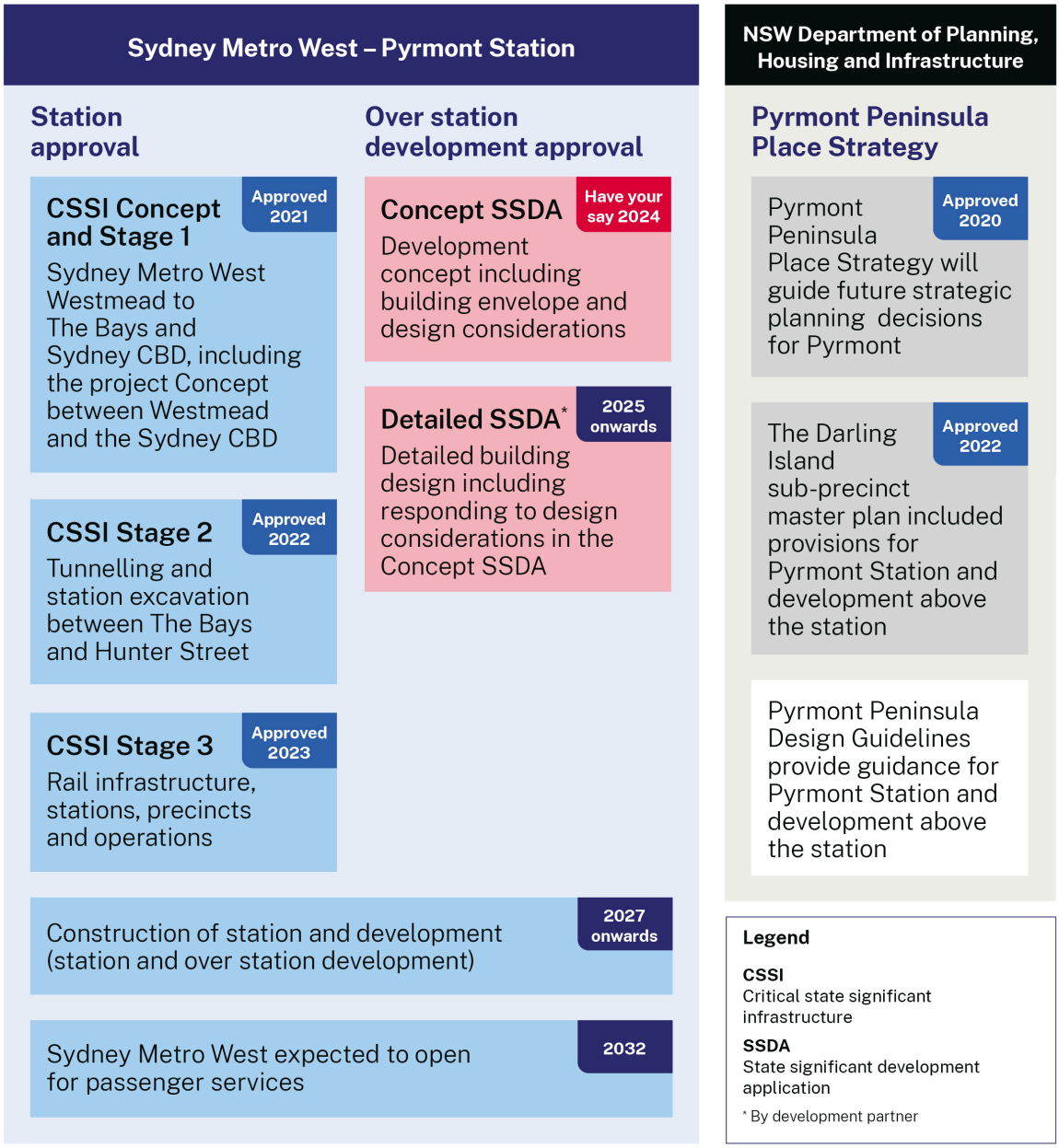

Figure 0-3 Planning approval process

Site location and context

The new Pyrmont Station comprises two surface parcels of land:

- 37-69 Union Street, Pyrmont (Lot 1 in Deposited Plan 620352 and Lot 1 DP in Deposited Plan 657429) (referred to as the eastern site)
- 26-32 Pyrmont Bridge, Road, Pyrmont (Lot 10 in Deposited Plan 1028280) (referred to as the western site).

This Concept SSDA relates only to the eastern site (Lot 1 DP620352 and Lot DP 657429). For the purpose of this Concept SSDA, this lot is referred to as 'the site'.

The site is generally bound by Union Street, Edward Street, and Pyrmont Bridge Road and located within the City of Sydney local government area (LGA) Figure 0-4.

Figure 0-4 Site context map

The proposal

This Concept SSDA seeks consent for a concept proposal, within the meaning of section 4.22 of the EP&A Act for a new mixed-use building above Pyrmont Station. The Concept SSDA seeks consent for proposed land uses, maximum building envelope, maximum building height, maximum gross floor area, and car parking. The future detailed approval(s) will be required to be consistent with any Concept SSDA approval granted.

The Concept SSDA seeks consent for the following:

- maximum building envelope and built form parameters, including building setbacks
- maximum building height of RL 120m
- use of areas within the podium for commercial premises (such as office, business and retail premises) and spaces ancillary to residential accommodation
- maximum gross floor area (GFA) of approximately 23,463m^2
- maximum 55 car parking spaces.

This Concept SSDA seeks consent for the maximum intended GFA for the site of 23,463m^2. The indicative reference scheme, which demonstrates how a building could be established within the proposed envelope while maintaining reasonable environmental amenity outcomes, includes a total GFA of 22,765m^2. This EIS and the accompanying technical reports assess the impacts of the proposed development based on the maximum GFA sought by this Concept SSDA.

The indicative building massing and form for the Concept SSDA is shown in pink at Figure 0-5. The building envelope for the CSSI Stage 3 Approval is shown in blue.

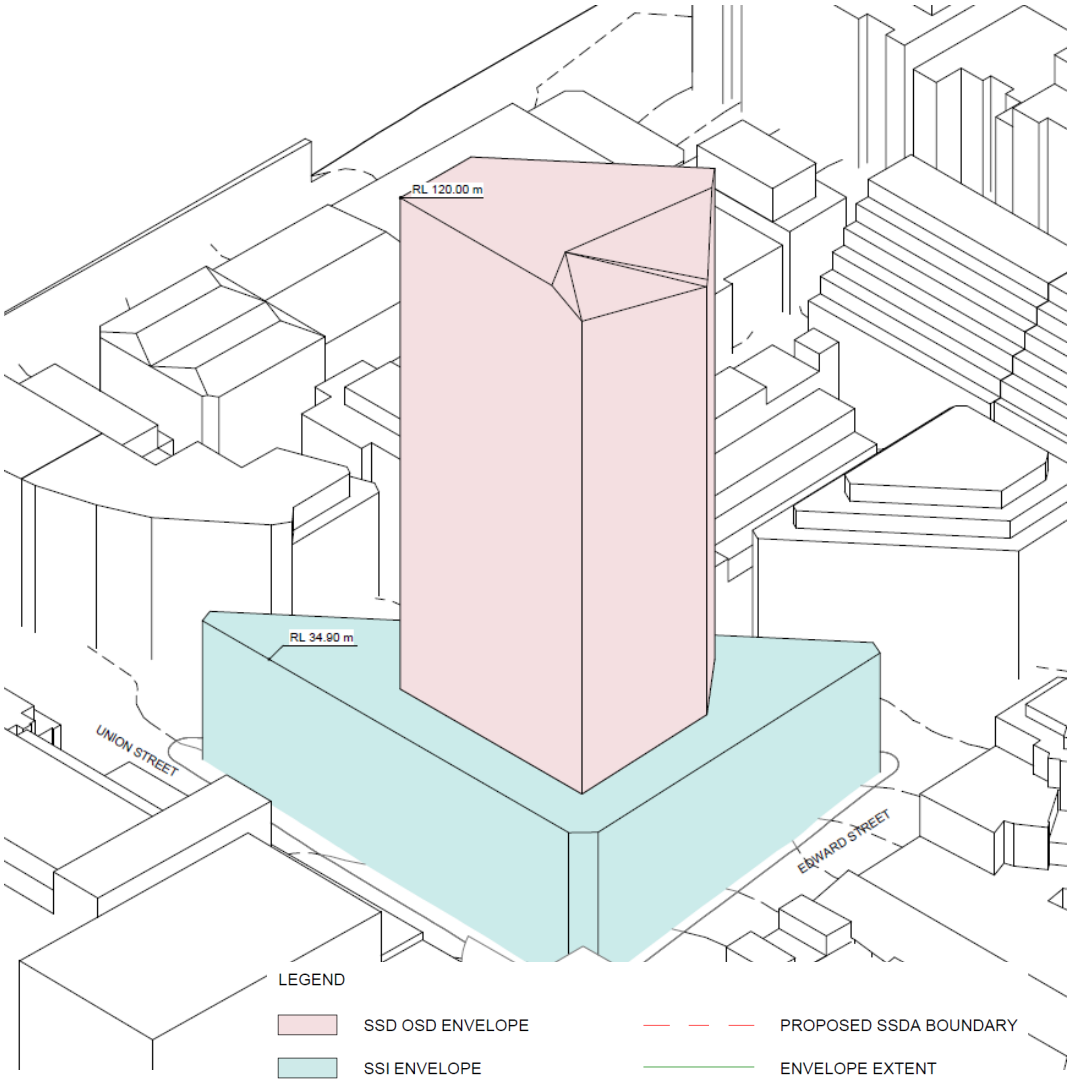

Figure 0-5 Proposed OSD building envelope

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 would create a place-based outcome that successfully integrates transport infrastructure, retail and commercial land uses, communal open space for residents, and upper-level residential accommodation.

The Pyrmont Station precinct acknowledges growth opportunities within the Pyrmont Peninsula and seeks to establish parameters to attract businesses and residents in a well-connected location that leverages proximity to public transport.

In developing the Concept SSDA proposal, alternative designs were explored through a series of building envelope and massing studies. These studies explored alternative building heights, gross floor areas, land uses, building envelopes, and floor plate configurations. The alternative options have not been pursued for reasons including inefficient floor plates, typology unfeasibility and incompatibility with the site.

The Concept SSDA proposal provides for an optimised development outcome at the site. The proposed concept presents an optimised outcome which will:

- establish a building envelope for the tower including a maximum building height and setbacks
- establish a maximum total GFA for the site
- establish indicative land uses for the podium and tower
- contribute to the active frontages at ground level via integration with the new metro station being delivered in accordance with the Stage 3 CSSI Approval
- allow for the delivery of an over station development which responds to the urban grain and scale of the surrounding context and minimises impact on local character
- maintain adequate solar access to surrounding public spaces (including the Elizabeth Healey Reserve) and existing residential dwellings in accordance with Apartment Design Guide (ADG) and Pyrmont Design Guidelines.

Key impacts and mitigation measures

The key issues identified in the SEARs have been assessed in detail, with specialist reports underpinning 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 acceptable, 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 generally consistent with the relevant development standards and site-specific provisions which apply pursuant to the SLEP 2012 and with the objectives and design guidance of the Pyrmont Peninsula Design Guidelines (Design Guidelines) in relation to land use, built form, historical heritage, public domain, and design excellence.

The Built Form and Urban Design (BFUD) Report (Appendix E) details the rationale for the siting and layout of the building envelope, including proposed massing and land use composition, future design considerations such as ground plane interface, relationship with Pyrmont Station, and context with existing and future development adjoining the site and the wider Pyrmont Peninsula.

The future building form within the concept envelope will be subject to detailed design development and review process aligning with the scale and complexity of the project at subsequent SSDAs.

The concept proposal delivers an envelope which will allow for a high-quality design of a future building form. The envelope massing responds to the urban grain and scale of surrounding buildings, heritage items and heritage conservation areas.

The indicative reference scheme also demonstrates that a future detailed proposal could comply with the relevant planning framework including Chapter 4 of the State Environmental Planning Policy (Housing) 2021 (Housing SEPP) and ADG.

Solar access and overshadowing

Sydney Metro has explored a number of design options through a series of building envelope and massing studies. The alternative options for the articulation and position of the tower envelope have been informed by solar studies to assess overshadowing impacts to adjoining residential properties. The tower envelope proposed by the Concept SSDA achieves an optimum outcome for the site in terms of consistency with the objectives of the Design Guidelines to prevent further increase to overshadowing of surrounding public spaces and provision of adequate solar access to existing residential dwellings / apartments. The Solar Access Analysis at Appendix

M assesses overshadowing impacts of the development on six surrounding residential properties. The analysis demonstrates that the overshadowing impacts of the development on the surrounding residential properties are compliant with relevant design objectives, criteria, and design guidelines of the ADG. The development achieves Objective 3B-2 to minimise overshadowing to nearby residential properties at mid-winter. Where an adjoining property does not currently receive the required hours of solar access, the proposed development ensures solar access to neighbouring properties is not reduced by more than 20%.

The Solar Access Analysis assesses overshadowing created by the development at mid-winter (21 June) to public open spaces defined in the Design Guidelines. It demonstrates that the development does not result in additional overshadowing to the Elizabeth Healey Reserve between 9am and 2pm at mid-winter (21 June).

Residential amenity

The proposed development demonstrates the capability of achieving high levels of residential amenity in the future Detailed SSDA. The indicative reference scheme achieves compliance with key ADG objectives and design criteria, in relation to:

- communal open space
- building separation
- solar access
- natural cross ventilation
- minimum apartment sizes and room sizes
- private open space

Specifically, the indicative reference scheme demonstrates capability to provide a minimum of two hours of sunlight to living areas of 70 per cent of dwellings. The indicative reference scheme also ensures more than the required 60% minimum number of apartments receive natural cross ventilation.

Transport and access

The traffic analysis in the Transport Impact Assessment (Appendix R) assesses the future intersection performance across the local network as follows:

- while additional trips will be generated by the proposed development, the impact to the local network is negligible. All intersections are forecast to operate at level of service C or better with the station, except for the intersection of Pyrmont Bridge Road and Union Street.
- the intersection of Pyrmont Bridge Road and Union Street is forecast to operate at level of service F due to high volumes of pedestrian movements across the pedestrian crossing on Union Street. However, this is indicative of future increased land use intensity in Pyrmont rather than impacts associated with the proposed development.
- discussion with stakeholders is ongoing to determine suitable mitigation to improve overall intersection performance according to the modal hierarchy.

Sydney Metro is seeking approval for provision of up to 55 car spaces on the site. Vehicular access to the proposed development including to a ground level loading dock would be provided from Union Street. Loading dock provisions would be acceptable subject to implementing mitigative measures. All parking is anticipated to be provided within the podium. Final parking numbers will be determined in a future Detailed SSDA.

View and Visual Impacts

An assessment of construction vehicle movements associated with the proposal will be undertaken as part of the future Detailed SSDA. The Visual Impact Assessment

(VIA) (Appendix P) demonstrates the visual impacts of the proposed development from private and public viewpoints and its cumulative visual impact.

The VIA demonstrates that the proposal does not block views to scenic or highly valued compositions from public domain viewpoints in the surrounding streetscapes or public recreation open spaces. While the proposal has a wide visual catchment, when viewed from a distance, the tower is viewed in a wide visual catchment (often with similar tower forms visible) which reduces visibility and visual impacts. Close views to the proposal are restricted to the immediately surrounding streetscapes including Pyrmont Bridge Road, Union Street, and Edward Street.

The proposal is viewed against a backdrop of existing tower forms in the Sydney CBD when viewed from the west and introduces visual change (not visual impact) through a visually like-for-like change of similar built forms. The VIA concludes that the proposal can be supported in terms of visual impacts.

Heritage

The Heritage Impact Statement (HIS) (Appendix Z) assesses the impacts of the proposal on identified heritage items within the vicinity of the site. It also considers cumulative impacts to heritage items resulting from the podium, to be delivered under the Stage 3 CSSI Approval.

Overall, the proposed building envelope is compliant with the form anticipated in the Pyrmont Peninsula Design Guidelines which broadly responds to the heritage context through street alignment and tower setbacks, which allows open views along streets.

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:

- reflectivity
- noise and vibration
- waste management
- contamination and ground water
- biodiversity
- wind management
- environmental and Aboriginal cultural heritage
- CPTED
- waste management
- stormwater and flooding
- social impact
- utilities and infrastructure services
- construction management.

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) and the relevant requirements contained in the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation 2021).The proposed development can be supported and approved for the following reasons:

- the site is zoned MU1 Mixed Use under the SLEP 2012 within which commercial premises and residential accommodation are permitted with consent. The

proposed development is consistent with the zone objectives in that it will provide a mix of compatible land uses, integrate commercial and residential uses in an accessible location that maximises public transport patronage and encourages walking and cycling, and supports the viability of Pyrmont.

- 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 facilitates economic growth and housing diversity within Pyrmont and creates a great place-based outcome for the Pyrmont Peninsula that successfully integrates transport infrastructure, open space, ground plane retail, commercial, and residential land uses. The proposed development will attract businesses and residents in a well-connected location reducing reliance on private transport modes.
- it supports the '30-minute city' concept of the Eastern Harbour City. The aim of the 30-minute city concept is that residents of Sydney can reach one of three regional centres in less than a half-hour by walking, biking, or public transport.
- it takes 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 envelope positively responds to the site conditions and surrounding context and is consistent with the SLEP 2012 and other relevant statutory planning instruments, notwithstanding variations sought to clauses 6.65 and 4.4 which respectively apply to the primary and secondary lots.
- the proposed building envelope is designed to enable flexibility for the future Detailed SSDA to facilitate a high-quality mixed-use development.
- the proposed building envelope does not result in overshadowing to Elizabeth Healey Reserve between 9am and 2pm on the 21st of June. The design achieves the ADG objective to minimise overshadowing to nearby residential properties at mid-winter. Where an adjoining property does not currently receive the required hours of solar access, the proposed development ensures solar access to neighbouring properties is not reduced by more than 20%. Overshadowing impacts on surrounding residential properties comply with relevant design objectives, criteria, and design guidelines of the ADG.
- subject to the mitigation measures within Appendix D, traffic, acoustic, visual, and environmental impacts on adjoining properties and the public domain can be appropriately mitigated.
- the proposed development delivers genuine economic benefits by creating approximately 170 direct annual full time jobs during construction and an additional 229 indirect annual jobs. The development is expected to sustain 345 direct ongoing jobs and 404 indirect jobs during its ongoing operation.
- it is capable of achieving Design Excellence, subject to the Design Guidelines and Sydney Metro West Design Excellence Strategy (as endorsed by NSW Government Architect on 19 August 2022).
- the site is suitable for the proposed development.
- the proposed development is in the public interest.

Next steps

Sydney Metro is seeking Concept approval from the Minister for Planning for the proposed OSD at Pyrmont Station.

The 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 DPHI 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.

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The Sydney Metro network is shown in Figure 1-1.

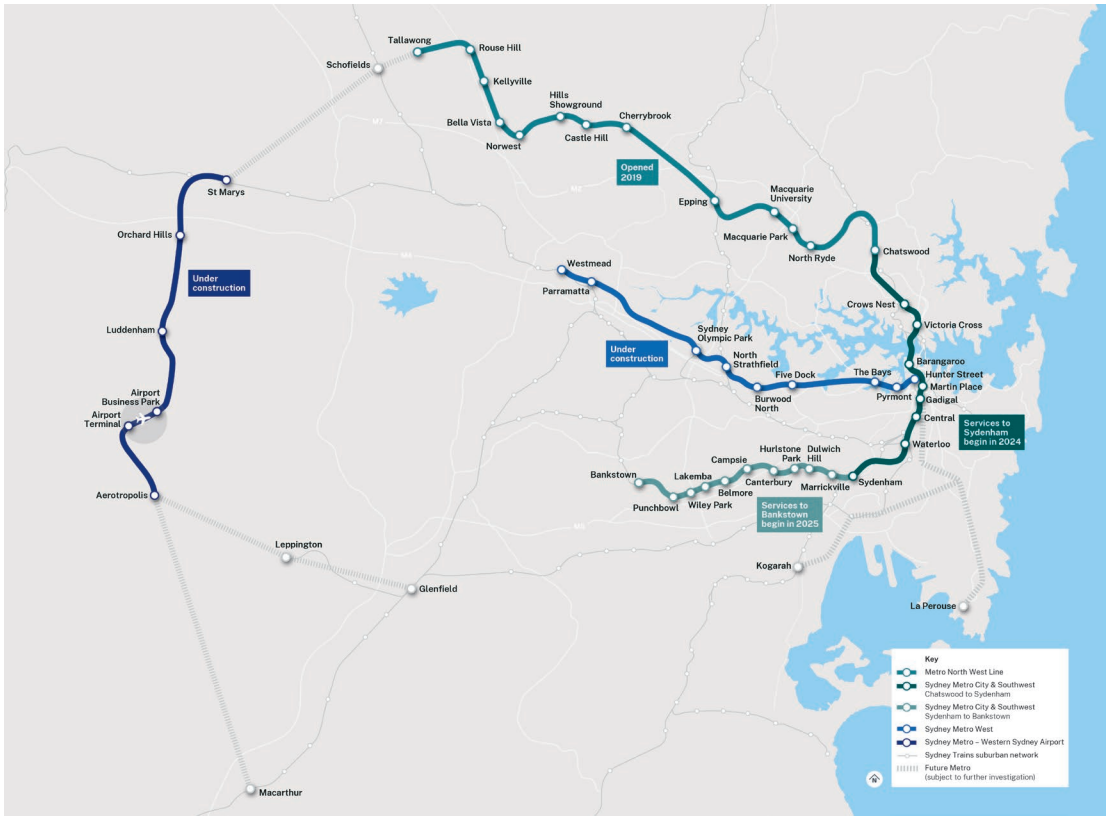

Figure 1-1 Sydney Metro network map

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- provide fast, reliable turn-up-and-go metro services with fully accessible stations
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- 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.

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

Figure 1-2 Sydney Metro West alignment map

Sydney Metro West is being assessed as a staged critical State Significant infrastructure (CSSI) Approval 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 (Stage 1 CSSI 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 (Stage 2 CSSI Approval) was approved on 24 August 2022.

- 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 Approval) was approved on 26 January 2023.

1.1.2 Integrated station and precinct development

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

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1.1.3 Planning approval approach

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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 proposed land uses, a maximum building envelope, maximum building height for the tower, maximum gross floor area, and maximum car parking spaces. The proposed development comprises a tower above podium form.

1.1.4 Pyrmont Station

The Pyrmont Station site comprises of two surface land parcels:

- 37-69 Union Street, Pyrmont (Lot 1 in DP 620352 and Lot 1 DP 657429) (referred to as the eastern site)
- 26-32 Pyrmont Bridge Road, Pyrmont (Lot 10 in Deposited Plan 1028280) (referred to as the western site)

This Concept SSDA relates only to the eastern site (Lot 1 DP 620352 and Lot 1 DP 657429). For the purpose of this EIS, ‘the site’ refers to 37-69 Union Street, Pyrmont.

The site at 37-69 Union Street, Pyrmont is bound by Union Street, Pyrmont Bridge Road, and Edward Street.

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

The Pyrmont Station site accommodates several multi-storey commercial buildings, occupied by a range of retail, health, and business premises. All existing buildings have been demolished to facilitate construction of the new metro station under the Stage 2 CSSI Approval.

The vision for the site and its surrounds is for a new harbour-side precinct enabled by the metro station, focused on knowledge-intensive employment and supported by an active public domain and associated retail and residential activities. The station will support the precinct's role as a significant employment and entertainment destination and urban renewal area connected to the Sydney CBD, The Bays Precinct and Western Sydney.

Major civil construction work including station excavation and tunnelling at Pyrmont was assessed and approved under the Stage 2 CSSI Approval. The construction activities required to complete Pyrmont Station ready for operation were approved on 26 January 2023 under the Stage 3 CSSI Approval.

The Stage 3 CSSI Approval includes the following related to the Pyrmont Station:

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

Pyrmont Station would consist of an underground station with an island platform in an east-west orientation. Customers would be able to access the station via two

entrances, one on Union Street and one on Pyrmont Bridge Road, with connections to an underground concourse level within the station cavern with a central platform.

The western station site would include an entrance on Pyrmont Bridge Road. Escalators and/or stairs and lifts would provide access to the station platforms from the surface. The eastern station site would include a station entrance on Union Street. The eastern station site would also provide for an active frontage on Union Street.

At the eastern station site and western station site, station plant and equipment are located underground, at ground level and above the station entry. Following the CSSI Approval and lodgement of the Scoping Report for this Concept SSDA, the design of the station at Pyrmont has been further developed to ensure the station and future development can be built efficiently and effectively. This design development has identified that additional space is required for station and services infrastructure and this space would be required to extend above the indicative height of the podium identified in the EIS and Response to Submissions for the Stage 3 CSSI Approval.

The full extent of the podium height which is about 27 metres above Union Street (RL 34.9) is to be delivered under the Stage 3 CSSI Approval going forward. The podium would be divided into two proportions, a proportion comprising station services and related infrastructure and non-station services (retail, commercial, and / or community facilities). The Stage 3 CSSI Approval assessed the station infrastructure and the structural elements, utilities, and services for the non-station uses. The fit out and use of the non-station spaces would be subject to separate development approval.

Over station development is only proposed at the eastern station site. To support this, the Stage 3 CSSI Approval also includes provision for the following:

- structural elements to enable the construction of future over station development. It is noted the “future development” is the subject of this EIS, and would be subject to future Detailed SSDA
- space for future lobbies, lift cores, access, parking, loading docks and building services for future over station development. The space allocation of these uses within the podium is the subject of this EIS, and the detailed design of these spaces would be subject to future Detailed SSDA.

There would be ongoing design development for the integrated station development at Pyrmont Station. The final design of the station elements would be detailed in the Station Design and Precinct Plan (SDPP) for Pyrmont Station, as required to satisfy Condition E70 of the Stage 3 CSSI Approval; and the over station development elements would be detailed in future Detailed SSDA.

1.2 Proposal overview

This EIS has been prepared to accompany a Concept SSDA for the OSD at Pyrmont Station. This EIS has been prepared by Sydney Metro (the applicant for SSD-49620481) and is submitted to DPHI pursuant to Part 4 of the EP&A Act.

The proposed development will comprise a mixed-use building above the new Pyrmont Station with predominantly commercial uses (such as office, business, and retail premises) and residential accommodation above.

The proposal has been prepared to align with and respond to the strategic vision, statutory planning framework, and design guidelines for the Pyrmont Peninsula.

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

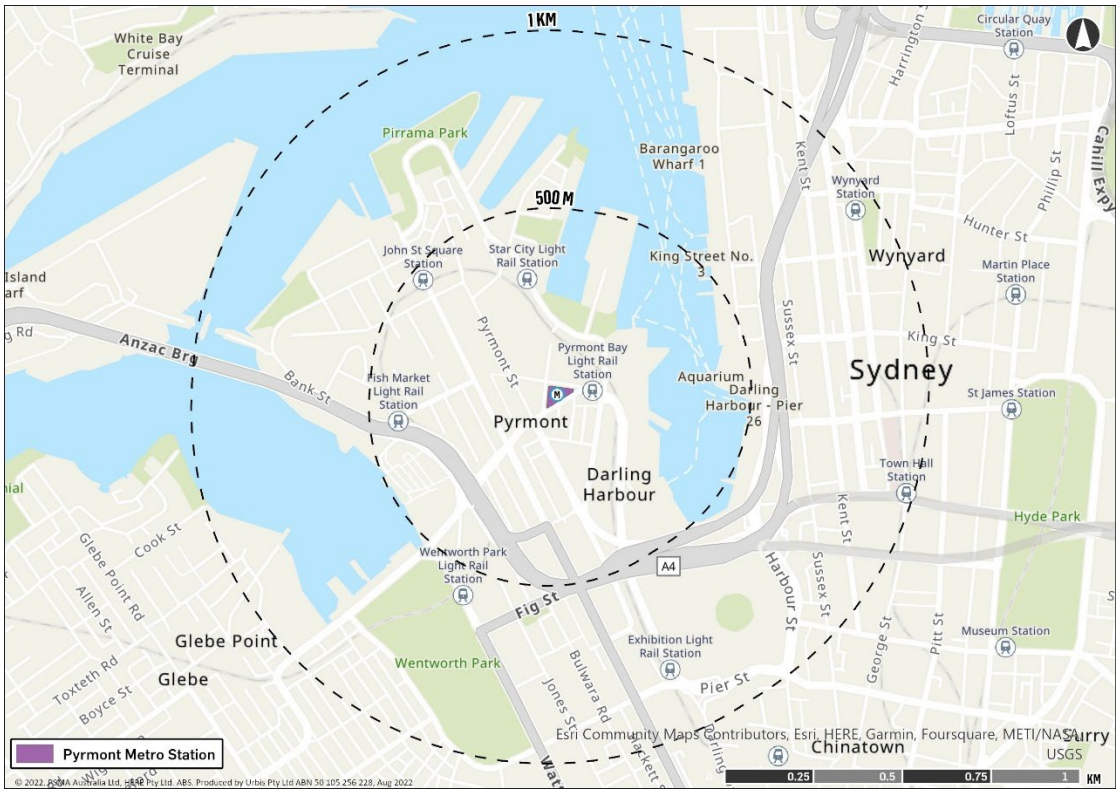


Figure 1-4 Regional setting map

As identified in the Stage 3 CSSI Approval, the vision for Pyrmont Station and its surrounds is to create:

> *"A new harbour-side precinct enabled by the metro station, focused on knowledge-intensive employment and supported by public domain, retail and residential activities"*

The Stage 3 CSSI Approval identifies the following place and design principles for Pyrmont:

- support Pyrmont's role as a significant employment and entertainment destination and urban renewal area with a new metro station, connected to the Sydney CBD, The Bays Precinct and Western Sydney
- provide a direct rail service to Pyrmont to support a catchment not currently serviced by the Sydney Trains network
- align with the strategic directions of the Pyrmont Peninsula Place Strategy to deliver a metro station that will reinvigorate investment and facilitate a future integrated development which achieves design excellence, responds to context and delivers Place Strategy aspirations
- facilitate efficient interchange with bus and light rail and enable comfortable and safe connections for pedestrians and cyclists, including Union Street, Pyrmont Street and Pyrmont Bridge Road
- deliver an activated ground plane and high-quality public domain that contributes to the streetscape, complements the surrounding context and heritage character and offers a welcoming place for people.

The Concept SSDA is consistent with and implements the above place and design principles established in the approved Stage 3 CSSI Approval.

The proposed development meets the SSD criteria outlined in clause 19(2) of Schedule 1 of the Planning Systems SEPP as it is development associated with

railway infrastructure with a capital investment value CIV of more than $30 million and is for the purposes of both commercial premises and residential accommodation.

Furthermore, as the development is not permissible without development consent under Part 4 of the EP&A Act by the operation of an environmental planning instrument, it is therefore declared to be SSD under the Planning Systems SEPP.

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 envelope maximum building height a maximum gross floor area, pedestrian and vehicle access and associated car parking. A future approval(s) 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.

As described in the Stage 3 CSSI Approval, 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. Approval for the land uses within the podium (commercial and residential) associated with the proposed development is sought under this Concept SSDA.

1.2.1 Interface with Pyrmont Station

The detailed design and fit-out of the Pyrmont Station infrastructure will be integrated with the proposed development to facilitate a cohesive station and precinct development.

The land uses within the podium that directly relate to the operation and function of Pyrmont Station (including public domain work) will be delivered in accordance with the Stage 3 CSSI Approval.

This Concept SSDA seeks consent for the proposed land uses (commercial and residential) within the podium and the residential tower. The built form of the podium is not the subject of this Concept SSDA and is subject to the Stage 3 CSSI Approval.

1.3 Purpose and structure of this Environment 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's Environmental Assessment Requirements (SEARs) dated 18 November 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 EIS.

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

Chapter	Description
Appendix DD	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 great place-based outcome that successfully integrates transport infrastructure, ground plane retail, commercial and residential land uses around the Pyrmont Station precinct.

The Pyrmont Station precinct will provide new places for people to work, shop, visit, and live. This approach will support the NSW Government's planning strategies and objectives to grow high-value jobs, provide workers with better access to employment, and create liveable and sustainable centres.

The proposal acknowledges growth opportunities within the Pyrmont Peninsula and seeks to establish parameters to attract more businesses, visitors, and residents in a well-connected location reducing reliance on private transport modes.

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
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. The following objectives are relevant to the proposed development: **Objective 1 - Infrastructure supports the three cities** The proposed development is located in the immediate vicinity of 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 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 proposed development would result in a substantial boost to housing supply in Sydney and would deliver approximately 160 dwellings at the site.

Strategy	Comment
	Objective 11 - Housing is more affordable and diverse The Concept SSDA demonstrates the capability to provide different dwelling sizes in a highly accessible location. The affordable housing contribution or the proposal will be addressed as part of a future Detailed SSDA in accordance with the SLEP 2012 provisions. **Objective 12 - Great places that bring people together** The proposed development would play a key role in the creation of a high-quality Pyrmont Station precinct that successfully integrates transport infrastructure, ground plane retail, commercial and residential land uses, creating a great place-based outcome. **Objective 14 - A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities** The proposed development would contribute to the provision of a 30-minute Eastern Harbour 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 proposed development will strengthen the Eastern City by contributing to its continued growth. The OSD would harness the catalytic effects of the metro by offering commuting advantages to residents, visitors and workers. Residents and workers in the OSD would be better connected to the Greater Sydney region, which will improve business linkages and access to employment opportunities.
Eastern City District Plan	The Eastern 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 District Plan includes a Structure Plan which identifies the key centres, economic and employment locations, land release and urban renewal areas, and existing and future transport infrastructure to deliver growth aspirations. The District Plan specifically references Pyrmont, noting the suburb's significance as a location for creative industries, arts and cultural uses located near to major cultural institutions. The plan specifically notes that Pyrmont is located within an 'Innovation Corridor' which runs from the CBD and Surry Hills to Pyrmont and Ultimo. Digital and cultural industries are seeking out space in character buildings in these suburbs and the delivery of more transport, commercial and residential offerings associated with the proposed development will allow for greater access of these sites. The following planning priorities are relevant to the proposal. **E1. Planning for a city supported by infrastructure** The new metro station at Pyrmont will provide transport support infrastructure to support the growth of the western CBD. **E5. Providing housing supply, choice and affordability with access to jobs, services and public transport**

Strategy	Comment
	The proposed development would provide additional housing supply in a central Sydney context in a location which benefits from unmatched access to public transport, jobs and services. **E6. Creating and renewing great places and local centres and respecting the District's heritage** The proposed development will create a high-quality integrated station precinct, which would contribute to the creation of a great place around the Pyrmont Station precinct, while respecting nearby heritage items including the Pyrmont Bridge Road Hotel, the Pyrmont Bridge Road Hotel, the former New York Hotel, as well as several proximal former warehouses and terrace housing with heritage status. **E10. Delivering integrated land use and transport planning and a 30-minute city** The concept proposal will provide additional housing in a location which is within 30 minutes travel of the Sydney CBD and employment districts to the north, south and west, providing an excellent level of employment possibility for residents. Additionally, commercial land uses enable the provision of additional employment in a location which is highly accessible. **E11. Growing investment, business opportunities and jobs in strategic centres** The proposed commercial land uses will result in the growth of business opportunities and jobs in the Eastern City CBD. **E19. Reducing carbon emissions and managing energy, water and waste efficiently** The proposed development would achieve a high quality environmentally sustainable precinct, as detailed in Section 6.6.
Future Transport Strategy 2056	The Future Transport Strategy 2056 comprises an update of the TfNSW Long Term Transport Master Plan. This update seeks to reflect and build upon substantial transport infrastructure work undertaken across the NSW since 2012 and 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 and commercial uses (such as office, business and retail premises) above the new Pyrmont Station. The proposed development envisages the provision bicycle parking and end of trip facilities. The final location of these amenities would be determined in the detailed SSDA. 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 residents can conveniently access jobs and services within 30 minutes by public or active transport. The proposed development would provide residential, commercial and retail uses in an area 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 consistent with the Eastern Harbour City objectives, with the OSD at Pyrmont being provided as part of the wider Sydney Metro West project, which seeks to positively influence the quality of mass transit connections to the CBD and western suburbs. • the site benefits from a range of transport options, with the surrounding future environment being optimal for cycling and walking. Through the provision of bicycle storage facilities and the provision of minimal car parking, the proposed development would assist in promoting use of the walking and cycling network. • the proposed development integrates commercial and residential land uses with transit infrastructure located at the site, achieving a direct objective of the policy.
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 within the Built Form and Urban Design Report prepared by Woods Bagot (Appendix E). The proposal will form part of a highly connected transport network, improving business to business connections and supporting the 30-minute city. Commercial uses are located above the transport infrastructure of the Pyrmont Station. The new commercial spaces will assist in increasing the employment floorspace within the western part of the CBD and together with the enhanced public domain, the proposal will be Better for People and Better Working. The provision of retail spaces, station and building entries on the ground level will positively contribute to the activation of the public domain. The proposal also considers and responds to the interface with both Union Street and Pyrmont Bridge Road, enhancing opportunities for social interaction thereby making it better for the community. The concept design has been the subject of an extensive design review that involved a collaborative, cyclical and iterative process. The concept building envelope will inform future detailed design outcome, which will accommodate a built form that is sustainable, functional, sensitive to its context and visually distinctive as encouraged by objectives of Better Placed.
Connecting with Country Framework Government Architect of NSW (GANSW)	The Better Placed Connecting with Country Framework Good practice guidance on how to respond to Country in the planning, design and delivery of built environment projects in NSW (the Framework) was finalised and published by the Government Architect of NSW (GANSW) in July 2023. The framework seeks to improve the health and wellbeing of Country and is a guide to good practice when delivering projects which respond to Country. Sydney Metro participated in the pilot program for the Connect with Country Framework. As part of the pilot project, a Sydney Metro

Strategy	Comment
	West Connecting with Country Guide (2022) was prepared by consultants Murawin in conjunction with Aboriginal people. A Connect with Country Working Group was formed to develop the document and to provide ongoing advice to Sydney Metro and its delivery partners. The Connecting with Country Guide establishes cultural protocols for the project, identifies key themes to be explored at each station and provides high level design advice. Based on this report, verbal essays or Readings of Country have been delivered by Djinjama - cultural design and research, These Readings have generated summary reports which provide specific advice for design at each station. The heritage interpretation strategy for Sydney Metro West and the individual station heritage interpretation plans provides specific recommendations for addressing the Connecting with Country Guide in heritage interpretation at each station. In all instances the incorporation of Aboriginal cultural knowledge into the project design can only be undertaken with the express permission of knowledge holders.
Pyrmont Peninsula Place Strategy	The Pyrmont Peninsula Place Strategy (PPPS) is a strategic framework designed to develop a vision and plan which will allow the Pyrmont Peninsula's continuing evolution in a way that maximises its economic and social potential, while protecting and enhancing the area's unique heritage, liveability, and long-term sustainability. The PPPS demonstrates nine key directions which are detailed below with project specific responses: **Jobs and industries of the future** The proposed development delivers major floor space above a new metro station in the Darling Island sub-precinct. **Development that complements or enhances the area** The proposed development aligns with the PPPS to balance growth and change with character and place within Pyrmont by demonstrating that economic growth/change maintains and enhances Pyrmont's "allure and residential qualities". **Centres for residents, workers and visitors** The proposed development will contribute to the creation of a new centre of activity anchored by the metro station. Both commercial and residential land uses will contribute to localised activity. **A tapestry of greener public spaces and experiences** The proposed development sits above the public domain interface, thereby providing limited opportunity for the enhancement of public spaces and experiences. However, its envelope has been informed by sun access planes to local green spaces and parks. Whilst the provision of activation of public spaces and experiences will be subject to the CSSI Application, the proposed development does not derogate from the quality of these spaces. **Making it easier to move around** The concept proposal responds to this direction by prioritising walking and cycling as the preferred mode for trips, leverages immediate access to the new Metro Station, and discourages use of private vehicles via reduced parking provisions for both commercial and residential land uses. **Building now for a sustainable future**

Strategy	Comment
	The proposed development responds to the direction by: • delivering a diversity of housing typologies, tenures, and price points to suit different household sizes, configurations and needs • being affordable to ensure a mix of people can continue to live in the Pyrmont Peninsula • boosting social and affordable rental housing with market housing • meeting increasing sustainability objectives and performance targets for reduced environmental impact, better building performance, and improved health and social outcomes
Pyrmont Peninsula Sub-Precinct Master Plans	The sub-precinct master plans build on the priorities set out on the PPPS and provide high-level guidance on how the seven sub-precincts could develop over the next 20 years to create unique and liveable places. The site is located within the Darling Island sub-precinct which has been recognised as one of the precincts with the most capability of accommodating the greatest growth and change over the next 20 years, whilst protecting parks, public spaces and qualities of these areas. The proposed development seeks to deliver commercial and residential floorspace, with an envelope that has been modelled to accommodate a solar access plane to parks and public spaces, in particular Elizabeth Healey Reserve.
Sydney Local Strategic Planning Statement	*The Sydney Local Strategic Planning Statement* (LSPS) provides the framework for the City of Sydney to undertake land use planning and decision making over the next 20 years. The LSPS talks specifically to Pyrmont as a 'gateway to the CBD' and highlights the precinct's significance as a major educational, research and technology cluster with limited opportunities for further residential capacity. The proposed development offers an opportunity for additional residential capacity with a stated intention of facilitating residential dwellings with additional economic and job opportunities at this CBD gateway site. LSPS planning priorities and objectives relevant to the site and the proposed development are discussed below. **Objective I1 – Movement for walkable neighbourhoods and a connected city** 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 I2 – Align development and growth with supporting infrastructure** The proposed development would strengthen the Pyrmont Peninsula by contributing to its continued growth. Residents and workers within the proposed development would be better connected to the Sydney CBD and surrounding suburbs, which will improve access to employment opportunities. **Objective L2 – Creating great places** The proposed development would play a key role in the creation of a high-quality Pyrmont Station precinct, ensuring a design that relates well to the surrounding heritage context and future events

Strategy	Comment
	destination cluster. It would contribute to the creation of a great future place on the CBD's western fringe. **Objective P2 – Developing innovative and diverse business clusters in City Fringe** The proposed development provides 7,265m^2 of commercial GFA within a new harbour-side precinct to be focused on knowledge-intensive employment and supported by public domain, retail, and residential activities. **Objective L3 – New homes for a diverse community** The proposed development would be a substantial boost to housing supply in Sydney and deliver approximately 160 dwellings at the site (subject to a future Detailed SSDA). The proposed development would provide the possibility for different dwelling typologies and sizes in a highly accessible location.
Guide to Traffic Generating Developments (RMS)	The RMS Guide to Traffic Generating Developments (RMS Guide) provides guidance on 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 to assess the proposed development having regard to the RMS Guide. Traffic generation impacts are also discussed in further in Section 6.8 and Appendix R.
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 T which demonstrates that the proposed design is capable of meeting the requirements of the guidelines.
NSW Planning Guidelines for Walking and Cycling	The reference design informing the concept proposal allows for the provision of an area to store bicycles within the proposed building. Details regarding the provision of bicycle infrastructure would be further developed through subsequent Detailed SSDA.

2.3 The site and surrounding context

2.3.1 Site location

The Pyrmont Station site comprises of two surface land parcels:

- 37-69 Union Street, Pyrmont (Lot 1 in DP 620352 and Lot 1 DP 657429) (referred to as the eastern site)
- 26-32 Pyrmont Bridge Road, Pyrmont (Lot 10 in Deposited Plan 1028280) (referred to as the western site)

This Concept SSDA relates only to the eastern site (Lot 1 DP 620352 and Lot 1 DP 657429). For the purpose of this EIS, these two lots are referred to as 'the site'.

The site has a triangular configuration, bound by Union Street (to the north), Pyrmont Bridge Road (to the southeast), and Edward Street (to the west). It is located on the Pyrmont Peninsula which is approximately 1km to the east of Sydney CBD and characterised by a diversity of residential, commercial, tourism, higher education, and entertainment land uses. The Peninsula contains a network of public spaces including open space, plazas, forecourts, parks, civic squares, and waterfront promenades.

Significant cultural and entertainment landmarks in the vicinity of the site include the Star Casino, Maritime Museum, Cockle Bay, Harbourside Shopping Centre, the Harbour Foreshore walk, Sofitel Hotel, Sydney International Convention & Exhibition Centre, and the Powerhouse Museum.

Pyrmont is emerging as a vibrant cultural and entertainment precinct which benefits from connectivity to the Sydney CBD and surrounding suburbs. The Peninsula is identified as an attractor of global investment, with employment opportunities in arts, culture, and entertainment. It forms part of the LSPS identified 'Innovation Corridor', which includes universities, a teaching hospital, international innovation companies, and start-up enterprises.

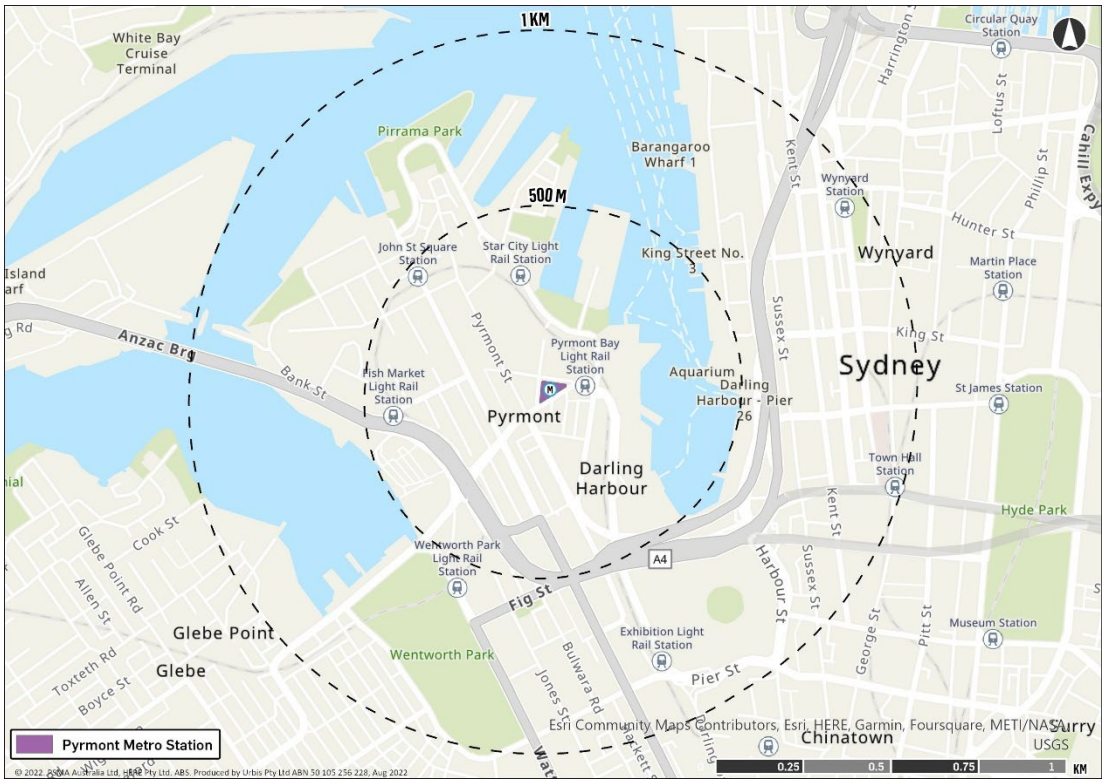


Figure 2-1 Site context

Figure 2-2 Site location

2.3.2 Site description

The site accommodated several multi-storey commercial buildings, occupied by a range of retail, health, and business premises. All existing buildings have been demolished to facilitate construction of the new Pyrmont Station and the proposed development.

In addition to the multi-storey commercial buildings identified, the site includes tree planting, landscaping, hardstand car parking, and internal vehicle access.

The legal property description of the site is Lot 1 in Deposited Plan 620352 and Lot 1 DP 657429.

The site has a total area of approximately 2,607m^2.

To provide a point of visual reference for this EIS, site photographs reflecting the current site conditions are provided in Figure 2-3, Figure 2-4 and Figure 2-5.

Figure 2-3 View of the site from the corner of Pyrmont Bridge Road and Union Street

Figure 2-4 View from the corner of Pyrmont Bridge Road and Edward Street

Figure 2-5 View from the corner of Union Street and Edward Street

2.3.3 Surrounding development

The site is surrounded by various land uses including:

- to the north is a multi-tenanted commercial building at 60 Union Street ('U60') which accommodates a range of occupants, including Warner Music Australia, a café, business and retail premises, food and beverage outlets, a pharmacy, and a supermarket. The building also provides multi-storey car parking
- to the west is a number of mid-rise commercial premises and residential flat buildings fronting Edward Street. The ground floor tenancies generally include a barbershop, café, and packaging and distribution business
- to the south and east beyond Pyrmont Bridge Road is generally mixed-use buildings, comprising ground floor commercial and retail premises and upper-level residential flat buildings. Street level premises fronting Pyrmont Bridge Road include a fitness centre, an estate agent, and a hotel.

The future scale and density of the surrounding built form and Pyrmont Peninsula will evolve consistent with the PPPS, the gazetted amendments to the statutory planning controls under the Sydney Local Environmental Plan (SLEP) 2012, and the adoption of the Pyrmont Peninsula sub-precinct master plans. The EIS assesses the suitability of the development with regards to its existing and future surrounding local context.

2.3.4 Transport and accessibility

The site is bounded by the following roads:

- Union Street to the north
- Edward Street to the west
- Pyrmont Bridge Road to the south and east.

Figure 2-6 identifies the existing public transport network surrounding the site.

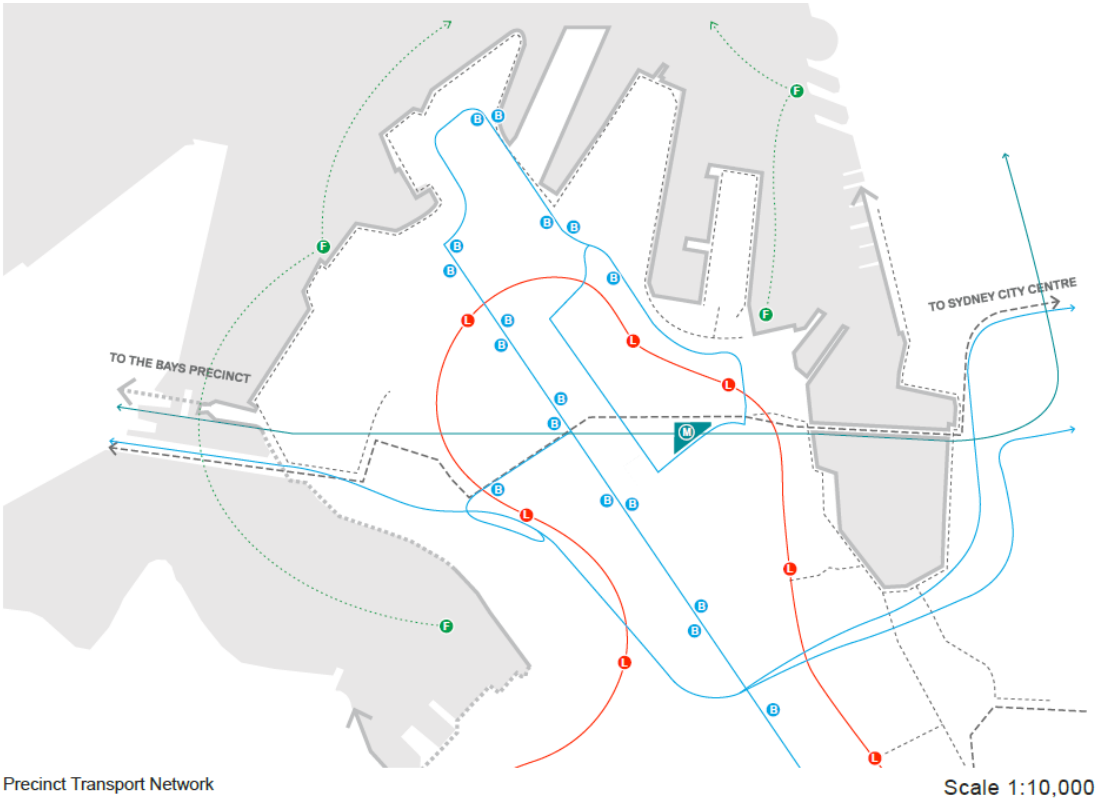


Figure 2-6 Existing public transport network

Active transport network

The pedestrian network in Pyrmont is well established, with wide footpaths and several large, paved pedestrian areas. The existing cycle network around Pyrmont Peninsula is extensive and consists of on-road and off-road cycle routes.

Light Rail services

The site is approximately 400 metres from the Pyrmont Bay stop. This stop connects to the L1 Light Rail service between Central and Dulwich Hill. The L1 line at Central also connects with the L2 to Randwick and L3 to Kingsford lines.

Bus services

Bus routes service existing bus stops within proximity to the site.

Within 100m of the site the following bus routes provide services to and from Pyrmont to Bondi Junction (389) as well as Pyrmont to Parramatta (501).

2.3.5 Topography

The site is subject to level changes of approximately six metres falling south to north from Pyrmont Bridge Road to Union Street. The topography is generally characterised by:

- RL8m (approximately) at street level at the north-west corner (Union Street and Edward Street intersection)
- RL11m (approximately) at street level at the north-east corner (Pyrmont Bridge Road and Union Street interaction)
- RL14m (approximately) at street level at the southern point (Pyrmont Bride Road and Edward Steet intersection).

Figure 2-7 shows there is approximately a 6m level change across the site as noted with Edward Street the steepest street across the site.

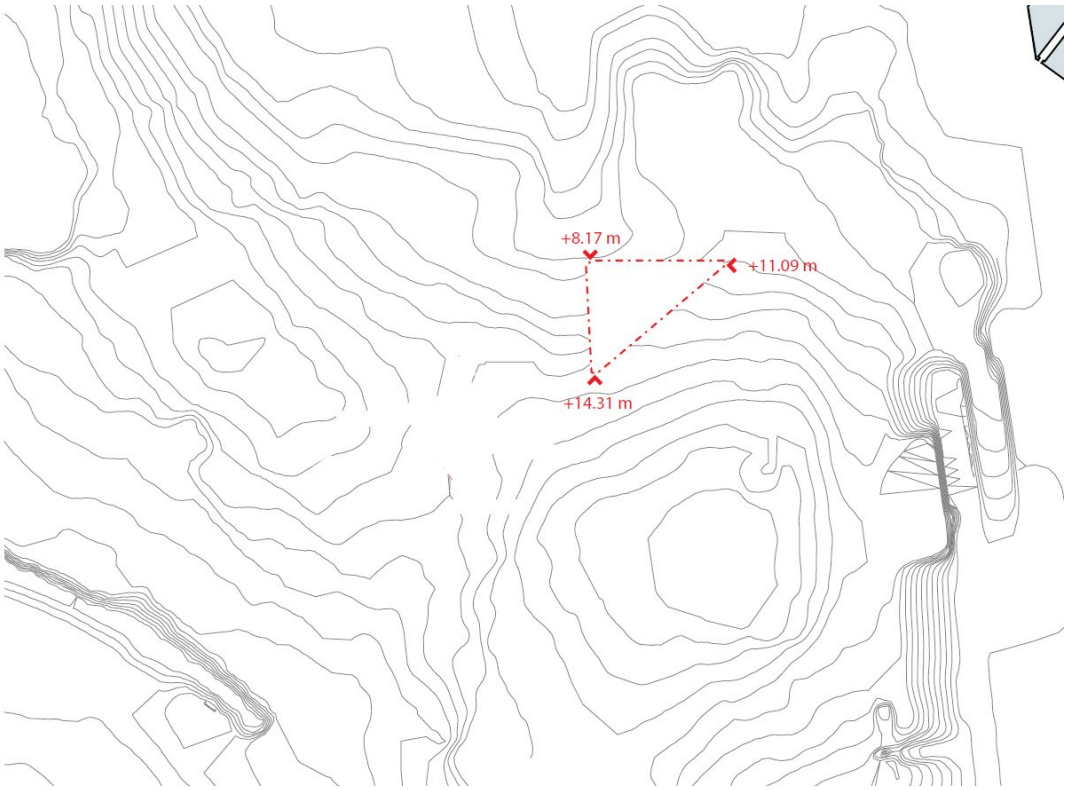


Figure 2-7 Site topography

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.

2.4 Cumulative impact methodology

The Pyrmont Station, once completed and operational, is expected to be a catalyst for change in the Pyrmont Peninsula.

As of August 2023, there are several recently approved or under assessment significant development proposals that need to be considered from a cumulative impacts perspective, these include the following:

- SSD-7874: Harborside Shopping Centre Redevelopment, approved 26 October 2022
- SSD-7874: Harborside Shopping Centre Redevelopment Modification 3, seeking to increase the height of the tower by 4m to RL170 and allow awnings to be provided at ground level and level 6. Currently under assessment and in the process of responding to submissions

- SSD-9978934: Cockle Bay Wharf mixed use development, currently under assessment with additional information requested
- SSD-8924: Sydney Fish Markets Concept and Stage 1, approved 02 November 2021 and modified a further two occasions
- SSD-8925: Sydney Fish Markets Stage 2, approved 12 June 2020 and modified on a further nine occasions
- Blackwattle Bay State Significant Precinct, approved December 2022. The DPHI is finalising infrastructure funding arrangements through a draft Voluntary Planning Agreement and proposed updates to the Pyrmont Special Infrastructure Contribution which are due to be finalised in 2023. The new planning controls will take effect once those matters are finalised
- Western Distributor Transport Corridor, TfNSW Review of Environmental Factors is currently under assessment and TfNSW is reviewing the submissions received in December 2022.

Sydney Metro will continue to monitor for 'future projects' within the vicinity of the site, however it is noted that a detailed cumulative impact assessment of the proximal developments will be addressed as part of a future detailed SSDA. These assessments would be undertaken in addition to the cumulative impacts assessment undertaken in this EIS as required by the SEARS.

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 DPHI, there is a requirement to analyse any feasible alternatives for SSDAs.

Table 3 outlines three feasible alternatives: Do Nothing, Alternative Design and Proposed Design.

Table 3 – Project alternatives

Options	Assessment
Do Nothing	The 'Do Nothing' alternative would result in the existing buildings on Pyrmont Metro land being demolished and the new metro station being constructed as per the Stage 3 CSSI Approval with no over station development. 'Do Nothing' without any associated development would result in a poor placemaking outcome, lack of activation around the station, and pass up the opportunity to deliver a city shaping project. It would result in a missed opportunity to deliver a city shaping project in the Pyrmont Peninsula and would not meet the objectives of the PPPS to create a new centre of activity of commercial and residential uses anchored by the metro station. The 'do nothing' alternative would represent a failure to capitalise on significant infrastructure investment, create 7,265m^2 employment-generating space, and deliver 160 new homes. This scenario would also prevent the creation of a significant number of construction jobs and ongoing direct and indirect jobs during occupation and operation of the development. The Sydney Metro West network will provide connectivity to and from Pyrmont and will be an asset to the wider Pyrmont Peninsula. 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.

Options	Assessment
Alternative Design	Sydney Metro has explored alternative design options through a series of building envelope and massing studies. These studies have explored alternative building heights, gross floor areas, land uses (such as hotel accommodation, commercial and residential uses), building envelopes, and floor plate configurations. The alternative options have not been pursued for reasons including inefficient floor plates, poor design outcomes, and typology unfeasibility. Ultimately, alternative design options were not pursued for the reasons that they were incompatible with the site, did not achieve the Sydney Metro vision and objectives for the station precinct, did not achieve the allowable development yield provided under the Design Guidelines, and resulted in unacceptable amenity impacts to surrounding properties. The alternative options for the tower envelope were informed by solar studies to ensure minimum overshadowing impacts to adjoining residential properties. One such alternative was for a commercial OSD scheme that quickly demonstrated that in order to achieve a reasonably viable and efficient floorplate for the site, the tower setbacks would be required to be reduced to extreme limits. This subsequently would have resulted in impacts to the urban environment through built form bulk and scale and unmitigated wind effects on surrounding public domain. Subsequently, it was demonstrated a commercial scheme at the site was not able to be pursued. Additionally, a hotel scheme was tested for the site. This typology study resulted in a potentially slender tower form in terms of bulk and scale. However, the scenario would have implications on the station underneath the site in the context of integrating necessary hotel front and back of house ground level services, alongside the required services requirements for the metro station. Additional information on the land use testing for the considered options is provided within Appendix E.
Proposed Design	This concept proposal provides for an optimised outcome at the site. It is considered that the proposed development presents a balanced and feasible option as it would: • capitalise on significant infrastructure investment • enable the creation of approximately 179 direct annual construction jobs over 2 years, in addition to 345 ongoing jobs directly and 404 jobs indirectly created during the operation of the development • deliver approximately 160 new homes in close proximity to public transport and amenity • establish a building envelope for a future tower above the podium established by the Stage 3 CSSI Approval (including overall tower building height and upper-level setbacks) • establish the indicative total gross floor area for the site • establish indicative land uses for the podium and tower • allow for the delivery of an over station development which responds to the urban grain and scale of the surrounding context and minimises impact on local character • maintain adequate solar access to surrounding public spaces (such as the Elizabeth Healey Reserve) and existing residential dwellings.

3 The proposal

This chapter provides a detailed description of the Concept SSDA and sets out the planning and development framework for future Detailed SSDA.

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

3.1 Overview of the proposed development

This Concept SSDA seeks consent for building envelopes above the Pyrmont Station. The Concept SSDA specifically seeks consent, pursuant to section 4.22 of the EP&A Act, for the following:

- maximum building envelope and built form parameters, including building setbacks
- maximum building height of RL 120m
- use of areas within the podium for commercial premises (such as office, business, and retail premises) and spaces ancillary to residential accommodation
- a maximum GFA (excluding station GFA) of 23,463m^2 comprising:
    - use of the Stage 3 CSSI Approval podium to provide areas associated with commercial and residential land uses
    - use of the tower envelope for residential accommodation
- a maximum 55 car parking spaces (including two car share spaces), and further bicycle parking spaces.

This Concept SSDA seeks consent for the maximum intended GFA for the site (excluding station GFA) of 23,463m^2. The indicative reference scheme demonstrates how a building could be established within the proposed envelope while maintaining reasonable environmental amenity outcomes and includes a total GFA of 22,765m^2. This EIS and the accompanying technical reports assess the impacts of the proposed development based on the maximum GFA sought by this Concept SSDA.

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

- Sydney Metro West design excellence strategy
- concept strategies including the following:
    - utilities and services strategies
    - integrated water management strategy
    - ecologically sustainable development (ESD) strategy.

Table 4 provides an overview of key parameters of the Concept proposal.

The indicative building massing and form is shown in Figure 3-1.

Table 4 – Key parameters

Concept Plan	Numerical Overview
Site area	2,607m^2
Site address	37-69 Union Street, Pyrmont

Concept Plan	Numerical Overview
Legal description	Lot 1 in DP 620352 and Lot 1 DP 657429
Height	Tower: RL120 metres (31 storeys)
Floor space ratio (FSR)*	9:1 (excluding station floorspace)
Primary uses	Commercial premises (such as office, business and retail premises) and residential accommodation
Vehicular access	Vehicular access to and from the site is proposed via a crossover from Edward Street. The layout and design of the loading dock and car parking areas will be detailed as part of a future Detailed SSDA.
Tree removal	No tree removal is proposed under this application.
Development timing	For the purposes of this Concept SSDA, two possible staging scenarios have been identified for the delivery of the integrated station development. Anticipated construction timelines for each staging scenario are discussed in Section 6.21 of this EIS.

** excludes any GFA associated with the rail infrastructure facilities under the Stage 3 CSSI Approval*

3.2 Building envelope

The proposed building envelope defines the proposed three-dimensional tower volume within which future development can occur. The built form will consist of the podium form (to be delivered under the Stage 3 CSSI Approval) and tower form above.

The building envelope reflects a sound and considered urban design and environmental outcome for the precinct considering the surrounding context, solar access requirements, the principles of the Pyrmont Peninsula sub-precinct master plans and the statutory planning controls within the SLEP 2012, the Pyrmont Design Guidelines, and the ADG.

It is noted that there has been ongoing design development of the podium at Pyrmont Station since the Stage 3 CSSI was approved to ensure all station infrastructure can be appropriately accommodated. The built form of the podium has been established by a Consistency Assessment delivered under the CSSI Stage 3 Approval.

The building envelope has been designed to enable full integration with Pyrmont Station. Figure 3-1 below identifies the proposed building envelope (in pink) and the Stage 3 CSSI Approval envelope (in blue).

The proposed development envelope and associated building setbacks have been defined through a careful analysis of the urban context including:

- ground plane amenity
- street wall alignment and building heights
- Metro station constraints
- sun access and daylight access to the public domain
- sun access and daylight access to surrounding residential properties
- wind conditions in the public domain.

The height of the tower building envelope is RL120. The height and form of the tower is consistent with the Design Guidelines which require the tower to be articulated to

minimise bulk and scale when viewed from the west along Union Street looking east and along Edward Street from Pyrmont Bridge Road looking north towards Darling Harbour. The building envelope of the tower reinforces and conserves the pedestrian scale and existing sense of enclosure provided by Union Street and Edward Street.

The proposed floorplate for the residential levels in the tower allows for architectural articulation and external facade elements such as private open space to be included within the building envelope. The articulation zones will provide flexibility to enable a high-quality design response to be achieved as part of the future Detailed SSDA.

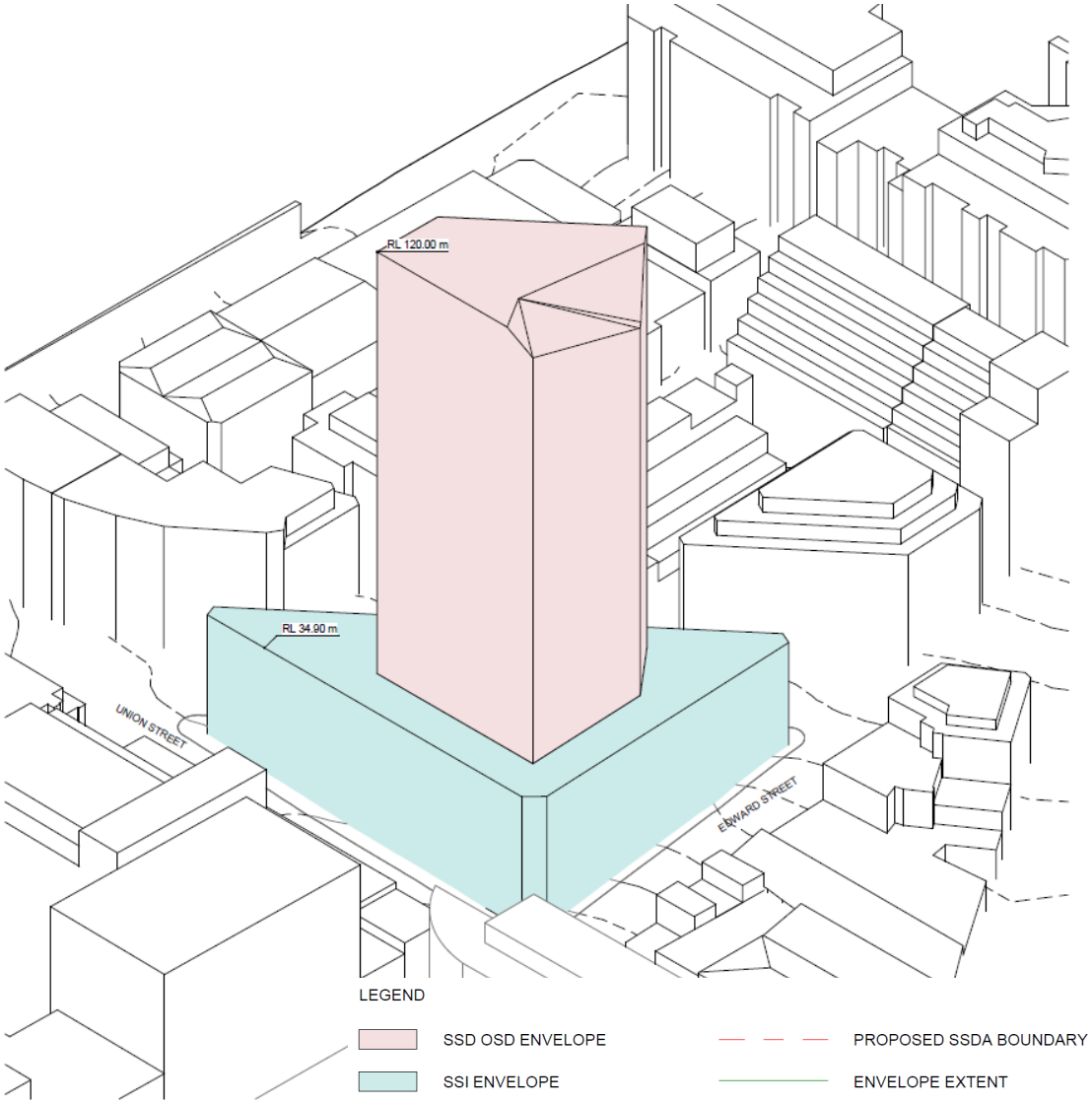


Figure 3-1 SSDA and CSSI envelopes

3.3 Gross floor area

The proposed development provides a maximum GFA of 23,463m^2, excluding any Stage 3 CSSI GFA. For the purposes of this EIS, the different proposed land uses which contribute to the GFA are identified below:

- site Area - 2,607m^2
- residential GFA – 16,198m²
- retail GFA – 2,024m²
- commercial GFA – 5,241m^2
- total GFA – 23,463m^2

It is noted the indicative reference scheme (Appendix H) proposes a slightly lower GFA as outlined in section 3.4.

3.4 Indicative reference scheme

An indicative reference scheme has been prepared and is detailed at Appendix H. The indicative reference scheme demonstrates that a future development form that delivers the indicative floor space allocations for each use can occur within the proposed envelope and remains below the total GFA being sought by this concept application. The total floor space for the commercial and residential uses is subject to detailed design and is provided for indicative purposes.

The intent of the indicative reference scheme is to demonstrate how a building could be established within the proposed envelope while maintaining reasonable environmental amenity outcomes, achieving a functional floor plate for the future development, and enabling the integration with the structural and servicing requirements of the metro station. It is noted that no approval is sought for the indicative concept reference design as part of the Concept SSDA, as this would be sought through a future Detailed SSDA.

Key features of the indicative reference scheme include:

- provision of 2,024m² of retail GFA at Ground Floor to Level 05
- provision of 4,543m² of commercial GFA at Ground Level to Level 05
- provision of 16,198m² of residential GFA above the podium at Levels 07 to 30
- a total of 160 residential apartments comprising:
    - 1-bedroom: 45 apartments (28.1%)
    - 2-bedroom: 91 apartments (56.9%)
    - 3-bedroom: 24 apartments (15%)
- car parking, servicing and loading is accommodated at Ground Floor to Level 04 and provides for 29 car parking spaces and bicycle spaces.

The Concept SSDA seeks consent for a maximum GFA of 23,463m^2 and a maximum of 55 car parking spaces. As detailed above, the indicative reference scheme proposes a total GFA of 22,765m^2 and 29 car parking spaces, which is broadly consistent with the overall total GFA and maximum car spaces sought as part of this Concept SSDA.

Podium

The podium has an approximate height of RL34.9 (indicatively about 27m). This has been established by the Stage 3 CSSI Approval. The podium has been designed to

support a range of future commercial uses (such as office, business, and retail premises) that will cater for the needs of the future community and ensure activation throughout the day and evening. This in turn would contribute vibrancy to the Pyrmont centre and create lively and safe spaces for pedestrians.

The street wall and heights of the podium are designed to ensure that the built form responds appropriately to adjoining development, makes a significant contribution to the experience of place, and adds uniformity of character to Pyrmont streetscapes.

The podium has been designed to integrate with the public domain vision to create active frontages to street frontages on Pyrmont Bridge Road and Union Street at the human scale. In particular, ground level retail tenancies provide frontage onto Union Street and target east-west foot traffic. It is noted that the podium prioritises activation to the Pyrmont Bridge Road and Union Street frontages, while Edward Street is a service frontage which prioritises loading and car parking.

Ground level tenancies address the street level, offering level access between individual units and the external pavement. Glazed shopfronts offer permeability at street level and provide opportunity for uses to spill to external spaces.

The upper podium commercial levels are orientated to allow a continuous northern aspect and allow internal areas to receive generous natural light. The façades on north-south and east-west orientations provide opportunity for mixed mode and natural ventilation strategies. The central lift lobby and split egress cores will allow flexibility in future tenancy configurations.

Tower

The indicative concept reference design includes indicative floor plates to illustrate how the proposed development could accommodate high quality residential apartments within the tower. An indicative (typical) residential floor plate is provided at Figure 3-2 below and in the Built Form and Urban Design Report at Appendix E.

Figure 3-2 Indicative (typical) residential floor plate

3.5 Pedestrian access and connectivity

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

- metro station: Pedestrian access to the metro station is provided on the corner of Union Street and Edward Street. The entrance has a combination of escalators and lifts providing access to the station which will be delivered under the Stage 3 CSSI Approval.
- residential uses: Pedestrian access to the residential apartments would be via the Pyrmont Bridge Road entrance to the central lift core. The final design of the residential lobby entrance will be determined through a Detailed SSDA. The remainder of the public domain within the wider Pyrmont metro site will be delivered under the Stage 3 CSSI Approval.
- commercial lobbies: Indicative access to the commercial lobbies will be provided via Union Street.

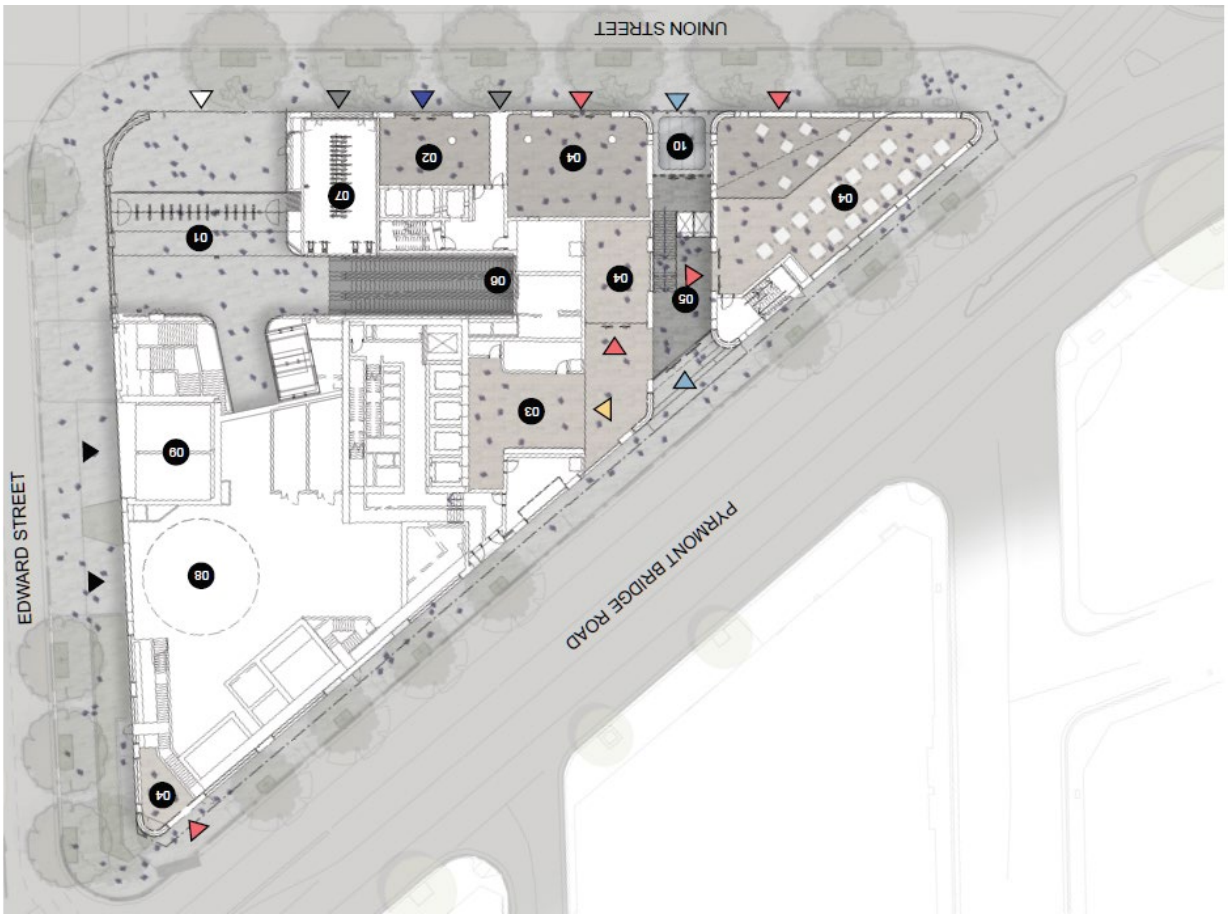


Figure 3-3 Indicative ground plane with access points

3.6 Vehicular access and parking

Car parking provision

The proposed development includes vehicle access and car parking at ground level to Level 04 to accommodate a maximum of 55 car parking spaces.

The detailed design of the car parking would be addressed in a Detailed SSDA.

Car parking levels will cater for commercial, retail, and residential uses.

Vehicular access

The main vehicular access to the site is provided via a crossover from Edward Street. This will provide access to car parking levels.

Bicycle parking

Bicycle parking and end of trip facilities are indicatively proposed at Level 01. This area will accommodate bicycle parking spaces.

Service vehicles

The indicative reference scheme makes allowances for service vehicles at Ground Level.

Loading dock

The indicative reference scheme accommodates a loading dock which is accessed via a driveway from Edward Street. The loading dock includes a turntable to enable large service vehicles to turnaround within the dock.

3.7 Infrastructure and services

The Utilities and Infrastructure Servicing Assessment (Appendix BB) concludes the following:

- stormwater flows from the proposed development captured through City of Sydney catch pits and carrier pits to the existing Sydney Water stormwater network along Union Street, and Pyrmont Bridge Road.
- wastewater servicing for the proposed OSD through existing Sydney Water network connections DN225 along Edward Street and DN225 along Union Street.
- potable water servicing to the proposed OSD from existing reticulation network DN 200 cast iron concrete lined along Union Street.
- telecommunication servicing is proposed from the multiple telecommunication service pits infrastructure owned by Telstra, along Edward Street and Pyrmont Bridge Road.
- electrical high voltage supply from Ausgrid is proposed from Darling Harbour Zone Substation with new conduits installed along Pyrmont Street, Union Street and Edward Street to a new substation servicing the OSD.
- gas network in the Pyrmont precinct is provided by Jemena. Proposed gas connection to the site is from DN100 along Pyrmont Bridge Road.

3.8 Design excellence strategy

The Sydney Metro West Design Excellence Strategy (DEX Strategy) (Appendix K) will guide the detailed design of the proposed development. The DEX Strategy provides a consistent framework to deliver design excellence across the Sydney Metro West project. It applies to stations, precincts, OSD and selected ancillary infrastructure facilities. The DEX Strategy was endorsed by the NSW Government Architect on 19 August 2022.

The DEX Strategy builds on Sydney Metro's existing design development and review processes and has been developed in consultation with the NSW Government Architect.

The DEX 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.

The DEX 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 DEX Strategy includes the establishment of three 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 Approval and Concept SSD applications are developed, and approvals sought
- Design Excellence Evaluation Panel (DEEP) covers Phase 2 and applies during the competitive selection process for the OSD applications
- Design Review Panel (DRP) covers Phases 2 and 3.

As part of Phase 1, Sydney Metro established the DAP to guide the concept design of the station, the station precinct and any integrated station development. It is during Phase 1 that the design approach for the Pyrmont Concept SSDA was developed.

The role of the DAP is to provide strategic design guidance, based on sketches and options presented at the early stages of design in an informal format. The responsibilities of the DAP include advising on key design elements such as place making, activation, heritage, urban design, streetscape, public domain, architecture, and landscape architecture.

The DAP does not provide recommendations on whether the proposal will, or is capable, of achieving design excellence at Concept SSDA stage, as this occurs in Phase 2.

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.

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 focus of the DEEP will be to ensure that all tender proposals either demonstrate the achievement of design excellence or demonstrate the capability to achieve design excellence. The DEEP will provide a Design Excellence Report on the evaluation process and outcomes to the Sydney Metro Tender Review Panel. This assures a line of sight in the communication between the DEEP and Sydney Metro's consideration of design excellence in the overall decision-making process. The Design Excellence Report will identify those aspects of each tender proposal that contribute to the achievement of design excellence or where this is not achieved, specific recommendations for further design refinement. These items will be incorporated into the OSD contract documentation to ensure they are delivered.

Once a tenderer is selected, the DRP will review design development for the Detailed SSDA. It is in this stage where the DRP can provide advice that the scheme can demonstrate design excellence.

Phase 3, which includes continued review by the DRP, ensures design integrity is achieved and demonstrated in the design and delivery of stations and development following contract award. Sydney Metro will manage design integrity by binding elements of the successful tenderer's submitted design into the contract documents. In addition, the project team will work with the successful tenderer to improve elements of the contracted design that the Design Excellence Report identifies as needing further design development. The DRP will also be responsible for the design review task of this phase to ensure design integrity.

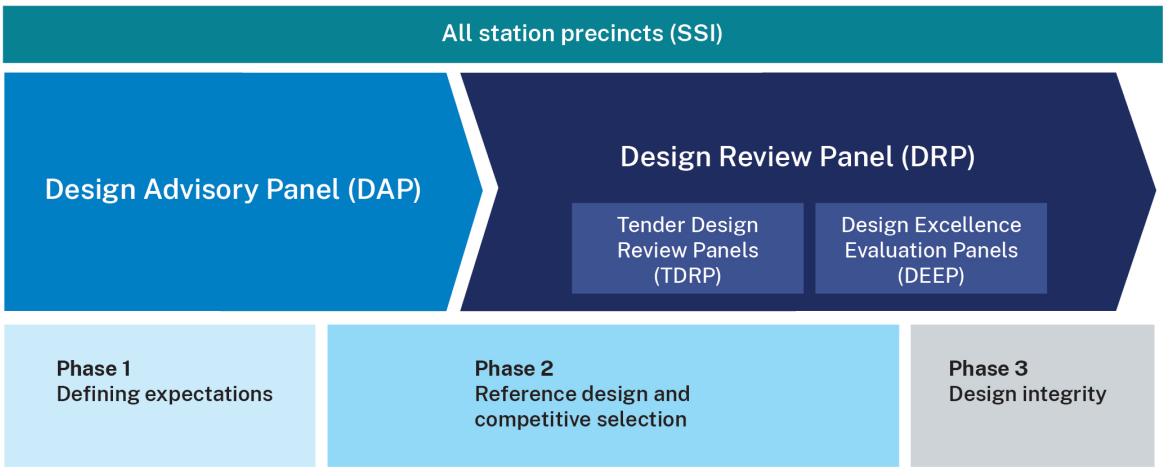


Figure 3-4 Design excellence process

The adoption of Sydney Metro West Design Excellence Strategy and the included competitive design review process is consistent with precedents established for other major infrastructure projects including Sydney Metro City & Southwest Project.

Sydney Metro proposes to use its DEEP process as an alternative design excellence process to demonstrate that 'design excellence' has been achieved under clause 6.21C of the SLEP 2012.

The alternative design competition process is discussed in Sections 4.1 and 6.1 of this EIS.

3.9 Interface levels

The proposed development has been designed to integrate with Pyrmont Station to ensure a cohesive station and precinct development. To allow for this integration, the podium is to be delivered under the Stage 3 CSSI Approval. However, while the physical podium would be delivered under the Stage 3 CSSI Approval, approval for the use and layout of non-station spaces within the podium which are related to the proposed development are sought under this Concept SSDA.

The Stage 3 CSSI Approval includes 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 separate approval under a future Detailed SSDA.

The Stage 3 CSSI approval makes provision for over station development that could be built, subject to separate approval, above metro stations. Where this is planned, this proposal would include relevant provisions to enable future construction of over station development, for example:

- structural elements (steel and/or concrete) up to podium level, building grids, column loadings and building infrastructure to enable the future construction of over station development; and

- space for future lobbies, lift cores, access, parking, loading docks, building services and basements for future over station development.

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.

Demarcation between the station and proposed development is shown in Figure 3-1.

The public domain within the wider Pyrmont metro site would be delivered through the Stage 3 CSSI Approval and is subject to further design development.

3.10 Ecologically sustainable development strategy

The Ecologically Sustainable Development (ESD) Report (Appendix Q) sets out an ESD strategy to guide the future detailed SSDA. Chapter 6.6 assesses the proposal against the ESD principles.

Sustainability targets and rating requirements within the ESD 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 are outlined in

Table **5**.

Table 5 – Minimum Sustainability Rating

Component	Minimum Rating Requirement
Commercial	5 star Green Star Buildings v1 Rev B
	5.5 star (+25%) NABERS Energy for Offices (base building) (without GreenPower) (Commitment Agreement)
	5 star NABERS Water for Offices 40% less potable water consumption when compared to a reference building
Residential	5 star Green Star Buildings v1 Rev B
	4.5 star NABERS Energy for Apartment Buildings (without GreenPower) 5 star NABERS Water for Apartment Buildings
	Average 7 star NatHERS rating Minimum individual 6 star NatHERS rating
	BASIX Energy 30 BASIX Water 50

3.11 Timing, stages and sequencing

Separate delivery packages are proposed by Sydney Metro to deliver the excavation of the temporary station boxes/shafts ahead of the proposed development delivery package, and line-wide systems (e.g. track, power, ventilation) and operational readiness works prior to the Sydney Metro West system being able to operate.

Sydney Metro is seeking to retain flexibility in the timing and staging of the proposed OSD so that its delivery by a future developer can appropriately respond to property market conditions. Two possible staging scenarios have been identified for delivery of the project.

- scenario 1: Continuity of construction works from station to proposed development. Station work complete and station operational in 2032. Proposed development start after 2026.
- scenario 2: Gap between completion of station (with full de-mobilisation) and commencement of proposed development works at a later stage. Station work complete and station operational in 2032. Proposed development start after 2032.

It is expected that staging will be resolved during subsequent Detailed SSDA process. The developer awarded the development rights will determine the timeframe for construction of the proposed development.

The planning process and indicative timing for the various streams under the anticipated staging scenario are outlined in

Table **6** below.

Table 6 – Staging and indicative timing

Works stream	Indicative timing
Pyrmont Station excavation and tunnelling works	2023-2025
Pyrmont 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 2032
Sydney Metro West opens for passenger services	2032

3.12 Subdivision

The Stage 3 CSSI Approval 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.

The CSSI Approval will allow subdivision to create the individual lots for the station, the development sites, the public domain and the public roads. The CSSI Approval 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, including (but not necessarily limited to) strata subdivision of the commercial land uses, residential uses, and carparking.

3.13 Public art

A Public Art Plan will be developed as part of the Detailed SSDA to be generally consistent with the City of Sydney's Public Art Strategy, Public Art Policy, Guidelines for Public Art in Private developments, and Guidelines for Acquisitions and Deaccessions.

The Public Art Plan will set a platform to activate the site, and give creative voices to the local community, its artists, and diverse audiences as part of the future detailed design of the site.

The Public Art Plan will outline the principles, objectives, and opportunities for the future delivery of public art and place activation. The plan will also include methodology for the selection, commission, and delivery of public art to support subsequent SSDA for the OSD.

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 the City of Sydney local government area (LGA) which is administered by City of Sydney Council (Council). The relevant legislation and environmental 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 (BC Act 2016)
- National Parks and Wildlife Act 1974 (NSW)
- Water Management Act 2000 (NSW)
- State Environmental Planning Policy (Biodiversity and Conservation) 2021 (Biodiversity and Conservation SEPP)
- State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP)
- State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021 (Eastern Harbour City SEPP)
- State Environmental Planning Policy (Housing) 2021 (Housing SEPP)
- State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP)
- State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP)
- State Environmental Planning Policy (Sustainable Buildings) 2022 (Sustainable Buildings SEPP)
- Sydney Local Environmental Plan 2012 (SLEP 2012)

Table 7 outlines the statutory planning processes and requirements for the proposed development in the key planning instruments as listed above.

Table 7 – Key statutory requirements

Matter	Guidance
Power to grant consent	In accordance with clause 19(2) of schedule 1 of the Planning Systems SEPP, development for commercial premises or residential premises that has a CIV of more than $30 million and is located within a rail corridor or is associated with railway infrastructure is assessed as SSD: *(2) Development within a rail corridor or associated with railway infrastructure that has a capital investment value of more than $30 million for any of the following purposes—* *(a) commercial premises or residential accommodation,* *(b) container packing, storage or examination facilities,* *(c) public transport interchanges.* The proposed works have a total CIV of more than $30 million (excl. GST) and are within a railway corridor being the Sydney Metro West line. In addition, as the development is not permissible without

Matter	Guidance
	development consent under Part 4 of the EP&A Act, it is therefore declared to be SSD under the Planning Systems SEPP. The Minister is the consent authority for SSDAs made by or on behalf of a public authority. The Minister may delegate this function to staff within the DPHI. Pursuant to section 4.22 of the EP&A Act, a concept development application 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 proposed development is for a Concept SSDA in accordance with section 4.22 of the EP&A Act.
Permissibility	The site is located on land zoned MU1 Mixed Use under the SLEP 2012. Commercial premises and residential accommodation are permissible with consent in the MU1 Mixed Use zone. The commercial and residential land uses are consistent with the zone objectives which aim to integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.
Other approvals	Clause 7.9 of the BC Act 2016 applies to SSDA and requires SSDA to be accompanied by a Biodiversity Development Assessment Report (BDAR) report unless it is determined the proposal is not likely to have any significant impact on biodiversity values. A BDAR Waiver is provided at Appendix S, which confirms that the development is not likely to have any significant impact on biodiversity values.
	An application for a water use approval under Chapter 3, Division 2 of the *Water Management Act 2000* is not proposed for this development, as the below ground level construction and any dewatering for the metro line or station will be delivered under the Stage 3 CSSI Approval.
	The *National Parks and Wildlife Act 1974* aims to prevent the unnecessary or unwarranted destruction of relics and the active protection and conservation of relics of high cultural significance. The provisions of the Act apply to both indigenous and non indigenous relics. Pursuant to section 4.41 of the EP&A Act, SSD is exempt from the need for a section 90 permit for the removal of items of Aboriginal heritage. Notwithstanding, an Aboriginal Cultural Heritage and Archaeology Report (ACHAR) has been prepared and is provided at Appendix Y and discussed in section 6.17.

4.2 Pre-conditions

Table 8 outlines the pre-conditions to exercising the power to grant consent which are relevant to the project and the section where these matters are addressed within the EIS. These are conditions that must be satisfied before the approval authority may grant development consent.

Table 8 – Pre-Conditions

Statutory Reference	Guidance	Relevance	Section in EIS
Concept development consent (section 4.23 of EP&A Act)	Determination of any further development application in respect of the site cannot be inconsistent with the consent for the concept proposals for the development of the site.	This application proposes a concept development consent which will apply to future development on the land. No other existing concept development consent applies to the site. Therefore section 4.24 of the Act does not apply to this application.	N/A
Infrastructure and environmental impact assessment (part 8 EP&A Regulations)	An EIS must be prepared in accordance with the SEARs issued for the project, and contain the relevant information identified in section 190 and 192 of the EP&A Regulations	This EIS has been prepared in accordance with Part 8 of the EP&A Regulations. This EIS addresses the SEARs issued by the Secretary as per section 175 of the EP&A Regulations and contains the detailed information identified in section 190 and 192 of the EP&A Regulations. Specifically, this includes a statement prepared by a Registered Environmental Assessment Practitioner. The development is consistent with the principles of ecologically sustainable development as per section 193 of the EP&A Regulations as discussed in section 6.6 of this EIS. This application will be placed on public exhibition on the NSW Major Projects Portal as per section 194 of the EP&A Regulations.	Signed Declaration on Page viii of this EIS. SEARs Compliance Table at Appendix A Section 6.6
Resilience and Hazards SEPP - clause 4.6(1)	A consent authority must be satisfied that the land is suitable in its contaminated state – or will be suitable, after remediation - for the purpose for which the development is proposed to be carried out.	The proposed development will sit upon the station shaft and podium with no additional excavation. Any contamination issues on the site will be resolved with the excavation and the construction of the station box under the relevant CSSI Approval. Therefore, in accordance with the Resilience and Hazards SEPP, it is considered likely that the Concept SSDA site will be suitable for its proposed use.	Appendix W Section 6.15

4.3 Mandatory Considerations

Table 9 outlines the relevant mandatory considerations that must be taken into account in determining this Concept SSDA under the EP&A Act and the sections where these matters are addressed within the EIS.

Table 9 – Mandatory Considerations under the EP&A Act and Regulation

Statutory Reference	Mandatory Consideration	Section in EIS
Section 1.3	Relevant objects of the EP&A Act.	Appendix B
Section 4.15(1)(a)(i)	Resilience and Hazards SEPP – Remediation of land	Appendix B
Section 4.15(1)(a)(i)	Biodiversity and Conservation SEPP	Appendix B
Section 4.15(1)(a)(i)	Sydney Local Environmental Plan 2012	Appendix B
Section 4.15(1)(a)(i)	Sustainable Buildings SEPP	Appendix B
Section 4.15(1)(a)(ii)	Development control plans Clause 2.10 of the Planning Systems SEPP states that development control plans (DCPs) do not apply to SSD. The Pyrmont Peninsula Design Guidelines have been finalised and were submitted with the planning proposal request for the site. Specifically, these Design Guidelines inform the building envelope in relation to tower setbacks, building separation, street wall heights, the interface with heritage items, building articulation, and measures to mitigate wind impact. They take the place of a site specific DCP and are referenced in the SLEP 2012. The Design Guidelines also include objectives and guidance relating to urban design strategies, station podium and massing, design excellence, landscaping, wind conditions, heritage interpretation, public art, the pedestrian and bicycle network, vehicular access, flooding and stormwater, waste management and ESD.	Appendix B
4.15(1)(a)(iiia)	There are no planning agreements or draft planning agreements.	
4.15(1)(a)(iv)	The Regulations	REAP declaration Section 6.6
4.15(1)(b)	The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.	Section 6
4.15(1)(c)	The suitability of the site for the development.	Section 7.5
4.15(1)(d)	Any submissions made in accordance with the EP&A Act or the EP&A Regulation.	Section 5
4.15(1)(e)	The public interest.	Section 7.6

Table 10 – Mandatory considerations under other legislation

Statutory Reference	Mandatory Consideration	Section in EIS
Biodiversity Conservation Act – section 7.9	Section 7.9 of the Biodiversity Conservation Act 2016 requires preparation of a biodiversity assessment for SSD that is assessed under Part 4 of the EP&A Act. This Concept SSD Application would 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 Biodiversity Conservation Act 2016 allows for exemption from the requirement where the development is not likely to have any significant impact on biodiversity values. A waiver under section 7.9(2) of the Biodiversity Conservation Act 2016 was issued on 21 November 2022 and is available at Appendix R. Accordingly a full biodiversity assessment has not been submitted with this EIS.	A BDAR Waiver is provided at Appendix S
Biodiversity Conservation Act – section 7.14	The likely impact of the proposed development on biodiversity values as assessed in the BDAR. The Minister for Planning may (but is not required to) further consider under that Biodiversity Conservation Act 2016 the likely impact of the proposed development on biodiversity values.	A BDAR Waiver is provided at Appendix S

Table 11 – Mandatory considerations under EPIs

Statutory Reference	Mandatory Consideration	Section in EIS
Transport and Infrastructure SEPP	Section 2.102 Major development within Interim Metro Corridor. The consent authority must consider any response to a written notice issued to the Secretary of the Department of Transport that is received within 21 days.	Statutory Compliance table at Appendix B
Transport and Infrastructure SEPP	Section 2.122 Traffic generating development. The consent authority must consider any response to a written notice issued to TfNSW that is received within 21 days, the accessibility of the site concerned, and any potential traffic safety, road congestion or parking implications of the development.	Section 6.10 Transport and Access Report at Appendix R Statutory Compliance table at Appendix B
Biodiversity and Conservation SEPP	The site does not comprise remnant native vegetation and the proposal will be constructed above the station box, therefore will not impact on ground conditions. The proposed development is not located within a Local Government Area to which the Biodiversity and Conservation SEPP applies in relation to koalas.	Appendix B

Statutory Reference	Mandatory Consideration	Section in EIS
	The site is not identified as bushfire prone area. Accordingly, the Biodiversity and Conservation SEPP does not apply to this proposal.	
Sustainable Building SEPP	The Sustainable Buildings SEPP commenced on 1 October 2023. The aims of the SEPP (amongst others) are to encourage the design and delivery of sustainable buildings and to ensure consistent assessment of the sustainability of buildings.	Appendix B
Housing SEPP and Apartment Design Guide	Chapter 4 of the Housing 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. Chapter 4 of the Housing SEPP requires the determining authority to have regard to the Apartment Design Guide. A Chapter 4 Housing SEPP Assessment Report has been prepared by Woods Bagot (Appendix J), which demonstrates compliance with the Apartment Design Guide.	Appendix J
Eastern Harbour City SEPP	The Eastern Harbour City SEPP aims to facilitate the development and protection of urban, coastal, and regional sites of economic, environmental, or social significance and facilitate the orderly use, development or conservation of significant precincts for the benefit of the State. It facilitates service delivery outcomes for a range of public services and provides for development of major sites for a public purpose or sites which are no longer appropriate or suitable for public purposes. The site is located within the “Ultimo-Pyrmont Precinct” in the City West area, to which Chapter 4 of the SEPP applies. Notwithstanding, clause 4.1 provides that Chapter 4 does not apply to land to which Sydney Local Environmental Plan 2012 (SLEP) applies. For the reason that the SLEP applies to the site and the proposed development, the Eastern Harbour City SEPP does not apply.	N/A
SLEP 2012	SLEP 2012 is the primary planning instrument applicable to the site. It sets out the principle development standards and considerations informing development of the land. On 29 July 2022, an amendment to the SLEP 2012 was gazetted via a self-repealing SEPP. The amendments to the SLEP 2012 included new site-specific clauses and changes to existing development standards to increase the building height and FSR for four key sites (including the subject site of this application). Concurrently with the amendments to the SLEP 2012, DPHI approved the Design Guidelines and Pyrmont Peninsula sub-precinct master plans. These are referenced accordingly in the site-specific clauses in SLEP 2012.	Appendix B

Statutory Reference	Mandatory Consideration	Section in EIS
	The Concept SSDA is designed to generally comply with relevant development standards and site-specific provisions which apply to the site under the recently amended SLEP 2012, except in relation to the FSR controls as outlined below. Land Use Zoning The site is zoned MU1 Mixed Use within which the proposed uses ('commercial premises' and 'residential flat building') are permissible with consent. Building Height Clause 6.65 of SLEP 2012 allows for a maximum building height of RL120 on Lot 1 DP 620352. The proposal complies with these standards. Floor Space Ratio Clause 6.65 of the SLEP 2012 provides that the maximum FSR for part of Pyrmont Station complex at 37–69 Union Street, Pyrmont is 9:1 (excluding floor space used for the purposes of rail infrastructure facilities). As detailed in Section 2.3.1 of this EIS, the eastern site (37–69 Union Street, Pyrmont) comprises Lot 1 in DP 620352 and Lot 1 DP 657429. The Concept SSDA seeks approval for a maximum GFA of 23,463m^2. This total is based on the maximum 9:1 FSR control to both lots. Car Parking Ancillary to other Development The SLEP 2012 provides maximum car parking rates for residential flat buildings and office / business / retail premises on the subject land. The site is located on Category B land. Car parking rates are not to exceed the following rates: (i) for each studio dwelling—0.2 spaces, and (ii) for each 1 bedroom dwelling—0.4 spaces, and (iii) for each 2 bedroom dwelling—0.8 spaces, and (iv) for each 3 or more bedroom dwelling—1.1 spaces, and (v) for each dwelling up to 30 dwellings—0.167 visitor spaces, and (vi) for each dwelling more than 30 and up to 70 dwellings—0.1 visitor spaces, (vii) for each dwelling more than 70 dwellings—0.05 visitor spaces, (viii) 1 space for each 125 square metres of office and business premises gross floor area, and (ix) 1 space for each 50 square metres of retail premises gross floor area. The maximum number of permitted car parking spaces is 190. The proposal seeks approval for 55 car parking spaces. As assessed in the Traffic Impact Statement (Appendix R), this provision	

Statutory Reference	Mandatory Consideration	Section in EIS
	does not exceed the maximum LEP car parking rates. <u>Design Excellence</u> Refer to section 3.8 and 6.1 of this EIS. <u>Airspace Operations</u> The applicable Obstacle Limitations Surface to the Sydney CBD is 156 metres AHD, which the proposed envelope would penetrate. Accordingly, the future detailed SSDA will require airspace height approval in accordance with the *Airports Act 1996* from the Commonwealth Department of Infrastructure and Regional Development.	
Pyrmont Peninsula Design Guidelines	The SLEP 2012 provisions under Part 6, Division 6 of the instrument are supported by the Design Guidelines which provide detailed design guidance and provisions to guide development on identified key sites (including the Pyrmont Station site). The Design Guidelines which apply to the site include objectives and design guidance in relation to land use, built form, historical heritage, public domain, and design excellence. Appendix B provides a detailed assessment of the Concept proposal against the relevant objectives and design criteria of the Design Guidelines which apply to the Pyrmont Station site.	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.

In May 2021, the Scoping Report for Stage 2 CSSI Approval was lodged with DPHI which included the location of Pyrmont Station.

In November and December 2021, the Stage 2 CSSI Approval was exhibited for public comment, which proposed major civil construction at Pyrmont Station and tunnelling between The Bays and Sydney CBD as well as consideration of OSD as part of a future planning approval.

Between March and May 2022, the Stage 3 CSSI Approval was exhibited for public comment, which proposed to carry out the 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. Specifically, community consultation has occurred at the following stages:

- prior to lodgement of the Stage 2 CSSI Approval
- during public exhibition of the Stage 2 CSSI Approval
- prior to lodgement of the Stage 3 CSSI Approval
- during public exhibition of the Stage 3 CSSI Approval.

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, Housing and Infrastructure, 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 October 2022, the Scoping Report for this proposal was made available to the public on the NSW Department of Planning, Housing and Infrastructure (DPHI)'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 engagements

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 12 – Key stakeholder views

Stakeholder	Issues discussed/raised	Project response
City of Sydney	The following items have been discussed with City of Sydney: • Pyrmont Metro programme • surrounding context and planning control • overview of the proposed development • compliance with Pyrmont Peninsula Design Guidelines and SLEP 2012 • ongoing design engagement with City of Sydney • proposed community and stakeholder engagement strategy • station and public domain elements delivered under the Stage 3 CSSI Approval. Key assessment matters raised by City of Sydney include: • building envelope • building design • impacts to views to and from public places • solar assessment • wind tunnel assessment and good design to mitigate wind impacts • conserving heritage values • removal of private parking provisions	The EIS and all specialist reports adequately address the matters raised by the City of Sydney. Built form and urban design are discussed in section 6.3 of the EIS and Appendix E. Visual Impact Assessment (VIA) is provided in section 6.5 of the EIS and Appendix P. Solar Impact Study is provided in section 6.4.2 of the EIS and Appendix M and overshadowing impacts are provide in section 6.4.3 of the EIS and Appendix E. Pedestrian Wind Assessment is provided in section 6.4.5 of the EIS and Appendix O. Historic Heritage Impacts Statement is provided in section 6.18 of the EIS and Appendix Z. Transport and access arrangements are provided in section 6.10 of the EIS and Appendix R.

Stakeholder	Issues discussed/raised	Project response
	• loading and service vehicle access and queuing.	
Department of Planning, Housing and Infrastructure (DPHI).	The following items have been discussed with DPHI: • overview of the proposed development • community and stakeholder engagement strategy • delivery of the podium envelope under the Stage 3 CSSI Approval • key assessment matters raised during early consultation with the community and key stakeholders. Key assessment matters raised by DPHI include: • need for proactive engagement with the local community and key stakeholders • pedestrian wind impacts • solar access for the residential tower envelope • alignment with the Pyrmont Peninsula Design Guidelines and the ADG • proposed use of podium top.	The EIS and all specialist reports adequately address the matters raised by the DPHI. The community and stakeholder engagement strategy is provided in section 5 of the EIS. Pedestrian Wind Assessment is provided in section 6.4.5 of the EIS and Appendix O. Solar access to the residential tower envelope is discussed in section 6.4.1 of the EIS and Appendix E. A statutory compliance table is provided in Appendix B of the EIS.
Sydney Metro Design Advisory Panel (DAP)	A number of items were discussed with DAP relating to: • built form • building mass • land use • design principles • design excellence • solar access to neighbouring properties • context • topography • podium design and station features.	Details of the DAP comments and responses are provided in Appendix C. Environmental impacts of the matters raised by the DAP are provide at section 6 of the EIS.
Transport for NSW	The following items were discussed: • overall planning approval for the OSD at Pyrmont Station • the methodology for required traffic studies • proposed parking and access to the site	Refer to section 6.10 of the EIS and the Transport and Access Report provided in Appendix R. The Construction Traffic Management Framework (CTMF) discussed in section 6.21 of the EIS outlines mitigation measures that would

Stakeholder	Issues discussed/raised	Project response
	• loading dock considerations • network performances • requirements for a Construction Traffic Management Plans	be implemented to minimise impacts.
Utilities services	The following items were discussed: • capacity of existing utilities and services within the vicinity • new utility and service connection requirements.	Further consultation for specific design responses with utility authorities will be required as part of future Detailed SSDAs. Where utilities and services are not provided under the CSSI Approvals, the provision of services for the OSD 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. A utility authority consultation summary is contained within the Utilities and Infrastructure Servicing Assessment at Appendix BB.

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 outlines the way in which these issues have been addressed in the EIS.

Table 13 – Community Views

Evidence of Engagement	Issues discussed/raised	Project response
Community consultation carried out as part of Pyrmont Peninsula Place Strategy and sub precinct master plans	Key issues raised by the community included: • increases in building height and density, particularly the impact on residential amenity, traffic, sunlight access and wind conditions • Pyrmont Station site future use and perceived lack of consultation • protecting sunlight to parks and public spaces • affordable housing.	The community will continue to be consulted as part of the Concept SSDA public exhibition process. Traffic impacts are provided in section 6.10 of the EIS and Appendix R. Solar Impact Study is provided in section 6.4.2 of the EIS and Appendix M and overshadowing impacts are provided in section 6.4.3 of the EIS and Appendix E. Pedestrian Wind Assessment is provided in section 6.4.5 of the EIS and Appendix O.

Evidence of Engagement	Issues discussed/raised	Project response
Consultation carried out as part of the Stage 2 and Stage 3 CSSI Applications	Key issues raised by the community for the Pyrmont Station site included: • need for ongoing consultation with the community at Pyrmont • height and scale of the building • heritage interpretation as a key consideration in the design of the buildings and integration with public art. • loss of direct natural light and views due to height of proposed OSD. • need for high-quality housing and residential carparking. • need for place specific Design Guidelines. • poor urban design outcomes • waste management.	The community will continue to be consulted as part of the Concept SSDA public exhibition process. The community and stakeholder engagement strategy is provided in section 5 of the EIS. The height and gross floor area (GFA) of the tower is permissible under SLEP 2012 and is provided in section 3.1 of the EIS. Historic Heritage Impacts Statement is provided in section 6.18 of the EIS and Appendix Z. Solar Impact Study is provided in section 6.4.2 of the EIS and Appendix M. Visual Impact Assessment (VIA) is provided in section 6.5 of the EIS and Appendix P. Parking arrangements are provided in section 6.10 of the EIS and Appendix R. A statutory compliance table is provided in Appendix B of the EIS. Built form and urban design are discussed in section 6.3 of the EIS and Appendix E. Waste management is discussed in Section 6.16 of the EIS and Appendix X.
Engagement with local Aboriginal community and knowledge holders, including Registered Aboriginal Parties (RAPs)	A summary of the feedback received from the RAPs is provided below: • four RAPs provided comment on the ACHAR methodology and were supportive of the methodology. • two RAPs provided comment on the draft ACHAR and were supportive of the report's recommendations	An ACHAR has been provided at Appendix Y.
Engagement with Pyrmont Action Group	Key issues raised by the Pyrmont Action Group include: • building height and scale: look and feel of Pyrmont, solar	The community will continue to be consulted as part of the Concept SSDA public exhibition process.

Evidence of Engagement	Issues discussed/raised	Project response
	access, wind and view impacts • precedent for future development • building use and function • safety and security related to late night activation and support for a police station • support for affordable housing • support for ground level activation • support for vertical green spaces and garden terraces, and greenery at street level • support for natural ventilation in the building • concerns related to the CSSI approval and construction.	Solar Impact Study is provided in section 6.4.2 of the EIS and Appendix M. Pedestrian Wind Assessment is provided in section 6.4.5 of the EIS and Appendix O. Visual Impact Assessment (VIA) is provided in section 6.5 of the EIS and Appendix P. Crime Prevention Through Environmental Design (CPTED) Report is provided in Appendix L. Landscaping is discussed is section 6.3.4 of the EIS and Appendix E. Natural ventilation is discussed in section 6.4 of the EIS and Appendix E.
Community and customer insights as part of on-going community engagement by Sydney Metro	A summary of the feedback received during preparation of the Concept SSDA is provided below: • general positive sentiment about the Pyrmont Station precinct. • concern about the height of the over station development and desire for building to reflect the character of the local area. • concern around availability of public parking. • interest in the usage of development and general perception of the development revitalising the local area • suggestions for usage such as a public library, medical services, childcare centre and retail.	The community will continue to be consulted as part of the Concept SSDA public exhibition process. The height and gross floor area (GFA) of the tower is permissible under Sydney LEP 2012 and is provided in section 3.1 of the EIS. Built form and urban design are discussed in section 6.3 of the EIS and Appendix E. Traffic and parking are discussed in Section 6.10 of the EIS and Appendix R.

5.4 Public exhibition of this Environmental Impact Statement

The NSW Department of Planning, Housing and Infrastructure (DPHI) will place this EIS on public exhibition for a minimum of 28 days (in accordance with Schedule 1 of the *Environmental Planning and Assessment Act 1979*). During the exhibition period,

government agencies, stakeholders and the community can review this EIS and make a written submission to DPHI for consideration in its assessment of this proposal.

Sydney Metro has advised stakeholders and the community of public exhibition of this EIS 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 Submission Report

Sydney Metro will prepare a Submissions Report that responds to the relevant issues raised in submissions to this EIS. The Submissions Report will be made publicly available on the DPHI website. Anyone making a public submission will receive a letter notifying them of the publication of the Submissions Report on the DPHI 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 DPHI. 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 192 of the EP&A Regulation, the Planning Secretary of the DPHI issued the SEARs for the preparation of this EIS on 18 November 2022.

This section of the EIS provides an assessment of the environmental impacts of the proposed development, in response to the matters for consideration outlined within the SEARs. 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.

This assessment also considers and incorporates a cumulative impact assessment guided by the DPHI's Cumulative Impact Assessment Guidelines for State Significant Projects, noting the concurrent construction activities in the immediate surrounding area as outlined in Section 2.4.

Further detailed information is appended to the EIS, including:

- SEARs compliance table identifying where the SEARs have been addressed in the EIS (Appendix A)
- compliance table identifying where the relevant statutory requirements and detailed guidance have been addressed (Appendix B)
- community engagement table identifying where the issues raised by the community during engagement have been addressed (Appendix C)
- proposed mitigation measures for the project which are additional to the measures built into the physical layout and design of the project (Appendix D).

The technical reports and plans prepared by specialists and appended to the EIS are individually referenced within the following sections.

6.1 Design quality and design excellence

This section demonstrates how the development will achieve:

- desired design quality in accordance with the Design Guidelines
- design excellence in accordance with the SLEP 2012.

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.

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 Pyrmont Peninsula Design Guidelines provide objectives for the Metro east site which generally align with the GANSW's Better Placed framework, including:

- provision of an integrated building providing safe, legible and equitable access to the future Pyrmont Metro Station
- to allow for a tower above a podium building typology, and to ensure a high quality design which minimises impact on local character through effective control of built form, scale and material use and responds to the urban grain and scale of surrounding buildings, heritage items and heritage conservation areas
- to prevent further increase to overshadowing of surrounding public spaces and ensure adequate solar access is provided to existing residential dwellings/apartments
- to maintain wind safety and comfort in surrounding pedestrian areas
- to provide active frontages at ground level, whether through pedestrian access to the Metro Station or active shop fronts
- to improve and widen the public domain on surrounding streets as supported by an active transport study
- to maintain generous view corridors between buildings and minimise adverse visual impacts from the water and surrounding public domain
- to provide uses that will maintain and enhance the 24-hour economy in the sub-precinct
- to establish benchmarks for ecologically sustainable development and to implement green infrastructure, including urban tree canopy and greening, and water sensitive urban design at the site.

A response to the seven applicable objectives of Better Placed is outlined below.

Better Fit: Contextual, local and of its place

The proposed development responds to the place and design objectives that seek to reinforce Pyrmont's role as a significant employment and entertainment destination, contribute to the attributes and character of the site's location in the heart of the Pyrmont Peninsula, and promote active street frontages to Pyrmont Bridge Road, Edward Street, and Union Street to support a high-quality station address and vibrant public domain.

Better Performance: Sustainable, adaptable and durable

Development on the site is to provide adequate protection from environmental hazards. The site and concept design contain many opportunities for sustainable development through providing a mixed-use development which is integrated with the Metro station to encourage public transport use.

The concept design provides access to natural daylight, vertical shading and ventilation allowing apartments to ventilate and control thermal comfort. The future detailed development will be required to achieve the required sustainability targets outlined in relevant policies.

Better for Community: Inclusive, connected and diverse

The future detailed building design will provide opportunities to tell our First Nations story.

The OSD and the use of the podium for non-station uses provides clear wayfinding in addition to the legible station entry.

A mix of 1 bedroom, 2 bedroom and 3 bedroom apartments provides housing choices for different demographics and living needs.

Better for People: Safe, comfortable and liveable

Development on the site is to integrate walkable urban environments and contribute to a safe, permeable, and well-connected station precinct. The development provides commercial and publicly accessible spaces at ground level that are activated and safe. These spaces create opportunities to enhance pedestrian activity and amenity. The OSD tower is designed to not detract from the provision of quality urban outcomes at street level in terms of providing pedestrians with high levels of daylight, appropriate scale, a sense of enclosure, and comfortable wind conditions.

Better Working: Functional, effective and fit for purpose

The OSD will not adversely impact the delivery of station infrastructure on the site or the functional and effective operation of the Sydney metro. The OSD provides for uses that support and contribute to the delivery of unique, attractive and vibrant urban centres that provide a sense of connection and identity for the local community and visitors and deliver residential accommodation and employment growth within Pyrmont.

Better Value: Creating and adding value

The development will achieve high quality architecture, good urban design, and an integrated, user-friendly transport system delivered to ensure that Sydney Metro meets customer needs and expectations and maximises its city-shaping potential and broader urban and economic benefits.

Better Look and Feel: Engaging, inviting and attractive

The development delivers active uses to Union Street and Pyrmont Bridge Road. The development acts as a gateway to Pyrmont, being highly visible from the Pyrmont pedestrian bridge. The OSD tower shares a strong link and relationship with the city scape and high-rise development beyond Darling Harbour.

The design approach for the development is centred around responding to the local context. The podium design draws from the rich and historical urban fabric of the Pyrmont peninsula and responds to its context by referencing the surrounding heritage buildings in both fine grain architectural expression and materiality. The tower form responds to urban context by ensuring suitable scale relationships with surrounding forms, ensuring acceptable overshadowing and view impacts having regard to the changing context of the Pyrmont Peninsula.

In summary, the Design Guidelines and the GANSW's frameworks provide robust guidance to achieving high quality design responses. Any future Detailed SSDA will need to consider these Design Guidelines to ensure that future development achieves the vision for the site as established in this Concept SSDA.

6.2 Design excellence

Under Part 6, Division 4 of SLEP 2012, a consent authority must not grant consent to a development unless the proposed development exhibits 'design excellence'.

The proposed building envelope has been prepared with consideration of the matters listed in clause 6.21C(2) of the SLEP 2012, which will continue to apply to the development. Specifically, the proposed building envelope can contribute to the achievement of design excellence as outlined in

Table **14** below.

Future Detailed SSDA will be undertaken in accordance with the Sydney Metro West Design Excellence Strategy to ensure design integrity and 'design excellence' has been achieved under clause 6.21C of the SLEP.

Table 14 – Consideration of building envelope against design excellence provisions

Matter for Consideration	Proposed Planning Envelope
Whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved	The detailed design of the proposed development will be the subject of a future Detailed SSDA. Notwithstanding, the Pyrmont Peninsula Design Guidelines include requirements for the scale, massing, and articulation of tower forms to respond appropriately to the streetscape context including surrounding heritage items.
Whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain	The detailed design of the proposed development will be the subject of a future Detailed SSDA. Notwithstanding, it is noted that the proposed building envelope for the podium has been designed to respond to the maximum height and key architectural features of surrounding heritage buildings, and to provide an appropriate interface with the public domain.
Whether the proposed development detrimentally impacts on view corridors	As detailed in the Visual Impact Assessment (VIA) (at Appendix P), the site is not affected by any identified sensitive view corridors from the public or private domain. The visual impact rating of the proposed building envelope has been assessed as low. The planning controls for the site allow a tower as proposed by the OSD. As such, a commensurate level of visual impact is contemplated by the controls.
How the proposed development addresses the following matters (i) the suitability of the land for development	The proposed development is positioned above future high frequency public transport infrastructure, maximising the utilisation of the infrastructure, and contributing to the achievement of a 30 minute city.
(ii) the existing and proposed uses and use mix	The indicative reference design is for commercial land uses within the podium and residential land uses in the tower, above a metro station. The uses are permissible with consent in the MU1 Mixed Use Zone. The commercial and residential land uses are consistent with the MU1 Zone objectives which aim to integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.
(iii) any heritage issues and streetscape constraints	The development responds to its immediate context and heritage buildings in the vicinity as appropriate for a high-density proposal. The design approach for the indicative reference scheme is centred around responding to the context. This has regard to visual privacy, overshadowing and the achievement of internal amenity for future residents. The detailed design of the future building form will also need to respond to the site's heritage context, noting that the scale and materiality of the podium will be delivered under the Stage 3 CSSI Approval

Matter for Consideration	Proposed Planning Envelope
(iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers, existing or proposed, on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form	The proposed tower orientation and location has been assessed against a range of considerations including wind environment, building separation and privacy considerations, and view and visual impacts. The proposed tower setbacks specifically consider how the envelope relates to the surrounding existing context and prevailing street alignments and minimises overshadowing to surrounding residential properties and the public domain.
(v) the bulk, massing and modulation of buildings	The detailed design of the proposed development will be the subject of a future Detailed SSDA. Notwithstanding, the design guidelines include requirements for the scale, massing, and articulation of tower forms.
(vi) street frontage heights	The podium height form is established by the Stage 3 CSSI Approval. The massing and layout of the podium has informed the OSD parameters and the internal layout planning for future commercial land uses within the podium that are proposed under this SSDA. Refer to assessment at Section 6.3.
(vii) environmental impacts, such as sustainable design, overshadowing and solar access, visual and acoustic privacy, noise, wind and reflectivity	Aligned with the Design Guidelines which apply to the site, the overshadowing diagrams within the indicative reference scheme (at Appendix H) demonstrate that the concept building envelope enables achievement of adequate solar access to existing residential dwellings in accordance with the ADG and apartments in nearby surrounds and does not create any additional overshadowing to Elizabeth Healey Reserve. The VIA (at Appendix P) demonstrates that the visual impacts of the proposed development from private and public viewpoints and its cumulative visual impact are acceptable. The detailed design of the tower as part of a future Detailed SSDA will consider visual and acoustic privacy. Reflectivity will be considered as part of the material selection to be outlined in future detailed SSDAs.
(viii) the achievement of the principles of ecologically sustainable development	No threat of serious or irreversible environmental damage is posed by the development. The proposed development will maintain the health, diversity and productivity of the environment for future generations by minimising the consumption of energy and water, and waste generation. The proposal would not result in any significant effect on the biological diversity and ecological integrity of the study area. A BDAR Waiver has been issued in relation to the proposal as provided at Appendix S. The future Detailed SSDA will need to address built form and operational sustainability requirements.

Matter for Consideration	Proposed Planning Envelope
(ix) pedestrian, cycle, vehicular and service access and circulation requirements, including the permeability of any pedestrian network	Pedestrian and cycle access is provided from Pyrmont Bridge Road, Edward Street, and Union Street. Vehicular access is provided via a crossway along Edward Street. Refer to the assessment at Section 6.7 and Section 6.10 of this EIS.
(x) the impact on, and any proposed improvements to, the public domain	The construction and operation of the future Pyrmont Metro station, including surrounding public domain, is delivered under the Stage 3 CSSI Approval. The proposed ground level will provide: • public access to the underground station concourse and station platforms and access to residential and commercial lobbies; • activated commercial frontages to Pyrmont Bridge Road and Union Street; and • vehicular access to the site for car parking and service vehicles.
(xi) the impact on any special character area,	The site is not located within a special character area.
(xii) achieving appropriate interfaces at ground level between the building and the public domain	Interface at the ground level to the public domain has been addressed as part of the Stage 3 CSSI Approval. The Sydney Metro West Station and Precinct Design Guidelines form part of the EIS for the Stage 3 CSSI Approval and establish design standards to guide the design of stations and interface outcomes between stations and their surrounding locality.
(xiii) excellence and integration of landscape design	The design of public domain and landscape elements around the site are addressed through the Stage 3 CSSI Approval and Station Design and Precinct Plan. The Design Guidelines include objectives and guidance to ensure the OSD landscape design will be of high quality and complement and integrate with the development.

6.3 Built form and urban design

This Concept SSDA seeks consent for a building envelope above the Pyrmont Station. The building envelope comprises a tower above the podium established by the Stage 3 CSSI Approval including a maximum building height for the tower and tower setbacks.

The Built Form and Urban Design Report (Appendix E) and the indicative reference scheme (Appendix H) demonstrate the type of development outcome which can be achieved at the site. The Built Form and Urban Design Report provides a comprehensive site analysis including review of the existing and future constraints including the indicative design of the metro station.

The outcome of the comprehensive site analysis established five design principles to guide the future development of the site, being:

- people

- activation
- permeability
- destination
- context and heritage.

The indicative reference scheme demonstrates that the building envelope is capable of creating a successful place-based outcome that can integrate transport infrastructure, podium commercial land uses, and residential land uses. The reference design demonstrates the capacity to provide a fine-grain retail and commercial offering within the podium, active frontages along Union Street, Edward Street, and Pyrmont Bridge Road, and a tower design which will create a distinctive skyline that responds to the evolving height, scale, and character of the Pyrmont Peninsula.

It is noted that the proposed envelope has been separately assessed with consideration to other potential impacts which may arise from the built form, including:

- residential amenity – Further discussed at Section 6.4.1
- overshadowing and solar access impact – Further discussed at Section 6.4.2 and Section 6.4.3
- reflectivity impact – Further discussed at Section 6.4.4
- wind impact – Further discussed at Section 6.4.5
- visual and view impact – Further discussed at Section 6.5.

6.3.1 Podium and street wall height

The podium has an approximate height of RL34.9 (indicatively about 27m from ground level). This has been established by the Stage 3 CSSI Approval. The podium has been designed to support a range of future commercial uses (such as office, business, and retail premises) that will cater for the needs of the future community and ensure activation throughout the day and evening. This in turn would contribute vibrancy to the Pyrmont centre and create lively and safe spaces for pedestrians.

The street wall and heights of the podium are designed to ensure that the built form responds appropriately to adjoining development, makes a significant contribution to the experience of place, and adds uniformity of character to Pyrmont streetscapes.

The podium has been designed to integrate with the public domain vision to create active frontages to street frontages on Pyrmont Bridge Road and Union Street at the human scale. In particular, ground level retail tenancies provide frontage onto Union Street and target east-west foot traffic. It is noted that the podium prioritises activation to the Pyrmont Bridge Road and Union Street frontages, while Edward Street is a service frontage which prioritises loading and car parking.

Ground level tenancies address the street level, offering level access between individual units and the external pavement. Glazed shopfronts offer permeability at street level and provide opportunity for uses to spill to external spaces.

The upper podium commercial levels are orientated to allow a continuous northern aspect and allow internal areas to receive generous natural light. The façades on north-south and east-west orientations provide opportunity for mixed mode and natural ventilation strategies. The central lift lobby and split egress cores will allow flexibility in future tenancy configurations.

The Historic Heritage Impact Assessment (at Appendix Z) considers the podium form in relation to heritage items in the surrounding locality. It concludes that the podium will have a more immediate impact on the character of the area and will need to be articulated in height and façade rhythm to respond to adjacent heritage items and

view lines. The detailed design of the podium and tower design should not create an uneven sense of scale and grain across the narrow roadways of Union Street and Edward Street. Articulation of podium heights and rhythm to sympathetically respond to the heritage context will be necessary to reduce adverse heritage impact of development within the building envelope. The podium form is consistent with the Pyrmont Peninsula Design Guidelines.

6.3.2 Tower elements

The tower element has a maximum building height of RL120 and is setback 8 metres to Union Street, 8 metres to Edward Street, and 6 metres to Pyrmont Bridge Road in accordance with the Pyrmont Peninsula Design Guidelines. The tower plays a significant contributory role to the emerging skyline of Pyrmont.

The Built Form and Urban Design Report (at Appendix E) details the evolution of the tower design and how the envelope responds to planning controls and site context and mitigates potential environmental impacts to the surrounding streetscapes and properties. Key components that have driven the form and design of the tower are:

- containing tower envelope within the maximum tower height of RL120
- location of services and amenities (including services, plant, and amenity areas)
- provision of rooftop and top of podium amenities (both indoor and outdoor)
- articulation and expression of tower massing in two forms (triangle core and L shaped sleeve), in order to achieve rational apartment planning and maximise apartment views and solar access
- creation of a vertical residential neighbourhood within the tower, through breaking up bulk and scale to reflect its fine grain context
- articulation of façades to enhance vertical neighbourhood expression
- integration of environmental responses (including vertical shading and green wall opportunities), noting that these are to be located within the building envelope.

The design approach for the indicative reference scheme responds to the site's local context. The design draws from the rich and historical urban fabric of the Pyrmont Peninsula responding to its local context by referencing the surrounding heritage buildings in both fine grain architectural expression and materiality. The design aesthetic of the tower expresses the Pyrmont urban fabric in its form and materiality.

The tower form is designed to maximise regular shaped apartments in the northerly aspect and enhancing outlook from the corner units. The indicative residential floor plates maximise the available area of the tower envelope. The typical mid-rise levels are configured to accommodate seven apartments per plate and the high upper levels of the tower are configured to accommodate typical penthouse floor plates.

The apartments are configured around a central core location (including lift core and scissor stair). The lift lobby and corridors receive natural light and ventilation.

The indicative reference scheme presents an indicative mix of one-bedroom, two-bedroom and three-bedroom apartments. Apartments have been sized to comply with the minimum internal areas outlined in the ADG. The size, layout, and orientation of apartments will be developed at a future detailed design phase.

The building envelopes have been designed to maximise building separation to surrounding residential buildings so to minimise privacy issues and increase solar access and outlook for all apartments.

The tower envelope has been designed to incorporate all built form elements including sun shading devices, architectural features, awnings and the like.

6.3.3 Detailed design

The building envelope of the indicative reference scheme incorporates articulation zones to provide areas for architectural articulation, external façade depth, and external sun shading (not occupied by floor space). These areas will be considered and incorporated as part of the future Detailed SSDA.

The indicative reference scheme attached at Appendix H has considered the future layout planning and internal amenity of the residential apartments within the tower. The indicative floorplates demonstrate how the layout, dimensions, and configurations of the residential apartments achieve appropriate and compliant visual privacy, amenity and sunlight requirements of the ADG. Overall, the indicative reference scheme and proposed FSR provide significant opportunity for a range of architectural and urban design outcomes to ensure quality design can be achieved for the future Detailed SSDA.

6.3.4 Landscape design

The landscaping of the public domain surrounding the site will be delivered as part of the Stage 3 CSSI Approval.

The proposed envelope accommodates a terrace serving the residential tower at the rooftop at Level 30 which provides opportunities for landscaping. Landscaping of the rooftop terrace (Level 30) will be considered as part of the Detailed SSDA to create visual interest and be well integrated with the development. Public art, integrated interpretation of Country and heritage and integrated wayfinding will also be incorporated in the design as part of the Detailed SSDA.

6.3.5 Accessible design

A detailed accessibility assessment is to be submitted with the future Detailed SSDA.

The future detailed design will ensure access provisions are achieved in accordance with the following policies and guidelines:

- *the Disability Discrimination Act 1992 (DDA)*
- the Building Code of Australia 2016 and referenced Australian Standards
- the Disability Access to Premises (Buildings) Standard 2010
- National Construction Code.

All aspects of the proposed development will be required to comply with the relevant aspects of the above standards and Act.

6.4 Environmental amenity

6.4.1 Residential amenity

The Built Form and Urban Design Report (Appendix E) and indicative reference scheme (Appendix H) demonstrate potential land use distribution and layout within the building envelope for which concept approval is sought. The indicative reference scheme demonstrates how a development may be undertaken within the proposed building envelope and achieve high levels of residential amenity.

An assessment of the indicative reference scheme against the key amenity criteria contained in the Housing SEPP is discussed in the sections below, and further demonstrated in the Housing SEPP Assessment Report (Appendix J). The Report also demonstrates how each of the nine principles which underpin Chapter 4 of the Housing SEPP 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 within the proposed envelope demonstrates how a future building may achieve compliance with the ADG requirements as all neighbouring sites are more than 24m away.

Solar access

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

The indicative reference scheme demonstrates that a future building within the proposed building envelope is capable of achieving a minimum of two hours of sunlight to living areas of 70 per cent of dwellings which exceeds the minimum requirements under the ADG. Further, the indicative reference scheme demonstrates that the proposed envelope ensures all apartments receive at least the minimum required direct sunlight.

Natural ventilation

The indicative reference scheme has been developed to demonstrate ADG compliance can be achieved for natural cross 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 per cent natural cross ventilation in that 72 per cent apartments (115 out of 160 apartments) are naturally cross-ventilated.

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

The overall depth of cross-over or cross-through apartments does not exceed 18 metres, measured glass line to glass line.

Communal open space

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

The indicative reference scheme provides communal open space at the tower rooftop. Appropriate levels of protection will be provided to address any visual and acoustic privacy, comfort levels, safety, and / or security considerations. This space is

equal to 30 per cent of the site area and more than 50 per cent of its combined area receives 2 hours or more sunlight during the Winter Solstice between 9am and 3pm. Therefore, the indicative reference scheme demonstrates that a future building can comply with this ADG requirement.

Apartment mix and size

The apartment mix and size would be determined through the detailed design process in the Detailed SSDA. Notwithstanding, the indicative reference scheme demonstrates how the concept envelope can achieve a range of apartment types and sizes.

Table 15 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 15 – Indicative apartment mix

Apartment Type	Number of Apartments	Proportion	Minimum Internal Area
1-bedroom	45 apartments	28.1%	56m^2 to 66m^2
2-bedroom	91 apartments	56.9%	79m^2 to 84m^2
3-bedroom	24 apartments	15%	101m^2 to 120m^2

Private open space

The size and configuration of private open space to the apartments will be determined through the detailed design process in the Detailed SSDA. Notwithstanding, the indicative reference scheme demonstrates how the concept design can achieve compliant private open spaces.

Table 16 identifies indicative private open spaces to apartments. The indicative sizes comply with the minimum requirements of Objective 4E-1 of the ADG.

Table 16 – Indicative private open space mix

Apartment Type	Minimum area	Minimum depth	Indicative proposal
1-bedroom	8 m^2	2m	Minimum 8m^2
2-bedroom	10 m^2	2m	Minimum 12m^2
3-bedroom	12 m^2	2.4m	Minimum 12m^2

Lighting

The site is within an area of medium district brightness and would be of low sensitivity. This is due to the concentration of medium-rise commercial and residential buildings in the surrounding locality. Brightly lit recreational and entertainment activities nearby, for instance the Star and Darling Harbour, contribute to high night-time lighting levels.

Additional lighting from the future building on the site would be seen in the context of high district brightness where there are brightly lit streets, public domain, and other public non-residential land uses. Lighting impacts at the site would be subject to a future Detailed SSDA and would be consistent with the surrounding brightly lit night scene.

6.4.2 Surrounding development solar access

As detailed in Table 3, Sydney Metro has explored a number of alternative design options through a series of building envelope and massing studies. The alternative options for the articulation and position of the tower envelope have been informed by solar studies to assess overshadowing impacts to adjoining residential properties.

The tower envelope proposed by the Concept SSDA achieves an optimum outcome for the site in terms of consistency with the objectives of the Design Guidelines to prevent further increase to overshadowing of surrounding public spaces and ensure adequate solar access is provided to existing residential dwellings / apartments.

A Solar Access Analysis has been prepared (Appendix M) to provide an analysis of overshadowing impacts of the development on six surrounding residential properties.

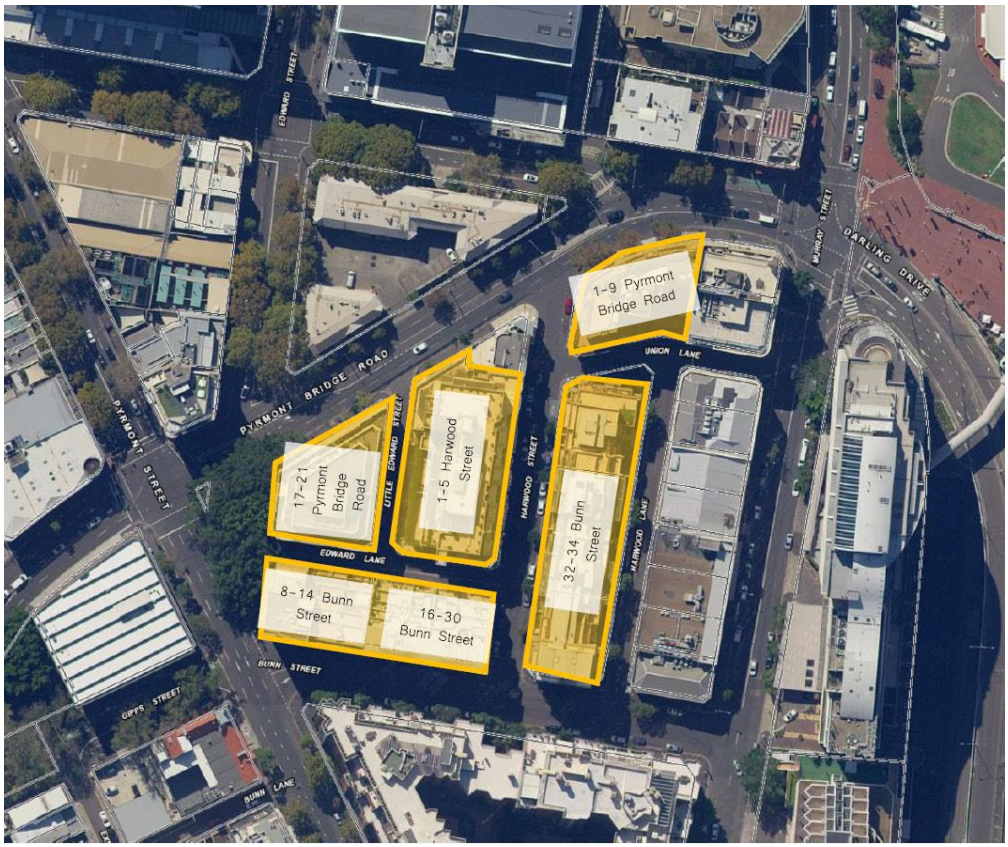


Figure 6-1 Surrounding residential properties

The Solar Access Analysis assesses the solar access impacts of the proposed development against the objectives, design criteria, and design guidance in the ADG.

Specifically, Objective 3B-2 of the ADG provides:

Overshadowing of neighbouring properties is minimised during mid-winter.

Design guidance applied to inform the interpretation of Objective 3B-2 is as follows:

- living areas, private open space and communal open space should receive solar access in accordance with (ADG) sections 3D Communal and public open space and 4A Solar and daylight access
- solar access to living rooms, balconies and private open spaces of neighbours should be considered
- where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%
- if the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in (ADG) section 3F Visual privacy
- overshadowing should be minimised to the south or downhill by increased upper level setbacks
- it is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development
- a minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings

The below provides a summary of the Solar Access Analysis (at Appendix M)

Overshadowing to 1-5 Harwood Street

- overshadowing of the proposed development reduces the number of units within this property receiving 2 hours of solar access to their living room between 9am-3pm from 23 out of 91 (25.3%) down to 8 out of 91 (8.8%). This is a reduction of 16.5% which remains compliant with the design guidance to Objective 3B-2 of the ADG in that the solar access to this adjoining property is not reduced by more than 20%.
- there is an increase in the number of apartments that do not receive at least 15 minutes of sun to a habitable room, from 3 out of 91 to 13 out of 91 (14%). This is compliant with the design guidance to Objective 3B-2 of the ADG as apartments with no solar access at 21 June are retained below the maximum 15%.

Overshadowing of 17-21 Pyrmont Bridge Road

- overshadowing of the proposed development reduces the number of units within this property receiving 2 hours of solar access to their living room between 9am-3pm from 25 out of 46 (54.3%) down to 20 out of 46 (43.5%). This is a reduction of 10.8% which remains compliant with the design guidance to Objective 3B-2 of the ADG in that the solar access to this adjoining property is not reduced by more than 20%.
- the overshadowing impact of the proposed development does not increase the number of units which receive no direct sunlight within this property. This is compliant with Objective 3B-2 of the ADG in that there is no reduction.

Overshadowing of 8-14 Bunn Street

- overshadowing of the proposed development does not reduce the number of complying units receiving 2 hours of solar access across the whole property, which is compliant with Objective 3B-2 of the ADG.
- the overshadowing impact of the proposed development does not increase the number of units receiving no direct sunlight within this property. This is compliant with Objective 3B-2 of the ADG in that there is no increase.

Overshadowing of 16-30 Bunn Street

- overshadowing of the proposed development does not change the number of complying units receiving 2 hours of solar access across the whole property, compliant with Objective 3B-2 of the ADG.
- the overshadowing impact of the proposed development does not increase the number of units receiving no direct sunlight within this property. This is compliant with Objective 3B-2 of the ADG in that there is no reduction.

Overshadowing of 32-34 Bunn Street

- overshadowing of the proposed development reduces the number of units within this property receiving 2 hours of solar access to their living room between 9am-3pm from 23 out of 88 (26.1%) down to 15 out of 88 (17%). The reduction of 9.1% is compliant with the design guidance to Objective 3B-2 of the ADG in that the solar access to this adjoining property is not reduced by more than 20%.
- the overshadowing impact of the proposed development increases the number of units receiving no direct sunlight from 2 out of 88 to 4 out of 88 (2.2%). This impact is compliant with Objective 3B-2 of the ADG as apartments with no solar access at 21 June are retained below the maximum 15%.

Overshadowing of 1-9 Pyrmont Bridge Road

- overshadowing of the proposed development reduces the number of units within this property receiving 2 hours of solar access to their living room between 9am-3pm from 33 out of 45 (73.3%) down to 29 out of 45 (64.4%). The reduction of 8.9% is compliant with the design guidance to Objective 3B-2 of the ADG in that the solar access to this adjoining property is not reduced by more than 20%.
- the overshadowing impact of the proposed development does not increase the number of units that receive no direct sunlight within this property. This is compliant with Objective 3B-2 of the ADG in that there is no reduction.

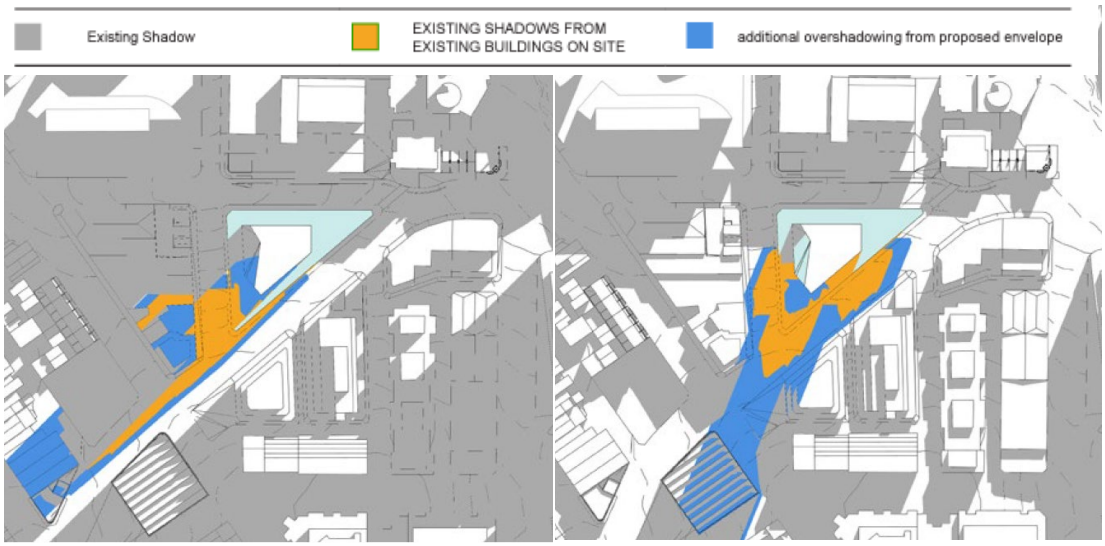
In summary, the Solar Access Analysis demonstrates that the overshadowing impacts of the development on six surrounding residential properties is compliant with the relevant design objectives, criteria, and design guidelines of the ADG.

The proposed development achieves Objective 3B-2 to minimise overshadowing to nearby residential properties at mid-winter. Where an adjoining property does not currently receive the required hours of solar access, the proposed development ensures solar access to neighbouring properties is not reduced by more than 20%.

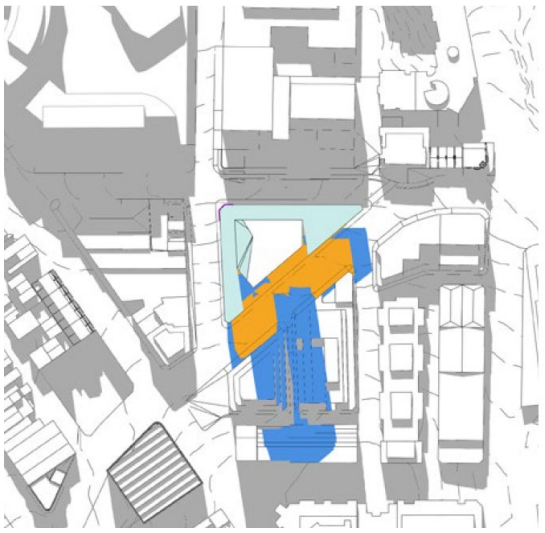
6.4.3 Overshadowing

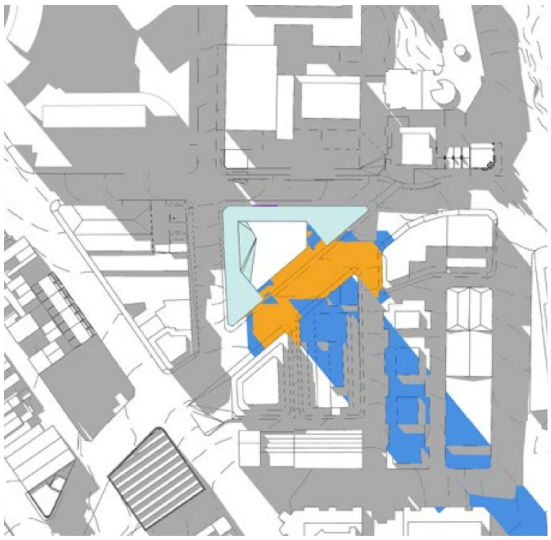
The Built Form and Urban Design Report (Appendix E) includes an overshadowing impact analysis to assess the overshadowing impacts of the proposal on surrounding properties and public spaces (during summer and winter solstice and spring and autumn equinox). The cumulative impact of the existing buildings has also been assessed.

Figure 6-2 shows the anticipated overshadowing which will result from the proposal at mid-winter (21 June) in the existing context and the future context.



Picture 1 9am Overshadowing **Picture 2 11am Overshadowing**





Picture 3 1pm Overshadowing **Picture 4 3pm Overshadowing**

Figure 6-2 Overshadowing from proposed development

Overshadowing to public open space

The above extracts indicate the extent of overshadowing created by the proposed development at mid-winter (21 June) to key areas of public open space as defined in the Design Guidelines. The above analysis demonstrates that the proposed development does not result in additional overshadowing to the Elizabeth Healey Reserve between 9am and 2pm at mid-winter (21 June).

Overshadowing to private communal open space

For new residential apartment buildings, the ADG Objective 3D-1 includes a design criterion which provides that developments are to achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm on 21 June (mid-winter). Whilst the ADG does not provide guidance as to the level of shadow impact that is suitable onto neighbouring buildings' communal open space, it is considered that if this threshold is met then suitable communal open space solar amenity will be maintained.

In respect to surrounding communal open space at nearby residential apartment buildings, the shadow diagrams demonstrate that:

- 4 hours of solar access is achieved to at least 50% of the communal open rooftop space of 1-5 Harwood Street, Pyrmont at the winter solstice
- 4 hours of solar access is achieved to at least 50% of the communal open rooftop space of 17-31 Pyrmont Bridge Road, Pyrmont at the winter solstice
- 4.5 hours of solar access is achieved to at least 50% of the communal open rooftop space of 32-34 Bunn Street, Pyrmont at the winter solstice
- there is no impact on solar access to the communal open rooftop space of 1-9 Pyrmont Bridge Road, Pyrmont, at the winter solstice.

Additional solar access to these communal open spaces is achieved at the spring equinox and there is no additional overshadowing to these spaces from that currently experienced at the summer solstice and autumn equinox. Therefore, the extent of overshadowing maintains more than 2 hours of solar access to primary communal open space of these neighbouring buildings in mid-winter which satisfies the ADG design criterion.

6.4.4 Reflectivity

A Reflectivity Impact Assessment (Appendix N) has been prepared to assess the proposal for any glare resulting from sun light reflecting off the building 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 and without future developments that might otherwise shield glare. This is a conservative assumption, whereby the building façade is most likely to include articulation (e.g., apartment balconies) at the detailed design stage, to further mitigate reflectivity impacts. The Assessment adopts a veiling luminance limit of 500 cd/m2 as the acceptable amount of reflected solar glare to which a driver should be exposed.

Assessment

The Assessment tested seven routes around the site, with one route expected to have veiling luminance impacts above the 500 cd/m2 criteria. The route expected to pose a glare risk was ‘Route 4’, being drivers travelling east along Union Street. When re-evaluated with a lower reflectivity glazed glass, exceedances were still present. Whilst the use of lower reflective glazing may be an effective measure for reducing the glare risk, this alone may not be sufficient to eliminate the risk and further mitigation measures may need to be considered in the Detailed SSDA.

Given that pedestrians are likely able to move and/or look away from the glare source, risk of disabling glare affecting pedestrians is low.

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:

- using a less reflective glazing
- different materials (non-glazed and/or non-reflective)
- shielding of the façade.

The reflectivity from the building will also be mitigated through building articulation required for the provision of balconies and architectural design.

6.4.5 Wind impacts

A Pedestrian Wind Assessment has been provided at Appendix O. The Pedestrian Wind Assessment provides an assessment of wind speeds for the existing site and the proposed development, using wind tunnel assessments, to determine the change in the local wind environment and the wind speeds across the site and surrounds. Resultant wind speeds are assessed to determine the suitability of different areas of the site and to identify mitigation measures to ensure a high level of environmental amenity around the proposal.

Methodology

Wind comfort and safety was assessed using a physical wind tunnel model, which was tested at The University of Sydney. The methods used were compliant with relevant Australian Standards, the Australasian Wind Engineering Society Quality Insurance Manual and industry best-practice guidelines. Atmospheric wind was

simulated according to AS/NZS 1170.2:2021 profiles and the local wind environment modelled via statistical analysis of Bureau of Meteorology historical weather data.

Assessment

The Pedestrian Wind Assessment found that nine of the tested locations are likely to exceed walking criterion (and therefore further mitigation measures will be required). However, it was found that five of these locations already exceed the walking criterion for the baseline investigations and therefore there are only four new exceedances.

The Pedestrian Wind Assessment notes that the proposal also reduces the expected wind speed at several locations. As a result, five locations that currently exceed the proposed criterion meet the walking criterion as a consequence of the proposal. In addition, there are no expected safety wind speed exceedances.

Mitigation measures

Based on the wind tunnel results, some areas will require wind treatments to ensure the desired comfort and safety criterion are achieved, for example fixed or retractable canopies or awnings to protect patrons.

Any mitigation measures required as part of the podium design, including canopies or awnings, will need to be coordinated through the detailed design of the Station Design and Precinct Plan as part of the Stage 3 CSSI Approval. Coordination of the specific wind design response for the building as a whole will be required between the Detailed SSDA and the SDPP.

6.5 Visual Impact

Overview

A Visual Impact Assessment (VIA) has been prepared to assess the potential visual impacts of the proposed development (Appendix P). 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 involves three stages including preliminary research and analysis, assessment of the visual effects and assessment of impacts.

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

Part of the assessment also involves considering the proposed development in the context of the relevant statutory framework which includes the public view protection planes as documented in the Sydney DCP 2012.

Prior to undertaking fieldwork, a desktop review was undertaken of all relevant statutory and non-statutory documents, an analysis of aerial imagery and topography and lidar data to establish the potential visual catchment to inform fieldwork

inspections. Following fieldwork, 10 public view locations were selected and recommended for further analysis.

Figure 6-3 Viewpoint location map

Existing environment

The subject site currently accommodates two multi-storey commercial buildings, occupied by a range of retail, health, and business premises and separated by central hardstand car parking. The surrounding visual context of the site is a well developed urban area bounded by various land uses. The immediate vicinity is mixed use, which is logical to its prominent location which is proximal to Pyrmont Bay light rail, Pyrmont Bay Wharf, and Pyrmont Bridge. The site is bounded by Union Street and Edward Street, and Pyrmont Bridge Road hardstand car parking.

The wider surrounding context features a large amount of heritage buildings. Prominently in the area are a large number of terrace groupings. These are often two storeys.

Several historical places important to the area's functioning include Pyrmont Fire station, the former Bank of NSW Stores, Pyrmont Public School and the former Pyrmont Post Office. Heritage buildings have often been re-purposed while retaining the brick façades.

Assessment

Having determined the extent of the visual change based on the 10 representative modelled views (photomontages), relevant weighting factors were applied to determine the overall level of visual impacts or importance of the visual effects. The factors have been considered in relation to the visual effects to provide up-weight or down-weight and to determine a final impact rating. The weighting factors include sensitivity, visual absorption capacity and compatibility with urban features.

View place sensitivity is rated as medium due to the number of heritage listed items surrounding the site and its proximity to significant destinations, including Darling Harbour and the Sydney Fish Market. There are views of the proposal from a number of significant public recreation spaces including Blackwattle Bay Park, Wentworth Park and Barangaroo, however the proposal is often viewed against a backdrop of existing built form (Blackwattle Bay Park), largely blocked from view (Wentworth Park), or viewed within a panoramic expanse where a variety of built form scales and styles are visible and the proposal occupies a small section of the composition.

Figure 6-4 View 06 from Blackwattle Bay Park

Physical Absorption Capacity includes the ability of existing elements of the landscape to physically hide, screen or disguise the proposal. The existing visual environment has a medium capacity to absorb the visual changes proposed, given that the immediate context includes intervening built forms and vegetation which obstructs full visibility of the proposal in the immediate surrounding area, except where a small number of street alignments (and Pyrmont Bridge) allow for greater visibility. The mid and upper levels of the proposal are visible from the wider visual catchment of the public domain, particularly from areas to the south, west and north.

The proposed development has low-moderate compatibility with the existing visual character of the immediate visual context. The visual character surrounding the subject site is characterised by built forms that are of a smaller height to that which is proposed. However, the area is comprised of a variety of built forms as opposed to a homogeneity of built form styles which allows for a degree of built form variation.

The visual compatibility of the proposal increases when considered against the wider visual catchment, particularly to the east of the site in relation to the Sydney CBD which comprises a large number of tower forms. Similarly, when the proposal is viewed from a distance, it is often seen amongst a backdrop of other tower forms which decreases its visual significance and results in a high visual compatibility. In this regard, the proposed development would not be out of place or have unexpected features for viewers within the immediate or wider visual catchment.

When considering the visual compatibility of the area immediately surrounding the proposal and the wider visual catchment as a whole, the visual compatibility is rated as medium.

The proposal is consistent with the relevant development standards and site-specific provisions which apply to the site via the SLEP 2012 and with the objectives and design guidance of the Pyrmont Peninsula Design Guidelines. In this regard the level of effects generated was found to be compatible with visual effects that would be contemplated by the controls for the area and provide a 'down-weight' to the level of visual effects.

Taking into consideration the existing visual context and baseline factors against which to measure change, the level of visual effects of the proposed development and in the context of additional weighting factors, the visual impacts of the proposed development were found to be low and acceptable.

In summary the Visual Impact Assessment makes the following conclusions:

- of the 10 viewpoints assessed the level of visual impact was rated as low for 7 viewpoints and medium for 3 viewpoints
- there are no documented identified views within the relevant regulatory framework (Sydney DCP 2012) that are impacted by the proposal
- the mid and upper levels of the proposal have a high level of visibility in the wider visual catchment, with the lower levels and podium only visible in the immediate vicinity due to intervening built form
- the proposal does not block views to scenic or highly valued compositions from public domain viewpoints in the surrounding streetscapes or public recreation open spaces.

Taking all relevant factors into consideration, the significance of visual effects that would be caused by the proposed development are reduced where visual impacts are rated as low. Of the 10 viewpoints assessed, the level of visual impact was rated as low for 7 viewpoints and medium for 3 viewpoints. The visual impact assessment demonstrates that the proposal can be supported on visual impact grounds.

6.6 Integration with station and public realm

Given the unique and complex nature of this project, it is important to delineate between the functioning of the Metro station and associated elements (approved under the CSSI applications) and the OSD for which approval is sought under this application. Section 3.9 distinguishes between the approved metro station elements on the subject site and those elements for which approval is sought in this concept proposal, with physical demarcation drawings provided at Appendix I.

The following issues have been considered and it has been demonstrated that the proposed development can successfully integrate with the station box and podium:

- pedestrian amenity – addressed in section 6.7
- traffic and loading impacts – addressed in section 6.10
- noise and vibration impacts – addressed in section 6.12
- water management – addressed in section 6.13
- flooding – addressed in section 6.14
- utilities, infrastructure and services – addressed in section 6.20
- construction program impacts – addressed in section 6.21

The proposed development would not result in any adverse impacts on railway infrastructure, and the station podium. The nature and acceptability of the development regarding potential impacts has been provided below:

- the proposed commercial uses within the podium can contribute towards the activation of frontages within the ground floor to Edward Street and Union Street

- the proposed OSD lobby as shown on the indicative reference scheme is elevated above the station and located within the station podium. The final design of the residential lobby entrance will be determined through a detailed SSDA
- the proposed development has been designed to accommodate the transport needs of Sydney Metro. The proposal, on this basis, has been undertaken with extensive direct input from Sydney Metro to ensure that, while completely integrated, the components are able to be constructed, maintained and operated separately from each other, both currently and into the future
- structural safety of potential OSD has been previously assessed under the Stage 3 CSSI Application and the infrastructure needs of the proposal have been assessed at section 6.20
- the proposal would not adversely affect the operation of the future Pyrmont Station as the spatial and functional requirements have been integrated into the concept proposal design with direct input from Sydney Metro.

6.7 Pedestrian Amenity

The construction and operation of Pyrmont Station, including the surrounding areas and public domain, will be delivered as part of the Stage 3 CSSI Approval.

A Transport and Access Report (Appendix Y) provides an assessment of the pedestrian impacts and accessibility of the site and OSD for pedestrians. Footpath density assessments have been carried out using the Fruin Outdoor Walkway density criteria for the year 2036 and results are presented in Appendix Y.

Around eight per cent of people (19 trips) are anticipated to access the proposed development by walking and 44 per cent (83 trips) are outbound in the morning peak. The high allocation of outbound walking trips is attributed to residents leaving for local places of work.

Landscaping proposed on Edward Street adjacent to the loading dock and potential car lift / stacker enables a staged crossing of the two driveway entrances. Impacts to pedestrians are anticipated to be low given that pedestrian demand along the eastern Edward Street footpath is low and trips in/out of the loading dock and car lift are infrequent.

6.8 Crime prevention

The Crime Prevention Through Environmental Design (CPTED) Report (Appendix L) assesses the indicative concept proposal against the six key principles of CPTED: natural surveillance, natural access control, territorial reinforcement, image and management / maintenance, activity support, and site/target hardening. The CPTED assessment relates to the OSD concept component only which does not include built form interface with public space. The public space interface forms part of the podium-built form and design as part of the CSSI Stage 3 Approval. The below discusses the proposal against the six principles of CPTED.

Natural surveillance

The proposed development has opportunities to create formal lobby areas with concierge/security personnel that can provide capable guardianship and surveillance of their respective developments in addition to the adjacent public realm areas. By extension, the design of these ground floor areas, and upper-level development, should maximise surveillance opportunities.

Natural access control

The urban location of the Metro station may restrict the opportunities for introducing new methods of natural access control; however, the development should seek to leverage the existing built environment to channel natural pedestrian flow into desired areas of the precinct and the OSD footprint. Intuitive routes should direct legitimate traffic to appropriate areas with natural and electronic surveillance coverage.

Territorial reinforcement

Zoning (such as floor surfaces and perceptible architectural branding) should be used to indicate passage from public to Metro domains. Clear and unambiguous signage and wayfinding is required as effective wayfinding systems provide assurance, communicate the transition to a semi-public domain, and reduce unnecessary pedestrian congestion or confusion.

Image management and maintenance

Maintenance and upkeep of the development by building management including vegetation, landscape and lighting maintenance, site cleanliness, repairing property damage and implementation of an effective Graffiti Management Plan should be incorporated into contractual service level agreements.

Activity support

Environmental designs should promote legitimate activity, particularly at non-peak times when opportunities for crime may increase. Encouragement of socially cohesive activities will increase the likelihood of desirable behaviour at traditionally quieter times and deter criminal activity.

Site/ target hardening

Where possible, architectural and landscaping features should be used to harden the environment unobtrusively. Electronic security systems should be integrated within the environment to reduce the overt nature of security measures and the associated fear of crime, with appropriate lighting to support surveillance.

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.

6.9 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
- environmental factors.

An ESD Report has been included at Appendix Q. The ESD 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 requires that where 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.

To ensure a high level of performance in operation, the proposed development will pursue set environmental performance targets and be set up for optimum ongoing management supported by appropriate metering and monitoring systems.

Intergenerational equity

The principle of intergenerational 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 implementing measures identified in Table 17 and Table 18.

An ESD strategy has been established for Sydney Metro West developments. This establishes sustainability targets and rating requirements correlated across a range of current and emerging regulatory, policy, statutory planning, and Sydney Metro requirements, including market recognised standards, drivers, and trends. These sustainability targets and requirements demonstrate the integration of best practice sustainable building principles into the design of the proposed development.

The ESD framework detailed in table 17 below sets the following sustainability rating requirements:

Table 17 – ESD framework

Tool	Commercial (Podium)	Residential (Tower)
Greenstar	5 star Green Star Buildings v1 Rev B	
NABERS	5.5 star (+25%) NABERS Energy (without GreenPower) 5 star NABERS Water	4.5 star NABERS Energy for Apartment Buildings (without GreenPower) 5 NABERS Water for Apartment Buildings
NatHERS	N/A	Average 7 star NatHERS Minimum 6 star NatHERS
BASIX	N/A	BASIX Energy 30 BASIX Water 50

The ESD Strategy for each element of the proposal is detailed in table 18 below:

Table 18 – ESD Strategy

Element	Strategy

Podium (Retail and commercial)	• integrate passive and active design measures that demonstrates the annual energy consumption is less than a 5.5-star (+25%) NABERS Energy for Offices budget
	• exceed the deemed to satisfy provisions of NCC 2022, section J Energy efficiency for all retail premises
	• exceed the performance provisions of the NCC, NSW 2 Energy efficiency performance requirements
	• deploy on-site renewable energy systems
	• apply water efficiency measures and alternative water reuse strategies to the Commercial Podium that:
	  ○ demonstrate that the annual water consumption is less than a 5-star NABERS Water for Offices budget
	  ○ deliver at least a 45% reduction in annual water consumption when compared to a Green Star v1 Rev B standard practice building.

Residential (Tower)	• implement passive design measures to achieve an average 7-star NatHERS rating for 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
	• achieve the BASIX Energy target of 30
	• demonstrate that the annual energy consumption of the shared services is less than a 4.5-star NABERS Energy for Apartment Buildings budget
	• deploy on-site renewable energy systems
	• apply water efficiency measures and alternative water reuse strategies to the residential tower that:
	  ○ achieve a BASIX Water target of 50
	  ○ demonstrate that the annual water consumption of the shared services is less than a 5-star NABERS Water for Apartment Buildings
	  ○ deliver at least a 40% reduction in annual water consumption when compared to a Green Star v1 Rev B standard practice building.

Element	Strategy
Greenhouse emissions	The development can minimise greenhouse gas emissions by: • implementing a Climate Positive Pathway (see below) • taking advantage of proven emissions reduction technologies to reduce operational costs • driving credible reductions in Upfront Carbon and Operational Carbon • avoiding locking in fossil fuels and empowering businesses to make sustainable choices by investing in the electrification of space heating and hot water services • maximising onsite renewable energy • purchasing 100% renewable electricity for base building and shared services operations • installing systems that use low impact refrigerants • making allowance for 25% of the total electrical demand of EV charging for all car parking spaces to support future EV charging capacity.
Waste Strategy	Develop a waste management plan to: • identify, quantify, and classify the likely waste streams generated during construction and operation • promote responsible source separation to reduce the amount of waste that goes to landfill by implementing convenient and efficient waste management systems • divert at least 90% of construction and demolition waste from landfill.
Climate Positive Pathway	A Climate Positive Pathway has been established to achieve: • 40% reduction in upfront carbon emissions • 20% reduction in energy use • 100% renewable energy • 100% elimination / offset of other emissions. • 45% reduction in potable water use – commercial podium • 40% reduction in potable water use – residential tower • 30% reduction in life cycle impacts.
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 400m • limit speed to 10km/h for roads within the site • Improve active mode uses by 90%.

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. Biological diversity will be promoted through the proposed landscape strategy and planting, for instance in the detailed landscape design for the podium rooftop and tower rooftop communal areas.

Furthermore, a BDAR waiver has been granted for the proposed development (dated 21 November 2022) and is included at Appendix S.

Environmental factors

Environmental factors are addressed through the Concept SSDA based on the definition of an ESD framework as detailed in the ESD Report at Appendix Q.

The ESD strategy includes:

- be verified to work – manage environmental impacts during construction, enable practices that reduce operational waste, and drive supply chain transformation
- connect people to nature – have improved air, light, acoustics, products
- be built with climate change in mind – have capacity to bounce back from shocks and stresses
- promote physical activity – create safe, enjoyable, integrated and comfortable places
- embrace diversity – address the social health of the community
- protect environmentally significant areas – create biodiverse green spaces.

6.10 Transport, Traffic, parking and access

Overview

A Transport and Access Report has been provided at Appendix R. 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 potential traffic, parking and access impacts 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 the future construction of the building
- identification of recommendations and potential mitigation measures to avoid, minimise and manage traffic impacts associated with the Concept SSDA.

Existing traffic conditions

The development site is bounded by the following roads:

- Pyrmont Bridge Road to the south
- Edward Street to the west
- Union Street to the north.

Union Street is a two-lane, two-way undivided local road with kerb-side lanes used for parking. The posted speed limit is 40 km/h with a section of Union Street (western

end) signposted as a shared zone with a posted speed of limit 10 km/h. A physically separated cycleway is situated on the northern verge of the roadway.

Pyrmont Bridge Road is an east-west state road (west of Harris Street) and a local road (east of Harris Street). The road has a posted speed limit of 50 km/h and is two-lane, two-way with additional storage lanes for right turning traffic at intersections located on this road. Parking is restricted on this road.

Edward Street, which connects Pyrmont Bridge Road with the waterfront area two-way, two-lane local road with the kerb-side lanes typically used for parking. The posted speed limit is 40 km/h. A new zebra crossing has been established across this road near the intersection with Pyrmont Bridge Road with a section of planting in the lane on the eastern shoulder.

Existing parking conditions

The site currently provides 20 off-street car parking spaces. These spaces will be permanently removed under the Stage 2 CSSI Approval.

There is existing on street parking within the vicinity of the site. These parking spaces are generally time restricted and are located on Pyrmont Street, Union Street, Miller Street, Harris Street, Edward Street and Paternoster Row. Parking is not permitted on Pyrmont Bridge Road.

On-street parking spaces on Union Street between Edward Street and Pyrmont Bridge Road will be temporarily removed as part of works under the CSSI approvals.

Loading zone spaces are also provided on Union Street, Miller Street, Edward Street and Harris Street.

Car parking assessment

The proposed development is subject to car parking requirements prescribed in the SLEP 2012, specifically the Land Use and Transport Integration and Public Transport Accessibility Level provisions for maximum on-site car parking rates. Table 19 below identifies the applicable LEP maximum parking rates for the proposed land use yields.

Table 19 – Assessment against LEP maximum car parking rates

Land use	Maximum car parking rate	Maximum permissible	Proposed
Commercial	Category E and has a floor space of no more than 2.5:1 = 1 space for each 125 m^2	42	3
Residential	Category B (Residential flat buildings, dual occupancies and multi dwelling housing): • each studio dwelling (0.2spaces) • each 1 bedroom dwelling (0.4 spaces) • each 2 bedroom dwelling (0.8 space) • each 3 or more bedroom dwelling (1.1 spaces) • for each dwelling more than 70 dwellings (0.05 spaces)	122	47
Retail	Category E = 1 space for each 60 m^2 of GFA	34	3
Total		1898	53*

**Note: Proposed car sharing is for 2 spaces therefore the total maximum proposed car parking is 55.*

Table 19 confirms that the provision of up to a maximum 53 off-street car parking spaces plus two (2) car sharing spaces for commercial, residential and retail land uses as part of the proposal complies with the LEP maximum car parking rates applicable to the site and the proposed development. The future configuration/ mechanism for parking will be subject to a future Detailed SSDA. Vehicle parking arrangements may include a car lift or car stacker.

Car share assessment

The proposed development is required to provide on-site car share scheme parking spaces. Applicable standards are defined in the SLEP 2012 and subject to minimum on-site requirements determined in the Sydney DCP 2012. Applicable rates for car scheme parking spaces are stipulated by zoned categories identified in the LEP LUTI and PTAL maps.

The development is required to provide two car share spaces. The allocation and locations of the car share spaces will be confirmed at the future Detailed SSDA.

Motorcycle parking

The proposed development is required to provide parking spaces for motorcycles under the DCP 2012. Separate parking for motorcycles is required in all buildings that provide onsite parking, with one motorcycle parking space per 12 car parking spaces.

The number and locations of motorcycle spaces will be confirmed at the future Detailed SSDA.

Loading dock

The proposed loading dock contains three (3) B99, one (1) SRV, and one (1) MRV spaces for the use of the proposed development. The Transport and Access Report assesses that the current limitations of the loading dock restrict a maximum level of service to 79 per cent. However, this performance is determined to be acceptable should a loading dock management plan be implemented. Opportunities to accommodate additional loading dock spaces and improve service level performance will be explored in detailed design as part of future Detailed SSDAs.

Baseline intersection performance analysis

The Transport and Access Report provides an existing baseline network performance for AM and PM peak hours for key intersections in the vicinity of the site. This is summarised in Table 20.

Table 20 – Existing baseline network performance

Intersection	AM Peak		PM Peak	
	Ave delay (sec)	LOS	Ave delay (sec)	LOS
Union Street / Harris Street	26	C	27	C
Union Street Pyrmont Street	24	C	29	C
Union Street /Edward Street	16	B	17	B
Union Street / Darling Drive	28	C	32	C

Intersection	AM Peak		PM Peak	
	Ave delay (sec)	LOS	Ave delay (sec)	LOS
Pyrmont Bridge Road / Harris Street	22	C	22	C
Pyrmont Bridge Road / Pyrmont Street	24	C	24	C
Pyrmont Bridge Road / Edward Street	5	A	5	A
Pyrmont Bridge Road / Union Street	5	A	7	A

The baseline intersection performance indicates that most intersections perform at LOS C or better during AM and PM peak hours, representing reasonable operations with slightly restricted manoeuvrability and free-flow speeds across the local network. Vehicle volumes during peak periods generally do not experience notable delays or impact driver ability to make mid-block lane changes on roads and intersections.

Table 21 provides the modelled network performance for 2036 during the AM and PM peak hours for key intersections in the vicinity of the site. The traffic demand has been based on 2021 counts with an agreed growth factor applied, calculated using outputs extracted from the PTPM model, which includes the proposed development.

Table 21 – Modelled network performance

Intersection	AM Peak with Metro + SSDA		PM Peak with Metro + SSDA	
	Ave delay (sec)	LOS	Ave delay (sec)	LOS
Union Street / Harris Street	27	C	30	C
Union Street Pyrmont Street	25	C	30	C
Union Street /Edward Street	18	B	19	B
Union Street / Darling Drive	32	C	32	C
Pyrmont Bridge Road / Harris Street	23	C	26	C
Pyrmont Bridge Road / Pyrmont Street	23	C	28	C
Pyrmont Bridge Road / Edward Street	6	A	6	A

Intersection	AM Peak with Metro + SSDA		PM Peak with Metro + SSDA	
	Ave delay (sec)	LOS	Ave delay (sec)	LOS
Pyrmont Bridge Road / Union Street	200+	F	200+	F

The results indicate that traffic generation impacts will be negligible. All intersections are forecast to operate at a level of service C or better with the station, except for the intersection of Pyrmont Bridge Road and Union Street.

Whilst this intersection is forecast to operate at level of service F due to high volumes of pedestrian movements across the pedestrian crossing on Union Street, this is indicative of future increased land use intensity in Pyrmont rather than impacts associated with this development.

Discussion with stakeholders is ongoing to determine suitable mitigation to improve overall intersection performance according to the modal hierarchy. As a condition of the Stage 3 CSSI Application, further investigations are being conducted, including road space reallocation and intersection treatment changes.

Cumulative impacts

The Transport and Access Report assesses the cumulative traffic impacts on the transport network of the proposed development as a consequence of the following known developments or credible proposals in the vicinity.

- SSD-49295711 Harbourside shopping centre redevelopment (Podium and Tower)
- SSD-7874 Harbourside Shopping Centre Redevelopment (Modification 3)
- TfNSW Western Distributor Road Network Improvements (Review of Environmental Factors)
- Blackwattle Bay State Significant Precinct rezoning
- SSD-8924 Sydney Fish Markets Concept and Stage 1
- SSD-8925 Sydney Fish Markets Stage 2
- SSD-8925 Sydney Fish Markets Stage 2 (Modification 3).

These developments are factored into the Public Transport Project Model (PTPM) growth rates.

Mitigation measures

The following mitigation measures and recommendations are proposed for the Concept SSDA:

- provision of car share spaces to reduce individual car parking demands (allocation and provision subject to a future Detailed SSDA)
- development of a loading dock management plan including measures such as a booking system, extended operating dock hours and or appointing a sole delivery contractor
- a detailed Construction Traffic Management Plan (CTMP) for adoption during the construction phase should be prepared for a future Detailed SSDA
- a travel plan should be created to reduce car trips and encourage the use of sustainable transport as part of the future Detailed SSDA.

6.11 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 DPHI and the Office of Environment and Heritage.

Subsequently, a waiver under section 7.9(2) of the BC Act 2016 was issued on 21 November 2022 and is provided at Appendix U. Accordingly, a BDAR is not required to be submitted with this EIS.

6.12 Noise and vibration

Overview

A Noise and Vibration Impact Assessment (Appendix T) 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 Stage 2 CSSI Approval. The monitoring included ambient and background noise logging and was completed at two locations as identified in Figure 6-5 below.

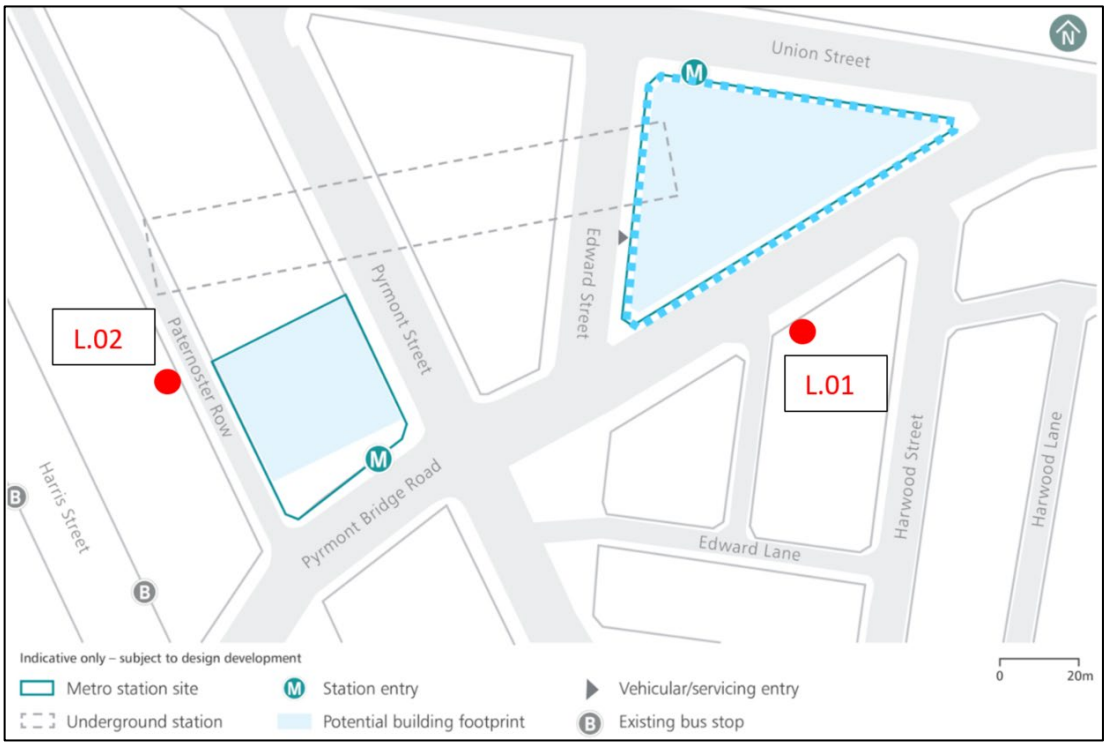


Figure 6-5 Noise monitoring locations (indicated by red dots)

Unattended noise measurements at L.01 were undertaken continuously over a minimum one-week period between February and March 2019. The measurements at this location were used to inform the existing background noise levels in the area. The measured noise levels were found to be controlled by traffic noise from Pyrmont Bridge Road.

The Noise and Vibration Impact Assessment utilised the *EPA Interim Construction Noise Guideline* (2009) to assess construction noise and provide mitigation measures. A detailed Construction Noise and Vibration Management Plan (CNVMP) will 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 of this SEE.

There is a total of 16 identified sensitive receivers within proximity of the site of varying land uses that include residential, commercial, accommodation and mixed-use. Significant exceedances of the noise monitoring locations (NMLs) have been predicted at 14 of the 16 assessed nearby sensitive receivers. The two most significant exceedances are predicted for the two music recording studios, Dodgy Sound at 100 Pyrmont Street and Electric Avenue at 102 Pyrmont Street with exceedances of 29 dB(A) and 23 dB(A) respectively.

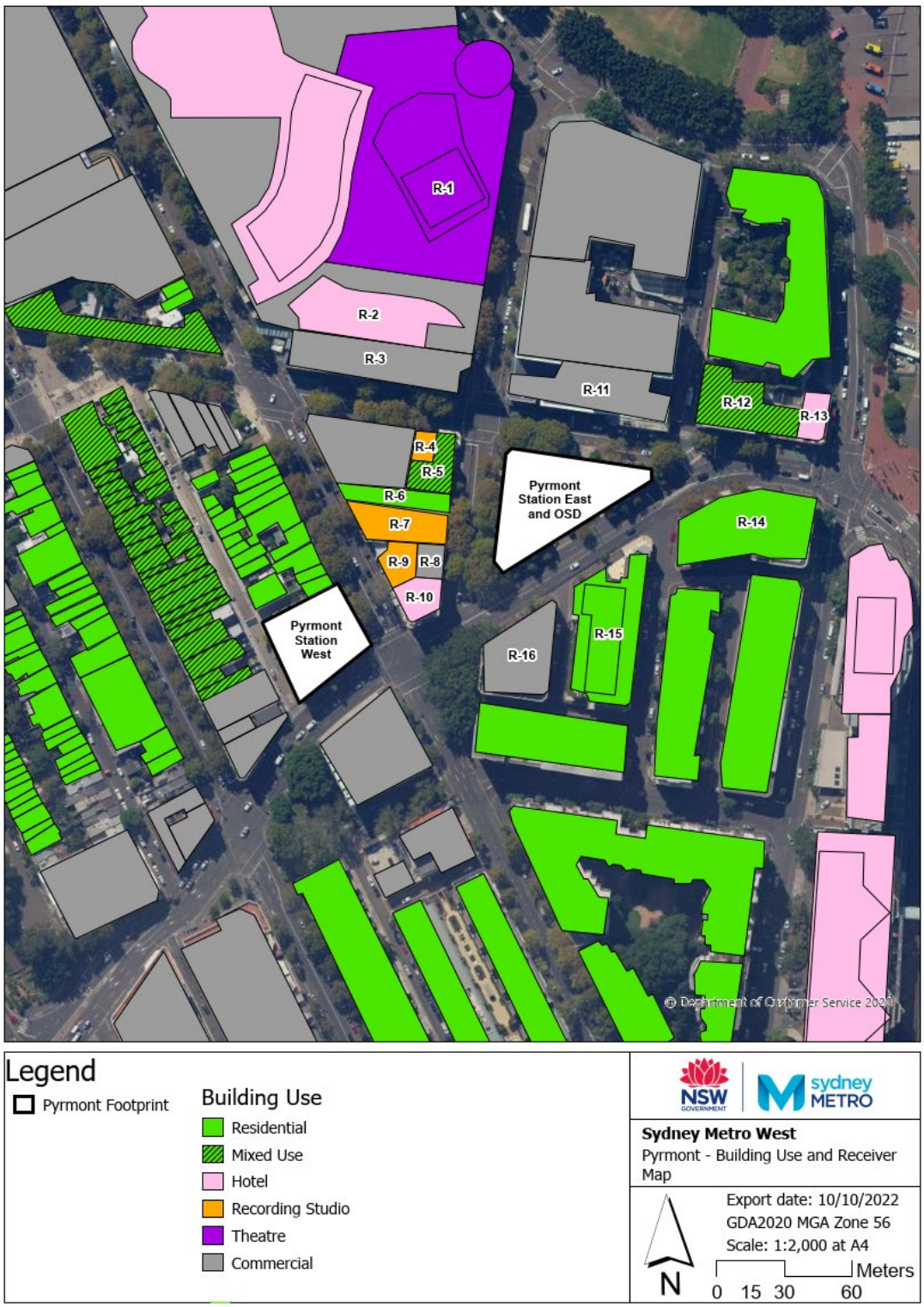


Figure 6-6 Identified proximal receivers

Given the nature of the exceedances of the NMLs as predicted, it is important that all feasible and reasonable noise management and mitigation measures are included in the contractor's CNVMP, to be prepared as part of the subsequent Detailed SSDA.

The preferred integrated delivery of the proposed development and Pyrmont 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 nominated haulage routes already outlined in the Staged Metro West CSSI EIS documents, may require modification at a later stage and the potential noise impacts at sensitive receivers would be assessed as required. 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

There is no high vibration producing equipment identified in the construction scenario for the proposed development. If any high vibration activities are proposed in the later stages of the project, impacts of these activities will need to be managed to determine any potential human comfort impacts to receivers or structural/cosmetic damage to nearby structures.

If the use of vibration intensive plant is proposed, management controls for the plant should be captured in the future developer's CNVMP as part of the subsequent Detailed SSDA. The CNVMP should address potential impacts at all relevant receivers including any heritage listed building structures.

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 major plant items 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.

The operational noise impacts associated with the Pyrmont Station is assessed under the Stage 3 CSSI Approval. Where there is potential for the noise criteria to be exceeded, Sydney Metro would implement appropriate mitigation measures to achieve compliance with the noise and vibration criteria prior to the commencement of operations.

Operational vibration impacts

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

Cumulative impacts

The Noise and Vibration Impact Assessment assesses cumulative impacts as follows:

- it is anticipated that the main construction works for the Metro station (pursuant to the Stage 3 CSSI Approval) and the proposed development (pursuant to a future Detailed SSDA) would not occur concurrently. Notwithstanding, should the two stages of work occur concurrently, the cumulative noise impacts will be no greater than 3 dB above the levels predicted for the proposed development. This increase in noise level is assessed as a "just noticeable difference" and can be appropriately managed with mitigation measures as detailed in the Assessment.
- in the event that the construction works for the Metro station and the proposed development occur sequentially, cumulative noise and vibration impacts over the duration of the sequential build can be addressed within a future Detailed SSDA.

- whilst there may be some overlap between construction works of the proposed development and works associated with the Metro station, the noise impact from the proposed development is expected to dominate the overall impact.
- there is a potential for other developments to be proposed near the site. At this stage, there are known nearby future developments such as the Sydney Fish Market SSD and the Harbourside Shopping Centre Redevelopment SSD. Cumulative impacts are considered as follows:
    - the Sydney Fish Market is scheduled to open in 2024 before commencement of the proposed development construction in 2026.
    - construction details of the Harbourside Shopping Centre Redevelopment are not yet publicly available; therefore an objective assessment of its potential contribution to cumulative construction noise impacts cannot be conducted.
- if significant noise generating construction activities are anticipated to occur at other sites near the proposed development, consultation should be undertaken with the contractors to manage cumulative impacts on sensitive receivers within common areas. It is anticipated that community consultation measures and the contractors' Construction Noise and Vibration Management Plan (to be prepared as part of a future Detailed SSDA) will manage the potential cumulative impacts.
- the cumulative operational noise impact of the proposed development and other developments in the area is addressed by establishing appropriate noise criteria that take into account noise contributions from multiple sources. Complying with the noise criteria established in the Noise and Vibration Impact Assessment would ensure that the cumulative noise impact from the proposed development and other developments will meet the environmental noise objective of the locality.
- the operational vibration impact of the proposed development would be contained on site with the recommended mitigation measures implemented. Therefore, the proposed development would not have any significant contribution to off-site cumulative vibration impacts.

Mitigation measures

Construction stage

Prior to the commencement of major construction works, the future Detailed SSDA should develop a detailed CNVMP. The CNVMP should:

- identify relevant construction noise and vibration criteria
- identify neighbouring land uses that are sensitive to noise and vibration
- summarise key noise and vibration generating construction activities and the associated predicted levels at neighbouring land uses
- identify reasonable and feasible work practices to be implemented during the works to reduce noise generation
- summarise stakeholder consultation and complaints handling procedures for noise and vibration.

Further investigation should be undertaken in the detailed design phase to manage construction noise exceedances, including the following:

- the criteria for non-residential sensitive receivers are only applicable when the receiver is in use. Therefore, further investigation into the operation of these nearby sensitive uses should be undertaken to manage these impacts
- the predicted construction noise levels represent a typical worst-case scenario (highest noise level) with all equipment operating at the same time for the entirety of the 15-minute assessment period. These levels are considered conservative

and as more detail about the construction methods and equipment is development this can be refined further with Detailed SSDA.

Operational stage

A summary of the noise and vibration mitigation measures relevant to the operation of the proposal is presented in the Noise and Vibration Report and key measures are identified below:

- potential noise and vibration sources from the proposed development such as plant should be treated to meet the established criteria with the use of standard acoustic treatments.
- external noise intrusion will be controlled by the acoustic performance of the façade. External glazing recommendations have been provided and are considered achievable.
- opportunities to minimise future potential impacts should be considered as the design progresses, including incorporating noise reduction provisions in the loading dock management plan prepared as part of the Detailed SSDA.

The list of measures would be reviewed and refined as part of the Detailed SSDA to ensure the operation noise and vibration requirements are met.

6.13 Stormwater and wastewater

Overview

An Integrated Water Management Plan (Appendix U) 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 stormwater 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 stormwater and water quality assessment involved:

- 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, including the Sydney DCP 2012
- identifying the types of surface water impacts which may occur due to the proposal
- identifying mitigation measures to address potential surface water impacts.

The Integrated Water Management Plan provides recommendations to ensure that adequate water quality and stormwater designs are suitable for the site development.

Baseline assessment

The drainage network around the site consists of road kerb and gutter system, local piped drainage, and a trunk drainage system (along Edward Street) which discharges to Pyrmont Bay to the north. The trunk drainage system is owned by Sydney Water Corporation. The existing drainage network within the site is unknown. The Integrated Water Management and Water Quality Plan assumes that the stormwater runoff is collected and discharged to nearby kerb inlet pits and kerb and gutter channels.

The baseline investigations involved analysing the existing drainage network, catchment and topography, and the existing stormwater performance. Sydney Water was consulted on the on-site detention and Permissible Site Discharge (PSD) for the site. Sydney Water advised that there was no requirement for site storage or PSD.

Proposed stormwater design

The proposed stormwater strategy includes an on-site detention volume of 55m^3 which was modelled in DRAINS to analyse the stormwater flows post-development. The proposed drainage system is to be sized to convey the 5% AEP storm event, with climate change in accordance with Australian Rainfall & Runoff and Council requirements. The catchment flow results for the 5% AEP and 1% AEP storm events, and as such, outflow from the tank would be similar during both storm events as summarised in Table 22 and

Table **23**.

A summary of the concept on-site detention design is provided in the below tables.

Table 22 – Pyrmont on-site detention summary

Catchment	Volume (m^3)	Orifice diameter (mm)	Outlet pipe diameter (mm)	Weir width (m)
37-69 Union Street	55	190	225	2

Table 23 – Pyrmont on-site detention catchment flow rates

Catchment	5% AEP pre flow (m^3/s)	5% AEP tank flow (m^3/s)	5% AEP bypass flow (m^3/s)	1% AEP pre flow (m^3/s)	1% AEP tank flow (m^3/s)	1% AEP bypass flow (m^3/s)
37-69 Union Street	0.137	0.083	0.042	0.182	0.100	0.056

The post-development flows with the on-site detention system show no adverse impacts on the stormwater system. The post-development flows are less than the pre-development flows for both the 5% and 1% AEP storm events including climate change when allowance is made for an on-site detention system. The inclusion of an on-site detention system, which is not required by Council or Sydney Water standards, is dependent on the need to accommodate extra catchment runoff due to climate change and bypass.

Due to the elevated tailwater levels in the council stormwater network it is unlikely that a detention system can be buried at ground level as it would become inundated in high storm events.

Proposed stormwater quality strategy

The proposed stormwater drainage and runoff system for the proposed development is capable of being designed to comply with the design requirements for the proposal with the main design considerations summarised below:

- post development stormwater runoff connections into existing drainage infrastructure would match predevelopment case where feasible. (i.e. direct building connection to Union Street for the site).

- 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 20- 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.

Mitigation measures

Future work that is required to finalise the stormwater and water quality design at a future Detailed SSDA stage 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.

6.14 Flooding

Overview

A Flooding Report (at Appendix V) summarises the existing flooding conditions and details the upgrades, infrastructure, and protection measures required to satisfy the relevant flooding standards. The assessment of the potential impacts of the proposed development on flooding considers selected flood events up to the PMF, and addresses:

- compliance or otherwise with relevant Council flood planning guidelines and consideration of ability to evacuate safely in extreme flood events
- interaction with the Stage 3 CSSI Approval which has the potential to adversely impact on metro flood immunity
- mitigation and management measures.

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

Methodology

The proposed development in the Stage 3 CSSI Approval was modelled to consider the 100-year Probable Maximum Flood (PMF), as well as the associated probable maximum flood hazard levels, 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).

Modelling and analysis for the Flooding Assessment are based on those previously generated for the Stage 3 CSSI Approval. These TUFLOW hydraulic flood models were originally established for the Darling Harbour Catchment Flood Study (BMT WBM, 2014) which was developed for the City of Sydney Council's floodplain management program pursuant to the Floodplain Development Manual (NSW Government 2005).

Assessment

A series of scenarios undertaken for the Stage 3 CSSI Approval were reviewed to consider the flood impact to the site. This includes climate change being directly incorporated into the assessment by the inclusion of a rainfall uplift and sea level rise as appropriate to the specific scenario being considered.

The scenarios considered for the assessment of this proposal are:

- 5 % AEP climate change flood event
- 1 % AEP climate change flood event
- PMF event.

A summary of the flooding conditions at the site and surrounding areas are as follows:

- 5 % AEP climate change flood event:
  - flooding is generally confined to the roads
  - all roads surrounding the site are within a H1 hazard category
- 1 % AEP climate change flood event:
  - flood depths of up to 0.06 metres occur along Pyrmont Bridge Road, while depths of up to 0.03 metres are estimated on Edward Street
  - flood depths of up to 0.3 metres are indicated in the results. This is likely to be an anomaly in the LiDAR and would be resolved when the modelling is updated to include road survey
  - all roads surrounding the eastern site are within a H1 hazard category
- PMF Event:
  - flood depths of approximately up to 0.05 metres on Union Street and Edward Street and Pyrmont Bridge Road at the perimeter of the metro station
  - flood depths of 0.4 metres anticipated in the roadway of Union Street
  - ponding in the intersection of Edward Street and Union Street near the station entrance is observed due to higher flood levels in Edward Street and to a lesser degree Pyrmont Street north of Union Street. This ponding causes increased levels in Union Street though typically is on the other side of the street from the proposal
  - Union Street, Edward Street and approximately the lower half of Pyrmont Bridge Road are flood ways. High hazard (H5) category flooding would be experienced in Union Street, Edward Street and Pyrmont Bridge Road although not for the full road width.

The above results highlight that the proposed development would not adversely affect flood behaviour resulting in affectation of other properties assets and infrastructure. Generally, the proposed development would provide an equivalent or better flood immunity to that of the City of Sydney Interim Floodplain Management Policy (2014) through the implementation of mitigation measures.

Mitigation measures

Post-development flood impacts show that the proposal has a negligible impact on existing flood behaviour. There is no increase in flood levels in all flooding events, and a negligible difference in flood hazard compared to the existing scenario.

Whilst no immediate mitigation measures are proposed for the development at entrance locations to the OSD components within the podium, further design refinements during future stages of the proposal will ensure floor levels are situated at or above a level consistent with City of Sydney Council's Interim Floodplain Management Policy (2014). These include:

- any function which has the potential to compromise the flood immunity of the Stage 3 CSSI Approval - PMF event, or the 1% AEP climate change flood event level with an allowance for freeboard of 0.5 metres (whichever is greater)
- critical facilities (including fire control room) - PMF event, or the 1% AEP climate change flood event level with an allowance for freeboard of 0.5 metres (whichever is greater)
- commercial uses (including OSD lobby, service facilities and access to and from critical facilities) - 1% AEP climate change flood event level
- residential uses (habitable) - 1% AEP climate change flood event level with an allowance for freeboard of 0.5 metres
- residential uses (non-habitable) - 1% AEP climate change flood event level
- retail opportunities - balance of protection from the 1% AEP climate change flood event and achieving urban design outcomes.

The Report concludes that on-site flood risk, design solutions, and operational flood emergency response plans to mitigate flood risk for specific functions can be included in the detailed design of the proposed development as part of a future detailed SSDA.

6.15 Contamination and remediation

Overview

A Contamination Report (Appendix W) assesses the risk of encountering contamination during construction and operation of the proposed development. The Contamination Report also identifies whether the site is suitable for the proposed residential and commercial development and whether further detailed site investigations are required to assess contamination. The proposal has been assessed in accordance with the Resilience and Hazards SEPP.

Methodology

The methodology carried out for this contamination assessment involved:

- a desktop review of available information sources and observations from previous site inspections to understand the existing environment and potential for contamination within the Concept SSDA study area. The study area for this technical paper comprises the site boundary plus a 500-metre buffer from the site boundary
- consideration of the contamination status following the construction of the station, prior to the Concept SSDA construction activities commencing
- identification of areas of environmental concern (with respect to contamination) and assessment of potential impacts during construction and operation from contamination (with no mitigation measures)
- identification of contamination receptors and exposure pathways, and rank 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.

The AEI (moderate risk and above) associated with the Concept SSDA site are summarised in Figure 6-7.

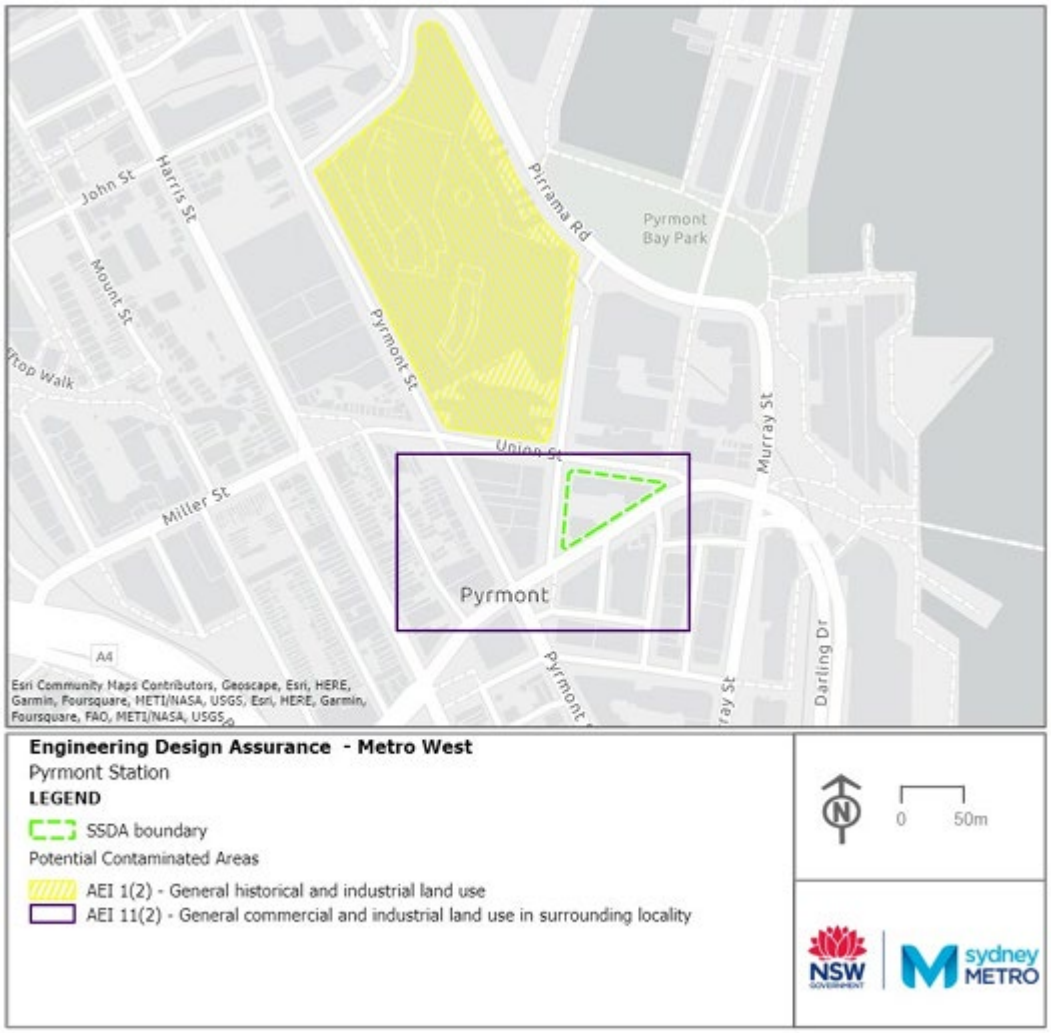


Figure 6-7 Contamination areas of environmental interest – moderate and above

These sources of potential contamination were identified by Sydney Metro as part of the Stage 2 CSSI Approval. It is anticipated that remediation of the station box construction footprint would be completed prior to construction of the proposed development.

The Contamination Report provides an assessment of potential impacts, the results of which are summarised below:

- soil – no potential for soil contamination was identified within the site during the desktop investigation and site investigation. There would be no disturbance to soils from the construction of the proposed development, as there will be no interaction with the existing ground, precluding a contamination risk
- vapour and gas – there would be no anticipated impact from vapours and gas from the construction of the proposed development as there would be no interaction with the existing ground
- acid sulphate soils (ASS) – Acid sulphate soils are unlikely to occur within the southern half of the site as it is listed as having a Class 5 ASS risk. The northern half of the site however, is listed as having a Class 1 ASS risk. Excavation of soils with a potential for ASS is unlikely to occur during the construction of the proposed development, as there will be no interaction with the existing ground

- groundwater and flood impact – whilst groundwater is known to occur in the soil profile and within the fractured and porous rock within the site study area, contaminated groundwater is not likely to be encountered during the construction and operation of the proposed development, as it will sit on the station and all below ground excavation will be completed during the CSSI approval.

All structures have been demolished, and the Pyrmont Station will be constructed prior to the construction of the proposed development. The proposed development will sit on top of the station, precluding any risk of impact from existing contamination.

The results of the contamination investigation indicate the site would be suitable for the proposed commercial and residential land use following the Stage 2 and Stage 3 CSSI Approval works. Given this, there is no anticipated impact to the concept proposal as a result of contamination or remediation requirements.

6.16 Waste management

A Waste Management Plan (WMP) has been prepared (Appendix X) 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 and aligns with the following principles from the NSW Circular Economy Policy 2019:

- sustainable management for all resources
- valuing resource productivity
- design out waste and pollution.

Construction phase

Given the detailed construction specifications of materials is not yet known, the anticipated waste streams and their proposed management methods have been presented below based on a similar scale of works.

Table 24 – Construction waste streams

Waste stream / Volume	Recovery potential	Reuse/ recycling onsite	Reuse/ recycling offsite	Disposal/ treatment
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.

Waste stream / Volume	Recovery potential	Reuse/ recycling onsite	Reuse/ recycling offsite	Disposal/ treatment
Glass Low	High	Limited opportunities for onsite reuse.	Sent to a glass recycler.	No disposal required.
Plasterboard Low	High	Limited opportunities for onsite reuse.	To be placed in skips and sent to a specialty recycler.	No disposal required.
Floor coverings Low	High	Limited opportunities for onsite reuse.	Opportunities should be explored for supplier buy back schemes.	Minimal disposal required.
Paper/card-board Low	High	Limited opportunities for onsite reuse.	Opportunities should be explored for supplier take back scheme.	No disposal required
General waste Medium	Medium	Likely to comprise food waste and non-recyclable materials	Segregate each waste stream into skips and remove offsite to an appropriate local facility for disposal.	Disposal required for general waste
Hazardous/special waste Low	Low	N/A	These waste streams should be segregated from other waste streams and stored in appropriately designed and secure bunded storage areas/cupboards for subsequent identification and removal for treatment off-site at a hazardous waste facility.	
Other	N/A	Reuse opportunities to be explored for other material streams as appropriate	Segregate each waste stream into skips and remove offsite to an appropriate local facility for recycling where feasible	Drop-off non-recyclables items at local transfer or disposal 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 such as concrete, tarmac, timber, and landscaping features

- 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 ensure 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
- the development of a waste management plan that addresses waste management during construction and operation where at least 95% of construction and demolition waste will be diverted from landfill
- 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, plastics, metals and cardboard balers in buildings with high paper and cardboard arising
- facilities management to engage with City of Sydney 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, noting that the retail uses are indicative only and may be subject to further development as part of future Detailed SSDAs. A conservative approach was taken to assess the maximum waste generation.

Table 25 – Operational waste rate estimations

Use	Units	General waste	Comingled recycling	Food waste
Commercial	Litres/100m²/ day	15	25	5
Residential	Litres/ unit/ week	120	120	-
Retail (restaurant/ eating)	Litres/100m²/ day	100	500	100
Retail (convenience)	Litres/100m²/ day	50	250	10
Retail (pub/ club)	Litres/100m²/ day	100	150	40
Retail (bakery)	Litres/100m²/ day	236	165	59

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

Table 26 – Operational waste collections

Use	Waste stream	Collections per week
Commercial	General waste	5 x weekly
	Commercial recycling	5 x weekly
	Food waste	5 x weekly
Residential	General	5 x weekly
	Comingled recycling	5 x weekly

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

Table 27 – Waste requirements

Use	Waste stream	Area required m^2 (excluding manoeuvring space)	Area required m^2 (including manoeuvring space)	Recommended Area m^2 (including cleaning and manoeuvring space)	Total Recommended Area m^2
Commercial	General waste	1.16	12	13	21
	Recycling	3.48			
	Food waste	1.16			
	Bulky waste	8		8	
Residential	General waste	3.48	21	23.5	41
	Recycling	6.96			
	Bulky waste	15		15	
	Problem waste	2		2	
Total	Residential	42		62	62

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.

6.17 Aboriginal cultural heritage

Overview

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared (Appendix Y) 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
- consultation with Registered Aboriginal Parties (RAPs).

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 an 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 Registered Aboriginal Party (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. The adoption of the Connecting with Country approach for future design was noted as important.
- 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 Aboriginal Heritage Information Management System (AHIMS) sites in the study area, there is 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 SEARs, the following recommendations are made:

- as the proposed development would have no impact on the ground surface or subsurface ground it is recommended that further assessment is not required
- 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 Aboriginal objects, or potential objects, are uncovered during the proposed development, all work in the vicinity must 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

An Historic Heritage Impact Statement (HHIS) has been prepared (Appendix Z) 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 Commonwealth (CHL), State (SHR) and locally listed heritage items (SLEP 2012) in proximity to the site. The HHIS identifies 18 heritage items located in the vicinity of the site, detailed in Table 28.

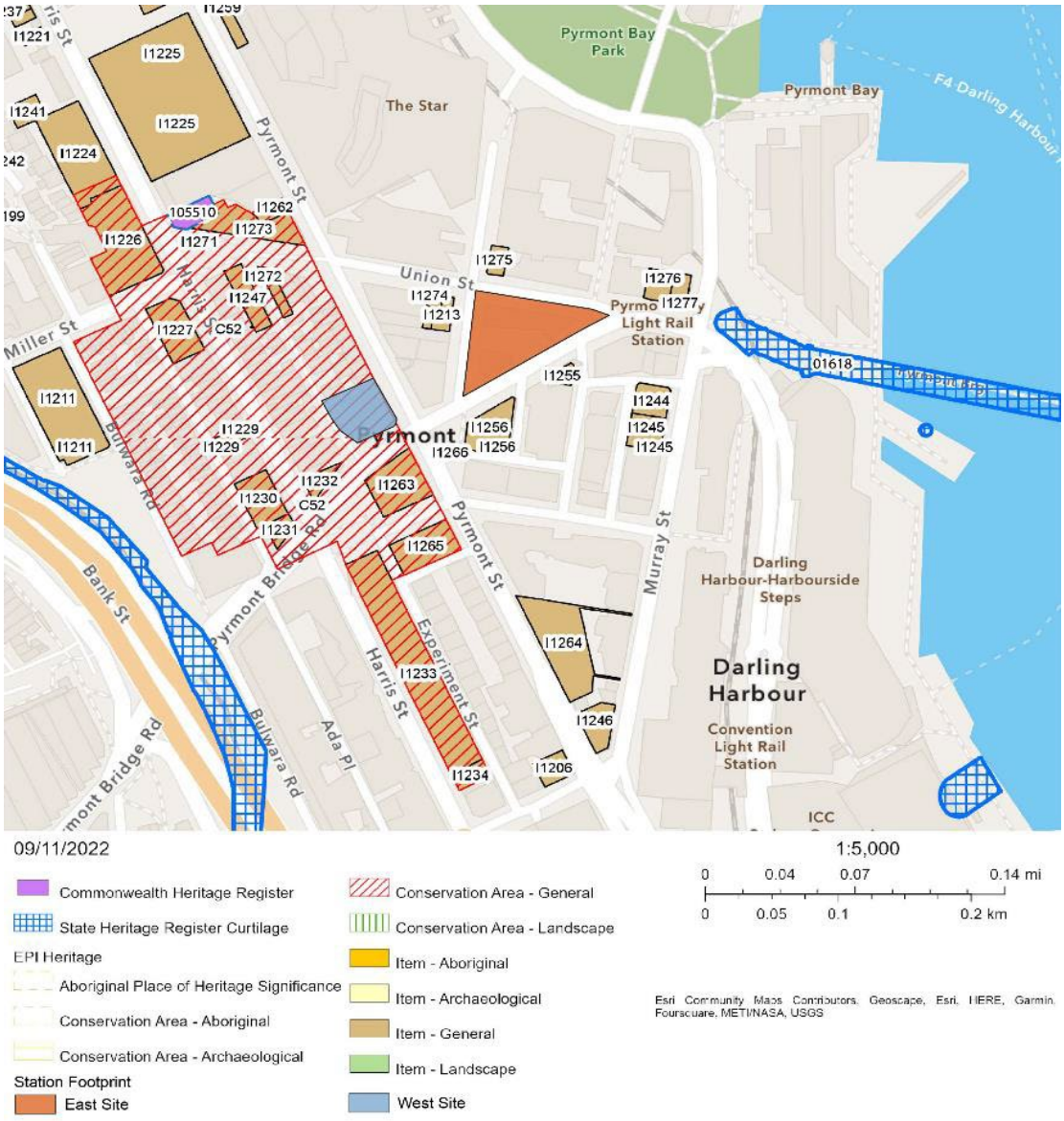


Figure 6-8 Location of heritage items in vicinity of site

Table 28 – Statement of significance for surrounding State and local heritage items

Listed heritage item	Statement of Significance
CHL Listing No. 105510 – Pyrmont Post Office	Pyrmont Post Office, dating from 1901, has historical importance for its association with the development of Pyrmont/Ultimo which, by the turn of the century, was a key industrial and warehouse suburb of inner Sydney.
SHR Listing No. 01618 – Pyrmont Bridge	Pyrmont Bridge, constructed between 1899 and 1902, is an item of State heritage significance for its aesthetic, historical and scientific cultural values. An essential link between the city and the inner western suburbs, Pyrmont Bridge is closely associated with the economic and social development of Sydney at the end of the 19th century.

Listed heritage item	Statement of Significance
SHR Listing No. 01440 – Pyrmont Post Office	As per CHL Listing No. 105510 above.
SLEP 2012 Listing No. I1277 – Pyrmont Bridge Hotel	Constructed in the early 20th Century, the building dates from one of the key periods of the development of Ultimo/Pyrmont as a direct result of subdivision of the Harris and Macarthur Estates. It is a good example of a Federation hotel located on a prominent corner site and makes a positive contribution to the streetscape.
SLEP 2012 Listing No. I1276 – Terrace Group	Constructed circa 1880, the building dates from one of the key periods of the development of Ultimo/Pyrmont as a direct result of subdivision of the Harris and Macarthur Estates. It is a good example of a mid-Victorian terrace which makes a positive contribution to the streetscape.
SLEP 2012 Listing No. I1275 – Former New York Hotel	Constructed 1875 to 1910 the building dates from one of the key periods of the development of Ultimo/Pyrmont as a direct result of subdivision of the Harris and Macarthur Estates. It is a good example of a Victorian and Federation hotel which makes a positive contribution to the streetscape.
SLEP 2012 Listing No. I1213 – Corner shop & residence 'Charmelu' (35 Union Street)	Constructed in the 1880s, the building dates from one of the key periods of the development of Ultimo/Pyrmont as a direct result of subdivision of the Harris and Macarthur Estates. It is a good example of a Victorian shop and residence located on a prominent corner site which makes a positive contribution to the streetscape.
SLEP 2012 Listing No. I1274 – Terrace Group	Constructed circa 1880, the building dates from one of the key periods of the development of Ultimo/Pyrmont as a direct result of subdivision of the Harris and Macarthur Estates. It is a good example of a late Victorian terrace which makes a positive contribution to the streetscape.
SLEP 2012 Listing No. I1255 – Pyrmont Bridge Road Hotel	Constructed 1914, the building is a good example of a Federation hotel designed but the City Architect which makes a positive contribution to the streetscape and demonstrates Pyrmont as a predominantly industrial and warehouse suburb populated by working class people employed in the local area. This corner hotel is a good example of a working-class suburban Federation-era hotel building designed by the city architect. It is representative of the typical hotel in Pyrmont / Ultimo, occupying a prominent corner location amongst housing and workplace buildings.

Listed heritage item	Statement of Significance
SLEP 2012 Listing No. I1256 – Former warehouse 'Bank of NSW Stores'	The former Bank of NSW Archives, built in 1935, is significant as an intact representative of the warehouses and commercial storage facilities that characterised the Pyrmont / Ultimo area from the late nineteenth century until the 1960's. As such, it helps to record the development of the area as an industrial warehouse district close to the central business district and supporting the main business premises in the commercial heart of the city.
SLEP 2012 Listing No. I1266 – Samuel Hordern Fountain	Constructed 1896, the fountain is a good example of a late Victorian public monument associated with a prominent local businessman which makes a positive contribution to the streetscape. An example of nineteenth century civic design consciousness.
SLEP 2012 Listing No. I1265 – Pyrmont Fire Station	A good example of an early twentieth century functional public building, still used for its original purpose and which, because of its site, forms a dominant element on the Pyrmont ridgeline. Pyrmont Fire Station, built in 1906, is a rare, relatively intact, example of the larger form of fire station built in the metropolitan area during the first two decades of the operation of the Metropolitan Fire Brigade, with only Darlinghurst and Headquarters (Castlereagh Street) Fire Stations being comparable.
SLEP 2012 Listing No. I1263 – Former industrial building 'Waite & Bull'	This former wool store, erected in 1893, is historically highly significant for its association with the period when Pyrmont was the home of Sydney's wool stores. The wool industry was an invaluable income earner for Australia and in the first half of the 20th century most of the product exported from New South Wales went through Pyrmont wool stores such as this one. The building, with its strongly rectangular facade, emphasis to arches and plain face brickwork, is a good example of the Federation Warehouse architectural style. Being of large scale with vast areas of brickwork and effectively occupying a whole block, the building is a prominent landscape element in Pyrmont.
SLEP 2012 Listing No. I1233 – Shop & residence group	Construction 1860 to 1870, the building dates from one of the key periods of the development of Ultimo/Pyrmont as a direct result of subdivision of the Harris and Macarthur Estates. It is a good example of a mid-Victorian terrace which makes a positive contribution to the streetscape.

Listed heritage item	Statement of Significance
SLEP 2012 Listing No. I1232 – Quarryman's Hotel	Constructed 1912-1923, The Quarryman's Hotel dates from one of the key periods of the development of Pyrmont as a direct result of subdivision of the Harris and Macarthur Estates. It also dates from the key period of hotel rebuilding by the breweries in NSW in the early 20th century. It is a good example of a Federation Arts and Crafts style hotel, at a prominent corner site which makes a positive contribution to the streetscape.
SLEP 2012 Listing No. I1231 – Dunkirk Hotel	Constructed in 1914, the building is a good example of an altered Federation Hotel located on a prominent corner site which makes a positive contribution to the streetscape.
SLEP 2012 Listing No. I1230 – Terrace Group	Constructed in 1875, the building dates from one of the key periods of the development of Ultimo/Pyrmont as a direct result of subdivision of the Harris and Macarthur Estates. It is a good example of a mid-Victorian terrace which makes a positive contribution to the streetscape.
SLEP 2012 Listing No. C52 – Pyrmont Heritage Conservation Area	Constructed between 1860 and 1890, the area is a good example of a mid to late Victorian working-class community consisting of both residential and commercial buildings which are largely intact and make a positive contribution to the streetscape. Heritage listed Federation buildings also represent a key period of development in the area linked to the widening of Pyrmont Bridge Road.

The proposed building envelope is broadly compliant with the form anticipated in the Pyrmont Peninsula Design Guidelines which responds to the heritage context through street alignment and tower setbacks and allows open views along streets. The building envelope provides the opportunity for future design to respond to the heritage buildings adjacent to the site through a greater study of, and sympathetic response to, the heritage context of the site, involvement of a heritage architect in the design process, and participation in a design excellence process.

The proposed building envelope is visible from heritage items in the vicinity, including being located within significant views from State registered items such as the Pyrmont Bridge and Pyrmont Post Office. It is also located in important views in the locality and has the potential to impact important local view lines established by the consistent character of the conservation area and significant corner buildings. Whilst the building envelope is unlikely to cause a significant or major adverse impact on the relevant values of important views, it will change an appreciation and understanding of the heritage context. Future development within the building envelope should respond to significant views to minimise the impact on an appreciation of significant heritage places.

The overall proposal provides the opportunity for future building design to respond to the heritage context and heritage buildings adjacent to the development site through the Sydney Metro West Design Excellence Strategy (Appendix K).

Mitigation measures

The following mitigation measures are proposed to guide the future detailed design:

- engage a suitably qualified heritage architect in the development of the future building design
- respect nearby heritage items and enhance the historic character of the area by responding to the historic context in terms of character, scale, form, massing siting, materials and colour, and detailing
- conduct a detailed contextual analysis to inform future development I.E., existing built form, massing, scale, rhythm, solid/void ratio, dominant parapet and gutter lines which inform a pedestrian appreciation of view lines
- reinforce the historic corner experience through a sympathetic response to the siting of heritage buildings at intersections which establish view lines through the peninsula and define street wall heights
- recognise and respond to the individual character of each street. Pay particular attention to the treatment of street corners and the human scale of the streetscape of Union Street and the corner of Union and Edward Streets
- respond to heritage items in the vicinity of the site and significant views to minimise visual impacts
- reduce the perception of bulk and scale of the podium through manipulation of building façade detailing, stepping back of upper facades, reducing height of upper- level openings, introduction of alternative materials in the upper levels and/or other such architectural design techniques
- respond to established street wall heights and the topography of the valley at the eastern side of the Peninsula
- articulate the facades of the podium and tower to break down the apparent scale of the built form to relate to the surrounding heritage context. Articulation should consider such design devices as the inclusion of through site links, recesses, change of height and materials. Blank or planar facades should be avoided
- over footpath awnings are required along Union Street and Pyrmont Bridge Road. These should extend along Edward Street at the corner of Union Street in response to the scale and typology of the adjacent heritage items
- include heritage interpretation within the publicly accessible spaces of the development
- a heritage impact assessment and detailed street montages should be provided as part of the Detailed SSDA.

6.19 Social impact

A Social Impact Assessment (SIA) has been prepared in accordance with the Social Impact Assessment Guidelines for State Significant Projects prepared by DPHI (SIA Guidelines) and is provided at Appendix AA. 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

The approach to assessing social impacts in the SIA is guided by the DPHI SIA Guidelines for State Significant Projects 2023. These guidelines require a risk assessment of the significance of potential impacts (based upon likelihood and consequence of the impact). Social impacts are considered before and after implementation of mitigation measures, which are to be incorporated in the planning, construction and operation of the project.

The assessment is informed by a review of the relevant State and local planning policies, and an assessment of the community profile, crime and safety data and the outcomes of the engagement conducted for the project (including with the Council social planning team).

Assessment

The SIA provides a detailed assessment of the significant social impacts of the proposed development. The significant impacts are assessed with any planned mitigation measures to determine the residual impact level.

The moderate to high social impacts and respective mitigation measures are detailed below:

Way of life impacts related to increased noise during the construction of the proposed development.

Noise and vibration during construction or operation of a proposed development can negatively impact on community health and wellbeing. The proposed development will introduce new construction and operational noise to the nearby area.

Mitigation Measures

- development and implementation of a Construction Noise Vibration Management Plan (CNVMP) during Detailed SSDA.
- consultation undertaken with businesses and residents identified (per the Noise and Vibration Impact Assessment) through CSSI processes.
- the SIA also recommends that Sydney Metro is committed to implementing all the recommendations in the Noise and Vibration Impact Assessment and is committed to continue consulting and communicating with businesses and residents that are identified as sensitive noise receivers (per the Noise and Vibration Impact Assessment) to identify potential mitigation measures to reduce the negative impact.

Increased access to housing in an accessible location during operation of the proposed development.

Housing is a critical form of infrastructure for all communities. The location, availability and affordability of housing has a direct impact on people's wellbeing and ability to participate in everyday life. The proposed development will introduce increased housing in an accessible location.

Recommendations

- the SIA recommends as part of the preparation of Detailed SSDA, Sydney Metro is to assess the value of affordable housing monetary contribution required for the proposed development. This should be aligned with relevant state and local policies.

Health and wellbeing and way of life impacts related to reduced access to social infrastructure during operation of the proposed development.

Access to high quality social infrastructure and services has a direct impact on the health and wellbeing of people and is integral to people's ability to participate in everyday life. The proposal will introduce 340 new residents to the area and may impact access to social infrastructure for existing residents and the incoming population.

Recommendations

- the SIA recommend that Sydney Metro is committed to providing local contributions in consultation with CoS and consistent with CoS Development

Contributions Plan 2015 as part of the detailed SSDA due to the additional demand the incoming population will have on local community and recreation facilities and services.

- the SIA recommends that Sydney Metro undertakes consultation with Schools Infrastructure NSW as part of the detailed SSDA to advise of expected timing of the proposed development and planning for local school enrolments.

6.20 Infrastructure requirements and utilities

The Utilities and Infrastructure Servicing Assessment (Appendix BB) outlines existing utility infrastructure that currently services the site and potential decommissioning and / or upgrade works required to service the future Detailed SSDA. This is detailed in Table 29.

The Assessment concludes that servicing is available to the proposed development with indicative connections for each service being:

- stormwater flows
- wastewater servicing
- potable water servicing
- telecommunication servicing
- electrical high voltage supply
- gas connections.

Utility enabling works will be undertaken as a part of the tunnel station excavation works. These will take place prior to the works undertaken as part of the Stage 2 CSSI Approval. Enabling works under the Stage 3 CSSI Approval are yet to be fully developed and finalised. New proposed connections to existing utility connections to be undertaken as part of the Concept SSDA are described in Table 29 below.

Table 29 – Utility and services infrastructure

Service	Existing supply	Augmentation required
Stormwater	Existing site drainage is primarily serviced by a DN300 Vitrified Clay pipe along Edward Street and DN450 on Union Street with maintenance holes along the stormwater network.	Potential stormwater works include: • construction of new drainage pipework and associated discharge from the development site • water sensitive Urban Design (WSUD) treatment measures (rainwater tanks, stormwater filters, gross pollutant traps), and bio-retention basin (Rail Gardens/Tree pits).

Service	Existing supply	Augmentation required
Wastewater	There are a number of wastewater connections to trunk sewers servicing the existing lots. Enabling works requires the decommission of exiting lot connections to the DN225 sewer along Edward Street and DN225 sewer along Union Street.	To service the proposed development, new gravity sewer connections to the trunk sewer mains along Union and Edward Streets are required as part of OSD utility works. The proposed OSD wastewater connection is still under development. Further work is required in subsequent design phases to confirm the final connection detail and servicing arrangement in consultation with Sydney Water Corporation. Additional connection points may affect the building services spatial provisions within the proposed development.
Potable water	There are a number of Sydney Water potable water assets in the surrounding area.	The following alteration works are required: • new potable water connections from existing watermains nearest station sites • DN200mm cast iron concrete lined (CICL), along Union Street for the proposed development at Pyrmont Station. Specific connection details will follow from consultation with Sydney Water. Additional connection points would affect the building services spatial provisions within the proposed development.

Service	Existing supply	Augmentation required
Communications	Telecommunications providers in the precinct include Telstra, Optus and Uecomm. The desktop information indicates the presence of a number of telecommunications assets and service pits surrounding the site.	The proposed development requires investigation of proposed telecommunications connections, using existing infrastructure pits and ducts along Pyrmont Bridge Road and Union Street. Proposed telecommunication works, and potential new connections are under development and further work is required in subsequent design phases to confirm final relocations and servicing arrangements in consultation with the various utility owners. For the purposes of the Assessment, it is assumed that the development will have a single telecommunication connection.
Electrical	Multiple Ausgrid electrical infrastructure assets exist in the precinct, including substations, transformers, 132kV transmission cables, high voltage (11kV & 33kV) and low voltage.	The proposed development requires the installation of electrical high voltage supply from Ausgrid. This is proposed from Darling Harbour Zone Substation with new conduits installed along Pyrmont Street, Union and Edward Street to a new substation servicing the OSD. The proposed electrical works and potential new building connections are under development and further work is required in subsequent design phases to confirm the final relocations and servicing arrangements in consultation with Ausgrid.

Service	Existing supply	Augmentation required
Gas	Gas servicing in the precinct is provided by Jemena. Initial assessment of utility information indicates existing gas assets would not be impacted by the proposed development.	The proposed development requires potential upgrades to existing gas networks in the precinct to supply the proposed station development. This will be assessed in feasibility investigations and consultation with Jemena. The closest significant gas main 250mm steel high-pressure supply is located on Murray Street. Specific connection locations will be detailed following consultation with Jemena. Additional connection points would affect building services spatial provisions within the development.

The proposed OSD is subject to further design development as part of a Detailed SSDA to ensure adequate servicing including:

- 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 impacts on required lead-in infrastructure.
- formal connection applications for utility services through appropriate channels such as Water Service Coordinators and Accredited Service Providers.

Further utility information will be included as part of future a Detailed SSDA.

6.21 Construction, operation and staging

Overview

A Construction Management Statement (CMS) (Appendix CC) 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

The CMS provides a summary of the compliance strategy for the proposal highlighting the key principles of construction site accessibility as well as the technical requirements for the future development to ensure during delivery of this project, all safety and environmental considerations have been addressed.

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

- Scenario 1: Continuity of construction works from station to proposed development.
- Scenario 2: Gap between completion of station (with full demobilisation) and commencement of proposed development works.

The staging of development will be determined by the future developer and any impacts will be addressed in the Detailed SSD application. Notwithstanding, the Construction Management Strategy (Appendix CC) considers two potential construction staging scenarios and the possible mitigation measures. The construction traffic impacts have been considered earlier in section 6.10 of this report.

Cumulative construction impact

Information about the estimated number of construction vehicles that are associated with the construction of the concurrent projects is not publicly available. The number of vehicles may have an impact on the road network and intersections in the vicinity of the development.

If required, construction traffic analyses would be undertaken at the Detailed SSDA stage 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 proposes several mitigation measures specific to each scenario detailed above, these include:

- Scenario 1: continuity of construction works from station to proposed development.
    - pedestrians – include a restriction on heavy vehicle access into and out of the site during the AM and PM peak periods. Preparation of a site-specific Pedestrian Management Plan may also be required
    - Metro customers – OSD construction activities to be clearly segregated
    - traffic and access – careful management of pedestrian and vehicular conflicts along Edward Street where the loading dock is located and accessed.
    - on-street parking – some closures of on-street parking spaces on Union Street to be considered by the proposed OSD contractor
- Scenario 2: gap between completion of station (with full demobilisation) and commencement of proposed development works.
    - pedestrian – specific pedestrian management measures would need to be imposed by the OSD contractor to manage pedestrians on all frontages to the site
    - Metro customers – OSD construction activities to be clearly segregated
    - on-street parking – some closures of on-street parking spaces on Union Street to be considered by the proposed OSD contractor.

Construction traffic

- appropriate diversions would be established to safely guide pedestrians around work zones in accordance with Construction Traffic Management Framework (CTMF).
- limited construction vehicle movements during major events in the precinct in accordance with CTMF.
- multiple parking alternatives within precinct in accordance with parking management plan and CTMF.

- CTMF outlines mitigation measures that would be implemented to minimise impacts. This would be detailed in future Construction Traffic Management Statements.

6.22 Contributions and public benefit

Local contributions

The development would be subject to the contribution requirements for affordable housing under section 7.32 of the EP&A Act and clause 7.13 of the LEP. Pursuant to LEP clause 7.13(2A), the affordable housing levy for the site would include 3% of the total floor area of the development that is intended to be used for residential purposes, and 1% of the total floor area of the development that is intended to be used for non-residential purposes.

A determination of this Concept SSDA will not trigger a contribution for affordable housing under clause 7.13 of the LEP as the determination will not authorise the carrying out of development without further consent. The value of the affordable housing contribution would be determined as part of the future Detailed SSDA. At that stage, the precise floor space and specific project details would be known.

A future Detailed SSDAs would also be subject to the City of Sydney Development Contributions Plan 2015 for local contributions. A condition will be applied to levy for increased local services and infrastructure, based on the calculated increase in net population (residents, workers and overnight visitors). The population increase will then be multiplied by the indexed contribution rate (per resident, worker or visitor). The rate will also be indexed at the time of payment using the Consumer Price Index (CPI) for Sydney, in accordance with section 2.2 of the City of Sydney Development Contributions Plan 2015.

State infrastructure contributions

The NSW Government introduced a special infrastructure contribution (SIC) to help fund the new Pyrmont Metro station and associated infrastructure on 11 July 2022. The SIC rate is adjusted annually on 1 July according to the latest Sydney Produce Price Index (PPI).

The current SIC rates as at July 2022* are as follows:

- $200 per square metre of commercial GFA
- $15,000 per residential dwelling.

* As at August 2023, the updated SIC rates for FY23/24 have not been published.

A determination of this Concept SSDA will not trigger a SIC payment as the determination will not authorise the carrying out of development without further consent. The value of the SIC payment would be determined as part of the future Detailed SSDA. At that stage, the precise commercial floor space and residential dwelling numbers would be known.

On 23 May 2023, the Environmental Planning and Assessment Amendment (Housing and Productivity Contributions) Bill 2023 was introduced by the Parliament of NSW. The Bill seeks to amend the EP&A Act to provide for Housing and Productivity (HAP) contributions, which replace the previous Special Infrastructure Contribution (SIC).

The introduction of the Bill was supported by a Housing and Productivity Contribution Paper (May 2023) published by DPHI. In terms of the transitional arrangements between existing SICs to HAP Contributions, the Paper states that “the Pyrmont Peninsula Metro Special Contribution Area will remain in place, for the purpose of collecting contributions towards the Sydney Metro station”. Accordingly, it is anticipated that a future Detailed SSDA would not be subject to the HAP contribution.

Public benefit

Sydney is a global city and will experience significant population and employment growth in the coming decades. Public transport will play an important role supporting this growth, ensuring Sydney's future liveability and global competitiveness.

The key benefits of the proposal include:

- increased employment density integrated with the delivery of significant new public transport infrastructure servicing the surrounding precinct, contributing towards the establishment of an integrated transport hub within the heart of Pyrmont and strengthening Sydney's wider rail network and connectivity
- increased housing supply contributing to a diverse range of dwelling typologies and sizes in a highly accessible location
- delivery of high-quality employment generating floorspace that aligns with a key strategic objective of the Pyrmont Peninsula Place Strategy
- contribution to city-shaping, including supporting planned growth, expanding the 30-minute cities, and increasing all-day accessibility
- increased opportunities to optimise surrounding public transport network
- productivity benefits, including enhanced competitiveness and reducing travel times
- enhanced amenity and activation of the street frontages for pedestrians
- provision of end of journey facilities and bicycle parking to the benefit of future tenants and residents.

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 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 proposed development

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.

The indicative design and construction measures to minimise impact are outlined in detail in Appendix D and the key mitigation measures are summarised below which are mostly to be carried out at the Detailed SSDA stage.

Design

- consider and implement the Design Guidelines and Design Excellence Strategy in a future Detailed SSDA
- respond to surrounding context through detailed refinement through fine grain design detailing, built form articulation and modulation, and façade materiality.

Reflectivity

- use of less reflective glazing would reduce light reflected from the façade
- use of a non-reflective material or materials with increased roughness
- introduce non-reflective structures, design, or landscaping to shield glazed façade.

Wind

- consider fixed or retractable canopies or awnings to protect patrons
- coordinate wind mitigation measures for the building as a whole between the detailed design of the Station Design and Precinct Plan as part of the Stage 3 CSSI and a future Detailed SSDA.

Transport, traffic and parking

- provide off street service vehicle parking to accommodate the needs of both the Metro station and OSD land uses
- 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 receivers
- implement feasible and reasonable management measures and work practices
- refine the indicative operational noise and vibration mitigation measures during detailed design.

Flooding

- mitigation measures described in the Flooding Assessment (Appendix V) should be incorporated as part of the design refinement during the detailed to ensure that floor levels would be situated at or above a level consistent with the requirements
- undertake further consultation with the City of Sydney for a future Detailed SSDA
- incorporate passive flood measures for the proposed development. Active flood measures, if proposed as part of the CSSI Stage 3 Approval, are triggered from rising flood waters
- implement Sydney and North Sydney CBD Central Business Districts Evacuation Management Subplan. Being co-located with the Metro station would afford easy access for building occupants if there was a city or precinct wide evacuation order.

Social impact

- undertake consultation with residents impacted by reduced solar access to explore further measures that can reduce the overall impact during detailed design stages
- implement all the recommendations in the NVA
- as part of the preparation of Detailed SSDA, assess the quantity of affordable and student housing achievable within the proposed development. This should be aligned with relevant state and local policies
- during detailed design stages and in consultation with CoS, explore and identify opportunities for spaces within the public domain areas of the proposed development to support cultural and creative participation, such as cultural gathering places for Aboriginal and Torres Strait Islander communities. Where this is not possible, contributions to community and recreation facilities and open space should be made to CoS
- consultation with Schools Infrastructure NSW should be undertaken to advise of expected timing of the proposed development and planning for local school enrolments
- consultation with Sydney Local Health District should be undertaken to understand the existing capacity of primary care clinics and private GP centres and ensure the incoming population can be serviced by these services. Opportunities for GP clinics or consultation rooms could be explored for the retail floor.

Construction

- establish appropriate diversions to safely guide pedestrians around work zones in accordance with Construction Traffic Management Framework (CTMF).
- limit construction vehicle movements during major events in the precinct in accordance with the CTMF.

- establish multiple parking alternatives within the precinct in accordance with a parking management plan and the CTMF.

The CTMF outlines mitigation measures that would be implemented to minimise impacts 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 Pyrmont.

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 Pyrmont Station precinct acknowledges growth opportunities west of the Sydney CBD 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 Pyrmont can operate and function as a world class event and entertainment precinct.

Specifically, the proposal is consistent with the following key strategic plans:

- 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
- Eastern City District Plan: The proposed development would assist in aligning with the strategic significance of Pyrmont as a centre for creative industries, arts and cultural uses located near major cultural institutions. The proposed development aligns with the economic growth and infrastructure investment by placing significant housing and employment floor space directly above Sydney Metro infrastructure
- Pyrmont Peninsula Place Strategy: The proposed development aligns with the PPPS to balance growth and change with character and place within Pyrmont. It will contribute to the creation of a new centre of activity anchored by the Metro station. Both commercial and residential land uses will contribute to localised activity. The proposed building envelope has been informed by sun access planes to local green spaces and parks. The proposed development delivers a diversity of housing typologies and tenures to suit different household sizes, configurations, and needs. Future detailed design is capable of meeting increasing sustainability objectives and performance targets for reduced environmental impact
- Future Transport Strategy 2056: The proposed development seeks to deliver residential, commercial and retail uses above and adjacent to the new Pyrmont 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 Pyrmont Peninsula sub-precinct master plan for the following reasons:

- the proposed development is consistent with the objectives of the EP&A Act including facilitating ESD and the achievement of strategic aims of State planning policies
- the site is zoned MU1 Mixed Use under the SLEP 2012, where residential and commercial uses are permitted with consent
- the Concept SSDA is consistent with the zone objectives and would assist Pyrmont 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 of RL120 on Lot 1 DP 620352 and 30m on Lot 1 DP 657429
- the proposal is capable of achieving design excellence, subject to the Design Guidelines and GANSW endorsed Sydney Metro West Design Excellence Strategy
- the EIS and supporting documents have adequately addressed the requirements of the SEARs to enable assessment and determination of the application
- DPHI have determined that the proposed development would not be likely to have any significant impacts on biodiversity and therefore a BDAR is not required.

7.4 Economic, social and environmental outcomes

Economic

The delivery of the proposed development would make a significant positive contribution to the Pyrmont Peninsula 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, the OSD is expected to generate approximately 170 direct annual jobs (and an additional 229 indirect annual jobs). In addition, it is anticipated that approximately 345 direct ongoing jobs (and an additional 404 indirect jobs) (full-time equivalent) will be generated during the ongoing operation of the development.

The proposed development would facilitate the delivery of additional housing in a well-connected area (approximately 160 apartments subject to the detailed design within future Detailed SSDA), 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, 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

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 envelope is capable of complying with the ADG
- the building envelope has been designed to maximise building separation to minimise privacy issues and increase solar access and outlook for all apartments
- the maximum building height ensures that there is no additional overshadowing to Elizabeth Healey Reserve (a public open space)
- the solar access assessment demonstrates that suitable solar amenity can be retained to living and private open spaces of adjacent residential dwellings to the south of the site.
- the future building form within the envelope can be designed to minimise reflectivity and wind impacts through the detailed design phase with appropriate mitigation measures
- 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 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 pursuant to the SLEP 2012. The reduced parking provision encourages residents and workers to adopt sustainable transport modes and reduce impacts on the broader road network
- DPHI 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 Detailed SSDA can suitably address the heritage interface with nearby heritage items through the Sydney Metro Design Excellence Strategy and addressing the Design Guidelines
- the site is capable of being serviced by all utilities, subject to augmentation
- 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 Pyrmont Peninsula Place Strategy.
- based on the contamination assessment the site is suitable for both commercial and residential development.

7.5 Suitability of the site

The proposal comprises a significant commercial and residential development located within the heart of the Pyrmont Peninsula. Based on the environmental assessment contained in section 6, the proposal has been subject to a substantial and thorough assessment of development suitability, which has confirmed the proposed uses as being the most suitable outcome at the site.

In this regard, the site is considered to be suitable for the concept proposal as:

- the proposal comprises a prime opportunity to take advantage of the Pyrmont Metro project, with the airspace created as part of the Pyrmont Metro station site envisaged to be developed for the purposes of OSD under the CSSI Approval
- the site provides frontages to be activated by the proposed commercial uses in the podium
- the site represents an ideal location for new residential accommodation, adjacent to established residential dwellings and close to entertainment, retail and transport infrastructure
- the site's location is well suited to commercial land uses given its proximity to surrounding cultural, entertainment, tourism, and community facilities
- the ability to support commercial and residential uses has been demonstrated through a well developed indicative ground floor, podium, and tower design within the proposed envelope
- the proposed scale and density of the development is highly appropriate in the context of the Pyrmont Peninsula and is commensurate with the vision of strategic planning policy
- the proposed envelope has been modulated to ensure that overshadowing generated by the future building design can achieve compliance with the ADG and Design Guidelines
- the proposed OSD envelope ensures integration with the design and functionality of Pyrmont Station such that its operations will not be inhibited
- the proposal contributes to new additional employment opportunities in a location which reinforces the '30 minute city' concept, providing employment opportunities and new housing proximal to services, open space, transport, and jobs
- the development is appropriate with regards to matters such as flooding, contamination, air quality, noise and vibration, heritage and wind.

7.6 Public interest

The proposal is in the public interest as it would contribute to the evolution of the Pyrmont Peninsula through the creation of an integrated commercial and residential development.

Given the significance of the development, the proposal is considered to be in the public interest as:

- it provides employment generating commercial floor space, contributing to job creation in the MU1 Zone and in an accessible location
- it provides for a diversity of housing typologies and tenures to suit different household sizes, configurations, and needs
- it supports future workers and visitors to create flow on positive economic impacts within Pyrmont and the Greater Sydney and NSW economies
- it provides a variety of commercial uses at the ground and podium levels, which contribute to activating the station precinct, both within traditional business hours as well as during the evening, late night and weekend periods
- over the construction period, the OSD is estimated to generate approximately 170 direct annual construction jobs (and an additional 229 indirect annual jobs)
- it will generate approximately 345 direct jobs on an ongoing basis
- additional economic benefits will be provided by workers, residents, and visitors using surrounding services within Pyrmont as part of the wider economy

- the Concept SSDA proposal would work alongside the Stage 2 and 3 CSSI Approvals in order to create an overall station precinct which is integrated, high quality, enjoyable, and safe for future public transport users
- the proposed building envelope would enable the delivery of a future OSD form which minimises impacts to surrounding buildings and protected public spaces
- the development has been designed to ensure that sustainability requirements are achieved or exceeded throughout the development
- the proposal provides a framework which would ensure that future development at the site exhibits design excellence, integrated with the station to deliver a high design quality building form outcome
- the proposal includes provision for future public art, which would contribute to the vibrancy and interest generated by the surrounding built environment.

7.7 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) 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 MU1 Mixed Use under the SLEP 2012, where residential, commercial, and retail uses are permitted with consent. The Concept SSDA is consistent with the zone objectives and will ensure Pyrmont 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 Pyrmont as a key planned employment and housing growth centre on the western side of the harbour.
- 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 Pyrmont Peninsula sub-precinct master plans and the Design Guidelines.
- the proposed building envelopes have been developed to enable flexibility for the future Detailed SSDA to facilitate a high-quality development.
- the proposed development would deliver economic benefits particularly in creating full time jobs during construction and will sustain direct and indirect jobs during its ongoing operation.
- during construction, it is expected that approximately 170 direct annual construction jobs would be generated and an additional 229 indirect annual jobs over eight years, in addition to 345 ongoing jobs directly and a further 404jobs indirectly created during the operation of the development.
- the site is suitable for the proposed development in that it does not contain contamination or hazards that would present a risk to future site residents or occupants.

- the proposed development is in the public interest. The proposal would contribute to the provision of a 30-minute Eastern Harbour City, co-locating housing and employment at a site which directly benefits from very good access to services, employment and transport.
- 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 (refer Appendix D).

Appendix A – SEARs compliance table

Appendix B – Statutory compliance table

Appendix C – Community engagement table

Appendix D – Mitigation measure

Appendix E – Built Form and Urban Design Report

Appendix F – Architectural Renders

Appendix G – Building Envelope Drawings

Appendix H – Indicative Reference Scheme

Appendix I – Demarcation Plans

Appendix J – Housing SEPP Assessment Report

Appendix K – Sydney Metro West Design Excellence Strategy

Appendix L – CPTED Report

Appendix M – Solar Access Report

Appendix N – Reflectivity Impact Assessment

Appendix O – Pedestrian Wind Assessment

Appendix P – Visual Impact Assessment

Appendix Q – ESD Report

Appendix R – Transport and Access Report

Appendix S – Biodiversity Development Assessment (BDAR) Waiver

Appendix T – Noise and Vibration Assessment

Appendix U – Integrated Water Management and Water Quality Plan

Appendix V – Flooding Assessment

Appendix W – Contamination Report

Appendix X – Waste Management Plan

Appendix Y – Aboriginal Cultural Heritage Report

Appendix Z – Historic Heritage Impact Assessment

Appendix AA – Social Impact Assessment

Appendix BB – Utilities and Infrastructural Servicing Assessment

Appendix CC – Construction Management Statement

Appendix DD – Site Survey Plan

Contact us

If you have any questions or would like more information please contact our project team:

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