



**CITY OF
PARRAMATTA**

NOTICE OF LOCAL PLANNING PANEL MEETING

PUBLIC AGENDA

A Local Planning Panel meeting will be held in PHIVE 2 Civic Place, Parramatta at 5 Parramatta Square on Tuesday, 19 November 2024 at 3.30pm.

Gail Connolly
CHIEF EXECUTIVE OFFICER



**CITY OF
PARRAMATTA**

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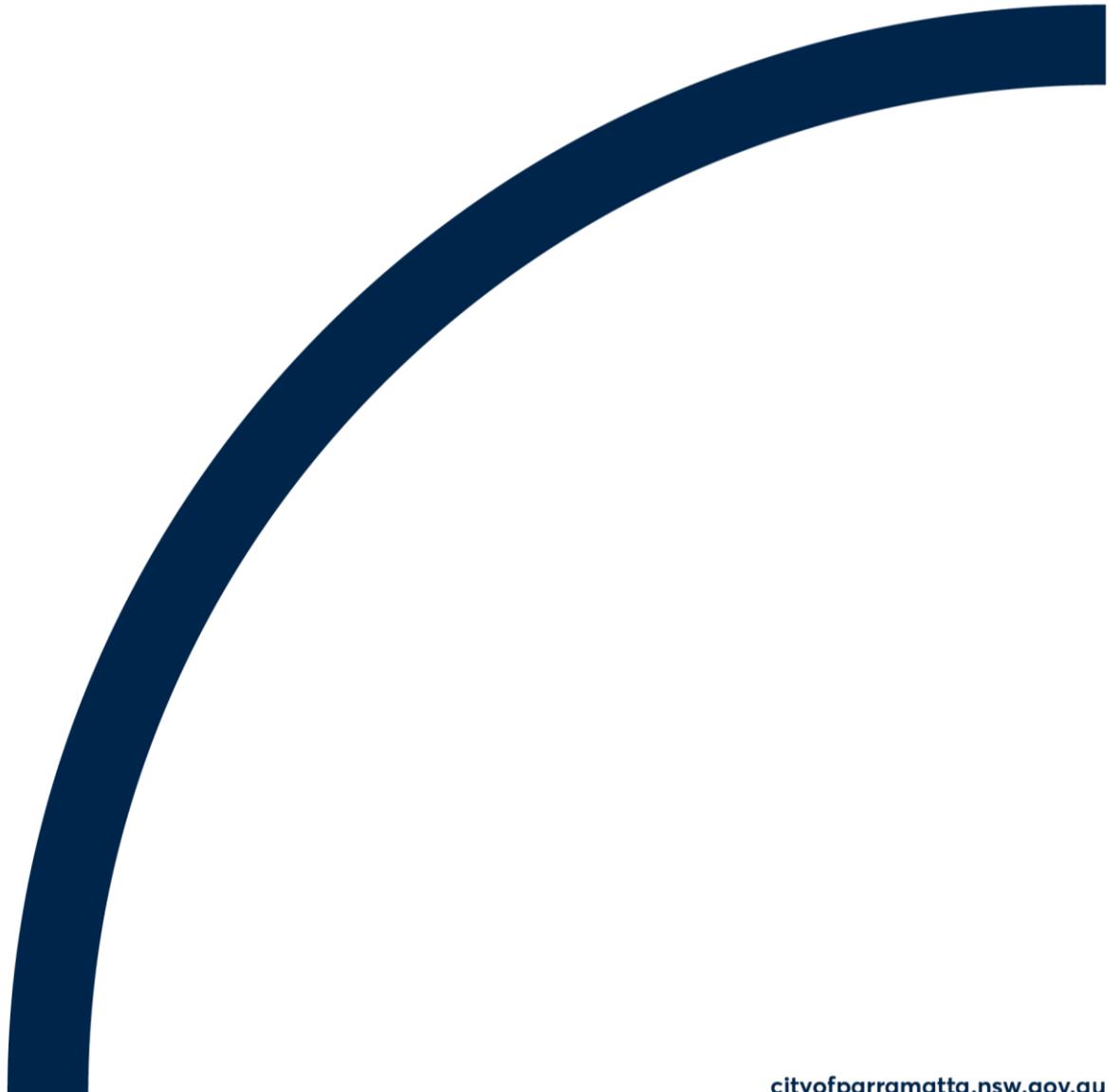


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	<i>The City of Parramatta Council acknowledges the Burramattagal people of The Darug Nation as the traditional owners of land in Parramatta and pays its respects to their ancient culture and to their elders, past, present and emerging.</i>	
2	WEBCASTING ANNOUNCEMENT	
	<i>This public meeting will be recorded. The recording will be archived and available on Council's website.</i>	
	<i>All care is taken to maintain your privacy; however if you are in attendance in the public gallery, you should be aware that your presence may be recorded.</i>	
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DEVELOPMENT APPLICATIONS

19 NOVEMBER 2024

5.1 Bennelong Parkway WENTWORTH POINT and SYDNEY OLYMPIC
PARK NSW 21276

5.2 85 Railway Street, PARRAMATTA NSW 2150 (Lot 126 DP
1301954)202

DEVELOPMENT APPLICATION

ITEM NUMBER	5.1
SUBJECT	Bennelong Parkway WENTWORTH POINT and SYDNEY OLYMPIC PARK NSW 2127
DESCRIPTION	Construction of a pedestrian/cycleway bridge over Haslams Creek, shared path at either end and construction of a raised pedestrian and cycle crossing across Bennelong Parkway. Removal of nine trees and one mangrove. The application is Nominated Integrated Development under s.219 of the Fisheries Management Act. This application is also designated development under s2.7(2) of the SEPP (Resilience and Hazards) 2021.
REFERENCE	DA/177/2024 - D09519023
APPLICANT/S	City of Parramatta Council
OWNERS	Sydney Olympic Park Authority, Transport for NSW (Maritime Services) and Community Association DP270161
REPORT OF	Group Manager Development and Traffic Services
RECOMMENDED	Approval

DATE OF REPORT 28 OCTOBER 2024

REASON FOR REFERRAL TO LPP

The application is made by City of Parramatta Council.

EXECUTIVE SUMMARY

This report considers a proposal for the construction of a new pedestrian and cycleway bridge over Haslams Creek at Sydney Olympic Park that will be parallel to Bennelong Parkway. The proposed development is declared Designated Development in accordance with Clause 2.7(2) of *State Environmental Planning Policy (Resilience and Hazards) 2021* as such an Environmental Impact Statement (EIS) has been prepared for the proposal and the assessment of the development application has followed specific procedural requirements set out in the *Environmental Planning and Assessment Act 1979* and Environmental Planning and Assessment Regulation 2021. The proposal is also integrated development as it requires a permit approval under the Fisheries Management Act 1994. An approval under the *Water Management Act 2000* is not required in this instance as the works are to be carried out by a public authority.

The site is located to the south of Wentworth Point in the vicinity of the Sydney Olympic Park parklands adjacent to Haslams Creek and Homebush Bay. The land has a long history of modification having been reclaimed wetlands and extensive industrial use until it was redeveloped for recreational uses prior to the 2000 Olympic Games.

The land affected by the proposal is zoned under the *State Environmental Planning Policy (Precincts-Central River City) 2021* and the proposal is permissible with development consent.

Council has consulted with DPI Fisheries, Sydney Olympic Park Authority (SOPA) and Ausgrid and their requirements have been incorporated into the proposal's design and

the recommended conditions of consent. Following the public exhibition of the application, no public submissions were received.

As indicated in the EIS and the supporting Biodiversity Development Assessment Report (BDAR), the proposal involves the clearing of a small area of native vegetation and as such, the provision of biodiversity offsets through the retirement of relevant biodiversity credits will be necessary.

Assessment of the application against the relevant planning framework and consideration of matters by Council's technical departments has not identified any fundamental issues of concern. The application is considered satisfactory when evaluated against Section 4.15 of the *Environmental Planning and Assessment Act 1979*.

It is considered that any potential adverse impacts of the proposed works can be avoided or mitigated by the imposition of conditions of development consent and the recommended mitigation measures identified in the EIS.

RECOMMENDATION

That the Parramatta Local Planning Panel, exercising the functions of Council, pursuant to Section 4.17 of the *Environmental Planning and Assessment Act 1979*, grant consent to DA/177/2024 for a period of five (5) years within which physical commencement is to occur from the date on the Notice of Determination, subject to conditions of consent, in **attachment 1**.

REASONS FOR APPROVAL

1. The development is permissible under Chapters 2 and 4 of *State Environmental Planning Policy (Precincts-Central River City) 2021*.
2. The development will be compatible with the future character of the area.
3. The development will provide public infrastructure that will improve the safety of active transport users around Sydney Olympic Park precinct.
4. The development will not have any adverse impacts to the natural or built environment or adjoining occupiers.
5. For the reasons given above, approval of the application is in the public interest.

Paul Sartor
Development Assessment Officer

ATTACHMENTS:

1		Assessment Report and Draft Conditions	44 Pages
2		Locality Map	1 Page
3		Plans used during assessment	41 Pages
4		Environmental Impact Statement	108 Pages

REFERENCE MATERIAL



City of Parramatta	
File No:	DA/177/2024

SECTION 4.15 ASSESSMENT REPORT
Environmental Planning & Assessment Act 1979

DA No:	DA/177/2024
Subject Property:	Bennelong Parkway, Wentworth Point and Sydney Olympic Park (Lot 1 DP 868282, Lot 1 DP 270161, Lot 71 DP 1191648 and CP SP 60027)
Proposal:	Construction of a pedestrian/cycleway bridge over Haslams Creek, shared path at either end and construction of a raised pedestrian and cycle crossing across Bennelong Parkway. Removal of nine trees and one mangrove. The application is Nominated Integrated Development under s.219 of the Fisheries Management Act. This application is also designated development under s2.7(2) of the SEPP (Resilience and Hazards) 2021.
Date of receipt:	14 February 2024
Applicant:	City of Parramatta
Owner:	Sydney Olympic Park Authority Transport for NSW (Maritime Services) Community Association DP270161
Property owned by a Council employee or Councillor:	The site is not known to be owned by a Council employee or Councillor
Political donations/gifts disclosed:	None disclosed on the application form
Submissions received:	Nil
Recommendation:	Approval subject to conditions
Assessment Officer:	Consultant Planner - Planning Ingenuity

Legislative Requirements

Relevant provisions considered under section 4.15(1)(a) of the Environmental Planning and Assessment Act 1979	<ul style="list-style-type: none"> • State Environmental Planning Policy (Biodiversity and Conservation) 2021 • State Environmental Planning Policy (Resilience and Hazards) 2021 • State Environmental Planning Policy (Transport and Infrastructure) 2021 • State Environmental Planning Policy (Precincts-Central River City) 2021 • Sydney Olympic Park Masterplan 2030
Zoning	C2 Environmental Conservation
Bushfire Prone Land	No
Heritage	No
Heritage Conservation Area	No
Designated Development	Yes
Integrated Development	Yes
Clause 4.6 variation	No
Delegation	Parramatta Local Planning Panel (PLPP) due to the proposal being a Council development.

1. Executive Summary

Section 4.15 Assessment Summary

This report considers a proposal for the construction of a new pedestrian and cycleway bridge over Haslams Creek at Sydney Olympic Park that will be parallel to Bennelong Parkway. The proposed development is declared Designated Development in accordance with Clause 2.7(2) of State Environmental Planning Policy (Resilience and Hazards) 2021 as such an Environmental Impact Statement (EIS) has been prepared for the proposal and the assessment of the development application has followed specific procedural requirements set out in the *Environmental Planning and Assessment Act 1979* and *Environmental Planning and Assessment Regulation 2021*. The proposal is also integrated development as it requires a permit approval under the Fisheries Management Act 1994. An approval under the Water Management Act 2000 is not required in this instance as the works are to be carried out by a public authority.

The site is located to the south of Wentworth Point in the vicinity of the Sydney Olympic Park parklands adjacent to Haslams Creek and Homebush Bay. The land has a long history of modification having been reclaimed wetlands and extensive industrial use until it was redeveloped for recreational uses prior to the 2000 Olympic Games.

The land affected by the proposal is zoned under the State Environmental Planning Policy (Precincts-Central River City) 2021 and the proposal is permissible with development consent.

Council has consulted with DPI Fisheries, Sydney Olympic Park Authority (SOPA) and Ausgrid and their requirements have been incorporated into the proposal's design and the recommended conditions of consent. Following the public exhibition of the application, no public submissions were received.

As indicated in the EIS and the supporting Biodiversity Development Assessment Report (BDAR), the proposal involves the clearing of a small area of native vegetation and as such, the provision of biodiversity offsets through the retirement of relevant biodiversity credits will be necessary.

Assessment of the application against the relevant planning framework and consideration of matters by Council's technical departments has not identified any fundamental issues of concern. The application is considered satisfactory when evaluated against Section 4.15 of the *Environmental Planning and Assessment Act 1979*.

It is considered that any potential adverse impacts of the proposed works can be avoided or mitigated by the imposition of conditions of development consent and the recommended mitigation measures identified in the EIS.

This report recommends that the Local Planning Panel approve the application, subject to conditions of consent.

2. Site Description and Conditions

The subject site is adjacent to Bennelong Parkway at Sydney Olympic Park in the vicinity of Haslams Creek. The site is located between Sydney Olympic Park and Wentworth Point in the City of Parramatta local government area (LGA).

The Site is comprised of land collectively identified as Lot 1 DP 270161, Lot 1 DP 868282, SP60027 and Lot 71 DP 1191648.

The site is located adjacent to the mouth of Haslams Creek where it enters Homebush Bay and adjacent to a medium density residential development.

To clarify the location of the development site, refer to the aerial image and photographs in **Figures 1 - 10** below.



Figure 1: Aerial view of the subject site and surrounds. Subject site outlined in red. Source: Nearmap: July 2024.



Figure 2: Subject site as viewed from eastern side of Haslams Creek. Source: Site Inspection.



Figure 3: Subject site as viewed from eastern side of Haslams Creek. Source: Site Inspection.



Figure 4: Subject site viewed from western side of Haslams Creek. Source: Site Inspection.



Figure 5: Existing mangrove vegetation located to the north of existing road bridge. Source: Site Inspection.



Figure 6: Subject site viewed from western side of Haslams Creek. Source: Site Inspection.



Figure 7: Subject site viewed from southern side of Bennelong Parkway. Source Site Inspection.



Figure 8: Subject site viewed from existing pedestrian path to the east of Haslams Creek. Source: Site Inspection.



Figure 9: Pedestrian and bicycle crossing on Bennelong Parkway. Source: Site Inspection.



Figure 10: Existing shared pedestrian and bicycle lane on Bennelong Parkway bridge. Source: Site Inspection.

3. Relevant Site History

Since the 1930s, the character of the site and its surroundings have gradually transitioned from industrial land uses to the current residential and recreational open space land uses. Historical maps from as early as 1930 indicate that the site comprised predominantly of the Haslams Creek waterway and a portion of the south embankment.

The aerial images showed a brickworks and quarrying activity and associated infrastructure being carried out in the vicinity of the site until approximately 1982. Extensive ground disturbance and potential fill with warehouse buildings commenced around the site in the 1970s and continued until the end of the 20th century when it was transitioned to residential land uses coinciding with the Olympic Games in September 2000.

There have been no significant changes to the site within the past 25 years.

4. The Proposal

Development Application DA/177/2024 was lodged on 25 March 2024 for the development of the Bennelong Parkway Pedestrian and Cycleway Bridge. Specifically, the application seeks approval for:

- Construction of a new single span pedestrian and cycle bridge (approximately 52m in length), located to the immediate northeast of the existing Bennelong Parkway bridge. The bridge will provide for a new 5.0m wide shared user path.

- Removal of trees and mangrove to facilitate tie in to the existing Parklands Circuit shared user path south of the proposed bridge and to Bennelong Parkway north of the proposed bridge.
- Provision of new shared path tie-ins to the existing Bennelong Parkway road kerb north of the proposed bridge, and Parklands Circuit shared user path to the south of the proposed bridge.
- Construction of a 6.1m wide raised pedestrian and cycle crossing on Bennelong Parkway to the south of the existing bridge, including new pathway and bridge lighting.

Two temporary construction compounds will be erected on each side of Haslams Creek prior to and during the construction of the project. Both of these areas will be rehabilitated following completion of the project's construction phase.

Any utility infrastructure in the vicinity of the site will be protected and/or relocated to avoid disruption to services.

The proposal has a Estimated Development Cost of approximately \$4.6 million. Construction of the project is expected to commence in June 2025.

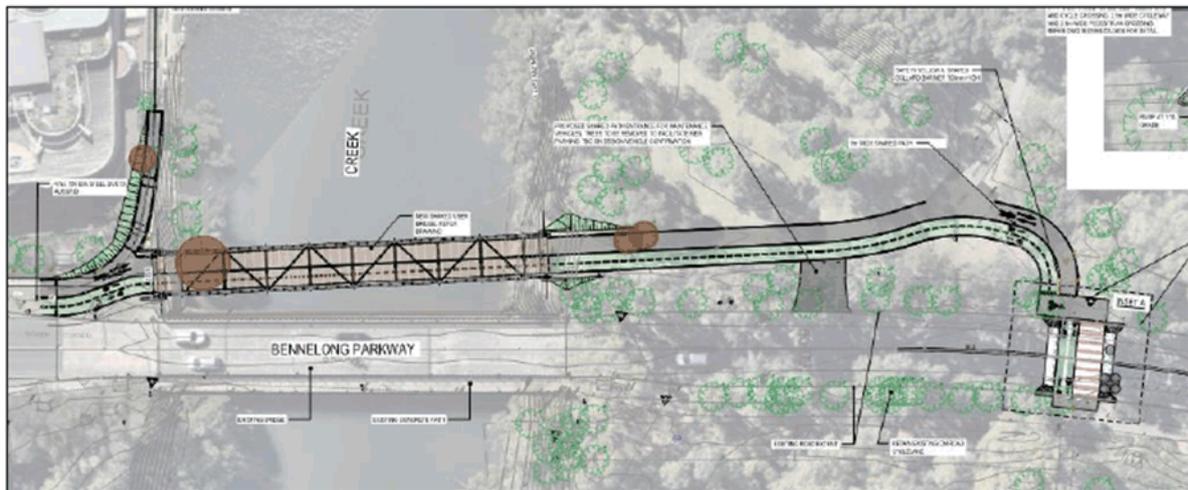


Figure 11: Site Plan. Source: BECA

5. Relevant Application History	
Date	Comment
25 March 2024	Development Application was accepted for lodgement by City of Parramatta Council.
3 April 2024	Application began public notification period (30 days) in accordance with Appendix 1 of Consolidated Notification Requirements of the City of Parramatta Community Engagement Strategy.
18 June 2024	Council issued a Request for Additional Information to the applicant to submit additional details regarding the proposal.
21 August 2024	Additional information received by Council responding to Request for Additional Information letter.

6. Referrals

6.1 Internal / External Referrals

The following section outlines the response and conditions recommended from each of the internal and external referrals in relation to the subject application.

6.1.1 External Referrals

Referral	Comment
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DPI Fisheries	<p>DPI Fisheries has reviewed the proposal and has no objections, subject to the proponent meeting the General Terms of Approval (GTAs) that follow. As per section 4.47(3) of the Environmental Planning and Assessment Act 1979, any consent issued by Council must be consistent with these GTAs.</p> <ol style="list-style-type: none"> (1) The proponent must apply for and obtain a Part 7 permit for dredging and reclamation and harm marine vegetation under the FM Act from DPI Fisheries prior to any works on site. Permit application forms are available from the DPI Fisheries website. (2) The proponent has not proposed any FM offsets. On-ground habitat rehabilitation is preferred and must be demonstrated as a part of the Part 7 permit application process through the development of a key fish habitat compensation strategy by a suitably qualified ecologist. Please note that compensation for disturbance to SEPP Coastal Wetlands is a calculation at a 10:1 ratio. (3) The habitat compensation strategy must be developed by the proponent in consultation with DPI Fisheries and approved by DPI Fisheries prior to a permit being issued. Council may also wish to collaborate with the Sydney Olympic Park Authority to develop and implement their habitat compensation strategy. (4) Environmental safeguards (silt curtains, booms, etc) are to be used during construction to ensure that there is no escape of turbid plumes into the aquatic environment. Turbid plumes have the potential to smother aquatic vegetation and have a deleterious effect on benthic organisms. <p>DPI Fisheries was advised of the response to the RFI letter and on 9 September 2024, DPI Fisheries informed Council that that amendments to the proposal do not affect the advice previously issued.</p> <p>The DPI Fisheries referral is addressed in the recommended conditions.</p>
Sydney Olympic Park Authority (SOPA)	<p>The Authority supports the proposal and provides the following comments:</p> <p><u>Lighting</u></p> <p>SOPA raised concerns regarding the feature lighting and its potential impact on ecologically sensitive areas with and around Haslams Creek. The application has been amended to remove the feature lighting and the remaining directional lights have been conditioned to not cause light spill into ecologically sensitive areas and be designed and operate in accordance with AS4282-1997 control of obtrusive effects of outdoor lighting. Detailed light plans have been provided at their request.</p> <p>The Authority requests compliant lighting and the light is to be LED, fed from Council's electrical network and luminaires must be designed to minimise the light spill into ecologically sensitive areas.</p> <p><u>Impact on Mangroves</u></p> <p>A permit under section 219 of the Fisheries Management Act 1994 will be required prior to the removal of any mangrove/s.</p> <p><u>Detailed Site Investigation (Land Contamination)</u></p> <p>Should the development application be approved, the Authority requests conditions requiring:</p> <ol style="list-style-type: none"> (1) A Construction Environmental Management Plan to include appropriate measures for managing leachates, if encountered, and any leachate must not be dewatered to the receiving environment or stormwater system. Leachate must be contained, extracted and tankered to a facility that can lawfully receive that waste. (2) All spoil to be disposed off-site must be classified in accordance with the NSW EPA Waste Classification Guidelines and disposed of at a facility that can lawfully receive that waste, Copies of Waste Classification Report and waste disposal dockets should be retained and provided to the Authority or the NSW EPA if requested. <p>The matters raised by SOPA were addressed by the Applicant in the response to the RFI. On 5 September 2024, SOPA indicated to Council that it was satisfied with the changes made to the proposal and had no further comments.</p>

6.1.2 Internal Referrals

Traffic Engineer	The DA is supported on traffic grounds subject to the following condition being included: <i>Prior to Works Commencing On-site</i> <i>Detailed engineering plans of the proposed shared/separated cycleway and the combined raised pedestrian and cyclist crossing is to be submitted to Council's Traffic and Transport Manager for consideration by the Parramatta Traffic Committee and approval by Council.</i> <i>Reason: To ensure maintenance of traffic flow and safety on the surrounding road network.</i>
Landscape	The DA is supported, subject to conditions of consent relating to tree protection and provision of replacement planting.
Assets	The DA is supported, subject to conditions of consent relating to future ownership of assets, structural certification of the bridge and a regime of construction inspections.
Natural Areas	The DA is supported, subject to conditions of consent relating to biodiversity issues.
Public Domain	The DA is supported, subject to conditions of consent relating to trees, batters and the installation of lighting.

PLANNING ASSESSMENT**7. Environmental Planning Instruments**

7.1 Overview

The instruments applicable to this application are:

- State Environmental Planning Policy (Biodiversity and Conservation) 2021
- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Transport and Infrastructure) 2021
- State Environmental Planning Policy (Precincts-Central River City) 2021
- Sydney Olympic Park Masterplan 2030

Compliance with these instruments is addressed below.

7.2 STATE ENVIRONMENTAL PLANNING POLICY (BIODIVERSITY AND CONSERVATION) 2021Chapter 2 Vegetation in non-rural areas

The application has been assessed against the requirements of State Environmental Planning Policy (Biodiversity and Conservation) 2021. The Policy seeks to protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and to preserve the amenity of the non-rural areas of the State through the preservation of trees and other vegetation.

The Aboriginal Impact Assessment (AIA) report surveyed forty (40) trees in the vicinity of the proposed pathway and bridge. The trees consist of a mix of endemic trees including *Avicennia marina subsp. australasica*, *Casurina glauca*, *Melaleuca quinquenervia*, *Eucalyptus robusta*, *Cupaniopsis anacardioides* and *Eucalyptus tereticornis*. This is in addition to a further sixty (60) trees standing along Bennelong Parkway roadway that were not surveyed.

A total of ten (10) trees will need to be removed for the proposed development as they are located within the footprint of the proposed works. The AIA report identifies these trees as numbers 8, 9, 11, 15, 25, 26, 28, 29, 30 and 35.

A Permit application under the *Fisheries Management Act 1994* will be required prior to the removal of Tree 30, being a mangrove (*Avicennia marina subsp. Australasica*).

The report indicates that a total of thirty (30) trees will be retained on site in addition to the existing forty (40) trees adjacent to the roadway which will be protected with the implementation of the proposed tree protection measures.

It is considered that the removal of the ten (10) trees on the site will not have an adverse impact of the ecological, heritage, aesthetic and cultural significance of the area. The proposed replacement planting will ensure that the development will not result in an unacceptable loss of environmental or amenity values.

The DA will be required to provide for appropriate biodiversity offsets which is addressed in the conditions of consent.

Chapter 6 – Water Catchments

The site, being located on land that is immediately adjacent to Haslams Creek, is located within the Sydney Harbour catchment.

Given the nature of the project and the location of the site, there are no specific controls that directly apply to this proposal. Nevertheless, the proposal is capable of providing an acceptable impact on the waterway (in terms of erosion control, etc) through the imposition of conditions of consent.

7.5 STATE ENVIRONMENTAL PLANNING POLICY (RESILIENCE AND HAZARDS) 2021

Chapter 2 Coastal Management

The site is located within an area mapped as Coastal Wetlands under Chapter 2 of the State Environmental Planning Policy (Resilience and Hazards) 2021.

Clause 2.7 of the Policy applies to the proposed development and has declared the proposal to be designated development. The clause requires the consent authority to be satisfied that sufficient measures have been, or will be, taken to protect, and where possible enhance, the biophysical and ecological integrity of the coastal wetland.

The EIS indicates that measures will be put in place to protect and enhance the biophysical and ecological integrity of the wetland including:

- The proposal will have minimal impact on terrestrial biodiversity and in fact will remove one exotic shrub and 0.2ha of exotic groundcovers,
- Apart from the loss of 0.08 hectares of mangrove and swamp oak vegetation, the site does not contain any other significant habitat features like hollow-bearing trees, nests or burrows, and
- Acceptable measures to address impacts to the wetland environment are detailed in section 7.2.4 of the EIS.

Clause 2.10 applies to the land within the coastal environment area and as such applies to the proposed development. The clause requires consideration of certain matters regarding the development's impacts upon the coastal environment. The matters generally relate to the integrity and resilience of the biophysical, hydrological and ecological environment, water quality of the marine estate, marine vegetation, native vegetation and fauna and their habitats, existing public open space and Aboriginal cultural heritage.

The EIS indicates the proposal will provide an acceptable outcome in terms of these matters for the following reasons:

- The proposed development is expected to have minimal direct impact on terrestrial biodiversity,
- Despite the potential impacts a range of measures are proposed to manage biodiversity impacts associated with the project, including the preparation of a CEMP, an Erosion and Sediment Control Plan and an Emergency Spill Response Plan,
- The loss of existing native vegetation will be offset in accordance with the Biodiversity Development Assessment Report (BDAR) provided with the application,
- Acceptable management measures to address biodiversity impacts are detailed in section 7.2.4 of the EIS,
- Acceptable management measures to address arboriculture impacts are detailed in section 7.3.2 of the EIS,
- Acceptable management measures to address soil and water impacts are detailed in section 7.12.4 of the EIS,
- Acceptable management measures to address contamination impacts are detailed in section 7.4.5 of the EIS, and
- Acceptable management measures to address Aboriginal cultural heritage impacts are detailed in section 7.9.2 of the EIS.

Clause 2.12 applies to all land within the coastal zone. The clause requires the consent authority to consider and be satisfied that the proposed development is not likely to cause increased risk of coastal hazards.

The EIS indicates the proposal will provide an acceptable outcome in terms of these matters for the following reasons:

- The bridge soffit level (2.9m AHD) has been positioned to be future proofed for sea level rise to the year 2100. Specifically, the bridge soffit level provides 500mm freeboard to a year 2100 Sea Level Rise 1% tidal inundation event, which includes a 0.9m of climate change level increase.

- The design of the proposal will not contribute to any increased risk of coastal hazards noting the site is more than 20km from the coastline and near the upper limits of the tidal zone.

Overall it is considered that appropriate measures can be employed to protect the integrity of the coastal wetland during and post construction.

Chapter 4 Remediation of Land

The requirements of State Environmental Planning Policy (Resilience and Hazards) 2021 apply to the subject site. In accordance with Chapter 4 of the SEPP, Council must consider if the land is contaminated, if it is contaminated, is it suitable for the proposed use and if it is not suitable, can it be remediated to a standard such that it will be made suitable for the proposed use.

The site of the proposed works and the adjacent area have a long history of activity that suggest it is contaminated, including the placement of fill material.

As such, the DA is supported by a Preliminary Site Investigation (PSI) prepared by *Nation Partners* (2023) which states:

“Historical records indicate that the site’s north and south sections have been used for industrial purposes and associated activities since the 1930s and Haslams Creek crosses the centre of the site.

Current site activities and conditions indicate the presence of a large apartment building to the north and an open space area to the south. Haslams Creek continues to cross the site in the centre portion.

A review of existing environmental settings and previous reports indicates that there is a high potential for acid sulfate soils to be encountered Groundwater is potentially encountered at 2.5mbgl and is likely hydraulically connected to Haslams Creek and Parramatta River.

The desktop assessment and site walkover observations indicate the presence of several potential contamination sources associated with historical activities, including:

- *Former brickworks and quarrying activities (onsite and offsite),*
- *Former VIVA Energy petroleum operations (onsite and offsite),*
- *Herbicides used for vegetation management and weed control (onsite and offsite),*
- *Former landfill activities (onsite and offsite),*
- *Unknown filling used for land reclamation (onsite and offsite).*

Previous soil samples collected offsite immediately to the west by Douglas Partners (2004) recorded concentrations of heavy metals, benzo(a)pyrene and total recoverable hydrocarbons (TRH) and potential acid sulfate soils (PASS) in surface soils and sediments. These results were compared against the NSW EPA Environmental Guidelines: Assessment Classification and Management of Liquid and Non-Liquid Wastes and the results indicated the classification of the targeted material as industrial waste. The NEPM (2013) health investigation levels for benzo(a)pyrene and lead indicated that results obtained from Douglas Partners investigation exceeded the human health accepted limits for recreational land use.

The potential for contamination associated with subsurface (below 4.0 metres) soils (including fill material) has not been investigated.

No surface water or groundwater contamination data is available across the site.

Based on the outcomes of the PSI, it is concluded that a range of sources and historical activities may have resulted in contamination on the site. However, there is insufficient data to assess the presence and extent of the contamination. Therefore, intrusive investigations are recommended in the form of a detailed site investigation.

The applicant provided a Detailed Site Investigation (DSI) and Sampling Analysis and Quality Plan (SAQP) prepared by *Nation Partners* (2023) in response to the RFI. The updated EIS report identifies no acid Sulfate Soils were identified to the depths tested and there is likely to be disturbance of potential contaminants during construction. The updated EIS identifies that the proposal does not change the sensitivity of the land use and remediation of the site is therefore not required. The updated EIS identifies that a Construction Environmental Management Plan (CEMP) must be prepared with the Construction Certificate. The CEMP must include an Acid Sulfate Soils Management Plan and protocols for classification of wastes to ensure that the works are conducted in a manner which can protect the health of humans and the environment. Specific conditions have been recommended to address these issues in order that the proposal can be undertaken in accordance with Clause 4.6 of the State Environmental Planning Policy (Resilience and Hazards) 2021.

Subject to the implementation of these management measures before, during and post construction the site is capable of being made suitable for the development. Standard and special conditions relating asbestos, and contamination have been recommended to ensure this.

7.5 STATE ENVIRONMENTAL PLANNING POLICY (TRANSPORT AND INFRASTRUCTURE) 2021

Chapter 2 Infrastructure

The relevant matters to be considered under Chapter 2 of the SEPP for the proposed development are outlined below:

Clause 2.48 Development likely to affect an electricity transmission or distribution network

This DA includes works involving the penetration of the ground within 2 metres of an underground electricity powerline. As such the consent authority is required to give notice of the development to Ausgrid (being the relevant electricity supply authority for the area).

Following enquiries made with Ausgrid, it is proposed that standard conditions of consent be imposed to ensure that adequate measures are put in place to protect Ausgrid’s underground assets.

Clause 2.77 Development adjacent to pipeline corridors

This application is for development of land that is adjacent to a pipeline corridor. The consent authority is required to give written notice of the application to the pipeline operator concerned within 7 days of the application being made and take into consideration any response to the notice received within 21 days after the notice is given. It has been confirmed that the site is not within a pipeline corridor and does not need to be referred.

7.6 STATE ENVIRONMENTAL PLANNING POLICY (PRECINCTS-CENTRAL RIVER CITY) 2021

Chapter 2 State Significant Precincts (Sydney Olympic Park)

Clause 2.7 of the SEPP states:

“Each Appendix made under this Chapter describes a State significant precinct. The provisions in an Appendix made under this Chapter relating to the carrying out of development on a State significant precinct have effect”.

Appendix 4 State significant precinct -Sydney Olympic Park

The relevant matters to be considered under Appendix 4 of the SEPP for the proposed development are outlined below.

The southern part of the site is within Zone E2 Environmental Conservation.

The objectives of Zone E2 Environmental Conservation are:

- (a) To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values,
- (b) To prevent development that could destroy, damage or otherwise have an adverse effect on those values.

The land use table for the zone is provided below:

(2) Development permitted without development consent	(3) Development permitted only with development consent	(4) Prohibited development
Nil	Environmental facilities; environmental protection works; filming	Business premises; hotel or motel accommodation; industries; multi dwelling housing; recreation facilities (major); residential flat buildings; retail premises; service stations; warehouse or distribution centres; any other development not specified in subsection (2) or (3).

Although the proposed development is not identified as a permitted use above, Clause 17(1) of the Appendix provides:

“This Appendix does not restrict or prohibit, or enable the restriction or prohibition of, the carrying out of any development that is permitted to be carried out with or without consent or that is exempt development under State Environmental Planning Policy (Infrastructure) 2007”.

As the proposed development is for the purpose of road infrastructure facilities, which are permitted without consent pursuant to clause 2.109 of the SEPP (Transport and Infrastructure) 2021, the proposed development is not prohibited under clause 13(4).

As the northern part of the site and the waterway is a deferred matter under Chapter 2, the provisions of Chapter 4 continue to apply.

Chapter 4 Homebush Bay Area

Chapter 4 maintains the provisions of the now repealed *Sydney Regional Plan No 24 – Homebush Bay Area* (SREP 24) that applied to land within Olympic Park and surrounding areas.

The relevant matters to be considered under Chapter 4 of the SEPP for the proposed development are outlined below.

Clause	Comment
Clause 4.9 – Permissible uses	The proposed development is acceptable having regard to the land uses identified in this clause and the planning objectives listed in clause 4.10.
Clause 4.10 – Planning Objectives	The proposed development is acceptable having regard to the planning objectives identified in the clause including to permit a range of ancillary development and land uses (roads, parking areas, public transport, utility services, drainage works, land filling, earthworks, clearing, site rehabilitation and dredging works).
Clause 4.11 – Matters for consideration in determining development applications	The proposed development having regard to its design and location does not conflict with the matters for consideration under this clause.
Clause 4.18 – Floodprone land	The proposed development has been designed to ensure that the bridge and adjacent pedestrian pathway will not be impacted by flooding up to the PMF and the proposed development will not have any adverse flood impacts on adjoining properties.
Clause 4.19 - Contaminated land	The development application is supported by a PSI and DSI that confirm adequate steps will be taken to avoid harm to the environment and human health from existing contamination at the site. No remediation of the site is required.
Clause 4.20 - Acid Sulfate Soils	<p>The proposed development will be implemented having regard to the presence of Potential Acid Sulfate Soils (PASS) on the site and appropriate measures will be put in place during the construction of the development to avoid adverse impacts.</p> <p>It is noted on page 33 of the EIS that the BDAR has recommended an Acid Sulfate Soil Management Plan be prepared as part of the CEMP. Sampling as part of the DSI did not find any PASS. Some PASS may be encountered with excavation into deeper natural soils. The DSI has found this work has the potential to generate only a small volume of PASS and the potential risk for human health and the environment is low. Therefore, the recommendation for a ASSMP as part of the CEMP has been substituted for a requirement that if natural soils are encountered during construction, these must be treated as PASS until analysed and classified in accordance with the EPA guidelines.</p>
Clause 4.22 – Development in environmental conservation areas	<p>The consent authority must be satisfied that that the development will not significantly reduce the ecological value of the environmental conservation area. The proposal provides for an acceptable environmental outcome noting that the development provides for biodiversity offsets in respect of the minor loss of wetland vegetation.</p> <p>A condition has been recommended that the bridge lighting design complies with AS4282-1997 control of obtrusive effects of outdoor lighting and does not cause the light spill into ecologically sensitive areas.</p>

8. Parramatta Local Environmental Plan 2023

The Land Application Map for Parramatta Local Environmental Plan 2023 indicates the subject site is not subject to the provisions of this instrument. Accordingly, the LEP is not applicable to the site or the proposal.

9. Draft Environmental Planning Instruments

There are no draft environmental instruments applying to the site.

10. Homebush Bay Waterfront DCP 1999

The Homebush Bay Waterfront DCP applies to land to the north of Haslams Creek (specifically the Mariners Cove development at Nos. 27-29 Bennelong Parkway). This DCP supported the former Sydney Region Environmental Plan No 24 Homebush Bay Area.

There are no specific controls relevant to the proposed development. However, in section 2.6, the DCP requires public open spaces to “provide opportunities for a range of recreational corridors and community paths, and attractive urban environmental settings and focal points” in addition to “public open spaces being integrated into pedestrian and cycle movement systems”.

As such, the proposed development is considered to demonstrate consistency with the relevant DCP objectives and performance criteria.

10. Sydney Olympic Park Masterplan 2030

The Sydney Olympic Park Masterplan applies to the southern portion of site below Haslams Creek.

There are no specific controls that apply to this site that would affect this development beyond the requirement for cycleways in this area. This DA maintains that requirement. Further, as per 3.7.4 of the masterplan, the objectives relevant to pedestrian and bicycle access objectives are maintained in particular;

- (1) designing pleasant, safe and connected local streets to encourage walking and cycling, including intersections that facilitate pedestrian use
- (2) providing an enhanced bicycle network, including new routes; improved connections to existing routes; and better end of trip facilities for cyclists, including commuter bicycle parking
- (3) providing a safe and connected shared pathway network in the parklands for health and fitness, and recreational needs
- (4) ensuring key places are linked by direct bicycle and walking paths

The proposed development is considered to be consistent with overall vision and objects of the Masterplan.

11. Development Contributions

The proposed development is not subject to imposition of any requirement to pay development contributions.

12. Bonds

In accordance with Council’s Schedule of Fees and Charges, the developer will be obliged to pay Security Bonds to ensure the protection of civil infrastructure located in the public domain adjacent to the site. A standard condition of consent has been imposed requiring the Security Bond to be paid prior to the issue of a Construction Certificate.

13. EP&A Regulation 2021

Applicable Regulation considerations including demolition, fire safety, fire upgrades, compliance with the Building Code of Australia, PCA appointment, notice of commencement of works, sign on work sites, critical stage inspections and records of inspection have been addressed by appropriate consent conditions, refer to Appendix 1.

It is considered the DA satisfies the relevant requirements for applications generally, and specifically Designated Development, namely the following provisions:

- Clause 24 – Content of development applications.
- Clause 25 – Information about concurrence or approvals.
- Clause 28 – Development applications relating to Biodiversity Conservation Act 2016.
- Clause 30B – Council-related development applications.
- Clause 56 – Notice of development applications.
- Clause 58 – Exhibition of notice of designated development application.
- Clause 60 – Submissions about designated development to be given to Planning Secretary.

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14. The likely impacts of the development

The assessment demonstrates that the proposal will not have any significant adverse impacts upon any adjoining properties or the environment through compliance with the applicable planning instruments and controls and compliance with the recommended conditions of consent. All relevant issues regarding environmental impacts of the development are discussed in this report, including natural impacts such as tree removal, construction site management and excavation, and built environment impacts such as traffic and built form. In the context of the site and the assessments provided by Council's experts, the development is considered satisfactory in terms of environmental impacts.

15. Suitability of the Site

The subject site is capable of accommodating the proposed pedestrian and bicycle bridge and shared path to connect with nearby active transport networks.

Suitable investigations and documentation have been provided to demonstrate that the site can be made suitable for the proposed development and the development is consistent with the land use planning framework for the locality.

No natural hazards or site constraints exist that are likely to have an unacceptably adverse impact on the proposed development.

Subject to the conditions provided within the recommendation to this report, the site is considered to be suitable for the proposed development.

16. Public Consultation

In accordance with the Consolidated Notification Requirements within Appendix 1 of the Parramatta Community Engagement Strategy, the development application was exhibited, including the placement of a notice on the site, for a period not less than twenty-eight (28) days.

No public submissions were received.

17. Public interest

Subject to implementation of conditions of consent outlined in the recommendation below, no circumstances have been identified to indicate this proposal would be contrary to the public interest. Provision of the bridge would increase public amenity and safety.

18. Conclusion

The application has been assessed relative to section 4.15 of the Environmental Planning and Assessment Act 1979, taking into consideration all relevant state and local planning controls.

The proposed development is appropriately located in respect to the Bennelong Parkway roadway and Haslams Creek waterway. The new infrastructure will provide for a significant improvement in road user safety in the location.

Having regard to the assessment of the proposal from a merit perspective, the independent planners and Council experts are satisfied that the development has been appropriately designed and will provide a positive outcome for the community. It is considered that the proposal will provide sufficient mitigation measures to avoid adverse environmental impacts and impacts on the amenity of neighbouring properties. On balance, the proposal has demonstrated a satisfactory response to the objectives and controls of the applicable planning framework.

For these reasons, it is considered that the proposal is satisfactory having regard to the matters of consideration under Section 4.15 of the Environmental Planning and Assessment Act, 1979 and is recommended for approval subject to conditions.

19. Recommendation

Pursuant to Section 4.16 of the Environmental Planning and Assessment Act, 1979:

That the Parramatta Local Planning Panel, exercising the functions of Council, pursuant to Section 4.17 of the Environmental Planning and Assessment Act 1979, grant consent to DA/177/2024 for a period of five (5) years within which physical commencement is to occur from the date on the Notice of Determination, subject to conditions of consent, for the following reasons:

- a. The development is permissible under Chapters 2 and 4 of State Environmental Planning Policy (Precincts-Central River City) 2021.
- b. The development will be compatible with the future character of the area.
- c. The development will provide public infrastructure that will improve the safety of active transport users around Sydney Olympic Park precinct.
- d. The development will not have any adverse impacts to the natural or built environment or adjoining occupiers.
- e. For the reasons given above, approval of the application is in the public interest.

20. Draft Conditions of consent

General Conditions

1 Approved Plans & Supporting Documents			
Development must be carried out in accordance with the following approved plans and supporting documentation (stamped by Council), except where the conditions of this consent expressly require otherwise:			
<u>Detailed Design Plans</u>			
Drawing No.	Issue	Plan Title	Dated
3497658-GN-0001	E	Cover sheet and drawing index	08/12/2023
3497658-GN-0002	E	3D visualisation	08/12/2023
3497658-GN-0010	C	General notes - sheet 1	08/12/2023
3497658-GN-0011	C	General notes - sheet 2	08/12/2023
3497658-GN-0011	C	General notes - sheet 3	08/12/2023
3497658-SE-1001	C	General arrangement plan	08/12/2023
3497658-SE-1002	E	General arrangement elevation	08/12/2023
3497658-SE-1003	E	General arrangement typical sections	08/12/2023
3497658-SE-1010	C	Piles plan and setout	08/12/2023
3497658-SE-1025	C	Piles reinforcement details	08/12/2023
3497658-SE-1030	C	East abutment concrete details	08/12/2023
3497658-SE-1031	C	West abutment concrete details	08/12/2023
3497658-SE-1035	B	Abutments reinforcement details sheet 1	08/12/2023
3497658-SE-1036	B	Abutments reinforcement details sheet 2	08/12/2023
3497658-SE-2001	C	Truss steelwork plan and elevation	08/12/2023
3497658-SE-2003	B	Steelwork setout	08/12/2023
3497658-SE-2010	C	Steelwork typical details sheet 1	08/12/2023
3497658-SE-2011	B	Steelwork typical details sheet 2	08/12/2023
3497658-SE-2012	B	Steelwork typical details sheet 3	08/12/2023
3497658-SE-2015	B	Steelwork splice details sheet 1	08/12/2023
3497658-SE-2016	B	Steelwork splice details sheet 2	08/12/2023
3497658-SE-2030	C	Construction sequence	08/12/2023
3497658-SE-2031	B	Construction plan	08/12/2023
3497658-SE-2040	B	Handrail details sheet 1	08/12/2023
3497658-SE-2041	B	Handrail details sheet 2	08/12/2023
3497658-SE-3020	B	Lighting details	08/12/2023

3497658-SE-3030	B	Miscellaneous details	08/12/2023
3497658-SE-3040	B	Bearings and expansion joint details	08/12/2023
3497658-CA-0002	C	Site plan layout	02/08/2024
3497658-CA-0003	B	Signage and line marking plan	08/12/2023
3497658-CA-0004	B	Raised threshold crossing detail	08/12/2023
3497658-CA-0005	A	Chainage and setout plan	02/08/2024
3497658-CA-0006	A	Long sections	02/08/2024

Lighting/Electrical Plan

Drawing No.	Issue	Plan Title
18414.01	0	General notes and legend
18414.02	0	Public lighting plan sheet 1
18414.03	0	Public lighting plan sheet 2
18414.11	0	Bridge lighting and conduit details

Landscape Plans

Drawing No.	Issue	Plan Title
SK-2306-01	D	Landscape context plan
SK-2306-02	D	Landscape site analysis - constraints
SK-2306-03	D	Landscape site analysis - opportunities
SK-2306-04	E	Landscape context plan

Specialist Reports

Document	Reference No.	Issue	Prepared By	Dated
Environmental Impact Statement	N/A	E	BECA	24 July 2024
Biodiversity Development Assessment Report	23053/R01	4	Umwelt	12/02/2024
Arboricultural Impact Assessment Report	ARB-2306-01	C	Sturt Noble	28/11/2023
Detailed Site Investigation	-	1.0	Nation Partners	21/07/2023
Built Environment Indicators Movement and Place Assessment Tool	-	-	BECA	22/07/2023
Aboriginal Heritage - Due Diligence Report	23-0089	2	GML Heritage	07/07/2023
Flood Impact Assessment	-	.01	Royal Haskoning	22/11/2023

Note: In the event of any inconsistency between the approved plans and/or the civil drawings and/or landscape plans and/or supporting documentation, the approved plans prevail.

	<p>In the event of any inconsistency between the approved plans and a condition of consent, the condition prevails.</p> <p>An inconsistency occurs between an approved plan and supporting documentation or between an approved plan and a condition when it is not possible to comply with both at the relevant time.</p> <p>Condition reason: To ensure the work is carried out in accordance with the approved plans.</p>
2	<p>Construction Certificate</p> <p>Prior to commencement of any construction works associated with the approved development (including excavation if applicable), it is mandatory to obtain a Construction Certificate. Plans, specifications and relevant documentation accompanying the Construction Certificate must include any requirements imposed by conditions of this Development Consent.</p> <p>Condition reason: To ensure compliance with legislative requirements.</p>
3	<p>Remediation</p> <p>Any remediation works shall be carried out in accordance with clauses 4.14 and 4.15 of State Environmental Planning Policy (Resilience and Hazards) 2021.</p> <p>Condition reason: To comply with the statutory requirements of State Environmental Planning Policy (Resilience and Hazards) 2021.</p>
4	<p>Required to notify about new contamination evidence</p> <p>Any new information which comes to light during remediation, demolition or construction works which has the potential to alter previous conclusions about site contamination shall be notified to the Council and the principal certifying authority immediately.</p> <p>Condition reason: To ensure that the land is suitable for its proposed use and poses no risk to the environment and human health.</p>
5	<p>Compliance with DPI Fisheries GTA</p> <p>Compliance must be met with the general terms of approval (IDA24/47, 12 April 2024) provided by Department of Primary Industries Fisheries. A copy is provided in the NSW Planning Portal.</p> <p>Condition reason: To comply with general terms of approval requirements.</p>
6	<p>Design amendments</p> <p>The following design changes must be made to the detailed Construction certificate Plans:</p> <ul style="list-style-type: none"> • All light poles need to be installed subsurface mounted with footings and rag bolts recessed into the paved surface. • The final location of metering/distribution cabinet to be determined on site and to be approved by Council. <p>Condition reason: To require minor amendments to the approved plans and supporting documentation following assessment of the development</p>
7	<p>Mangroves & Saltmarsh</p> <p>Mangrove or saltmarsh communities located along the foreshore of the subject site shall not be removed or damaged during construction works without approval from the NSW Department of Primary Industries under the Fisheries Management Act 1994.</p> <p>Condition reason: To ensure protection of foreshore vegetation and that required approvals have been obtained.</p>
8	<p>Waterways Protection</p> <p>All works must be carried out so that:</p> <p>(a) No materials are eroded, or likely to be eroded, are deposited, or likely to be deposited, on the bed or shore or into the waters of the adjoining waterway; and</p> <p>(b) No materials are likely to be carried by natural forces to the bed, shore or waters of the waterway</p> <p>Any material that does enter the waterway must be removed immediately.</p>

	Condition reason: To ensure protection of waterways.
9	Landscape Plans
	Cupaniopsis anacardioides (Tuckeroo) must not be planted anywhere within the project footprint as it is declared an invasive environmental weed under SOPA's Invasive Environmental Weeds Policy, dated January 2024.
	Condition reason: To ensure that the landscaping is consistent with the SOPA Environmental Weeds Policy
1 0	Tree Retention
	Trees to be retained are numbered: 2, 3, 4, 5, 6, 7, 10, 12, 13, 14, 16 - 24, 27, 31, 32, 33, 34, 36 - 40 in the Arboricultural Report listed in Condition 1. The trees not surveyed along the Bennelong Parkway road verge and the 8 trees not surveyed in the centre and to the periphery (north-west sides) of the site compound are also to be retained.
	Condition reason: To protect existing trees which contribute to the landscape character of the area.
1 1	Tree Preservation
	Trees equal to or greater than five (5) metres in height, which are protected under the Parramatta Development Control Plan (DCP) 2023 (Part 5.3.4 Tree and Vegetation Preservation), must not be removed or damaged without Council consent.
	Condition reason: To preserve existing landscape features.
1 2	Prevent the spread of exotic grasses & weeds
	To prevent the spread of exotic grasses and weeds into the adjoining bushland, the applicant must construct a physical barrier along the edge of the turf area. The barrier is to be installed underground as well as aboveground to provide a root barrier and to delineate the mown area from bushland areas.
	Note: Acceptable materials are timber, logs, rock or concrete and mulched garden beds.
	Condition reason: To minimise the impacts of the development on the bushland reserve.
1 3	Works below MHWM
	No works are to be undertaken on land owned below the mean high water mark (MHWM) without the relevant approvals being granted by Transport for NSW.
	Condition reason: To ensure that required approvals have been obtained.
1 4	No trees are to be removed on public property
	No trees on public property (footpaths, roads, reserves etc.) are to be removed or damaged during construction including for the erection of any fences, hoardings or other temporary works, unless approved in this consent.
	Condition reason: To ensure adequate protection of existing environmental assets and to maintain public amenity.
1 5	Public Reserves Excavation
	The Persons carrying out excavation of land within Council reserves should exercise appropriate caution as asbestos or other contaminated materials may be present. In the event that asbestos or other contaminated materials are identified, Council is to be notified and the contaminated materials are to be managed safely and appropriately in accordance with SafeWork NSW Codes of Practice, the NSW Work Health and Safety Act and Regulation 2017 and Protection of the Environment Operations (Waste) Regulation 2014.
	Condition reason: To ensure that the excavation work is done with care
1 6	Proximity to Existing Network Assets - Underground Cables
	There are existing underground electricity network assets in within the subject location.. Special care should also be taken to ensure that driveways and any other construction activities within the footpath area do not interfere with the existing cables in the footpath. Ausgrid cannot guarantee the depth of cables due to possible changes in ground levels from previous activities after the cables were installed. Hence it is recommended that the developer locate and record the depth of all known underground services prior to any excavation in the area.

	<p>Should ground anchors be required in the vicinity of the underground cables, the anchors must not be installed within 300mm of any cable, and the anchors must not pass over the top of any cable. Safework Australia – Excavation Code of Practice, and Ausgrid’s Network Standard NS156 outlines the minimum requirements for working around Ausgrid’s underground cables.</p> <p>Condition reason: To ensure no impact on existing Ausgrid network assets.</p>
1 7	<p>Substation</p> <p>There are existing electricity kiosk substation assets within the subject location. The developer shall be familiar with all conditions outlined in ISSC20 - Section 8.2 to minimise any risk or impacts on the existing electrical assets.</p> <p>The substation ventilation openings, including substation duct openings and louvered panels, must be separated from building air intake and exhaust openings, natural ventilation openings and boundaries of adjacent allotments, by separation distances which meet the requirements of all relevant authorities, building regulations, BCA and Australian Standards including AS 1668.2: The use of ventilation and airconditioning in buildings -</p> <p>Mechanical ventilation in buildings. In addition to above, Ausgrid requires the substation ventilation openings, including duct openings and louvered panels, to be separated from building ventilation system air intake and exhaust openings, including those on buildings on adjacent allotments, by not less than 6 metres. Any portion of a building other than a BCA class 10a structure constructed from non combustible materials, which is not sheltered by a non-ignitable blast-resisting barrier and is within 3 metres in any direction from the housing of a kiosk substation, is required to have a Fire Resistance Level (FRL) of not less than 120/120/120. Openable or fixed windows or glass blockwork or similar, irrespective of their fire rating, are not permitted within 3 metres in any direction from the housing of a kiosk substation, unless they are sheltered by a non-ignitable blast resisting barrier. The development must comply with both the Reference Levels and the precautionary requirements of the ICNIRP Guidelines for Limiting Exposure to Time-varying Electric and Magnetic Fields (1 HZ – 100 kHz) (ICNIRP 2010).</p> <p>For further details on fire segregation requirements refer to Ausgrid’s Network Standard 141. Existing Ausgrid easements, leases and/or right of ways must be maintained at all times to ensure 24 hour access. No temporary or permanent alterations to this property tenure can occur without written approval from Ausgrid.</p> <p>For further details refer to Ausgrid’s Network Standard 143.</p> <p>Condition reason: To ensure no impacts on the existing Ausgrid substation.</p>
1 8	<p>Feature Lighting</p> <p>No feature lighting is approved as part of this application.</p> <p>Condition reason: To clarify the scope of the approval and reduce lighting impacts on ecologically sensitive areas.</p>

Building Work

Before issue of a construction certificate

19	<p>Construction Site Management Plan</p> <p>Before the issue of a construction certificate, the applicant must ensure a construction site management plan is prepared before it is provided to and approved by the certifier. The plan must include the following matters:</p> <ul style="list-style-type: none"> • location and materials for protective fencing and hoardings to the perimeter on the site • provisions for public safety • pedestrian and vehicular site access points and construction activity zones • details of construction traffic management, including proposed truck movements to and from the site and estimated frequency of those movements, and measures to preserve pedestrian safety in the vicinity of the site • protective measures for on-site tree preservation (including in accordance with AS 4970-2009 Protection of trees on development sites and Council’s DCP, if applicable) and trees in adjoining public domain (if applicable)
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	<ul style="list-style-type: none"> • details of any bulk earthworks to be carried out • location of site storage areas and sheds • equipment used to carry out all works • a garbage container with a tight-fitting lid • dust, noise and vibration control measures • location of temporary toilets. • <p>The applicant must ensure a copy of the approved construction site management plan is kept on-site at all times during construction.</p> <p>Condition reason: To require details of measures that will protect the public, and the surrounding environment, during site works and construction.</p>
20	<p>Dial Before you Dig Service</p> <p>Prior to any excavation on or near the subject site the person/s having benefit of this consent are required to contact the NSW Dial Before You Dig Service (NDBYD) on 1100 to receive written confirmation from NDBYD that the proposed excavation will not conflict with any underground utility services. The person/s having the benefit of this consent are required to forward the written confirmation from NDBYD to their Principal Certifying Authority (PCA) prior to any excavation occurring.</p> <p>Condition reason: To ensure Council's assets are not damaged.</p>
21	<p>Erosion and Sediment Control Plan</p> <p>Before the issue of a construction certificate, the applicant is to ensure that an erosion and sediment control plan is prepared in accordance with the following documents before it is provided to and approved by the certifier:</p> <ul style="list-style-type: none"> • Council's development control plan, • the guidelines set out in the NSW Department of Housing manual 'Managing Urban Stormwater: Soils and Construction Certificate' (the Blue Book), and • the 'Do it Right On-Site, Soil and Water Management for the Construction Industry' (Southern Sydney Regional Organisation of Councils and the Natural Heritage Trust). <p>The applicant must ensure the erosion and sediment control plan is kept on-site at all times during site works and construction.</p> <p>Condition reason: To ensure no substance other than rainwater enters the stormwater system and waterways</p>
22	<p>Long Service Levy</p> <p>Before the issue of a Construction Certificate, the applicant is to ensure that the person liable pays the Long Service Levy of 0.25% of the value of building and construction work where the cost of building is \$250,000 or more (inclusive of GST) or as calculated at the date of this consent to the Long Service Corporation under section 34 of the Building and Construction Industry Long Service Payments Act 1986 and provides proof of this payment to the Certifier.</p> <p>Note: The Long Service Levy is to be paid directly to the Long Service Corporation at www.longservice.nsw.gov.au. For more information, please contact the Levy support team on 13 14 41.</p> <p>Condition reason: To ensure that the Long Service Levy is paid.</p>
23	<p>Sydney Water Quick check</p> <p>A building plan approval must be obtained from Sydney Water Tap in™ to ensure that the approved development will not impact Sydney Water infrastructure.</p> <p>A copy of the building plan approval receipt from Sydney Water Tap in™ must be submitted to the Principal Certifying Authority upon request prior to works commencing.</p> <p>Please refer to the website http://www.sydneywater.com.au/tapin/index.htm, Sydney Water Tap in™, or telephone 13 20 92.</p>

	<p>Condition reason: To ensure the requirements of Sydney Water have been complied with.</p>																																																																																
24	<p>Waste Management Plan</p> <p>Before the issue of a construction certificate, the applicant is to ensure that a waste management plan is prepared in accordance with the EPA's Waste Classification Guidelines and the following requirements before it is provided to and approved by the certifier:</p> <p>(a) Council's Waste Management Development Control Plan</p> <p>OR</p> <p>(b) details the following:</p> <ul style="list-style-type: none"> the contact details of the person(s) removing the waste an estimate of the waste (type and quantity) and whether the waste is expected to be reused, recycled or go to landfill the address of the disposal location(s) where the waste is to be taken <p>The applicant must ensure the waste management plan is referred to in the construction site management plan and kept on-site at all times during construction.</p> <p>Condition reason: To ensure resource recovery is promoted and local amenity protected during construction.</p>																																																																																
25	<p>Parramatta Traffic Committee Approval</p> <p>Despite any stamped plans, detailed engineering design plans of the proposed shared path/separated cycleway and the combined raised pedestrian and cyclists crossing is to be submitted to Council's Traffic and Transport Manager for consideration by the Parramatta Traffic Committee and approval by Council.</p> <p>Condition reason: To ensure that any road design is approved by the Parramatta Traffic Committee.</p>																																																																																
26	<p>Non-Destructive Construction Detail</p> <p>Prior to the issue of the Construction Certificate, all structures listed below which are documented within the Tree Protection Zone (TPZ) of the following trees (as numbered in the Arborist report outlined in condition 1) are to be modified to minimise the cumulative construction impacts within the TPZ to ensure they are less than 10% encroachment as per the AS4970-2009: Protection of Trees on Development Sites. They are to be designed in conjunction with, and with written approval of, the Project Arborist.</p> <table border="1"> <thead> <tr> <th>Tree No.</th> <th>Botanical name</th> <th>Common name</th> <th>Structure to be modified</th> <th>TPZ Radius from trunk</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>Eucalyptus robusta</td> <td>Swamp Mahogany</td> <td>Path & lighting</td> <td>4.2m</td> </tr> <tr> <td>5</td> <td>Eucalyptus robusta</td> <td>Swamp Mahogany</td> <td>Path & lighting</td> <td>4.2m</td> </tr> <tr> <td>10</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Path & lighting</td> <td>3.96m</td> </tr> <tr> <td>12</td> <td>Melaleuca linariifolia</td> <td>Snow-in-Summer</td> <td>Path</td> <td>5.16m</td> </tr> <tr> <td>13</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Lighting installation</td> <td>4.08m</td> </tr> <tr> <td>14</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Lighting installation</td> <td>4.08m</td> </tr> <tr> <td>16</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Path & lighting</td> <td>4.20m</td> </tr> <tr> <td>17</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Path & lighting</td> <td>7.44m</td> </tr> <tr> <td>18</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Lighting installation</td> <td>4.80m</td> </tr> <tr> <td>19</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Lighting installation</td> <td>4.92m</td> </tr> <tr> <td>20</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Path & lighting</td> <td>4.08m</td> </tr> <tr> <td>21</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Lighting installation</td> <td>3.96m</td> </tr> <tr> <td>22</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Lighting installation</td> <td>3.96m</td> </tr> <tr> <td>23</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Path & lighting</td> <td>3.48m</td> </tr> <tr> <td>24</td> <td>Casuarina glauca</td> <td>Swamp She-oak</td> <td>Path & lighting</td> <td>1.56m</td> </tr> </tbody> </table> <p>The underground lighting services approved to be installed within the TPZ of trees 4, 5, 10, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24 must be installed using non-destructive construction techniques (NDC) such as hydro-</p>	Tree No.	Botanical name	Common name	Structure to be modified	TPZ Radius from trunk	4	Eucalyptus robusta	Swamp Mahogany	Path & lighting	4.2m	5	Eucalyptus robusta	Swamp Mahogany	Path & lighting	4.2m	10	Casuarina glauca	Swamp She-oak	Path & lighting	3.96m	12	Melaleuca linariifolia	Snow-in-Summer	Path	5.16m	13	Casuarina glauca	Swamp She-oak	Lighting installation	4.08m	14	Casuarina glauca	Swamp She-oak	Lighting installation	4.08m	16	Casuarina glauca	Swamp She-oak	Path & lighting	4.20m	17	Casuarina glauca	Swamp She-oak	Path & lighting	7.44m	18	Casuarina glauca	Swamp She-oak	Lighting installation	4.80m	19	Casuarina glauca	Swamp She-oak	Lighting installation	4.92m	20	Casuarina glauca	Swamp She-oak	Path & lighting	4.08m	21	Casuarina glauca	Swamp She-oak	Lighting installation	3.96m	22	Casuarina glauca	Swamp She-oak	Lighting installation	3.96m	23	Casuarina glauca	Swamp She-oak	Path & lighting	3.48m	24	Casuarina glauca	Swamp She-oak	Path & lighting	1.56m
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	<p>vac on the lowest setting, or careful hand-dig to create the trench and retain all roots >30mm in diameter. Pipes are to be threaded through the major roots. No roots over 30mm diameter are to be cut. All relevant infrastructure plans are to be modified to clearly show the location of the NDC and the specific methodology included in the construction documentation. It is to be pre- approved in writing by the Project Arborist and provided to the Certifying Authority.</p> <p>A path construction detail must be included in the construction documentation showing the location of the subject path and demonstrate how it will be built above the natural grade to bridge over the root system. The modified path design must show the sub-base and all formwork will be built above the existing grade to avoid excavation within the TPZ. The detail shall state there is to be no compaction, edging, excavation, or re-grading to occur within the natural ground to ensure the tree roots will be adequately retained and protected. The construction detail is to be designed in conjunction with and to the written satisfaction of the Project Arborist to ensure the path design has been satisfactorily modified to not impact the tree root system.</p> <p>Condition reason: To ensure any works within the Tree Protection Zone of the existing trees have been modified to ensure the trees will be adequately protected.</p>
27	<p>Landscape Plan Amendments</p> <p>Before the issue of the relevant Construction Certificate, the revised landscape plans are to be submitted to the written satisfaction of Council's Manager Development and Traffic Services Unit.</p> <p>The final Landscape Plan must be consistent with plans prepared by Sturt Noble, numbered SK-2306-04, rev E dated 17.07.2024, together with any additional criteria required by the Development Consent to the satisfaction of Council's Manager Development and Traffic Services Unit addressing the following requirements:</p> <ol style="list-style-type: none"> 1. A planting plan is required to be labelled with all proposed plants and plant mixes identified. 2. An updated plant schedule indicating the above changes, planting locations, species type (including both botanic / common name) mature dimensions, plant numbers and the size of the containers at planting. 3. The location of all proposed overhead and underground services to be shown as per the survey plan and to be coordinated with all relevant plans. 4. Existing trees shall be numbered as per the Arboricultural Impact Assessment Report by Sturt Noble 2306 rev C dated 28.11.2023 and are to include the TPZ and SRZ radiuses for coordination. 5. Tree replenishment is to be provided in a minimum 75 litre container, must be able to reach a minimum mature height of thirteen (13) metres, and planted with a minimum 2m distance from any proposed or existing drainage line. 6. All proposed softscape details to be provided. 7. Details for all proposed hardscape structures to be provided. 8. Trees should be self-supporting from the nursery. Delete the tree stake from the typical tree detail unless trees are to be planted into a wind-prone area. 9. Delete all the proposed planting within the Structural Root Zone (SRZ) of the trees to be retained to avoid severing the roots. 10. Delete any proposed edging within the Structural Root Zone (SRZ) of the trees to be retained to avoid severing the roots. 11. All non-destructive construction details within the TPZ of the trees to be retained and protected are to be prepared in conjunction with the Project arborist to ensure the trees will be adequately protected during the works. <p>Condition reason: To ensure restoration of environmental amenity.</p>
28	<p>Statement on specific tree protection</p> <p>Before the issue of the relevant Construction Certificate, a specific method statement it to be submitted to the written satisfaction of Council's Manager Development and Traffic Services Unit. The Methodology Statement is to be prepared by a suitably qualified Consulting Arborist (Australian Qualification Framework Level 5), must accompany the application for a Construction Certificate.</p> <p>This statement is to identify the measures to be implemented for protection of trees numbered for retention in the Arboricultural Impact assessment by Sturt Noble 2306 rev C dated 28.11.2023 during construction and the expected future health of the trees. The statement is to be structured so that each of the following stages of construction are individually addressed and supervised by the Project Arborist:</p>

	<ol style="list-style-type: none"> 1. Tree protection measures inclusive of canopy, trunk and root zone to be clearly identified and discussed in accordance with AS 4970-2009 - Protection of Trees on Development Sites; 2. Supervision of any minor excavation to be undertaken within the calculated Tree Protection Zones of the above nominated trees and/or within three (3) metres of any other existing tree equal to or greater than five (5) metres in height located on any adjoining property. 3. Construction of any structure which requires a modified footing or construction method to bridge over the roots. 4. Where works are to impact the tree canopies, a tree pruning diagram will be required to be submitted to the Certifying Authority to ensure the level of encroachment into the canopies will be minimal (less than 10%). 5. Installation of services (i.e. using non-destructive sensitive construction method, bridging of roots, under-boring, hand-digging) and Back filling; 6. Landscaping (i.e. minimise cultivation, compaction and excavation of planting within the TPZ); 7. A Tree Protection Plan as per the Conditions of consent to identify the specific type of tree protection measures and location required for each tree, critical hold points (Inclusive of photographic evidence of compliance) and the periodic inspection schedule. 8. Plus any other stages that the Consulting Arborist deems necessary. 								
	<p>Condition reason: To ensure adequate protection of existing trees.</p>								
29	<p>Tree Protection Plan</p>								
	<p>Before the issue of the relevant Construction Certificate, the revised Tree Protection Plan (TPP) is to be submitted to the written satisfaction of Council’s Manager Development and Traffic Services Unit. The TPP is to be prepared by a suitably qualified Consulting Arborist (Australian Qualification Framework Level 5), must accompany the application for a Construction Certificate. This TPP is to identify the specific tree protection measures to be implemented for the trees located within the site and adjacent to the site during demolition and construction and the expected future health of the trees. It will cover all stages of the works and any works to be supervised by the Project Arborist including:</p> <ol style="list-style-type: none"> 1. A Tree Protection Plan must follow the tree protection method statement and as per the Conditions of consent. 2. The trees are to be numbered as per the Arboricultural Impact Assessment by Sturt Noble 2306 rev C dated 28.11.2023 as well as the trees not surveyed adjacent to and within the site compound. 3. Provide details of any encroachment into the root system and/or canopy on the plan; 4. The TPP must identify the location of the specific tree protection type required for each tree inclusive of canopy, trunk and tree root protection in accordance with AS 4970-2009 - Protection of Trees on Development Sites. 5. Regular Periodic Tree Inspections are required to be carried out by the Project Arborist supervising the works. Photographic evidence and statement demonstrating the works have been undertaken in compliance with the above requirements, AS4970:2009 and the Conditions of Consent. 								
	<p>Condition reason: To ensure adequate protection of existing trees.</p>								
30	<p>Biodiversity offsets</p>								
	<p>To offset the residual biodiversity impacts of the development, the class and number of ecosystem and species credits listed in the table below must be retired.</p> <p>The requirement to retire credits may be satisfied by payment to the Biodiversity Conservation Fund of an amount equivalent to the class and number of ecosystem credits, as calculated by the Biodiversity Offsets Payment Calculator (the amount payable to discharge an offset obligation will be determined at the time of payment).</p>								
	<table border="1"> <thead> <tr> <th>Impacted plant community type/species</th> <th>Number of credits</th> <th>IBRA sub-region</th> <th>Plant community type(s) / species that can be used to offset the impacts from development</th> </tr> </thead> <tbody> <tr> <td>920: Estuarine mangrove forest</td> <td>1</td> <td>Cumberland, Burragorang, Pittwater, Sydney Cataract, Wollemi and Yengo.</td> <td>Mangrove Swamps This includes PCT's: 915, 916, 917, 918, 919, 920</td> </tr> </tbody> </table>	Impacted plant community type/species	Number of credits	IBRA sub-region	Plant community type(s) / species that can be used to offset the impacts from development	920: Estuarine mangrove forest	1	Cumberland, Burragorang, Pittwater, Sydney Cataract, Wollemi and Yengo.	Mangrove Swamps This includes PCT's: 915, 916, 917, 918, 919, 920
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		or Any IBRA subregion that is within 100 km of the outer edge of the impacted site.	
1234: Estuarine Swamp Oak forest	1	Cumberland, Burragorang, Pittwater, Sydney Cataract, Wollemi and Yengo. or Any IBRA subregion that is within 100 km of the outer edge of the impacted site.	Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions This includes PCT's: 915, 916, 917, 918, 919, 1125, 1230, 1232, 1234, 1235, 1236, 1726, 1727, 1728, 1729, 1731, 1800, 1808, 3962, 3963, 3985, 3987, 3993, 4016, 4023, 4026, 4027, 4028, 4030, 4035, 4038, 4040, 4048, 4049, 4050, 4056
Calidris ferruginea (Curlew Sandpiper)	1	Any in NSW	Only for this species
<p>Details demonstrating compliance with the requirement to retire credits or make payment to the Biodiversity Conservation Fund must be provided to the City of Parramatta Council – Manager Natural Resources or delegate prior to the issue of a Construction Certificate.</p> <p>Condition reason: To ensure biodiversity offset requirements are fulfilled.</p>			
31	Asset Ownership and Interface Agreement		
<p>Prior to the issue of a Construction Certificate, a drawing showing future asset ownership and maintenance responsibility to be prepared and agreed to by Council's Group Manager Development Traffic Services Unit, in consultation with City Assets.</p> <p>This will involve the preparation of an interface agreement regarding management of new assets, especially those assets that are not located on Council's land (access for inspection and maintenance, responsibilities, liabilities etc.) and have the agreement of the relevant landowners.</p> <p>Condition reason: To ensure the relevant ownership is agreed.</p>			
32	Structural Engineers Certification		
<p>The design and construction of the bridge and supports must be certified by independent Chartered Structural Engineer prior to the issue of any Construction Certificate. A copy of this certification must be provided as part of the Construction Certificate to Council.</p> <p>Condition reason: To ensure the bridge is appropriately designed.</p>			
33	Bridge load capacity		
<p>Prior to the issue of a Construction Certificate the Load bearing capacity of the bridge to be certified by a Structural Engineer. Confirmation of the load capacity from the structural engineer is to be provided to Council in the Construction Certificate.</p> <p>Condition reason: To ensure the bridge is appropriately designed.</p>			
34	Right of Access		
<p>Appropriate agreements for right of way to allow for construction on all properties with the relevant landowners are to be made prior to the issue of any Construction Certificate or commencement of any physical works.</p> <p>Condition reason: To ensure appropriate access is provided.</p>			

35	Detailed erosion protection plans
	Detailed erosion protection including bank stabilisation is to be provided prior to the issue of a Construction Certificate which are to be approved by Councils Group Manager, Development Traffic Services Unit in consultation with Catchment Management.
	Condition reason: To ensure that the bridge is appropriately supported.
36	Design approval
	Prior to the issue of any Occupation Certificate, the final plans for all assets to remain in Council's ownership must be submitted to and approved by Councils Group Manager Development, Traffic Services Unit in consultation with City Assets.
	All work in the public domain and roadway are to comply with the relevant Council standards, including any changes to Councils stormwater system. Condition reason: To ensure that the final plans are in accordance with Councils standards.
37	Construction Environmental Management Plan
	Prior to the issue of a Construction Certificate, a Construction Environmental Management Plan (CEMP) must be prepared for consideration by the PCA The CEMP must include (but not be limited to) the following: (a) Safe methods of access to and from the parklands (b) Method of loading and unloading excavation machinery and construction materials; (c) Storage location and details of construction materials, excavated soil and other waste materials; (d) Methods to prevent materials being tracked into the surrounding bushland; (e) Erosion and sediment control measures; (f) Tree protection measures consistent with conditions of this development consent; and (g) A statement confirming that the environmental management measures set out in the CEMP would remain in place and be maintained for the duration of easement works and until disturbed areas have been stabilised/revegetated with indigenous species in consultation with Council's Parks and Open Space or Natural Areas delegate. (h) include appropriate measures for managing leachates, if encountered, and any leachate must not be dewatered to the receiving environment or stormwater system. Leachate must be contained, extracted and tankered to a facility that can lawfully receive that waste.
	Condition reason: To ensure the environmental controls are appropriately managed.

Before building work commences

38	Appointment of Principal Certifying Authority (PCA)
	Prior to commencement of work, the person having the benefit of the Development Consent and Construction Certificate approval must: (a) Appoint a Principal Certifying Authority (PCA) and notify Council in writing of the appointment (irrespective of whether Council or an accredited private certifier) within 7 days; and (b) Notify Council in writing a minimum of 48 hours prior to work commencing of the intended date of commencement. The Principal Certifying Authority must determine and advise the person having the benefit of the Construction Certificate when inspections, certification and compliance certificates are required.
	Condition reason: To comply with legislative requirements.
39	Asbestos – signage
	On demolition sites where buildings are known to contain friable or non-friable asbestos material, standard warning signs containing the words 'DANGER ASBESTOS REMOVAL IN PROGRESS' measuring not less than 400mm x 300mm are to be erected in a prominent position on site visible from the street kerb. The sign is to be erected prior to demolition work commencing and is to remain in place until such time as all asbestos material has

	<p>been removed from the site. Advice on the availability of these signs can be obtained by contacting the NSW Safework Authority hotline or their website www.safework.nsw.gov.au.</p>
	<p>Condition reason: To comply with the requirements of the Safework NSW Authority.</p>
40	<p>Enclosure of the site</p>
	<p>The site must be enclosed by a 1.8m high security fence erected wholly within the confines of the site to prevent unauthorised access. The fence must be installed to the satisfaction of the Principal Certifier prior to the commencement of any work on site.</p>
	<p>Condition reason: To ensure public safety.</p>
41	<p>Erosion and Sediment Control measures</p>
	<p>Erosion and sediment control measures are to be installed in accordance with the publication 'Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) prior to the commencement of any demolition, excavation or construction works upon the site. These measures are to be maintained throughout the entire works.</p>
	<p>Condition reason: To ensure soil and water management controls are in place before site works commence.</p>
42	<p>Footings and walls near boundaries</p>
	<p>Prior to the commencement of work, a registered surveyor is to undertake a set out survey to identify the location of any easements, footings, slabs, posts and walls adjacent to a boundary. This is to ensure the development when complete, will be constructed wholly within the confines of the subject allotment and clear of any easements. This set out survey showing the location of the development relative to the boundaries of the site, easements, to be forwarded to the Principal Certifier prior to pouring of any footings or slabs and/or the construction of any walls/posts.</p>
	<p>Condition reason: To ensure that the building is erected in accordance with the approval granted and within the boundaries of the site.</p>
43	<p>Inspection prior Works in Public Domain/Assets</p>
	<p>Prior to the commencement of any works on any asset that will be handed over to Council to maintain, the consent holder must arrange for a schedule of inspections to be carried out by Council's Civil Infrastructure Unit.</p> <p>The required Council inspections include (but are not necessarily limited to) the following where applicable and apply to all Council and privately certified projects.</p> <p>(a) Commencement of public domain works including tree protection measures installed and set out of tree pits;</p> <p>(b) Subgrade and formwork inspection following excavation for footings, drainage and pavements, tree pits showing root barriers, structural soil cell, sub-surface drainage and irrigation system as required;</p> <p>(c) Installation of required underground conduits;</p> <p>(d) Blinding layer / concrete slab base completion and initial (indicative) setout of pavers, street fixtures and fittings as applicable to ensure compliance with the requirements of the public domain guidelines;</p> <p>(e) Delivery of street trees to site. Trees shall be installed within 24hrs of delivery;</p> <p>(f) Final defects inspection after all work has been completed to view paving sealant, tactile surface indicators, service lids, nature strip/vegetation/street trees and location of fixtures and fittings</p> <p>Note: Additional daily inspections by Council officers may occur to view progressive paving set out and construction depending on the project size and type.</p> <p>Defects</p> <p>Any defects raised by Council officers during the above construction and defects period inspections will be notified in writing. Defects may include incorrect location of elements, unsatisfactory construction techniques or finishes, or any other non-compliances with the approved plans and specifications or the public domain guidelines.</p> <p>All defects raised by Council's officer during the construction period or defects liability period need to be rectified prior to and signed off at the final defects inspection by Council's officer in order to achieve Occupation Certification. This applies to both Council and privately certified projects.</p> <p>In addition, all construction works for stormwater systems to be handed over to Council must:</p> <p>(a) prior to issue of a construction certificate have a full set of plans stamped and approved by Council's Service Manager Civil Infrastructure.</p>

	<p>(b) be inspected by Council's Catchment Management team in line with the schedule of inspections agreed to with Council prior to any works commencing</p> <p>Inspection of the works will be required (but not necessarily limited to) on the following stages:</p> <p>(a) construction of the stormwater pipe prior to backfilling of trench</p> <p>(b) construction of formwork to any drainage pits(s) prior to placement of concrete.</p> <p>(c) construction of any formwork to concrete pavement, footpath, driveway, kerb & gutter etc. and prior to placement of concrete.</p> <p>(d) The stormwater drainage work is to comply with all other Special Notes – Conditions of Approval on Council stamped and approved drawings.</p> <p>Note: Inspections for all public domain and/or stormwater works must be booked at least 24 hours in advance by calling Council's Civil Infrastructure Unit on 02 9806 8250.</p> <p>Condition reason: To comply with Council requirements.</p>						
44	<p>Payment of Security deposits</p> <p>Before the commencement of any works on the site or the issue of a construction certificate, the applicant must make all of the following payments to Council and provide written evidence of these payments to the certifier:</p> <table border="1"> <thead> <tr> <th>Bond Type</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Development Sites Bonds: Applies to all developments with a cost greater than 25K and swimming pools regardless of cost (fee is per street frontage).</td> <td>Refer to Councils Current fees and charges</td> </tr> <tr> <td>Street Trees</td> <td></td> </tr> </tbody> </table> <p>The payments will be used for the cost of:</p> <ul style="list-style-type: none"> making good any damage caused to any council property (including street trees) as a consequence of carrying out the works to which the consent relates, completing any public work such as roadwork, kerbing and guttering, footway construction, stormwater drainage and environmental controls, required in connection with this consent, and any inspection carried out by Council in connection with the completion of public work or the making good any damage to council property. <p>Note: The inspection fee includes Council's fees and charges and includes the Public Road and Footpath Infrastructure Inspection Fee (under the Roads Act 1993). The amount payable must be in accordance with council's fees and charges at the payment date.</p> <p>Note: The bond may be paid, by EFTPOS, bank cheque, or be an unconditional bank guarantee.</p> <p>Should a bank guarantee be lodged it must:</p> <p>(a) Have no expiry date;</p> <p>(b) Be forwarded directly from the issuing bank with a cover letter that refers to Development Consent DA/177/2024</p> <p>(c) Specifically reference the items and amounts being guaranteed. If a single bank guarantee is submitted for multiple items it must be itemised.</p> <p>Should it become necessary for Council to uplift the bank guarantee, notice in writing will be forwarded to the applicant fourteen days prior to such action being taken. No bank guarantee will be accepted that has been issued directly by the applicant.</p> <p>A dilapidation report is required to be prepared and submitted electronically to the City of Parramatta Council (council@cityofparramatta.nsw.gov.au) prior to any work or demolition commencing and with the payment of the bond/s.</p>	Bond Type	Amount	Development Sites Bonds: Applies to all developments with a cost greater than 25K and swimming pools regardless of cost (fee is per street frontage).	Refer to Councils Current fees and charges	Street Trees	
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Street Trees							

	<p>The dilapidation report is required to document/record any existing damage to kerbs, footpaths, roads, nature strips, street trees and furniture within street frontage/s bounding the site up to and including the centre of the road.</p> <p>Condition reason: To ensure any damage to public infrastructure is rectified and public works can be completed.</p>
45	<p>Public liability insurance</p> <p>Public risk insurance in the amount of not less than \$20 million or such other amount as Council may require by notice must be obtained and furnished to Council before any works authorised by this consent are conducted:</p> <p>(a) Above; (b) Below; or (c) On</p> <p>Any public land owned or controlled by Council. The public risk insurance must be maintained for the period during which these works are being undertaken.</p> <p>The public risk insurance must be satisfactory to Council and list Council as an insured and/or interested party.</p> <p>A copy of the insurance policy obtained must be forwarded to Council before any of the works commence.</p> <p>Note: Applications for hoarding permits, vehicular crossing etc. will require evidence of insurance upon lodgement of the application.</p> <p>Condition reason: To ensure the community is protected from the cost of any claim for damages arising from works authorised by this consent conducted above, below or on any public land owned or controlled by Council.</p>
46	<p>Schedule of inspections</p> <p>Prior to the commencement of any works in the Public Domain or on any asset that will be handed over to Council to maintain, the consent holder must arrange for a schedule of inspections to be carried out by Council's Roads Infrastructure Unit for road infrastructure asset, Catchment Management Unit for road drainage asset and Parks and Open Spaces Unit for Trees and Landscaping assets.</p> <p>Inspection of road pavements by Council's officers must be specified in the Project Quality Plan.</p> <p>The developer must also conduct all testing and prepare records to show compliance with Specifications. Details on testing, construction records and other documentation must be included in the Project Quality Plan.</p> <p>The required Council inspections include (but are not necessarily limited to) the following where applicable and apply to all Council and privately certified projects.</p> <ol style="list-style-type: none"> 1. Commencement of public domain works including tree protection measures installed and set out of tree pits; 2. Subgrade and formwork inspection following excavation for footings, drainage and pavements, tree pits showing root barriers, structural soil cell, sub-surface drainage and irrigation system as required; 3. Installation of required underground conduits; 4. Blinding layer / concrete slab base completion and initial (indicative) setout of pavers, street fixtures and fittings as applicable to ensure compliance with the requirements of the public domain guidelines; 5. Delivery of street trees to site. Trees shall be installed within 24hrs of delivery; 6. Final defects inspection after all work has been completed to view paving sealant, tactile surface indicators, service lids, nature strip/vegetation/street trees and location of fixtures and fittings <p>Specifically in relation to Civil Assets (road/stormwater):</p> <ol style="list-style-type: none"> 1. The road work including footpath, kerb and gutter and vehicular crossings are to comply with – Conditions of consent and approved drawings. 2. <i>All works outside the property boundary must be inspected by the Roads Infrastructure Unit prior to the pouring of concrete. These inspections must take place a minimum of 48 hours prior to the pouring of the concrete.</i> 3. The approved design plans, longitudinal sections and scraping assessment of the vehicular crossing must be submitted to Road Infrastructure Unit minimum 3-5 days prior to the inspections. 4. All plans must be supplied to ensure that works on the ground are as per the design.

	<p>5. An onsite review of the proposed works is recommended prior to the works taking place.</p> <p>Note: Additional daily inspections by Council officers may occur to view progressive paving set out and construction depending on the project size and type.</p> <p>Defects Any defects raised by Council officers during the above construction and defects period inspections will be notified in writing. Defects may include incorrect location of elements, unsatisfactory construction techniques or finishes, or any other non-compliances with the approved plans, longitudinal sections and specifications or the public domain guidelines.</p> <p>All defects raised by Council's officer during the construction period or defects liability period need to be rectified prior to and signed off at the final defects inspection by Council's officer in order to achieve Occupation Certifications.</p> <p>Note that:</p> <p>(a) All areas works must be completed to council satisfaction prior to the issue of an Occupation Certificate. (b) The defects period shall be the time between the issue of an Occupation Certificate and the timing for dedication. (c) Further signoff of defects will again be needed at Prior to Dedication. This applies to both Council and privately certified projects.</p> <ul style="list-style-type: none"> On construction of any formwork to concrete pavement, footpath, driveway, Kerb and gutter etc. and prior to placement of concrete. <p>Note: Inspections for following public domain works must be booked at least 24 hours in advance by calling:</p> <ul style="list-style-type: none"> Council's Road Infrastructure Unit on 9806 8250 for Road infrastructure asset including bridges. For the bridge and special structural infrastructure, inspections must be undertaken by a Chartered Professional Engineer (NER Structural) appointed by applicant, jointly with CoP engineers. Council's Catchment Management Unit on 9806 8253 for Stormwater asset. Council's Parks and Open Spaces Unit on 9806 5865.
	<p>Condition reason: To ensure the roads/public assets are inspected during construction</p>
47	<p>Site sign</p> <p>A sign must be erected in a prominent position on any site involving excavation, erection or demolition of a building in accordance with Clause 70 of the Environmental Planning and Assessment Regulations 2021 detailing:</p> <p>(a) Unauthorised entry of the work site is prohibited;</p> <p>(b) The name of the principal contractor (or person in charge of the work site), their telephone number enabling 24hour contact; and</p> <p>(c) The name, address and telephone number of the Principal Certifier;</p> <p>(d) The development consent approved construction hours;</p> <p>(e) The sign must be maintained during excavation, demolition and building work, and removed when the work has been completed.</p> <p>(f) This condition does not apply where works are being carried out inside an existing building.</p> <p>Condition reason: Statutory requirement.</p>
48	<p>Construction and Pedestrian Traffic Management Plan</p>

	<p>Prior to the commencement of any works on site, the applicant shall submit a Construction and Pedestrian Traffic Management Plan (CPTMP) to the satisfaction of Council's Traffic and Transport Manager. The CPTMP shall be prepared by a suitably qualified and experienced traffic consultant. The following matters must be specifically addressed in the CPTMP:</p> <ul style="list-style-type: none"> (a) Dedicated construction site entrances and exits, controlled by a certified traffic controller, to safely manage pedestrians and construction related vehicles in the frontage roadways, (b) Turning areas within the site for construction and spoil removal vehicles, allowing a forward entry and egress for all construction vehicles on the site, (c) The location of proposed Work Zones in the egress frontage roadways, (d) Location of any proposed crane standing areas, (e) A dedicated unloading and loading point within the site for all construction vehicles, plant and deliveries, (f) Material, plant and spoil bin storage areas within the site, where all materials are to be dropped off and collected, (g) The provisions of an on-site parking area for employees, tradeperson and construction vehicles as far as possible, (h) A detailed description and route map of the proposed route for vehicles involved in spoil removal, material delivery and machine floatage and a copy of this route is to be made available to all contractors, (i) A detailed description of locations that will be used for layover for trucks waiting to access the construction site, (j) Proposed construction hours, (k) Estimated number and type of construction vehicle movements including morning and afternoon peak and off peak movements, (l) Construction program that references peak construction activities and proposed construction 'Staging', (m) Any potential impact to general traffic, cyclists, pedestrians and bus services within the vicinity of the site from construction vehicles during the construction of the proposed works, (o) Measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified, and, (p) The plan may be required to include restrictions on the number of trucks that can access the site in peak hours and a requirement for the developer to provide video footage of the frontage of the site on a weekly basis so that Council can enforce this requirement, (q) Evidence of Roads and Maritime Services concurrence where construction access is provided directly or within 20 m of an Arterial Road if applicable, (r) A schedule of site inductions on regular occasions and as determined necessary to ensure all new employees are aware of the construction management obligations, <p>The CPTMP is to include the provision of a sign on the hoarding that provides a phone number and email address for members of the local community to make enquires or complaints regarding traffic control for the site. The construction company for the site is to provide a representative for meetings that may occur once a month and may include representatives of the local community and Council staff to discuss traffic control at the site.</p> <p>Written concurrence from Council's Traffic and Transport Services in relation to installation of a proposed 'Work Zone' restriction in the egress frontage roadways of the development site. Application fees and kerbside charges for 6 months (minimum) are to be paid in advance in accordance with the Council's Fees and Charges. The 'Work Zone' restriction is to be installed by Council once the applicant notifies Council in writing of the commencement date (subject to approval through Parramatta Traffic Committee processes). Unused fees for kerbside charges are to be refunded once a written request to remove the restriction is received by Council.</p> <p>All traffic control devices installed in the road reserve shall be in accordance with the NSW Transport Roads and Maritime Services publication 'Traffic Control Worksite Manual' and be designed by a person licensed to do so (minimum RMS 'red card' qualification). The main stages of the development requiring specific construction management measures are to be identified and specific traffic control measures identified for each.</p> <p>Approval shall be obtained from City of Parramatta Council for any temporary road closure or crane use from public property.</p> <p>Condition reason: To ensure the appropriate measures have been considered during all phases of the construction process in a manner that maintains the environmental amenity and ensures the ongoing safety and protection of people.</p>
49	<p>Toilet facilities on site</p> <p>Prior to work commencing, adequate toilet facilities are to be provided on the work site.</p>

	Condition reason: To ensure adequate toilet facilities are provided.
50	Compliance with BDAR
	The mitigation measures outlined in the Biodiversity Development Assessment Report (BDAR) prepared by Umwelt dated 12 February 2024 must be implemented prior to and during the demolition/construction process in accordance with the BDAR.
	Condition reason: To ensure impacts on biodiversity is appropriately managed and mitigated.

During building work

51	Contaminated Waste
	All spoil to be disposed off-site must be classified in accordance with the NSW EPA Waste Classification Guidelines and disposed of at a facility that can lawfully receive that waste. Copies of Waste Classification Report and waste disposal dockets should be retained and provided to the Authority or the NSW EPA, if requested.
	Condition reason: To ensure accurate disposal of contaminated waste
52	Aboriginal and European Archaeology
	If any European archaeological relics are discovered (or are believed to be discovered) during works, the works must cease and the NSW Office of Environment and Heritage must be notified, in accordance with the NSW Heritage Act.
	If any Aboriginal archaeological relics are discovered (or are believed to be discovered) during works, the works must cease and the NSW Office of Environment and Heritage must be notified, in accordance with the NSW National Parks and Wildlife Service Act.
	Condition reason: To ensure that the requirements of the Office of Environment and Heritage are met.
53	Asbestos - handled & disposed of by licensed facility
	All friable and non-friable asbestos-containing waste material on-site shall be handled and disposed off-site at an EPA licensed waste facility by an EPA licensed contractor in accordance with the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 and the Waste Classification Guidelines – Part 1 Classifying Waste (EPA 2014) and any other regulatory instrument as amended.
	Condition reason: To ensure appropriate disposal of asbestos materials.
54	Building Work Compliance with BCA
	All building work must be carried out in accordance with the current provisions of the Building Code of Australia (National Construction Code) and ABCB Housing Provisions Standard.
	Condition reason: To comply with the Environmental Planning & Assessment Act 1979, as amended and the Environmental Planning & Assessment Regulation 2021.
55	Complaints register
	The applicant must record details of all complaints received during the construction period in an up to date complaints register. The register must record, but not necessarily be limited to:
	(a) The date and time of the complaint;
	(b) The means by which the complaint was made;
	(c) Any personal details of the complainants that were provided, or if no details were provided, a note to that affect;
	(d) Nature of the complaints;
	(e) Any action(s) taken by the applicant in relation to the complaint, including any follow up contact with the complainant; and
	(f) If no action was taken by the applicant in relation to the complaint, the reason(s) why no action was taken.

	<p>The complaints register must be made available to Council and/or the Principal Certifier upon request.</p> <p>Condition reason: To allow the Principal Certifier/Council to respond to concerns raised by the public.</p>
56	<p>Construction Noise</p> <p>While building work is being carried out, and where a noise and vibration management plan is approved under this consent, the applicant must ensure that any noise generated from the site is controlled in accordance with the requirements of that plan.</p> <p>OR</p> <p>While building work is being carried out and where no noise and vibration management plan is approved under this consent, the applicant is to ensure that any noise caused by demolition, vegetation removal or construction does not exceed an LAeq (15 min) of 5dB(A) above background noise, when measured at any lot boundary of the property where the construction is being carried out.</p> <p>Condition reason: To protect the amenity of the neighbourhood.</p>
57	<p>Contaminated waste to licensed EPA landfill</p> <p>Any contamination material to be removed from the site shall be disposed of to an EPA licensed landfill.</p> <p>Condition reason: To comply with the statutory requirements of the Protection of the Environment Operations Act 1997.</p>
58	<p>Copy of development consent</p> <p>A copy of this development consent together with the stamped plans, referenced documents and associated specifications is to be held on-site during the course of any works to be referred to by all contractors to ensure compliance with the approval and the associated conditions of consent.</p> <p>Condition reason: To ensure compliance with this consent.</p>
59	<p>Damage to public infrastructure</p> <p>Any damage to Council assets that impacts on public safety during construction is to be rectified immediately to the satisfaction of Council with all costs to be borne by the person having the benefit of the Development Consent.</p> <p>Condition reason: To protect public safety.</p>
60	<p>Dust control</p> <p>Dust control measures shall be implemented during all periods of earth works, demolition, excavation and construction to minimise the dust nuisance on surrounding properties. In this regard, dust minimisation practices must be carried out in accordance with Section 126 of the Protection of the Environment Operations Act 1997.</p> <p>Condition reason: To protect the amenity of the area.</p>
61	<p>Erosion & sediment control measures</p> <p>Works are not to result in sedimentation and or run-off from the approved works onto the adjoining properties and or public lands. The person having the benefit of this consent must ensure sediment is not tracked out from the development site.</p> <p>Condition reason: To ensure no adverse impacts on neighbouring properties.</p>
62	<p>Hours of work and noise</p> <p>The principal certifier must ensure that building work, demolition or vegetation removal is only carried out between:</p>

	<ul style="list-style-type: none"> • 7am to 5pm on Monday to Friday • 7am to 5pm on Saturday <p>The principal certifier must ensure building work, demolition or vegetation removal is not carried out on Sundays and public holidays, except where there is an emergency.</p> <p>Unless otherwise approved within a construction site management plan, construction vehicles, machinery, goods or materials must not be delivered to the site outside the approved hours of site works.</p> <p>Note: Any variation to the hours of work requires Council's approval.</p> <p>Council may permit an extension to the approved hours of work in extenuating or unforeseen circumstances subject to an application and approval by City of Parramatta Council (CoPC) in accordance with the 'After Hours Works for Approved Development Applications Policy' (Policy).</p> <p>A copy of this Policy and associated application form is available on the CoPC website. A fee will apply to any application made in accordance with this Policy.</p> <p>The matters of consideration of any extension sought would include, but not be limited to the following aspects and should be detailed in any application made:</p> <ol style="list-style-type: none"> 1. Nature of work to be conducted; 2. Reason for after-hours completion; 3. Residual effect of work (noise, traffic, parking); 4. Demographic of area (residential, industrial); 5. Compliance history of subject premises; 6. Current hours of operation; 7. Mitigating or extenuating circumstance; and 8. Impact of works not being completed. <p>Condition reason: To protect the amenity of the surrounding area.</p>
63	<p>Implementation of the site management plans</p> <p>While site work is being carried out:</p> <ol style="list-style-type: none"> a. the measures required by the construction site management plan and the erosion and sediment control plan (plans) must be implemented at all times, and b. a copy of these plans must be kept on site at all times and made available to council officers upon request. <p>Condition reason: To ensure site management measures are implemented during the carrying out of site work</p>
64	<p>Oversize vehicles using local roads</p> <p>Oversize vehicles using local roads require approval from the National Heavy Vehicle Regulator (NHVR). The applicant is required to submit an application for an Oversize Vehicle Access Permit through NHVR's portal (www.nhvr.gov.au/about-us/nhvr-portal) prior to driving through local roads within the City of Parramatta LGA.</p> <p>Condition reason: To ensure maintenance of Council's assets.</p>
65	<p>Procedure for critical stage inspections</p> <p>While building work is being carried out, any such work must not continue after each critical stage inspection unless the principal certifier is satisfied the work may proceed in accordance with this consent and the relevant construction certificate.</p> <p>Condition reason: To ensure the required site management measures are implemented during construction.</p>
66	<p>Public Road Hold Point Inspections</p>

	<p>For the works that will become Council's asset upon dedication, each HOLD POINT defined by the specifications must be witnessed and released by the Principal Certifier before the construction work can continue to the next stage.</p> <p>The developer must submit test results required by each specification prior to handover to Council to show that the constructed road pavements comply with specification requirements, especially in terms of material properties, levels, layer thicknesses and density ratios.</p> <p>The developer must arrange bridge and other major structural inspections during the construction by the project structural engineer appointed by developer with Council's bridge engineer.</p> <p>The developer must submit a letter from a Chartered Professional Civil Engineer endorsing all road infrastructure assets including bridges, retaining wall and other structural assets are designed and constructed.</p> <p>Condition reason: To ensure that works to be dedicated to Council are constructed to Council standards.</p>
67	<p>Road Occupancy Permit</p> <p>Occupation of any part of the footpath or road at or above (carrying out work, storage of building materials and the like) during construction of the development shall require a Road Occupancy Permit from Council. The applicant is to be required to submit an application for a Road Occupancy Permit through Council's Traffic and Transport Services, prior to carrying out the construction/restoration works.</p> <p>Condition reason: To ensure proper management of Council assets.</p>
68	<p>Material storage and trees</p> <p>No materials (including waste and soil), equipment or goods of any type are to be stored, kept or placed within the Tree Protection Zone (TPZ) of trees to be retained and protected, at any time. This is a No Access Zone.</p> <p>The following activities are prohibited within the specified Tree Protection Zones:-</p> <ul style="list-style-type: none"> • All activities involving soil level changes and soil disturbance; (such as re-grading, excavation, compaction and any additional fill material) • All types of cleaning activities; • Refuelling; • Trenching; • Ripping or cultivation of soil; • Mechanical removal of vegetation; • Access and storage of plant, equipment & vehicles; • Erection of site sheds; • Cleaning • Disposal of waste materials and chemicals including paint, solvents, cement slurry, fuel, oil and other toxic liquids; • And any other activity likely to cause damage to the tree. <p>Condition reason: To ensure the protection of the tree(s) to be retained on the site.</p>
69	<p>Excavation to be supervised by arborist</p> <p>All approved works within the TPZ of trees to be retained and protected, as per the Arboricultural Impact Assessment Report ref. 2306 by Sturt Noble rev C dated 28.12.2023, is to be supervised by an Australian Qualifications Framework (AQF) Level 3 Consulting Arborist.</p> <p>All works within this zone is to be carried out using non-destructive construction methods. The Project Arborist supervising the works must document the works as part of the Periodic Tree Inspection Report.</p> <p>Once the work is completed the Project Arborist is to provide a written summary detailing the works undertaken, including the periodic tree photos to show evidence of compliance with these requirements, the Conditions of Consent and AS4970 Protection of Trees on the Development sites. This is to be submitted to the Certifying Authority.</p> <p>Condition reason: To provided adequate protection of trees.</p>

70	<p>Planting Requirements</p> <p>All trees planted as required by the approved landscape plan are to be a minimum 45 litre container size. All shrubs planted as part of the approved landscape plan are to have a minimum 200mm container size.</p> <p>Condition reason: To ensure appropriate landscaping.</p>
71	<p>Advanced tree planting</p> <p>All trees supplied above a 25L container size must be grown in accordance with AS2303:2015 (Tree stock for landscape use). Certification is to be forwarded to the Principal Certifying Authority upon completion of the planting, certifying the trees have been grown in accordance with AS2303:2015. A copy of this certificate is to be forwarded to Council with the Occupation Certificate.</p> <p>Condition reason: To minimise plant failure rate and ensure quality of stock utilised.</p>
72	<p>Tree Removal</p> <p>Trees to be removed are numbered: 8, 9, 11, 15, 25, 26, 28, 29, 30*, 35 as per the Arboricultural Impact Assessment by Sturt Noble 2306, rev C dated 28.12.2023.</p> <p>* Tree 30 (<i>Avicennia marina</i> subsp. <i>Australastica</i>) will require a regulatory Permit under the NSW Fisheries Management Act for any pruning or removal of mangroves.</p> <p>Condition reason: To facilitate development.</p>
73	<p>Trees with adequate root volume</p> <p>All trees/shrubs planted within the site must be of an adequate root volume and maturity so as not to require staking or mechanical support unless in a wind-prone area. Planting must be carried out in accordance with the approved Landscape Plan and conditions of consent.</p> <p>Condition reason: To ensure the trees/shrubs planted within the site are able to reach their required potential.</p>
74	<p>Removal of trees by an arborist</p> <p>All approved tree removal must be supervised by an Australian Qualification Framework (AQF) Level 3 Arborist and undertaken in accordance with the Code of Practice for Amenity Tree Industry 1998.</p> <p>Condition reason: To ensure tree works are carried out safely.</p>
75	<p>Machinery is to be cleaned of soil and debris</p> <p>All machinery is to be cleaned of soil and debris before entering the site to prevent the spread of weed and fungal pathogens such as Cinnamon Fungus (<i>Phytophthora cinnamomi</i>) and Chytrid Fungus (<i>Batrachochytrium dendrobatidis</i>).</p> <p>Condition reason: To ensure protection of bushland and minimise the impacts of the development.</p>
76	<p>Nest Boxes</p> <p>Six four-chambered microbat boxes (made from durable recycled plastic) are to be attached on the underside of the bridge directly over the water. The six boxes can be purchased from 'Hollow Log Homes': Cyplas™ Four Chambered Micro Bat Nest Box - Hollow Log Homes (or similar) and be custom designed to fit under bridges.</p> <p>The boxes are to be installed during the bridge construction to ensure the boxes can be installed over the water.</p> <p>Condition reason: To provide habitat for microbats, including threatened species.</p>
77	<p>Public Domain Works Inspections</p> <p>All public domain works shall be constructed by licensed contractors. All the soft landscape works shall be carried out by licensed landscape contractors.</p> <p>A pre-work site meeting is required with Council's Road Asset Planning Team before start of any works on site to confirm the works as per the approved CC drawing set and to discuss any critical issues that may arise</p> <p>A range of inspections will be carried out by Council staff during the construction phase. The applicant must</p>

	<p>contact Council's Inspection Officer for each inspection listed below. At least 48 hour notice must be given for all inspections, except tree inspections which require a 7 days' notice.</p> <p>The required inspections include the following:</p> <ul style="list-style-type: none"> • Commencement of public domain works including tree protection measures installed and set out of tree pits. • Formwork inspection for all footpaths and footpath crossing call 9806 5438 minimum of 48 hours in advance of the required inspection. • Commencement of the works including survey marks, sub-grade preparation and set out of kerb alignments. • Completion of concrete blinding layer before any paver to be laid; and set out/location of furniture installation. • Completion of (raised) planting beds with required sub-drainage layer installed as specified. Procured soil media specifications and docket receipts to be signed at this inspection. • Delivery of street trees to site. • Trees shall be installed within 24hrs of delivery; the contractor shall provide Council officers, certification that the trees have been grown in accordance with AS2303:2018 to prove the quality of the tree stock. • Final defects inspection after all work has been completed to view paving sealant, tactile surface indicators, service lids, nature strip/vegetation and location of fixtures and fittings. <p>Note: Additional daily inspections by Council Officers may occur to view progressive paving set out and construction depending on the project size and type.</p> <p>Council's Roads Infrastructure team is to be invited to witness major/critical project milestones together with project manager and PCA, especially inspections before handover of assets to Council (at practical completion and at end of defect liability period)</p> <p>During construction of all public area civil and drainage works a qualified civil engineer must supervise the work to ensure it is completed in accordance with Council's Public Domain Guidelines. Certification is required to be provided with the Occupation Certificate.</p> <p>Condition reason: To ensure the quality of public domain works complying with Council standards and requirements.</p>
78	<p>Waste Management</p> <p>While building work, demolition or vegetation removal is being carried out, the principal certifier must be satisfied all waste management is undertaken in accordance with the approved waste management plan.</p> <p>Upon disposal of waste, the applicant is to compile and provide records of the disposal to the principal certifier, detailing the following:</p> <ul style="list-style-type: none"> • The contact details of the person(s) who removed the waste • The waste carrier vehicle registration • The date and time of waste collection • A description of the waste (type of waste and estimated quantity) and whether the waste is expected to be reused, recycled or go to landfill • The address of the disposal location(s) where the waste was taken • The corresponding tip docket/receipt from the site(s) to which the waste is transferred, noting date and time of delivery, description (type and quantity) of waste. <p>Note: If waste has been removed from the site under an EPA Resource Recovery Order or Exemption, the applicant is to maintain all records in relation to that Order or Exemption and provide the records to the principal certifier and Council.</p>

	<p>Condition reason: To require records to be provided, during construction, documenting that waste is appropriately handled</p>
Before issue of an occupation certificate	
79	<p>Maintenance contact details</p> <p>Prior to the issue of any Occupation Certificate contact details for maintenance and defect reporting must be provided to Sydney Olympic Park Authority.</p> <p>Evidence must be provided to the PCA of this.</p> <p>Condition reason: To ensure correct contact details are provided for maintenance issues.</p>
80	<p>Certificate Authority Arrange Qualified Landscape Architecture (multi)</p> <p>A qualified Landscape Architect/Designer must certify that the completed works are in accordance with the approved landscape plan. All landscape works must be completed prior to the issue of an Occupation Certificate.</p> <p>Condition reason: To ensure restoration of environmental amenity.</p>
81	<p>Completion of Landscape and Tree Works</p> <p>Before the issue of an occupation certificate, the principal certifier must be satisfied that all landscape and tree-works, including pruning in accordance with AS 4373-2007 Pruning of amenity trees and the removal of all noxious weed species, have been completed in accordance with the approved plans and any relevant conditions of this consent.</p> <p>Condition reason: To ensure the approved landscaping works have been completed before occupation, in accordance with the approved landscaping plan(s).</p>
82	<p>Occupation Certificate</p> <p>Occupation or use of the building or part is not permitted until an Occupation Certificate has been issued in accordance with Section 6.9 and/or 6.10 f the Environmental Planning and Assessment Act 1979.</p> <p>Condition reason: To comply with legislative requirements of the Environmental Planning and Assessment Act 1979.</p>
83	<p>Public asset handover</p> <p>The works that will become Council's asset upon dedication shall be completed to the following requirements of City of Parramatta Council are satisfied:</p> <ul style="list-style-type: none"> • Compliance with Councils Design Specifications • Compliance with the approved Road Pavement Design report • Compliance with the schedule of Council inspections • Compliance with each Hold Point as noted in this consent. <p>Handover requirements</p> <p>On completion of all works and before the issue of the relevant Occupation Certificate and formal handover. The following information is to be provided to the satisfaction of Councils Group Manager Roads Infrastructure.</p> <ol style="list-style-type: none"> 1. Works—as—executed drawings in electronic format (AutoCAD dwg and pdf format) or ADAC format confirming construction with respect to the approved design. 2. Backfill compaction test results undertaken by NATA approved laboratory confirming compliance with council minimum compaction requirements. 3. A satisfactory site walk is to be undertaken with Council's Road Infrastructure, Asset Planning team.

	<p>4. The Inspection and Maintenance Manual for the bridge and all other associated structures to be prepared and submitted to Roads Infrastructure</p>
	<p>Condition reason: To ensure any public assets are completed to Councils standards</p>
84	<p>Public Domain Occupation Certificate Requirements</p> <p>Prior to any issue of the Occupation Certificate (including a Preliminary OC), the works outlined in the approved Public Domain Construction Drawings must be completed to Council's satisfaction and final defects rectified, with a final approval obtained from Council's Road Asset Planning, Catchment Management & Environment Manager.</p> <p>Any defects raised by Council officers during the above construction and defects period inspections, will be notified in writing. Defects may include incorrect location of elements, unsatisfactory construction techniques or finishes, or any other non-compliances with the approved plans, longitudinal sections and specifications or the public domain guidelines.</p> <p>All defects raised by Council officers during the construction period and at final inspection need to be rectified prior to and signed off at the final defects' inspection by Council officers to achieve Occupation Certification.</p> <p>A 52 week defects period will commence with issue of an Occupation Certificate.</p> <p>Further signoff of defects will again be needed prior to final handover.</p> <p>The Certificate of Completion shall not be issued until Council's final approval is obtained.</p> <p>The Work-as-Executed Plans shall be prepared and submitted to Council showing the final-approved public domain works after the final approval, and prior to any issue of the OC. The WAE drawings shall be submitted to Council as both CAD and PDF drawings.</p> <p>A landscape maintenance schedule prepared by a qualified Landscape Architect shall be submitted to Council specifying the required plant establishment to be provided by the applicant following OC.</p> <p>Maintenance of plant material to commence following OC for plant establishment period of –</p> <ul style="list-style-type: none"> • 52 weeks plant establishment & maintenance period for street trees • A two year (104 weeks) plant establishment and maintenance period for any public domain works that include WSUD devices, including bio-retention tree pit, rain garden, swale etc; and • A 5 year plant establishment and maintenance period for all soft works for any park area.
	<p>Condition reason: To ensure the quality of public domain works is completed to Council's satisfaction.</p>
85	<p>Release of Securities/Bonds</p> <p>When Council receives an occupation certificate from the principal certifier, the applicant may lodge an application to release the securities held.</p> <p>Council may use part, or all of the securities held to complete the works to its satisfaction if the works do not meet Council's requirements.</p> <p>Note: A written application to Council's Civil Assets Team is required for the release of a bond and must quote the following: (a) Council's Development Application number; and (b) Site address.</p> <p>Note: Council's Civil Assets Team will take up to 21 days from receipt of the request to provide the written advice.</p>
	<p>Condition reason: To allow release of securities and authorise Council to use the security deposit to complete works to its satisfaction.</p>
86	<p>Repair of Infrastructure</p>

	<p>Before the issue of an occupation certificate, the applicant must ensure any public infrastructure damaged as a result of the carrying out of building works (including damage caused by, but not limited to, delivery vehicles, waste collection, contractors, sub-contractors, concreting vehicles) is fully repaired to the written satisfaction of Council, and at no cost to Council.</p> <p>Note: If the council is not satisfied, the whole or part of the bond submitted will be used to cover the rectification work.</p> <p>Condition reason: To ensure any damage to public infrastructure is rectified.</p>
87	<p>Work-as-Executed Plan</p> <p>Works-As-Executed stormwater plans are to address the following:</p> <p>(a) A WAE survey shall be conducted and plans prepared showing the 'as built' of the complete on-site detention system including (but not limited to) discharge point into Council system, storage tank (including all critical elements), all pipes and pits connected to the OSD system, overland flow swale and surface levels that control surface flows to the OSD system and by design bypassing the OSD system.</p> <p>(b) The Work-As-Executed plans are prepared on the copies of the approved drainage plans issued with the Construction Certificate with the variations marked in red ink.</p> <p>(c) The Work-As-Executed plans have been prepared by a registered surveyor certifying the accuracy of dimensions, levels, storage volumes, etc.</p> <p>(d) The as built On-Site Detention (OSD) storage volumes are to be presented in a tabular form (depth verses volume table</p> <p>(e) OSD Works-As-Executed dimensions form (refer to UPRCT Handbook).</p> <p>(f) Certificate of Hydraulic Compliance from a qualified drainage / hydraulic engineer (refer to UPRCT Handbook). The certificate must only be provided after conducting a satisfactory final inspection. The final inspection shall include the application of all the ancillary components of the system including but not limited to: step-irons, orifice plate, trash screen with appropriate wall attachment, hinged lockable grates, confined space sign, functioning return lap valve and relief drains within DCP sump etc.</p> <p>(g) Certificate of Structural compliance of the OSD tank shall reference the structural elements including floor slab/foundations, walls and cover slab from a qualified structural engineer</p> <p>The above is to be submitted to the Principal Certifying Authority prior to the issue of an occupation certificate and a copy is to accompany the Occupation Certificate when lodged with Council.</p> <p>Condition reason: To ensure works comply with approved plans and adequate information is available for Council to update the Upper Parramatta River Catchment Trust.</p>
88	<p>Easements</p> <p>Easements for public access, maintenance and support of the proposed structure must be registered prior to the issue of an Occupation Certificate where required on any non Council owned land.</p> <p>Condition reason: To ensure that the development is appropriately supported.</p>
89	<p>Floodlighting/light spillage diagram</p> <p>A light spillage diagram is required to be prepared by a suitably qualified lighting engineer and submitted to the Principal Certifier prior to the issue of the Occupation Certificate. This diagram is to demonstrate light spillage generated by the proposed floodlighting system complies with the requirements of Australian Standard AS4284 - Control of Obtrusive Effects of Outdoor Lighting. Light spillage mitigating measures shall be maintained, at all times.</p> <p>Condition reason: To prevent light spillage onto adjoining properties.</p>

Occupation and ongoing use

90	<p>Landscape Maintenance</p> <p>All landscape works shall be maintained for a minimum period of one (1) year following the issue of a Final Occupation Certificate, in accordance with the approved landscape plan and conditions.</p>
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	Condition reason: To ensure restoration of environmental amenity.
91	Lighting
	At no time is the intensity, period of intermittency and hours of illumination of the bridge lighting to cause objectionable glare or injury to the amenity of the neighbourhood and as such must be designed, installed and used in accordance with AS4282-1997 control of obtrusive effects of outdoor lighting. The lighting must also not cause light spill into ecologically sensitive areas.
	Condition reason: To ensure a reasonable environmental amenity.

Drawing Plotted 08 Dec 2023 12:01 PM



STRUCTURAL ENGINEERING
3497658

BENNELONG PARKWAY
BRIDGE
100% DETAILED DESIGN

COVER SHEET AND
DRAWING INDEX

GENERAL DRAWING LIST BENNELONG PARKWAY BRIDGE		
DRAWING No.	REVISION	DRAWING TITLE
3497658-GN-0001	E	COVER SHEET AND DRAWING INDEX
3497658-GN-0002	E	3D VISUALISATION
3497658-GN-0010	C	GENERAL NOTES - SHEET 1
3497658-GN-0011	C	GENERAL NOTES - SHEET 2
3497658-GN-0012	C	GENERAL NOTES - SHEET 3

STRUCTURAL DRAWING LIST BENNELONG PARKWAY BRIDGE		
DRAWING No.	REVISION	DRAWING TITLE
3497658-SE-1001	C	GENERAL ARRANGEMENT - PLAN
3497658-SE-1002	E	GENERAL ARRANGEMENT - ELEVATION
3497658-SE-1003	E	GENERAL ARRANGEMENT - TYPICAL SECTIONS
3497658-SE-1010	C	PILES - PLAN AND SET OUT
3497658-SE-1023	B	PILES - REINFORCEMENT DETAILS
3497658-SE-1030	C	EAST ABUTMENT - CONCRETE DETAILS
3497658-SE-1031	C	WEST ABUTMENT - CONCRETE DETAILS
3497658-SE-1033	B	ABUTMENTS - REINFORCEMENT DETAILS - SHEET 1
3497658-SE-1036	B	ABUTMENTS - REINFORCEMENT DETAILS - SHEET 2
3497658-SE-2001	C	TRUSS STEELWORK - PLAN & ELEVATION
3497658-SE-2003	B	STEELWORK SETOUT
3497658-SE-2010	B	STEELWORK TYPICAL DETAILS - SHEET 1
3497658-SE-2011	B	STEELWORK TYPICAL DETAILS - SHEET 2
3497658-SE-2012	B	STEELWORK TYPICAL DETAILS - SHEET 3
3497658-SE-2013	B	STEELWORK TYPICAL DETAILS - SHEET 4
3497658-SE-2015	B	STEELWORK TYPICAL SPLICE DETAIL - SHEET 1
3497658-SE-2016	B	STEELWORK TYPICAL SPLICE DETAIL - SHEET 2
3497658-SE-2030	C	CONSTRUCTION SEQUENCE
3497658-SE-2031	B	CONSTRUCTION PLAN
3497658-SE-2040	B	HANDRAIL DETAILS - SHEET 1
3497658-SE-2041	B	HANDRAIL DETAILS - SHEET 2
3497658-SE-3020	B	LIGHTING DETAILS
3497658-SE-3030	B	MISCELLANEOUS DETAILS
3497658-SE-3040	B	BEARINGS AND EXPANSION JOINT - DETAILS

CIVIL DRAWING LIST BENNELONG PARKWAY BRIDGE		
DRAWING No.	REVISION	DRAWING TITLE
3497658-CA-0002	B	SITE PLAN LAYOUT
3497658-CA-0003	B	SIGNAGE AND LINE MARKING PLAN
3497658-CA-0004	B	RAISED THRESHOLD DETAILS
3497658-CA-0005	A	CHAINAGE AND SETOUT PLAN
3497658-CA-0006	A	LONG SECTIONS



DECEMBER 2023



E	ISSUED FOR 100% DETAILED DESIGN	PN	LE	PT	08.12.23	Design	T. Mirosh	15.02.23	Approved for Construction*
D	ISSUED FOR 90% DETAILED DESIGN	PN	LE	PT	02.09.23	Check	A. Nadeau	15.02.23	
C	ISSUED FOR 60% DETAILED DESIGN	PN	LE	PT	15.02.23	Design	L. Edwards	15.02.23	
B	ISSUED FOR 30% DETAILED DESIGN	PN	LE	PT	25.11.22	Design	L. Edwards	15.02.23	Date
A	ISSUED FOR 10% DETAILED DESIGN	PN	LE	PT	14.05.22	Design			



Project	BENNELONG PARKWAY BRIDGE
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Title	COVER SHEET AND DRAWING INDEX
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Discipline	GENERAL ENGINEERING
Drawing No.	3497658-GN-0001
File	EE



3D VISUALISATION

ORIGINAL DRAWING
IN COLOUR
FOR REVIEW
NOT FOR CONSTRUCTION

E	ISSUED FOR 100% DETAILED DESIGN	PN	LE	PT	08.12.23	Design	T. Sirochka	01.02.24	Approved for Construction*
D	ISSUED FOR 90% DETAILED DESIGN	PN	LE	PT	02.08.23	Design	A. Hooper	01.02.24	
C	ISSUED FOR 60% DETAILED DESIGN	PN	LE	PT	15.02.23	Design	L. Edwards	01.02.24	
B	ISSUED FOR 30% DETAILED DESIGN	PN	LE	PT	25.11.22	Design	L. Edwards	01.02.24	
A	ISSUED FOR 10% DETAILED DESIGN	PN	LE	PT	14.08.22	Design	L. Edwards	01.02.24	



CITY OF PARRAMATTA

BENNELONG PARKWAY BRIDGE

3D VISUALISATION

GENERAL ENGINEERING
3497658-GN-0002

Document SBN405-2250-16 501 DIMENSIONS
Version: 1, Version Date: 28/10/2024

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GENERAL

- G1 ORIGIN OF LEVELS - AUSTRALIAN HEIGHT DATUM (A.H.D.)
- G2 CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
- G3 EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- G4 THIS DRAWING SET SHOULD BE READ IN CONJUNCTION WITH THE RELEVANT CIVIL, DRAINAGE, LANDSCAPING & URBAN DESIGN DRAWINGS. ANY DISCREPANCIES SHALL BE REFERRED TO THE CPS TEAM FOR RESOLUTION.
- G5 DRAWING REFERENCE AND NOTATION



- G6 IN THE EVENT OF ANY INCONSISTENCY BETWEEN THE GENERAL NOTES AND THE DRAWINGS, THE DRAWINGS SHALL TAKE PRECEDENCE.
- G7 THESE DRAWINGS SHALL NOT BE USED FOR COMMITTING TO MATERIALS ORDERS OR CONSTRUCTION UNTIL AUTHORISED AND ISSUED FOR CONSTRUCTION.
- G8 UNLESS NOTED OTHERWISE ALL DIMENSIONS ARE GIVEN IN MILLIMETRES ALL CHAINAGES ARE GIVEN IN METRES ALL CO-ORDINATES ARE TO GEOCENTRIC DATUM OF AUSTRALIA 2020 (GDA2020) ALL LEVELS ARE GIVEN TO AUSTRALIAN HEIGHT DATUM (AHD)
- G9 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
- G10 ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE CONFIRMED AND VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION AND/OR FABRICATION IS COMMENCED.
- G11 THE LOCATIONS OF UNDERGROUND SERVICES IDENTIFIED ON THE DRAWINGS ARE INDICATIVE ONLY. ALL EXISTING SERVICE LOCATIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE COMMENCING WORKS AND CONFIRM THAT THE LOCATION OF ALL SERVICES THAT MAY BE AFFECTED BY THE WORKS HAVE BEEN CORRECTLY IDENTIFIED.
- G12 PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE, THE CONTRACTOR SHALL CONTACT THE RELEVANT AUTHORITIES TO ASCERTAIN THE POSSIBLE LOCATION OF FURTHER SERVICES AND DETAILED LOCATION AND DEPTH OF ALL SERVICES AND ARRANGE FOR THEIR RELOCATION WHERE NECESSARY.
- G13 THE CONTRACTOR SHALL MAINTAIN ALL WORK SITES IN A SAFE AND STABLE CONDITION.
- G14 WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH TNSW STANDARD SPECIFICATIONS UNLESS STATED OTHERWISE.
- G15 NOMINATION OF PROPRIETARY ITEMS DOES NOT INDICATE EXCLUSIVE PREFERENCE BUT INDICATES THE REQUIRED PROPERTIES OF THE ITEM. SIMILAR ALTERNATIVES HAVING THE REQUIRED PROPERTIES MAY BE OFFERED TO THE SUPERINTENDENT AND DESIGNER FOR APPROVAL.
- G16 INSTALL PROPRIETARY ITEMS STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, RECOMMENDATIONS AND ALL RELEVANT STANDARDS.
- G17 THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE DESIGNER, AND ANY APPROVAL GIVEN IS NOT AN AUTHORIZATION FOR A VARIATION TO THE CONTRACT. ANY VARIATION INVOLVED MUST BE TAKEN UP WITH THE SUPERINTENDENT BEFORE THE WORK IS COMMENCED.
- G18 PRIOR TO ANY CONSTRUCTION ACTIVITY ON SITE, INCLUDING EXCAVATION AND PILING, THE CONTRACTOR SHALL CHECK WITH ALL RELEVANT AUTHORITIES AND OBTAIN ALL NECESSARY PERMITS.
- G19 ALL DIMENSIONS TO EXISTING WORK SHALL BE VERIFIED BY SITE MEASUREMENTS PRIOR TO FABRICATION.
- G20 THE PRESENCE, LOCATION AND DETAILS OF NIBS, UPSTANDS, RECESSES, PLINTHS, PENETRATIONS, INSERTS, SLEEVES, CHASES, REBATES, CAST-IN FIXINGS, BRACKETS, HOLES, FLASHINGS, DAMP-PROOFING AND WATERPROOFING ETC ARE NOT NECESSARILY SHOWN ON THE STRUCTURAL DRAWINGS. FOR THESE ITEMS ALSO REFER TO CONTRACTORS TEMPORARY WORKS PROJECT DRAWINGS.
- G21 THE LOCATION, SIZE AND DETAILS OF ALL PENETRATIONS, RECESSES, SLEEVES, HOLES ETC IN STRUCTURAL MEMBERS, MUST BE ACCEPTED BY THE DESIGNER PRIOR TO CONSTRUCTION UNLESS SHOWN ON THE STRUCTURAL DRAWINGS. THESE ITEMS SHALL BE CAST-IN, FORMED, OR SHOP FABRICATED AND SHALL NOT BE CUT OR CORED ON SITE, UNLESS NOTED OTHERWISE OR ACCEPTED BY THE DESIGNER.
- G22 EXPOSED SURFACES A MINIMUM OF 3m ABOVE REINSTATED GROUND LEVELS OR ACCESSIBLE FOOHOLDS OF THE FOLLOWING VISIBLE ELEMENTS SHALL BE TREATED WITH A NON-SACRIFICIAL ANTI-GRAFFITI COATING
 - ABUTMENT BEAMS
 - ABUTMENT PILES

GENERAL (cont)

- G23 NOTE - REQUIREMENTS FOR:
 - SHOP DRAWINGS
 - PROPPING DOCUMENTATION
 - INSPECTION AND TESTING DOCUMENTS
 - MATERIAL SPECIFICATION
 - TOLERANCES
 ARE INCLUDED IN RELEVANT TNSW QA SPECIFICATIONS.
- G24 STANDARDS LISTED REFER TO THEIR LATEST ISSUE INCLUDING AMENDMENTS THAT ARE CURRENT AT THE TIME OF PREPARING THESE DRAWINGS.
- G25 CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY ACCESS ROUTES FOR PEDESTRIANS AND CYCLISTS DURING CONSTRUCTION AND TO APPLY/IMPLEMENT TRAFFIC MANAGEMENT PLAN.

DESIGN BASIS

- D1 DESIGN LIFE
 - 100 YEARS
 - D2 DESIGN STANDARDS
 - DESIGNED GENERALLY IN ACCORDANCE WITH AS 5100 BRIDGE DESIGN. FOR MORE INFORMATION REFER TO THE BENNELONG PARKWAY CYCLEBRIDGE DESIGN STATEMENT
 - D3 MATERIALS UNIT WEIGHTS:
 - REINFORCED CONCRETE 25.0 kN/m³
 - STEEL 77 kN/m³
 - D4 LIVE LOADING -
 - PEDESTRIAN LIVE LOADING APPLIED IN ACCORDANCE WITH THE AS 5100 2 WORST CASE OF 4kPa OVER ENTIRE SPAN, OR 5kPa OVER 17m LOADED LENGTH WAS CONSIDERED
 THE STRUCTURE IS ALSO DESIGNED FOR THE FOLLOWING VEHICLES:
 - MAINTENANCE VEHICLE (GENE QS-2658 RT SCISSOR LIFT) WITH THE FOLLOWING AXLE LOADING LAYOUT) TO BE VEHICLE TO BE LIMITED TO MAXIMUM 50kN WHILE MOVING ON STRUCTURE. IMPACT OF 1.10 HAS BEEN CONSIDERED FOR FLEXURAL DESIGN OF LONGITUDINAL RUNNING BEAMS,
-
- D5 THERMAL LOADING:
 - REGION II, INLAND, <1000 ABOVE SEA LEVEL
 - MAXIMUM AVERAGE TEMPERATURE 65°C
 - MINIMUM AVERAGE TEMPERATURE (-7)°C
 - D6 WIND LOADS:
 - WIND REGION A2
 - TERRAIN CATEGORY 2.5
 - V2000 (ULTIMATE) 48 m/s
 - V20 (SERVICEABILITY) 37 m/s
 - D7 EARTHQUAKE LOADING:
 - BEC 2
 - DESIGN SEISMIC HAZARD FACTOR 0.08
 - PROBABILITY FACTOR 1.0
 - SITE SUBSOIL Cc (SHALLOW SOIL SITE)
 - D8 BALUSTRADE LOAD:
 - LOADS DEFINED BY AS 5100 2 CL. 12.5
 - D9 FLOOD LOADING:
 - 1% AEP FLOOD LEVEL - 2.4m AHD
 - 1% AEP FLOW VELOCITY - 4.02m/s
 - D10 EARTH PRESSURE:
 - COMPACTED FILL WEIGHT = 21 kN/m³
 - INTERNAL FRICTION ANGLE = 32°
 - SOIL COHESION = 0 kPa
 - D11 SERVICES:
 - PROVISION FOR 1 No 80mm DIA LIGHTING DUCT, LOCATION TBC 25 Kg/m
 - PROVISION FOR 4 No 150mm DIA DUCTS FOR FUTURE SERVICES 100Kg/m TOTAL
 - D12 COMPACTION LOADING BEHIND ABUTMENT/RETAINING WALLS:
 - 12 kPa VIBRATORY COMPACTOR LOAD TO AS4678-2002

BACKFILL

- BF1 THE FOLLOWING PARAMETERS HAVE BEEN ASSUMED FOR THE BACKFILL. FOR FURTHER INFORMATION ON THE BACKFILL PARAMETERS REFER TO BENNELONG PARKWAY CYCLEBRIDGE DESIGN STATEMENT

STRUCTURAL BACKFILL DESIGN ASSUMPTIONS	
UNIT WEIGHT (kN/m ³)	21
FRICTION ANGLE (°)	32

- BF2 BACKFILLING BEHIND RETAINING WALL AND ABUTMENTS SHALL BE IN ACCORDANCE WITH TRANSPORT FOR NSW QA SPECIFICATION B30 AND R44.

BORED PILES

- BP1 FOR FURTHER INFORMATION ON BORED PILE DESIGN AND SOIL PARAMETERS REFER TO BENNELONG PARKWAY CYCLEBRIDGE DESIGN STATEMENT.

GEOTECHNICAL REDUCTION FACTOR AND VALUE FOR DESIGN ASSUMPTIONS	
GEOTECHNICAL REDUCTION FACTOR	0.45

- BP2 CONSTRUCTION OF BORED PILES SHALL COMPLY WITH THE TNSW QA SPECIFICATION B59
- BP3 THE PRESENCE OF ALL EXISTING SERVICES SHALL BE INVESTIGATED BEFORE WORKS. ANY REPARATION AFTER DAMAGE CAUSED BY PILING ACTIVITIES IS CONTRACTOR'S RESPONSIBILITY.
- BP4 PROPER SAFETY MEASURES SHALL BE TAKEN TO AVOID INJURY TO PEOPLE. ANY UNATTENDED HOLE SHALL BE COVERED OR FENCED OFF AT ALL TIMES.
- BP5 THE CONTRACTOR/SUBCONTRACTOR SHALL MAKE THEIR OWN ASSESSMENT OF THE GEOTECHNICAL INFORMATION AVAILABLE AND INFORMATION PRESENTED IN FACTUAL AND INTERPRETIVE GEOTECHNICAL REPORTS.
- BP6 THE CONTRACTOR/SUBCONTRACTOR ARE RESPONSIBLE OF CHECKING THE QUALITY OF FOUNDING LAYERS WITH APPROPRIATE TESTS WHEN A DOUBT EXISTS.
- BP7 THE PILING CONTRACTOR SHALL KEEP RECORDS OF ALL PILING OPERATIONS AS OUTLINED IN AS2159 AND SUBMIT THEM PROGRESSIVELY AS THE WORKS PROGRESS.
- BP8 CONCRETE SHALL BE PLACED AS SOON AS POSSIBLE AFTER BORING, VERIFICATION OF FOUNDING LEVELS AND MATERIAL BY THE SITE GEOTECHNICAL ENGINEER AND AFTER OBTAINING REQUIRED APPROVAL FROM THE SUPERINTENDENT IF NECESSARY. THE TIME PERIOD BETWEEN COMMENCEMENT OF PILE EXCAVATION AND COMPLETION OF CONCRETING SHALL NOT EXCEED 24 HOURS.
- BP9 FOR PILES TO BE FOUNDED IN ROCK, THEY MUST EXTEND A MINIMUM OF ROCK SOCKET LENGTH AS SPECIFIED IN THE DRAWINGS AND BENNELONG PARKWAY CYCLEBRIDGE DESIGN STATEMENT THE ROCK QUALITY MUST BE CHECKED AND COMPLIES WITH THE ONE EXPECTED FROM THE DESIGN. OTHERWISE, THE DESIGNER SHALL BE CONTACTED IMMEDIATELY.
- BP10 TEMPORARY CASING MAY BE USED TO PREVENT ANY WATER LEAKAGE AND SOIL COLLAPSE AS REQUIRED. IF TEMPORARY CASING IS USED, THE CASING MUST BE WITHDRAWN WITH CARE DURING CASTING OF CONCRETE. CARE MUST BE TAKEN TO PREVENT SOIL/ROCK DISLODGING FROM THE SIDE OF THE HOLE AND CONCRETE CONTAMINATION. THE MINIMUM HEIGHT OF CONCRETE WITHIN THE CASING MUST BE ADJUSTED TO ENSURE THAT OUTSIDE WATER DOES NOT ENTER IN THE CASING AND THAT THE SOILS PRESSURE AT THE TOE OF CASING IS BALANCED BY THE MASS OF CONCRETE IN THE CASING. THE FREE SURFACE OF THE CONCRETE MUST BE AT LEAST 1.5M ABOVE THE BOTTOM OF CASING.
- BP11 THE BASE OF PILES SHALL BE FOUNDED IN UNDISTURBED MATERIAL. THE BASE SHALL BE CLEANED, OUT OF LOOSE OR DISTURBED MATERIAL PRIOR TO CONCRETE FILLING.
- BP12 THE PILES HOLES SHALL BE KEPT FREE OF WATER AT ALL TIMES, PARTICULARLY PRIOR TO AND DURING CONCRETING. THE TOP OF THE HOLE SHALL BE PROPERLY COVERED TO PREVENT SURFACE WATER OR RAINFALL FALLING INTO THE HOLE.
- BP13 FOR FINAL CUT-OFF LEVELS ABOVE THE NATURAL GROUND LEVEL, TEMPORARY LINERS SHALL BE USED TO FORMED THE PILES TO THE CORRECT LEVELS.
- BP14 CONCRETE MUST BE PLACED THROUGH A TREMIE TUBE AND MUST NOT BE DROPPED FROM A HEIGHT GREATER THAN 2m. CONCRETE WHICH IS BEING DISCHARGED FROM THE TREMIE MUST BE GUIDED AWAY FROM THE PILE REINFORCEMENT TO CONTROL SEGREGATION BY THE FLOW OF CONCRETE IMPINGING ON THE REINFORCEMENT.
- BP15 PILES MUST BE WITHIN TOLERANCES SPECIFIED IN TRANSPORT FOR NSW QA SPECIFICATION B59.
- BP16 PILE REINFORCEMENT CAGES ARE TO BE SUSPENDED FOR A MINIMUM OF 8 hrs AFTER PLACEMENT OF CONCRETE.
- BP17 PILE CONCRETE TO BE OVER-POURED AND BROKEN DOWN TO PROVIDE SOUND CONCRETE AT THE TOP OF THE PILE.
- BP18 A SUITABLY EXPERIENCED GEOTECHNICAL ENGINEER SHALL BE ON SITE AT INSTALLATION OF BORED PILES TO CONFIRM THE EXPECTED GROUND CONDITIONS.
- BP19 TOP OF PILES SHALL BE SCABBLED AND CLEANED PRIOR TO CASTING OF THE CONCRETE COLUMN AND ABUTMENT

**FOR REVIEW
NOT FOR CONSTRUCTION**

C	ISSUED FOR 10% DETAILED DESIGN	PN	LE	PT	08.12.23	Design	T. Minicopa	15.02.23	checked for contractor*
B	ISSUED FOR 60% DETAILED DESIGN	PN	LE	PT	07.08.23	Design	P. Hoare	15.02.23	
A	ISSUED FOR 60% DETAILED DESIGN	PN	TM	LE	15.02.23	Sup. verify	L. Edwards	15.02.23	
10	Revision	PN	TM	LE	15.02.23	Sup. check	L. Edwards	15.02.23	Date

Original	Design	T. Minicopa	15.02.23	checked for contractor*
Issue (A1)	Design	P. Hoare	15.02.23	
Revised	Sup. verify	L. Edwards	15.02.23	
Issue (A1)	Sup. check	L. Edwards	15.02.23	Date



Project: BENNELONG PARKWAY BRIDGE

No: GENERAL NOTES SHEET 1

Discipline: GENERAL ENGINEERING
Drawing No: 3497658-GN-0010

File: C

CONCRETE

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 5100 AND TNSW QA SPECIFICATION B80 - CONCRETE WORK FOR BRIDGES INCLUDING AMENDMENTS, EXCEPT WHERE VARIED BY THE DRAWINGS.
- C2. CONCRETE MIXES CONTAINING SUPPLEMENTARY CEMENTITIOUS MATERIALS SHALL COMPLY WITH TNSW QA SPECIFICATION B80 - CONCRETE WORK FOR BRIDGES.
- C3. BLINDING LAYER WHERE SHOWN SHALL BE 30mm THICK CONCRETE GRADE 20MPa UNLESS NOTED OTHERWISE.
- C4. CONCRETE SHALL BE SPECIAL CLASS AS SPECIFIED IN TNSW QA SPECIFICATION B80-CONCRETE WORK FOR BRIDGES.
- C5. CONCRETE GRADE, EXPOSURE CLASSIFICATION FOR SURFACES AND MINIMUM COVER TO ALL REINFORCEMENT FOR VARIOUS ELEMENTS SHALL BE AS FOLLOWS (FOR DETAIL INFORMATION REFER TO THE DURABILITY REPORT).

ELEMENT	SUB-ASSET	EXPOSURE CLASSIFICATION	MATERIAL TYPE	MINIMUM CONCRETE GRADE (MPa)	MINIMUM COVER (mm)
ABUTMENT	REINFORCED CONCRETE	C1	CAST-IN-PLACE CONCRETE	50	75 (+35 IF CAST AGAINST GROUND)
PILE FOUNDATION	REINFORCED CONCRETE	C1	CAST-IN-PLACE CONCRETE	50	100
WING WALLS	REINFORCED CONCRETE	B2	CAST-IN-PLACE CONCRETE	50	50 (+30 IF CAST AGAINST GROUND)
RETAINING WALL	REINFORCED CONCRETE	B2	PRECAST/CAST IN-SITU	50	50 (+30 IF CAST AGAINST GROUND)
BEARING / SHEAR KEY	CEMENT MORTAR	B2	HIGH STRENGTH NON-SHRINK GROUT	40	NA
APPROACH SLAB AND ROAD FURNITURE	REINFORCED CONCRETE	A2	CAST-IN-PLACE CONCRETE	25	40 (+30 IF CAST AGAINST GROUND)

- C6. THE SUBSTRUCTURE DESIGN ASSUME EXPOSURE CLASSIFICATION C1. THE CONTRACTOR SHALL UNDERTAKE CREEK WATER SAMPLING (DURING THE HIGH TIDE LEVEL) AND CHEMICAL TESTING PRIOR TO CONSTRUCTION. TEST RESULTS SHALL BE ISSUED TO BECA FOR REVIEW TO VALIDATE THE EXPOSURE CLASSIFICATION. NO SUBSTRUCTURE CONSTRUCTION ACTIVITIES SHALL COMMENCE PRIOR TO THE VALIDATION OF EXPOSURE CLASSIFICATION.
- C7. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF ANY APPLIED FINISHES.
- C8. NO HOLES, CHASES OR EMBODIMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR APPROVAL OF THE DESIGNER.
- C9. THE CONTRACTOR IS TO TAKE SPECIAL PRECAUTIONS TO IMPROVE THE LONG TERM PERFORMANCE OF THE EXPOSED FACES OF CONCRETE. IN PARTICULAR, NO METAL INSERTS, METAL BAR CHAIRS OR METAL SPACERS OF ANY KIND ARE TO BE PLACED ON THE COVER ZONES WITHOUT THE APPROVAL OF THE DESIGNER.
- C10. CHAMFERS TO EXPOSED EDGES SHALL BE 20mm UNLESS NOTED OTHERWISE.
- C11. THE DIMENSIONAL TOLERANCE OF CONCRETE COVER SHALL BE AS STATED IN TNSW QA SPECIFICATION B80 - CONCRETE WORK FOR BRIDGES.
- C12. CONCRETE FINISHES SHALL BE TO AS 2610.1 UNLESS NOTED OTHERWISE.
- C13. CONCRETE DIFFERENTIAL TEMPERATURE ACROSS ANY CONCRETE FACE SHALL NOT EXCEED 20°C AND MAXIMUM CONCRETE TEMPERATURE SHALL NOT EXCEED 75°C DURING THE CURING PERIOD.
- C14. BLENDED CEMENT WITH MINIMUM 25% FLY ASH OR 50% SLAG SHALL BE USED IN THE CONCRETE.
- C15. ALL CONCRETE EXCEPT APPROACH SLAB AND ROAD FURNITURE SHALL BE CURED CONTINUOUSLY FOR AT LEAST 14 DAYS AS PER AS5100 CL 4.9. APPROACH SLAB AND ROAD FURNITURE SHALL BE CURED CONTINUOUSLY FOR AT LEAST 7 DAYS AS PER TNSW QA SPECIFICATION R33.
- C16. CONCRETE WORKS FOR ROAD FURNITURE AND APPROACH SLAB SHALL BE AS PER TNSW QA SPECIFICATION R33. CONCRETE COVER SHALL BE AS PER CITY OF PARRAMATTA STANDARD COUNCIL DRAWING.
- C17. NOMINATED MINIMUM COVERS ASSUME EFFECTIVE, CONTINUOUS AND UNINTERRUPTED CURING IN ACCORDANCE WITH AS 5100.9 - 2017 CLAUSE 4.4.2.1. UNLESS SPECIFIED OTHERWISE CURING COMPOUNDS SHALL NOT BE USED ON STRUCTURES.

PRECAST CONCRETE

- PC1. ALL PRECAST CONCRETE IS TO COMPLY WITH THE CONCRETE NOTES ON THESE DRAWINGS, AS 5100.3, AND TNSW QA SPECIFICATION B80 CONCRETE WORK FOR BRIDGES.
- PC2. THE CONTRACTOR SHALL REFER TO ALL RELEVANT DRAWINGS TO ENSURE THAT ALL OPENINGS, RECESSES, FIXINGS AND FITTINGS SPECIFIED ON THE DRAWINGS ARE INCORPORATED INTO THE PRECAST ELEMENTS.
- PC3. DESIGN, SUPPLY AND FIT LIFTING FIXINGS AS REQUIRED. ALL FERRULES USED SHALL BE GALVANISED STEEL OR OTHERWISE APPROVED, AND FITTED WITH ANCHORAGE BARS OF MINIMUM 10mm DIAMETER. THE FERRULES SHALL DEVELOP THE FULL CAPACITY OF THE BOLT TO BE USED IN CONJUNCTION WITH THE FERRULE. A MINIMUM M20 FERRULE IS TO BE ADOPTED UNLESS NOTED OTHERWISE.
- PC4. SHOP DRAWINGS ARE TO DRAWN AND SUBMITTED TO ENABLE REVIEW AND ALTERATIONS IF NECESSARY TO BE MADE PRIOR TO FABRICATION.

REINFORCEMENT

- R1. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- R2. ALL BENDS AND COGS SHALL BE IN ACCORDANCE WITH AS 5100.5 AND TNSW QA SPECIFICATION B80-CONCRETE WORK FOR BRIDGES.
- R3. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN OR AS OTHERWISE APPROVED BY THE DESIGNER. ALL LAPS SHALL BE FULL STRENGTH SPLICES COMPLYING WITH AS 5100.5.
- R4. WELDING OF THE REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE DESIGNER.
- R5. REINFORCEMENT SYMBOLS:-
 - N GRADE D50N DEFORMED BARS TO AS/NZ 4671
 - R GRADE R20N PLAIN ROUND BARS TO AS/NZ 4671
 - W GRADE D50L HARD DRAWN REINFORCING WIRE TO AS/NZ 4671
 - RL & SL GRADE D50L WELDED WIRE REINFORCING MESH TO AS/NZ 4671
- R6. THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NOMINAL BAR DIAMETER IN MILLIMETRES. SPACING OF REINFORCEMENT SHALL BE TAKEN AS EQUAL UNLESS NOTED OTHERWISE.

Rev	Description	By	Check	Date	Scale
C	ISSUED FOR 10% DETAILED DESIGN	PN	LE	08.10.23	
B	ISSUED FOR 50% DETAILED DESIGN	PN	LE	07.09.23	
A	ISSUED FOR 30% DETAILED DESIGN	PN	TH	15.02.23	
10	Initial	PN	ST	14.01.23	

REINFORCEMENT (cont)

- R7. REINFORCEMENT NOTATION AS FOLLOWS:
 - 9M16-150 T
 - THE NUMBER PRECEEDING THE BAR SYMBOL (9) IS BAR QUANTITY
 - THE NUMBER FOLLOWING THE REINFORCEMENT SYMBOL (16) IS BAR DIAMETER
 - THE NUMBER FOLLOWING THE DASH (150) IS THE CENTRE TO CENTRE SPACING IN (mm)
 - THE LETTER FOLLOWING THE SPACING (T) IS THE LOCATION OF THE BAR IN THE ELEMENT AS FOLLOWS:
 - ABR ALTERNATE BAR REVERSED
 - ALT ALTERNATING BARS
 - B BOTTOM
 - C CENTRAL
 - CP CENTRALLY PLACED
 - EF EACH FACE
 - EW EACH WAY
 - FF FAR FACE
 - LV LENGTH VARIES
 - MF NEAR FACE
 - T TOP
- R8. UNLESS OTHERWISE SPECIFIED THE MINIMUM DEVELOPMENT LENGTHS AND LENGTHS OF LAPS SHALL BE:

	CONCRETE GRADE	STEEL GRADE	TOP BARK FACTOR	DEVELOPMENT LENGTH						
				N12	N16	N20	N25	N28	N40	
CONCRETE	40 MPa	TOP BARK FACTOR = 1.3	400	500	750	950	1150	1400	1800	2200
STEEL GRADE	500 MPa	TOP BARK FACTOR = 1	400	500	750	900	1100	1300	1600	1700
CONCRETE	50 MPa	TOP BARK FACTOR = 1.3	600	800	850	1050	1200	1350	1500	1550
STEEL GRADE	500 MPa	TOP BARK FACTOR = 1	400	500	650	800	1000			

TOP BAR FACTOR IS 1.0 FOR ALL VERTICAL BARS (COLUMNS, WALLS) AND FOR HORIZONTAL BARS WITH LESS THAN 300mm OF FRESH CONCRETE CAST BENEATH BAR (TYPICALLY BEAM BOTTOM BARS AND SLAB BARS)
 TOP BAR FACTOR IS 1.3 FOR ALL HORIZONTAL BARS WITH MORE THAN 300mm OF FRESH CONCRETE CAST BENEATH THE BAR (TYPICALLY BEAM TOP BARS AND HORIZONTAL WALL BARS)

- R9. CLEAR DISTANCE BETWEEN BARS BEING LAPPED SHALL NOT EXCEED 3x THE BAR DIAMETER.
- R10. MINIMUM MESH REINFORCEMENT LAP SHALL BE IN ACCORDANCE WITH AS 5100.5, UNLESS NOTED OTHERWISE.
- R11. THE LAP LENGTH OF BUNDLED BARS SHALL BE INCREASED FROM THE VALUES SHOWN IN THE TABLE AS FOLLOWS:-
 - 3 BAR BUNDLE - 20% INCREASE
 - 4 BAR BUNDLE - 35% INCREASE
- R12. INDIVIDUAL BARS WITH A BUNDLE SHALL BE TERMINATED AT DIFFERENT POINTS STAGGERED BY AT LEAST 40 TIMES THE DIAMETER OF THE LARGER BAR.
- R13. LAPS IN REINFORCEMENT SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF BARS ARE LAPPED IN ANY ONE CROSS SECTION AND THAT NO TWO ADJACENT BARS ARE LAPPED AT THE SAME LOCATION. WHERE THIS IS NOT POSSIBLE THE MINIMUM DEVELOPMENT LENGTH NOMINATED IN NOTE 9.8 SHALL BE INCREASED BY 50%.

FORMWORK

- FM1. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, PROOF ENGINEERING CERTIFICATION, CONSTRUCTION, INSPECTION AND PERFORMANCE OF THE FORMWORK AND FALSEWORK, EXCEPT TO THE EXTENT THAT FORMWORK DESIGN IS SHOWN ON THE STRUCTURAL DRAWINGS.
- FM2. DESIGN CONSTRUCTION AND STRIPPING TIMES SHALL COMPLY WITH AS 5100 AND TNSW QA SPECIFICATION B80 - CONCRETE WORK FOR BRIDGES UNLESS OTHERWISE APPROVED BY THE DESIGNER.
- FM3. THE FORMWORK SHALL NOT BE DESIGNED TO RELY ON RESTRAINT OR SUPPORT FROM THE PERMANENT STRUCTURE WITHOUT PRIOR APPROVAL FROM THE DESIGNER.
- FM4. DIMENSIONAL TOLERANCE SHALL COMPLY WITH TRANSPORT FOR NSW QA SPECIFICATION B80 - CONCRETE WORK FOR BRIDGES.

LINE MARKING AND SIGNAGE

- LM1. THE WORK SHALL INCLUDE ALL LINE MARKING TO ROADS, HARDSTANDS, PATHS, CAR PARKS AND THE TRAFFICABLE AREAS.
- LM2. THE PAVEMENT MARKING AND PAINT SHALL BE IN ACCORDANCE WITH AS 1742.2 AND THE RMS DELINEATION MANUAL.
- LM3. LINE MARKING SHALL BE SPOTTED OUT AND APPROVED PRIOR TO SPRAYING.
- LM4. PAINT SHALL BE APPLIED AT A WET THICKNESS OF BETWEEN 0.35mm TO 0.40mm.
- LM5. ALL EXISTING PAVEMENT MARKINGS WHICH IS LOCATED ON EXISTING PAVEMENT TO BE RETAINED SHALL BE REMOVED BY GRINDING WHERE THE EXISTING MARKINGS ARE MADE REDUNDANT BY THE PROPOSED WORKS.
- LM6. ALL SIGN POST SUPPORT TO BE CONSTRUCTED AS PER D511 SERIES OF CITY OF PARRAMATTA COUNCIL (COPC).
- LM7. TACTILES TO BE REINSTATED IN ACCORDANCE WITH AS1428.

PAVEMENTS AND HARDSTAND

- PV1. THE SURFACE OF ANY COMPACTED LAYER SHALL BE KEPT MOIST, IN GOOD CONDITION AND FREE FROM CONTAMINATION UNTIL ANY SUBSEQUENT PAVEMENT WORK UNDER THE CONTRACT IS COMMENCED.

JOINTING

- J1. EXPANSION JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 6.0m CENTRES.
- J2. SAWCUT JOINTS ARE TO BE LOCATED AT A MAX 1.5 x WIDTH OF PAVEMENT.
- J3. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBS AND/OR ADJACENT PAVEMENT JOINTS.
- J4. ALL PEDESTRIAN FOOTPATH JOINTING LAYOUTS REFER TO DWG CA-004 FOR DETAILS.
- J5. ALL RAMPED CROSSINGS SHALL BE DOWEL/KEYED INTO ADJOINING PATH PAVEMENT.
- J6. ISOLATION JOINTS SHALL BE PLACED WHERE NEW CONCRETE PAVEMENT ABUTS ANY NEW OR EXISTING STRUCTURAL ELEMENTS.

UTILITY LOCATION AND CONFLICTS NOTES

- UT1. THE INFORMATION SHOWN IS NOT INTENDED TO PROVIDE THE CONTRACTOR WITH COMPLETE AND ACCURATE INFORMATION CONCERNING THE LOCATION AND EXTENT OF EXISTING UTILITY SERVICES. THE CONTRACTOR IS TO MAKE ENQUIRIES TO THE RELEVANT SERVICE AUTHORITIES AS TO THE LOCATION, DEPTH AND EXTENT OF UTILITY SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK ON SITE.
- UT2. THE CONTRACTOR SHALL IDENTIFY, LOCATE AND MARK ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND PROTECT AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE AND/OR ADJUST IF NECESSARY.
- UT3. WHEN AN EXISTING UNDERGROUND SERVICE NOT PREVIOUSLY IDENTIFIED, IS FOUND DURING CONSTRUCTION, THE CONTRACTOR IS TO IMMEDIATELY ADVISE THE PRINCIPAL AND RELEVANT SERVICE AUTHORITY. ALLOW A HOLD TIME FOR THE SERVICE AUTHORITY TO WITNESS AND DOCUMENT THE UNIDENTIFIED SERVICE.
- UT4. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY DAMAGE INCURRED TO THE EXISTING SERVICES AS A RESULT OF THE EXECUTION OF THE WORK UNDER THE CONTRACT.
- UT5. ALL UTILITIES WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CURRENT SERVICE AUTHORITIES STANDARDS UNLESS NOTED OTHERWISE.
- UT6. DRAWINGS DO NOT SHOW ALL PRIVATE PROPERTY UTILITY CONNECTIONS. PRIVATE PROPERTY CONNECTIONS TO BE VERIFIED ON SITE BY CONTRACTOR.

EROSION & SEDIMENT CONTROL

- ES1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE CARRIED OUT IN ACCORDANCE WITH INTERNATIONAL EROSION CONTROL ASSOCIATION - BEST PRACTICE EROSION AND SEDIMENT CONTROL AND THE GOLD COAST CITY COUNCIL CONSTRUCTION STANDARD SPECIFICATIONS.
- ES2. THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES RELATING TO A PARTICULAR UPSTREAM CATCHMENTS PRIOR TO STRIPPING OF TOPSOIL FROM THAT CATCHMENTS. WHERE IT IS NECESSARY TO UNDERTAKE STRIPPING IN ORDER TO CONSTRUCT A SEDIMENT CONTROL DEVICE ONLY SUFFICIENT GROUND SHALL BE STRIPPED TO ALLOW CONSTRUCTION.
- ES3. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED AS INDICATED IN THE DRAWINGS. THE LOCATION AND EXTENT OF SOIL AND WATER MANAGEMENT DEVICES IS DIAGRAMMATICAL ONLY AND THE ACTUAL REQUIREMENTS SHALL BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT.
- ES4. CONFORMITY WITH THE EROSION AND SEDIMENT CONTROL PLAN, DRAWING NO. THE GOLD COAST CITY COUNCIL SHALL IN NO WAY REDUCE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AGAINST WATER DAMAGE DURING THE COURSE OF THE CONTRACT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ANY NECESSARY CONTROL IS IN PLACE EVEN THOUGH SUCH CONTROL MAY NOT BE SHOWN ON THE PLAN.
- ES5. THE CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS AND ALL EMPLOYEES OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSTREAM AREAS.
- ES6. THE CONTRACTOR SHALL REGULARLY MAINTAIN SEDIMENT AND EROSION CONTROL STRUCTURES AND DE-SILT SUCH STRUCTURES PRIOR TO THE REDUCTION IN CAPACITY OF 30% DUE TO ACCUMULATED SILT. THE SEDIMENT SHALL BE DISPOSED OF ON SITE IN A MANNER APPROVED BY THE PRINCIPAL.
- ES7. TOPSOIL AND SPOIL SHALL BE STOCKPILED IN NON-HAZARDOUS AREAS AND PROTECTED FROM SURFACE RUNOFF BY DIVERSION DRAINS OR SIMILAR STOCKPILES SHALL BE SURROUNDED ON DOWNSTREAM SIDES BY SILT FENCING STOCKPILES SHALL BE SUITABLY COMPACTED TO INHIBIT EROSION. WHERE THE STOCKPILING PERIOD EXCEEDS FOUR (4) WEEKS, THE STOCKPILE SHALL BE SEEDED TO ENCOURAGE VEGETATION GROWTH.
- ES8. TOPSOIL SHALL BE RESEED AND STABILISED AS SOON AS POSSIBLE. DISTURBED AREAS SHALL BE LEFT WITH A SCARIFIED SURFACE TO ENCOURAGE WATER INFILTRATION AND ASSIST KEYING IN TOPSOIL.
- ES9. THE CONTRACTOR SHALL TEMPORARILY REHABILITATE WITHIN 40 DAYS ANY DISTURBED AREAS WHERE FINAL SHAPING HAS OCCURRED THE CONTRACTOR SHALL PROVIDE FINAL REHABILITATION WITHIN 20 DAYS.
- ES10. THE CONTRACTOR SHALL MAINTAIN GRASS COVER UNTIL ALL WORKS HAVE BEEN COMPLETED, INCLUDING THE MAINTENANCE PERIOD, BY FREQUENT WATERING AND MOWING WHERE REQUIRED. PLANT, MACHINERY AND VEHICLES SHALL NOT BE DRIVEN OVER GRASSED AREAS UNLESS ON AN APPROVED HAULAGE ROUTE.
- ES11. THE CONTRACTOR SHALL PROVIDE INLET SEDIMENT TRAPS AT ALL PITS DURING CONSTRUCTION AND REPLACE WITH KERB INLET CONTROL AT COMPLETION OF LINTEL CONSTRUCTION.
- ES12. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS QUICKLY AS POSSIBLE TO MINIMISE RISK OF EROSION.
- ES13. VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING CONSTRUCTION CONFINING ACCESS WHERE POSSIBLE TO PROPOSED OR EXISTING ROAD ALIGNMENTS PLUS 3 METRES WHERE NECESSARY. AREAS TO BE LEFT UNDISTURBED SHALL BE MARKED OFF.
- ES14. SITE ACCESS SHALL BE RESTRICTED TO A NOMINATED POINT. CONTRACTOR TO INSTALL VIBRATION GRID AT EXIT POINTS TO LIMIT DISPLACEMENT OF ON-SITE SILTY SOILS.

TREE REMOVAL

- TR1. ALL TREES AND SHRUBS (UNLESS NOTED TO BE PROTECTED ON THE LANDSCAPE PLANS), RUBBLE, EXISTING PAVEMENT AND EXISTING STRUCTURES WITHIN THE SITE SHALL BE REMOVED AND REUSED OR RECYCLED WHERE POSSIBLE. WHERE NOT POSSIBLE, THIS MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF AS PART OF THE CONTRACT.
- TR2. ANY TREES WITHIN THE WORKS AREA WHICH, IN THE OPINION OF THE CONTRACT ADMINISTRATOR, ARE UNSOUND OR WOULD CONSTITUTE A DANGER, SHALL BE CUT DOWN AND REMOVED (EXCEPT THOSE IDENTIFIED AS BEING PROTECTED). ALL STUMPS OF TREES CUT DOWN WITHIN THE BOUNDS OF THE CONSTRUCTION AREA WHICH ARE LARGER THAN 250mm IN GIRTH, SHALL BE COMPLETELY REMOVED.
- TR3. ALL ROOTS SHALL BE REMOVED FOR A DEPTH OF 1m. CAVITIES FORMED BY THE REMOVAL OF ROOTS SHALL BE BACKFILLED AND COMPACTED.
- TR4. AFTER CLEARING AND GRUBBING ARE COMPLETE, THE CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL FROM THE CLEARED AREA INCLUDING AREAS THAT HAVE BEEN CLEARED AND GRUBBED. REMOVAL OF TOPSOIL FROM ANY SECTION OF THE WORKS SHALL ONLY COMMENCE AFTER SEDIMENT AND EROSION CONTROLS HAVE BEEN IMPLEMENTED.

EXISTING SERVICES

- EX1. ALL EXISTING SERVICES MADE REDUNDANT FROM THE WORKS AND EXISTING REDUNDANT SERVICES SHALL BE REMOVED OR SEALED OFF IN ACCORDANCE WITH THESE DRAWINGS, THE CONTRACT DOCUMENTS AND TO THE SATISFACTION OF LOCAL AUTHORITY.

FOR REVIEW NOT FOR CONSTRUCTION



Project: BENNELONG PARKWAY BRIDGE

No	GENERAL NOTES SHEET 2	Date	GENERAL ENGINEERING
Rev		08/10/23	3497658-GN-0011
Drawn by			File C
Checked by			Doc

KERB, ISLAND, MEDIANS AND BARRIERS

- KB1. JOINTS IN KERBS (ETC.) MUST BE LOCATED ON COINCIDE WITH JOINTS IN FOOTPATH
- KB2. THE ADJOINING BASE, IN ACCORDANCE WITH RMS R15 WHERE THE KERB IS PLACED ON TOP OF, OR INTEGRAL WITH, BASE PAVEMENT, THE KERB JOINT MUST BE ALIGNED WITH THE BASE JOINT. OTHERWISE, KERB JOINTS MUST BE ALIGNED AS PER SHEET CP-14.
- KB3. UNLESS OTHERWISE ALLOWED, KERB TYPES 2A, 3B, 3C, 3E, 3K, AND 3L MUST BE STRENGTH GRADE N32 (MIN) IN ACCORDANCE WITH AS 1719 AND MUST NOT BE EXTRUDED. SUCH KERBS ARE DEEMED TO SATISFY THE "WITH SHOULDER" CRITERIA FOR PAVEMENT THICKNESS DESIGN PURPOSES (AS LONG AS THEY ARE ALSO TIED). ARRIS ROUNDING 5mm MAXIMUM.
- KB4. THE LOCATIONS OF BASE JOINTS RELATIVE TO THE EXTREMITIES OF ISLANDS AND KERBS IS CRITICAL. THE DIMENSIONS SO SPECIFIED MUST BE USED AS A CONTROL FOR THE LOCATIONS OF ADJACENT JOINTS WHERE THE BASE JOINT INTERSECTS THE NOSE OF AN ADJOINING KERB (THAT IS, EXCLUDING MOUNTED KERBS SUCH AS TYPES 5F, 5G, 5M) THE ANGLE OF INTERSECTION MUST BE 90° ± 5°, AND THE INTERSECTION MUST BE SUCH AS TO PREVENT THE OCCURRENCE OF RE-ENTRANT ANGLES IN THE BASE.
- KB5. AT LEAST ONE KERB TIEBAR MUST BE PLACED IN DISCRETE SECTION OF KERB BOUNDED BY JOINTS (FOR EXAMPLE, AT KERB NOSES).

SHARED PATH CONCRETE NOTES

- SP1. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH AS 3600 CURRENT EDITIONS WITH AMENDMENTS, AND THE ACSE CONCRETE SPECIFICATION EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
- SP2. VERIFY ALL SETTING OUT DIMENSIONS WITH THE ARCHITECT AND/OR THE SURVEYOR.
- SP3. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.
- SP4. PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH F'c AS DEFINED IN AS 3600 OR M.R. FORM 606 ADD WATER REDUCING ADJUTIVE EQUAL TO WRA.

LOCATION	AS 3600 F'c MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
ALL KERB PITS ETC. VEHICULAR PAVEMENTS	25	80	20
	32	80	20

- SP5. USE 'A.C.S.E. SPECIFICATION TYPE 'A' CEMENT.
- SP6. ALL CONCRETE SHALL BE SUBJECT TO PROJECT CONTROL SAMPLE AND TESTING TO AS 3600.
- SP7. CONSOLIDATE BY VIBRATION.

INVESTMENT APPLICATION TYPE	TYPE	A CONCRETE DEPTH (mm)	B BASE DEPTH (mm)	C FINISH
GENERAL USE	1	100	100	15L2
HEAVY VEHICLES (CROSSING PARKS)	2	125	150	15L2
HEAVY DUTY	3	150	150	15L2

ALTERNATIVE FOR REINFORCED CONCRETE - USE FIBRE-CRISTE TO EQUIVALENT REINFORCEMENT STRENGTH NO STEEL FIBRES.

STEELWORK

1. GENERAL

- S.1.1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH TNSW QA SPECIFICATION B201 - STEELWORK FOR BRIDGES, AS1500, AS2625 5131 AND AS2625 1504.
- S.1.2 THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL STEELWORK FOR DESIGNER COMMENT PRIOR TO FABRICATION/ CONSTRUCTION.
- S.1.3 THE DESIGNER SHALL AUDIT A PORTION OF SHOP DRAWINGS FOR DESIGN INTENT AND COMMENTS PROVIDED SHALL BE ADDRESSED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR ENSURING THE CORRECTNESS OF THE SHOP DRAWINGS, SITE DIMENSIONS, THE CO-ORDINATION OF OTHER SERVICES AND TRADES, OR FOR COMPLIANCE WITH THE PROJECT DRAWINGS. NOR CAN IT BE CONSTRUED AS AUTHORIZING DEPARTURES FROM THE PROJECT DRAWINGS.
- S.1.4 FABRICATION SHALL COMPLY WITH TNSW QA SPECIFICATION B201 - STEELWORK FOR BRIDGES, AS2625 5131 AND THIS DRAWING. REFER ANY DISCREPANCIES TO THE DESIGNER.
- S.1.5 ALL GUSSET PLATES, CLAYS & STIFFENERS SHALL BE 16mm THICK UNO, & GRADE 350 LO STEEL TO AS2625 3675 1 OR EQUIVALENT AS ACCEPTED BY THE DESIGNER.
- S.1.6 THE FABRICATION AND ERECTION OF THE STRUCTURAL STEELWORK SHALL BE SUPERVISED BY A QUALIFIED PERSON EXPERIENCED IN SUCH SUPERVISION, IN ORDER TO ENSURE THAT ALL REQUIREMENTS OF THE DESIGN AND SPECIFICATION ARE MET.
- S.1.7 ALL STEELWORK SHALL BE SECURELY TEMPORARILY BRACED BY THE CONSTRUCTOR AS NECESSARY TO STABILISE THE STRUCTURE DURING ERECTION.
- S.1.8 STEELWORK DIMENSIONS SHOWN ARE AT A TEMPERATURE OF 20°C.
- S.1.9 NO ALLOWANCE HAS BEEN MADE IN THE DIMENSIONS FOR WELD PREPARATION.
- S.1.10 EXPOSED EDGES OF STEEL PLATES MUST BE ROUNDED TO A RADIUS OF 2mm UNLESS NOTED OTHERWISE.
- S.1.11 DRILLING OF FLANGES IN TENSION IS NOT PERMITTED.
- S.1.12 ALL LIFTING LUGS SHALL BE CUT OFF BY A SUITABLE METHOD AFTER FINAL POSITIONING OF THE GIRDER AND THE REMAINING STUB SHALL BE GROUND 10mm ABOVE THE TOP FLANGE AND THE PROTECTIVE TREATMENT SHALL BE REINSTITATED.
- S.1.13 PARTS OF THE STRUCTURE WHICH MIGHT COLLECT WATER DURING CONSTRUCTION SHALL HAVE DRAINAGE HOLES IN LOCATIONS APPROVED BY THE DESIGNER.
- S.1.14 CONSTRUCTION CATEGORY MUST BE C3 IN CONFORMITY TO TNSW QA SPECIFICATION B201 - STEELWORK FOR BRIDGES UNLESS NOTED OTHERWISE.

2. STEELWORK PROTECTION

- S.2.1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH TRANSPORT FOR NSW QA SPECIFICATION B220 - PROTECTIVE TREATMENT OF BRIDGE STEELWORK AND AS2625 5131 WHERE TNSW B220 IS IN CONFLICT WITH AS2625 5131, THE REQUIREMENTS OF TNSW B220 APPLY.

Rev	Description	By	Check	Date	Approved
C	ISSUED FOR 10% DETAILED DESIGN	PN	LE	08/12/23	
B	ISSUED FOR 50% DETAILED DESIGN	PN	LE	07/09/23	
A	ISSUED FOR 60% DETAILED DESIGN	PN	TL	15/02/23	
10	Initial	PN	TL	15/02/23	

STEELWORK (cont)

- S.2.2 PROTECTIVE COATINGS OF STEELWORK SHALL BE AS FOLLOWS (FOR DETAIL INFORMATION REFER TO THE DURABILITY ASSESSMENT):

ELEMENT	SUB ASSET	CORROSION CATEGORY	MATERIAL TYPE	ADDITIONAL MATERIAL PERFORMANCE
BEARING	LAMINATED ELASTOMERIC BEARING	NA	PROPRIETARY PRODUCT	REFER TECHNICAL SPECIFICATION FOR MINIMUM REQUIREMENT
	BOTTOM BEARING PLATE, DOVEL, LEVELING NUT, WASHERS AND BOLTS	C3	STAINLESS STEEL	GR. 304 STAINLESS STEEL PLATES AS PER ASTM A240 & AS2625 4073 GR. 304 STAINLESS STEEL RODS, NUTS & BOLTS AS PER ASTM A276 & AS2625 4073
	WELD CONNECTIONS	C3	WELDS CATEGORY SP AND CONFORM TO AS2625 1504.4	REFER NOTE 1 FOR DAMAGE REPAIR REQUIREMENT
STEEL FRAME AND DECK	TOP BEARING PLATE AND KEEPER PLATES			
	STEEL MEMBERS, SHEAR KEY, ATTACHMENTS AND CONNECTION PLATES	C3	GR. C350LO STRUCTURAL STEEL WITH HDG COATING	HDG COATING - HD0950 MIN. THICKNESS - 6000m ² (50MICRONS) PROTECTIVE PAINTING AS PER AS2312.1 - DULUX PAINT SYSTEM OR APPROVED EQUIVALENT WITH MINIMUM 25+ YEAR DESIGN LIFE
	COVER PLATE AT EXPANSION JOINT			
	WELD CONNECTIONS	C3	WELD CATEGORY SP AND CONFORM TO AS2625 1504.1	REFER NOTE 1 FOR DAMAGE REPAIR REQUIREMENT
BALLUSTRADE AND HANDRAIL	FRP DECK, PACKERS AND FOING SCREWS	NA	PROPRIETARY PRODUCT	REFER TECHNICAL SPECIFICATION FOR MINIMUM REQUIREMENT
	INFILL, BALLUSTRADES AND HANDRAILS	C3	PROPRIETARY PRODUCT	HDG COATING - HD0950 MIN. THICKNESS - 5000m ² (70MICRONS) PROTECTIVE PAINTING AS PER AS2312.1 - DULUX PAINT SYSTEM OR APPROVED EQUIVALENT WITH MINIMUM 25+ YEAR DESIGN LIFE
	CONNECTION PLATES	C3	GR C350LO STRUCTURAL STEEL WITH HDG COATING	REFER NOTE 1 FOR DAMAGE REPAIR REQUIREMENT
	BOLTS, WASHERS AND NUTS	C3	MIN GR. 4.6/5 STEEL BOLTS AND NUTS WITH HDG COATING	HDG COATING - HD0300 MIN THICKNESS - 3999m ² (55 MICRONS)

NOTE 1 - REPAIR ANY DAMAGED GALVANISED COATINGS WITH MINIMUM 75 MICRONS DFT SINGLE COAT OF TWO PACK ZINC RICH EPOXY PRIMER AS SPECIFIED IN TNSW B220.

- S.2.3 WHERE PAINTED TOP COATS ARE REQUIRED, THEY ARE SPECIFIED ON THE INDIVIDUAL DRAWINGS.
- S.2.4 COATINGS DAMAGED DURING TRANSPORT AND ERECTION OR BY WELDING SHALL BE REPAIRED IN ACCORDANCE WITH TRANSPORT FOR NSW QA SPECIFICATION B220 PROTECTIVE TREATMENT OF BRIDGE STEELWORK.
- S.2.5 HOT DIP GALVANISING SHALL BE IN ACCORDANCE WITH RELEVANT AS STANDARD AS1214, AS1550, AS4680, AS4791, TNSW B220 AND AS4792.
- S.2.6 STEELWORK PROTECTIVE COATING SHALL BE INSTALLED IN ACCORDANCE WITH SUPPLIERS INSTRUCTIONS.
- S.2.7 THE PROTECTIVE TREATMENT OF BOLTS, NUTS, SCREWS AND WASHERS SHALL BE IN ACCORDANCE WITH SPECIFICATION TNSW B260 UNLESS NOTED OTHERWISE.
- S.2.8 HOLLOW NON-GALVANISED MEMBERS WITH INACCESSIBLE INTERIORS AFTER FABRICATION ARE TO BE FULLY SEALED WITH 3mm PLATES AND 3mm FILLET WELDS UNLESS NOTED OTHERWISE.
- S.2.9 METHOD STATEMENT FOR PAINTING TO BE SUBMITTED TO THE DESIGNER FOR ACCEPTANCE BEFORE ANY STEELWORK PROTECTIVE COATINGS INSTALLATION.

3. WELDING

S.3.1 WELDING PROCEDURES AND EDGE PREPARATION SHALL BE IN ACCORDANCE WITH AS 1504.1

S.3.2 THE WELD CATEGORY SHALL BE SP IN ACCORDANCE WITH AS2625 1504.1.

S.3.3 ALL FILLET WELDS TO BE 6mm CONTINUOUS FILLET FROM E40XX ELECTRODES, OR EQUIVALENT, UNO.

S.3.4 ALL BUTT WELDS SHALL BE COMPLETE PENETRATION BUTT WELDS CATEGORY SP TO AS 1504.1 UNO.

S.3.5 WELDS SHALL CONFORM TO AS 1504 AND WELDING ELECTRODES TO AS 4834, AS 4835, AS 4836 & AS 4837 WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR. THE INSPECTION/TESTING OF ALL WELDS SHALL BE CARRIED OUT BY QUALIFIED PERSONNEL IN ACCORDANCE WITH AS 1504.1, AS 1504.5, AS 2177 2006, AS 2207, AS 2214.

S.3.6 WELD SYMBOLS

LOCATION	FILLET	V BUTT	BEVEL BUTT
ARROW SIDE			
OTHER SIDE			
BOTH SIDES			

WELD DIMENSIONS

SIZE OF FILLET WELDS

LEG LENGTH OF WELD IN mm ABOVE OF WELD SYMBOL

SUPPLEMENTARY SYMBOLS

BACKING STRIP	WELD ALL AROUND

BUTT WELDS ONLY, INDICATED BY 2 SINGLE LINES ABOVE EACH OTHER, POSITIONED ON THE OPPOSITE SIDE TO THE SYMBOL.

WELD ALL AROUND INDICATED BY AN OPEN CIRCLE.

4. BOLTING

- S.4.1 ALL BOLTS, NUTS AND WASHERS SHALL BE GRADE 8.8/9 UNLESS NOTED OTHERWISE, GALVANISED TO AS 1214.
- S.4.2 THE BOLTING PROCEDURE IS DESIGNATED AS FOLLOWS:
4.6/5 - REFERS TO COMMERCIAL BOLTS OF STRENGTH GRADE 4.6 TO AS 1111 TIGHTENED USING A STANDARD WRENCH TO A SNUG TIGHT CONDITION.
8.8/5 - REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO AS 1252 TIGHTENED USING A STANDARD WRENCH TO A SNUG TIGHT CONDITION.
8.8/7 - REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100, DESIGNATED AS A FRICTION TYPE JOINT.
8.8/8 - REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100, DESIGNATED AS A BEARING TYPE JOINT.
- S.4.3 UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL SNUG TIGHT BOLTED CONNECTIONS ARE TO BE FITTED WITH LOCK NUTS.
- S.4.4 UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL SNUG TIGHT BOLTED CONNECTIONS ARE TO BE FITTED WITH LOCK NUTS.
- S.4.5 ALL STAINLESS STEEL MEMBERS SHALL BE GRADE 316 UNO.
- S.4.6 ALL WELDING OF STAINLESS STEEL SHALL COMPLY WITH AS2625 1504.6.

ABBREVIATIONS

ALT	ALTERNATE	MS	MILD STEEL
APPROX	APPROXIMATE	MSE	MECHANICALLY STABILISED EARTH
ADDNL	ADDITIONAL	(N)	NEW
B	BOTTOM	NA	NOT APPLICABLE
BSW	BACK OF BACK WALL	NB	NOMINAL BORE
BEL	BULK ELEVATION LEVEL	ND	NON DESTRUCTIVE TESTING
BLKG	BLOCKING	NF	NEAR FACE
BM	BEAM	NTS	NOT TO SCALE
CVR	COVER	O/A	OVERALL
CAG	CAST AGAINST GROUND	OH	OVERHEAD
CB	CONCRETE BLOCK	OD	OUTSIDE DIAMETER
CAR	COVER ALL ROUND	OPP	OPPOSITE
C/C	CENTRE TO CENTRE	PC	PRECAST CONCRETE
CHS	CIRCULAR HOLLOW SECTION	PCD	PITCH CIRCLE DIAMETER
CJ	CONSTRUCTION JOINT	PFC	PARALLEL FLANGED CHANNEL
CL	CENTRELINE	PHZ	PLASTIC HINGE ZONE
COL	COLUMN	PL	PLATE
CONC	CONCRETE	PSC	PRESTRESSED CONCRETE
CONN	CONNECTION	R	PLAIN BAR GRADE 300E
CONT	CONTINUOUS	RAD	RADIUS
COS	CHECK ON SITE	R.A.D.	REFER ARCHITECTS DRAWINGS
CPS	CONSTRUCTION PHASE SUPPORT	RC	REINFORCED CONCRETE
CRS	CENTRES	RE	REINFORCED EARTH
D	DEFORMED BAR GRADE 300E	REBAR	REINFORCEMENT
DET	DETAIL	REF	REFER REFERENCE
DI	DEFORMED BAR GRADE 500E	REIN	REINFORCEMENT
DIA	DIAMETER	RH	PLAIN BAR GRADE 500E
DIAG	DIAGONAL	RB	REID BAR GRADE 500E
DIM	DIMENSION	RHS	RECTANGULAR HOLLOW SECTION
DOS	DETERMINE ON SITE	RL	REDUCED LEVEL
DP	DOWNPIPE	RSAL	ROLLED STEEL ANGLE
DPC	DAMP PROOF COURSE	RSC	ROLLED STEEL CHANNEL
DRG	DRAWING	SHS	SQUARE HOLLOW SECTION
EA	EQUAL ANGLE	SIM	SIMILAR
EF	EACH FACE	SJ	SAW CUT JOINT
EL. ELEV	ELEVATION	SQ	SQUARE
EW	EACH WAY	S/S	STAINLESS STEEL
EX	OUT OF	STA	STARTER
EXTG (E)	EXISTING	STD	STANDARD
FDN	FOUNDATION	STG	STAGGER
FF	FAR FACE	STIFF	STIFFENER
FFL	FINISHED FLOOR LEVEL	STRP	STIRRUP
FIG	FIGURE	SYMM	SYMMETRICAL
FL	FLAT	T	TOP
FLG	FLANGE	TFB	TAPER FLANGE BEAM
FRR	FIRE RESISTANCE RATING	TFC	TAPER FLANGE CHANNEL
FW	FILLET WELD	THK	THICK
FWAR	FILLET WELD ALL ROUND	TO	TO
GA	GAUGE	TOC	TOP OF CONCRETE
GL	GROUND LEVEL	TOG	TOP OF GRATING
GPC	GROUT PROOF COURSE	TORC	TOP OF ROUGH CONCRETE
H.D.BOLT	HOLDING DOWN BOLT	TOS	TOP OF STEEL
H.D.GALV	HOT DIPPED GALVANISED	TRM	TRIMMER
HORIZ	HORIZONTAL	TYP	TYPICAL
ID	INSIDE DIAMETER	UA	UNEQUAL ANGLE
I	INVERT LEVEL	UB	UNIVERSAL BEAM
IP	INTERSECTION POINT	UC	UNIVERSAL COLUMN
LAR	LAP AT RANDOM	UNO	UNLESS NOTED OTHERWISE
Ld	DEVELOPMENT LENGTH	U/S	UNDERSIDE
LG	LONG	VERT	VERTICAL
MAX	MAXIMUM	WB	WELDED BEAM
MIN	MINIMUM	WC	WELDED COLUMN
		WP	WORK POINT
		JL	DOUBLE RSA BACK TO BACK

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Document S4105-225046 501 DIMENSIONS
Version: 1, Version Date: 28/10/2024

Beca **CITY OF PARRAMATTA** **BENNELONG PARKWAY BRIDGE**

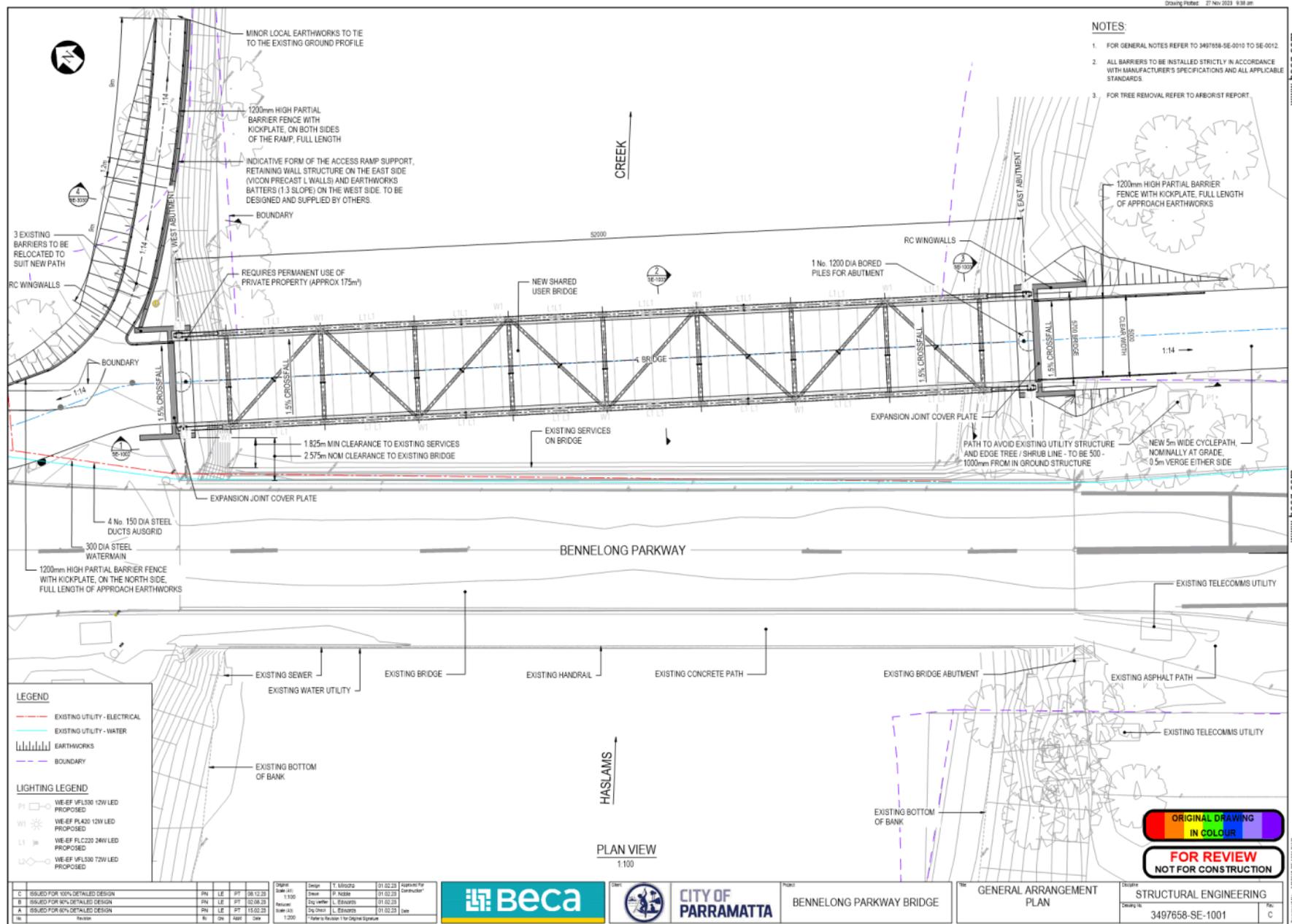
GENERAL NOTES SHEET 3
3497658-GN-0012

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Document No. 3497658-GN-0012-0102

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NOTES:

- FOR GENERAL NOTES REFER TO 3497658-SE-0010 TO SE-0012.
- ALL BARRIERS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND ALL APPLICABLE STANDARDS.
- FOR TREE REMOVAL REFER TO ARBORIST REPORT.

LEGEND

- EXISTING UTILITY - ELECTRICAL
- EXISTING UTILITY - WATER
- EARTHWORKS
- BOUNDARY

LIGHTING LEGEND

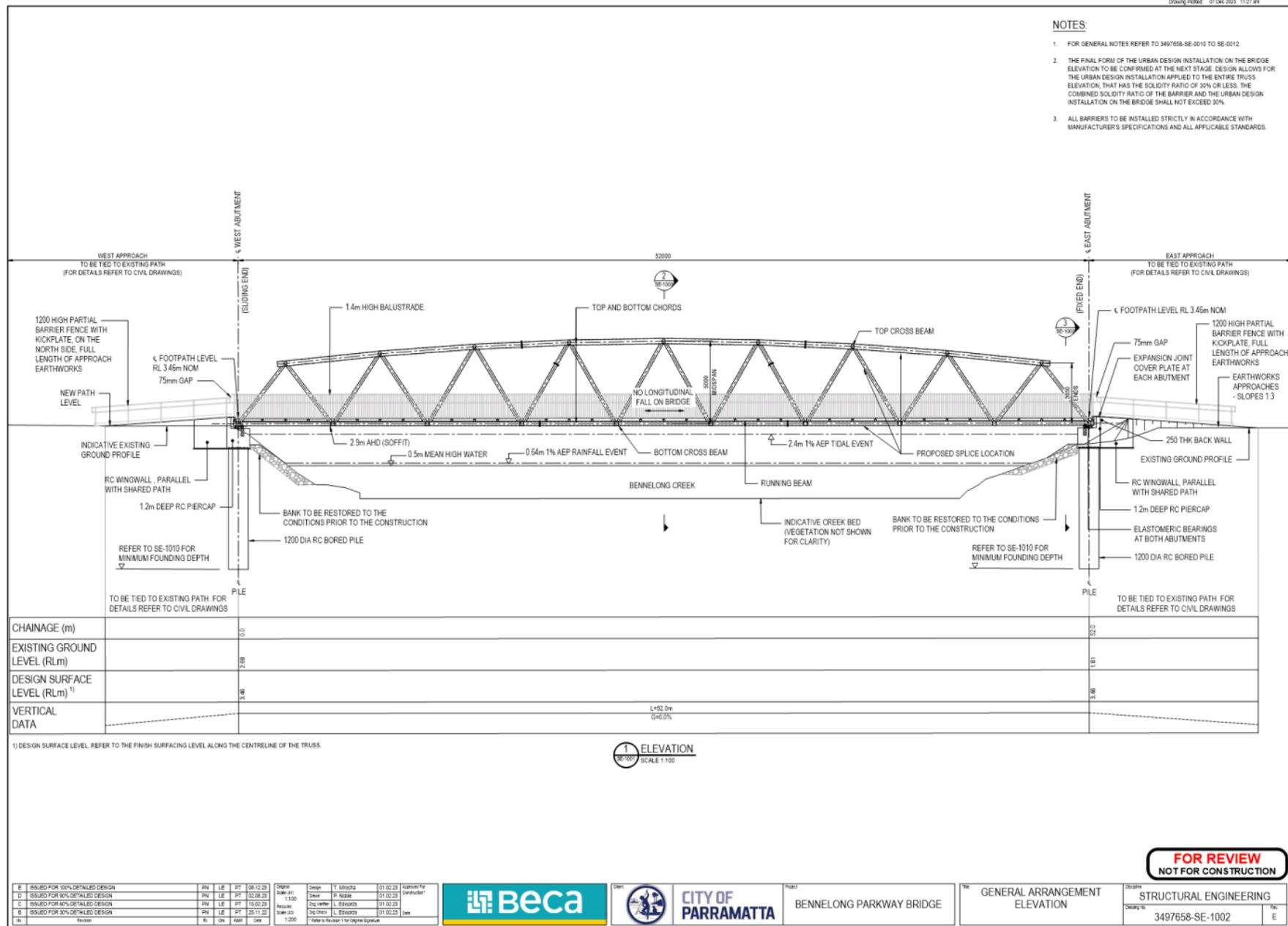
- PH □ WE-EF VF1500 12W LED PROPOSED
- WT ☼ WE-EF PL420 12W LED PROPOSED
- L1 ☼ WE-EF FLC220 24W LED PROPOSED
- ☼ WE-EF VF1500 72W LED PROPOSED

ORIGINAL DRAWING IN COLOUR

FOR REVIEW NOT FOR CONSTRUCTION

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10	Issue	16	30	1465	000	1:200	*Signatures Not Valid for Original Approval																																				

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Version: 1, Version Date: 28/10/2024



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Version: 1, Version Date: 28/10/2024

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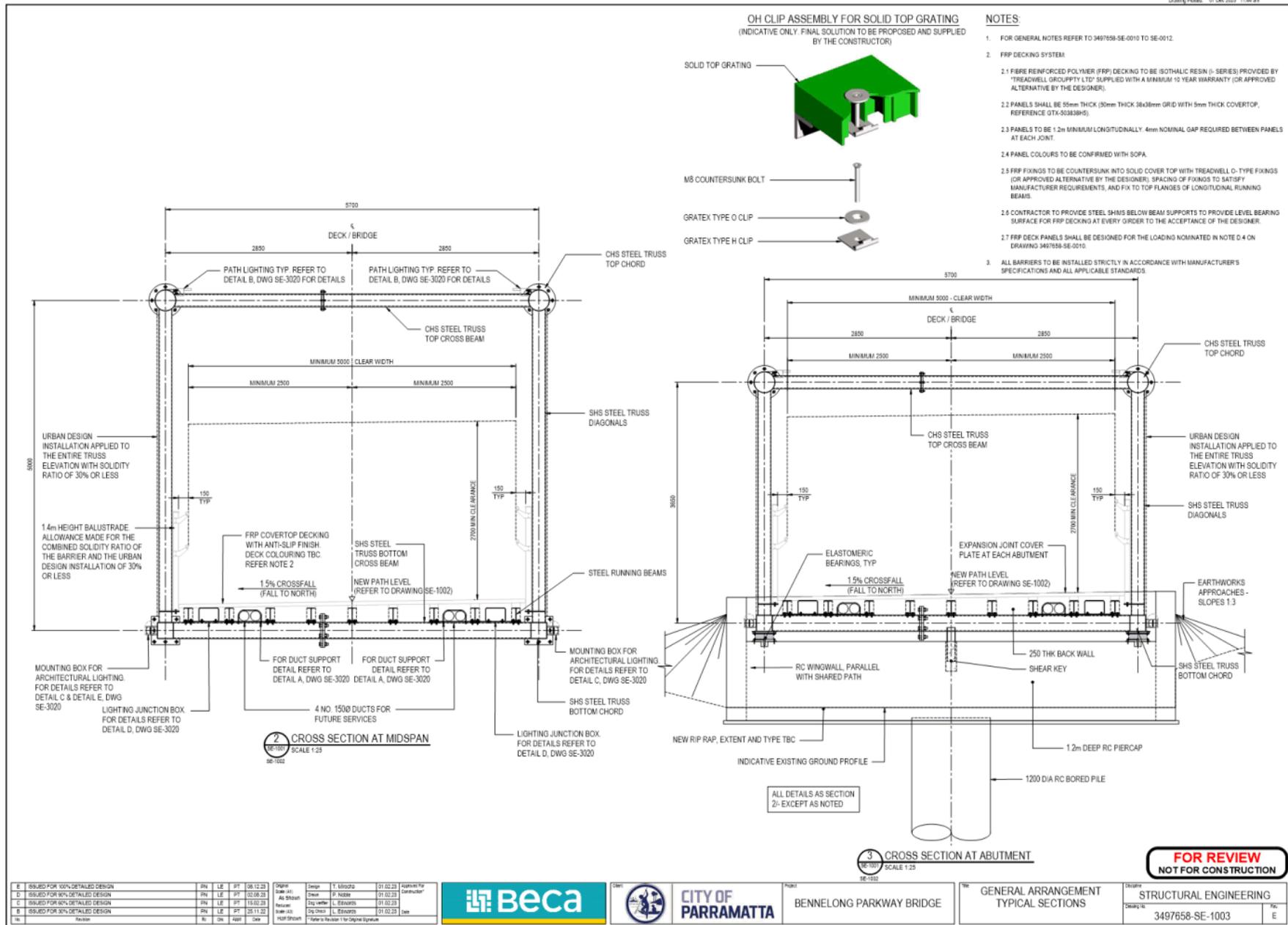
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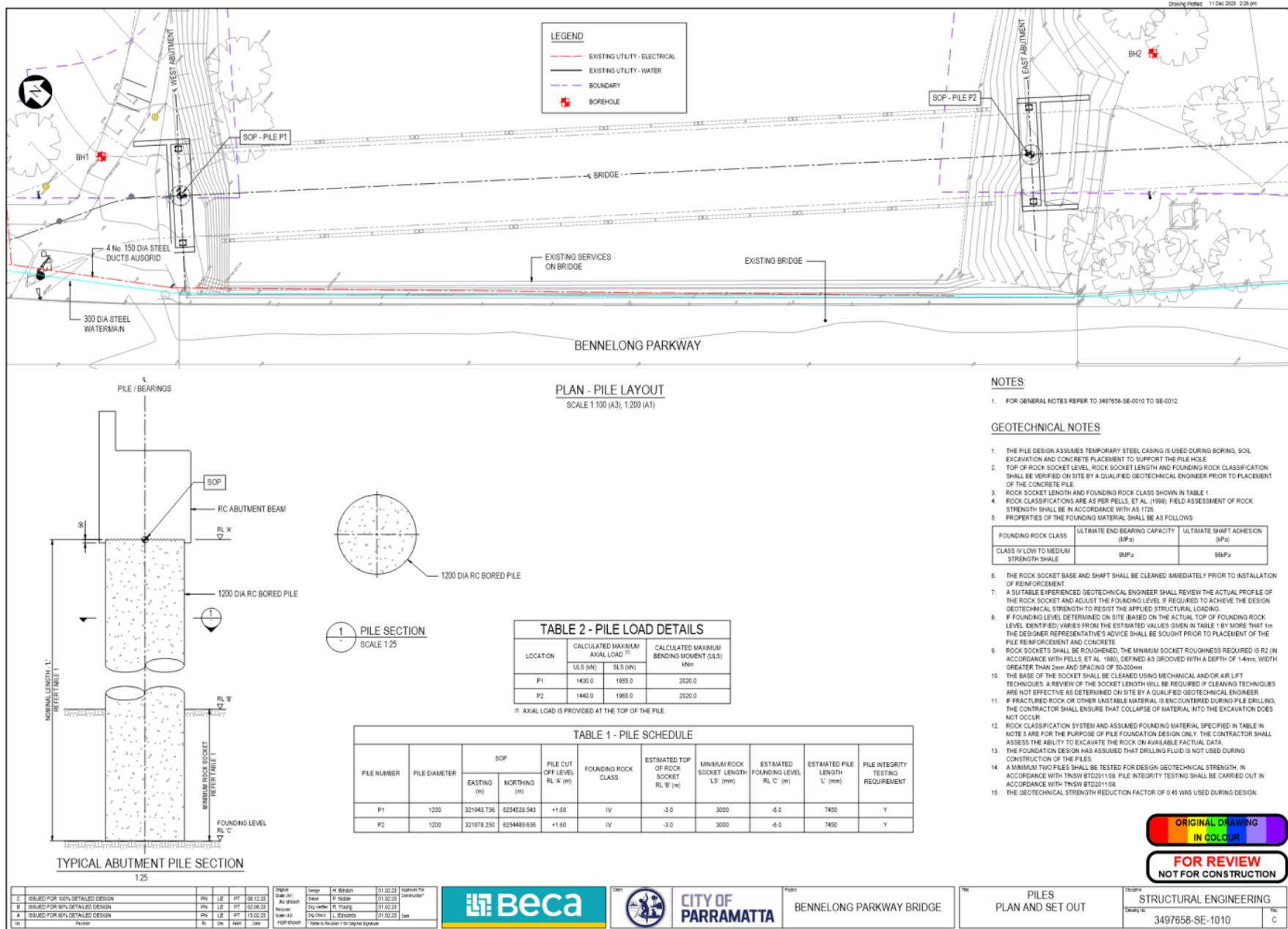
E	ISSUED FOR 90% DETAILED DESIGN	PN	LE	PT	08.12.23	Design	T. Mirosh	01.02.23	Approved for Contractor*
D	ISSUED FOR 80% DETAILED DESIGN	PN	LE	PT	02.08.23	Design	A. Hoare	01.02.23	As Shown
C	ISSUED FOR 60% DETAILED DESIGN	PN	LE	PT	15.02.23	Design	L. Edwards	01.02.23	
B	ISSUED FOR 30% DETAILED DESIGN	PN	LE	PT	25.11.22	Design	L. Edwards	01.02.23	Done
10	Issue	16	320	1466	2024	Issue/Revised	For Original Approval		



CITY OF PARRAMATTA
BENNELONG PARKWAY BRIDGE

**GENERAL ARRANGEMENT
TYPICAL SECTIONS**

STRUCTURAL ENGINEERING
3497658-SE-1003



Document SBN05-225016 OUT DIMENSIONS
Version: 1, Version Date: 28/10/2024

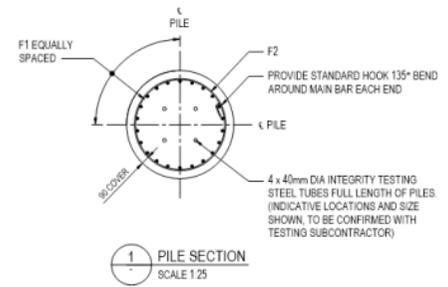
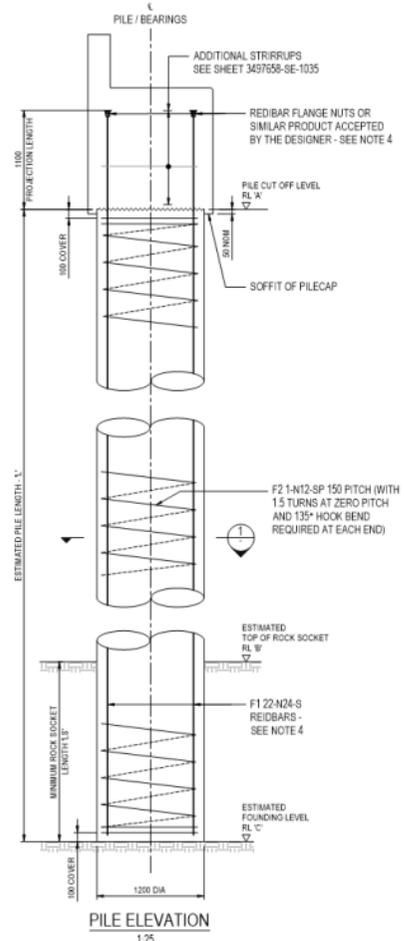


Project: BENNELONG PARKWAY BRIDGE

Title: PILES PLAN AND SET OUT

Discipline: STRUCTURAL ENGINEERING
Drawing No: 3497658-SE-1010
Page: 2 of 2

Drawing Pinned 21 Nov 2023 9:38 am



- NOTES:**
- FOR GENERAL NOTES REFER TO 3497658-SE-0010 TO SE-0012.
 - PLACING OF CONCRETE IS TO BE CARRIED IN ONE CONTINUOUS POUR UNLESS SPECIFIED OTHERWISE.
 - FOR PILE LEVELS AND LENGTHS REFER TO 3497658-SE-1010.
 - REIDBARS OR EQUIVALENT SOLUTION ACCEPTED BY THE DESIGNER TO BE INSTALLED STRICTLY AS PER MANUFACTURER SPECIFICATION TO THE ACCEPTANCE OF THE DESIGNER. ALTERNATIVELY, STANDARD 180° HOOK BEND AROUND ABUTMENT BEAM TOP REINFORCEMENT CAN BE USED IF FEASIBLE.
 - MECHANICAL ANCHORING SYSTEM SHALL BE USED ONLY HERE SPECIFIED.
 - IF STEEL CASING USED DURING CONSTRUCTION IS PROPOSED TO BE LEFT AS A PERMANENT CASING, IT SHALL BE COMMUNICATED TO THE DESIGNER FOR REVIEW AND ACCEPTANCE.

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C	ISSUED FOR 100% DETAILED DESIGN	PN	LE	PT	08.12.23	Design	T. Sirocchi	01.02.23	Approved for Contractor*
B	ISSUED FOR 90% DETAILED DESIGN	PN	LE	PT	07.08.23	Check	A. Nade	01.02.23	As shown
A	ISSUED FOR 60% DETAILED DESIGN	PN	LE	PT	15.02.23	Design	D. Verhe	01.02.23	Design
Rev		Rev	Rev	Rev	Rev	Rev	Rev	Rev	Rev



Project: BENNELONG PARKWAY BRIDGE

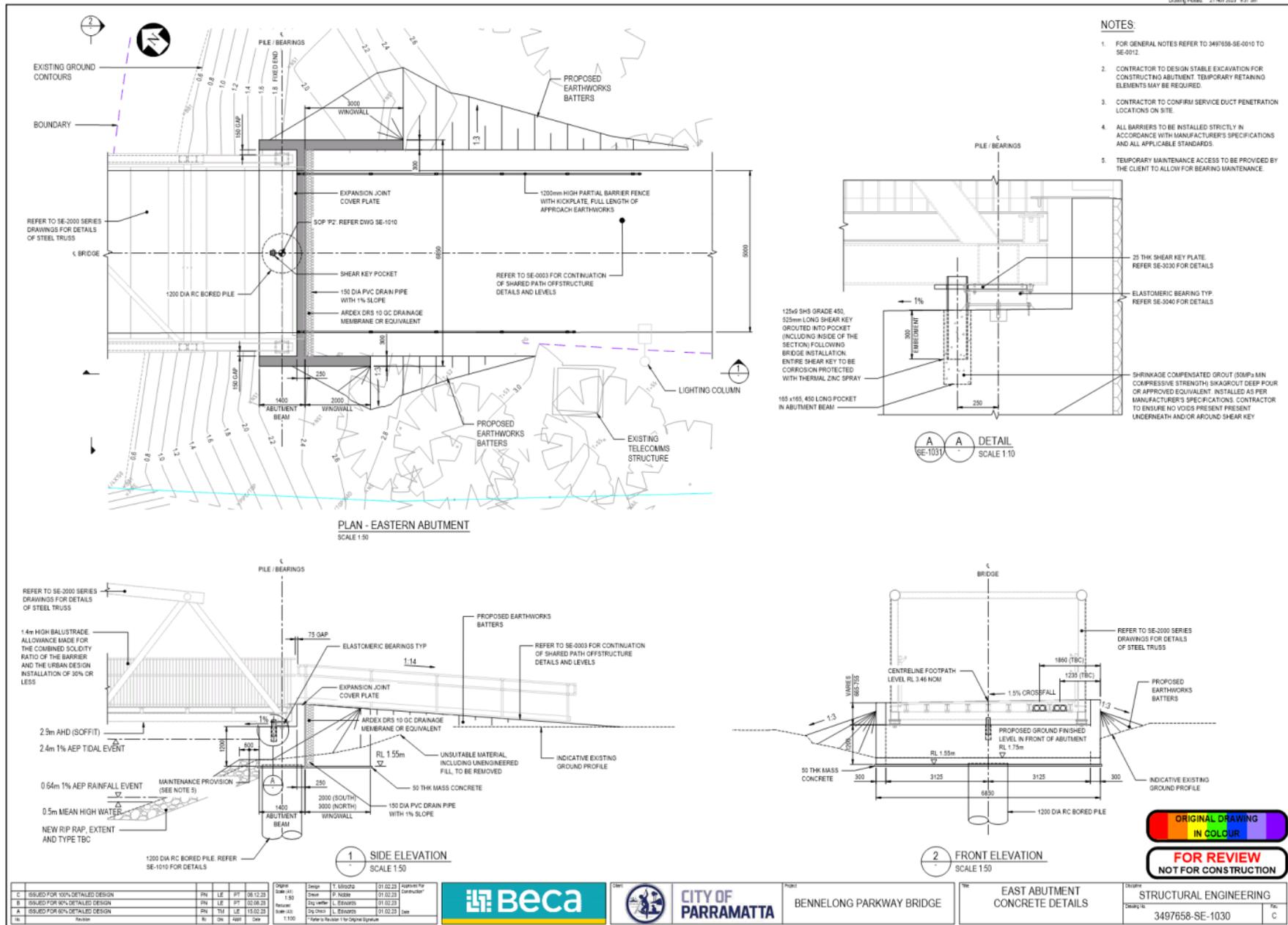
Title: PILES REINFORCEMENT DETAILS

Discipline: STRUCTURAL ENGINEERING
Drawing No: 3497658-SE-1025
Page: C

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Version: 1, Version Date: 28/10/2024

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Version: 1, Version Date: 28/10/2024



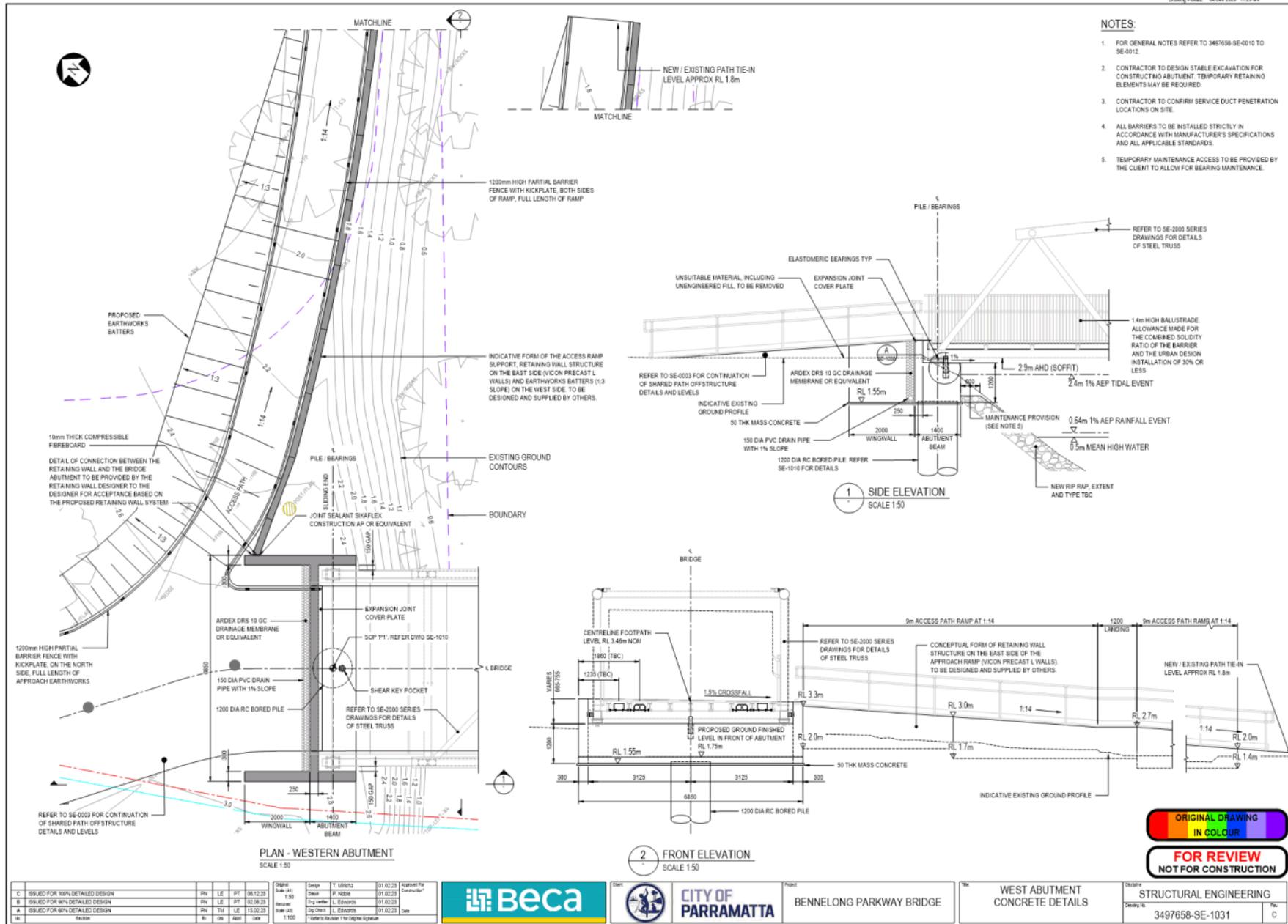
Project: BENNELONG PARKWAY BRIDGE

Title: EAST ABUTMENT CONCRETE DETAILS

Discipline: STRUCTURAL ENGINEERING
Drawing No: 3497658-SE-1030
Page: C

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- NOTES:**
- FOR GENERAL NOTES REFER TO 3497658-SE-010 TO SE-012.
 - CONTRACTOR TO DESIGN STABLE EXCAVATION FOR CONSTRUCTING ABUTMENT. TEMPORARY RETAINING ELEMENTS MAY BE REQUIRED.
 - CONTRACTOR TO CONFIRM SERVICE DUCT PENETRATION LOCATIONS ON SITE.
 - ALL BARRIERS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND ALL APPLICABLE STANDARDS.
 - TEMPORARY MAINTENANCE ACCESS TO BE PROVIDED BY THE CLIENT TO ALLOW FOR BEARING MAINTENANCE.

C	ISSUED FOR 10% DETAILED DESIGN	PN	LE	PT	08.12.23	Design	T. MURPHY	01.02.23	Approved for Contractor*
B	ISSUED FOR 60% DETAILED DESIGN	PN	LE	PT	02.08.23	Check	A. NICHOL	01.02.23	
A	ISSUED FOR 60% DETAILED DESIGN	PN	TLI	LE	15.02.23	Design	L. EDWARDS	01.02.23	
10	Issue	PN	TLI	LE	14.01.23	Design	L. EDWARDS	01.02.23	Design Version 1 for Original Approval

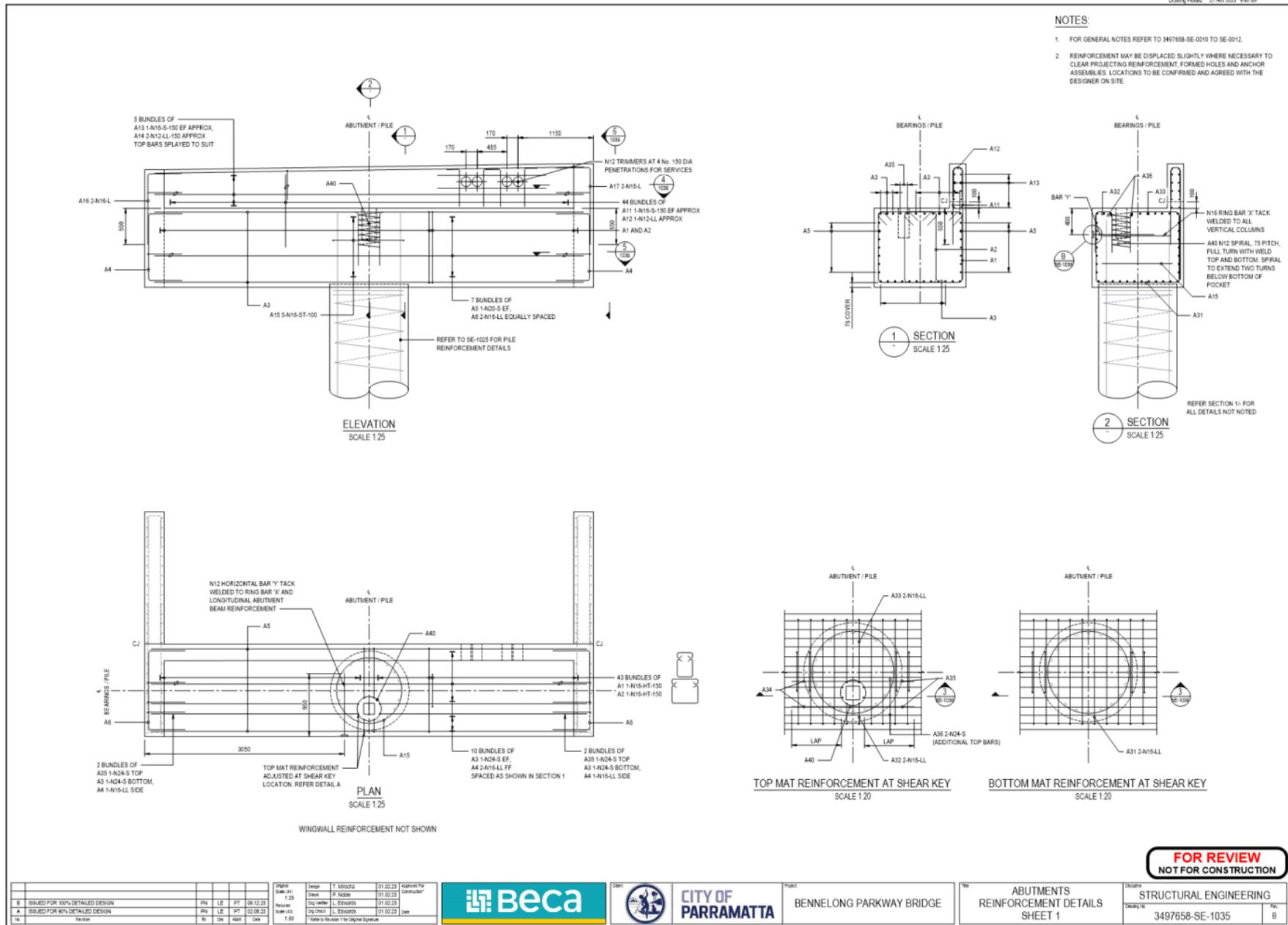


Project: BENNELONG PARKWAY BRIDGE

Title: WEST ABUTMENT CONCRETE DETAILS

Discipline: STRUCTURAL ENGINEERING
Drawing No: 3497658-SE-1031
Page: 1 of 1

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Version: 1, Version Date: 28/10/2024

B	ISSUED FOR 100% DETAILED DESIGN	PN	LE	PT	08.12.23
A	ISSUED FOR 90% DETAILED DESIGN	PN	LE	PT	02.08.23
10	Revision	16	30	1465	03/01/2024

Design	T. Vitorino	01.02.23	Approved for Contractor
Drawn	A. Nade	01.02.23	
Checked	L. Edwards	01.02.23	
Designed	L. Edwards	01.02.23	
Checked	L. Edwards	01.02.23	



Project: **BENNELONG PARKWAY BRIDGE**

Title: **ABUTMENTS REINFORCEMENT DETAILS SHEET 1**

Discipline: **STRUCTURAL ENGINEERING**
Drawing No: **3497658-SE-1035**
Page: **B**

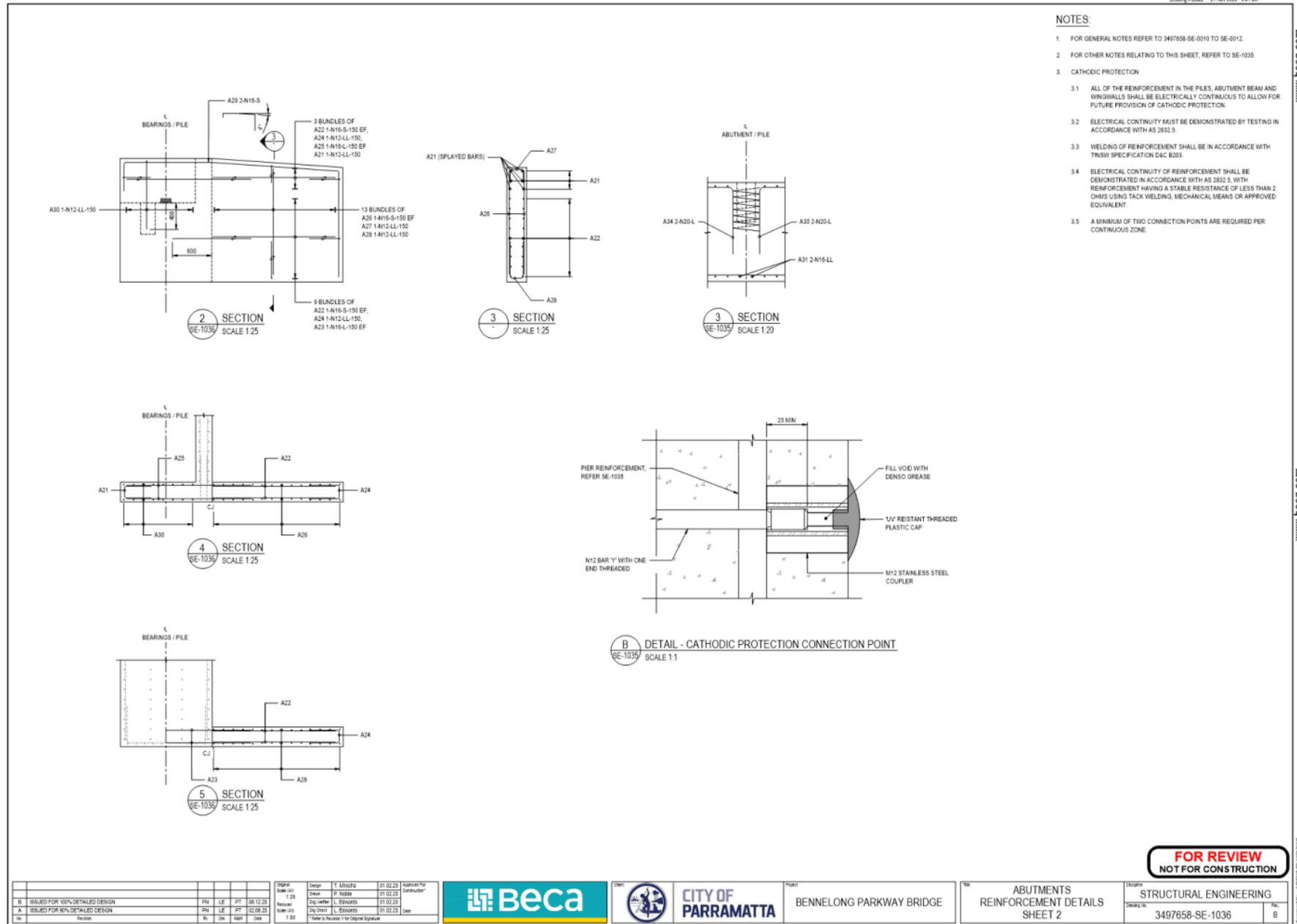
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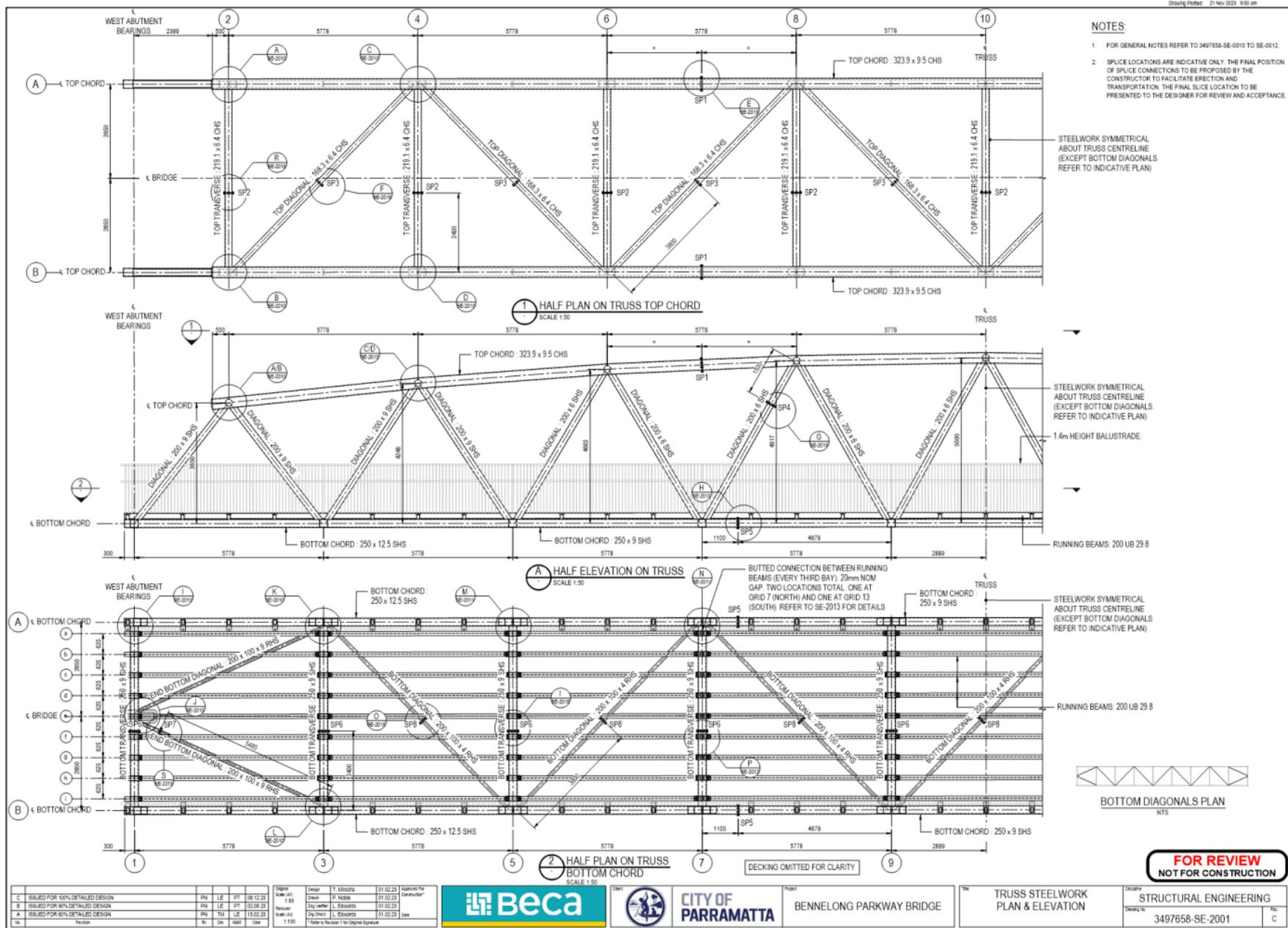
- NOTES**
- FOR GENERAL NOTES REFER TO 3497658-SE-0010 TO SE-0012.
 - FOR OTHER NOTES RELATING TO THIS SHEET, REFER TO SE-1035.
 - CATHODIC PROTECTION
 - ALL OF THE REINFORCEMENT IN THE PILES, ABUTMENT BEAM AND WINDOW WALLS SHALL BE ELECTRICALLY CONTINUOUS TO ALLOW FOR FUTURE PROVISION OF CATHODIC PROTECTION.
 - ELECTRICAL CONTINUITY MUST BE DEMONSTRATED BY TESTING IN ACCORDANCE WITH AS 2832.5
 - WELDING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH TNSW SPECIFICATION D&C E203.
 - ELECTRICAL CONTINUITY OF REINFORCEMENT SHALL BE DEMONSTRATED IN ACCORDANCE WITH AS 2832.5, WITH REINFORCEMENT HAVING A STABLE RESISTANCE OF LESS THAN 2 OHMS USING TACK WELDING, MECHANICAL MEANS OR APPROVED EQUIVALENT.
 - A MINIMUM OF TWO CONNECTION POINTS ARE REQUIRED PER CONTINUOUS ZONE.

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Original Design: T. Jiravongsa 01.02.23 Checked: K. Hoque 01.02.23 Drawn: L. Edwards 01.02.23 Date: 01.02.23		Approved for Construction: [Signature]	
Scale: 1:25		Project: BENNELONG PARKWAY BRIDGE	
Title: ABUTMENTS REINFORCEMENT DETAILS SHEET 2		Discipline: STRUCTURAL ENGINEERING Drawing No: 3497658-SE-1036 Page: B	





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B	ISSUED FOR 90% DETAILED DESIGN	PN	LE	SP	07.08.23	Check	A. Hoare	01.02.23	contractor
A	ISSUED FOR 60% DETAILED DESIGN	PN	TM	LE	15.02.23	Site verify	L. Edwards	01.02.23	
10	Revision	16	32	1469	01.11.20	Site check	L. Edwards	01.02.23	date



Project: BENNELONG PARKWAY BRIDGE

Title: TRUSS STEELWORK PLAN & ELEVATION

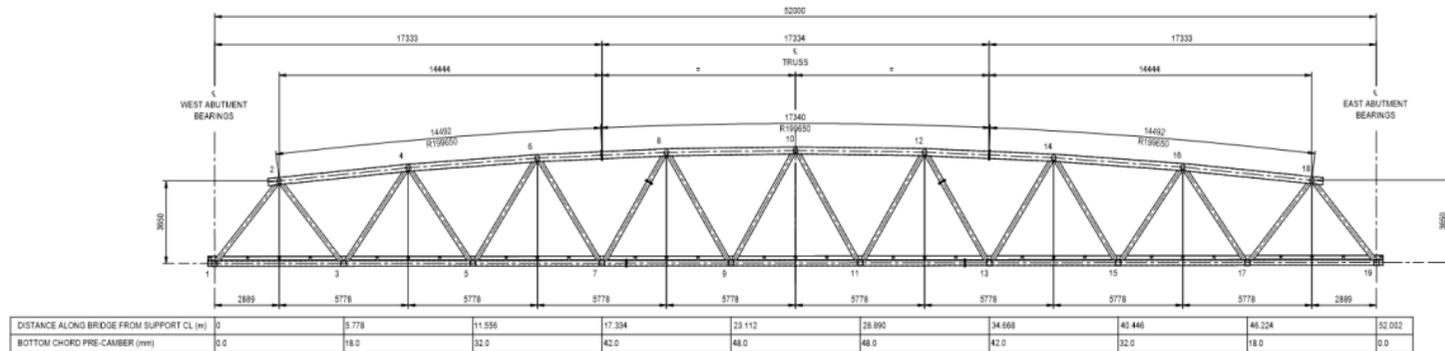
Discipline: STRUCTURAL ENGINEERING
Drawing No: 3497658-SE-2001

Page: C

Drawing Pinned 21 Nov 2023 10:03 am

NOTES:

- FOR GENERAL NOTES REFER TO 3497658-SE-0010 TO SE-0012.
- PRECAMBER IN BOTTOM CHORD TO BE CREATED BY INDUCING A RADIUS INTO THE BOTTOM CHORD.
- PRECAMBER SPECIFIED IS FOR THE FULL UNFACTORED DEAD LOAD+SUPER IMPOSED DEAD LOAD ON THE BRIDGE INCLUDING FOR BALUSTRADES, URBAN DESIGN INSTALLATION AND DECKING.



A ELEVATION ON TRUSS PRECAMBER
SCALE 1:100

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Design	T. Sirocica	01.02.23	Approved for
Check	A. Hoare	01.02.23	Contractor
Design	L. Edwards	01.02.23	
Check	L. Edwards	01.02.23	
Scale	1:200		



Project: BENNELONG PARKWAY BRIDGE

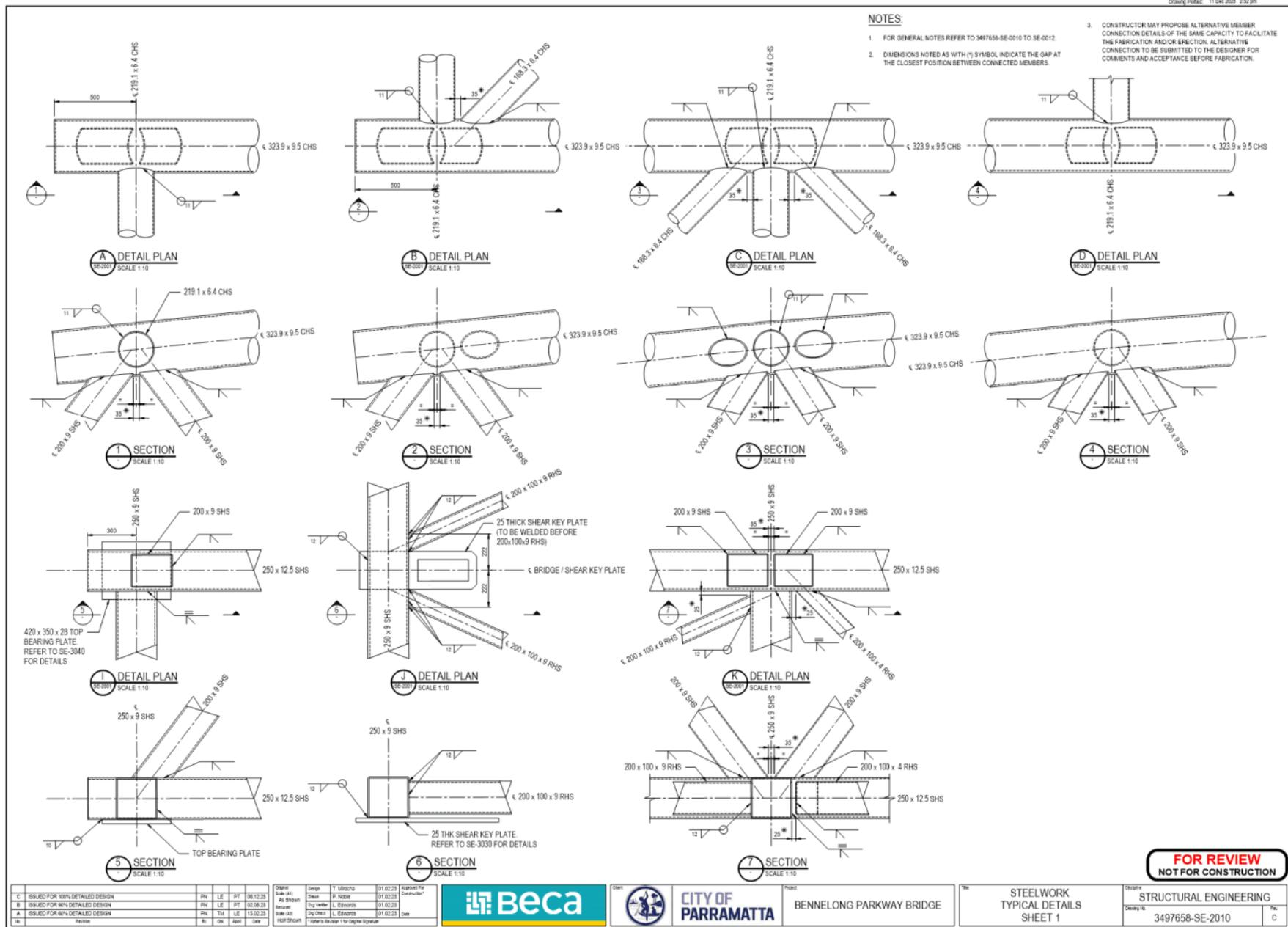
Title: STEELWORK SETOUT

Discipline: STRUCTURAL ENGINEERING
Drawing No: 3497658-SE-2003
Page: B

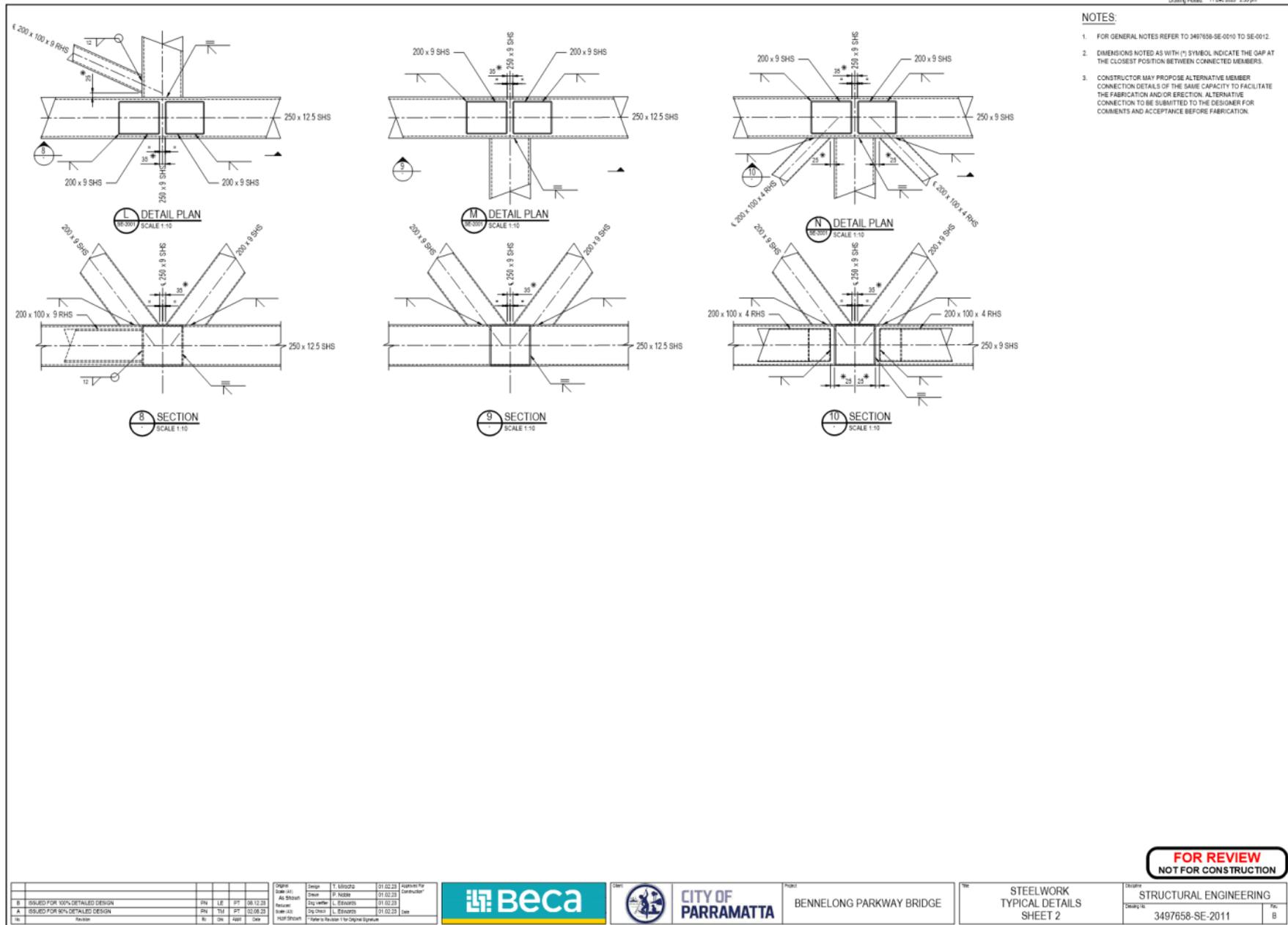
Document Reference: 3497658-SE-2003
Version: 1, Version Date: 28/10/2024

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Version: 1, Version Date: 28/10/2024



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Rev	Description	By	Check	Date
A	ISSUED FOR 90% DETAILED DESIGN	PN	LE	08.12.23
B	ISSUED FOR 100% DETAILED DESIGN	PN	LE	08.12.23

Original Design	T. Sirocchia	01.02.23	Approved for Contractor
Check	A. Hoare	01.02.23	
Design	L. Edwards	01.02.23	
Check	L. Edwards	01.02.23	
Issue	L. Edwards	01.02.23	Done



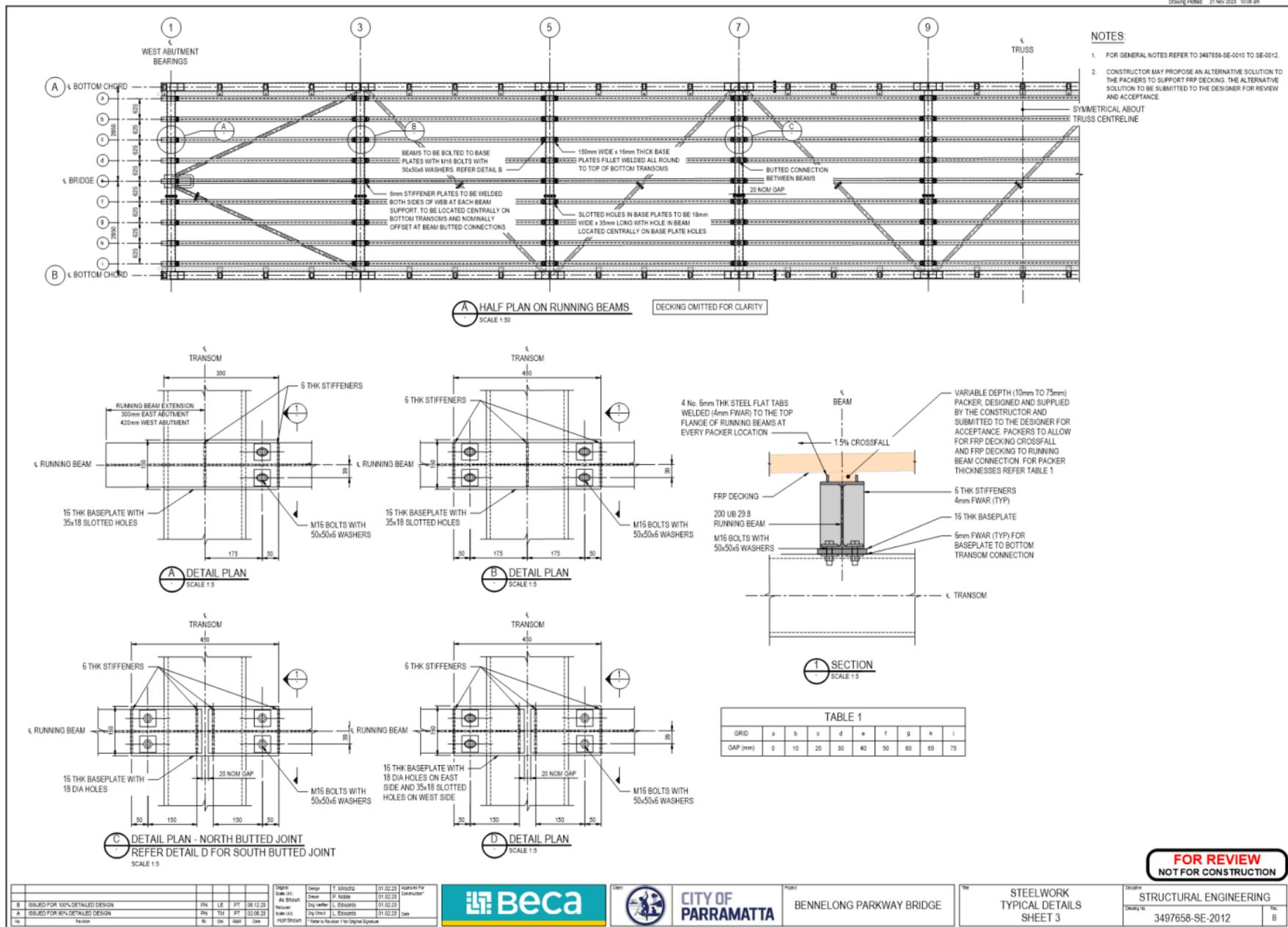
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Title: STEELWORK TYPICAL DETAILS SHEET 2

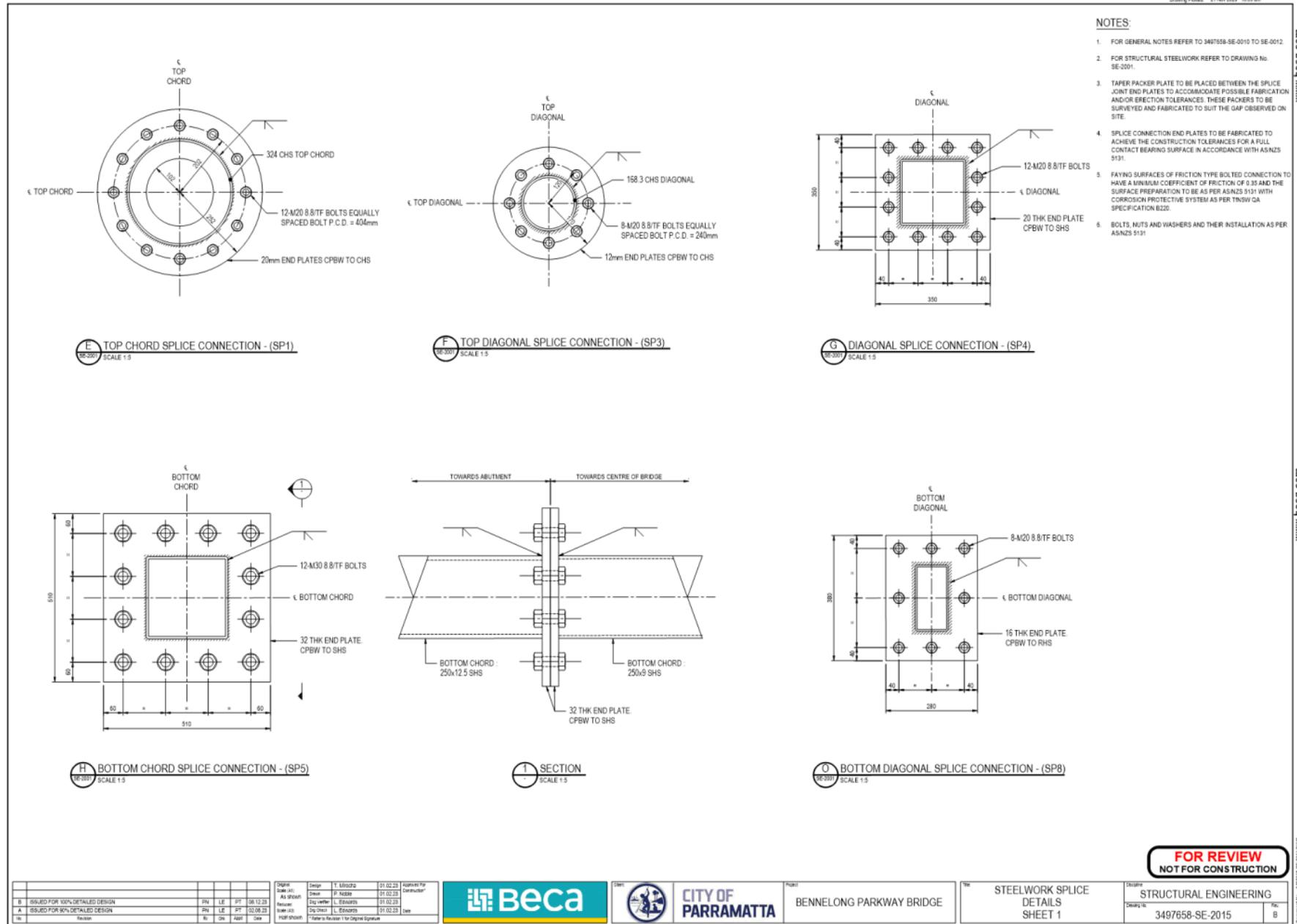
Discipline: STRUCTURAL ENGINEERING
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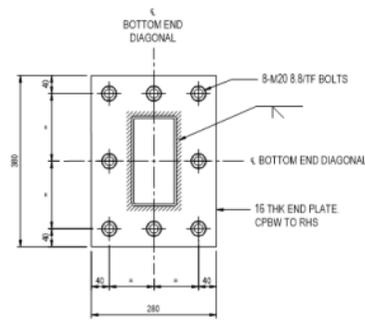


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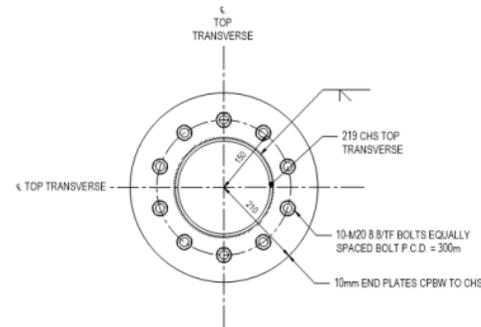
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Design	T. Srinivas	01.02.23	Approved for Contractor*			Project BENNELONG PARKWAY BRIDGE	Title STEELWORK SPLICE DETAILS SHEET 1	Designer STRUCTURAL ENGINEERING	Drawing No. 3497658-SE-2015	Page B
Drawn (A1)	A. Nadeem	01.02.23	As shown							
Checked	L. Edwards	01.02.23	Design			Project BENNELONG PARKWAY BRIDGE	Title STEELWORK SPLICE DETAILS SHEET 1	Designer STRUCTURAL ENGINEERING	Drawing No. 3497658-SE-2015	Page B
Issue (A1)	L. Edwards	01.02.23	Design							
Issue (A1)	L. Edwards	01.02.23	Design	*Signatures to be added for original approval						

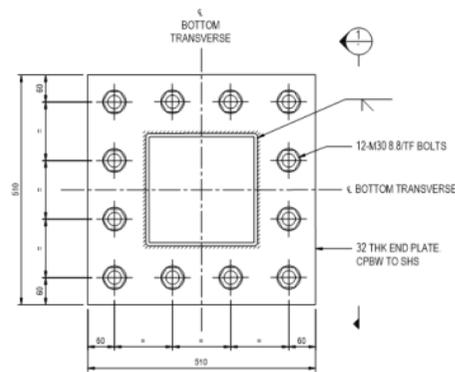
Drawing Pinned 21 Nov 2023 10:10 am



S BOTTOM END DIAGONAL SPLICE CONNECTION - (SP7)
SCALE 1:5



R TOP TRANSVERSE SPLICE CONNECTION - (SP2)
SCALE 1:5



T BOTTOM TRANSVERSE SPLICE CONNECTION - (SP6)
SCALE 1:5

NOTES:

- FOR GENERAL NOTES REFER TO 3497658-SE-0010 TO SE-0012.
- FOR STRUCTURAL STEELWORK REFER TO DRAWING No. SE-2001.
- TAPER PACKER PLATE TO BE PLACED BETWEEN THE SPLICE JOINT END PLATES TO ACCOMMODATE POSSIBLE FABRICATION AND/OR ERECTION TOLERANCES. THESE PACKERS TO BE SURVEYED AND FABRICATED TO SUIT THE GAP OBSERVED ON SITE.
- SPLICE CONNECTION END PLATES TO BE FABRICATED TO ACHIEVE THE CONSTRUCTION TOLERANCES FOR A FULL CONTACT BEARING SURFACE IN ACCORDANCE WITH AS/NZS 5131.
- FAYING SURFACES OF FRICTION TYPE BOLTED CONNECTION TO HAVE A MINIMUM COEFFICIENT OF FRICTION OF 0.35 AND THE SURFACE PREPARATION TO BE AS PER AS/NZS 5131 WITH CORROSION PROTECTIVE SYSTEM AS PER TINSW QA SPECIFICATION B220.
- BOLTS, NUTS AND WASHERS AND THEIR INSTALLATION AS PER AS/NZS 5131.

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Design	T. Srinivas	01.02.23	Approved for Contractor
Drawn (A1)	A. Naidu	01.02.23	
Checked	L. Edwards	01.02.23	
Drawn (A2)	L. Edwards	01.02.23	Done
Checked	L. Edwards	01.02.23	
Drawn (A3)	L. Edwards	01.02.23	
Checked	L. Edwards	01.02.23	

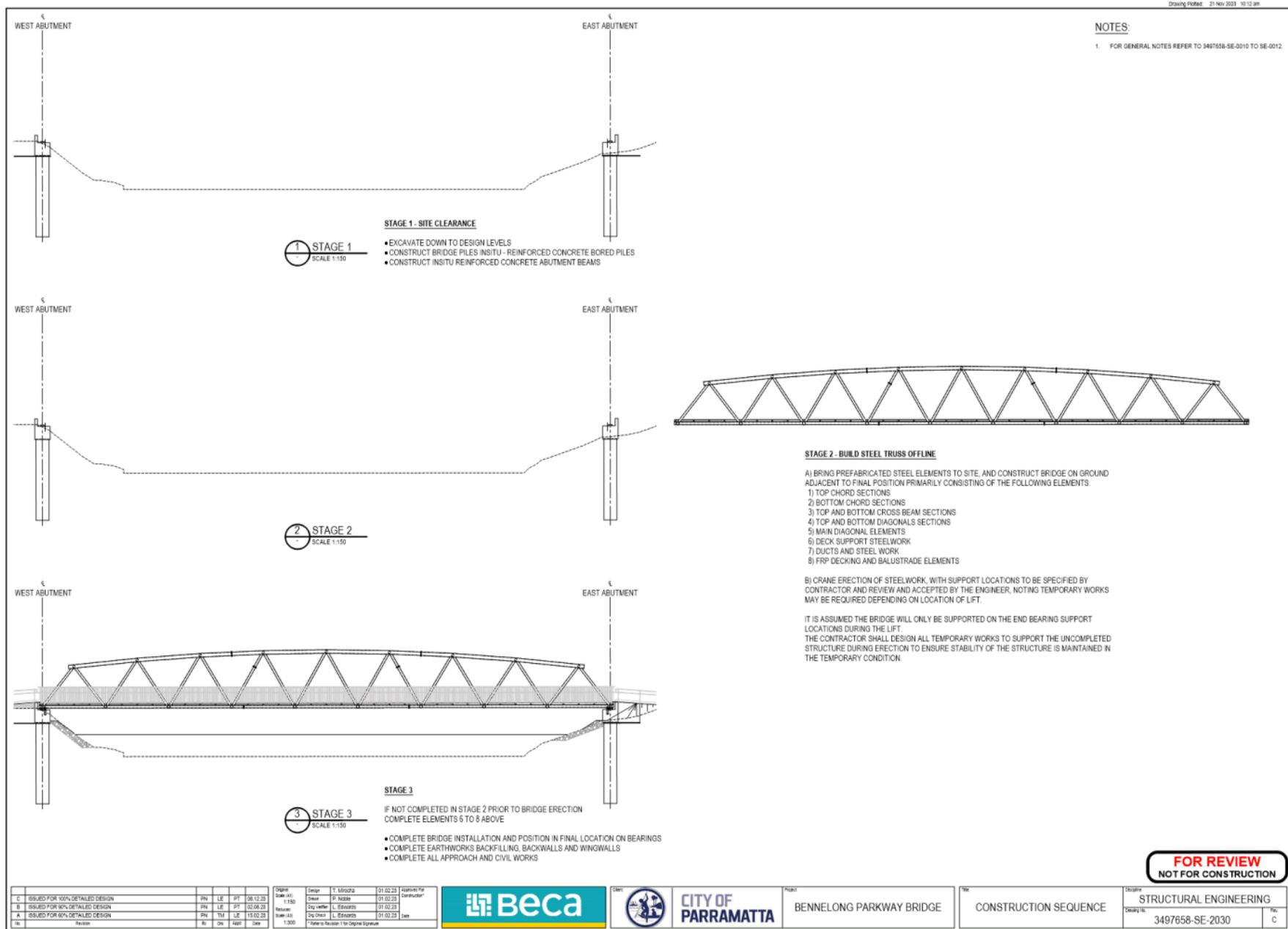


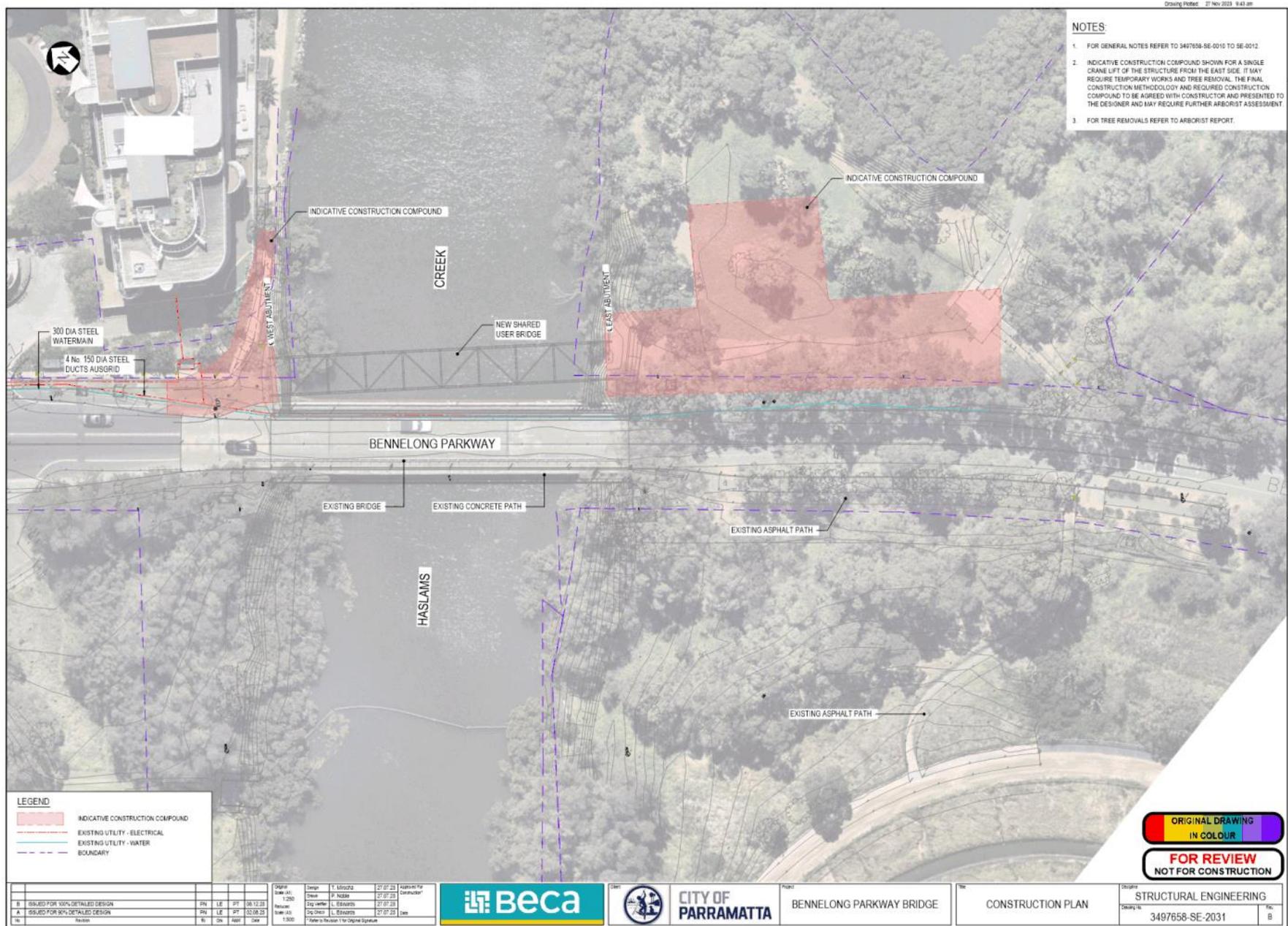
CITY OF PARRAMATTA
BENNELONG PARKWAY BRIDGE

STEELWORK SPLICE DETAILS SHEET 2

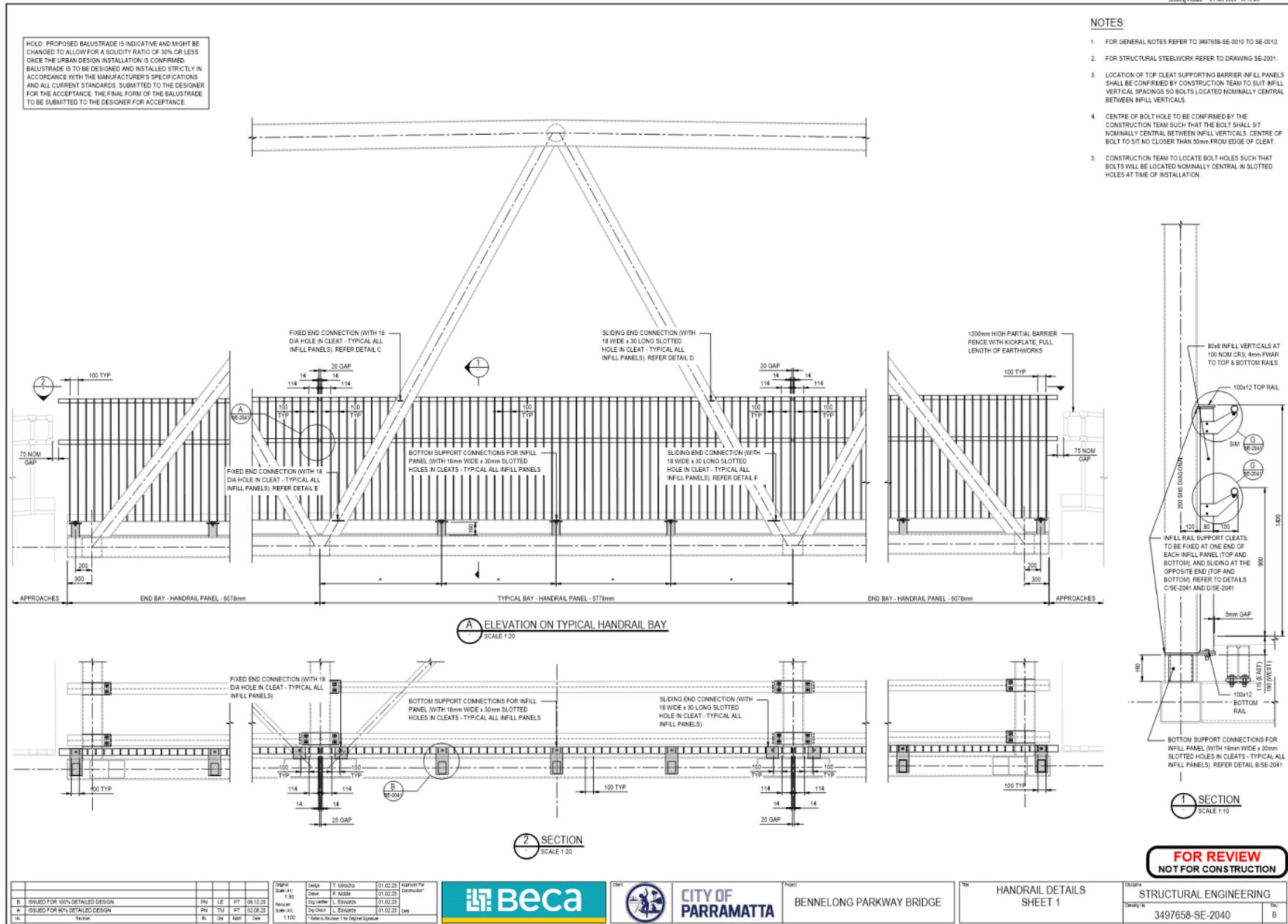
Structural Engineering
3497658-SE-2016

Fig. B



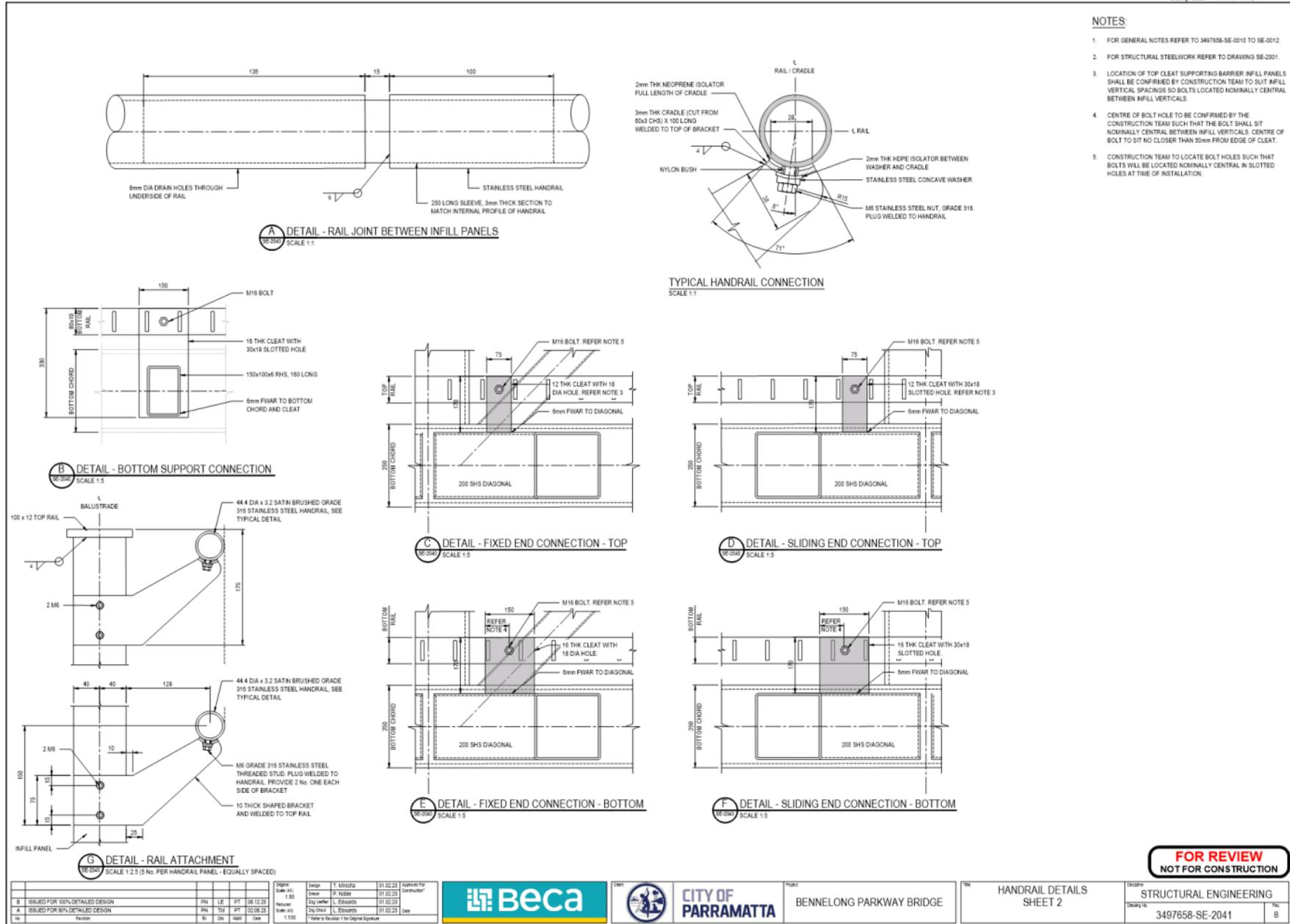


Document SBN40-3225046 OUT DIMENSIONS
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Document S/N: 325046 OUT DIMENSIONS
Version: 1, Version Date: 28/10/2024

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ISSUED FOR 90% DETAILED DESIGN	PN	TL	PT	02.08.23
ISSUED FOR 50% DETAILED DESIGN	PN	TL	PT	11.02.23

Design	T. Mirocica	01.02.23	Approved for Contractor
Check	A. Nade	01.02.23	
Design	L. Edwards	01.02.23	
Check	L. Edwards	01.02.23	
Design	L. Edwards	01.02.23	
Check	L. Edwards	01.02.23	



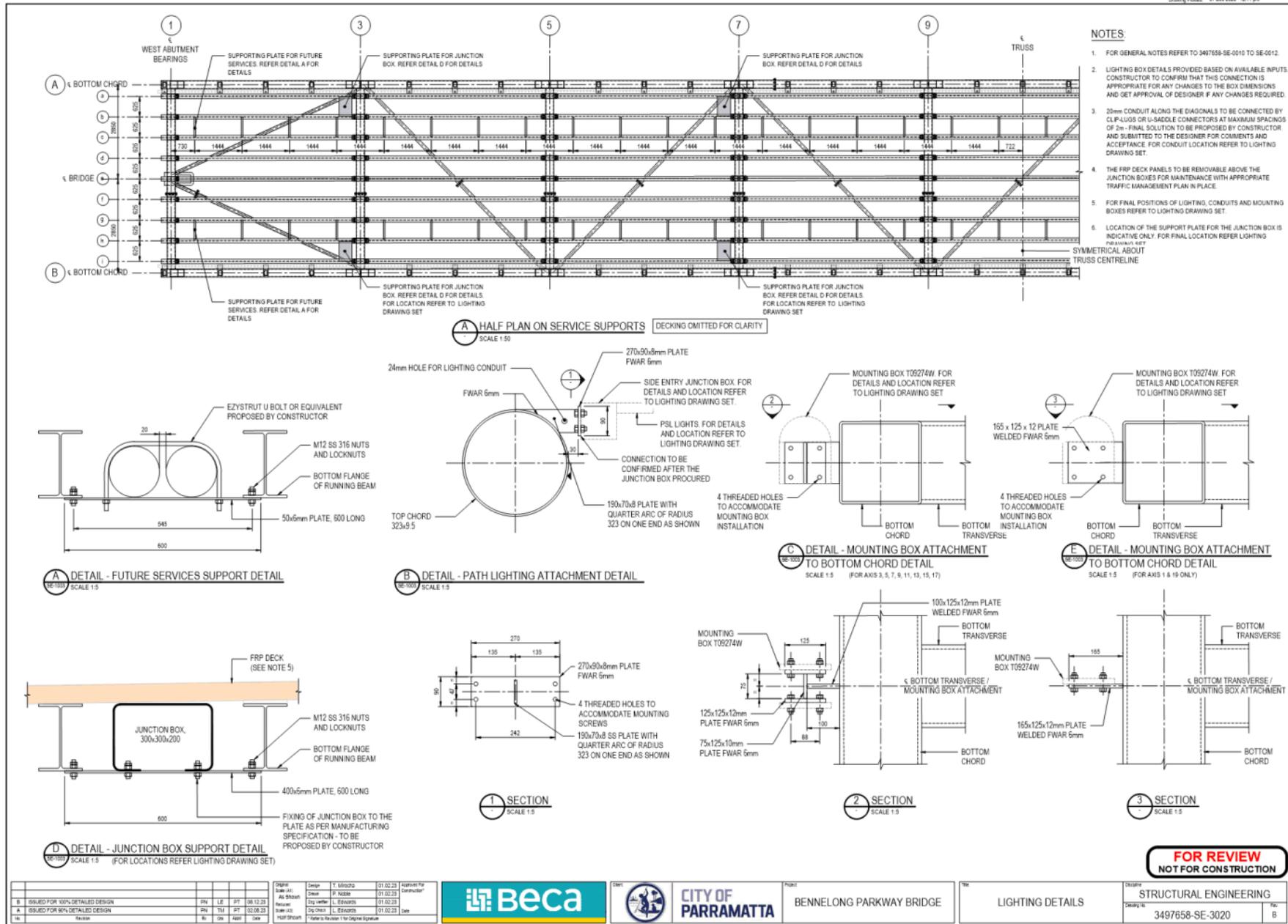
CITY OF PARRAMATTA
BENNELONG PARKWAY BRIDGE

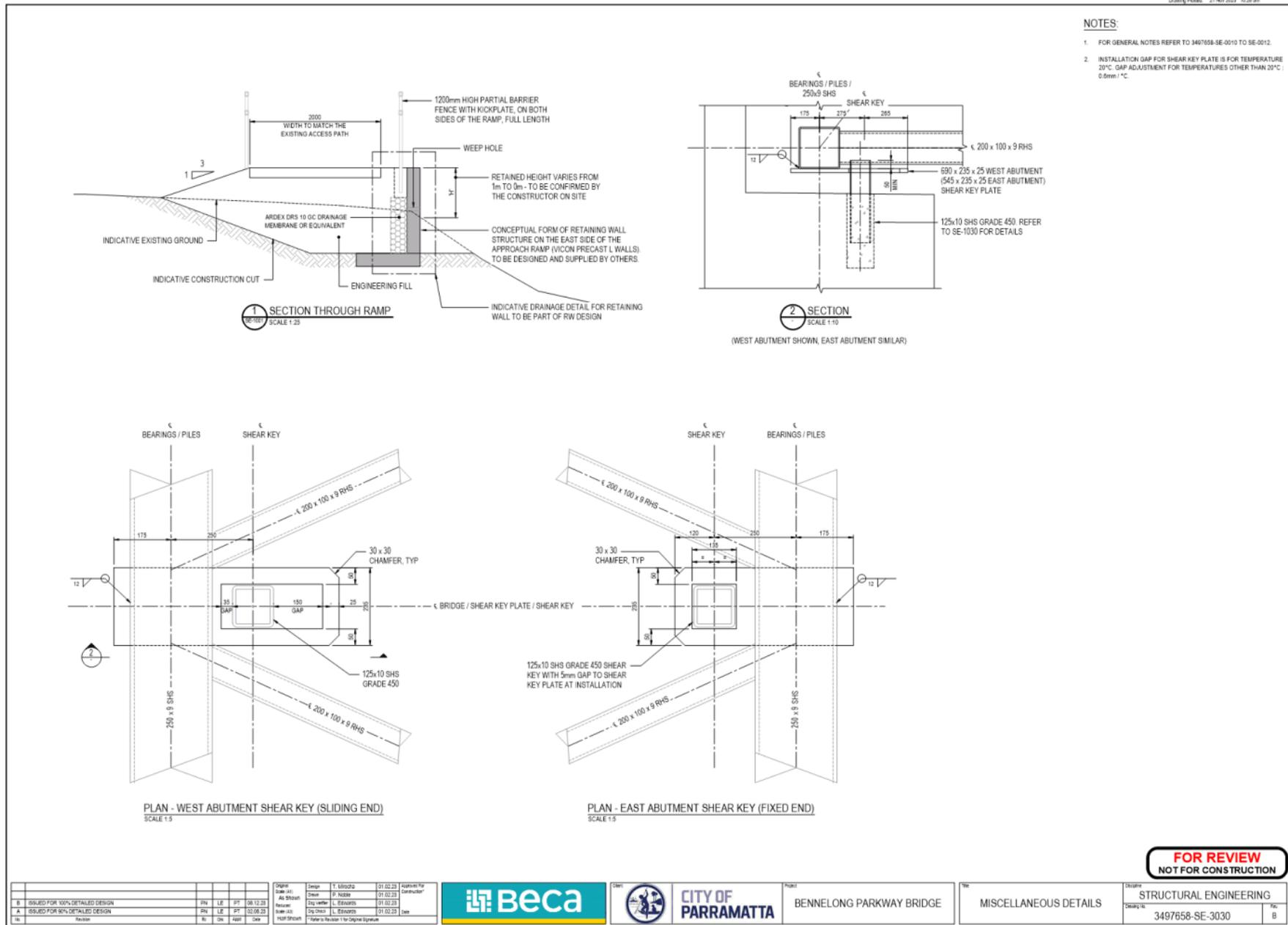
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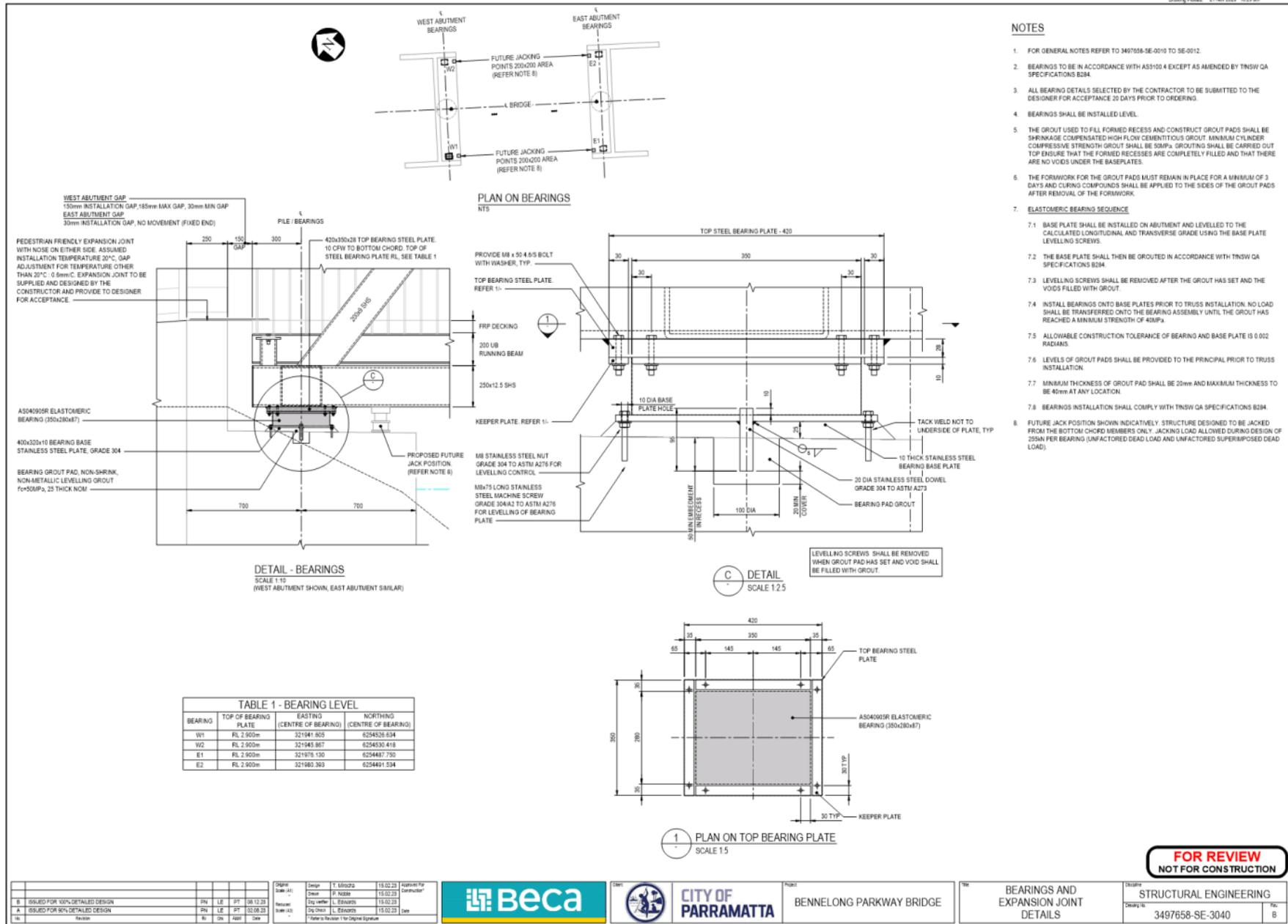
STRUCTURAL ENGINEERING
3497658-SE-2041

Fig. B

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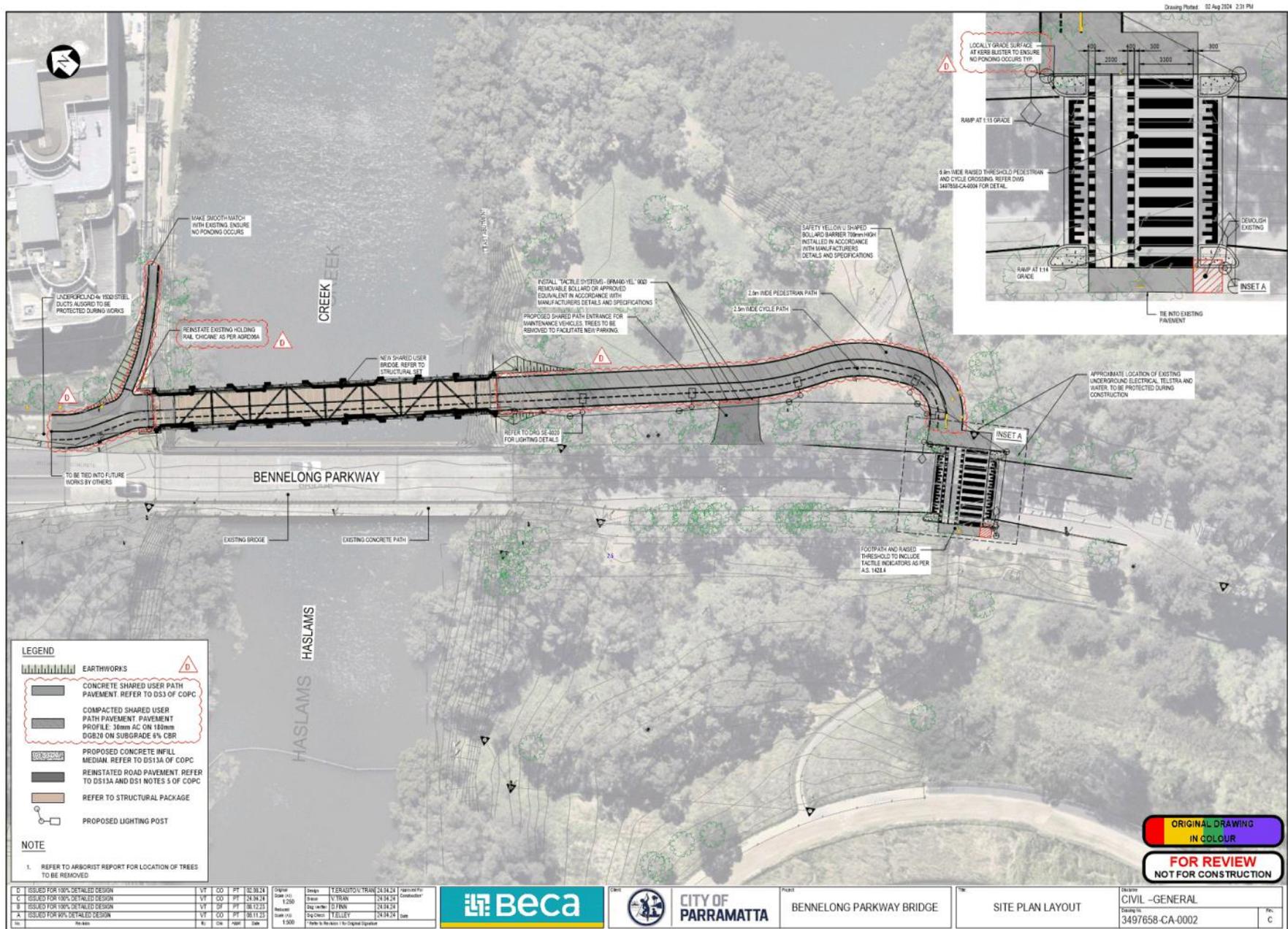
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CITY OF PARRAMATTA
BENNELONG PARKWAY BRIDGE

Project: BEARINGS AND EXPANSION JOINT DETAILS
Discipline: STRUCTURAL ENGINEERING
Drawing No: 3497658-SE-3040
Page: B

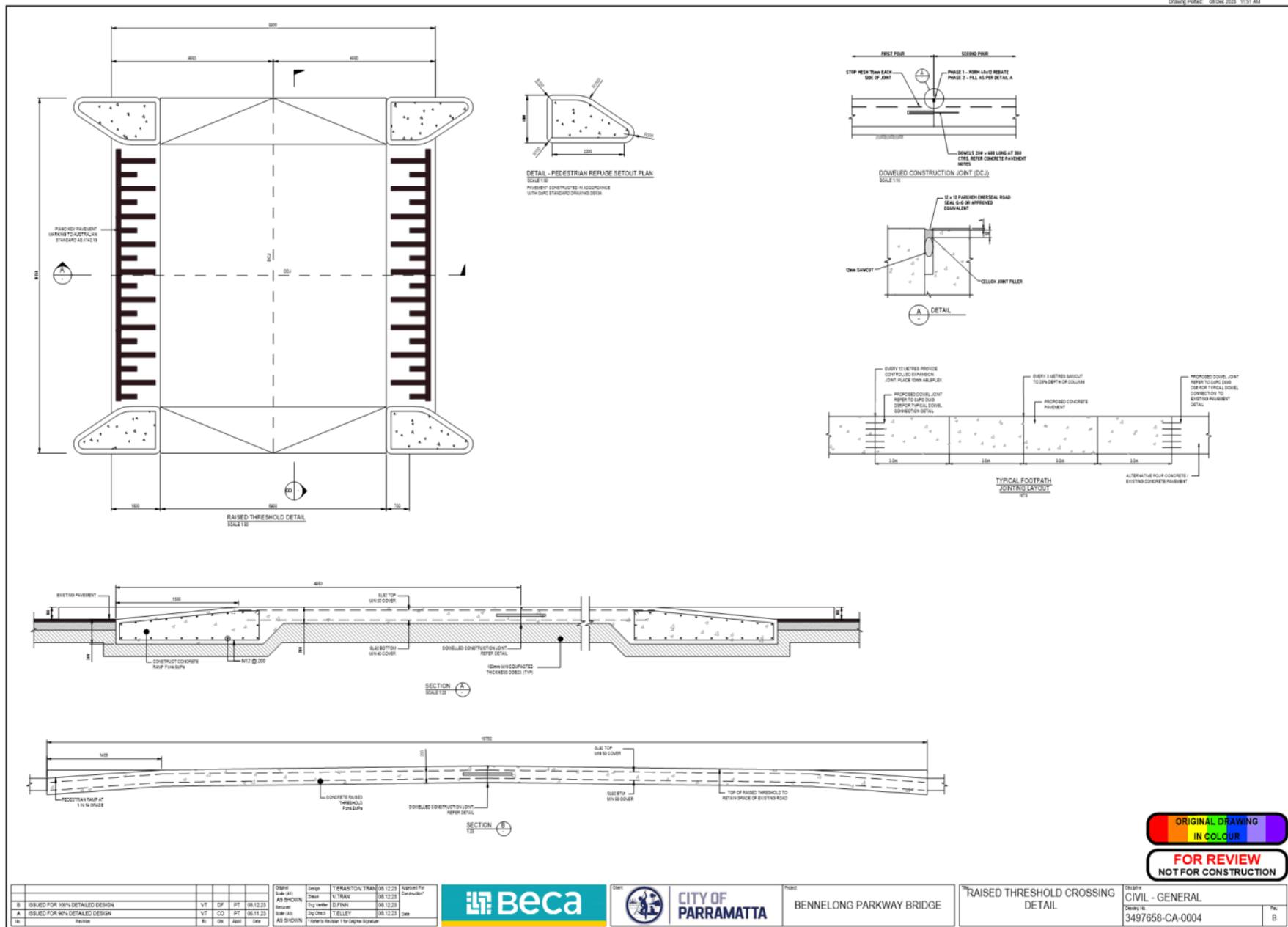
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B		V.T.	SP	08.12.23	ISSUED FOR 100% DETAILED DESIGN
A		V.T.	CO	06.11.23	ISSUED FOR 90% DETAILED DESIGN
10		W.	CO	14.07.23	ISSUED FOR 50% DETAILED DESIGN

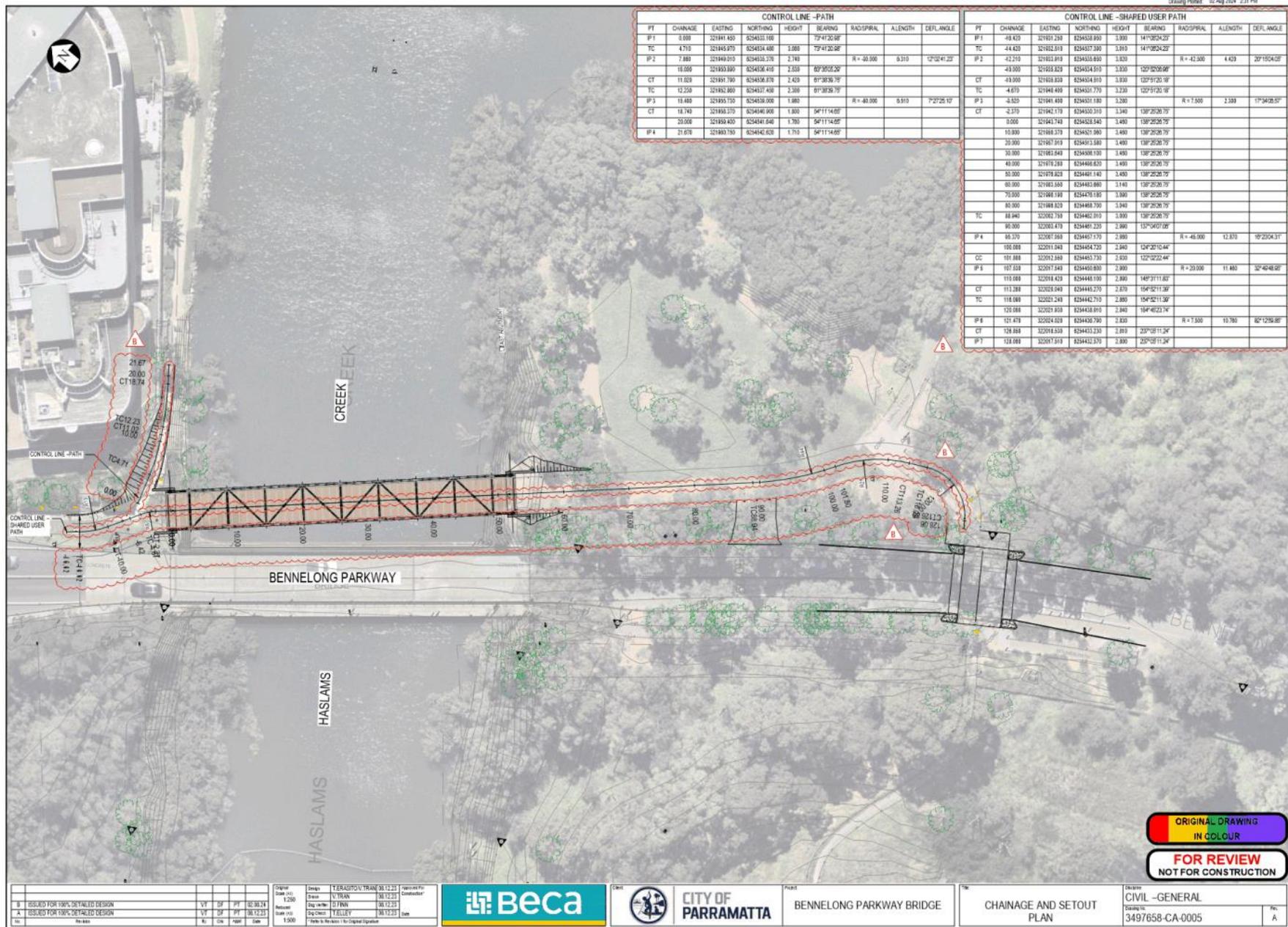


Project: BENNELONG PARKWAY BRIDGE

Detail: RAISED THRESHOLD CROSSING DETAIL

Discipline: CIVIL - GENERAL
Drawing No: 3497658-CA-0004

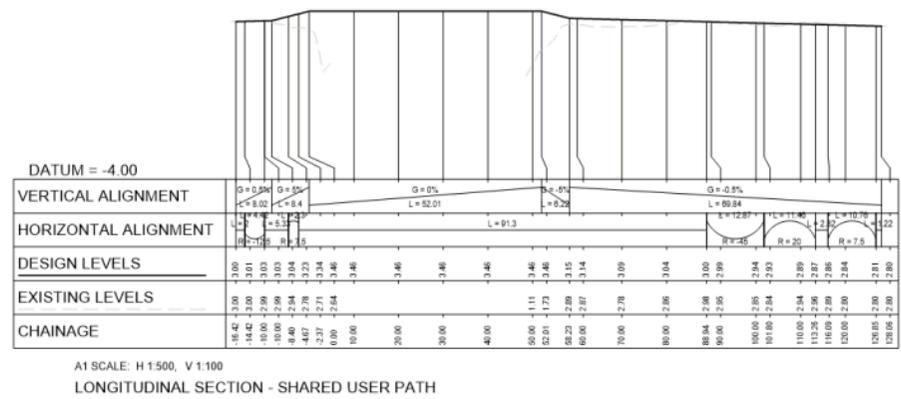
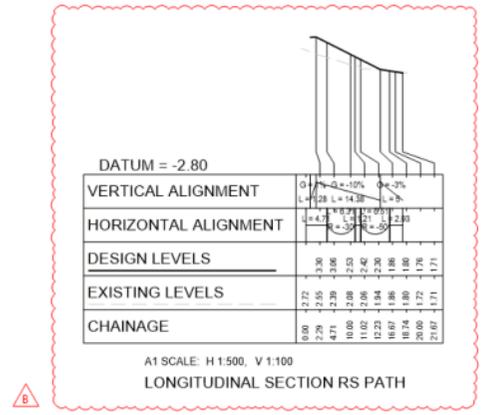
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Document Set No: 3497658-CA-005
 Version: 1, Version Date: 28/10/2024

		Project: BENNELONG PARKWAY BRIDGE	Title: CHAINAGE AND SETOUT PLAN	Revision: CIVIL - GENERAL Drawing No: 3497658-CA-0005 File: A
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Drawing Plotted: 02 Aug 2024 1:48 PM



ORIGINAL DRAWING
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Issue	By	Check	Date	Original Date (dd/mm/yyyy)	Design	Checked by
B	VF	DF	07/30/24	08/12/23	AG SHOWAN	AG SHOWAN
A	VF	DF	08/12/23	08/12/23	TYRRELL	TYRRELL



Project: BENNELONG PARKWAY BRIDGE

File: LONG SECTIONS

Discipline: CIVIL -GENERAL
Drawing No: 3497658-CA-0006
Rev: A

Document Set No: 225046
Version: 1, Version Date: 28/10/2024

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BENNELONG PARKWAY BRIDGE

NOTES:

- LIGHTING DESIGNED TO AS/NZS 1158.3.1 - CATEGORY PE2 FOR CONNECTING ELEMENTS, CATEGORY PP3 FOR THE SHARED PATH AND AS/NZS1158.4 CATEGORY PX1 FOR THE PEDESTRIAN CROSSING.
- PROPOSED LIGHTS ARE
 - a)W1- WE-EF 131-9562 PLS420 S70.BEAM 6 LED 12W/700mA 3000K SURFACE WALL IP66 ALU LEC M20 SIDE ENTRY.
 - b)P1- WE-EF VFL530-WL P45 BEAM 12 LED 24W/700mA PCA 12LED 24W/700mA 3000K IP66 ALU LEC ADVANCED, MOUNTED ON 5m POLES.
 - c)L2- WE-EF VFL540-SE 144W P45L 3000K, MOUNTED ON 5.5m POLES WITH 2m OUTREACH AND 7m MOUNTING HEIGHT.
- ALL VFL530 AND VFL540 LUMINAIRES TO BE SUPPLIED WITH 7 PIN NEMA CELL SOCKET WITH BLANKING CAP. LIGHTING TO BE SWITCHED VIA PE CELL LOCATED AT SWITCHBOARD.
- ALL LIGHTING TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3000 STANDARDS AND PROTECTED BY RCD'S UNLESS EXEMPTION IS PROVIDED.
- ALL POLES SHALL BE DECORATIVE STEEL - PROFILE: TAPERED ROUND BY GH POLES (OR EQUIVALENT APPROVED BY COUNCIL) PAINTED BLACK TO SUIT MOUNTING HEIGHT. POLES FOR VFL530 PATHWAY LIGHTS TO SUIT POST TOP LUMINAIRE INSTALLATION. POLES FOR VFL540 PEDESTRIAN CROSSING LIGHTS TO SUIT 3m SPIGOT BKT WITH SIDE ENTRY LUMINAIRE INSTALLATION.
- CATENARY WIRE SHALL BE INSTALLED FOR CABLES IN POLES WITH 10m MOUNTING HEIGHTS.
- POLE FOUNDATIONS TO BE PROVIDED IN ACCORDANCE WITH THE POLE MANUFACTURER'S INSTRUCTIONS.
- UNLESS NOTED OTHERWISE ALL BRACKETS ARE 3.0m STRAIGHT OUTREACH 0-DEGREE UPCAST BRACKETS PAINTED BLACK.
- ALL PITS SHALL BE POLYETHYLENE PLASTIC BODIED RECTANGULAR PITS 580L X 280W X 760D - TYPE P4 WITH CLASS B LID. ALL PIT LIDS TO BE STAMPED 'ELECTRICAL'.
- UNLESS OTHERWISE APPROVED BY COUNCIL, JUNCTION BOXES FOR THE BRIDGE TO BE POWDER COATED GALVANISED STEEL, SIZED 300X200X200 AND IP66 RATED. JUNCTION BOX TO BE LOCATED IN AN ACCESSIBLE LOCATION WITH DIN RAIL AND GEAR PLATE FOR TERMINATION BLOCKS FOR CABLE CONNECTIONS. JUNCTION BOXES ON THE BRIDGE SHALL BE EARTHED. EARTHING AND EQUIPOTENTIAL BONDING SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT SUPPLY AUTHORITY'S REQUIREMENTS AND AS/NZS 3000.
- ALL MAIN CONDUIT FOR METERED LIGHTING SHALL BE RUNS SHALL BE 80mm ORANGE HD UPVC, CONDUITS BETWEEN PITS AND LIGHTING POLES SHALL BE 50mm HD UPVC.
- ALL 20mm CONDUITS TO LIGHTS ON THE BRIDGE SHALL BE FLEXIBLE ANACONDA STEEL (OR EQUIVALENT APPROVED BY COUNCIL) AND SHALL BE FIXED AT MAX. 2m CENTRES.
- ALL CONDUITS SHALL COMPLY WITH AS/NZS 2053.
- CONDUITS WITHIN THE DRIP LINE OF EXISTING TREES OR UNDER EXISTING PAVEMENT SHALL BE BORED OR NDD.
- ALL LIGHTING POLES SHALL HAVE A 6A TERASAKI (OR APPROVED EQUIVALENT) MCB (C) INSTALLED AT THE BASE OF THE POLE TO ENABLE EACH POLE TO BE ISOLATED SEPARATELY.
- ALL MAINS & SUB-MAINS CABLES SHALL BE XLPE/PVC 90 DEG RATING.
- SUB-CIRCUIT MINIMUM CABLE SIZES SHALL BE 2.5mm².
- MINIMUM SIZE 3.17mm DIAMETER, UV STABILISED PLAITED NYLON CORD DRAWSTRINGS SHALL BE INSTALLED IN ALL CONDUITS & PITS.
- UNLESS OTHERWISE APPROVED BY COUNCIL, ALL ELECTRICAL CONNECTIONS SHALL BE MADE USING AN APPROPRIATE SIZED WATERPROOF, 'BELL STYLE' ENCLOSURE OR SICAME IPC CONNECTORS. AT LIGHTING POLES, CABLES SHALL RUN UNBROKEN AND TERMINATED IN THE BASE OF THE POLE (REFER TYPICAL DETAIL) 2m SLACK IN THE CABLE SHALL BE PROVIDED IN THE ADJACENT PIT.
- METERING / DISTRIBUTION CABINET TO BE PROVIDED IN ACCORDANCE WITH COUNCIL & AUSGRID REQUIREMENTS. REFER DRG 18414-13 FOR ADDITIONAL DETAILS.
- THE FINAL LOCATION OF METERING / DISTRIBUTION CABINET TO BE DETERMINED ON SITE ONCE THE LOCATION OF EXISTING SERVICES HAVE BEEN PROVEN.
- ALL LIGHTING SHALL BE CONTROLLED BY A DUAL PE CELL / TIME CLOCK AND CONTACTOR ARRANGEMENT WITHIN THE DISTRIBUTION BOX.
- CONTRACTOR TO PROVIDE AS BUILT DRAWINGS FOR LIGHTING INSTALLATION AT COMPLETION OF WORKS.

LIGHTING LEGEND

- EXISTING POLE
- [DB] DISTRIBUTION BOX
- P1 □ ○ WE-EF VFL530 24W LED PROPOSED
- W1 ☀ WE-EF PLS420 12W LED PROPOSED
- L2 ○ ○ VFL540-SE 144W LED PROPOSED
- × TO BE REMOVED
- 400mm DIA. PIT PROPOSED
- (E) = EXISTING
- (N) = NEW
- 20mm CONDUIT TO BRIDGE LIGHTS
- 20mm CONDUIT TO BRIDGE LIGHTS
- 80mm MAIN TRUNK CONDUIT
- 300x300x200mm JUNCTION BOX

EXISTING SERVICES

- E - U/G ELECTRICAL
- D - DRAINAGE
- T - TELSTRA
- G - GAS
- S - SEWER
- W - WATER
- O/H ELECTRICAL



FOR CONSTRUCTION

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN BY UTILISE COMPANY'S IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

ISSUE	APP'D	DATE	AMENDMENT
0	J.K.	25.07.24	ISSUED FOR CONSTRUCTION

GENERAL NOTES	

POWER PLANT

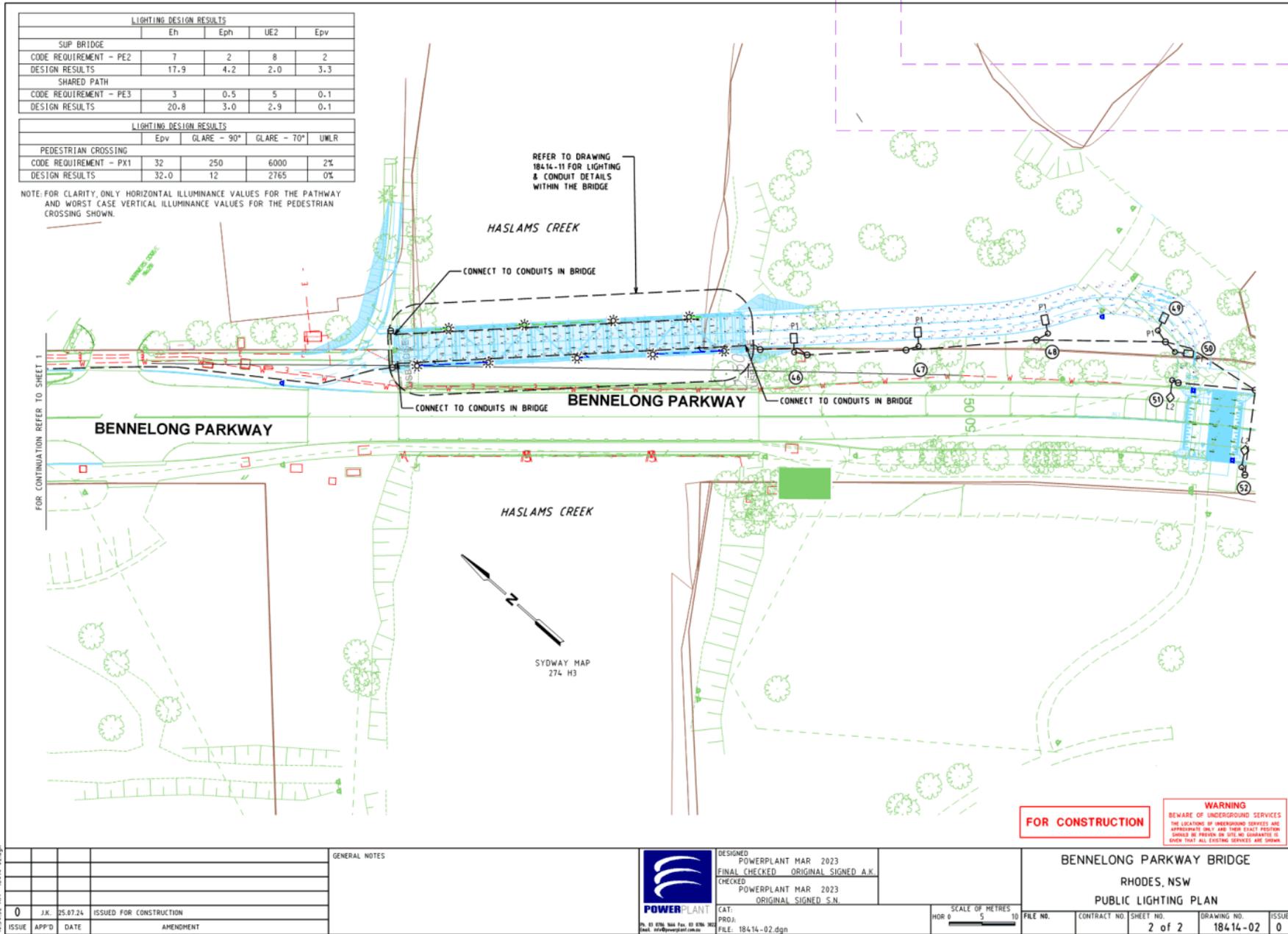
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 FINAL CHECKED ORIGINAL SIGNED A.K.
 CHECKED POWERPLANT MAR 2023
 ORIGINAL SIGNED S.N.

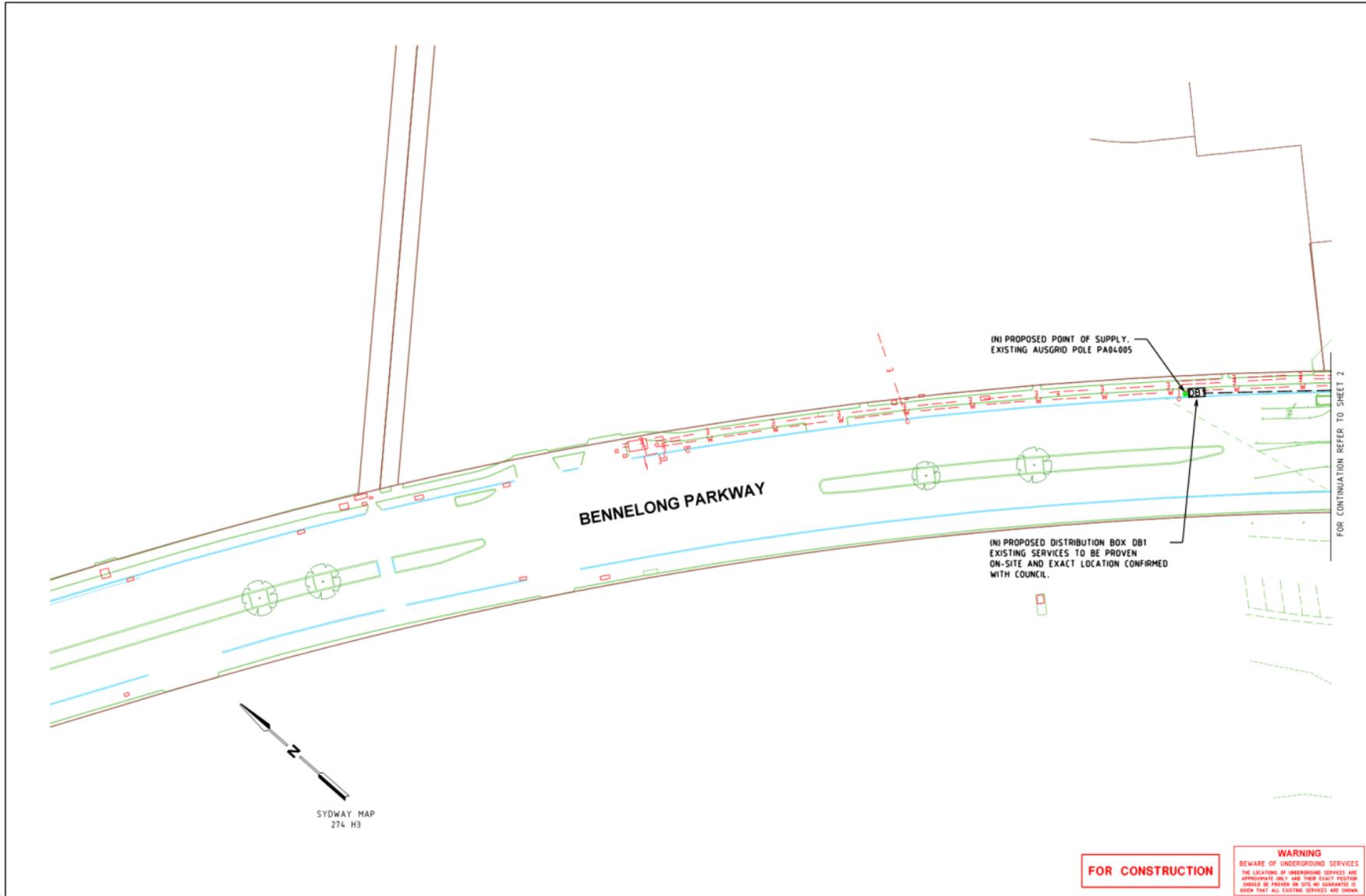
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SCALE OF METRES
 HOR 0 NTS

BENNELONG PARKWAY BRIDGE			
RHODES, NSW			
GENERAL NOTES & LEGEND			
FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO.
		1 of 1	18414-01
			0

18/07/2024 DocId: 18414-01.dgn
 19/07/24 AM
 Document Set ID: 225036
 Version: 1, Version Date: 28/10/2024





ISSUE	APP'D	DATE	AMENDMENT
0	J.K.	25.07.24	ISSUED FOR CONSTRUCTION

GENERAL NOTES


 DESIGNED POWERPLANT (JK) NOV 2023
 CHECKED
 CAT.
 PROJ.
 FILE: 18414-03.dgn

SCALE OF METRES
 HOR 0 5 10

BENNELONG PARKWAY BRIDGE			
RHODES, NSW			
PUBLIC LIGHTING PLAN			
FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO.
		1 of 2	18414-03
			ISSUE 0

Document Set ID: 225036
 Version: 1, Version Date: 28/10/2024



SITE PLAN



SITE IMAGES

DATE	DESCRIPTION	BY
A	ISSUE FOR REVIEW	04/04/2023
B	ISSUE FOR REVIEW	11/11/2023
C	ISSUE FOR REVIEW	06/12/2023
D	FINAL CONCEPT	11/12/2023

Sturt Noble Associates
 Suite 307, 186 Gable Point Rd
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 LANDSCAPE: architecture
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PROJECT:
**BENELONG PARKWAY
 CYCLE BRIDGE**

CLIENT:
 BECA

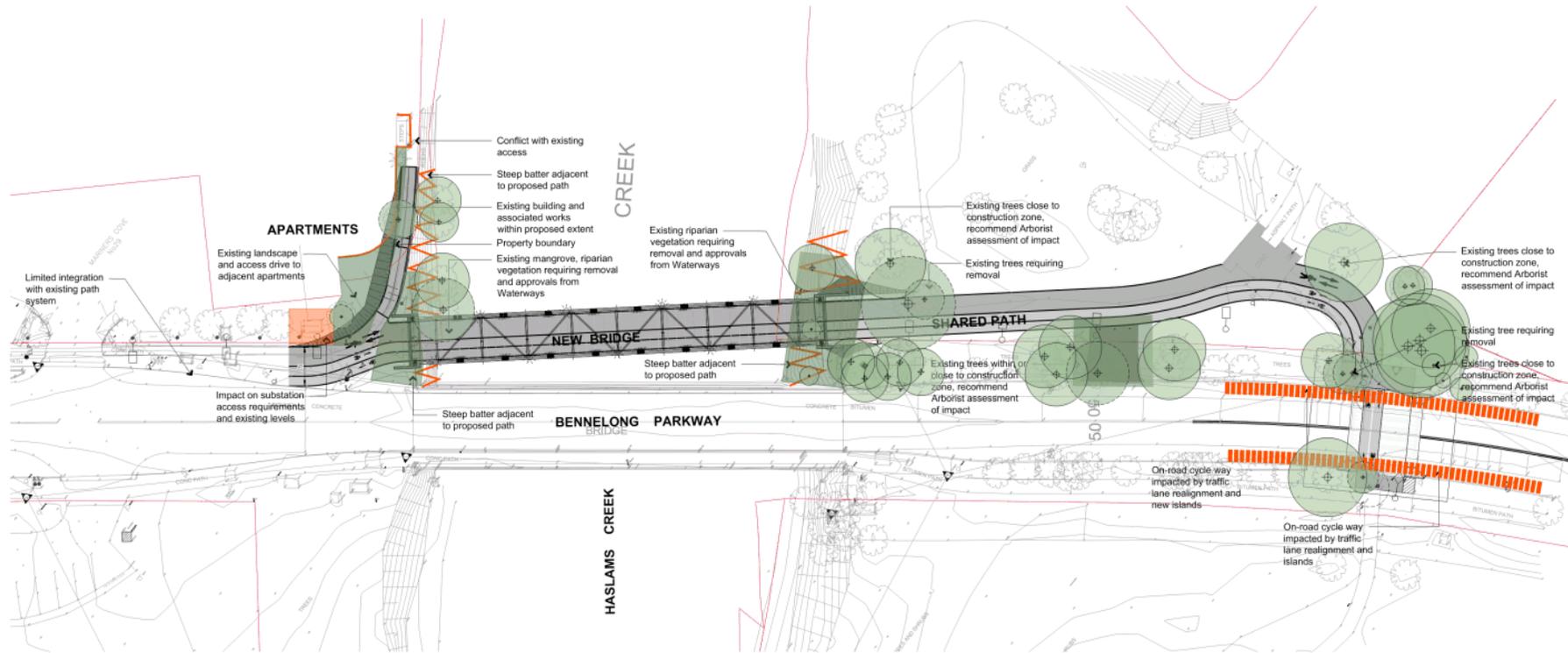
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**LANDSCAPE
 SITE CONTEXT**

DRAWING NUMBER:
 SK-2306-01

DATE:
 11.12.2023

SCALE:
 1:250 @ A1
 1:500 @ A3

0 2.5 5 12.5m



LEGEND

- EXISTING TREES TO BE RETAINED AND PROTECTED
- EXISTING TREES TO BE REMOVED
- EXISTING TREES POTENTIALLY IMPACTED BY WORKS
- EXISTING VEGETATION POTENTIALLY IMPACTED BY WORKS
- EXISTING SITE CONDITIONS POTENTIALLY IMPACTED BY WORKS
- SITE HAZARD - STEEP SLOPE

DATE	DESCRIPTION	DATE
A	ISSUE FOR REVIEW	04/04/2023
B	ISSUE FOR REVIEW	13/11/2023
C	ISSUE FOR REVIEW	06/12/2023
D	FINAL CONCEPT	11/12/2023

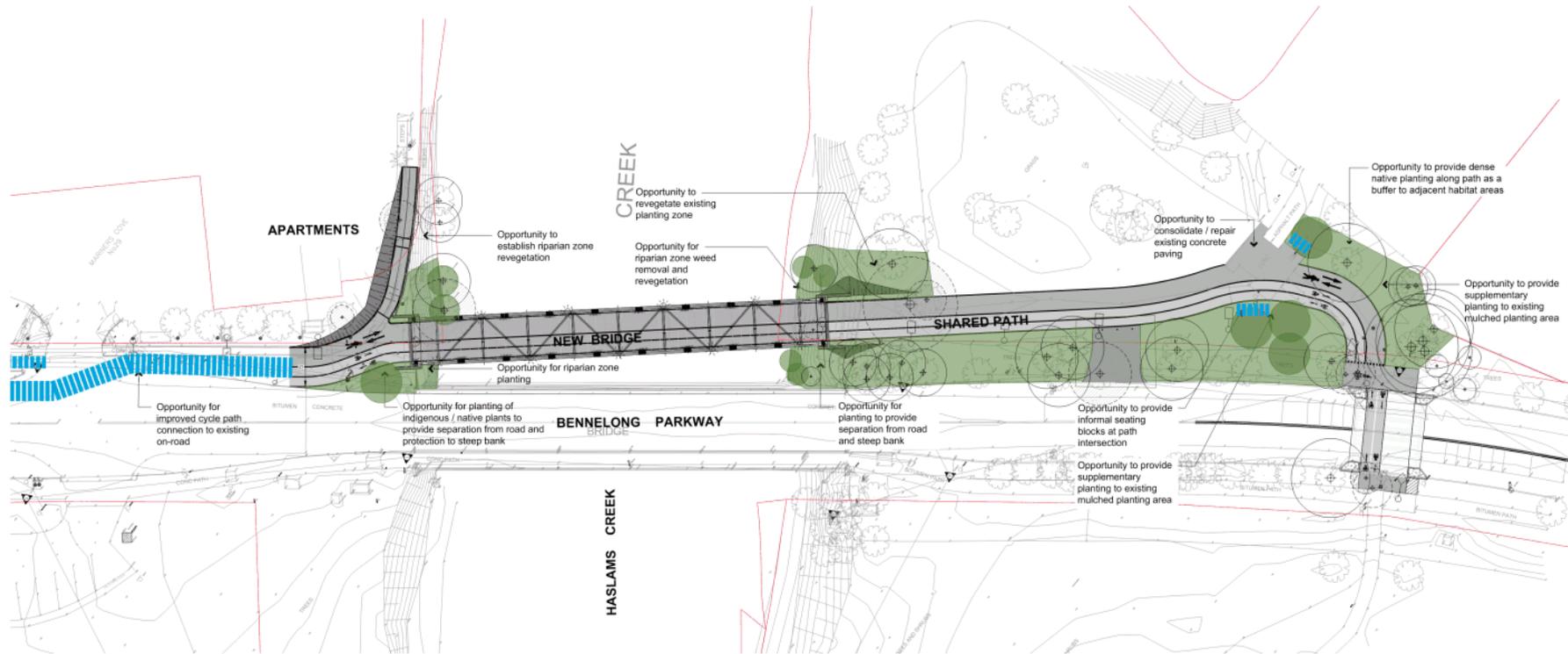
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PROJECT: **BENELONG PARKWAY CYCLE BRIDGE**
 CLIENT: BECA

DRAWING: **LANDSCAPE SITE ANALYSIS - CONSTRAINTS**
 DRAWING NUMBER: SK-2306-02
 DATE: 11.12.2023

SCALE: 1:250 @ A1, 1:500 @ A3
 DIMENSIONS: 0 2.5 5 12.5m



LEGEND

- EXISTING TREES TO BE RETAINED AND PROTECTED
- EXISTING TREES TO BE REMOVED
- EXISTING TREES POTENTIALLY IMPACTED BY WORKS
- PROPOSED TREES
- OPPORTUNITY FOR REVEGETATION AND PLANTING WORKS
- OPPORTUNITY FOR ADDITIONAL WORKS

DATE	DESCRIPTION	DATE
A	ISSUE FOR REVIEW	04/04/2023
B	ISSUE FOR REVIEW	11/11/2023
C	ISSUE FOR REVIEW	06/12/2023
D	FINAL CONCEPT	11/12/2023

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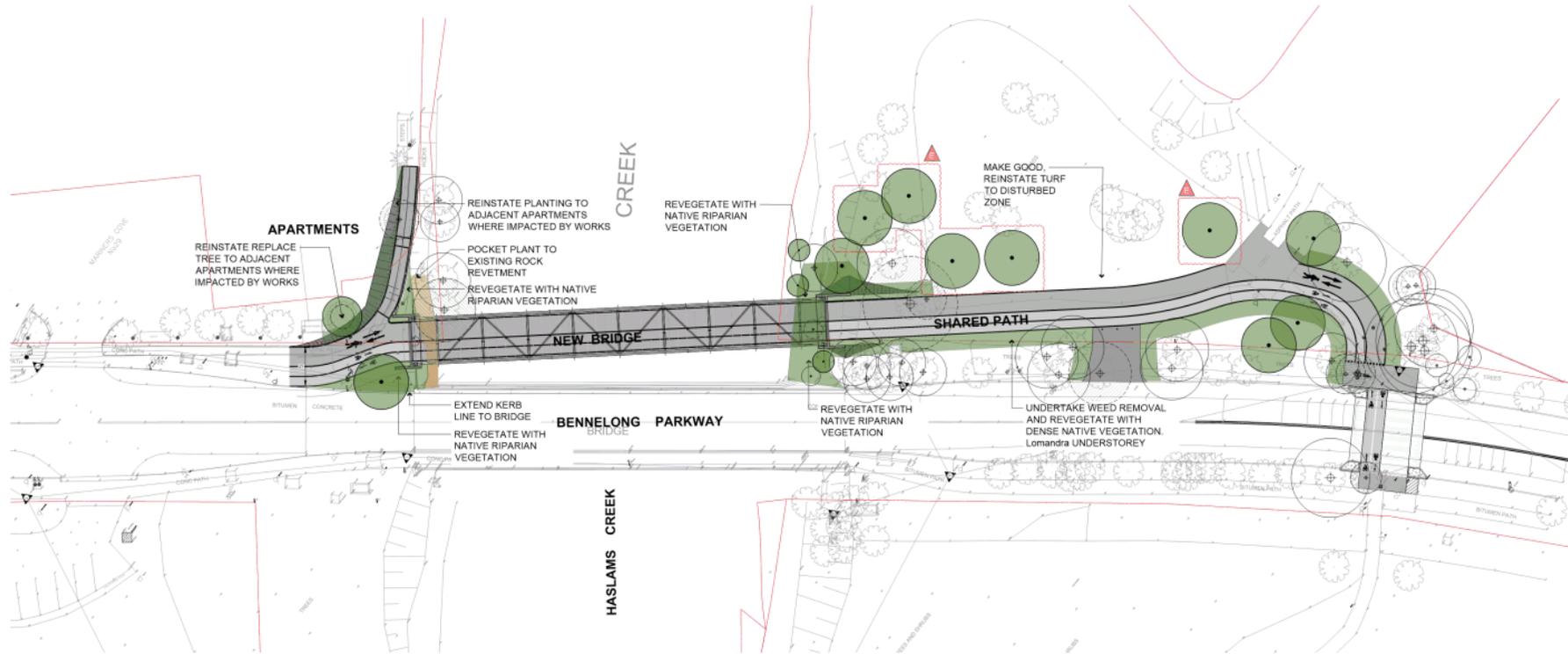
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 CYCLE BRIDGE**
 CLIENT: BECA

**LANDSCAPE
 SITE ANALYSIS - OPPORTUNITIES**
 DRAWING NUMBER: SK-2306-03
 DATE: 11.12.2023

ACN: 164 240 514 ABN: 99 164 240 514
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SCALE: 1:250 @ A1
 1:500 @ A3
 0 2.5 5 12.5m



LEGEND

- EXISTING TREES TO BE RETAINED AND PROTECTED
- EXISTING TREES TO BE REMOVED
- EXISTING TREES POTENTIALLY IMPACTED BY WORKS
- PROPOSED TREES
- LAWN AREA, MAKE GOOD EXISTING
- REVEGETATION AND PLANTING WORKS
- MAKE GOOD EXISTING PLANTING AREA
- POCKET PLANT TO EXISTING ROCK REVETMENT

INDICATIVE PLANT SCHEDULE

Species	Common Name
RIPARIAN VEGETATION:	
TREES	
<i>Avicennia marina</i> var. <i>australasica</i>	Grey Mangrove
MARGIN PLANTING	
<i>Baumea juncea</i>	Twig Rush
<i>Juncus kraussii</i>	Salt Marsh Rush
<i>Phragmites australis</i>	Common Reed
UNDERSTOREY PLANTING	
<i>Carex appressa</i>	Tall Sedge
<i>Centella asiatica</i>	Indian Pennywort
<i>Citrum pedunculatum</i>	Swamp Lily
<i>Dianella caerulea</i>	Blue Flax Lily
<i>Gahnia clarkii</i>	Saw Sedge
<i>Imperata cylindrica</i>	Blady Grass
<i>Lomandra longifolia</i>	Mat Rush
NATIVE REVEGETATION:	
<i>Casuarina glauca</i>	Swamp Oak
<i>Eucalyptus robusta</i>	Swamp Mahogany
<i>Lomandra longifolia</i>	Mat Rush
<i>Melaleuca quinquenervia</i>	Broad Leaved Paperbark

SPECIES TO BE SELECTED FROM THE SWAMP OAK FOREST FLOODPLAIN COMMUNITY AS IDENTIFIED IN THE BIODIVERSITY ASSESSMENT REPORT

DATE	DESCRIPTION	DATE
A	ISSUE FOR REVIEW	04/04/2023
B	ISSUE FOR REVIEW	11/11/2023
C	ISSUE FOR REVIEW	06/12/2023
D	FINAL CONCEPT	11/02/2024
E	FINAL CONCEPT	17/07/2024

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 landscape architecture
 environmental & urban design
 ACN: 164 240 514 ABN: 55 164 240 514

PROJECT: **BENELONG PARKWAY CYCLE BRIDGE**
 CLIENT: BECA

DRAWING: **LANDSCAPE CONCEPT PLAN**
 DRAWING NUMBER: SK-2306-04
 DATE: 17.07.24
 DRAWN BY: mlhp





Environmental Impact Statement

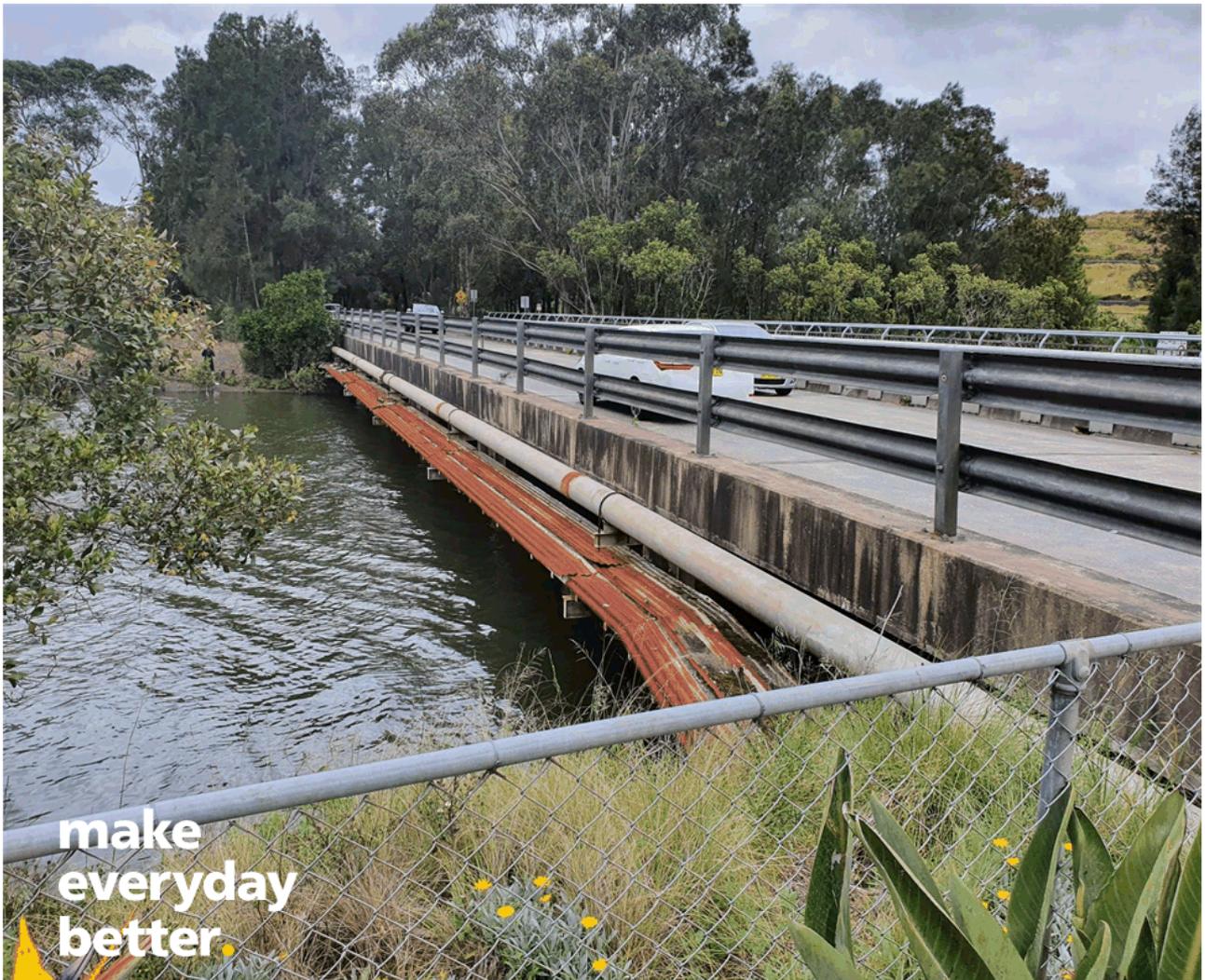
Bennelong Parkway Pedestrian and Cycleway Bridge

Prepared for City of Parramatta

Prepared by Beca Pty Ltd

ABN: 85 004 974 341

24 July 2024



make
everyday
better.

Creative people together transforming our world

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Appendix D – Detailed Site Investigation (Land Contamination)

Appendix E – Built Environment Movement & Place Assessment

Appendix F – Flood Impact Assessment

Appendix G – Aboriginal Heritage Due Diligence Assessment

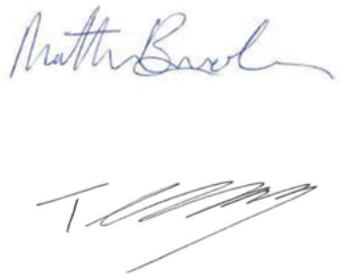
Appendix H – List of Proximate Developments



Revision History

Revision N°	Prepared By	Description	Date
A	Louise Hill Ruth Smith Belle Shanks Peta Brunel	Draft for Internal Review	22 August 2023
B	Peta Brunel	Draft for Client Review	6 December 2023
C	Louise Hill	Final Draft for Client Review	11 January 2024
D	Louise Hill	Final Submission	13 February 2024
E	Fran Soler	Update as per Request for Information requirements	24 July 2024

Document Acceptance

Action	Name	Signed	Date
Prepared by	Louise Hill Fran Soler		29 July 2024
Reviewed by	Matt Brookes Taye Elley		29 July 2024
Approved by	Peter Twomey		29 July 2024
on behalf of	Beca Pty Ltd		





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Glossary

Table 1-1: Glossary of Terms

Term	Meaning
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AOBV	Areas Of Outstanding Biodiversity Value
BC Act	<i>Biodiversity Conservation Act 2016</i>
BDAR	Biodiversity Development Assessment Report
CEMP	Construction Environment Management Plan
CIV	Capital Investment Value
CNVMP	Construction Noise and Vibration Management Plan
CoPC	City of Parramatta Council
DCP	Development Control Plan
DPE	Department Of Planning & Environment
DSI	Detailed Site Investigation
EIS	Environment Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environment Planning and Assessment Regulation 2021</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
FM Act	<i>Fisheries Management Act 1994</i>
GPOP	Greater Parramatta and Olympic Peninsula
HV	High Voltage
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
LSPS	Local Strategic Planning Statement
MNES	Matters Of National Environmental Significance
NML	Noise Management Level
NP&W Act	National Parks & Wildlife Act 1974
NSW DPI	NSW Department of Primary Industry
PCT	Plant Community Type
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
PRUAIP	Parramatta Road Urban Amenity Improvement Program
PSI	Preliminary Site Investigation
RAP	Remediation Action Plan
SEARs	Secretary's Environmental Assessment Requirements
SEPPs	State Environmental Planning Policies
SOPA	Sydney Olympic Park Authority

Term	Meaning
SOPA	Sydney Olympic Park Authority
TCLP	Toxicity Characteristic Leaching Procedure
TECs	Threatened Ecological Communities
TfNSW	Transport For New South Wales
TMP	Traffic Management Plan

Secretary's Environmental Assessment Requirements (SEARs)

This Environment Impact Statement (EIS) has been prepared by Beca Pty Ltd (Beca) on behalf of the City of Parramatta Council (CoPC) to support development of a proposed pedestrian and cycle bridge adjacent to Bennelong Parkway, crossing Haslams Creek in Sydney Olympic Park.

On 8 December 2022, CoPC made a request to the Minister pursuant to Part 8, Division 2, Clause 173 (1) of the *Environmental Planning and Assessment Regulation 2021* for the Planning Secretary's Environmental Assessment Requirements (SEARs) for this EIS.

Table 1-2 outlines the requirements of the SEARs and the location where each of the matters are addressed in this EIS.

Table 1-2. Requirements of the SEARs.

SEARs Requirement	EIS Reference
<p>General Requirements The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 190, 192 and 193 of the <i>Environmental Planning and Assessment Regulation 2021</i>. The Planning Secretary requires the matters detailed below be addressed as part of the EIS. The Department of Planning and Environment (the Department) advocates the preparation of concise, accessible, and justified EIS's, focusing on the proposed development, its likely environmental impacts, and the mitigation of those impacts. All EISs should be prepared to allow government agencies and the public to fully comprehend the environmental implications of the proposed development. The EIS must clearly outline the statutory planning provisions that apply to the proposal.</p>	Whole document
<p>Key Issues The Department has identified the following issues which are likely to be of key significance to the environmental planning and assessment of the proposed development. These issues do not relieve the Applicant from assessing any other key issues that may be identified during the EIS preparation. The EIS must include an assessment of all potential impacts of the proposed development on the existing environment, during construction and operation (including cumulative impacts if necessary), and develop appropriate measures to avoid, minimise, mitigate, offset, manage and/or monitor these potential impacts. As part of the EIS assessment, the following matters must also be addressed:</p>	Section 7
<p>The Proposal – including: location of the proposed development and its context in the locality, including plans and maps</p>	Section 2
<p>a description of the proposed development, including key components and activities required to construct it (including any required vessel movements engaged for construction, if required) and operational elements including their physical layout and design</p>	Section 3
<p>relevant design standards</p>	Section 3.3
<p>associated utility works</p>	Section 3.1
<p>any relationship to any other proposal</p>	Section 5
<p>staging and timing of the proposed development, and</p>	Section 4
<p>proposed construction hours</p>	Section 7.11.2
<p>Statutory Context – including: a detailed justification for the proposal and suitability of the site for the development</p>	Section 1 Section 2
<p>a demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies</p>	Section 5 Section 5.16
<p>consideration of impacts of 'no action' and consideration of alternative options as well as construction and operation technologies, and</p>	Section 3.2
<p>a list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out</p>	Section 5
<p>Air Quality – including: a description of all potential sources of air emissions during construction and potential impacts on the environment and sensitive receivers.</p>	Section 7.1
<p>Biodiversity – including: plans showing the distribution of threatened species and ecological communities on and</p>	Section 7.2 Appendix B

SEARs Requirement	EIS Reference
adjacent to the proposed development site and the extent of vegetation to be cleared a detailed assessment of the potential impacts on biodiversity values to determine if the proposed development is "likely to significantly affect threatened species" for the purposes of Section 7.2 of the <i>Biodiversity Conservation Act 2016</i> (BC Act). If the proposed development is likely to significantly affect threatened species, the application for development consent must be accompanied by a Biodiversity Development Assessment Report (BDAR) that assesses the biodiversity impacts in accordance with the BC Act and Biodiversity Assessment Method (BAM)	Section 7.2 Appendix B
the BDAR must be prepared by a person accredited to apply the BAM under s6.10 of the BC Act, where a BDAR is not required and a threatened species assessment is prepared to support a conclusion of 'no significant impact', the EIS must include a field survey of the site, conducted and documented in accordance with the relevant guidelines including – - a) Field survey methods for environmental consultants and surveyors when assessing proposed developments or other activities on sites containing threatened species (OEH, undated) - b) NSW Survey Guide for Threatened Frogs (DPIE, 2020) - c) Surveying threatened plants and their habitats: NSW survey guide for the Biodiversity Assessment Method (DPIE, 2020) - d) Species credit' threatened bats and their habitats (OEH, 2018) - e) Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004)	Appendix B Appendix B
description of the survey methodologies used, including timing, location, and weather conditions an assessment of potential impacts to riparian and aquatic vegetation during the construction phase, including a description of how the design and methodology will maximise a riparian buffer between the land and water aspects of construction, protect existing riparian and aquatic vegetation, and ensure successful rehabilitation of riparian and aquatic vegetation following construction	Appendix B Appendix B
a detailed assessment of the potential impacts (direct and indirect) to the coastal wetlands, and aquatic species/habitats listed under the <i>Fisheries Management Act 1994</i> and the associated Policy and Guidelines for Fish Habitat Conservation and Management (2013), and any proposed offset requirements resulting from this assessment; and an assessment of potential weed, pest and disease risks	Appendix B
Contamination – including: an assessment of the extent and nature of any potential soil (terrestrial and aquatic) and groundwater contamination at the site and demonstration that the site is suitable (or will be after remediation) for the proposed activity	Appendix B Section 7.4 Appendix D
Design, Place, & Movement – including: a design led process that is informed, collaborative and iterative, which: - a) utilises good design processes - b) is designed with and connected with Country - c) involves the community, user groups and other stakeholders - d) considers opportunities for heritage interpretation and art - e) considers lighting design to reflect the location of the bridge and pathway within an ecologically-sensitive area - f) considers the Bridge Aesthetics: Design Guidelines to improve appearance of bridges in NSW (Transport for NSW, 2019) - g) considers the landscape character and visual impacts of the proposal, particularly from adjacent sensitive viewpoints - h) considers the location of for pylons outside the main channel of Haslams Creek - i) considers maritime vessels, navigable channels and minimum clearances - j) considers the width of the shared path; and - k) ensures access arrangements for utility vehicles and ranger vehicles are maintained.	Section 7.5
a Design and Landscape Plan (DLP) that details, but is not limited to: - a) the design of the permanent built elements of the project including their form, materials, detail and integrated art (if possible) - b) the design of the project landform and landscaping elements - c) details of strategies to rehabilitate, regenerate or revegetate disturbed areas with priority given to the use of local native species; and - d) details of how Aboriginal and non-Aboriginal heritage interpretation and public art are incorporated within the design of built features	Appendix A
Flooding – including: details and mapping of flood prone land, flood planning (area below the flood planning level) and flood management objectives, hydraulic categorisation (floodway and flood storage areas), and flood hazard	Section 7.6 Appendix F
potential changes in flooding arising from the proposed development	Section 7.6

SEARs Requirement	EIS Reference
potential hydrological changes within wetlands; and	Appendix F Section 7.6 Appendix F
potential impacts upon existing community emergency management arrangements for flooding, such as evacuation and access, and contingency measures	Section 7.6 Appendix F
Hazards and Risk – including: the effects of coastal processes and coastal hazards including the effects of sea level rise and climate change on the, and arising from, the proposed development	Section 7.8
Heritage – including: the assessment of impacts on Aboriginal heritage (including Aboriginal conservation areas, areas of cultural and archaeological significance) undertaken consistent with the Code of Practice for Archaeological Investigation in NSW (DECCW, 2010) and Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011), as well as any other relevant guidelines and requirements; and	Section 7.9.1 Appendix G
consultation with Aboriginal people undertaken and documented in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), including the significance of any Aboriginal cultural heritage values and likely impact of the proposal on their cultural heritage	Section 7.9.1 Appendix G
Land and Water Uses – including: an assessment of the impacts on and from surrounding land uses, including issues relating to managed adjoining areas and an analysis of site suitability with respect to potential land use conflicts. Particular attention should be made to potential impacts upon Crown Land, land subject to any Aboriginal land claim, and recreational and tourism activities that may be carried out in the locality	Section 7.10
details on any land acquisition required for the proposal; and	Section 7.10.5
identification and impact assessment of works located on waterfront land associated with the wetland including consideration of the Guidelines for Controlled Activities on Waterfront Land (2018)	Section 7.10.6
Noise and Vibration – including: an assessment of the likely construction noise impacts during the day, evening and night-time periods, including construction traffic noise, on nearby sensitive receivers in accordance with the Interim Construction Noise Guideline (DECC, 2009) and Assessing Vibration: a technical guideline (DEC, 2006).	Section 7.11
Soil and Water – including: a description of local soils, topography, drainage, groundwater resources and waterways including existing water quality and hydrology	Section 7.12
groundwater, and groundwater dependent ecosystems	Section 7.12 and Appendix B
details on sources of potential water pollutants (quantity and physico-chemical properties)	Section 7.12 and Appendix B
an assessment of potential impacts on the quality of surface water resources with reference to the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local water quality objectives, criteria or targets endorsed by the NSW Government	Section 7.12
details of measures to manage and mitigate surface water impacts, including measures for managing and treating any wastewater and stormwater discharges and sediment plumes	Section 7.12
details of all drainage works and associated infrastructure; and	Section 7.12
an assessment in accordance with the relevant guidelines in the Acid Sulfate Soils Manual (Stone et al. 1998) and the Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004) for the presence and extent of acid sulfate soils (ASS) and potential acid sulfate soils (PASS) on the site	Section 7.12 and Appendix D
Traffic and Transport – including: an assessment of the traffic impacts on the surrounding land uses during construction (access to and from the site)	Section 7.7
a description of any construction compounds and how the site will be accessed	Section 7.7
Waste Management – including: details of the quantity and type of wastes generated;	Section 7.13
details of waste management practices including handling, transport, identification, classification, disposal, receipt, stockpiling, reuse, and quality control	Section 7.13
the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021	Section 7.13
Environmental Management and Monitoring – including: a description of measures to manage, mitigate or offset potential impacts during construction, including unexpected heritage finds procedures	Section 7.15

SEARs Requirement	EIS Reference
details on how the environmental performance of the proposal would be monitored over time; and	Section 7.15
where possible, reasonable, and feasible mitigation measures should be developed in consultation with surrounding affected landowners, and the relevant public authorities.	Section 7.15
Cumulative Impacts – including: the cumulative impacts, including both construction and operational impacts, from all clearing activities and operations, associated edge effects and other indirect impacts on cultural heritage, biodiversity and NPWS Estate in accordance with the <i>Environmental Planning and Assessment Act 1979</i> ; and	Section 7.14
the cumulative impacts, including both construction and operational impacts, of the proponent's existing proposals and other proposals and associated infrastructure (such as access tracks etc.) as well as the cumulative impact of the proposed development in the context of other proposals located in the vicinity.	Section 7.14
Environmental Planning Instruments and other policies The EIS must assess the proposal against the relevant environmental planning instruments, including but not limited to:	
State Environmental Planning Policy (Resilience and Hazards) 2021	Section 5.14.2
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Section 5.14.2
State Environmental Planning Policy (Precincts – Central River City) 2021	Section 5.14.4
Auburn Local Environmental Plan 2010	Section 5.15.1
Parramatta Development Control Plan 2011	Section 5.16
Wentworth Point Precinct Development Control Plan 2014; and	Section 5.16
relevant development control plans and section 7.11 plans (under the Environmental Planning and Assessment Act)	Section 5.1.4
Guidelines and Agency Issues During the preparation of the EIS you should consult the Department's Register of Development Assessment Guidelines available on the Department's website at planning.nsw.gov.au . Whilst not exhaustive, this Register contains some of the guidelines, policies, and plans to take into account in the environmental assessment of the proposed development. Matters to be considered and guidelines identified in consultation with agencies in the preparation of these requirements should also be addressed.	Whole document
Consultation During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult with the:	Section 8
Environment Protection Authority;	Section 8.3
Department of Primary Industries (Fisheries)	Section 8.4
DPE Water	Section 8.2
Transport for NSW (Maritime Services)	Section 8.5
Sydney Olympic Park Authority	Section 8.6
Crown Lands	Section 7.10.1
Special interest groups, including Local Aboriginal Land Councils	Section 8.2
Utilities and service providers; and	Section 8.2
the surrounding landowners and occupiers that are likely to be impacted by the proposal.	Section 8.2
Details of the consultation carried out and issues raised must be included in the EIS	Section 8

1 Introduction

1.1 Project Background

This EIS has been prepared by Beca on behalf of CoPC to support a development application for the construction and operation of a cycle and pedestrian bridge crossing Haslams Creek in Wentworth Point / Sydney's Olympic Park.

The Olympic Peninsula, 18km west of Sydney's Central Business District, is an area of future intensified urban development. Plans for walking and cycling routes and circuits have been developed to provide safe and high amenity recreational and commuting connections for the rapidly densifying precinct. The Homebush Bay Circuit Wayfinding Strategy and Masterplan, for example, has a vision to develop a world class walking and cycling circuit around Homebush Bay, connecting the suburbs of Wentworth Point, Olympic Park, and Rhodes.

Additionally, CoPC is investing in the safety and liveability of the local community through the adoption of the Parramatta Bike Plan. The Parramatta Bike Plan guides the delivery of cycling infrastructure and programs within the CoPC local government area (LGA), showcasing the important role that cycling will play for the 'River City of Sydney'.

However, an existing shared use pathway on the downstream side of the Haslam Creek bridge does not align with the Parramatta Bike Plan or the Homebush Bay Circuit Wayfinding Strategy and Masterplan. A new pedestrian and cyclist bridge across Haslams Creek is proposed to address this gap.

1.2 Applicant (City of Parramatta Council)

The applicant for this project is the CoPC. The CoPC LGA is located in the Greater Western Sydney region, 24km west of Sydney's CBD. The CoPC LGA is a key employment hub for the region of Greater Western Sydney. It is 84km² in area and includes the suburbs of Lidcombe, Baulkham Hills, Epping, Granville, Parramatta, Ryde, Seven Hills and more. In 2021 there were 257,000 residents within the CoPC LGA with a median age of 34 years old. It is the fifth most populous LGA in NSW.

The CoPC LGA has over 65km of natural waterways, 859ha of parks, reserves, and sportsgrounds, 459ha of bushland, 600 unique species of flora, 230 unique species of fauna, 12 endangered ecological communities and 32 threatened fauna species. The area has been home to the Darug and Wangal people for more than 60,000 years.

1.3 Project Justification

A feasibility study undertaken by AECOM, funded by CoPC, in 2019,¹ identified that the existing Bennelong Parkway bridge requires pedestrians and cyclists to cross the road twice (Figure 1-1), resulting in an increased safety risk. The narrowness of the existing footpath also poses an inconvenience to cyclists who are prompted to dismount when crossing the bridge (Figure 1-2).

To alleviate these road safety and convenience issues CoPC is proposing a new pedestrian and cyclist bridge over Haslams Creek adjacent to the existing Bennelong Parkway bridge. The proposed Bennelong Parkway cyclist and pedestrian bridge will support connectivity by providing commuters, the local community, and visitors, with a safe and suitable crossing over Haslams Creek that aligns with the Homebush Bay Circuit Wayfinding Strategy and Masterplan and Parramatta Bike Plan.

¹ Aecom (2019). *Sydney Olympic Park Pedestrian and Cyclist Bridges – Feasibility Study*. Aecom.



Figure 1-1. Existing Bennelong Parkway road crossings (Source: AECOM Feasibility Study, 2019).



Figure 1-2. Existing Bennelong Parkway bridge shared path (Source: Google Maps, 2023)

2 The Site

2.1 Site Description

The proposed development site is located between the suburbs of Sydney Olympic Park and Wentworth Point in the CoPC LGA. The site is approximately 12km east of Parramatta CBD and approximately 18km west of Sydney CBD. The wider site location is shown in Figure 2-1.



Figure 2-1. Site location (Source: NearMap, 2023).

2.2 Site Context

The proposed Bennelong Parkway cyclist and pedestrian bridge (Figure 2-2) will be located to the immediate north-east of the existing Bennelong Parkway road bridge, which provides a vehicular connection from Hill Road north of the site to Marjorie Jackson Parkway to the south.



Figure 2-2. Close up aerial image of the Site location. (Source: NearMap, 2023).

On the north-eastern embankment of Haslams Creek (to the north of the site) is a high-density residential apartment block and a small number of commercial businesses. To the north-west of the site is the Sydney Olympic Park Archery Centre. South of the proposed development site (across Haslams Creek) are Wentworth Common, the Badu Mangroves and Bicentennial Park.

The proposed development site incorporates an area near the mouth of Haslams Creek which is heavily vegetated. Haslams Creek flows through Sydney Olympic Park and joins the Parramatta River at Homebush Bay. Homebush Bay contains a number of important natural assets, including mangroves and migratory birds. The Haslams Creek catchment area is 17 square kilometres.

2.3 Land Ownership Context

Figure 2-3 provides a summary of land ownership in the vicinity of the development site.

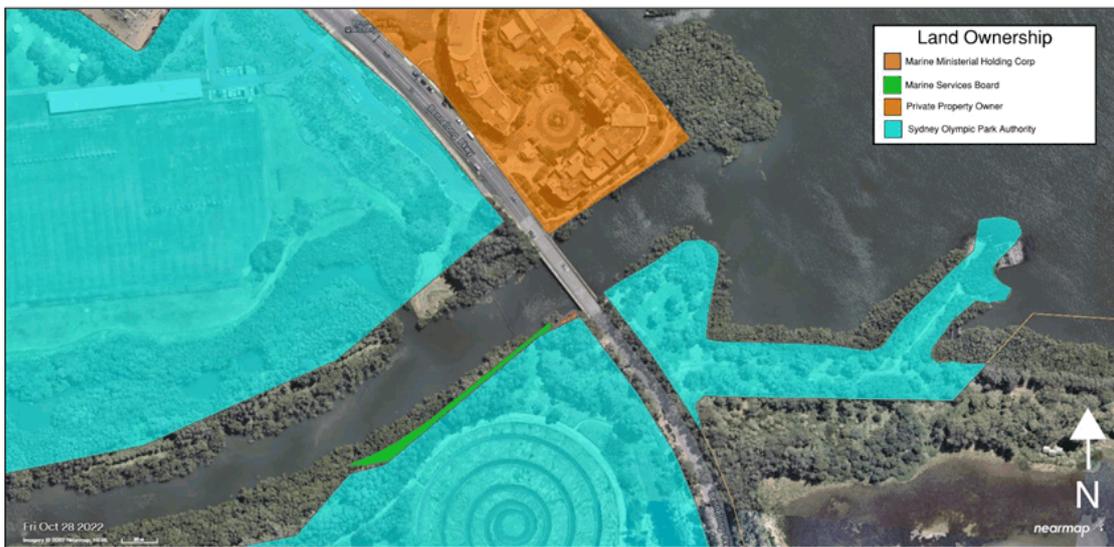


Figure 2-3. Land Ownership Map

The proposed development will be located on land owned/administered by entities other than the CoPC as outlined in Table 2-1.

Table 2-1: Land Ownership

Land Affected	Owner/Administrator
Lot 1 DP 270161	Private Property Owner
Lot 1 DP 868282 and Lot 71 DP 1191648	Sydney Olympic Park Authority
Haslams Creek	TfNSW (Maritime Services)

2.4 Existing Bridge Infrastructure

The existing Bennelong Parkway bridge (Figure 2-4) has a span of 50m with 4 intermediary piers. The bridge is two-laned with a posted speed limit of 50km/hr.

A pedestrian and cyclist walkway is located on the western side of the existing bridge. This walkway provides poor safety and useability outcomes for cyclists and pedestrians due to its narrow width (approximately 1.4m). The walkway configuration, which only provides pedestrian and cyclist access on the western side,

also requires pedestrians and cyclists to cross Bennelong Parkway twice (Figure 1-1), posing a safety hazard.

Electricity, gas, sewer, and communications utilities are attached to the existing Bennelong Parkway bridge. High Voltage (HV) underwater transmission cables are located to the south of the bridge and a potable water connection is located to the north.



Figure 2-4: Existing Bennelong Parkway bridge (Source: Google Maps)

3 Project Description

3.1 Scope of Works

The proposed development comprises the following:

- Construction of a new single span pedestrian and cycle bridge (approximately 52m in length), located to the immediate northeast of the existing Bennelong Parkway bridge. The bridge will provide for a new 5.0m wide shared user path.
- Provision of new shared path tie-ins to the existing Bennelong Parkway road kerb north of the proposed bridge, and Parklands Circuit shared user path to the south of the proposed bridge.
- Removal of trees and mangroves to facilitate tie-in to the existing Parklands Circuit shared user path south of proposed bridge and to Bennelong Parkway north of the proposed bridge.
- Property acquisition at 27-29 Bennelong Parkway (Mariners Cove).
- Construction of a 6.1m wide raised pedestrian and cycle crossing on Bennelong Parkway to the south of the existing bridge.

The new bridge location avoids the need for diversion / adjustment of existing utilities.

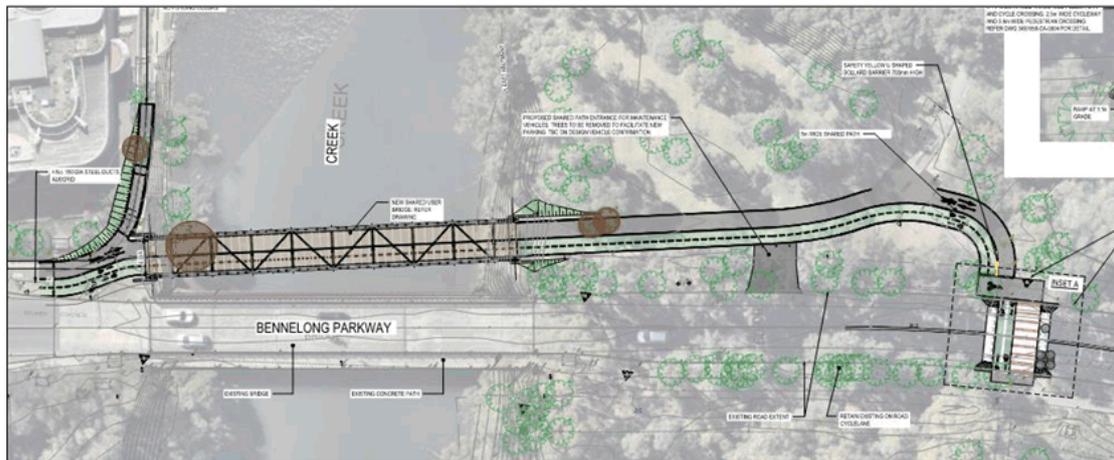


Figure 3-1. Proposed development (Source: Sturt Noble, 2023)

Detailed design drawings are included in Appendix A. The proposed development has an estimated Capital Investment Value (CIV) of approximately \$4.6 million.

3.2 Consideration of Alternatives

In preparing this REF, consideration has been given to the following options:

- Option 1: 'Do Nothing'
- Option 2: 'Alternative Alignment'
- Option 3: 'Proposed Pedestrian and Cycle Bridge'

Each of these options is outlined in further detail below.

3.2.1 Option 1: 'Do Nothing'

Option 1: 'Do Nothing' would not address the strategic need for a safe and suitable crossing over Haslams Creek for pedestrians and cyclists. As outlined in Section 1.3, the existing Bennelong Parkway bridge requires pedestrians and cyclists to cross the road twice, resulting in an increased safety risk. The

narrowness of the existing footpath also poses an inconvenience to cyclists who are prompted to dismount when crossing the bridge.

The Parramatta Bike Plan recognises that cycling will play an important role in realising the vision for the Central City of Sydney by supporting the liveability of Greater Parramatta through enabling residents, workers and visitors to have more transport choices as the city densifies. The Homebush Bay Circuit Wayfinding Strategy and Masterplan helps give effect to the Parramatta Bike Plan vision by providing a detailed, comprehensive plan to guide future investment in order to develop a high quality, separated, active transport circuit that is designed to ensure Homebush Bay is enjoyed by as many people as possible.

Option 1: 'Do Nothing' would fail to address the objectives of both the Parramatta Bike Plan and Homebush Bay Circuit Wayfinding Strategy and Masterplan resulting in a sub-optimal long term transport solution for pedestrians and cyclists as the area densifies.

3.2.2 Option 2: 'Alternative Alignment'

A variety of alternative options to the proposed pedestrian and cycle bridge were considered as part of a feasibility study undertaken on behalf of the CoPC in 2019.² The feasibility study considered options for three new bridges in the Sydney Olympic Park Area as follows:

- A shared path bridge crossing Haslams Creek adjacent to the existing Bennelong Pathway bridge (Feasibility Option 1).
- A shared path bridge crossing of Haslams Creek east of an existing utilities bridge connecting the Louise Sauvage Pathway near Teal Pond (Feasibility Option 2).
- An elevated or underground pedestrian and cyclist crossing of Hill Road near the intersection of Hill Road and Carter Street in Lidcombe (Feasibility Option 3).

Feasibility Options 2 and 3 continue to be explored by CoPC to supplement the proposed Bennelong Parkway pedestrian and cycle bridge.

A variety of sub-options were considered for each of the alternatives outlined above. Feasibility Option 1, which relates to the area in the immediate vicinity of Bennelong Parkway, included consideration of:

- A shared path bridge alignment north of the existing bridge, which broadly aligns with the now proposed Option 3: 'Proposed Pedestrian and Cycle Bridge';³ and
- Redevelopment of the existing Bennelong Parkway bridge as a pedestrian and cycle bridge, which would necessitate development of a new road bridge to the south-west of the existing bridge.

A shared path bridge alignment north of the existing bridge was ultimately preferred due to a variety of risks associated with redevelopment of the existing bridge and construction of a new road bridge to the south-west of the existing. These risks included:

- A high risk of clash with existing utilities;
- Potentially more significant biodiversity impacts, including impacts on mangroves, salt marsh, frog pond corridors and linkages to Haslams Creek (impacting Green and Golden Bell Frogs);
- Potential impacts to the Sydney Olympic Park horse riding route and parking area for the Sydney Olympic Park Archery Centre;
- The need for more significant land acquisition;
- Major realignment of roads and associated infrastructure required on both sides of Haslams Creek;
- A longer anticipated construction timeframe; and
- Significantly higher costs.

² Aecom (2019). *Sydney Olympic Park Pedestrian and Cyclist Bridges – Feasibility Study*. Aecom.

³ NB: this option was refined during the feasibility study to align the proposed bridge parallel to the existing road bridge and better understand the vertical clearances.

The feasibility study also considered a variety of bridge form alternatives including pre-cast concrete plank, steel truss and steel arch. A steel truss option was ultimately preferred due to:

- The ability to avoid an intermediary pier within Haslams Creek;
- Simplicity of the design (as compared to a steel arch option); and
- Lowest overall cost.

In addition to the alternatives outlined above, CoPC also considered:

- Locating the northern abutment of the proposed bridge further north, connecting into the privately owned walkway within Lot 1 DP270161 (29 Bennelong Parkway). This option was ultimately considered not viable due to the significant works required to reconstruct the existing walkway.
- Attaching an additional pedestrian and cycle path to the existing bridge. This option was deemed unviable due to the existing bridge being unable to handle a significant additional load cantilevered from the side. Significant utility relocations would also be required.
- A new pedestrian and cycle bridge to the southern side of the existing Bennelong Parkway Bridge. This option was eliminated as it would not resolve the safety issue of two required road crossings of the Bennelong Parkway.

3.2.3 Option 3: 'Proposed Pedestrian and Cycle Bridge'

Option 3: 'Proposed Pedestrian and Cycle Bridge' was ultimately preferred over all alternative options considered due to:

- Its ability to provide a safe and suitable crossing over Haslams Creek in the vicinity of Bennelong Parkway for pedestrians and cyclists.
- Its lower overall anticipated environmental impact as compared the alternative alignments considered at the feasibility stage, including:
 - The need for less significant land acquisition.
 - Lower overall biodiversity impacts.
 - A shorter construction program, resulting in less community disruption and eliminating the need for major realignment of roads and associated infrastructure (including utilities).
- Its lower anticipated overall cost.

3.2.4 Development of Option 3: 'Proposed Pedestrian and Cycle Bridge'

Since its selection as the preferred option, Option 3: 'Proposed Pedestrian and Cycle Bridge' has been further refined to minimise environmental impacts through the use of alternative construction and operation technologies. Specifically:

- The bridge abutments are now proposed to be supported by one pile each (two piles per abutment were proposed at the concept stage).
- A 6.1m wide raised threshold pedestrian and cycle crossing has been proposed across Bennelong Parkway, to the south of the proposed bridge, to further enhance pedestrian and cycle safety as compared to the originally proposed at-grade pedestrian crossing.

3.3 Relevant Design Standards

The following standards are applicable to the design of the pedestrian and cyclist bridge:

- Australian Standard (AS) 5100: Bridge Design
- AS 4100: Steel Structures
- AS 3600: Concrete Structures
- AS 1170: Structural Design Action
- AS 1726: Ground Investigation

- DMRB CD 363 – Design Rules for Aerodynamic Effects on Bridges
- AS 2159: Piling – Design and Installation
- AS 1657: Fixed Platforms, Walkways, Stairways and Ladders – Design, Construction and Installation
- AS 1428 Design for access and mobility (2009)
- AS 1742: Manual of Uniform Traffic Control Devices
- City of Parramatta Council Design Standards
- Austroads Guide to Bridge Technology
- Austroads Guide to Road Design
- TfNSW Bridge Technical Directions and QA Specifications
- Austroads Guide to Road Design-Part 3: Geometric Design
- Austroads Guide to Road Design Part 4A Unsignalised and Signalised Intersections
- Transport Asset Standards Authority – Technical Notes
- CIDECT (International Committee for the Development and Study of Tubular Structures) Design Guides

4 Staging and Timing of Proposal

Table 4-1 sets out CoPC's indicative schedule to approve and construct the bridge. The proposed dates may change due to unforeseen delays.

Table 4-1 Staging and timing of proposed development

Task Name	Anticipated Completion
Preparation & Lodgement of EIS	Fri 19/01/24
100% Detailed design (Final Civil Documentation Package for Tender Advertisement)	Wed 06/12/23
Cost Estimate for construction	Fri 15/12/23
Assessment of Development Application, including public exhibition & determination	Fri 19/04/24
Tender Award	June 2024 (estimated)
Construction	June 2025 (estimated)

5 Statutory Planning Considerations

5.1 Environmental Planning and Assessment Act 1979

5.1.1 Overview

The *Environmental Planning and Assessment Act 1979* (EP&A Act) provides the statutory framework for planning in NSW. The EP&A Act aims to promote the orderly and economic use and development of land, facilitate ecologically sustainable development, and integrate economic, environmental and social considerations as part of the decision-making process for environmental planning and assessment matters.

Division 5.1 of the EP&A Act enables a determining authority to assess the environmental impact of certain activities that they are either carrying out or approving. These activities are defined as development 'permitted without consent' in an environmental planning instrument (EPI). If a proposed activity is likely to have a significant impact on the environment an EIS must be prepared.

5.1.2 Designated Development

Section 4.10 of the EP&A Act provides that development may be deemed designated development by means of an environmental planning instrument (EPI) or regulations. As this proposal would involve the removal of coastal wetlands, and the carrying out of earthworks in mapped coastal wetlands, the development is 'designated development' pursuant to Clause 2.7(2) of the SEPP (Resilience and Hazards) 2021 (Resilience and Hazards SEPP).⁴ Accordingly, an EIS is required in accordance with Section 5.7(1)(a) of the EP&A Act. In December 2022 a Request for SEARS was made to the Department of Planning and the Environment (DPE). SEARS were issued on 20 February 2023. This EIS has been prepared in accordance with those SEARS.

5.1.3 Integrated Development

Section 4.46 of the EP&A Act provides that development may be deemed integrated development if it requires development consent and additional approvals under one of the enactments listed in the section. As the proposed development is expected to require approvals under the *Fisheries Management Act 1994* (FM Act) the development is 'integrated development' pursuant to Section 4.46 of the EP&A Act. Before granting consent to this development CoPC must therefore obtain from DPI the general terms of any FM Act approval proposed to be granted by the approval body in relation to the development. Further discussion of the FM Act is outlined in Section 5.6 below.

5.1.4 Development Contributions

CoPC maintains a development contributions plan, known as the City of Parramatta (Outside CBD) Development Contributions Plan 2021 (Amendment 1), pursuant to Section 7.11 of the EP&A Act. The plan applies to parts of the development site outside of SOPA administered land (refer section 2.3). Section 1.3 of the plan clarifies that the plan does not apply to development undertaken by or on behalf of CoPC.

5.2 Environmental Planning and Assessment Regulation 2021

The *Environment Planning and Assessment Regulation 2021* (EP&A Regulation) contains key operational provisions for the NSW planning system. This includes procedures relating to development applications, requirements for environmental assessments and environmental impact assessments. Clauses 190, 192 and 193 of the EP&A Regulation set out the minimum form and content requirements of an EIS. This EIS has been prepared in accordance with those requirements.

⁴ Discussed in further detail in Section 5.14.2.

5.3 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) commenced on 25 August 2017 and sets out the environmental impact assessment framework for threatened species, threatened ecological communities (TECs) and Areas of Outstanding Biodiversity Value (AOBV) (formerly critical habitat) for Major Projects, Part 5 activities, and local development. The BC Act provides a framework to avoid, minimise and offset the impacts of proposed development and establishes a methodology for assessing the likely impacts on biodiversity values and calculating measures to offset those impacts.

In accordance with section 7.7 of the BC Act, designated development applications are to be accompanied by a Biodiversity Development Assessment Report (BDAR) in circumstances where proposed development is likely to significantly affect threatened species. A BDAR was completed by Umwelt Pty Ltd (Umwelt) in December 2023, and is attached as Appendix B. Further discussion of the BDAR and potential biodiversity impacts is outlined in Section 7.2.

5.4 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) seeks to protect and manage nationally and internationally important plants, animals, habitats and places, known as Matters of National Environmental Significance (MNES). The MNES are:

- World heritage properties.
- National heritage places.
- Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed).
- Nationally threatened species and ecological communities.
- Migratory species.
- Commonwealth marine areas.
- The Great Barrier Reef Marine Park.
- Nuclear actions (including uranium mining).
- A water resource, in relation to coal seam gas development and large coal mining development.

A person who proposes to take an action that will have, or is likely to have, a significant impact on an MNES must refer that action to the Minister for a decision on whether assessment and approval is required under the EPBC Act.

A search of the Protected Matters Search Tool (PMST) was undertaken as part of the BDAR (Appendix B) for known or predicted EPBC Act listed species in proximity to the project area. Based on the likelihood of occurrence of threatened species outlined in Appendix A of the BDAR (Appendix B) assessments of significance were undertaken for potential impacts to the following two MNES listed species:

- Coastal Swamp Oak (*Casuarina glauca*) – EPBC Act listing status: Endangered.
- Curlew Sandpiper (*Calidris ferruginea*) – EPBC Act listing status: Critically Endangered

The assessments of significance concluded that there would not be a significant impact to these MNES given the small area impacted by the proposed development.

A search of the PMST was undertaken on 6 November 2023 to identify non-biodiversity MNES within 1km of the proposed site. The results of that search are outlined in Table 5-1.

Table 5-1: PMST Search Results

MNES Category	PMST Findings (within 1km of site)
World heritage properties	None
National heritage places	None

MNES Category	PMST Findings (within 1km of site)
Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed)	None
Nationally threatened species and ecological communities	Refer BDAR (Appendix B)
Migratory species	Refer BDAR (Appendix B)
Commonwealth marine areas	None
The Great Barrier Reef Marine Park	None
Nuclear actions (including uranium mining)	N/A
A water resource, in relation to coal seam gas development and large coal mining development.	N/A

Based on the foregoing analysis no significant impacts on MNES are anticipated as a result of the proposed development.

5.5 Protection of the Environment Operations Act 1997

The Protection of the Environment Operations Act 1997 (POEO Act) addresses water, land, air and noise pollution and waste management, making it illegal to pollute or cause or permit pollution of waters, and an offence to wilfully or negligently cause any substance to leak, spill or otherwise escape in a manner that harms or is likely to harm the environment.

The proposed development is not a scheduled activity under the POEO Act and therefore does not require an environment protection licence.

In relation to non-scheduled activities, section 6(2)(c) of the POEO Act states: "A local authority is the appropriate regulatory authority for non-scheduled activities in its area, except in relation to ... (c) activities carried on by the State or a public authority, whether at premises occupied by the State or a public authority or otherwise ..." As CoPC is the applicant, the EPA will be the appropriate regulatory authority for non-scheduled activities during construction.

5.6 Fisheries Management Act 1994

The purpose of the *Fisheries Management Act 1994 (FM Act)* is to conserve, develop, and share the fishery resources of NSW for the benefit of present and future generations. The purpose of the FM Act is to conserve fish stocks and key fish habitats, conserve threatened species, populations and ecological communities of fish and marine vegetation, and to promote ecologically sustainability development, including the conservation of biological diversity.

Section 205 of the FM Act specifies that clearing of marine vegetation including mangroves, seagrasses, or other vegetation declared by the *Fisheries Management (General) Regulations 2010* requires a permit from the Minister of Primary Industries. As the proposed development is expected to require removal of up 0.08ha of mangrove and swamp oak vegetation, a permit under section 205 the FM Act will be required.

Additionally, a permit to obstruct the free passage of fish under section 219 of the FM Act is required for any works that may result in the temporary or permanent obstruction of fish passage within a waterway. Construction of new riprap adjacent to the bridge abutments may result in the obstruction of fish passage, resulting in a permit being required under section 219 of the FM Act.

As the proposed development is expected to require approvals under the FM Act the development is 'integrated development' pursuant to Section 4.46 of the EP&A Act. Before granting consent to this development CoPC must therefore obtain from DPI the general terms of any FM Act approval proposed to be granted by the approval body.

5.7 Roads Act 1993

The *Roads Act 1993* (Roads Act) protects and makes provision for the use, management, and protection of public roads in NSW including opening and closing roads. Pursuant to section 138 of the Roads Act, a person must not erect a structure or carry out work in, on or over a public road otherwise than with consent of the appropriate Roads authority. The proposed development will require works within Bennelong Parkway in order to tie the new pedestrian and cycle bridge to the existing roadway. Bennelong Parkway is classified as a local road, meaning CoPC is the appropriate roads authority.

Pursuant to section 4.46(3) of the EP&A Act, as CoPC is both the applicant and appropriate roads authority, the proposed development is not integrated development under the Roads Act.

5.8 Heritage Act 1977

The *Heritage Act 1977* protects items of environmental heritage (natural and cultural) in NSW. State significant items listed on the NSW State Heritage Register are protected under the *Heritage Act 1977* against any activities that may damage an item or affect its heritage significance.

No items on the NSW State Heritage Register are expected to be impacted by the proposed development. The nearest State Heritage site, the Newington Armament Depot and Nature Reserve (SHR #01850) is located approximately 700m from the development site to the north of Hill Road.

5.9 National Parks & Wildlife Act 1974

The aims of the *National Parks & Wildlife Act 1974* (NP&W Act) include the conservation of objects, places, or features (including biological diversity) of cultural value within the landscape, including but not limited to places, objects, and features of significance to Aboriginal people. Pursuant to section 86 of the NP&W Act it is an offence to harm or desecrate an Aboriginal object or place, unless in accordance with an Aboriginal Heritage Impact Permit (AHIP) or as otherwise permitted under the legislation.

In June 2023, GML Heritage Pty Ltd (GML) prepared an Aboriginal Heritage Due Diligence report for the proposed Bennelong Parkway Cycleway Bridge in accordance with the Due Diligence process prescribed by Heritage NSW. A desktop study and a site inspection with an informal archaeological survey were undertaken. The site of the proposed development was found to have nil to low Aboriginal archaeological sensitivity. Most of the site of the proposed development is reclaimed land, and is underlain by historical fills and constructed soils, neither of which hold archaeological potential. Areas that are not reclaimed land have been subject to historically high disturbance to the landforms and soils.

5.10 Water Management Act 2000

The *Water Management Act 2000* (WM Act) has the goal of managing, safeguarding, and promoting, safe and clean drinking water supply, and ensuring efficient usage of water resources in New South Wales while protecting water rights. The WM Act aims to achieve this by regulating water-related activities such as allocation, trading, and licensing, as well as overseeing controlled activities on or adjacent to water resources to prevent their misuse or depletion.

Pursuant to Sections 91 and 91E, controlled activities including the carrying out of work or removal of vegetation in, on or under waterfront land require approval from DPE. However, pursuant to Clause 41 of the *Water Management (General) Regulation 2018*, a public authority, including a local council, is exempt from requiring approval in relation to all controlled activities that the Council carries out in, on or under waterfront land.

As CoPC is the proponent of the proposed pedestrian and cycle bridge, the proposed development is not integrated development under the WM Act and controlled activity approval is not required.

5.11 Ports and Maritime Administration Act 1995

The *Ports and Maritime Administration Act 1995* (P&MA Act) regulates and manages ports and maritime services in New South Wales. This includes ensuring efficient port operations, safe navigation, environmental protection, regulation of maritime services, and support for economic development within the maritime sector. In accordance with Section 105C the P&MA Act, permission from the relevant authority is required to erect a structure in, on or over a bed of any waters vested in a relevant authority. CoPC is required to obtain approval from TfNSW prior to the commencement of construction.

5.12 Sydney Olympic Park Authority Act 2001

The *Sydney Olympic Park Authority Act 2001* (SOPA Act) establishes the Sydney Olympic Park Authority (SOPA) to manage and develop Sydney Olympic Park. The Act aims to promote the area as a venue for sporting, cultural, and environmental activities, and ensuring its sustainable development and use. Pursuant to Section 22 of the SOPA Act, the Minister for Planning is the consent authority for any development carried out on land within Sydney Olympic Park. It is considered that the approval decision related to the works within Sydney Olympic has been delegated from the Minister of Planning to the Department. An approval from the Department has been sought in the form of this EIS. It is noted that CoPC are engaging with SOPA and are seeking consent from SOPA for the proposed works in located in Sydney Olympic Park.

5.13 Contaminated Land Management Act 1997

The purpose of the *Contaminated Land Management Act 1997* (CLM Act) is to manage and remediate contaminated land in New South Wales in order to protect human health and the environment. The Act establishes a framework for identifying, assessing, and cleaning up contaminated sites, ensuring responsible parties undertake necessary actions and comply with regulations. A Detailed Site Investigation (DSI) has been undertaken by Nation Partners Pty Ltd (Nation Partners) (Appendix D). The DSI did not identify significant contamination requiring management and remediation on the Site. Refer to Section 7.4 for further details regarding land contamination impacts.

5.14 State Environmental Planning Policies

5.14.1 State Environmental Planning Policy (Transport and Infrastructure) 2021

The aim of the Transport and Infrastructure SEPP is to facilitate the effective delivery of infrastructure across NSW. Clause 2.109 of the Transport and Infrastructure SEPP provides that development for the purpose of a road or road infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land. Road infrastructure facilities are defined in clause 2.108 to include pedestrian bridges and road related areas, including footpaths and cycleways.

While the proposed development would ordinarily be able to proceed without consent under clause 2.109 of the Transport and Infrastructure SEPP, the State Environmental Planning Policy (Resilience and Hazards) 2021 (SEPP Resilience and Hazards) takes precedence over the Transport and Infrastructure SEPP in the event of any inconsistency.⁵ The implications of the SEPP (Resilience and Hazards) in terms of the development approval pathway are outlined below.

Clause 2.48 of the Transport and Infrastructure SEPP specifies the requirements of development that is likely to affect an electricity transmission or distribution network. The proposed development is located a minimum of 1.825m away from existing utilities, including electricity lines, along the existing Bennelong

⁵ Transport and Infrastructure SEPP, Cl 2.7(2)(a) (on the basis that the reference to clause 10 of the *State Environmental Planning Policy (Coastal Management 2018)* (now repealed) is to be taken as a reference to the equivalent provision under the SEPP Resilience and Hazards, Cl 2.7(1)); SEPP Resilience and Hazards, Cl 2.5(1).

Parkway bridge and the works are not anticipated to impact nearby electricity transmission or distribution networks.

Existing sewer and gas utilities are located on the adjacent Bennelong Parkway bridge, a minimum of 1.825m clear of the proposed development. In accordance Clause 2.77, development land is considered to be located within a pipeline corridor if the land is within 20m of the relevant pipeline. The consent authority are required to give written notice of the proposed development to the relevant pipeline operator within 7 days of the development application being made.

5.14.2 State Environmental Planning Policy (Resilience and Hazards) 2021

The aims of the Resilience and Hazards SEPP include promoting an integrated and coordinated approach to land use planning in the coastal zone and providing for a state-wide planning approach to the remediation of contaminated land.

Clause 2.7(1) of the Resilience and Hazards SEPP provides that any development within land identified as 'coastal wetlands' can only be carried out with development consent. Part of the proposed development is located within an area mapped as coastal wetlands (Figure 5-1). Clause 2.7(2) declares such development to be 'designated development'.

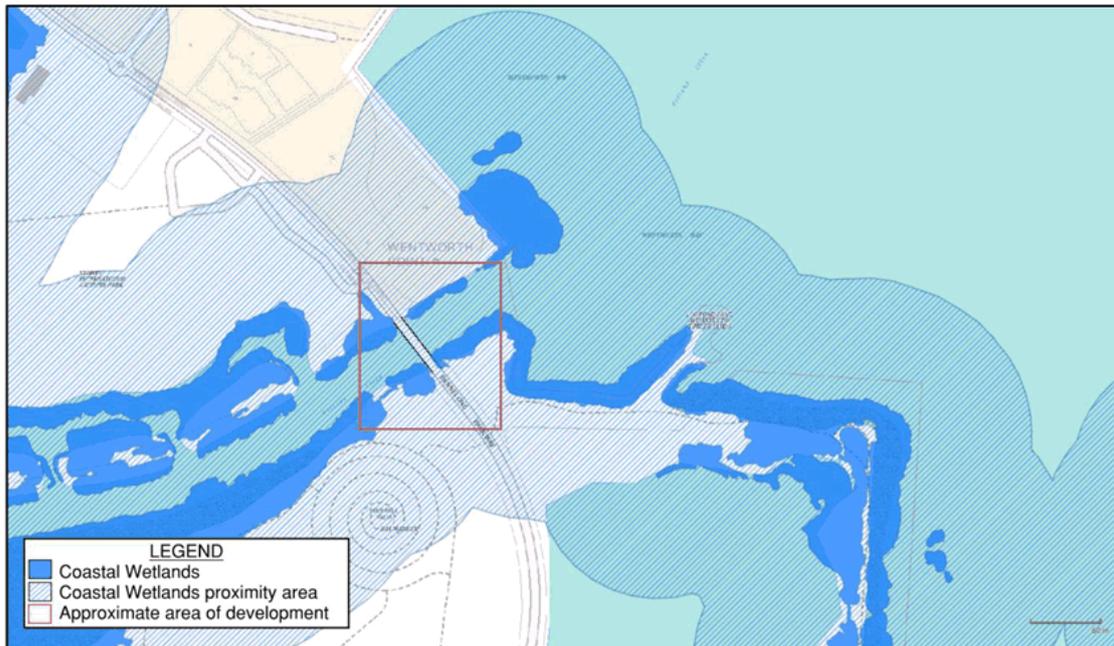


Figure 5-1. Location of coastal wetlands under the Resilience and Hazards SEPP
Source: NSW Planning Portal Spatial Viewer

A consent authority cannot grant consent for development within coastal wetlands unless the consent authority is satisfied that measures have or will be taken to protect, and where possible enhance, the biophysical, hydrological, and ecological integrity of the coastal wetland.

Clause 4.6 of the Resilience and Hazards SEPP provides that a consent authority must not consent to the carrying out of development on land unless it has considered whether the land is contaminated, whether it is suitable in its contaminated state for the proposed development or if it requires remediation. A Detailed Site Investigation (DSI) has been prepared to address the requirements of clause 4.6. The findings of this assessment are discussed in further detail in section 7.3.

5.14.3 State Environmental Planning Policy (Biodiversity and Conservation) 2021

The aims of the Biodiversity and Conservation SEPP include protecting the biodiversity values of trees and other vegetation and preserving the amenity of non-rural areas of NSW.

Chapter 2 of the Biodiversity and Conservation SEPP provides that a person must not clear vegetation in a non-rural area of the State, including the CoPC LGA, without the authority conferred by a permit granted by Council.

Chapter 6 of the Biodiversity and Conservation SEPP places certain controls on development in certain catchments, including the Sydney Harbour Catchment in which the proposed development is located. Part 6.2 applies controls on development generally, as well as controls on development in specific areas or for specific purposes.

For completeness, it is recorded that the proposed development site is not located within a Foreshores and Waterways Area under Part 6.3 of the Biodiversity and Conservation SEPP. However, the proposed development is located on land that adjoins land within the Foreshores and Waterways Area. The objectives of Zone 2 (Environment Protection) under Part 6.3 of the Biodiversity and Conservation SEPP include the protection, prevention of damage to, enhancement, and rehabilitation the natural and cultural values of waters and adjoining foreshores in the zone. In order to achieve the objectives of the SEPP, the proposed development has been designed to avoid and minimise impacts to Haslams Creek. The proposed bridge is intended to span bank-to-bank allowing for the avoidance of unnecessary piles within the waterway. The works will require the removal of some vegetation and trees, however minimal direct impacts on terrestrial biodiversity.

5.14.4 State Environmental Planning Policy (Precincts – Central River City) 2021

The State Environmental Planning Policy (Precincts – Central River City) 2021 (SEPP Central River City) contains the planning provisions design to give effect to the strategic planning vision of the 'Central River City' contained in the Greater Sydney Region Plan – A Metropolis of Three Cities.⁶

The proposed development site is located within the Central River City, however different parts of the development site are subject to different provisions of the Central River City SEPP. Specifically:

- The area of the development site north of Haslams Creek and east of Bennelong Parkway is located within the Homebush Bay Area and is subject to Chapter 4 of the SEPP Central River City (shown in blue in Figure 5-2).
- The area of the development site south of Haslams Creek and from Bennelong Parkway to the west is located within the State Significant Precinct - Sydney Olympic Park and is subject to Chapter 2 and Appendix 4 of the SEPP Central River City (shown in red in Figure 5-2).

5.14.4.1 Homebush Bay Area

Pursuant to Clause 4.7 of the SEPP Central River City, all development within the Homebush Bay Area (Figure 5-2) requires consent of the consent authority. Development of land within the Homebush Bay Area may be carried out for any purpose that the consent authority considers to be consistent with any one or more of the planning objectives for the Homebush Bay Area which are outlined in Clause 4.10.

⁶ The Greater Sydney Region Plan – A Metropolis of Three Cities is discussed further in section 6.1.

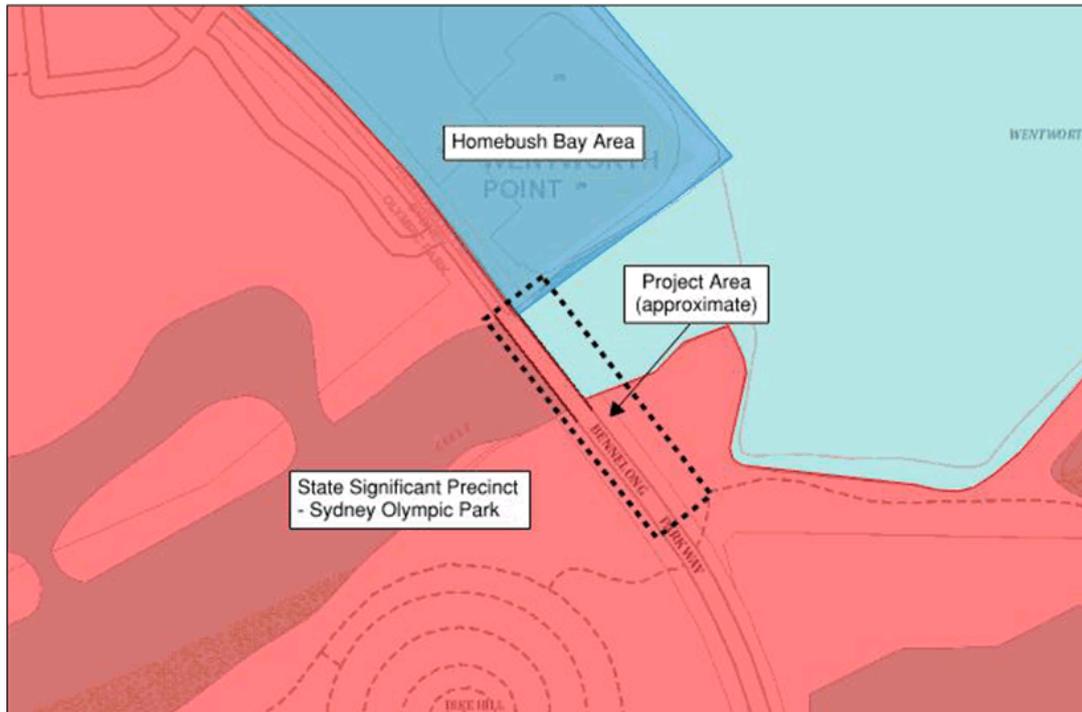


Figure 5-2: SEPP Central River City Land Application Areas (Source: NSW Planning Portal Spatial Viewer)

In addition, pursuant to clause 4.13 development consent must not be granted for development on land edged in red on the map marked 'Sydney Regional Environmental Plan No 24—Homebush Bay Area—Amendment No 2—Map 4', which includes the area shown in blue in Figure 5-2 above, unless:

- There is a master plan for the subject land; and
- The consent authority has taken the master plan into consideration; and
- The development is consistent with the master plan.

If no master plan is in place, the Minister may waive the above requirement because of:

- The minor nature of the development concerned;
- The adequacy of the planning controls that apply to the proposed development; or
- Such other reasons as the Minister considers sufficient.

No master plan applying to the subject land has been identified.⁷ However, it is submitted that the planning controls that apply to the proposed development under the EPI addressed in this EIS are adequate to address planning and environmental impacts associated with the proposed development.

5.14.4.2 State Significant Precinct – Sydney Olympic Park

Parts of the development within the area of the State Significant Precinct - Sydney Olympic Park, shown red in Figure 5-2, are zoned E2 – Environmental Conservation (Figure 5-3)

⁷ NB: the Sydney Olympic Park Master Plan does not apply to the Homebush Bay area shown in blue in Figure 5-2.

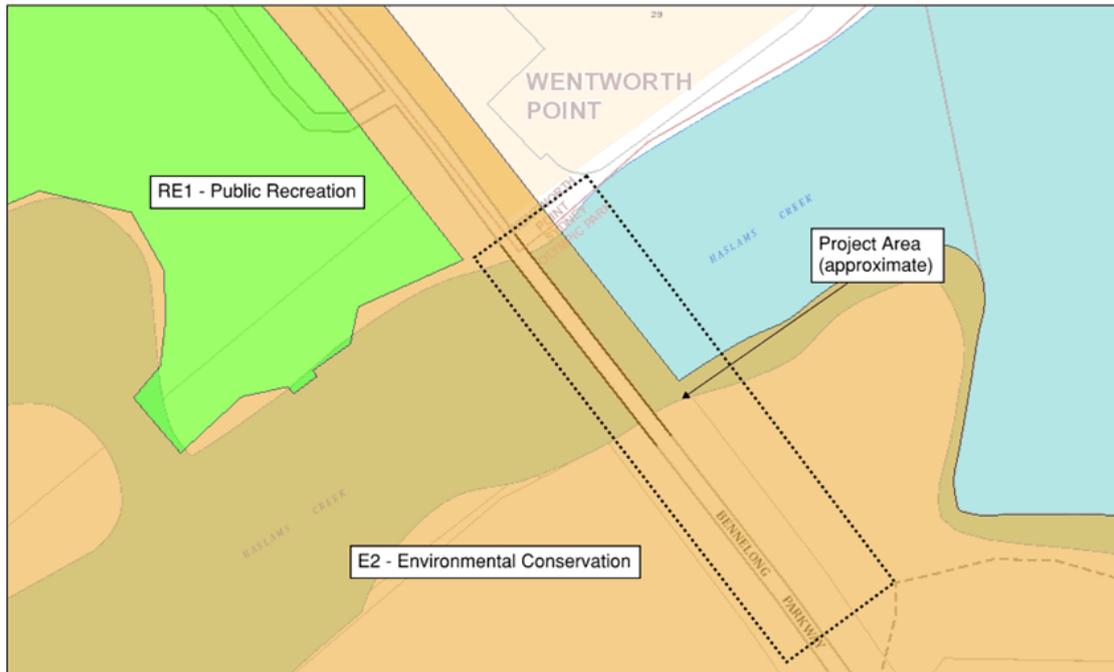


Figure 5-3: State Significant Precinct - Sydney Olympic Park Zoning (Source: NSW Planning Portal Spatial Viewer)

The objectives of the E2 – Environmental Conservation Zone are:

- To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values; and
- To prevent development that could destroy, damage or otherwise have an adverse effect on those values.

Pursuant to Appendix 2, clause 13(4) of the SEPP Central River City, development not specified in Clauses 13(2) or 13(3) of the SEPP Central River City (which relates to environmental facilities, environmental protection works and filming) is usually prohibited on land within the E2 – Environmental Conservation Zone. However, pursuant to clause 17(1), clause 13(4) does not restrict or prohibit the carrying out of any development that is permitted to be carried out without consent under the Transport and Infrastructure SEPP.⁸ As the proposed development is for the purpose of road infrastructure facilities, which are permitted without consent pursuant to clause 2.109 of the Transport and Infrastructure SEPP, the proposed development is not prohibited under clause 13(4).

In addition to the requirement above, development consent must not be granted for development on land within the Sydney Olympic Park site to which a master plan applies, unless the consent authority has considered that master plan. A consideration of the Sydney Olympic Park Master Plan 2030 is outlined in Section 6.5 below.

5.14.5 State Environmental Planning Policy (Planning Systems) 2021

The State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP) identifies state or regionally significant development, state-significant infrastructure, and critical state-significant

⁸ Appendix 2, clause 17(1) refers to the State Environmental Planning Policy (Infrastructure) 2007, which has since been replaced by the Transport and Infrastructure SEPP. It has been assumed that references to the State Environmental Planning Policy (Infrastructure) 2007 should be taken as references to the Transport and Infrastructure SEPP.

infrastructure. Table 5-2 below provides an assessment of the proposed development in terms of relevant provisions of the Planning Systems SEPP and in light of the assessment in sections 5.14.1 to 5.14.4 above.

Table 5-2: Planning Systems SEPP Assessment

Type of Development	Requirements	Assessment of Proposal
State significant development	Development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the EP&A Act; and The development is specified in Schedule 1 or 2 of the Planning Systems SEPP	Not applicable. The proposed development is not permissible without development consent under Part 4 of the EP&A Act due to the operation of Clause 2.7(1) of the Resilience and Hazards SEPP and Clause 4.7 of the SEPP Central River City. The development is also not specified in Schedule 1 of the Planning Systems SEPP. Although the Sydney Olympic Park Site is identified in Schedule 2, the proposed development is not expected to exceed the specified capital investment value (\$10M) under that Schedule. ⁹
State significant infrastructure / Critical State significant infrastructure	Development on the land is, by operation of a State environmental planning policy, permissible without development consent under Part 4 of the Act; and The development is specified in Schedule 3	Not applicable. The proposed development requires development consent under Part 4 of the Act due to the operation of Clause 2.7(1) of the Resilience and Hazards SEPP and Clause 4.7 of the SEPP Central River City.
	The development is specified in Schedule 4 of the Planning Systems SEPP.	Not applicable. The proposed development is not specified in Schedule 4 of the Planning Systems SEPP.
	The development is specified in Schedule 5 of the Planning Systems SEPP and: - May be carried out without development consent under Part 4 of the Act; and - Is declared to be State significant infrastructure for the purposes of the Act if it is not otherwise so declared; and - Is declared to be critical State significant infrastructure for the purposes of the Act.	Not applicable. The proposed development is not specified in Schedule 5 of the Planning Systems SEPP.
Regionally significant development	Development specified in Schedule 6 of the Planning Systems SEPP, however: The following development is not declared to be regionally significant development: - Complying development - Development for which development consent is not required - Development that is State significant Development - Development for which a person or body other than a council is the consent authority - Development within the area of the City of Sydney	Not applicable. The proposed development does not have a capital investment value over \$30M. The proposed development is Council related development but is not expected to exceed the specified capital investment value for Council related development (\$5M). ¹⁰

⁹ Cubit Estimating (2023, March 8) *Preliminary Budget Estimate – Bennelong Parkway Pedestrian Bridge, Bennelong Parkway, Wentworth Point.*

¹⁰ Cubit Estimating (2023, March 8) *Preliminary Budget Estimate – Bennelong Parkway Pedestrian Bridge, Bennelong Parkway, Wentworth Point.*

Based on the assessment in Table 5-2, the proposed development is not State significant development, State significant infrastructure, Critical State significant infrastructure or Regionally significant development pursuant to the Planning Systems SEPP. The development is therefore to be assessed as designated development.

5.15 Local Environmental Plans

5.15.1 Auburn Local Environmental Plan 2010

The SEARs required the proposal to be assessed against the requirements of the Auburn Local Environmental Plan 2010 (Auburn LEP). Pursuant to Clause 4.3(2) of the Central River City SEPP, the Auburn LEP does not apply to the Homebush Bay Area (Figure 5-2).

The remainder of the Auburn LEP was repealed and replaced by the:

- Cumberland Local Environmental Plan 2021 from 5 November 2021, insofar as it related to land now within the Cumberland City Council local government area.
- Parramatta Local Environmental Plan 2023 from 2 March 2023, insofar as it related land now within the CoPC local government area.

The requirements of the Auburn LEP therefore do not apply to the project area.

5.15.2 Parramatta Local Environmental Plan 2023

Pursuant to Clause 1.3 of the Parramatta LEP, the Parramatta LEP applies to land identified on the Land Application Map. Although the proposed development is within the CoPC LGA, the development does not fall within land subject to the Land Application Map (Figure 5-4) and the Parramatta LEP therefore does not apply to the proposed development.

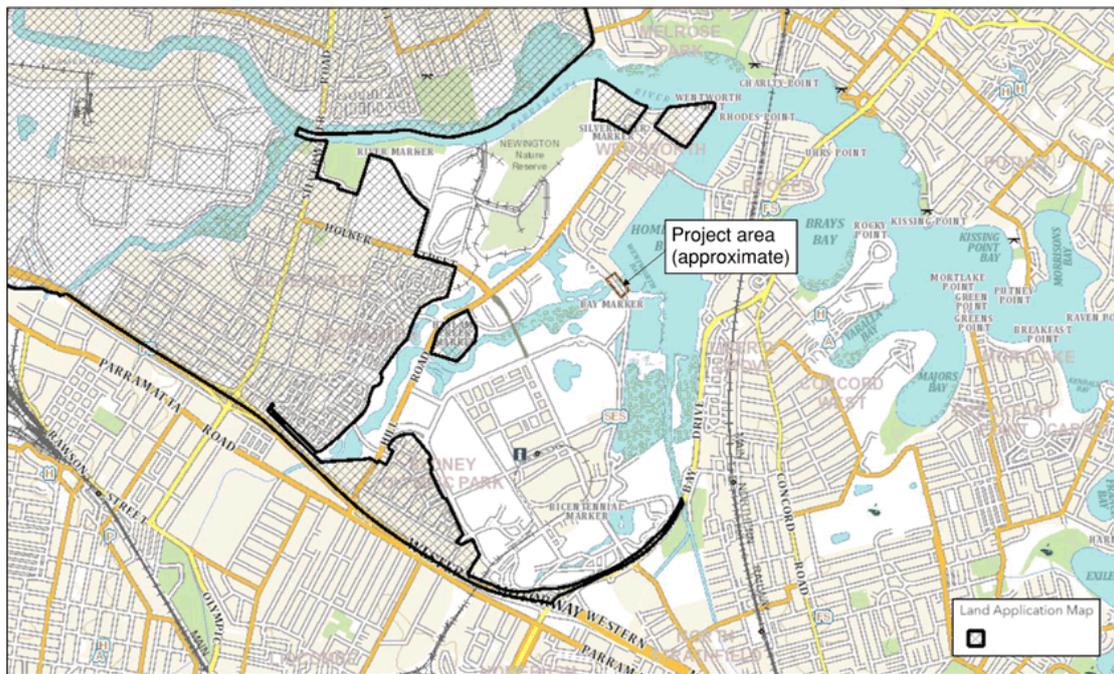


Figure 5-4: Parramatta LEP Land Application Map (Source: Parramatta LEP 2023)

5.15.3 Other Local Environmental Plans

For completeness, it is noted that the Sydney Regional Environmental Plan No 4 – Homebush Bay and Sydney Regional Environmental Plan No 24 – Homebush Bay Development Area were repealed pursuant to Schedule 1 of the State Environmental Planning Policy (Precincts—Central River City) 2021.

No Local Environmental Plan therefore applies to the project area.

5.16 Development Control Plans

5.16.1 Parramatta Development Control Plan 2011

The SEARS require an assessment of the proposal against the Parramatta Development Control Plan 2011 (Parramatta DCP). The Parramatta DCP applies to the area of the former Parramatta City Council prior to amalgamation of CoPC in 2016. The project area is not located within the area subject to this Development Control Plan as the land was within an area formerly administered by the Auburn City Council. The Parramatta Development Control Plan 2011 has also been repealed since the SEARs were issued.

5.16.2 Auburn Development Control Plan 2010

The Auburn Development Control Plan 2010 (Auburn DCP) applied to land within the former Auburn City Council local government area and remained in force insofar as it related to land now within the CoPC local government area, prior to introduction of the Parramatta DCP 2023 in September 2023. Section 1.6 of the Auburn DCP specified that the Auburn DCP did not apply to land at Wentworth Point, where the project area is located.

5.16.3 Wentworth Point Precinct Development Control Plan 2014

The SEARS require an assessment of the proposal against the Wentworth Point Precinct Development Control Plan 2014 (Wentworth Point DCP). Section 1.2 of the Wentworth Point DCP outlines the area to which the Wentworth Point DCP applies (Figure 5-5). Application of the Wentworth Point Precinct DCP is limited to the area north of Burroway Road and west of Hill Road. The development site is therefore located outside the area to which the Wentworth Point DCP applies.



Figure 5-5 Wentworth Point Precinct DCP Land Application Map (Source: Wentworth Point Precinct DCP)

5.16.4 Other Development Control Plans

Although the SEARS do not directly reference the Homebush Bay West Development Control Plan 2004 and Homebush Bay West Development Control Plan (Amendment No. 1) 2013 for completeness it is recorded that the proposed development site is also located outside the area to which these DCPs apply (Figure 5-6 and Figure 5-7).

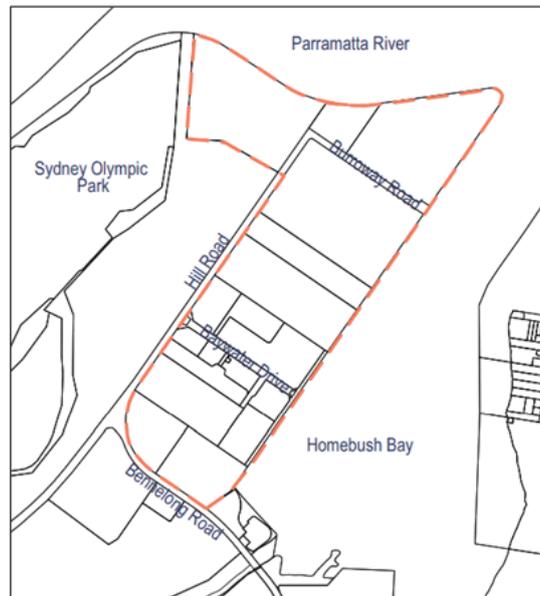


Figure 5-6: Homebush Bay West DCP 2004 Land Application Map (Source: Homebush Bay West DCP)

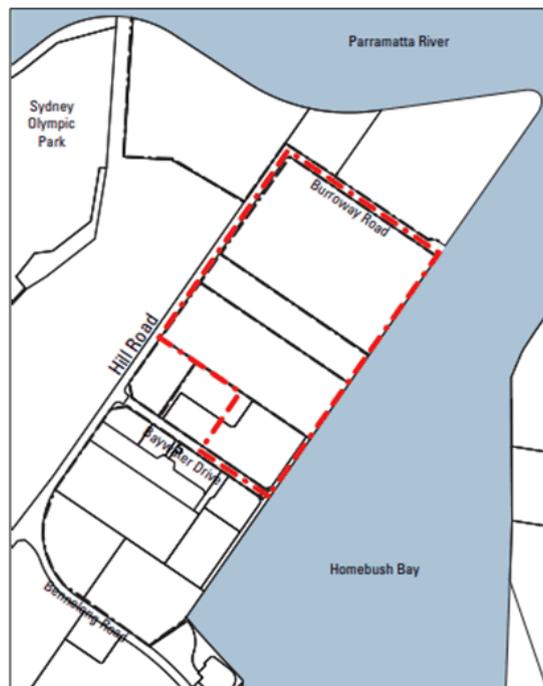


Figure 5-7: Homebush Bay West (Amendment No. 1) DCP Land Application Map (Source: Homebush Bay West (Amendment No. 1) DCP)

5.16.5 Parramatta Development Control Plan 2023

The Parramatta Development Control Plan 2023 came into effect on 18 September 2023. The final Parramatta Development Control Plan does not apply to the project area (Figure 5-8).¹¹



Figure 5-8: Parramatta DCP 2023 application area (Source: Parramatta DCP 2023)

There is therefore no Development Control Plan which applies to the proposed development.

¹¹ NB: the draft ‘Harmonisation’ Parramatta DCP included land within the Homebush Bay Area shown in Figure 5-2 above. However, this area was excluded from the final Parramatta Development Control Plan 2023 now in force at the site.

6 Strategic Planning Considerations

Strategic environmental planning instruments that are relevant to the proposed development are considered in the subsections below.

6.1 A Metropolis of Three Cities – Greater Sydney Region Plan

The A Metropolis of Three Cities - Greater Sydney Region Plan divides the Sydney region into three 'cities' and provides strategic vision through to 2056. The plan's vision is to transform Greater Sydney into a Metropolis of Three Cities (the Western Parkland City, the Central River City and the Eastern Harbour City) where most residents live within 30 minutes of their jobs, education, health facilities, services and great places.

The proposed development is generally consistent with the vision of the plan in that it will increase sustainability through active transport and improve connections to and enhance existing open spaces, particularly along the Parramatta River.

6.2 Central River City District Plan

The A Metropolis of Three Cities - Greater Sydney Region Plan divides the Sydney region into three 'cities' and provides strategic vision through to 2056. The plan's vision is to transform Greater Sydney into a Metropolis of Three Cities (the Western Parkland City, the Central River City and the Eastern Harbour City) where most residents live within 30 minutes of their jobs, education, health facilities, services and great places.

The proposed development is generally consistent with the vision of the plan in that it will support healthy lifestyles and improved health outcomes by increasing connectivity of, and access to, diverse open spaces and opportunities for recreational physical activity.

6.3 Six Cities Region Vision

The Six Cities Region is comprised of Lower Hunter and Greater Newcastle City, Central Coast City, Illawarra-Shoalhaven City, Western Parkland City, Central River City, and the Eastern Harbour. It is adopting a city region approach and ensuring that planning is integrated across a wide geographic area to that opportunities and challenges can be addressed at a larger scale. It builds upon the Metropolis of three cities vision.

The proposed development is generally consistent with the vision of Six Cities Region Vision plan in that it will help to make active or public transport the preferred choice over driving, it will allow for better walking and cycling access and encourage sustainable ways for people to access services and amenities.

6.4 Future Transport Strategy 2056

The Future Transport 2056 Strategy sets the 40-year vision, directions, and principles for mobility in NSW. The Future Transport Strategy outlines six state-wide principles to guide planning and investment including customer focused experiences; successful places; a strong economy; safety and performance; accessible services, and sustainability.

The proposed development aligns with the vision of the Future Transport Strategy 2056 by:

- Committing to active transport by investing in cycling and walking infrastructure.
- Placing a strategic emphasis on cycleway corridors and prioritizing options for cycling and walking as the first and last mile choices.
- Supporting environmentally friendly transport options.

- Enhancing the safety of people cycling and walking.

Overall, the proposed development is well-aligned with the Future Transport Strategy 2056 and aims to increase the promotion of active transport modes, prioritise walking and cycling, support sustainable transport options, and make utility cycling and walking safer for Parramatta City residents and visitors to Sydney Olympic Park.

6.5 Sydney Olympic Park Masterplan 2030

The Sydney Olympic Park Masterplan 2030 is a comprehensive plan guiding the long-term development of Sydney Olympic Park. It is reviewed every five years to ensure it remains relevant as required by DPE.

The proposed Bennelong Parkway pedestrian and cyclist bridge aligns with the Sydney Olympic Park Masterplan 2030 by:

- Enhancing the bicycle network by improving connections to existing routes,
- Providing well signposted and safe through site connections to the regional cycleway network,
- Completing missing linkages in the wider peninsula bicycle and walking network, and
- Ensuring key places are linked by direct bicycle and walking paths.

Bennelong Parkway pedestrian and cyclist bridge has been previously signposted in the Sydney Olympic Park Masterplan as a “future shared pedestrian/cycleway” as shown in in Figure 6-1 below.

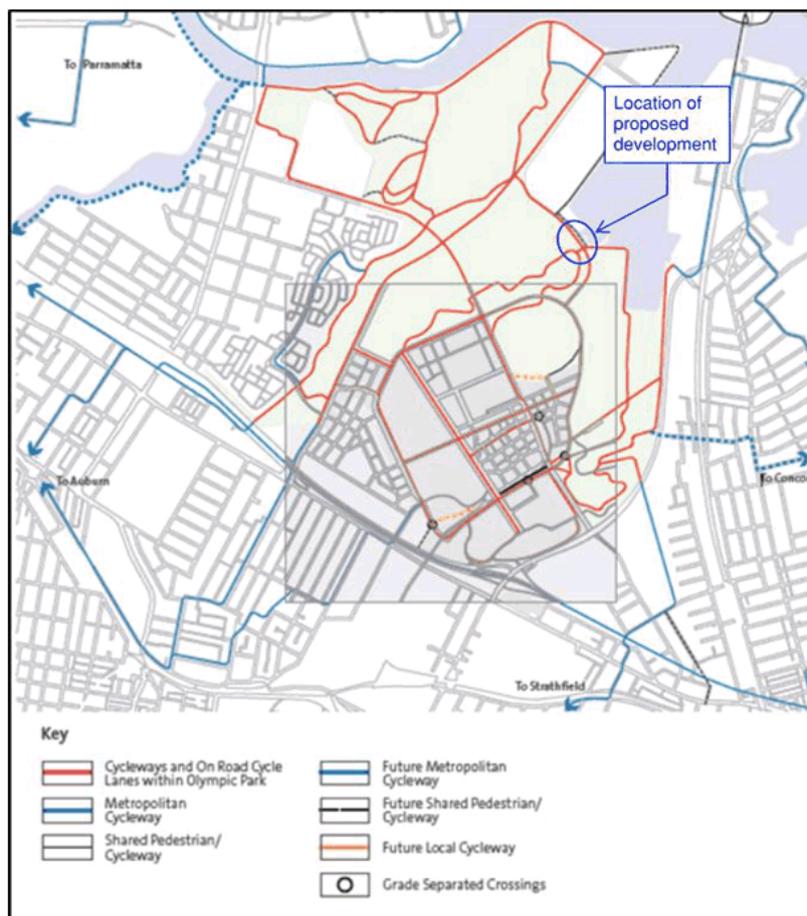


Figure 6-1. Sydney Olympic Park Masterplan 2030 (Source: SOPA, 2018)

6.6 NSW Active Transport Strategy

The Active Transport Strategy by Transport for NSW focuses on promoting and prioritising active modes of transportation such as walking, cycling, and public transport. The strategy aims encourage and support active transport options as a sustainable, healthy, and efficient way to move around NSW. It emphasises the importance of creating safe pedestrian and cycling infrastructure, improving connectivity, and integrating active transport with other modes of transportation.

The five ambitions of the strategy include:

- Enable 15-minute neighbourhoods
- Deliver connected and continuous cycling networks
- Provide safer and better precincts and main streets
- Promote walking and riding and encourage behaviour change
- Support partners and accelerate change

The NSW Active Transport Strategy aligns with the proposed Bennelong Parkway pedestrian and cycleway as it recommends the development of over 1,000 kilometres of new cycleways and supporting infrastructure across key cities in New South Wales. Transport for NSW aims to collaborate with councils, like City of Parramatta Council, to increase the number of trips made by bike and improve cycling infrastructure overall.

6.7 City of Parramatta Council Bike Plan

The Parramatta Bike Plan is a bike infrastructure plan that aims to create a connected, comfortable, and safe cycling network throughout the City of Parramatta. It is part of the broader Parramatta Active Transport Plan and Future Transport Strategy 2056 (see Section 6.4).

The plan involves various bike infrastructure projects such as constructing cycleways and shared paths, optimising existing routes, and upgrading intersections to be more cyclist friendly. The objective of the Parramatta Bike Plan is to provide safe and convenient cycling options for people of all ages and abilities across the City of Parramatta.

Bennelong Parkway, listed within the Olympic Park Regional Route in the Parramatta Bike Plan, is an important link in the cycling network, and its inclusion reflects the plan's commitment to integrated planning and delivery. The proposed pedestrian and cyclist bridge aligns with the overall vision of the plan and supports the creation of a connected and sustainable city.

6.8 Parramatta Local Strategic Planning Statement

The Parramatta Local Strategic Planning Statement (LSPS) considers the city's rapidly growing population and provides a vision and strategic direction to ensure the city is well planned, liveable, productive, and sustainable into the future.

The proposed pedestrian and cycleway development will support the vision of the Parramatta LSPS in that it will:

- Create a high quality and safe walking and cycling network across the LGA to cater for and encourage short trips to local centres, jobs, public and shared transport services, schools, local open space, and other trip generators.
- Align with the Central City District plan in linking parks, open spaces, bushland, and walking and cycling paths.
- Align with the "Green Grid" – A planned network of high-quality green spaces that will connect communities to green infrastructure network of walking and cycling links, improving sustainability and the wellbeing of residents.

6.9 NSW Government Parramatta Road Urban Amenity Improvement Program

The NSW Government has initiated the Parramatta Road Urban Amenity Improvement Program (PRUAIP) as an attempt to improve open space and active transport mode links along the Parramatta Road corridor. The program includes three main priority work categories:

- Streetscape upgrades to improve street quality
- Establishment of new open community spaces
- New cycle ways and walking paths which link key transport areas and open spaces.

The program encourages the six Councils involved and Transport NSW to plan for local active transport improvements. The proposed Bennelong Parkway Pedestrian and Cycleway bridge is a similarly aligned project that aims to improve social and economic outcomes. The projects hold similarities in their encouragement and provision for active transport and its infrastructure, while also supporting local community growth and amenity requirements.

6.10 Greater Parramatta and Olympic Peninsula – PIC Based Infrastructure Pilot Draft by the Greater Sydney Commission

The Greater Parramatta and Olympic Peninsula (GPOP) – PIC Based Infrastructure Pilot Draft by the Greater Sydney Commission is a plan for Sydney's West that puts forward an infrastructure delivery blueprint aimed at establishing liveability, sustainability, and productivity in the region.

The GPOP- PIC Based Infrastructure Pilot Draft involves a range of initiatives such as optimising transport connections through mass transit, activating underutilised spaces, expanding civic services, and promoting innovation and entrepreneurship. Its objective is to create vibrant, sustainable, and connected communities capable of driving economic growth and improving quality of life across the region.

One of the highest-priority areas of investment in the Pilot Draft is transport, which includes public transport improvements and active transport infrastructure. Pedestrian paths, crossings and bridges, rail upgrades, new metro, new light rail, and regional cycleways are some of the notable transport priorities identified.

The proposed Bennelong Parkway Cyclist and Pedestrian bridge aligns with the Infrastructure Pilot Draft as it promotes the expansion of cycleways and encourages cycling and walking within the GPOP and connects centres with walking and cycling infrastructure.

6.11 Homebush Bay Circuit Wayfinding Strategy and Masterplan

The Homebush Bay Circuit Wayfinding Strategy and Masterplan was prepared by the Institute for Sensible Transport in 2019. It was commissioned by the City of Canada Bay, Sydney Olympic Park Authority, and the City of Parramatta, with funding provided by the NSW Government.

The strategy involved a review of policies and data, an on-site audit, an online survey, and drop-in sessions to gather input and to form the basis for the Homebush Bay Wayfinding Masterplan. An environmental assessment was conducted, leading to recommendations for a separated cycleway on the eastern side of Bennelong Parkway and a new walking and cycling bridge for direct access without multiple road crossings.

The proposed Bennelong Parkway Cyclist and Pedestrian bridge directly aligns with the goals and recommendations of the Homebush Bay Circuit Wayfinding Strategy and Masterplan, as it fulfils the vision within the strategy for improved pedestrian and cyclist access across Haslams Creek without the need for multiple road crossings.

7 Environmental Assessment

This section provides a summary of the anticipated environmental impacts associated with construction and operation of the proposed development, together with details of the measures required to manage, mitigate or offset potential impacts.

7.1 Air Quality Impacts

7.1.1 Construction Impacts

The proposed development has the potential to result in temporary air quality impacts during construction. These impacts are expected to be confined to exhaust emissions from plant and equipment, together with dust emissions associated with construction activities. Overall, construction air quality impacts are expected to be minor and temporary in nature and readily manageable through the implementation of the construction management measures outlined in section 7.1.3.

7.1.2 Operational Impacts

The proposed development is not expected to result in significant adverse operational air quality impacts. The development may also support a mode shift from the use of private motorised vehicles to active transport resulting in a minor beneficial air quality impact.

7.1.3 Management Measures

The following measures are proposed to manage air quality impacts associated with the project:

- Prior to construction, a Construction Environmental Management Plan (CEMP) must be prepared. The CEMP must be implemented throughout the duration of construction.
- The CEMP must contain detail of dust suppression measures to be adopted during construction. At a minimum, those measures must include:
 - A procedure for the application of water to exposed surfaces to minimise windblown dust.
 - A requirement for stockpiles to be covered when not in use.
 - A consideration of opportunities to stage earthworks to minimise the extent of exposed / stripped soils.
- All vehicles, plant and equipment are to be kept in efficient working order and not left running / idling when not in use.
- Works with the potential to generate odour or dust (including the spraying of paint and other materials) are not to be carried out during strong winds or in weather conditions where high levels of dust or airborne particulates are likely.

7.2 Biodiversity Impacts

The proposed development is expected to result in biodiversity impacts. A Biodiversity Development Assessment Report (BDAR) was prepared by Umwelt Australia Pty Ltd (Umwelt) for the proposed development in December 2023. A copy of that BDAR is attached as Appendix B. The biodiversity impacts anticipated as a result of the development are summarised in the following subsections.

7.2.1 Direct Impacts

As outlined in the BDAR (Appendix B), the proposed development is expected to have minimal direct impacts on terrestrial biodiversity. Direct impacts include the loss of two mangroves (one north, one south of Haslams Creek) and seven native planted trees, one exotic shrub and 0.02 ha of exotic groundcover, totalling approximately 0.10ha, due to ground disturbance associated with the new bridge, footpaths, and site

access. The proposed works would impact 0.08 ha of mangrove and swamp oak vegetation, but the site does not contain any other significant habitat features like hollow-bearing trees, nests, or burrows. Direct impacts on vegetation are summarised in Table 7-1 below.

Table 7-1. Direct Impacts of the project on Biodiversity Features. Source: Umwelt (2024).

Vegetation Zone	Area in the Development Site
PCT 920 Estuarine mangrove forest	0.01
PCT 1234 Estuarine Swamp Oak Forest	0.07
Total native vegetation	0.08
Exotic Grassland	0.02
Cleared / Infrastructure	0.03
Total vegetation	0.13

Management measures (detailed in section 7.2.4) are proposed to minimise direct impacts to vegetation. The offsets outlined in Table 7-2 are also proposed to offset direct vegetation impacts that cannot be avoided.

Table 7-2: Vegetation offset requirements.

Vegetation Zone Name	Vegetation Integrity Loss	Area	Ecosystem Credits Required
PCT 920 Estuarine mangrove forest	22.7	0.01	1
PCT 1234 Estuarine Swamp Oak forest – planted component	27	0.07	1

7.2.2 Indirect Impacts

As outlined in the BDAR (Appendix B), the proposed development is not expected to result in any significant indirect impacts on the biodiversity values of the development site or surrounding lands. No substantial indirect impacts are expected to occur in relation to connectivity, corridors, weeds, or habitat fragmentation. However, some indirect impacts associated with water quality and impacts to key fish habitat may occur during the construction and operation of the project. Specifically:

- There is a risk of increased turbidity through erosion, sedimentation, and water-based construction work. This has the potential to reduce light penetration and/or smother marine vegetation.
- The removal of sediment and mangroves has the potential to cause disturbance to key fish habitat and aquatic habitat features. The construction process has the potential to disturb root structure and pneumatophores, cause contamination from fuels and lubricants and transport sediments downstream.
- The disturbance of acid sulfate soils can form sulphuric acid when soils react with oxygen in the air. Sulphuric acid can leach into surrounding environments, causing soils to become very acid and toxic and impacting waterways and soil health resulting in environmental and agricultural degradation.
- The proposed development will require a small area of clearing in the riparian zone along Haslam Creek, which has the potential to contribute to habitat fragmentation / the reduction of connectivity. However, the vegetation clearing will occur at the edges of the existing corridor is unlikely to widen the corridor such that it will represent a hostile barrier for native flora and fauna species. Given the small width of the proposal, and its placement within an existing cleared patch of mangroves, the proposed works are not likely to fragment vegetation within the area, nor will they impede movements of the highly mobile fauna species that are known to utilise the area. The new bridge structure has also been assessed in the BDAR as unlikely to impede the movement of native fauna, including wetland birds, fish or amphibians.
- Noise impacts have the potential to disturb the roosting and foraging behaviour of fauna species and reduce the occupancy areas of suitable habitat. However, there will be no substantial change to noise



impacts as a result of the proposed development given the project location is adjacent to existing roads in a highly urbanised areas with existing noise impacts.¹²

- Construction activities have the potential to introduce or spread pathogens such as Phytophthora (*Phytophthora cinnamomi*), Myrtle Rust (*Austropuccinia psidii*) and Chytrid fungus (*Batrachochytrium dendrobatidis*) via dirt or organic material attached to machinery, vehicles, equipment and employees. The spread of diseases and pathogens is not restricted to the construction phase of the proposal. They may also be introduced by visitors/users once construction is completed, and the pathway is open to the public.

Management measures are proposed to minimise the indirect impacts outlined above. These measures are outlined in 7.2.4.

7.2.3 Curlew Sandpiper

A total of 0.01 ha of area mapped as important habitat for Curlew Sandpiper will be impacted by the proposed works. The Curlew Sandpiper is a migratory wetland bird that breeds in the northern hemisphere but relies on successful feeding in the austral summer to migrate over 10,000 km back to its breeding grounds. Displacement caused by human activities and encroaching development pressures have been recognised as threats to the Curlew Sandpiper.

Management measures (detailed in section 7.2.4) are proposed to minimise the threat to Curlew Sandpiper. The offsets outlined in Table 7-3 are also proposed to offset the direct loss of Curlew Sandpiper habitat.

Table 7-3: Curlew Sandpiper offset requirements

Species credit	Associated Vegetation Zone	Area (ha)	Ecosystem credits required
Curlew Sandpiper (breeding)	PCT 920 – Estuarine mangrove forest	0.01	1

Based on the findings of the significant impact assessment outlined in the BDAR, significant impacts to the Curlew Sandpiper are not anticipated as a result of the proposed development.

7.2.4 Management Measures

The following measures are proposed to manage biodiversity impacts associated with the project and incorporate the mitigation measures outlined in Table 7.2 of the BDAR, except where otherwise stated:

- Prior to construction, a CEMP must be prepared. The CEMP must be implemented throughout the duration of construction.
- The CEMP must detail hygiene controls for all vehicles, equipment and people working in the construction site, including a requirement for machinery to be washed in accordance with best practice hygiene protocols prior to being brought to site to prevent the spread of weeds, seeds, pathogens and fungi.
- Prior to construction, the offsets outlined in the BDAR must be secured.
- An Erosion and Sediment Control Plan must be prepared as part of the CEMP¹³ in accordance with the requirements of the Landcom / Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book). The ESCP must be endorsed by an appropriately qualified erosion and sediment control specialist and, at a minimum, include requirements that:

¹² The BDAR specified that details of noise controls for the project would be outlined in a noise and vibration assessment. As no substantial change to noise impacts is anticipated as a result of the proposed development, a noise and vibration assessment is not proposed. Construction noise and vibration controls will instead be detailed in the CEMP.

¹³ Table 7.2 of the BDAR specified that the Erosion and Sediment Control Plan should be prepared as part of the Water Management Plan. No Water Management Plan is proposed for the project. It is therefore proposed that the Erosion and Sediment Control Plan should form part of the CEMP.

- Erosion and sediment control measures are to be implemented and maintained to:
 - Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets.
 - Reduce water velocity and capture sediment on site.
 - Minimise the amount of material transported from site to surrounding pavement surfaces.
- Erosion and sediment controls are to be checked and maintained on a regular basis (including the clearing of sediment from behind barriers) and records kept and provided upon request.
- Erosion and sediment control measures are not to be removed until construction is complete, and areas stabilised.
- Prior to undertaking works on the site, all employees, contractors and subcontractors are to receive an environmental site induction. The environmental site induction will detail all relevant mitigation measures including the location of sensitive environmental features, the limit of clearing and environmental incident procedures.
- The construction site must be fully fenced to prevent unauthorised entry. All construction works must be undertaken within the fenced area.
- 'No-go' fencing must be placed around retained Grey Mangrove-River Mangrove Forest in close proximity (<50m) to the construction site to avoid unintended disturbance during construction.
- All weed material removed from the site must be disposed of in a suitable waste facility and must not be mulched on site. This is to avoid the reintroduction and spread of weeds in the area.
- All instream works must be undertaken in a way that reduces potential for increased turbidity.
- Vehicles and machinery must be kept away from the banks of Haslams Creek where possible.
- If boats or other watercraft are required to facilitate construction, these are to be used in a manner so as to avoid boat wash that could cause erosion of the banks.
- Fuels and chemicals must be stored in a bunded or contained area and a spill kit must be located on site throughout construction.
- The storage of large quantities of fuels on or around the construction site or laydown areas will be avoided. Vehicles and equipment must be refuelled off site.
- An Emergency Spill Response Plan must be prepared as part of the CEMP and implemented for the duration of construction. The Emergency Spill Response Plan must include, as a minimum:
 - Measures to avoid spills;
 - Clean-up procedures;
 - Recording and notification procedures; and
 - Requirements for the storage of hazardous materials.
- Prior to construction, CoPC will obtain necessary permits under the FM Act.
- Prior to construction, an unexpected threatened species finds procedure must be developed. At a minimum, the unexpected threatened species finds procedure must include requirements for site inductions and toolbox talks to detail potential threatened species that may be encountered and actions to be undertaken when unexpected threatened species are encountered.
- The CEMP must contain detail of dust suppression measures to be adopted during construction. At a minimum, those measures must include:
 - A procedure for the application of water to exposed surfaces to minimise windblown dust.
 - A requirement for stockpiles to be covered when not in use.
 - A consideration of opportunities to stage earthworks to minimise the extent of exposed / stripped soils.
- Post-construction signage is to be installed:
 - Designating areas where dogs are not permitted or should be kept on-leash to reduce interactions with companion animals and migratory shore birds.
 - To educate the public on shorebird species utilising the site and appropriate ways to minimise disturbance to them.

- Prior to construction, the landscaping plan must be updated to incorporate native species adjacent to the access track that create a disincentive for people to stray into adjacent habitat.
- Prior to construction, the lighting plan must be updated to minimise light spill into adjacent habitat areas. This might include:
 - Removing the proposed feature lighting.
 - Utilising lights with reduced or filtered blue, violet and ultra-violet wavelengths (i.e. low 400-500nm content).
 - Utilising bollards rather than light poles.
 - Ensuring lights are close to the ground, directed and shielded to avoid light spill.
- Feature lighting must be switched off between the hours of 11pm to 5am.
- If natural soils are encountered during construction, these must be treated as Potential Acid Sulfate Soils (PASS) until analysed and classified in accordance with the NSW EPA (1998) *Acid Sulfate Soils Management Guidelines*.¹⁴

7.3 Arboricultural Impacts

7.3.1 Direct Impacts

The proposed development is expected to result in Arboricultural impacts. An Arboricultural impact assessment report (Arboricultural Assessment) (Appendix C) was completed by Sturt Noble Arboriculture on the 13 November 2023 and identified 40 trees in the vicinity of the proposed development.

Based on the findings of the Arboricultural Assessment, a total of 10 trees will need to be removed to accommodate the proposed development. Details of those trees are outlined in Figure 7-1 and Table 7-4.

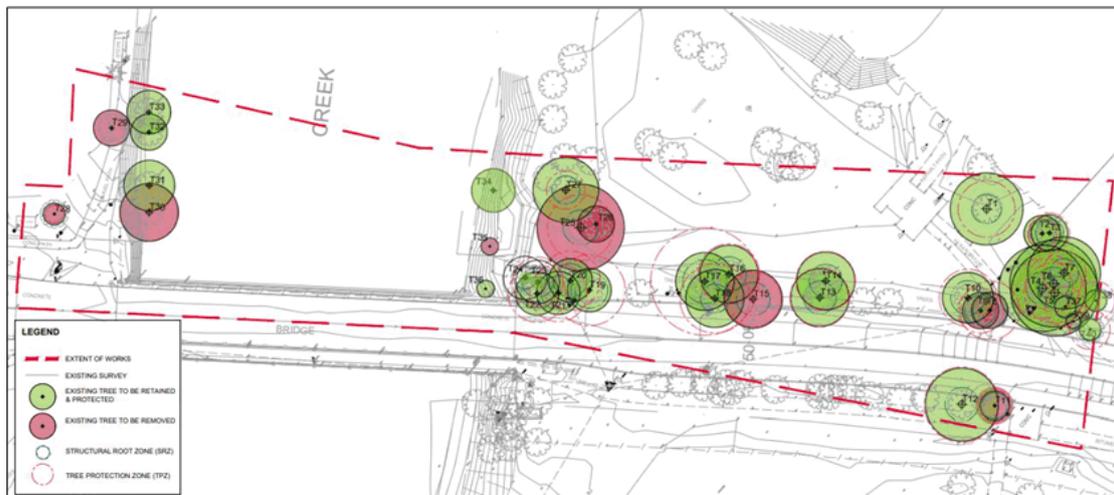


Figure 7-1: Propose tree removal / retention Source: Sturt Noble – see Appendix C for detail

¹⁴ The BDAR recommended that an Acid Sulfate Soil Management Plan be prepared as part of the CEMP. However, sampling undertaken as part of the DSI (discussed in section 7.4) did not indicate the presence of PASS. While deeper (natural) soils may be disturbed on the northern or southern embankment of Haslams Creek in areas proposed for piling, this work has the potential to generate only a small volume of PASS, and the potential risk to human health and ecological receptors has been assessed in the DSI as low. For this reason, the recommendation for an Acid Sulfate Soil Management Plan be prepared as part of the CEMP has been substituted for a requirement, as recommended in the DSI, that if natural soils are encountered during construction, these must be treated as Potential Acid Sulfate Soils (PASS) until analysed and classified in accordance with the NSW EPA (1998) *Acid Sulfate Soils Management Guidelines*.

Table 7-4: Proposed tree removal

Tree No. (from Arboricultural Assessment)	Common Name	Botanical Name
8	Swamp Sheoak	<i>Casuarina glauca</i>
9	Swamp Sheoak	<i>Casuarina glauca</i>
11	Snow-in-summer	<i>Melaleuca linariifolia</i>
15	Swamp Sheoak	<i>Casuarina glauca</i>
25	Swamp Mahogany	<i>Eucalyptus robusta</i>
26	Bleeding Heart Tree	<i>Homalanthus populifolius</i>
28	Tuckeroo	<i>Cupaniopsis anarcardiodes</i>
29	Giant White Bird of Paradise	<i>Strelitzia nicolai</i>
30	Grey Mangrove	<i>Avicennia marina</i>
35	Swamp Sheoak	<i>Casuarina glauca</i>

The remaining 30 trees are proposed to be retained on site. Management measures (outlined in section 7.3.2) are proposed to ensure those trees are able to be retained. Provided these measures are implemented, no significant Arboricultural impacts are anticipated.

7.3.2 Management Measures

The following measures are proposed to manage Arboricultural impacts associated with the project and incorporate the tree protection recommendations outlined in the Arboricultural Assessment, except where otherwise stated:¹⁵

- Prior to construction, a Tree Protection Plan (TPP) must be prepared by a consulting (AQF Level 5) arborist. The TPP must include:
 - A detailed plan of the locations of, and specifications for, tree protection measures.
 - Appointment of a Project Arborist
 - A monitoring schedule detailing critical points during the works (hold points) where the project arborist is required to visit the site and confirm that works are being undertaken in accordance with the TPP.
 - A requirement for the TPP to be implemented throughout the duration of construction.
 - A requirement for drip irrigation around the root zone if required by the project arborist.
- Prior to construction, all trees identified for retention in the Arboricultural Report must be fenced to protect them from damage during construction. The tree protection fences must:
 - Encompass the full extent of the Tree Protection Zones outlined in the Arboricultural Report. Where Tree Protection Zones merge together a single fence encompassing the area is deemed to be adequate.
 - Consist of temporary chain wire panels 1.8m in height, supported by steel stakes as required and fastened together / supported to prevent sideways movement.
 - Include appropriate signage to prevent the unauthorised movement of plant or equipment or entry into the tree protection zone.

¹⁵ NB: the requirements in section 4.5 of the Arboricultural Report relating to 'Demolition Works within Tree Protection Zones' have been omitted as no demolition works are proposed. Similarly the requirements of section 4.9 of the Arboricultural Report relating to 'Road Investigation' have been omitted as no exploratory excavations within Tree Protection Zones are proposed.

- Where provision of tree protection fencing is impractical due to its proximity to the proposed building envelope, trunk protection shall be erected around the tree to avoid accidental damage. As a minimum, the trunk protection shall consist of two metre (2m) lengths of hardwood timbers (100 x 50mm) spaced at 100-150mm centres secured together with 2mm galvanised wire. These shall be strapped around the trunk (not fixed in any way) to avoid mechanical injury or damage. Trunk protection should be installed prior to any site works and maintained in good condition for the duration of the construction period.
- Within the fenced Tree Protection Zones, the following activities are to be prohibited for the duration of construction, except for areas where encroachment within the Tree Protection Zones is shown on the Impact Plan within the Arboricultural Report:
 - Excavations and trenching;
 - Ripping or cultivation of soil;
 - Mechanical removal of vegetation;
 - Soil disturbance;
 - Soil level changes including the placement of fill material;
 - Movement and storage of plant, equipment & vehicles;
 - Erection of site sheds;
 - Affixing of signage or hoardings to trees;
 - Storage of building materials, waste and waste receptacles;
 - Disposal of waste materials and chemicals including paint, solvents, cement, slurry, fuel, oil and other toxic liquids;
 - Other physical damage to the trunk or root system; and
 - Any other activity likely to cause damage to the tree.
- Prior to construction, a 50-75mm layer of coarse organic mulch must be placed over the entire surface of each Tree Protection Zone. Where a Tree Protection Zone is adjacent to construction activities, geotextile fabric must be placed beneath the mulch to facilitate the easy removal of mulch and any accidental spillage of construction materials at the completion of construction.
- Pavements are to be avoided within the Tree Protection Zone of trees to be retained where possible. Proposed paved areas within the Tree Protection Zone of trees to be retained should be placed above grade to minimise excavations within the root zone and avoid root severance and damage.
- Placement of fill material within the Tree Protection Zone of trees to be retained is to be avoided where possible. Where placement of fill cannot be avoided, the material is to be a coarse, gap-graded material such as 20 – 50mm crushed basalt (Blue Metal) or equivalent to provide some aeration to the root zone. Note that Road base or crushed sandstone or other material containing a high percentage of fines is unacceptable for this purpose. The fill material should be consolidated with a nonvibrating roller to minimise compaction of the underlying soil. A permeable geotextile may be used beneath the sub-base to prevent migration of the stone into the sub-grade. No fill material is to be placed in direct contact with the trunk.
- Where possible, excavators must work within the footprint of existing pavements to avoid compaction of adjacent soil and Tree Protection Zones.
- Underground services must be located as far away as practicable from trees to be retained and avoid excavation of the Tree Protection Zones, except for areas where encroachment within the Tree Protection Zones is shown on the Impact Plan within the Arboricultural Report. Where underground services must encroach:
 - If the incursion to the root zone is less than 10% of the total Tree Protection Zone, a chain trenching device may be used. A backhoe or skid steer loader (bobcat) is unacceptable due to the potential for excessive compaction and root damage. Where large woody roots (greater than

50mm in diameter) are encountered during excavation or trenching, these must be retained intact wherever possible (e.g. by sub-surface boring beneath roots or rerouting the service etc).

- Excavations required for underground services within the Structural Root Zone of any tree to be retained should only be undertaken by sub-surface boring. The Invert Level of the pipe, plus the pipe diameter, must be lower than the estimated root zone depth as specified at a minimum depth of 600mm. This will depend on the soil conditions at the site. Where this is not practical and root pruning is the only alternative, proposed root pruning should be assessed by the Project Arborist to determine continued health and stability of the subject tree.
- Care must be taken when operating backhoes, excavators and similar equipment near trees to avoid damage to tree canopies (foliage and branches). Under no circumstances are branches be torn-off by construction equipment. Where there is potential conflict between tree canopy and construction activities, the advice of the Project Arborist must be sought.
- All pruning works shall be directed by the Project Arborist and shall be carried out by an AQF Level 3 Arborist. All pruning works shall be in accordance with the Australian Standard (AS) 4373:2007 *Pruning of amenity trees*.
- Where root pruning is required, roots must be severed with sterile, clean, sharp pruning implements resulting in a clean cut. Any excavated root zones must be retained in a moist condition during the construction phase using Hessian material or mulch where practical. Trees that have roots removed must have drip irrigation installed around the root zone to ensure they receive an adequate supply of water.
- Tree removals must be limited to the trees identified as Trees 9, 11, 15, 25, 26, 28, 29, 30 and 35 in the Sturt Noble Arboriculture (2023) *Arboricultural Impact Assessment Report – Bennelong Parkway Cyclepath Project*, Rev B.
- If trees show signs of stress or deterioration, remedial action must be taken to improve the health and vigour of the subject tree(s) in accordance with best practice Arboricultural principles. In these circumstances, advice must be sought from the Project Arborist.
- In the event of any tree becoming damaged for any reason during the construction period the Project Arborist must be engaged to inspect and provide advice on any remedial action to minimise any adverse impact. Such remedial action must be implemented as soon as practicable and certified by the arborist.

7.4 Land Contamination Impacts

7.4.1 Overview

Potential land contamination has been identified within the proposed development site. Land contamination can result in risks to human health and ecological receptors. A Detailed Site Investigation (DSI) into land contamination has been undertaken by Nation Partners Pty Ltd (Nation Partners) and is attached as Appendix D.

7.4.2 Zinc, Benzo(a)pyrene, Asbestos Containing Material and Groundwater

Minor exceedances in adopted criteria¹⁶ for zinc in groundwater and benzo(a)pyrene in soil were identified during sampling undertaken as part of the DSI. In addition, bonded asbestos containing material was found in one location within the southern portion of the proposed site. Provided the management measures outlined in section 7.4.5 are adopted, these sources of contamination are not expected to pose a risk to human health or ecological receptors. The risk for contamination in groundwater has been assessed as low.

¹⁶ The adopted criteria are outlined in further detail in the Appendix D.

7.4.3 Acid Sulphate Soils

The analysis of weathered shale (Haslams Creek southern embankment) and fill material (Haslams Creek northern embankment) undertaken as part of the DSI did not indicate the presence of potential acid sulfate soils (PASS). However, no natural soil was sampled as part of the DSI, meaning the potential presence of PASS on the northern and southern embankments cannot be excluded. Deeper soils are expected to be disturbed on the north and south embankment near Haslams Creek for proposed piling. However, as this work has the potential to generate only a small volume of PASS, the potential risk to human health and ecological receptors is considered to be low, provided the mitigation measures outlined in section 7.4.2 are adopted.

7.4.4 Waste Classification

A preliminary in-situ classification of soils undertaken as part of the DSI identified five samples exceeding the criteria for General Solid Waste and one sample exceeding the criteria for Restricted Solid Waste. This indicates hazardous waste and restricted solid waste (as classified according to the NSW EPA (2014) *Waste Classification Guidelines*) may be anticipated. However, the waste classification in the DSI was based on total concentrations only and only one analyte in one sample exceeded the criteria for Restricted Solid Waste. Further sampling is expected to lower this waste classification and is recommended as part of the management measures outlined in section 7.4.5.

7.4.5 Management Measures

The following measures are proposed to manage risks to human health and ecological receptors associated with land contamination identified at the proposed site. These measures incorporate the recommendations outlined in the DSI:

- Prior to construction, a CEMP must be prepared. The CEMP must be implemented throughout the duration of construction.
- The CEMP must include a Spoil Management Plan. At a minimum, the Spoil Management Plan must:
 - Characterise spoil for its suitability for reuse (onsite or offsite) or for offsite disposal to landfill if reuse cannot be implemented.
 - Detail the further sampling, including Toxicity Characteristic Leaching Procedure (TCLP) testing, required to refine the preliminary waste classification prior to construction.
 - Detail procedures for managing any asbestos finds (NB: likely to be bonded asbestos in soils).
 - Include an unexpected finds protocol for managing other types of asbestos or contamination if encountered during construction.
- If natural soils are encountered during construction, these must be treated as Potential Acid Sulfate Soils (PASS) until analysed and classified in accordance with the NSW EPA (1998) *Acid Sulfate Soils Management Guidelines*.

7.5 Design, Place and Movement Impacts

7.5.1 Movement and Place Assessment

The SEARS require a consideration of design, place and movement impacts to be included in the EIS. The consideration of these impacts has been underpinned by a Built Environment Indicators Movement and Place Assessment, utilising the NSW Government Built Environment Indicators Movement and Place Assessment Tool (Appendix E). The intent of the assessment, undertaken in conjunction with CoPC via a workshop on 19 April 2023, was to measure and record impacts of the proposed bridge in terms of the quality of the environment and connectivity to and from the area. As the Movement and Place Assessment identified:

- The proposed development is expected to result in a strong improvement in transport choice as a result of the project providing improved connectivity and safety for active transport users.
- Modal equity will be enhanced through the installation of a new formalised crossing across Bennelong Parkway, with improvements in road safety delivered by separating pedestrians and cyclists from general traffic.
- The proposed development generally provides an improvement in built environment indicator score. No indicator scored lower as a result of the project, although several indicators including transport reliability, convenience, opportunities, link to nature, comfort and distinctiveness showed no change.

Overall, on the basis of the Movement and Place Assessment, the proposed development was found to provide an increase in performance in the key areas which it impacts.

7.5.2 Landscape Character & Visual Impacts

As outlined in section 2, to the north of the proposed development site is a high-density residential apartment block and a small number of commercial businesses. To the north-west of the site is the Sydney Olympic Park Archery Centre. South of the proposed development site (across Haslams Creek) are Wentworth Common and Parklands Circuit, areas of parkland incorporating extensive native and introduced planting, recreational space and wetland areas.

The proposed development will be primarily visible from the existing Bennelong Parkway bridge and approaches, the apartments located at 29 Bennelong Parkway (facing south towards Haslams Creek) and privately owned walkway located within 29 Bennelong Parkway. Primary visual receivers include motorists, apartment residents, visitors, pedestrians and cyclists.

Construction activities are expected to have a moderate temporary visual impact from site compounds, traffic control devices, construction vehicles and equipment, temporary fencing and signage, stockpiles, laydown areas and vegetation removal. These impacts will resolve on completion of construction.



Figure 7-2: Visualisation of proposed bridge *Source: Beca*

Moderate operational visual impacts will also result from the proposed development. The primary impact will be from the new bridge, which will be visible from the adjacent apartments, private walkway and existing

Bennelong Parkway road bridge. A visualisation of the proposed bridge from the perspective of the adjacent apartments and private walkway is shown in Figure 7-2 above.

The proposed design has sought to minimise the potential for adverse visual and landscape impacts. Specifically:

- The proposed bridge adopts a steel truss design, providing visual interest as compared to a pre-cast concrete plank design.
- Existing trees have been retained where practicable (refer section 7.3).
- The need for additional piers within the waterway has been avoided.
- Weed removal and revegetation / planting utilising indigenous / native species is proposed (refer Landscape Plan (Appendix A)).
- Feature lighting shall be turned off between 11pm and 5am to minimise light spill.

Overall, no significant visual or landscape impacts are expected as a result of the proposed development.

7.5.3 SEARS Design, Place and Movement Requirements

Table 7-5 summarises how the project has adopted a design led process that is informed, collaborative and iterative in relation to the specific design, movement and place requirements outlined in the SEARs.

Table 7-5: Design, Place and Movement - SEARS Requirements

SEARS Requirement	Implementation
Utilises good design processes.	The proposed development utilised a design process consisting of a feasibility study (2019), concept design (2022), and 30%, 60%, 90% and 100% detailed design milestones (2023), with opportunities for review and feedback from CoPC at each stage. The design was informed by an analysis of safety in design, constructability, maintenance and accessibility, future-proofing and sustainability.
Is designed with and connected with Country.	The design and assessment of the proposal has been informed by an Aboriginal Cultural Heritage Due Diligence Assessment, discussed in further detail in section 7.9.1.
Involves the community, user groups and other stakeholders.	Engagement undertaken with stakeholders and members of the community is detailed in section 8.
Considers opportunities for heritage interpretation and art.	An Aboriginal Heritage Due Diligence Assessment undertaken for the proposed development identified that the intangible social and cultural values of the region offer many opportunities for interpretation and education about the history of Aboriginal peoples at Sydney Olympic Park and Wentworth Point which could be incorporated into the future design for the bridge. At this stage, opportunities for heritage interpretation / art are not proposed, however CoPC may consider these opportunities in further detail prior to construction or as part of a future project in conjunction with the Sydney Olympic Park Authority and the Metropolitan Local Aboriginal Land Council.

SEARS Requirement	Implementation
<p>Considers lighting design to reflect the location of the bridge and pathway within an ecologically-sensitive area.</p>	<p>Feature lighting is proposed to be turned off from 11pm to 5am to minimise light spill.</p> <p>Prior to construction, the lighting plan should also be updated to minimise light spill into adjacent habitat areas, as recommended in the BDAR (Appendix B). This might include:</p> <ul style="list-style-type: none"> • Removing the proposed feature lighting. • Utilising lights with reduced or filtered blue, violet and ultra-violet wavelengths (i.e. low 400-500nm content). • Utilising bollards rather than light poles. • Ensuring lights are close to the ground, directed and shielded to avoid light spill. <p>It is understood that CoPC intends to work with SOPA to further update the current lighting plan to reflect ecological sensitivity prior to construction.</p>
<p>Considers the <i>Bridge Aesthetics: Design Guidelines to improve appearance of bridges in NSW</i> (Transport for NSW, 2019).</p>	<p>The <i>Bridge Aesthetics: Design Guidelines to improve appearance of bridges in NSW</i> were not explicitly considered in development of the design, however, design has included a consideration of bridge aesthetics.</p>
<p>Considers the landscape character and visual impacts of the proposal, particularly from adjacent sensitive viewpoints.</p>	<p>Addressed in section 7.5.2 above. No significant landscape character or visual impacts are anticipated.</p>
<p>Considers the location of for pylons outside the main channel of Haslams Creek.</p>	<p>No pylons / piles are proposed within the main channel of Haslams Creek. The proposed bridge is intended to span bank-to-bank.</p>
<p>Considers maritime vessels, navigable channels and minimum clearances.</p>	<p>No pylons / piles are proposed within the main channel of Haslams Creek. The proposed bridge soffit level at its lowest point is 2.9m AHD. This is higher than the existing Bennelong Parkway bridge and is therefore not expected to introduce any maritime hazards into the environment.</p>
<p>Considers the width of the shared path.</p>	<p>For the shared path sections connecting to the proposed bridge, width has been informed by the Austroads Guide to Road Design (AGRD) Part 6A: Paths for Walking and Cycling. AGRD Part 6A recommends a width of 3.0 to 4.0m for shared recreational path widths. The proposed bridge design incorporates a 5m width, in excess of the minimum recommended by AGRD Part 6A.</p> <p>Consistent with the shared path, the proposed bridge provides a 5m clear width between handrails. In addition, a 150mm horizontal pedal clearance is provided between handrails and kerb upstands on either side of the path.</p>

SEARS Requirement	Implementation
Ensures access arrangements for utility vehicles and ranger vehicles are maintained.	An entrance has been proposed for maintenance vehicles including removable bollards to prevent unauthorised or accidental access.

7.5.4 Management Measures

The following measures are proposed to manage design, place and movement impacts associated with the proposed development:

- Prior to construction, a CEMP must be prepared. The CEMP must be implemented throughout the duration of construction.
- The CEMP must outline measures to minimise the visual impact of construction activities. These measures may include the following:
 - Hoardings, fencing and/or visually impermeable barriers will be placed around worksites to minimise views of stockpiles and construction activities where practicable.
 - Covered waste bins are to be utilised to minimise instances of windblown litter.
 - Lighting during construction is to be managed in such a way as to minimise light spill to surrounding residential land uses.
 - Laydown areas are to be kept clean, tidy and free of debris at all times.
- Prior to construction, the lighting plan should also be updated to minimise light spill into adjacent habitat areas, as recommended in the BDAR (Appendix B). This might include:
 - Removing the proposed feature lighting.
 - Utilising lights with reduced or filtered blue, violet and ultra-violet wavelengths (i.e. low 400-500nm content).
 - Utilising bollards rather than light poles.
 - Ensuring lights are close to the ground, directed and shielded to avoid light spill.
- Feature lighting must be switched off between the hours of 11pm to 5am.
- Prior to completion of construction, landscaping and weed removal must be undertaken in general accordance with the Sturt Noble (2023) *Bennelong Parkway Cycle Bridge – Landscape Concept Plan* (SK-2306-01 to SK2304-04) Rev A.

7.6 Flooding Impacts

The proposed development lies within the Haslams Creek catchment, less than 100m upstream of the outlet into Homebush Bay which meets the Parramatta River further downstream. A Flood Impact Assessment has been undertaken by Royal HaskoningDHV to understand the likely flooding impacts of the proposed development. A copy of that assessment is attached as Appendix F.

The Flood Impact Assessment considered the likely implications of the development in terms of the 5%, 1%, 0.2% and 0.05% Annual Exceedance Probability (AEP) flood events. The 120-minute design storm duration was determined to be the critical duration (i.e. produced the maximum design flood levels) for the 5%, 1%, 0.2% and 0.05% AEP events for the study site. For the Probable Maximum Flood (PMF), the 60-minute storm duration was determined to be the critical duration.

Based on the findings of the Flood Impact Assessment, peak water levels for the events modelled were as outlined in Table 7-6.

Table 7-6: Peak Fluvial Flood Levels (m AHD)

Design Event	Existing (Pre-Development) Conditions	Proposed (Post-Development) Conditions
5% AEP 120m Design Storm	0.573	0.573
1% AEP 120m Design Storm	0.612	0.612
0.2% AEP 120m Design Storm	0.652	0.652
0.05% AEP ARI 120m Design Storm	0.704	0.704
PMF 60m Design Storm	1.081	1.081

Overall, the impact of the proposed development was less than 1mm under all flood scenarios modelled. The impact of the proposed bridge on flood behaviour is therefore considered negligible due to the minor constriction of the available waterway area and design of the abutment above the PMF flood level.

For completeness, it is noted that the proposed development is located outside the area assessed in the recent Stantec (2023) *Final Draft Flood Study Report – Parramatta River Flood Study (Rev F)*.

7.7 Traffic and Transport

7.7.1 Construction Impacts

Construction of the proposed development is expected to result in temporary traffic impacts. Specifically:

- Construction in close proximity to Bennelong Parkway may necessitate temporary lane closures and/or temporary speed reductions in order to provide a safe working environment for staff and contractors.
- Construction of the raised pedestrian and cycle crossing on Bennelong Parkway to the south of the existing bridge is proposed to be undertaken in two segments (from road edge to centreline) to maintain a minimum one-way traffic flow. Temporary speed reductions may also be required.
- Construction of the shared path tie-ins to the north and south of the proposed bridge are expected to necessitate temporary closures of the private walkway within 27-29 Bennelong Parkway and the existing Parklands Circuit shared user path.

Construction vehicles are expected to travel from the south along Bennelong Parkway to reach the proposed site compound and travel from the north along Bennelong Parkway to access northern bridge works site.

Figure 7-3 and Figure 7-4 demonstrate the expected routes for delivery vehicles and construction machinery.

Construction traffic volumes are not expected to result in adverse impacts on traffic network performance.

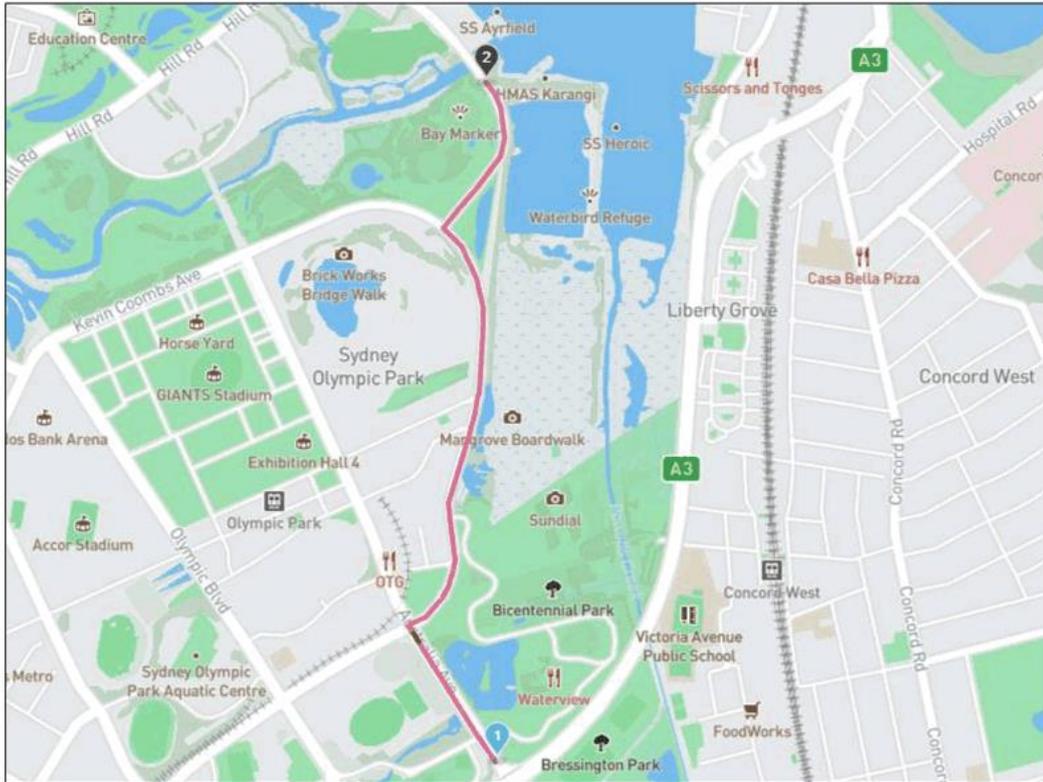


Figure 7-3: Route of construction vehicles accessing site compound and southern construction works (Source: Beca)

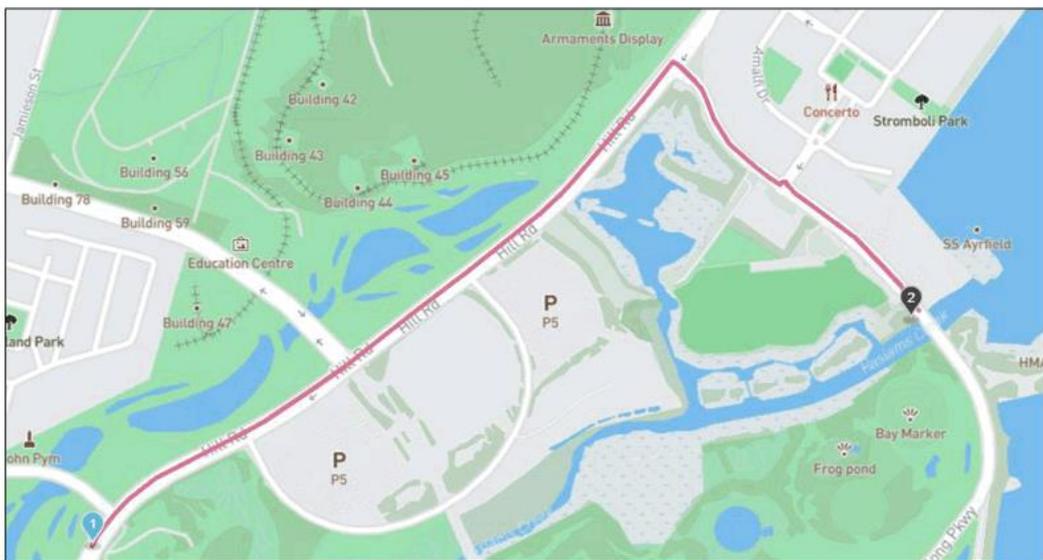


Figure 7-4: Route of construction vehicles accessing site Northern construction works (Source: Beca)

Construction vehicle entry into the site compound will be from the location of the proposed raised pedestrian and cycle crossing on Bennelong Parkway, with vehicles exiting from the proposed maintenance access. 19m semi-trailer vehicle tracking of entering and exiting movements is shown in Figure 7-5 and Figure 7-6. A Traffic Management Plan will be prepared to ensure vehicular, pedestrian and cyclist traffic flows are



adequately protected from construction activities and undertaken under the supervision of traffic controllers when required.

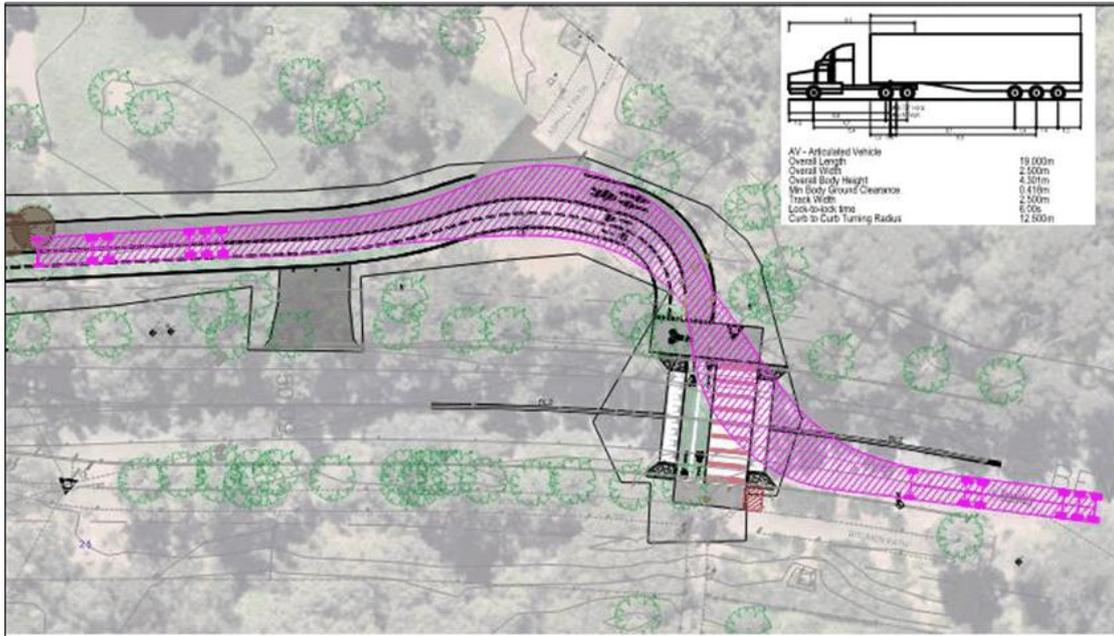


Figure 7-5: 19m Semi-trailer entry tracking (Source: Beca)

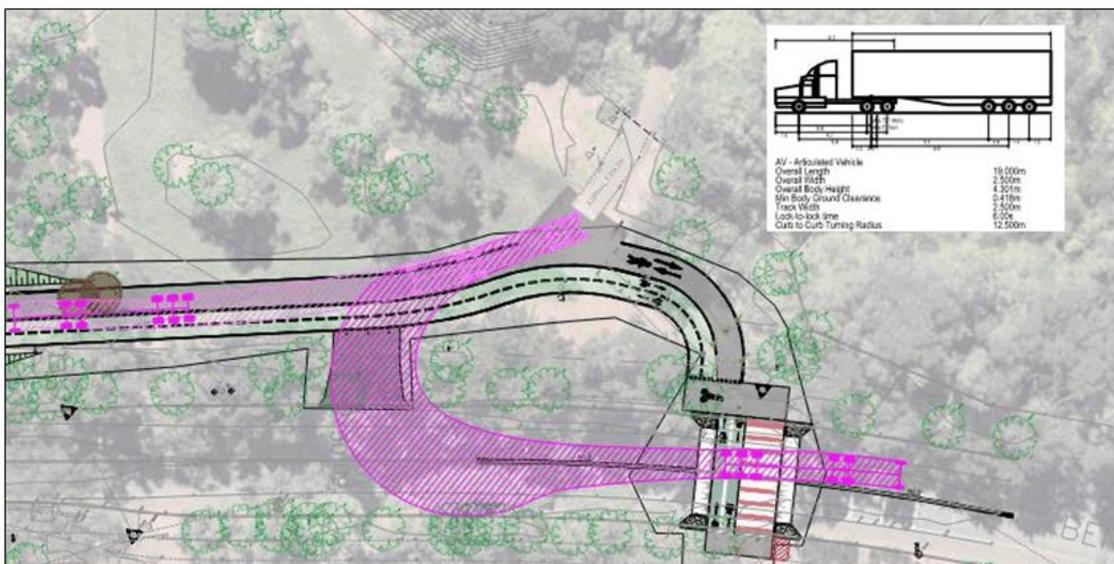


Figure 7-6: 19m Semi-trailer exit tracking (Source: Beca)

7.7.2 Management Measures

The following measures are proposed to manage traffic and transport impacts associated with the proposed development:

- Prior to construction, a Traffic Management Plan (TMP) must be prepared to mitigate potential traffic and access impacts. The TMP will be implemented throughout the duration of construction. At a minimum, the TMP will:
 - Detail approach and departure routes.
 - Identify expected construction vehicle numbers, type and frequency.
 - Outline any anticipated out of hours or escorted deliveries.
 - Detail measures to maintain access to local roads and properties.
 - Provide for the maintenance of pedestrian and cyclist access where practicable.
 - Outline site specific traffic control measures and devices (e.g. temporary speed restrictions / precautionary signs) required to manage and regulate traffic movement.
 - Consider any other developments that may be under construction concurrently to minimise traffic network disruption.
 - Detail a response plan for any construction traffic incident.

7.8 Hazard and Risks Impacts

7.8.1 Coastal Hazards and Processes

The SEARs require an assessment of the proposed development in terms of the effects of coastal processes and coastal hazards including the effects of sea level rise and climate change on the, and arising from, the proposed development.

In terms of impacts on the proposed development, the bridge soffit level (2.9m AHD) has been positioned to be future proofed for sea level rise to the year 2100. Specifically, the bridge soffit level provides 500mm freeboard to a year 2100 Sea Level Rise 1% tidal inundation event, which includes including 0.9m of climate change level increase.

In terms of impacts of the proposed development, the development will provide an accessible link for pedestrian and cyclist traffic to and from existing and future housing developments which may the enhance use of active transport over more carbon intensive modes of transport. However, the proposed development is intended to utilise steel and concrete which have substantial embodied carbon contributing to greenhouse gas emissions. The use of these material cannot be avoided for the project, as the requirements for design life and performance preclude the use of more sustainable materials such as engineered timber.

7.8.2 Mitigation Measures

The following measures are proposed to manage coastal hazards associated with the proposed development:

- The bridge soffit level must be no lower than 2.9m AHD in order to provide 500mm freeboard to a year 2100 Sea Level Rise 1% tidal inundation event.

7.9 Heritage Impacts

7.9.1 Aboriginal Cultural Heritage

The proposed development site is part of the traditional lands of the Wangal (Wann-gal) clan of the Darug People. An Aboriginal Heritage Due Diligence Assessment has been undertaken by GML Heritage Pty Ltd (GML) (Appendix G) to understand the potential impacts of the proposal on Aboriginal cultural heritage. The report was undertaken in accordance with the DECCW (2010) *Due Diligence Code of Practice for the*

Protection of Aboriginal Objects in New South Wales and was informed by a site inspection and walkover which included a representative from the Metropolitan Local Aboriginal Land Council. As the report highlights:

- Most of the project area is reclaimed land, underlain by historic fills and constructed soils which do not hold archaeological potential.
- Areas that are not reclaimed land have been subject to historically high disturbance to the landforms and soils.
- There are strong social and cultural connections between the surrounding landscape and local Aboriginal culture.

Overall, the development area has been assessed as having a low potential for Aboriginal archaeological sensitivity or the possibility that intact and/or remnant soil or sedimentary deposits could contain Aboriginal objects. Significant Aboriginal cultural heritage impacts are therefore not anticipated. An unexpected finds protocol is proposed to address the potential for any unexpected finds of Aboriginal cultural heritage during construction.

As part of the Aboriginal Heritage Due Diligence Report, it was identified that the intangible social and cultural values of the region offer many opportunities for interpretation and education about the history of Aboriginal people at Sydney Olympic Park and Wentworth Point which could be incorporated into the future design for the bridge in collaboration with the Sydney Olympic Park Authority and Metropolitan Local Aboriginal Land Council. To date, such features have not been incorporated into the bridge design, however there is an opportunity for design or interpretation features to be further explored by CoPC prior to construction. Any such measures would need to be further assessed to consider their potential environmental impact.

7.9.2 Management Measures

The following measures are proposed to manage potential impacts on Aboriginal cultural heritage as a result of the proposed works. These measures incorporate the recommendations outlined in the Aboriginal Heritage Due Diligence Assessment:

- Prior to construction, a First Nations cultural induction must be developed in collaboration with the Metropolitan Local Aboriginal Land Council. The cultural induction must be delivered to all workers on site and include details of the unexpected finds protocol, including the stop works procedure.
- If during construction an Aboriginal site or object is suspected or identified, the following unexpected finds protocol must be enacted:
 - All works must cease immediately in the area surrounding the suspected object(s). Any identified Aboriginal object(s) must be left in situ and not disturbed in accordance with the requirements of section 89A of the *National Parks and Wildlife Act 1974*. Heritage NSW must be notified immediately, and an archaeologist experienced in the identification of Aboriginal cultural material must inspect the objects.
 - If the suspected objects are not Aboriginal in origin or manufacture (as defined under the *National Parks and Wildlife Act 1974*) they must be recorded and the location noted. Works may then continue.
 - If the objects are confirmed to be of Aboriginal origin, the site should be registered on the Aboriginal Heritage Information Management Systems (AHIMS) administered by Heritage NSW.
 - If an Aboriginal Heritage Impact Permit under section 90 of the *National Parks and Wildlife Act 1974* is required, the extent of any works exclusion zone must be determined through discussion with Heritage NSW and Aboriginal community representatives.

- In the unlikely event human remains are discovered during construction, works must immediately cease in the surrounding area. The findings must be reported immediately to the NSW Coroner's Office and/or the NSW Police.
- The Metropolitan Local Aboriginal Land Council has expressed concern about the possibility of unexpected finds in historical fill and/or buried estuarine habitats. Prior to undertaking any works involving significant subsurface impacts (such as piling or geotechnical bore holing) CoPC may engage with the Metropolitan Local Aboriginal Land Council with a view to enabling representatives of the Metropolitan Local Aboriginal Land Council to monitor the works.

7.9.3 Non-Indigenous Heritage

Based on a search of the NSW State Heritage Inventory undertaken on 24 November 2023, Table 7-7 details State / locally listed non-Indigenous heritage sites within 1km of the proposed development.

Table 7-7. Non-Indigenous Heritage within 1km of the Site. Source: Heritage NSW.

Heritage Site	Millennium Parklands Heritage Conservation Area	Newington Armament Depot and Nature Reserve
Listing Status	SEPP Central River City	State Heritage Register (SHR #01850)
Distance (m)	700 NW from the Site	700 NW from the Site

Given the distance of these sites from the proposed development, no impacts on these non-Indigenous heritage sites are anticipated.

7.10 Land and Water Uses

The SEARs require an assessment of the proposed development in terms of impacts on and from surrounding land and water uses. This assessment is outlined in the subsections below.

7.10.1 Crown Land

Crown land is land owned by the State or Commonwealth Government. Crown land can include reserves, land associated with tidal and non-tidal waterways (including riverbeds), roads¹⁷ and national parks and state forests.

A search of the NSW Planning Portal Spatial Viewer suggested that part of the proposed development site within Haslams Creek (east of the existing Bennelong bridge) was located partially within Crown land associated with the waterway (Figure 7-7).

However, based on advice received from the Property Management department of Crown Land NSW as part of the SEARs process, it is understood that all waterway areas east of existing Bennelong Parkway Bridge, including where the proposed pedestrian and cycle bridge is to be located, are not Crown land. This means landowner consent is not required under the *Crown Land Management Act 2016* and impacts on Crown land are not anticipated as a result of the proposed development.

¹⁷ Most Crown roads or 'paper roads' exist only on maps and are not built: <https://www.crownland.nsw.gov.au/sites/default/files/2023-04/Crown-roads-what-you-need-to-know.pdf>. They are distinct from other forms of public road.

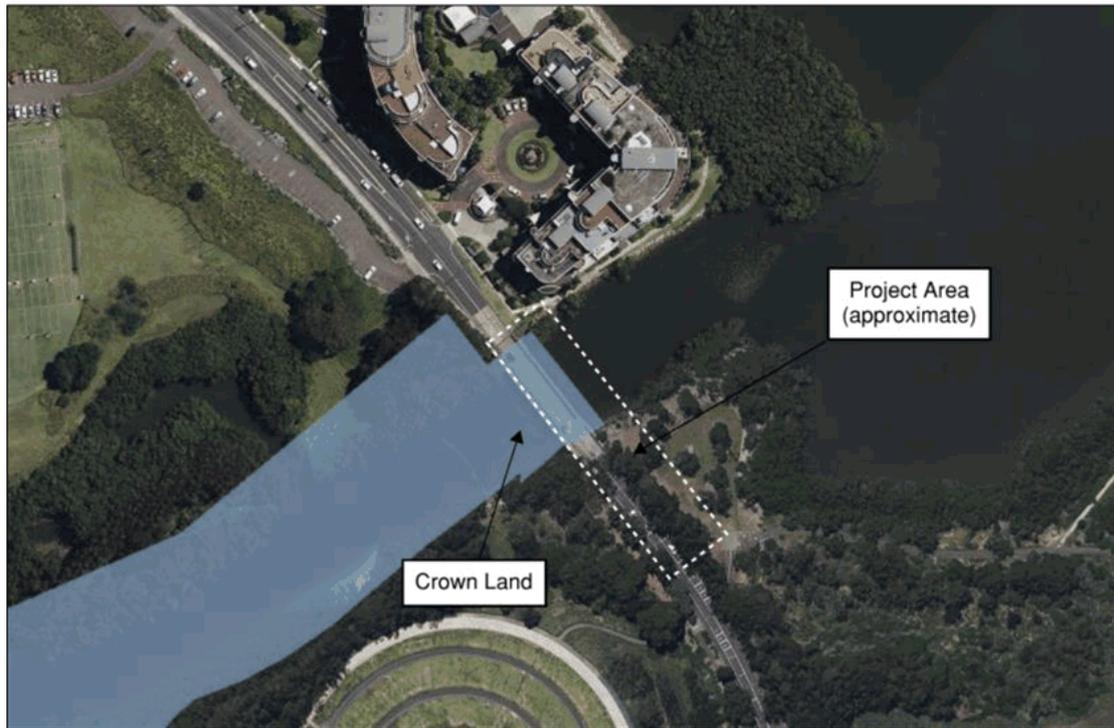


Figure 7-7: Crown Land (Source: NSW Planning Portal Spatial Viewer)

7.10.2 Aboriginal Land Claim

The SEARs require an assessment of the proposed development in terms of impacts on and from any Aboriginal Land Claim. The term 'Aboriginal Land Claim' is not further defined in the SEARs. The *Aboriginal Land Rights Act 1983* provides land rights for Aboriginal people in New South Wales, establishes representative Aboriginal Land Councils, vests land in these Councils, and sets up mechanisms for land acquisition, management, and investment. Based on a review of the National Native Title Tribunal State/Territory map for NSW/ACT dated 30 September 2023, the proposed development site is not subject to any native title claims under the Act.

7.10.3 Recreational and Tourism Activities

The proposed development is expected to have a long term beneficial impact in terms of recreational and tourism activities. In particular:

- The need for cyclists to dismount when crossing Haslams Creek will be eliminated.
- The removal of one road crossing for pedestrians and cyclists north of Haslams Creek, and provision of an enhanced raised pedestrian crossing south of Haslams Creek, will improve road safety for pedestrians and cyclists.
- Active transport connectivity between Wentworth Point and Sydney Olympic Park, including Parklands Circuit and the Wentworth Common will be enhanced.

Construction activities may have a temporary adverse impact on recreational and tourism activities due to the associated noise and traffic disruption, however these will resolve on completion of the proposed development. These impacts are not expected to be significant.

7.10.4 Other Land & Water Uses

There are other land and water uses in close proximity (<500m) to the development. Proximate land and water uses are summarised in Table 7-8.

Table 7-8: Proximate (<500m) land uses

Land Use Type	Existing Land Use	Approx. Distance (m)	Direction
Residential	Mariners Cove Residential Development (27-29 Bennelong Parkway)	10	N
Residential / Commercial	One The Waterfront (NB: staged mixed-use development including apartments at 23-25 Bennelong Parkway, Club One facilities centre and retail shopping)	100	N
Recreational	Wentworth Common (including features / uses such as Wentworth Common Park Run and the Bay Marker Lookout)	100	SW
Recreational	Bicentennial Park (including features / uses such as Badu Mangroves, Hornswaggle Observation Tower, Shipwreck Lookout / HMAS Karangi, bird watching and Parklands Circuit walking/cycling track)	100	SE
Recreational	Sydney Olympic Archery Centre	175	NW
Recreational	Wentworth Point Promenade	250	NW
Recreational	Homebush Bay	200	E

Construction of the proposed development may have adverse amenity impacts on the residential, commercial, and recreational land uses outlined in Table 7-8. These impacts and proposed management measures are addressed in section 7.1.1 (air quality), 7.5.2 (landscape character and visual impacts), 7.7 (traffic and transport impacts) and 7.11 (noise and vibration impacts). All construction impacts are expected to be temporary in nature and will resolve upon completion of the works.

From an operational perspective, the proposed development is expected to have an overall beneficial impact on the residential, commercial, and recreational land uses outlined through improvements in traffic safety and enhancement of the active transport network for pedestrians and cyclists. While the bridge will have minor visual amenity impacts when viewed from the private walkway and adjacent apartments as 29 Bennelong Parkway (Mariners Cove), these impacts are not expected to be significant.

7.10.5 Land Acquisition

The SEARs require that the EIS details any land acquisition required for the proposed development. As outlined in section 2.3, the proposed development is proposed to be located within land owned by entities other than the CoPC.

To facilitate the northern tie-in, land acquisition will be required within privately owned property at 27-29 Bennelong Parkway (Lot 1 DP 270161), north of Haslams Creek, that is currently put to use as a private walkway. As at the time of writing CoPC had commenced engagement with residents with a view to obtaining an easement or acquiring the land outright, however no formal agreement had been reached.

For works proposed within land administered by the Sydney Olympic Park Authority (Lot 1 DP868282 and Lot 71 DP1191648) formal approval of the Sydney Olympic Park Authority will be required prior to construction. For completeness it is recorded that the subject land is not within the legal boundary of the Sydney Olympic Parklands and therefore no Parklands Approval Permit will be required.

For works within Haslams Creek, CoPC will need to enter into a tenure agreement with TfNSW prior to construction for the occupation of maritime land.

7.10.6 Works on Waterfront Land

The SEARs required that this EIS include identification and impact assessment of works located on waterfront land including consideration of the *Guidelines for Controlled Activities on Waterfront Land (2018)*.

Waterfront land includes the bed of any river and the land within 40m of the highest bank of the river.¹⁸

Proposed works within waterfront land associated with the proposed development include:

- The removal of trees and vegetation;
- Construction of the pedestrian and cycle bridge structure, including piling.
- Development of new shared path tie-ins, including grading and construction of new pavement surfaces.
- Installation of new riprap adjacent to the bridge abutments.

Impacts of these activities are addressed throughout section 7 of this EIS.

The *Guidelines for Controlled Activities on Waterfront Land (2018)* apply to controlled activities under the WM Act. As outlined in section 5.10, the proposed development is not a controlled activity under the WM Act as the proponent is CoPC. The *Guidelines for Controlled Activities on Waterfront Land (2018)* therefore do not apply to the proposed development.

7.10.7 Management Measures

The following measures are proposed to manage impacts on and from surrounding land and water uses associated with the proposed development:

- Prior to construction, a CEMP must be prepared. The CEMP must be implemented throughout the duration of construction.
- The CEMP must outline measures to minimise the impacts of construction on recreational and tourism activities in the vicinity of the proposed development.
- No works (including any construction activities) are to be undertaken within Crown Land without prior landowner consent under the *Crown Land Management Act 2016*.
- Construction within Lot 1 DP70171 must not commence unless or until the land and/or an easement has been acquired by CoPC over areas required for construction and operation of the proposed development.
- Construction within Lot 1 DP868282 and Lot 71 DP1191648 must not commence unless or until a written agreement between CoPC and the Sydney Olympic Park Authority has been entered into for use of the land for construction and operation of the proposed development.
- Construction within Haslams Creek must not commence unless or until a written tenure agreement between CoPC and TfNSW has been entered into for the occupation of maritime land.

7.11 Noise and Vibration Impacts

7.11.1 Impact Assessment

The proposed development site is located within an area of mixed residential and recreational parkland uses, with the existing environment generally consisting of a low-moderate noise level during the day and night. Sensitive noise and vibration receivers are expected to be limited to residents of the Mariners Cove

¹⁸ *Water Management Act 2000*, Dictionary.

apartments, located at 27-29 Bennelong Parkway, together with recreational users of the surrounding parklands.

Temporary noise and vibration impacts are anticipated during construction of the proposed development. These impacts include the noise of construction vehicles and machinery, including piling, excavation, and construction of the road pavement.

The DECC (2009) *Interim Construction Noise Guideline* presents noise management levels (NMLs) for noise at sensitive receivers and how they should be applied (Table 7-9).

Table 7-9: Noise Management Levels

Time of Day / Activity	Construction NML – $L_{Aeq, 15min}^*$	How to Apply
Noise at Residences		
Monday to Friday: 7am to 6pm Saturday: 8am to 1pm Sundays / Public Holidays: No work	Noise Affected Level: Rating Background Level (RBL) + 10 dB(A)	The Noise Affected Level represents the point above which there may be some community reaction to noise. Where the predicted or measured $L_{Aeq, 15 min}$ is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. The proponent should also inform all potentially affected residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly Noise Affected Level: 75 dB(A)	The Highly Noise Affected Level represents the point above which there may be strong community reaction to noise. Where noise is above this level, the relevant authority may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: <ul style="list-style-type: none"> • Times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences. • If the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
Outside Recommended Standard Hours	Noise Affected RBL + 5 dB(A)	A strong justification would typically be required for works outside the recommended standard hours. The proponent should apply all feasible and reasonable work practices to meet the noise affected level. Where all feasible and reasonable practices have been applied and noise is more than 5 dB(A) above the noise affected level, the proponent should negotiate with the community.
Noise at Active Recreation Areas		
Active Recreation Areas	External noise level: 65 dB(A)	N/A

* Noise levels apply at the property boundary that is most exposed to construction noise, and at a height of 1.5 m above ground level. If the property boundary is more than 30 m from the residence, the location for measuring or predicting noise levels is at the most noise-affected point within 30 m of the residence. Noise levels may be higher at upper floors of the noise affected residence.

Noise levels associated with construction may exceed the relevant noise management levels in the absence of mitigation. Management measures, outlined in 7.11.2, are therefore proposed to mitigate the impacts of construction noise and reduce noise impacts.

From an operational perspective, the proposed development will accommodate the use of non-motorised forms of active transport which are not expected to appreciably increase noise and vibration levels above background levels.

7.11.2 Management Measures

The following measures are proposed to manage impacts of construction noise and vibration associated with the proposed development:

- Where practicable, construction works must be confined to the following hours:
 - Monday to Friday: 7am to 6pm
 - Saturday: 8am to 1pm
 - Sundays / Public Holidays: No work
- Prior to construction, a Construction Noise and Vibration Management Plan (CNVMP) must be prepared. The CNVMP must be implemented throughout the duration of construction. At a minimum, the CNVMP must include:
 - A map of sensitive receiver locations, including residential properties.
 - An assessment of construction activities likely to impact sensitive receivers, together with recommended safeguards and management measures.
 - A process for assessing the performance of the implemented safeguards and management measures and responding to the results of that assessment.
 - A requirement for vehicles, plant and equipment to be kept in efficient working order and not left running / idling when not in use.
 - A requirement for sensitive receivers to be notified of the proposed works prior to the commencement of construction. This notification must include 24-hour contact details to report noise issues as a result of the works.
 - A procedure for out of hours works.

7.12 Soil and Water Impacts

7.12.1 Soil and Water Impact Assessment

The proposed development is located within Haslams Creek and its banks. Haslams Creek is a highly modified second order watercourse which drains into the Parramatta River at Homebush Bay. The upper extents of the creek are concrete lined open channels and pipes, becoming a naturalised channel with rock stabilised banks downstream of Hill Road through to the proposed development site. The creek is mapped as Key Fish Habitat and is classified as Type 1 (Key Fish Habitat). It is also classified as Class 1 (major key fish habitat) as it is a permanently flowing river. However, as outlined in the Biodiversity Development Assessment Report (BDAR) (Appendix B) no threatened species listed under the FM Act have potential habitat within Haslams Creek.

Works below the mean high-water mark of Haslams Creek will be confined to the replacement of riprap on the banks. The bridge structure itself will be supported to two piles, one either side of main channel. As outlined in the BDAR (Appendix B) these works are unlikely to significant change or alter any hydrological process that would significantly impact threatened biota.

Works within close proximity to Haslams Creek will include vegetation/tree removal, bulk earthworks and pavement construction. These activities have the potential to result in stormwater / sediment discharges into

Haslams Creek. Management measures, outlined in section 7.12.4, are proposed to mitigate the potential for surface water impacts. For completeness, it is recorded that no new permanent drainage works are proposed.

7.12.2 Acid Sulfate Soils

In relation to soil and water impacts, the SEARs require an assessment in accordance with the relevant guidelines in the Acid Sulfate Soils Manual (Stone et al. 1998) and the Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004) for the presence and extent of acid sulfate soils (ASS) and potential acid sulfate soils (PASS) on the site. This has been undertaken as part of the Detailed Site Investigation (Appendix D) with results outlined in 7.4.3 above.

7.12.3 ANZECC (2000) Guidelines for Fresh and Marine Water Quality

Finally, the SEARs require an assessment of potential impacts on the quality of surface water resources with reference to the ANZECC (2000) *Guidelines for Fresh and Marine Water Quality* and/or local water quality objectives, criteria or targets endorsed by the NSW Government. These water quality guidelines were prepared in 2000 as part of Australia's National Water Quality Management Strategy and have since been replaced by the Water Quality Australia (2018) Australia and New Zealand Guidelines for Fresh and Marine Water Quality. The 2018 Guidelines outline a 10-step Water Quality Management Framework targeted at water quality managers undertaking comprehensive planning practices.

Not all of the framework's steps are relevant to every project. In these circumstances, the 2018 Guidelines provide that an analysis in terms of an individual step or steps is appropriate. This EIS has been informed by a number of steps in the Water Quality Management Framework. Specifically:

- Section 2 and section 7.12 have sought to identify relevant waterway features and examine how the proposed development may impact waterways.
- The consultation undertaken for the project and outlined in section 8 has sought to understand community values and expectations. Further engagement and comment will occur through the EIS assessment process.
- Relevant indicators including pressures / stressors identified for the waterway and anticipated ecosystem receptors have been addressed in section 7.2 and through development of the BDAR.
- Management strategies have been proposed for implementation to ensure water quality objectives are achieved.

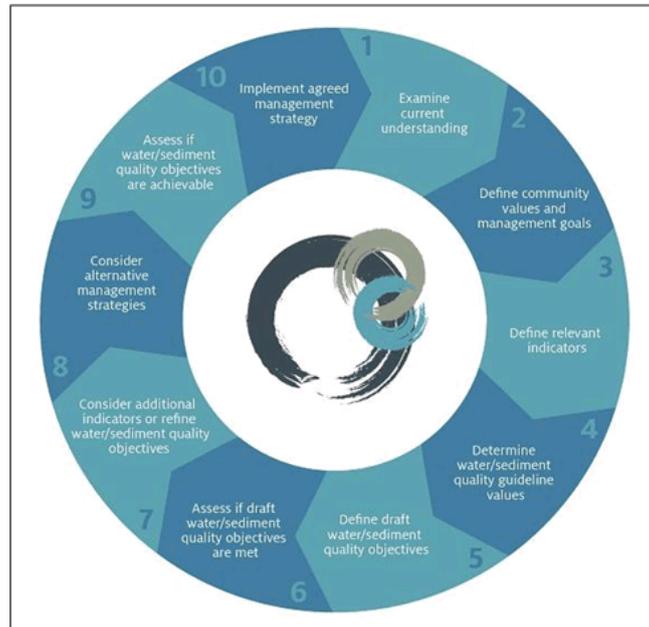


Figure 7-8: Water Quality Management Framework (Source: Water Quality Australia, 2018)

7.12.4 Management Measures

The following measures are proposed to manage impacts on soils and water associated with the proposed development:

- Prior to construction, a CEMP must be prepared. The CEMP must be implemented throughout the duration of construction.
- An Erosion and Sediment Control Plan (ESCP) must be prepared as part of the CEMP in accordance with the requirements of the Landcom / Department of Housing *Managing Urban Stormwater, Soils and Construction Guidelines* (the Blue Book). The ESCP must be endorsed by an appropriately qualified erosion and sediment control specialist and, at a minimum, include requirements that:
 - Erosion and sediment control measures are to be implemented and maintained to:
 - Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets.
 - Reduce water velocity and capture sediment on site.
 - Minimise the amount of material transported from site to surrounding pavement surfaces.
 - Erosion and sediment controls are to be checked and maintained on a regular basis (including the clearing of sediment from behind barriers) and records kept and provided upon request.
 - Erosion and sediment control measures are not to be removed until construction is complete, and areas stabilised.
- All in-stream works must be undertaken in a way that reduces potential for increased turbidity.
- Vehicles and machinery must be kept away from the banks of Haslams Creek where possible.
- If boats or other watercraft are required to facilitate construction, these are to be used in a manner so as to avoid boat wash that could cause erosion of the banks.
- Fuels and chemicals must be stored in a bunded or contained area and a spill kit must be located on site throughout construction.
- The storage of large quantities of fuels on or around the construction site or laydown areas will be avoided. Vehicles and equipment must be refuelled of site.

- An Emergency Spill Response Plan must be prepared as part of the CEMP. The Emergency Spill Response Plan must include, as a minimum:
 - Measures to avoid spills;
 - Clean-up procedures;
 - Recording and notification procedures; and
 - Requirements for the storage of hazardous materials.
- If natural soils are encountered during construction, these must be treated as Potential Acid Sulfate Soils (PASS) until analysed and classified in accordance with the NSW EPA (1998) *Acid Sulfate Soils Management Guidelines*.

7.13 Waste Management Impacts

7.13.1 Impact Assessment

Waste streams anticipated during the construction phase of the project include general waste (litter) from site compounds / offices, packaging from construction materials, excess fill material from the excavation of soil, oil/grease and other liquid wastes from the maintenance of construction plant and equipment, bitumen/concrete/asphalt from profiling of the new path and green waste from cleared vegetation. If inappropriately handled or disposed of, these wastes have the potential to result in significant environmental impacts.

Mitigation measures are proposed in section 7.13.2 to ensure significant environmental impacts are avoided and that wastes are appropriately handled and disposed of in accordance with the NSW EPA (2014) *Waste Avoidance and Resource Recovery Strategy 2014-2021*. These measures align with the aims, objectives and guidelines in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021* in that they seek to:

- Divert waste going to landfills by recovering reusable and recyclable waste.
- Promote the responsible management and disposal of waste and contribute to improving waste infrastructure by supporting waste management businesses.
- Reduce litter.
- Reduce carbon emissions and increase carbon efficiency.

Given the nature of the proposed development, no operational waste streams are anticipated.

7.13.2 Mitigation Measures

The following measures are proposed to manage waste impacts associated with the proposed development:

- Prior to construction, a CEMP must be prepared. The CEMP must be implemented throughout the duration of construction.
- The CEMP must include a Spoil Management Plan. At a minimum, the Spoil Management Plan must:
 - Characterise spoil for its suitability for reuse (onsite or offsite) or for offsite disposal to landfill if reuse cannot be implemented.
 - Detail the further sampling, including Toxicity Characteristic Leaching Procedure (TCLP) testing, required to refine the preliminary waste classification prior to construction.
 - Detail procedures for managing any asbestos finds (NB: likely to be bonded asbestos in soils).
 - Include an unexpected finds protocol for managing other types of asbestos or contamination if encountered during construction.
- The CEMP must detail procedures for the classification and disposal of construction waste in accordance with the NSW EPA (2014) *Waste Classification Guidelines*.

- Wastes must be separated on site into general wastes, recyclable/reusable materials and green waste. Wherever practicable, recyclable/reusable materials and green waste must be diverted from landfill.
- General waste, recycling, and food/green waste receptacles must be provided in all site offices and lunchrooms.
- Where practicable, construction materials shall be sourced from the Greater Sydney Region to reduce carbon emissions and fuel usage.
- A designated area or area(s) within the construction footprint must be set aside for the storage of waste. This area or area(s) must be located as far as practicable from Haslams Creek.
- Waste storage areas must be regularly maintained, with daily site checks undertaken to locate and dispose of any windblown litter.
- All wastes transported off site must be transported in a manner that avoids the waste spilling, leaking or otherwise escaping.
- All wastes must be disposed of at a waste facility licensed under the *Protection of the Environment Operations Act 1997* to receive wastes of that type.

7.14 Cumulative Impacts

7.14.1 Impact Assessment

Cumulative impacts are changes to the environment caused by the combined impact of past, present, and future activities. They are the result of multiple activities whose individual direct impacts may be minor but in combination with other activities are significant.

In terms of cumulative impacts of the proposal in the context of cumulative impact of other proposals in the vicinity, on 22 May 2023 CoPC provided a list of recent development applications it was aware of within 1km of the development site. A copy of that list is included in Appendix H. The proposals included changes of use, development of residential buildings, subdivisions, modifications to existing buildings/developments, new signage and building rectification works. The nearest proposal recorded was approximately 350m to the north-west of the proposed development, at 4 The Piazza, Wentworth Point NSW 2127. No proposals were of a similar nature to the proposed development. Based on a review of the location and description of the proposals identified by CoPC, the likelihood of significant cumulative impacts in association with the now proposed development is low.

A search of the NSW Major Projects website for projects within the CoPC LGA, or responding to the search terms 'Bennelong' and 'Wentworth Point' was also undertaken to identify projects in Sydney Olympic Park and Wentworth Point with the potential for cumulative impacts in association with the proposed development. A copy of the list of projects identified as part of that search is also included in Appendix H. The proposals included sporting facilities, development of residential buildings, modifications to existing buildings/developments, mixed-use development, commercial development and bridge development. The nearest proposal recorded was for the now constructed apartment development at 19-25 Bennelong Parkway, approximately 100m north of the proposed development site. The impacts of the proposed development in the context of this existing land use were assessed in section 7.10.4 above. The search also identified a proximate development of a similar nature, the Homebush Bay Bridge (approved in 2013 and now referred to as the Bennelong Bridge), located approximately 900m northeast of the proposed development. The proposed development is not expected to have a significant cumulative impact in association with this development due to the geographic separation and absence of significant cumulative

biodiversity impacts.¹⁹ No other significant cumulative impacts are anticipated in association with other proposals identified from the Major Projects website.

Beca is not aware of any other proposals in the vicinity with the potential for significant cumulative effects.

7.14.2 Limitations

The assessment of cumulative effects above is based on available data as to the activities in the area and the effects of those activities on the environment. Not all activities are subject to public approvals processes for which data is available. The above assessment of cumulative impacts is limited to an assessment of available data and therefore actual cumulative impacts may be greater than assessed.

¹⁹ NB: construction of the Homebush Bay Bridge did not require removal of riparian vegetation. Habitat for the Curlew Sandpiper was identified, however no impacts were anticipated (refer Biosis (2011) *Homebush Bay Bridge: Terrestrial and Aquatic Flora and Fauna Assessment*: https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP10_0192%2120190807T061048.877%20GMT)

7.15 Environmental Management and Mitigation Measures

Based on the foregoing analysis in sections 7.1 to 7.14, the following measures are proposed to manage, mitigate or offset potential environmental impacts.

Table 7-10: Environmental management and mitigation measures

No.	Impact	Environmental Safeguards	Responsibility	Timing
1	Construction	Prior to construction, a Construction Environmental Management Plan (CEMP) must be prepared. The CEMP must be implemented throughout the duration of construction.	CoPC or nominated Construction Contractor	Pre-construction Construction
2	Construction and Operation	The proposed development must be undertaken in general accordance with the following plans: <ul style="list-style-type: none"> Beca (2023) <i>Bennelong Parkway Bridge Detailed Design Plans</i>. Drawing Nos. 3497658-CA-0001 to 3497658-CA-0004 (Rev A). Beca (2023) <i>Bennelong Parkway Bridge Detailed Design Plans</i>. Drawing Nos. 3497658-SE-0001 to 3497658-SE-3050 (Rev D). Sturt Noble Associates (2023) <i>Bennelong Parkway Cycle Bridge Landscape Plans</i> Drawing Nos. SK-2306-01 to SK-2306-04 (Rev A). 	CoPC	Construction Operation
3	Air Quality Biodiversity	The CEMP must contain detail of dust suppression measures to be adopted during construction. At a minimum, those measures must include: <ul style="list-style-type: none"> A procedure for the application of water to exposed surfaces to minimise windblown dust. A requirement for stockpiles to be covered when not in use. A consideration of opportunities to stage earthworks to minimise the extent of exposed / stripped soils. 	CoPC or nominated Construction Contractor	Pre-construction Construction
4	Air Quality	All vehicles, plant and equipment are to be kept in efficient working order and not left running / idling when not in use.	CoPC or nominated Construction Contractor	Construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
5	Air Quality	Works with the potential to generate odour or dust (including the spraying of paint and other materials) are not to be carried out during strong winds or in weather conditions where high levels of dust or airborne particulates are likely.	CoPC or nominated Construction Contractor	Construction
6	Biodiversity	The CEMP must detail hygiene controls for all vehicles, equipment and people working in the construction site, including a requirement for machinery to be washed in accordance with best practice hygiene protocols prior to being brought to site to prevent the spread of weeds, seeds, pathogens, and fungi.	CoPC or nominated Construction Contractor	Pre-construction Construction
7	Biodiversity	Prior to construction, the offsets outlined in the BDAR must be secured.	CoPC	Pre-construction
8	Biodiversity Soils and Water	An Erosion and Sediment Control Plan must be prepared as part of the CEMP in accordance with the requirements of the Landcom / Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book). The ESCP must be endorsed by an appropriately qualified erosion and sediment control specialist and, at a minimum, include requirements that: <ul style="list-style-type: none"> Erosion and sediment control measures are to be implemented and maintained to: <ul style="list-style-type: none"> Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets. Reduce water velocity and capture sediment on site. Minimise the amount of material transported from site to surrounding pavement surfaces. Erosion and sediment controls are to be checked and maintained on a regular basis (including the clearing of sediment from behind barriers) and records kept and provided upon request. 	CoPC or nominated Construction Contractor	Pre-Construction Construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> Erosion and sediment control measures are not to be removed until construction is complete, and areas stabilised. 		
9	Biodiversity	Prior to undertaking works on the site, all employees, contractors and subcontractors are to receive an environmental site induction. The environmental site induction will detail all relevant mitigation measures including the location of sensitive environmental features, the limit of clearing and environmental incident procedures.	CoPC or nominated Construction Contractor	Pre-construction Construction
10	Biodiversity	The construction site must be fully fenced to prevent unauthorised entry. All construction works must be undertaken within the fenced area.	CoPC or nominated Construction Contractor	Construction
11	Biodiversity	'No-go' fencing must be placed around retained Grey Mangrove-River Mangrove Forest in close proximity (<50m) to the construction site to avoid unintended disturbance during construction.	CoPC or nominated Construction Contractor	Construction
12	Biodiversity	All weed material removed from the site must be disposed of in a suitable waste facility and must not be mulched on site. This is to avoid the reintroduction and spread of weeds in the area.	CoPC or nominated Construction Contractor	Construction
13	Biodiversity Soils and Water	All instream works must be undertaken in a way that reduces potential for increased turbidity.	CoPC or nominated Construction Contractor	Construction
14	Biodiversity Soils and Water	Vehicles and machinery must be kept away from the banks of Haslams Creek where possible.	CoPC or nominated Construction Contractor	Construction
15	Biodiversity Soils and Water	If boats or other watercraft are required to facilitate construction, these are to be used in a manner so as to avoid boat wash that could cause erosion of the banks.	CoPC or nominated Construction Contractor	Construction
16	Biodiversity Soils and Water	Fuels and chemicals must be stored in a bunded or contained area and a spill kit must be located on site throughout construction.	CoPC or nominated Construction Contractor	Construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
17	Biodiversity Soils and Water	The storage of large quantities of fuels on or around the construction site or laydown areas will be avoided. Vehicles and equipment must be refuelled off site.	CoPC or nominated Construction Contractor	Construction
18	Biodiversity Soils and Water	An Emergency Spill Response Plan must be prepared as part of the CEMP and implemented for the duration of construction. The Emergency Spill Response Plan must include, as a minimum: <ul style="list-style-type: none"> • Measures to avoid spills; • Clean-up procedures; • Recording and notification procedures; and • Requirements for the storage of hazardous materials. 	CoPC or nominated Construction Contractor	Pre-construction Construction
19	Biodiversity	Prior to construction, CoPC will obtain a permit under the FM Act.	CoPC	Pre-construction
20	Biodiversity	Prior to construction, an unexpected threatened species finds procedure must be developed. At a minimum, the unexpected threatened species finds procedure must include requirements for site inductions and toolbox talks to detail potential threatened species that may be encountered and actions to be undertaken when unexpected threatened species are encountered.	CoPC or nominated Construction Contractor	Pre-construction Construction
21	Biodiversity	Post-construction signage is to be installed: <ul style="list-style-type: none"> • Designating areas where dogs are not permitted or should be kept on-leash to reduce interactions with companion animals and migratory shore birds. • To educate the public on shorebird species utilising the site and appropriate ways to minimise disturbance to them. 	CoPC	Construction Post-construction
22	Biodiversity	Prior to construction, the landscaping plan must be updated to incorporate native species adjacent to the access track that create a disincentive for people to stray into adjacent habitat.	CoPC	Pre-construction



No.	Impact	Environmental Safeguards	Responsibility	Timing
23	Biodiversity Design, Place and Movement	Prior to construction, the lighting plan must be updated to minimise light spill into adjacent habitat areas. This might include: <ul style="list-style-type: none"> Removing the proposed feature lighting. Utilising lights with reduced or filtered blue, violet and ultra-violet wavelengths (i.e. low 400-500nm content). Utilising bollards rather than light poles. Ensuring lights are close to the ground, directed and shielded to avoid light spill. 	CoPC	Pre-construction
24	Biodiversity Design, Place and Movement	Feature lighting must be switched off between the hours of 11pm to 5am.	CoPC	Operation
25	Biodiversity Land Contamination Soils and Water	If natural soils are encountered during construction, these must be treated as Potential Acid Sulfate Soils (PASS) until analysed and classified in accordance with the NSW EPA (1998) <i>Acid Sulfate Soils Management Guidelines</i> .	CoPC or nominated Construction Contractor	Construction
26	Arboricultural	Prior to construction, a Tree Protection Plan (TPP) must be prepared by a consulting (AQF Level 5) arborist. The TPP must include: <ul style="list-style-type: none"> A detailed plan of the locations of, and specifications for, tree protection measures. Appointment of a Project Arborist A monitoring schedule detailing critical points during the works (hold points) where the project arborist is required to visit the site and confirm that works are being undertaken in accordance with the TPP. A requirement for the TPP to be implemented throughout the duration of construction. A requirement for drip irrigation around the root zone if required by the project arborist. 	CoP or nominated construction contractor	Pre-construction Construction
27	Arboricultural	Prior to construction, all trees identified for retention in the Arboricultural Report must be fenced to protect them	CoPC or nominated construction contractor	Pre-construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
		<p>from damage during construction. The tree protection fences must:</p> <ul style="list-style-type: none"> • Encompass the full extent of the Tree Protection Zones outlined in the Arboricultural Report. Where Tree Protection Zones merge together a single fence encompassing the area is deemed to be adequate. • Consist of temporary chain wire panels 1.8m in height, supported by steel stakes as required and fastened together / supported to prevent sideways movement. • Include appropriate signage to prevent the unauthorised movement of plant or equipment or entry into the tree protection zone. 		
28	Arboricultural	<p>Where provision of tree protection fencing is in impractical due to its proximity to the proposed building envelope, trunk protection shall be erected around the tree to avoid accidental damage. As a minimum, the trunk protection shall consist of two metre (2m) lengths of hardwood timbers (100 x 50mm) spaced at 100-150mm centres secured together with 2mm galvanised wire. These shall be strapped around the trunk (not fixed in any way) to avoid mechanical injury or damage. Trunk protection should be installed prior to any site works and maintained in good condition for the duration of the construction period.</p>	CoP or nominated construction contractor	Pre-construction Construction
29	Arboricultural	<p>Within the fenced Tree Protection Zones, the following activities are to be prohibited for the duration of construction, except for areas where encroachment within the Tree Protection Zones is shown on the Impact Plan within the Arboricultural Report:</p> <ul style="list-style-type: none"> • Excavations and trenching; • Ripping or cultivation of soil; • Mechanical removal of vegetation; • Soil disturbance; 	CoPC or nominated construction contractor	Construction



No.	Impact	Environmental Safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> • Soil level changes including the placement of fill material; • Movement and storage of plant, equipment & vehicles; • Erection of site sheds; • Affixing of signage or hoardings to trees; • Storage of building materials, waste and waste receptacles; • Disposal of waste materials and chemicals including paint, solvents, cement, slurry, fuel, oil and other toxic liquids; • Other physical damage to the trunk or root system; and • Any other activity likely to cause damage to the tree. 		
30	Arboricultural	Prior to construction, a 50-75mm layer of coarse organic mulch must be placed over the entire surface of each Tree Protection Zone. Where a Tree Protection Zone is adjacent to construction activities, geotextile fabric must be placed beneath the mulch to facilitate the easy removal of mulch and any accidental spillage of construction materials at the completion of construction.	CoPC or nominated construction contractor	Pre-construction
31	Arboricultural	Pavements are to be avoided within the Tree Protection Zone of trees to be retained where possible. Proposed paved areas within the Tree Protection Zone of trees to be retained should be placed above grade to minimise excavations within the root zone and avoid root severance and damage.	CoPC or nominated construction contractor	Construction
32	Arboricultural	Placement of fill material within the Tree Protection Zone of trees to be retained is to be avoided where possible. Where placement of fill cannot be avoided, the material is to be a coarse, gap-graded material such as 20 – 50mm crushed basalt (Blue Metal) or equivalent to provide some aeration to the root zone. Note that Road	CoPC or nominated construction contractor	Construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
		base or crushed sandstone or other material containing a high percentage of fines is unacceptable for this purpose. The fill material should be consolidated with a nonvibrating roller to minimise compaction of the underlying soil. A permeable geotextile may be used beneath the sub-base to prevent migration of the stone into the sub-grade. No fill material is to be placed in direct contact with the trunk.		
33	Arboricultural	Where possible, excavators must work within the footprint of existing pavements to avoid compaction of adjacent soil and Tree Protection Zones.	CoPC or nominated construction contractor	Construction
34	Arboricultural	<p>Underground services must be located as far away as practicable from trees to be retained and avoid excavation of the Tree Protection Zones, except for areas where encroachment within the Tree Protection Zones is shown on the Impact Plan within the Arboricultural Report. Where underground services must encroach:</p> <ul style="list-style-type: none"> • If the incursion to the root zone is less than 10% of the total Tree Protection Zone, a chain trenching device may be used. A backhoe or skid steer loader (bobcat) is unacceptable due to the potential for excessive compaction and root damage. Where large woody roots (greater than 50mm in diameter) are encountered during excavation or trenching, these must be retained intact wherever possible (e.g. by sub-surface boring beneath roots or rerouting the service etc). • Excavations required for underground services within the Structural Root Zone of any tree to be retained should only be undertaken by sub-surface boring. The Invert Level of the pipe, plus the pipe diameter, must be lower than the estimated root zone depth as specified at a minimum depth of 	CoPC or nominated construction contractor	Construction



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No.	Impact	Environmental Safeguards	Responsibility	Timing
		600mm. This will depend on the soil conditions at the site. Where this is not practical and root pruning is the only alternative, proposed root pruning should be assessed by the Project Arborist to determine continued health and stability of the subject tree.		
35	Arboricultural	Care must be taken when operating backhoes, excavators and similar equipment near trees to avoid damage to tree canopies (foliage and branches). Under no circumstances are branches be torn-off by construction equipment. Where there is potential conflict between tree canopy and construction activities, the advice of the Project Arborist must be sought.	CoPC or nominated construction contractor	Construction
36	Arboricultural	All pruning works shall be directed by the Project Arborist and shall be carried out by an AQF Level 3 Arborist. All pruning works shall be in accordance with the Australian Standard (AS) 4373:2007 <i>Pruning of amenity trees</i> .	CoPC or nominated construction contractor	Construction
37	Arboricultural	Where root pruning is required, roots must be severed with sterile, clean, sharp pruning implements resulting in a clean cut. Any excavated root zones must be retained in a moist condition during the construction phase using Hessian material or mulch where practical. Trees that have roots removed must have drip irrigation installed around the root zone to ensure they receive an adequate supply of water.	CoPC or nominated construction contractor	Construction
38	Arboricultural	Tree removals must be limited to the trees identified as Trees 9, 11, 15, 25, 26, 28, 29, 30 and 35 in the Sturt Noble Arboriculture (2023) Arboricultural Impact Assessment Report – Bennelong Parkway Cycle path Project, Rev B.	CoPC or nominated construction contractor	Construction
39	Arboricultural	If trees show signs of stress or deterioration, remedial action must be taken to improve the health and vigour of the subject tree(s) in accordance with best practice	CoPC or nominated construction contractor	Construction



No.	Impact	Environmental Safeguards	Responsibility	Timing
		Arboricultural principles. In these circumstances, advice must be sought from the Project Arborist.		
40	Arboricultural	In the event of any tree becoming damaged for any reason during the construction period the Project Arborist must be engaged to inspect and provide advice on any remedial action to minimise any adverse impact. Such remedial action must be implemented as soon as practicable and certified by the arborist.	CoPC or nominated construction contractor	Construction
41	Land Contamination Waste	The CEMP must include a Spoil Management Plan. At a minimum, the Spoil Management Plan must: <ul style="list-style-type: none"> • Characterise spoil for its suitability for reuse (onsite or offsite) or for offsite disposal to landfill if reuse cannot be implemented. • Detail the further sampling, including Toxicity Characteristic Leaching Procedure (TCLP) testing, required to refine the preliminary waste classification prior to construction. • Detail procedures for managing any asbestos finds (NB: likely to be bonded asbestos in soils). • Include an unexpected finds protocol for managing other types of asbestos or contamination if encountered during construction. 	CoPC or nominated construction contractor	Pre-construction Construction
42	Design, Place and Movement Impacts	The CEMP must outline measures to minimise the visual impact of construction activities. These measures may include the following: <ul style="list-style-type: none"> • Hoardings, fencing and/or visually impermeable barriers will be placed around worksites to minimise views of stockpiles and construction activities where practicable. • Covered waste bins are to be utilised to minimise instances of windblown litter. 	CoPC or nominated construction contractor	Pre-construction Construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> Lighting during construction is to be managed in such a way as to minimise light spill to surrounding residential land uses. Laydown areas are to be kept clean, tidy and free of debris at all times. 		
43	Design, Place and Movement Impacts	Prior to completion of construction, landscaping and weed removal must be undertaken in general accordance with the Sturt Noble (2023) <i>Bennelong Parkway Cycle Bridge – Landscape Concept Plan</i> (SK-2306-01 to SK2304-04) Rev A.	CoPC or nominated construction contractor	Construction Post-construction
44	Traffic and Transport	<p>Prior to construction, a Traffic Management Plan (TMP) must be prepared to mitigate potential traffic and access impacts. The TMP will be implemented throughout the duration of construction. At a minimum, the TMP will:</p> <ul style="list-style-type: none"> Detail approach and departure routes. Identify expected construction vehicle numbers, type and frequency. Outline any anticipated out of hours or escorted deliveries. Detail measures to maintain access to local roads and properties. Provide for the maintenance of pedestrian and cyclist access where practicable. Outline site specific traffic control measures and devices (e.g. temporary speed restrictions / precautionary signs) required to manage and regulate traffic movement. Consider any other developments that may be under construction concurrently to minimise traffic network disruption. Detail a response plan for any construction traffic incident. 	CoPC or nominated construction contractor	Pre-construction Construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
45	Coastal Hazards and Processes	The bridge soffit level must be no lower than 2.9m AHD in order to provide 500mm freeboard to a year 2100 Sea Level Rise 1% tidal inundation event.	CoPC	Design Construction
46	Heritage	Prior to construction, a First Nations cultural induction must be developed in collaboration with the Metropolitan Local Aboriginal Land Council. The cultural induction must be delivered to all workers on site and include details of the unexpected finds protocol, including the stop works procedure.	CoPC or nominated construction contractor	Pre-construction Construction
47	Heritage	<p>If during construction an Aboriginal site or object is suspected or identified, the following unexpected finds protocol must be enacted:</p> <ul style="list-style-type: none"> All works must cease immediately in the area surrounding the suspected object(s). Any identified Aboriginal object(s) must be left in situ and not disturbed in accordance with the requirements of section 89A of the National Parks and Wildlife Act 1974. Heritage NSW must be notified immediately, and an archaeologist experienced in the identification of Aboriginal cultural material must inspect the objects. If the suspected objects are not Aboriginal in origin or manufacture (as defined under the <i>National Parks and Wildlife Act 1974</i>) they must be recorded and the location noted. Works may then continue. If the objects are confirmed to be of Aboriginal origin, the site should be registered on the Aboriginal Heritage Information Management Systems (AHIMS) administered by Heritage NSW. If an Aboriginal Heritage Impact Permit under section 90 of the <i>National Parks and Wildlife Act 1974</i> is required, the extent of any works exclusion 	CoPC or nominated construction contractor	Construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
		zone must be determined through discussion with Heritage NSW and Aboriginal community representatives.		
48	Heritage	In the unlikely event human remains are discovered during construction, works must immediately cease in the surrounding area. The findings must be reported immediately to the NSW Coroner's Office and/or the NSW Police.	CoPC or nominated construction contractor	Construction
49	Heritage	Prior to undertaking any works involving significant subsurface impacts (such as piling or geotechnical bore holing) CoPC may engage with the Metropolitan Local Aboriginal Land Council with a view to enabling representatives of the Metropolitan Local Aboriginal Land Council to monitor the works.	CoPC	Construction
50	Land and Water Uses	No works (including any construction activities) are to be undertaken within Crown Land without prior landowner consent under the <i>Crown Land Management Act 2016</i> .	CoPC	Construction
51	Land and Water Uses	The CEMP must outline measures to minimise the impacts of construction on recreational and tourism activities in the vicinity of the proposed development.	CoPC or nominated construction contractor	Pre-Construction Construction
52	Land and Water Uses	Construction within Lot 1 DP70171 must not commence unless or until the land and/or an easement has been acquired by CoPC over areas required for construction and operation of the proposed development.	CoPC	Pre-construction
53	Land and Water Uses	Construction within Lot 1 DP868282 and Lot 71 DP1191648 must not commence unless or until a written agreement between CoPC and the Sydney Olympic Park Authority has been entered into for use of the land for construction and operation of the proposed development.	CoPC	Pre-construction
54	Land and Water Uses	Construction within Haslams Creek must not commence unless or until a written tenure agreement between	CoPC	Pre-construction

No.	Impact	Environmental Safeguards	Responsibility	Timing
		CoPC and TfNSW has been entered into for the occupation of maritime land.		
55	Noise and Vibration	Where practicable, construction works must be confined to the following hours: <ul style="list-style-type: none"> Monday to Friday: 7am to 6pm Saturday: 8am to 1pm Sundays / Public Holidays: No work 	CoPC or nominated construction contractor	Construction
56	Noise and Vibration	Prior to construction, a Construction Noise and Vibration Management Plan (CNVMP) must be prepared. The CNVMP must be implemented throughout the duration of construction. At a minimum, the CNVMP must include: <ul style="list-style-type: none"> A map of sensitive receiver locations, including residential properties. An assessment of construction activities likely to impact sensitive receivers, together with recommended safeguards and management measures. A process for assessing the performance of the implemented safeguards and management measures and responding to the results of that assessment. A requirement for vehicles, plant and equipment to be kept in efficient working order and not left running / idling when not in use. A requirement for sensitive receivers to be notified of the proposed works prior to the commencement of construction. This notification must include 24-hour contact details to report noise issues as a result of the works. A procedure for out of hours works. 	CoPC or nominated construction contractor	Pre-construction Construction
57	Waste	The CEMP must detail procedures for the classification and disposal of construction waste in accordance with the NSW EPA (2014) <i>Waste Classification Guidelines</i> .	CoPC or nominated construction contractor	Pre-construction Construction



| Environmental Assessment |

No.	Impact	Environmental Safeguards	Responsibility	Timing
58	Waste	Wastes must be separated on site into general wastes, recyclable/reusable materials and green waste. Wherever practicable, recyclable/reusable materials and green waste must be diverted from landfill.	CoPC or nominated construction contractor	Construction
59	Waste	General waste, recycling, and food/green waste receptacles must be provided in all site offices and lunchrooms.	CoPC or nominated construction contractor	Construction
60	Waste	Where practicable, construction materials shall be sourced from the Greater Sydney Region to reduce carbon emissions and fuel usage.	CoPC or nominated construction contractor	Construction
61	Waste	A designated area or area(s) within the construction footprint must be set aside for the storage of waste. This area or area(s) must be located as far as practicable from Haslams Creek.	CoPC or nominated construction contractor	Construction
62	Waste	Waste storage areas must be regularly maintained, with daily site checks undertaken to locate and dispose of any windblown litter.	CoPC or nominated construction contractor	Construction
63	Waste	All wastes transported off site must be transported in a manner that avoids the waste spilling, leaking or otherwise escaping.	CoPC or nominated construction contractor	Construction
64	Waste	All wastes must be disposed of at a waste facility licensed under the <i>Protection of the Environment Operations Act 1997</i> to receive wastes of that type.	CoPC or nominated construction contractor	Construction

8 Consultation

8.1 Consultation Requirements

The SEARS required that CoPC consult with relevant local, State and Commonwealth government authorities, service providers and community groups during preparation of this EIS and address any issues raised in the EIS. In particular, the SEARS required consultation with the following entities:

- Environment Protection Authority
- Department of Primary Industries (Fisheries)
- Department of Planning and Environment (Water)
- TfNSW (Maritime Services)
- Sydney Olympic Park Authority
- Crown Lands
- Special interest groups, including Local Aboriginal Land Councils.
- Utilities and service providers.
- The surrounding landowners and occupiers that are likely to be impacted by the proposal.

8.2 Consultation Undertaken

On 19 July 2019, CoPC advised that consultation had been undertaken with the entities / contacts outlined in Table 8-1.

Table 8-1: Consulted entities and contacts

Entity	Contact
Environment Protection Authority	planning.matters@epa.nsw.gov.au
Department of Primary Industries (Fisheries)	Josi Hollywood
Department of Planning and Environment (Water)	water.enquiries@dpie.nsw.gov.au
Transport for New South Wales (Maritime Services)	maritimeplanning@transport.nsw.gov.au
Crown Lands	metro.crownlands@corwnland.nsw.gov.au
Local Aboriginal Land Council	metrolalc@metrolalc.org.au
Sydney Water	urbangrowth@sydneywater.com.au
Ausgrid	development@ausgrid.com.au

Beca also understands that two consultation meetings were undertaken with the Mariners Cove Community Association, who represent landowners at 27-29 Bennelong Parkway.

No further consultation is understood to have occurred with:

- Sydney Olympic Park Authority
- Special interest groups (other than the Metropolitan Local Aboriginal Land Council).
- Utilities and service providers.
- Surrounding landowners and occupiers that are likely to be impacted by the proposal (other than the Mariners Cove Community Association).

As part of the SEARs process, comments on the proposed development were received from the following entities:²⁰

²⁰ For completeness, it is noted that responses were also received from the Department of Planning and Environment – Greater Sydney Planning Team and Department of Planning and Environment – Crown Lands, however these responses did not include substantive comments.

- Environment Protection Authority
- Department of Primary Industries (Fisheries)
- Sydney Olympic Park Authority
- Transport for NSW (Maritime Greater Sydney – Operations Sydney Harbour and Commercial Property Asset Management)

The key issues raised by these agencies and how they have been addressed in this EIS are outlined in the following subsections.

8.3 Environment Protection Authority

The Environment Protection Authority (EPA) responded to a request for comment by DPE on the CoPC SEARS request. The key issues raised by the EPA and how they have been addressed in this EIS are outlined in Table 8-2.

Table 8-2 EPA Key Issues.

EPA Comment / Key Issue	Issue Addressed in EIS
The information provided indicates that the proposal does not constitute a Scheduled Activity under Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> (POEO Act) and therefore will not require an Environment Protection Licence (EPL) under the POEO Act.	The proposal does not constitute a Scheduled Activity under Schedule 1 of the POEO Act. This issue is addressed further in Section 0 above.
However, Section 6(2)(c) of the POEO Act states: "A local authority is the appropriate regulatory authority (ARA) for non-scheduled activities in its area, except in relation to ... (c) activities carried on by the State or a public authority, whether at premises occupied by the State or a public authority or otherwise ..." The City of Parramatta Council, a public authority, appears to be the applicant, therefore, the EPA would be the ARA during construction.	As CoPC is the applicant, the EPA would be the appropriate regulatory authority during construction.
Based on the information provided, the EPA recommends that the environmental assessment requirements listed in Attachment A be included in the SEARS.	Attachment A requested that further information in relation to construction noise, water quality, waste, contamination and air quality be included in the SEARS. These issues are addressed in detail in Section 7 above.

8.4 Department of Primary Industries (Fisheries)

The Department of Primary Industry (Fisheries) (DPI Fisheries) responded to a request for comment by DPE on the CoPC SEARS request. The key issues raised by DPE Fisheries and how they have been addressed in this EIS are outlined in Table 8-3.

Table 8-3: DPI Fisheries Key Issues

DPI Fisheries Comment / Key Issue	Issue Addressed in EIS
Haslams Creek is mapped as key fish habitat within Sydney and the Department recommends that the project is designed to: <ul style="list-style-type: none"> - minimise impacts on important fish habitats such as mangroves, - maintain fish passage at all stages during and following construction, and 	The proposed development has been designed to avoid and minimise impacts on fish habitats, including through avoidance of unnecessary piles within the waterway, ²¹ and minimisation of works below mean high water mark to replacement of riprap on the banks. Erosion and sediment controls are proposed as part of the CEMP for the development to minimise potential

²¹ The bridge abutments are proposed to be supported by one pile each (two piles per abutment were proposed at the concept stage).

DPI Fisheries Comment / Key Issue	Issue Addressed in EIS
<p>- minimise potential erosion and sedimentation impacts to the waterway during and following construction.</p> <p>DPI Fisheries policy and guidelines require that NSW DPI enforces a 'no net loss' habitat policy, any loss of mangroves or other marine vegetation is to be compensated at a ratio of 10:1 in areas mapped coastal wetland under the Resilience and Hazards SEPP. An offset strategy should be developed as a part of the EIS. It should be noted that Council could work with the Sydney Olympic Park Authority to develop and implement their offset strategy.</p>	<p>erosion and sedimentation impacts to the waterway during and following construction.</p> <p>A total of 0.08ha of native (mangrove and swamp oak) vegetation within the development site is expected to be impacted by the proposal. A BDAR has been prepared and is included as Appendix B. The ecosystem credit types required to offset the impacts on this vegetation are summarised below:</p> <ul style="list-style-type: none"> • PCT 920 – Estuarine mangrove forest: <ul style="list-style-type: none"> • Vegetation integrity loss: 22.7 • Area: 0.01ha • Ecosystem credits required: 1 • PCT 1234 – Estuarine Swamp Oak forest – planted component: <ul style="list-style-type: none"> • Vegetation integrity loss: 27 • Area: 0.07ha • Ecosystem credits required: 1
<p>DPI Fisheries requests that the piles for the Bennelong Parkway Pedestrian and Cycleway Bridge are not placed within the main channel of Haslams Creek. The proponent should consider this Department's Fish Passage Requirements for Waterway Crossings and Policy and Guidelines for Fish Friendly Waterway Crossings in the design and placement of this structure, available from the following link: https://www.dpi.nsw.gov.au/fishing/habitat/threats/barriers</p>	<p>The bridge abutments are proposed to be supported by one pile each (two piles per abutment were proposed at the concept stage) to avoid the need for piles within the main channel of Haslams Creek.</p>
<p>Acid sulfate soils have been identified at the site, it is important to avoid oxidisation, and/or appropriately treat potential acid sulfate soils to minimise impacts on aquatic ecosystems. Acid sulfate soils are to be managed in accordance with Part 4 of the EPA Waste Classification Guidelines.</p>	<p>The potential risks from acid sulfate soils are proposed to be managed as part of the CEMP. As outlined in the DSI (Appendix D) the potential for acid sulphate soils on southern and northern embankments cannot be excluded as no natural soils were encountered during sampling. However, the construction of piles is expected to generate a very small volume of acid sulphate soils (if present) such that there is no significant risk to receptors with appropriate management measures (as detailed in section 7.15) adopted in the CEMP.</p>
<p>As the degradation of native riparian vegetation along NSW watercourses is listed as a key threatening process (KTP) under the Fisheries Management Act DPI-Fisheries recommends that this activity is avoided. Please refer to https://www.dpi.nsw.gov.au/fishing/threatened-species/whatcurrent/key-threatening-processes/degradation-of-native-riparian-vegetation for more information on this KTP.</p>	<p>Impacts to native riparian vegetation have been avoided / minimised to the greatest extent practicable. In particular, the proposed development has been located in an area of previous disturbance in the lowest quality vegetation of all alignment options considered. The area has been assessed in the BDAR (Appendix B) to be structurally and floristically simple, with the design intended to limit disturbance of high condition native vegetation to the north of Haslams Creek. Further detail around the alternative options considered and avoidance measures is outlined in section 3.2.</p>

8.5 Transport for NSW (Maritime Greater Sydney – Operations Sydney Harbour and Commercial Property Asset Management)

TfNSW (Maritime Services) responded to a request for comment by DPE on the CoPC SEARS request. The key issues raised by TfNSW (Maritime Services) and how they have been addressed in this EIS are outlined in Table 8-4.

Table 8-4: TfNSW (Maritime Services) Key Issues

TfNSW (Maritime Services) Comment / Key Issue	Issue Addressed in EIS
Parramatta Council will be required to enter into an appropriate tenure arrangement for the occupation of Maritime Land.	The requirement to enter into an appropriate tenure agreement for occupation of maritime land is noted and has been incorporated as a proposed management measure in section 7.15.
<p>Maritime Operations have no objection to the proposal provided that:</p> <ul style="list-style-type: none"> The height of the bridge is equal to or greater than existing Bennelong Parkway bridge. No pylons are placed within the navigable channel and the bridge spans from bank to bank. 	<p>The bridge soffit level at its lowest point is 2.9m AHD. This is higher than the existing Bennelong Parkway bridge.</p> <p>No pylons are proposed within the navigable channel and the bridge will span bank to bank.</p>

8.6 Sydney Olympic Park Authority (SOPA)

SOPA responded to a request for comment by DPE on the CoPC SEARS request. The key issues raised by SOPA and how they have been addressed in this EIS are outlined in Table 8-5.

Table 8-5: SOPA Key Issues

SOPA Comment / Key Issue	Issue Addressed in EIS
<p>Natural Environment</p> <p>In accordance with AS 5334-2013 – Climate Change Adaptation for Settlements & Infrastructure, a clear climate change 'horizon' for critical design parameters for the proposed bridge is required, that is, 2050 and/or 2100 to ensure the proposed shared bridge is future-proofed from projected Sea Level Rise (SLR) and inundation from king tide events. Consultation with SOPA Manager, Wetlands, is recommended to provide expert advice and review of the proposed bridge levels against projected local SLR scenarios.</p>	<p>A Flood Impact Assessment has been prepared for the proposed development and is attached as Appendix F. This assessment has modelled flood behaviour for the existing (pre-development) scenario as well as proposed works for design floods with Annual Exceedance Probabilities (AEPs) of 5%, 1%, 0.2%, 0.05% as well as the Probable Maximum Flood (PMF). Overall, under all modelled scenarios, increases in flood levels were below 1mm and impact of the bridge on flood behaviour has been assessed as negligible. The bridge soffit level (2.9m AHD) has been positioned to be future proofed for sea level rise to the year 2100. Specifically, the bridge soffit level provides 500mm freeboard to year 2100 Sea Level Rise 1% tidal inundation event, which includes including 0.9m of climate change level increase.</p> <p>No specific analysis has been undertaken in terms of AS5334-2013 <i>Climate Change Adaptation for Settlements & Infrastructure</i>.</p>
The environment criteria in section 3.6 of the design statement is currently blank. Given the environmental sensitivity of the site within an area zoned C2 conservation land, this environmental criteria should have been applied up front to inform the design.	The environmental criteria for the project have been informed by the SEARs, which have in turn informed the design.

SOPA Comment / Key Issue	Issue Addressed in EIS
<p>Removal of mangroves must be avoided wherever possible. A regulatory Permit is required under the NSW Fisheries Management Act for pruning or removal of mangroves. Also, offsetting requirements may apply.</p>	<p>Mangrove removal has been avoided to the extent practicable. A total of 0.08ha of native (mangrove and swamp oak) vegetation within the development site is expected to be impacted by the proposal. A BDAR has been prepared and is included as Appendix B. The requirement for a permit under the FM Act is noted and addressed in section 5.6 above.</p>
<p>Two trees within SOPA land are identified for removal. No information is provided about the species, age or ecological /amenity values of these trees, or their relationship to other trees in the vicinity. Such information, along with justification for the removal of these trees and consideration of alternatives such as re-routing the path to avoid them, must be provided for SOPA consideration.</p>	<p>Ten trees are proposed for removal to facilitate the development, of which seven are located on SOPA land. The alignment of the shared path design has sought to minimise tree impacts, whilst also facilitating a connection to both the existing Parklands Circuit and Bennelong Parkway (south of the existing Bennelong Bridge).</p>
<p>The lighting design must reflect the location of the bridge and pathway within an ecologically-sensitive area – across a waterway and within land zoned C2 Environmental Conservation. Lighting for this project will set the benchmark for subsequent lighting upgrades along Bennelong Parkway adjacent to the wetlands of Badu Mangroves as the cycleway is extended and the disused section of Bennelong Parkway between Badu Mangroves and Triangle Pond is redeveloped; ecological considerations must be integral to lighting design along this road. Lighting must be designed and operated with regard to the National Light Pollution Guidelines for Wildlife (Department of the Environment and Energy, 2020). Best practice lighting design incorporates the following design principles:</p> <ul style="list-style-type: none"> • Start with natural darkness and only add light for specific purposes. • Use adaptive light controls to manage light timing, intensity and colour. • Light only the object or area intended – keep lights close to the ground, directed and shielded to avoid light spill. • Use the lowest intensity lighting appropriate for the task. • Use non-reflective, dark-coloured surfaces. • Use lights with reduced or filtered blue, violet and ultra-violet wavelengths (i.e. low 400-500nm content). <p>Feature lighting of the bridge, as illustrated in the lighting report, is not appropriate in this ecologically-sensitive location.</p>	<p>The lighting design has been updated to reflect that feature lighting must be switched off between the hours of 11pm to 5am.</p> <p>Prior to construction, the lighting plan must be updated to minimise light spill into adjacent habitat areas. This might include:</p> <ul style="list-style-type: none"> • Removing the proposed feature lighting. • Utilising lights with reduced or filtered blue, violet and ultra-violet wavelengths (i.e. low 400-500nm content). • Utilising bollards rather than light poles. • Ensuring lights are close to the ground, directed and shielded to avoid light spill. <p>It is understood that CoPC intends to work with SOPA to further update the current lighting plan to reflect ecological sensitivity prior to construction.</p>

SOPA Comment / Key Issue	Issue Addressed in EIS
Site rehabilitation – landscaping of the pathway surrounds and construction site on SOPA lands must be approved by SOPA.	This requirement is noted. Landscaping plans are attached as Appendix A. The management measures proposed in section 7.15 include a requirement that construction within Lot 1 DP868282 and Lot 71 DP1191648 must not commence until an agreement between CoPC and SOPA has been entered into for use of the land for construction and operation of the proposed development.
Construction impacts – construction noise and vibration impacts to waterbirds and migratory shorebirds in the Waterbird Refuge should be addressed in the REF. High impact works should be scheduled to avoid the period September to February, to minimise impacts to birds.	The BDAR (Appendix B) has identified that there will be no substantial change to noise impacts from a biodiversity perspective given the project is adjacent to existing roads in a highly urbanised area with existing noise impacts. No threatened waterbirds / migratory shorebird species were recorded in the development site during surveys, however Curlew Sandpiper has been assumed present. One species credit is required to offset the proposed impacts on Curlew Sandpiper breeding habitat.
A construction EMP must be endorsed by SOPA prior to commencement of works.	A CEMP is proposed to be prepared for the development. The management measures proposed in section 7.15 include a requirement that construction within Lot 1 DP868282 and Lot 71 DP1191648 must not commence until an agreement between CoPC and the Sydney Olympic Park Authority has been entered into for use of the land for construction and operation of the proposed development.
<p>Traffic, Transport and Movement</p> <p>Noting the General Arrangement Plan 3497658-SE-0009B and as per Figure 55, p.58, Haslams Creek to Australia Avenue – Homebush Bay Wayfinding Strategy & Masterplan (Institute of Sensible Transport, 2019).</p>	Figure 55 of the Homebush Bay Wayfinding Strategy & Masterplan details a proposed reconfiguration of Bennelong Parkway that is not proposed as part of this development.
Noting the NSW Active Transport Strategy (2019) recommends the provision of several kilometres of bi-directional bikeway and segregated pedestrian path to be implemented on the eastern side of Bennelong Parkway between the proposed shared bridge and the rear entrance to Bicentennial Park; once the new shared bridge over Haslams Creek is constructed in accordance with Figure 6 'Outer Circuit', Bennelong Parkway and Figure 28 'Active Transport Links to Homebush Bay Circuit'	These recommendations could not be found in the NSW Active Transport Strategy. Figures 6 and 28 of the Homebush Bay Wayfinding Strategy & Masterplan are noted. The proposed pedestrian/cyclist bridge and shared user path will help facilitate the Homebush Bay Circuit.
The works will create a new pathway that will replace the existing SOPA pathway where it joins Bennelong Parkway.	Noted.
The SEARS should address critical 'Shared Path Upgrades' – (noted under 12.1.3.4 Badu Mangroves Path) which states on p.46: 'The path is unsuitable for fast moving cyclists and widening the path (currently 3m wide) would cause unacceptable environmental damage.'	No upgrades to the existing Badu Mangroves Path are proposed as part of the development.

SOPA Comment / Key Issue	Issue Addressed in EIS
Cyclists should be encouraged to use Bennelong Parkway.	
Undertake a feasibility study into critical Shared Path Upgrades associated with Bennelong Parkway and other relevant active transport links in consultation with SOPA, City of Parramatta and City of Canada Bay.	No feasibility study relating to the Badu Mangroves Path is proposed as part of the development.
The design must recognise that this pathway is a service vehicle access point as well as a shared pedestrian/cycle path, with regular use by utility vehicles and ranger vehicles, as well as periodic access by heavy road plant and large rigid trucks. The layback and angle of the Bennelong Parkway junction must provide for continuation of such access and needs to be confirmed by an appropriately qualified engineer. Bollards will be required to prevent unauthorised vehicle access; detailed design of the pathway must provide sufficient space for service vehicles to safely pull off the road whilst opening and closing bollards.	A shared path entrance for maintenance vehicles is proposed as part of the development.
Safe visitor access must be provided alongside the pathway works during construction, to enable people to continue to access the waterbird refuge pathway.	Construction phase access is proposed to be addressed in the CEMP for the development.
<p><u>SOPA Owned Land</u></p> <p>The documentation identifies the extent of privately-owned land on the northern abutment but does not identify the existence or location of SOPA-owned land on the southern abutment.</p>	The existence / location of SOPA owned land is shown in Figure 2-3.
Formal SOPA approval will be required for works on SOPA land; legal arrangements for construction, future operational and maintenance responsibilities, and maintenance access arrangements need to be determined. Relocation of parklands signage affected by the construction footprint will need to be included in the detailed design of the area. Note that while the subject land is operationally managed by SOPA as part of the parklands, it is not within the legal boundary of the parklands (it was transferred to SOPA subsequent to gazettal of the parklands), so no Parklands Approval Permit is required.	The requirement for SOPA approval prior to construction for all works on SOPA land is noted. No Parklands Approval Permit is required.

9 Conclusion

This EIS has been prepared in accordance with the SEARS issued by DPE on 20 February 2023 and provide an assessment of the potential impacts associated with the proposed Bennelong Parkway Pedestrian and Cycleway Bridge.

Overall, the proposal is in general accordance with the requirements of the EP&A Act, relevant EPI and applicable strategic planning policies. Based on the specialist studies and investigations undertaken as part of this EIS, all environmental impacts are able to be appropriately managed, such that significant impacts on the environment are not anticipated. The proposed development will also:

- Enhance active transport infrastructure and traffic safety.
- Support connectivity by providing commuters, the local community, and visitors, with a safe and suitable crossing over Haslams Creek.
- Align with the vision of relevant strategic planning policy, including the Homebush Bay Circuit Wayfinding Strategy and Masterplan and Parramatta Bike Plan.

For these reasons, and in light of the foregoing assessment, it is recommended that the proposed development be supported, subject to appropriate conditions.

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Appendix A – Design Plans

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Appendix B – Biodiversity Development Assessment Report

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Appendix C – Arboricultural Impact Assessment

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Appendix D – Detailed Site Investigation (Land Contamination)

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Appendix G – Aboriginal Heritage Due Diligence Assessment

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Appendix H – List of Proximate Developments

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DEVELOPMENT APPLICATION

ITEM NUMBER	5.2
SUBJECT	85 Railway Street, PARRAMATTA NSW 2150 (Lot 126 DP 1301954)
DESCRIPTION	Section 4.55(2) modification of DA/61/2022 for demolition of existing structures, tree removal, lot consolidation and the construction of a four (4) storey Residential Flat Building with basement parking. The modification seeks internal and external changes.
REFERENCE	DA/61/2022 - D09519742
APPLICANT/S	Design Cubicle Pty Ltd
OWNERS	Infinity Idea Pty Ltd
REPORT OF	Group Manager Development and Traffic Services
RECOMMENDED	Approval

DATE OF REPORT 30 OCTOBER 2024

REASON FOR REFERRAL TO LPP

The proposal includes a variation to Clause 4.3 of the *Parramatta Local Environmental Plan 2023* concerning building height. Given the proposal has a maximum building height of 16.99m, the proposal exceeds the maximum building height permissible on the site (14m) by 2.99m or 21.36%.

EXECUTIVE SUMMARY

Development Application DA/61/2022/B was lodged on 16 August 2024 for Section 4.55(2) modification of DA/61/2022 for demolition of existing structures, tree removal, lot consolidation and the construction of a four (4) storey Residential Flat Building with basement parking. The modification seeks internal and external changes.

The application has a variation to Clause 4.3 Height of Buildings which further exceeds the 10% threshold and as such the application has been referred to the Parramatta Local Planning Panel for determination.

In accordance with Council's Consolidated Notification Procedures the application was notified and advertised between 27 August 2024 and 19 September 2024. In response no (0) unique submissions were received.

Section 4.15 Assessment Summary

The application has been assessed in accordance with Section 4.15 of the *Environmental Planning and Assessment Act 1979*, taking into consideration all relevant state and local planning controls. Consideration of technical matters by Council's Engineering and Landscaping departments has not identified any fundamental issues of concern.

The proposed development seeks a variation to Clause 4.3 Height of Buildings of the *Parramatta Local Environmental Plan 2023*. The proposed development proposes a maximum building height of 16.99m, which is an increase of 880mm from the approved height of the previously approved application. Therefore, the application exceeds the

maximum building height on the site (14m) by 2.99m or 21.36%. Notwithstanding, it is considered that the variation to the building height control is supportable in this instance noting the scale of the proposed variation and the development's minimal environmental impact on neighbouring properties.

The proposal demonstrates reasonable compliance with the statutory requirements with minor variations to some controls contained within the *Parramatta Development Control Plan 2023* and Apartment Design Guide (ADG) that can be supported.

Having regard to the matters for consideration under Section 4.15 of the *Environmental Planning and Assessment Act 1979*, it is recommended Development Application No. DA/61/2022/B be approved. In its context, this development proposal is able to be supported in terms of the development's broader strategic context, function and overall public benefits.

RECOMMENDATION

- (a) That the Parramatta Local Planning Panel, support the variation to the Height of Buildings for the following reasons:
- a. The departure representing a variation of 21.36% from the standard is reasonable and allows for a transition of height that is sympathetic with the existing topography whilst providing good urban design.
 - b. The departure does not result in adverse amenity impacts to adjoining developments.
 - c. Despite the departure the development remains generally consistent with the controls and provisions of ADG and PDGP 2023.
 - d. The variation to the height does not result in unreasonable perception of bulk and scale.
- (b) That the Parramatta Local Planning Panel, exercising the function of the consent authority, pursuant to Section 4.16 of the Environmental Planning and Assessment Act 1979, modify development consent DA/61/2022 for demolition of existing structures, tree removal, lot consolidation and the construction of a four (4) storey Residential Flat Building with basement parking to include internal and external changes on land at 85 Railway Street, Parramatta, subject to the following modified conditions of consent in Attachment 1:
- a. Amend Condition Nos. 1, 25, 26, 96 and 103.
 - b. All other conditions of DA/61/2022/A remain unchanged.

REASONS FOR APPROVAL

1. The development is permissible in the R4 High Density Residential zone pursuant to the Parramatta Local Environmental Plan 2023 and satisfies the requirements of all applicable planning standards controls.
2. The development will be compatible with the emerging and planned future character of the area.

3. The development will provide housing that accommodates the needs of the existing and future residents of Parramatta.
4. For the reasons given above, approval of the application is in the public interest.

Caitlin Hopper
Development Assessment Officer

ATTACHMENTS:

1	 Assessment Report and Draft Conditions	45 Pages
2	 Locality map	1 Page
3	 Zoning map	1 Page
4	 Plans used during assessment	15 Pages
5	Internal plans used during assessment (confidential)	9 Pages
6	 Statement of Environmental Effects	43 Pages
7	 Design Verification Statement	13 Pages
8	 Acoustic Report	25 Pages

REFERENCE MATERIAL



City of Parramatta Council

File No: DA/61/2022/B

SECTION 4.55 ASSESSMENT REPORT – PARRAMATTA LEP 2023
Environmental Planning & Assessment Act 1979

1 SUMMARY

DA No:	DA/61/2022/B
Property:	Lot 126 DP 1301954, 85 Railway Street, PARRAMATTA NSW 2150
Proposal:	Section 4.55(2) modification of DA/61/2022 for demolition of existing structures, tree removal, lot consolidation and the construction of a four (4) storey Residential Flat Building with basement parking.
	The modification seeks internal and external changes.
Date of receipt:	16 August 2024
Estimated Cost of Development:	\$11,139,349
Applicant:	Design Cubicle Pty Ltd
Owner:	Infinity Idea Pty Ltd
Property owned by a Council employee or Councillor:	The site is not known to be owned by a Council employee or Councillor
Political donations/gifts disclosed:	None disclosed on the application form
Submissions received:	No (0) Submissions
Conciliation Conference	No
Recommendation	Approval
Assessing Officer	Caitlin Hopper

2 LEGISLATIVE REQUIREMENTS

Environmental Planning Instruments	<ul style="list-style-type: none"> • State Environmental Planning Policy (Building Sustainability) 2022 • State Environmental Planning Policy (Resilience and Hazards) 2021 • State Environmental Planning Policy (Transport and Infrastructure) 2021 • State Environmental Planning Policy (Biodiversity and Conservation) 2021 • State Environmental Planning Policy (Housing) 2021 • Parramatta Local Environmental Plan 2023
Zoning	R4 – High Density Residential
Bushfire Prone Land	No
Heritage	No
Heritage Conservation Area	No
Integrated development	No
Easement of adjoining land	Yes – No change is proposed.
Housing Productivity Contribution	No
Clause 4.6 variation	Yes – Variation to Height of Buildings
Delegation	Parramatta Local Planning Panel (PLPP)

3 EXECUTIVE SUMMARY

Development Application DA/61/2022/B was lodged on 16 August 2024 for a Section 4.55(2) modification to DA/61/2022 for demolition of existing structures, tree removal, lot consolidation and the construction of a four (4) storey Residential Flat Building with basement parking. The modification seeks internal and external changes.

The application has a variation to Clause 4.3 Height of Buildings which further exceeds the 10% threshold and as such the application has been referred to the Parramatta Local Planning Panel for determination.

In accordance with Council's Consolidated Notification Procedures the application was notified and advertised between 27 August 2024 and 19 September 2024. In response no (0) unique submissions were received.

Section 4.15 Assessment Summary

The application has been assessed in accordance with Section 4.15 of the Environmental Planning and Assessment Act 1979, taking into consideration all relevant state and local planning controls. Consideration of technical matters by Council's Engineering and Landscaping departments has not identified any fundamental issues of concern.

The proposed development seeks a variation to Clause 4.3 Height of Buildings of the Parramatta Local Environmental Plan (LEP) 2023. The proposed development proposes a maximum building height of 16.99m, which is an increase of 880mm from the approved height of the previously approved application. Therefore, the application exceeds the maximum building height on the site (14m) by 2.99m or 21.36%. Notwithstanding, it is considered that the variation to the building height control is supportable in this instance noting the scale of the proposed variation and the development's minimal environmental impact on neighbouring properties.

The proposal demonstrates reasonable compliance with the statutory requirements with minor variations to some controls contained within the Parramatta Development Control Plan (DCP) 2023 and Apartment Design Guide (ADG) that can be supported.

Having regard to the matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, it is recommended Development Application No. DA/61/2022/B be approved. In its context, this development proposal is able to be supported in terms of the development's broader strategic context, function and overall public benefits.

4 SITE HISTORY

Date	Comments
8 March 2023	DA/61/2022 was determined via deferred commencement approval for the demolition of existing structures, tree removal, lot consolidation and the construction of a four (4) storey Residential Flat Building with basement parking.
26 March 2024	DA/61/2022/A was determined via deferred commencement approval for modifications seeking to update the easement design as per the submitted revised stormwater easement design plans.
14 June 2024	Operative consent was granted for DA/61/2022.
16 August 2024	DA/61/2022/B was lodged with Council.

5 APPLICATION HISTORY

Date	Comments
16 August 2024	DA/61/2022/B was lodged with Council.

27 August 2024 – 19 September 2024	The application was advertised in accordance with Council’s Consolidated Notification Procedures. No submissions were received.
30 September 2024	Additional Information received from the applicant.

6 SITE DESCRIPTION AND CONTEXT

The subject site is known as 85 Railway Street, Parramatta. The legal property description is Lot 126 DP 1301954. The site is an irregular allotment and is located on the corner of Railway Street and Boundary Street. The site has a slope from the south to the north of approximately 1.6 metres over a distance of 45.9 metres.

The subject site has the following area and dimensions:

Area -1,789.5 square metres
 North – 53.19 metres;
 East – 45.9 metres;
 Frontage of Boundary Street (south) – 24.72 metres; and
 Frontage on Railway Street (west)- 53.475 metres.

The site is zoned R4 High Density Residential under Parramatta Local Environmental Plan 2023. The surrounding properties are also zoned R4 High Density Residential. See Figure 1 below.

The site currently accommodates three (3) single storey dwelling houses with associated structures such as sheds, garages and fences. All existing structures on the site are proposed to be demolished as part of the development application. The site is located within an established residential area denoting various types of medium and high-density residential developments such as townhouses and residential apartment buildings.

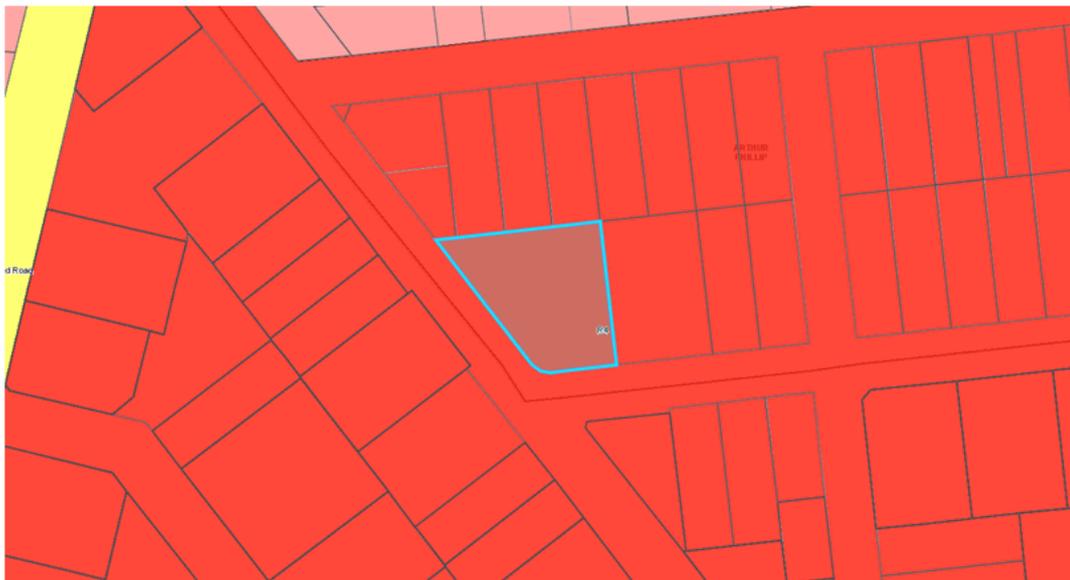


Figure 1: Zoning Map (Source: Parramatta LEP 2023)



Figure 2: Aerial Photo (Source: Nearmaps)

7 THE PROPOSAL

The Section 4.55(2) Modification Application seeks the following:

- Internal layout changes to provide an ensuite to fourteen (14) two-bedroom units including:
 - Ground: Units 1,2, 5 and 7
 - Level 1: Units 1,2,5,6 and 7
 - Level 2: Units 1,2,5,6 and 7
- Alterations to the size (area) of units to ensure compliance with ADG requirements.
- Alterations to unit layouts such as kitchen, bathrooms as well as increasing the size of some bedrooms;
- Construction of 24 additional windows;
- Relocation of windows throughout the development and increasing the size of other windows;
- Reconfiguration of the basement layout and expansion of pump room adjacent to the driveway;
- Increased excavation as a result of the FFL level of the basement being lowered from RL 30.9 to RL 30.5; and
- Increased the height of the lift overrun by 880mm.

Has the consent lapsed? No.

8 SECTION 4.55 EVALUATION

SECTION 4.55(2)	Note
(a) The modified development is substantially the same as the original development	Council is satisfied the modified development is substantially the same as the original development. See full assessment below.
(b) Where required, the Minister, public authority, or other approval body has been consulted	Not applicable.
(c) The modification was notified in accordance with Council’s Notification Procedures	The modification application was notified between 27 August 2024 and 17 September 2024.
(d) Consider any submissions received	No (0) submissions received during notification
ASSESSMENT OF WHETHER THE PROPOSAL IS SUBSTANTIALLY THE SAME	
In considering whether the development is substantially the same, the applicant bears the onus of satisfying the consent authority that the modified development is substantially the same as the original development (<i>Vacik Pty Ltd v Penrith</i>	

City Council, unreported, 24 February 1992). In this judgement, Stein J states that it is not appropriate to simply say that the nature of the development, in this case the use of the site as a residential flat building, as amended would be the same use and therefore substantially the same development. Stein J goes on to say that it is necessary to consider whether the proposed modified development would be essentially or materially or having the same essence as that which had been originally approved. These comments are reiterated in **Trinvas Pty Ltd v The Council of the City of Sydney [2018] NSWLEC 77**.

Bignold J in his decision in *Moto Projects No 2 Pty Limited v North Sydney Council* [1999] 106 LGERA 298, states that:

“The requisite factual finding obviously requires a comparison between the development, as currently approved, and the development as proposed to be modified. The result of the comparison must be a finding that the modified development is “essentially or materially” the same as the (currently) approved development.

The comparative task does not merely involve a comparison of the physical features or components of the development as currently approved and modified where that comparative exercise is undertaken in some type of sterile vacuum. Rather, the comparison involves an appreciation, qualitative, as well as quantitative, of the developments being compared in their proper contexts (including the circumstances in which the development consent was granted).”

As such, an assessment of the proposed modified development to determine if substantially the same as the original development requires an assessment of the quantitative and qualitative impacts of the modified proposal.

Quantitative Assessment

The height of the proposed modification exceeds the permissible building height pursuant to Clause 4.3 of the Parramatta LEP 2023. Clause 4.3 of Parramatta LEP 2023 and the associated map denote a maximum building height of 14m for the subject site. The proposed modification seeks to increase the previously approved building height of the proposed development from 16.2m to 16.99m, resulting in a non-compliance with the development standard with a percentage variation of 21.36% (2.99m).

	Max. Building Height under LEP.	Proposed Building Height	Proposed variation to building height development standard
Original	14m	16.2m	15.7%
Proposed	14m	16.99m	21.36%

It is noted that the variation sought is due to an increase in the height of the lift overrun in the centre of the building. No changes are proposed to the gross floor area or setbacks of the proposed building. Additionally, as the proposed lift core is centrally located within the building, the proposed variation is not expected to be discernible from the streetscape.

Qualitative Assessment

The proposed modifications also seek to reconfigure the internal layouts of the units to ensure better residential amenity by providing additional bathrooms and to better respond to market demands. Notwithstanding, the proposed changes are compliant with the relevant controls of the Apartment Design Guide.

The proposed modifications also include window changes. However, as the finished floor levels of the habitable level remain consistent with the previously approved levels and noting that there are no changes to the previously approved balconies and private open space, the window changes are not expected to increase visual overlooking beyond acceptable means.

The increase in the height of the development is considered to be minor and is not expected to discernably increase over shadowing on the subject site or adjoining properties.

Conclusion	
Based on the above assessment, the modified development is substantially the same as the original approved development as the development is materially the same in terms, intensity and environmental impacts.	
SECTION 4.55(3)	
“...the consent authority must take into consideration such of the matters referred to in section 4.15 (1) as are of relevance to the development the subject of the application...”	An assessment against the relevant matters contained within s4.15 are addressed under Section 7 below.

9 SECTION 4.15 EVALUATION

9.1 PERMISSIBILITY

The site is located within a R4 High Density Residential Zone pursuant to Parramatta Local Environmental Plan 2023 (PLEP 2023), as illustrated in **Figure 1** above.

The proposed development is for a ‘residential flat building’, which is defined under the PLEP 2023 as:

‘residential flat building means a building containing 3 or more dwellings, but does not include an attached dwelling, co-living housing or multi dwelling housing.’

The proposed works are permissible in the R4 High Density Residential zone pursuant to *Part 2 Permitted or Prohibited Development* of the PLEP 2023.

9.2 ZONE OBJECTIVES

The objectives of the R4 High Density Residential are:

- *To provide for the housing needs of the community within a high density residential environment.*
- *To provide a variety of housing types within a high density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To provide for high density residential development close to open space, major transport nodes, services and employment opportunities.*
- *To provide opportunities for people to carry out a reasonable range of activities from their homes if the activities will not adversely affect the amenity of the neighbourhood.*

The proposal complies with the objectives of the R4 High Density Residential zone.

10 ENVIRONMENTAL PLANNING INSTRUMENTS

The modification would not alter compliance with the Environmental Planning Instruments as assessed under the original application with the exception of the following provisions:

10.1 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY) 2022

The State Environmental Planning Policy (Sustainable Buildings) 2022 came into effect on 1 October 2023. However, pursuant to *Clause 4.2 Savings and transitional provisions* of the SEPP, the policy is not applicable to an application for modification of a development consent under the Act, section 4.55 or 4.56 submitted on the NSW planning portal on or after 1 October 2023, if the development application for the development consent was submitted on the NSW planning portal before 1 October 2023.

As the subject modification application pertains to a development application that was determined on the NSW Planning portal prior to 1 October 2023, the SEPP is not applicable and an assessment against the State Environmental Planning Policy (Sustainable Buildings Index: BASIX) 2004 is provided below.

10.2 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

An amended BASIX Certificate has been submitted with the Section 4.55(2) Modification. The requirements outlined in the BASIX certificate have been satisfied in the design of the proposal.

The condition that was imposed to ensure such commitments are fulfilled during the construction of the development has been amended to reflect the revised BASIX Certificate.

10.3 STATE ENVIRONMENTAL PLANNING POLICY (HOUSING) 2021

10.3.1 CHAPTER 4 – DESIGN OF RESIDENTIAL APARTMENT DEVELOPMENT

Clause	Comment	Compliance
Clause 144 Application of Chapter	As the application is for modifications to a Residential Flat Building, Chapter 4 of the SEPP (Housing) 2021 is applicable to the proposed development.	Noted.
Clause 146 Referral to design review panel for modification applications	A design verification statement was submitted with the modification application. Notwithstanding, the City of Parramatta does not have a Design Review Panel as defined by SEPP (Housing) 2021.	Yes.
Clause 147 Determination of development applications and modification applications for residential apartment development	An assessment against the Design Principles and Apartment Design Guide has been undertaken below.	Yes.
Clause 148 non-discretionary development standards for residential apartment development—the Act, s 4.15	No change is proposed to the provision of car parking spaces. Whilst the proposed modifications include changes to the internal layout and size of unit, the proposed internal areas of the units remain compliant with the ADG. No change is proposed to the previously approved ceiling heights.	Yes.
Clause 149 Apartment Design Guide prevails over development control plans	Requirements, standards or controls for residential apartment developments that are specified in the Parramatta DCP 2023 and relate to the following matters have not been considered where the ADG also specifies a requirement, standard or control in relation to the same matter: (a) visual privacy, (b) solar and daylight access, (c) common circulation and spaces, (d) apartment size and layout, (e) ceiling heights, (f) private open space and balconies, (g) natural ventilation, (h) storage.	Yes.

10.3.1.1 Design Principles Assessment

Clause 147 of the SEPP (Housing) 2021 states that “Development consent must not be granted to residential apartment development, and a development consent for residential apartment development must not be modified, unless the consent authority has considered... the quality of the design of the development, evaluated in accordance with the design principles for residential apartment development set out in Schedule 9.”

Schedule 9 of SEPP (Housing) 2021 lists 9 Design Principles for residential apartment developments. These principles do not generate design solutions but provide a guide to achieving good design and the means of evaluating the merits of proposed solutions.

As required by the Environmental Planning and Assessment Regulation, the application was accompanied by a response to those design principles.

Principle	Comment
Principle 1: Context and neighbourhood character	The context and setting of the development were considered to be satisfactory during the assessment of the original application. The proposed development remains a four (4) storey residential flat building and therefore, the proposed modifications to the residential flat building, are considered to meet this principle and are consistent with the context and neighbourhood character.
Principle 2: Built form and scale	<p>The proposed development remains a four (4) storey residential flat building. The proposed development has been designed to demonstrate compliance with the required setbacks, articulation and solar access to ensure the proposal limits environmental impacts whilst also reducing the appearance of bulk and scale.</p> <p>While it is noted that the proposed modifications include increasing the overall height of the development, the portion of roof that is to be increased has an area of approximately 8.39sqm. Which is considered to be minor and is not expected to be visible from the streetscape.</p> <p>Therefore, the scale proposal is considered to be similar to the scale of the previously approved development and is considered to be of an acceptable scale for the area.</p>
Principle 3: Density	<p>The proposed development features a single level basement with thirty-eight (38) residential car spaces and storage, four (4) one-bedroom apartments, eighteen (18) two-bedroom apartment and three (3) three-bedroom apartments over four (4) storeys. No change is proposed to the density of the proposed development.</p> <p>The proposed density on the site is appropriate in the context as the proposal achieves a high level of amenity for the residents and is well located.</p>
Principle 4: Sustainability	<p>The proposed development was accompanied by a BASIX Certificate pursuant to SEPP (BASIX) 2004.</p> <p>The design of the proposed development is consistent with best practice design criteria for cross ventilation and solar access under the ADG.</p> <p>Therefore, the proposed development is considered to provide sufficient sustainability.</p>
Principle 5: Landscape	No change is proposed to the previously approved landscape design.
Principle 6: Amenity	<p>The proposal achieves the requirements of the ADG with respect to the solar access and ventilation.</p> <p>The internal amenity of each unit is generally acceptable with no acute angles and unusable corners within bedrooms and living spaces. Adequate storage and private open space have been provided for each unit and the proposed modifications maintains three (3) adaptable units.</p> <p>The common internal circulation corridors are legible without many corners and an adequate communal open space area has been provided.</p> <p>Therefore, the development is considered to achieve the Amenity Principle.</p>
Principle 7: Safety	<p>Windows and units are generally orientated outward to Railway Street and Boundary Street to increase the potential for passive surveillance of the existing and future public domain within the roadway.</p> <p>Therefore, the development is considered to achieve the Safety Principle.</p>
Principle 8: Housing diversity and social interaction	<p>No change is proposed to the previously approved housing mix and areas for social interaction.</p> <p>Therefore, the development is considered to achieve the housing diversity and social interaction principle.</p>

Principle 9: Aesthetics	<p>As stated above, the scale of the proposed development is consistent with that of the previously approved application with the exception of the minor increase to the height of the development.</p> <p>The proposed development uses a range of materials and textures such as fibre cement cladding, render, timber look elements, and aluminium framed projections to create richness and interest within the streetscape.</p> <p>Therefore, the proposed development achieves the objectives of the Aesthetic Principle.</p>
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10.3.1.2 Apartment Design Guide (ADG) Assessment

The SEPP also requires the Consent Authority to take into consideration the requirements of the ADG with regard to the proposed residential apartment building. An assessment under the ADG has been undertaken and discussed below:

Clause	Approved Development Application	Proposed Modification	Compliance
Part 3 - Siting the Development			
This part provides guidance on the design and configuration of apartment development at a site scale. Objectives, design criteria and design guidance outline how to relate to the immediate context, consider the interface to neighbours and the public domain, achieve quality open spaces and maximise residential amenity. It is to be used during the design process and in the preparation and assessment of development applications			
3D Communal & public open space			
Provide communal open space with an area equal to 25% of site	Required: 448.4m ² Proposed: 485m ² (27%) Various facilities like barbeque area, outdoor seating areas and landscaping are provided on the roof top communal space.	No change is proposed.	N/A.
Minimum 50% of usable area of communal open space to receive direct sunlight for a minimum of 2 hours between 9 am and 3 pm on 21 June.	The submitted shadow diagrams indicate that the proposed roof top communal open space, shall receive direct sunlight for more than 2 hours between 9am and 3pm mid-winter.	No change is proposed to the solar access of the ground floor communal open space. However, it is noted that the increased height of the lift overrun casts a shadow over the rooftop communal open space. Notwithstanding, the submitted shadow diagrams demonstrate that a minimum of 50% of the rooftop communal open space shall receive direct sunlight for a minimum of 2 hours between 9am and 3pm on 21 June.	Yes.
3E Deep Soil Zone			
Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality. Deep soil zones are to be provided equal to 7% of the site area and with min dimension of 6m for sites areas greater than 1500m ² .	Required – 7% or 125.5m ² Proposed - 195m ² (10.9%) Deep soil areas are provided at the ground level.	Proposed: 14.89% or 266.51m ² (additional areas included that were excluded). Note: The proposed reconfiguration of the basement to accommodate the expansion of the pump room results in a reduction in the amount of deep soil on the site by approximately 22.4m ² . Notwithstanding, it is noted that more than 7% of the site is dedicated to deep	No – Supportable.

Clause	Approved Application	Development	Proposed Modification	Compliance						
			soil with dimensions of 3m. Whilst the site denotes an area larger than 1,500m ² the calculation of deep soil with the dimension of 3m is consistent with the original application. Therefore, the proposed deep soil zone is considered to be supportable.							
3F Visual Privacy										
<p>Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:</p> <table border="1"> <thead> <tr> <th>Building Height</th> <th>Habitable rooms & balconies</th> <th>Non habitable rooms</th> </tr> </thead> <tbody> <tr> <td>Up to 12m (4 storeys)</td> <td>6m</td> <td>3m</td> </tr> </tbody> </table>	Building Height	Habitable rooms & balconies	Non habitable rooms	Up to 12m (4 storeys)	6m	3m	<p>Northern side - 6m separation from the boundary.</p> <p>Eastern side – 6m separation from the boundary.</p> <p>Southern side (rear) – 6.2m separation from the boundary.</p> <p>Western side – 6m separation from the boundary.</p>		No change is proposed to the setbacks of the building.	N/A.
Building Height	Habitable rooms & balconies	Non habitable rooms								
Up to 12m (4 storeys)	6m	3m								
3G Pedestrian Access & entries										
Pedestrian access, entries and pathways are accessible and easy to identify.	Pedestrian access from the Railway Street is satisfactory.		No change is proposed to the previously approved pedestrian access.	N/A.						
3H Vehicle Access										
Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.	Separate pedestrian and vehicular access from Railway Street are provided.		No change is proposed.	N/A.						
3J Bicycle and car parking										
<p>Car parking</p> <p>For development on sites that are within 800m of a railway station, the minimum parking for residents and visitors to be as per RMS Guide to Traffic Generating Developments, or Council’s car parking requirement, whichever is less.</p>	31 residential parking spaces including 3 accessible spaces, and 7 visitors parking spaces provided.		No change is proposed to the number of proposed parking spaces (including accessible spaces) and visitor spaces.	N/A.						
<p>Bicycle Parking</p> <p>Provide adequate motorbike, scooter and bicycle parking space (undercover).</p>	15 bicycle space provided.		No change is proposed.	N/A.						
Part 4 - Designing the Building										
This part addresses the design of apartment buildings in more detail. It focuses on building form, layout, functionality, landscape design, environmental performance and residential amenity. It is to be used during the design process and in the preparation and assessment of development applications										
4A Solar & daylight access										
Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter.	19 units or 76% comply		Whilst internal layout changes are proposed to accommodate additional ensuites in the units, no changes are proposed to the location of the living rooms and private open spaces of the units and as such no change is proposed to the solar access of the units.	Yes.						

Clause	Approved Development Application	Proposed Modification	Compliance									
4B Natural Ventilation												
At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building.	19 units or 76% comply. The balconies of the units allow adequate natural ventilation and cannot be enclosed.	Similarly to the above, the proposed internal layout changes are not expected alter the natural ventilation of the units.	Yes.									
4C Ceiling Heights												
Ceiling height achieves sufficient natural ventilation and daylight access. The development is required to provide 2.7m minimum ceiling heights.	2.7m internal clear height for all units.	No change is proposed.	N/A.									
4D Apartment size and layout												
Apartments are required to have the following minimum internal areas with one bathroom: <ul style="list-style-type: none"> 1 bedroom = 50m² 2 bedrooms = 70m² 3 bedrooms = 90m² The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m ² each.	The proposed apartments have the following minimum internal areas: <ul style="list-style-type: none"> Studio N/A 1 bedroom 50m² (min.) 2 bedroom 70m² (min.) 3 bedroom 99m² (min.) 	The proposed apartments have the following minimum internal areas: <ul style="list-style-type: none"> Studio N/A 1 bedroom 50m² (min.) 2 bedroom 75m² (min.) 3 bedroom 97.4m² (min.) 	Yes.									
Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms	Complies	All of the apartments exceed the minimum requirements.	Yes.									
Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space).	Complies.	The proposed kitchens are not located as part of the main circulation space.	Yes.									
Habitable room depths are limited to a maximum of 2.5 x the ceiling height. In open plan where the living, dining and kitchen are combined, there is to be a maximum depth of 8m from a window.	Complies. The units have open plan layouts.	Complies. The units have open plan layouts.	Yes.									
Master bedrooms have a minimum area of 10m ² and other bedrooms 9m ² (excluding wardrobe space)	Complies	Complies.	Yes.									
Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Complies	Complies.	Yes.									
Living rooms or combined living/dining rooms have a minimum width of: <ul style="list-style-type: none"> 3.6m for studio and 1-bedroom apartments 4m for 2 and 3-bedroom apartments 	Complies	Living rooms/combined living/dining area have a minimum 3.6m width for 1-bedroom units and 4m width for 2-bedroom units, respectively.	Yes.									
4E Private Open Space and balconies												
All apartments are required to have primary balconies as follows: <table border="1"> <thead> <tr> <th>Dwelling type</th> <th>Min area</th> <th>Min depth</th> </tr> </thead> <tbody> <tr> <td>1 bedroom</td> <td>8m²</td> <td>2m</td> </tr> <tr> <td>2 bedroom</td> <td>10m²</td> <td>2m</td> </tr> </tbody> </table>	Dwelling type	Min area	Min depth	1 bedroom	8m ²	2m	2 bedroom	10m ²	2m	The proposed apartments have the following minimum balcony areas: <ul style="list-style-type: none"> 1 bed units: all units comply 2 bed units: all units comply 	No change is proposed.	N/A.
Dwelling type	Min area	Min depth										
1 bedroom	8m ²	2m										
2 bedroom	10m ²	2m										

Clause	Approved Development Application	Proposed Modification	Compliance									
	All of the apartments also exceed the minimum requirements for balcony depth.											
For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m ² and a minimum depth of 3m	Ground level courtyards meet the required 15m ² and minimum dimensions.	No change is proposed.	N/A.									
4F Common Circulation												
The maximum number of apartments off a circulation core on a single level is eight	Complies.	No change is proposed.	N/A.									
4G Storage												
In addition to storage in kitchens, bathrooms and bedrooms, the following storage is to be provided: <table border="1"> <thead> <tr> <th>Dwelling type</th> <th>Storage volume</th> <th>size</th> </tr> </thead> <tbody> <tr> <td>1 bedroom apt</td> <td>6m³</td> <td></td> </tr> <tr> <td>2 bedroom apt</td> <td>8m³</td> <td></td> </tr> </tbody> </table> <p>At least 50% of the required storage is to be located within the apartment.</p>	Dwelling type	Storage volume	size	1 bedroom apt	6m ³		2 bedroom apt	8m ³		Adequate storage areas are provided.	Storage is provided within the basement/ground floor and within the units themselves. Adequate storage areas have been provided.	Yes.
Dwelling type	Storage volume	size										
1 bedroom apt	6m ³											
2 bedroom apt	8m ³											

10.4 PARRAMATTA LOCAL ENVIRONMENTAL PLAN 2023

Standards and Provisions	Original Application	Proposed Modification	Compliance												
Part 4 Principal development standards															
Clause 4.3 Height of buildings Allowable: 14m	Proposed: 16.2m Variation: 2.2m or 15.7%	Proposed: 16.99m Variation: 2.99m or 21.36% (to standard)	No – Supportable.												
	<p>Note: Applications assessed under Section 4.55 of the EPA Act 1979 do not require a variation to be sought under Clause 4.6 of the Parramatta LEP 2023. Notwithstanding, a merit assessment of the variation is provided below.</p> <p>The height of the proposed modification exceeds the permissible building height pursuant to Clause 4.3 of the Parramatta LEP 2023. Clause 4.3 of the Parramatta LEP 2023 and the associated map denote a maximum building height of 14m for the subject site. The proposed modification seeks to increase the previously approved building height of the proposed development from 16.2m to 16.99m, resulting in a non-compliance with the development standard with a percentage variation of 21.36% (2.99m).</p> <table border="1"> <thead> <tr> <th></th> <th>Max. Building Height under LEP.</th> <th>Proposed Building Height</th> <th>Proposed variation to building height development standard</th> </tr> </thead> <tbody> <tr> <td>Original</td> <td>14m</td> <td>16.2m</td> <td>15.7%</td> </tr> <tr> <td>Proposed</td> <td>14m</td> <td>16.99m</td> <td>21.36%</td> </tr> </tbody> </table> <p>It is noted that the variation sought is due to an increase in the height of the lift overrun in the centre of the building. No changes are proposed to the gross floor area or setbacks of the proposed building. Additionally, as the</p>				Max. Building Height under LEP.	Proposed Building Height	Proposed variation to building height development standard	Original	14m	16.2m	15.7%	Proposed	14m	16.99m	21.36%
	Max. Building Height under LEP.	Proposed Building Height	Proposed variation to building height development standard												
Original	14m	16.2m	15.7%												
Proposed	14m	16.99m	21.36%												

	<p>proposed lift core is centrally located within the building, the proposed variation is not expected to be discernible from the streetscape.</p> <p>Further to the above, it is noted that whilst the development does not meet the numerical control associated with the height of buildings development standard under Parramatta LEP 2023, the development remains compliant with the objectives of the clause.</p> <p>The objectives of Clause 4.3 Height of Buildings of PLEP 2023 are as follows:</p> <p>(a) <i>to provide appropriate height transitions between buildings,</i></p> <p>Comment: The subject site and surrounding properties to the east, west and south have a maximum building height of 14m pursuant to Clause 4.3 of PLEP 2023. However, land adjoining the subject site to the north has a maximum building height of 11m pursuant to Clause 4.3 of PLEP 2023.</p> <p>It is noted that the parent development application was approved with a top of building RL at 49.2m AHD to accommodate the structures associated with the rooftop communal open space are (stairs, water closet and lift including the lift overrun). The walls/fencing facilitating the rooftop communal open space were also approved with an RL of 47.3m AHD and the finished ceiling level of the third floor was approved at RL 46.3m AHD.</p> <p>The proposed modification maintains the approved levels of the ceiling of the third floor, the walls facilitating the communal open space, and the structures associated with the rooftop communal open space (excluding the lift core).</p> <p>As previously stated, the central location of the lift core and subsequent height variation due to the height of the lift core is centrally located within the building and is not expected to be discernible when the proposed development is viewed from the street. Therefore, noting the proposed modification's consistency with the height of the parent development application with the exception of the lift overrun, the proposed development is considered to provide appropriate height transitions between buildings.</p> <p>(b) <i>to ensure the height of buildings is compatible with the height of existing and desired future development in the surrounding area,</i></p> <p>Comment: As stated above, the subject site and surrounding properties to the east, west and south have a maximum building height of 14m pursuant to Section 4.3 of PLEP 2023. Whilst the proposed development denotes a non-compliant building height, the proposed modification is predominantly consistent with the height of the building approved under the parent development application with the exception of the increased height of the lift overrun from RL 49.2m AHD to RL 50.08m AHD (increase of 880mm). Notwithstanding the section of roof that has been raised to accommodate the lift overrun denotes an area of approximately 8.39m² (3.05m x 2.75m). This area is considered to be minor when compared against the total area of the site (1,793.6m²). Additionally, it is noted that the lift core is located a minimum of 15m from each boundary and as such the lift overrun is not expected to be overly visible when viewing the development from the street. The proposed modification is considered to result in a negligible difference to the previously approved bulk and scale of the development. Therefore, the proposed modifications are considered to be compatible with the height of the existing and desired future development within the locality.</p> <p>(c) <i>to require the height of future buildings to be appropriate in relation to heritage sites and their settings,</i></p> <p>Comment: The subject site is not a heritage item nor is it located within a heritage conservation area. However, it is acknowledged that adjoining the site to the east is 6 Boundary Street which is identified as a heritage item (I457) with local significance under PLEP 2023. Additionally, it is noted that a local heritage item (I208) is located opposing the subject site at 128-130 Railway Street. Notwithstanding as stated above, the elevated lift shaft is located a minimum of 15m from any boundary and covers approximately 0.46% of the site's total area. Given the lift shafts central location on the site, the proposed modification to the height of the development is not anticipated to be discernible from the street.</p>
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	<p>Therefore, the proposed modification to the height of the lift shaft is considered to be appropriate in relation to the heritage sites which are within the vicinity of the proposed development.</p> <p>(d) <i>to reinforce and respect the existing character and scale of low-density residential areas,</i></p> <p>Comment: The subject site is not located within a low-density residential area nor does the site share a boundary with a low-density residential area. Notwithstanding, the proposed development is considered to be of a scale which is consistent with the site's R4 High Density Residential zoning.</p> <p>The existing character of the immediate locality features predominantly three (3) storey residential accommodation developments. However, it is noted that the parent development application was granted approval for a four (4) storey residential flat building. No change to the number of storeys is proposed as part of the subject modification application. The proposed modifications seek to increase the height of the lift overrun by 880mm which given its location and dimensions is considered to result in a negligible difference and would not be overly visible when viewing the proposed development from the street. Therefore, the proposed development is considered to remain consistent with the existing character of the area.</p> <p>(e) <i>to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development,</i></p> <p>Comment: The proposed development minimises the visual impact of the height breach through locating the lift shaft at the centre of the building, reducing its visibility from the street. In doing so there are not proposed changes to the gross floor area of the development nor are any changes to the previously approved setbacks proposed.</p> <p>The subject site is not identified as being located within any view corridors. As such the proposed development is not expected to result in the disruption or loss of any views or unique vistas which have been identified for preservation.</p> <p>As stated previously, the proposed further variation to Clause 4.3 of PLEP 2023 is a result of increasing the height of the lift overrun by 880mm. No change is proposed to the previously approved finished floor levels of ground floor or above or the setbacks of the development. Therefore, the proposed development is not expected to result in the loss of privacy of neighbouring properties as the parent development application considered the visual privacy of the development to be sufficient.</p> <p>Finally, given the orientation of the site, shadows cast by the proposed development generally cover Railway Street and Boundary Street. The proposed modification is considered to result in a negligible increase in over shadowing. However, it is noted that the proposed development maintains that the primary living areas and private open space of the subject site, as well as neighbouring properties, will receive a minimum of 3 hours sunlight from 9am to 3pm during the winter solstice. Therefore, the proposed development is considered to maintain an appropriate level of solar access to existing development.</p> <p>(f) <i>to preserve historic views,</i></p> <p>Comment: The applicant states that no historic views are impacted by the proposed development. Pursuant to Appendix 1 of the PDCP 2023, the subject site is not located along any view corridors. Therefore, the proposed development is not expected to impact on any historic views.</p> <p>(g) <i>to maintain satisfactory sky exposure and daylight to—</i></p> <ol style="list-style-type: none"> <i>i. existing buildings in commercial centres, and</i> <i>ii. the sides and rear of tower forms, and</i> <i>iii. key areas of the public domain, including parks, streets and lanes.</i>
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	<p>Comment: Given the scale and location of the proposed development, the proposal is not expected to impact on the sky exposure or daylight of any existing buildings in commercial centre, the side and rear of tower forms or key areas of the public domain, including parks, streets and lanes.</p> <p>Therefore, noting the above the proposed height of the building is considered to be supportable on merit grounds.</p>		
<p>Clause 4.4 Floor space ratio Allowable: 1.2:1 or 2,152.3m²</p>	<p>Proposed: 2,151.5m² or 1.19:1</p>	No change is proposed.	Yes.
<p>Clause 4.6 Exceptions to Development Standards</p>	A variation to Section 4.3 Height of Buildings is proposed.	As this proposal is a modification under Clause 4.55 of the Environmental Planning and Assessment Act 1979, Clause 4.6 of the PLEP is not applicable.	Yes.
Part 5 Miscellaneous provisions			
<p>Clause 5.10 Heritage conservation</p>	The subject site does not contain a heritage item, or within a heritage conservation area. The subject site is in the vicinity of a number of items. The current proposal will have no impact upon the heritage curtilage of existing heritage items within proximity to the development site.	<p>The subject site does not contain a heritage item, nor is the site located within a heritage conservation area. However, it is noted that the subject site is located within the vicinity of heritage items as adjoining the subject site to the east is 6 Boundary Street which is identified as a heritage item I457 and opposing the subject site at 128-130 Railway Street is heritage item I208. Both items are listed in Scheule 5 of PLEP 2023 and have been identified as having local significance.</p> <p>Notwithstanding, the proposed modifications are considered to be predominantly internal with the exception of window changes and the proposed increase to the height of the development. As discussed previously, the proposed increase in the overall height of the building is located at the centre of the building and is not expected to be overly visible from the street.</p> <p>Therefore, the proposed modifications are not expected to impact on the curtilage of the existing heritage items within the vicinity of the subject site.</p>	Yes.
<p>Clause 5.21 Flood Planning</p>	The site is not identified to be flood prone.		N/A.
Part 6 Additional local provisions			
<p>Clause 6.1 Acid sulfate soils</p>	An Acid Sulfate Soils Management Plan is not required to be prepared.	The subject site is identified as containing Class 5 Acid Sulfate Soils. An Acid Sulfate Soils Management Plan is not required to be prepared.	N/A.
<p>Clause 6.2 Earthworks</p>	Significant excavation of the site is proposed. The applicant has submitted a geotechnical assessment report for the site. The proposed development is in keeping with the objectives of the clause.	<p>The proposed modifications include lowering the finished floor level of the proposed basement from RL 30.9m AHD to RL 30.5m AHD.</p> <p>The proposed additional cut is not expected to affect the likely future use or redevelopment of the land. Therefore, the proposed earthworks</p>	Yes.

		are considered to be consistent with the objectives of this clause.	
Clause 6.4 Biodiversity protection	The site is not identified on this map.		N/A.
Clause 6.5 Stormwater Management	Satisfactory	Council's Development Engineer has reviewed the application and raised no objections to the proposed development subject to condition of consent.	Yes.
Clause 6.6 Foreshore Area	The site is not located in the foreshore area.		N/A.
Clause 6.8 Landslide risk	The site is not identified on this map.		N/A.

11 DEVELOPMENT CONTROL PLANS

11.1 PARRAMATTA DEVELOPMENT CONTROL PLAN 2023

The modification would not alter compliance with the relevant Development Control Plan as assessed under the original application with the exception of the following provisions:

Development Control	Original application	Modification	Compliance
Part 2 – Design in Context			
2.3 Preliminary Building Envelope	Complies	The proposed building envelope is considered to be acceptable in this instance given the character of the area.	Yes.
2.4 Building Form and Massing	The proposal has an acceptable bulk and scale as the variation of the building height is considered to be appropriate in this context. The building envelope is generally compliant in all other aspects.	With the exception of the proposed increase in the height of the lift overrun, no change is proposed to the building form and massing of the proposed development. Notwithstanding, the further height variation is considered to be supportable in this instance.	Yes.
2.5 Streetscape and Building Address	The proposal is consistent with the existing built form elements that contribute to the character of the street as the proposed built form visually presents as a 4-storey residential flat building with landscaped front and side setbacks. In this context the proposal is consistent with the existing and future desired character of the locality.	The proposed development remains a 4-storey residential flat building with associated landscaping. The proposed modifications include the provision of window changes and glass balustrades. Notwithstanding, the overall form of the development and design is considered suitable for the site and is conducive of the site constraints.	Yes.
2.6 Fences	A 1.2m front fence is proposed.	No change is proposed.	N/A.
2.8 Views and Vistas	There are no significant views and vistas from the subject site identified in Appendix 1 of PDCP 2023.		N/A.
2.9 Public Domain	Complies.	No change is proposed.	N/A.
2.10 Accessibility and Connectivity	Complies.	No change is proposed.	N/A.
2.11 Access for People with Disabilities	The provides adequate access for people with a disability, in accordance with the requirements of the BCA.	No change is proposed.	N/A.
2.14 Safety and Security	The proposal does not contribute to the provision of any increased opportunity for criminal or anti-social behaviour to occur. The front entry door faces towards adjacent street, promoting natural	No change is proposed.	N/A.

	surveillance from within the unit to the front setback and public domain.		
Part 3 – Residential Development			
3.1 Housing Diversity and Choice			
3.1.2 Dwelling Mix <i>The following dwelling mix is required for RFBs, containing 10 or more dwellings:</i> (a) 10-20% of dwellings to have 3 or more bedrooms. (b) 60-75% of dwellings to have 2 bedrooms. (c) 10-20% of dwellings to have 1 bedroom/studio.	1 bedroom (4) = 16% 2 bedroom (18) = 72% 3 bedroom (3) = 12% The proposed housing stock will satisfactorily contribute to the housing diversity and choice for the neighbourhood.	No change is proposed.	N/A.
3.1.3 Accessible and Adaptable Housing <i>Residential flat buildings are to provide adaptable housing in accordance with the below:</i> • 10 or more apartments = 15% total dwellings	The proposed development provides three (3) accessible units. This represents 12% of the total proposed units.	No change is proposed.	N/A.
3.2 General Residential Controls			
3.2.1 Solar Access and Ventilation	The proposal is compliant with the solar access and cross ventilation requirements of the ADG.	It is noted that the increased height of the lift overrun casts a shadow over the rooftop communal open space. Notwithstanding, the submitted shadow diagrams demonstrate that the proposed development meets the required solar access for private and communal open spaces as well as the primary living areas of the units and adjoining properties.	Yes.
3.2.2 Visual and Acoustic Privacy	Satisfactory, subject to conditions of consent.	No change is proposed to the building setbacks, nor are any changes proposed to the balconies or finished floor levels of the habitable storeys of the building. It is noted that window changes are proposed to accommodate the proposed internal layout changes. However, the schedule of windows is not considered to be inconsistent with the previous development application. Therefore, the visual and acoustic privacy of the development is considered to be sufficient subject to conditions of consent imposed under the original development application.	Yes.

3.5 Apartment Buildings			
3.5.1 Key Development Standards for Apartment Buildings			
3.5.1.1 Minimum Site Frontage			
<i>Min. 24m site frontage at building line</i>	Proposed: Min 50.4m (Railway Street) Min. 21.68m (Boundary Parade)	No change is proposed.	N/A.
<i>Corner lots must have a minimum site frontage width of 18m for the shortest street frontage.</i>	Proposed Min. 21.68m (Boundary Street)	No change is proposed.	N/A.
3.5.1.2 Preliminary Building Envelope			
Building Height			
<i>14m (Four storeys)</i>	Proposed: 16.2m Variation: 2.2m or 15.7%	Proposed: 16.99m Variation: 2.99m or 21.36% (to standard) Note: Refer to comment above regarding the proposed variation to Clause 4.3 Height of Buildings.	No – Supportable on merit.
<i>Any part of a basement or subfloor area that projects greater than 1m above NGL comprises a storey.</i>	Not Applicable.	No change is proposed.	N/A.
Street Setback			
<i>6m front setback (including 3m setback for landscape)</i>	Proposed: 6m (Railway and Boundary Street)	No change is proposed.	N/A.
<i>Buildings must be set back a minimum of 3 metres from the secondary street.</i>	Proposed: 6m to Boundary Street.	No change is proposed.	N/A.
Side and Rear Setbacks			
<i>Side and rear setback are to be provided to ensure compliance with the residential privacy and separation requirements of the ADG.</i>	Proposed: 6m	No change is proposed.	N/A.
3.5.1.3 Streetscape and Building Address	The proposal is consistent with the existing built form elements that contribute to the character of the street as the proposed built form visually presents as a 4-storey residential flat building with landscaped front and side setbacks. In this context the proposal is consistent with the existing and future desired character of the locality.	The proposed development remains a 4-storey residential flat building with associated landscaping. The proposed modifications include the provision of window changes and glass balustrades. Notwithstanding, the overall form of the development and design is considered suitable for the site and is conducive of the site constraints.	Yes.
3.5.1.4 Open Space and Landscape			
<i>Deep Soil Zone Required: Min. 30% of the site (50% to be located at the rear) On sites over 1,500m², a min. dimension of 6m will be required for at least 7% of the total site area in accordance with the ADG.</i>	There will be deep soil area located to the northeastern corner and on the southern boundary of the site. It is noted that the proposed deep soil zone complies with the requirements of the ADG.	Proposed: 14.89% or 266.51m ² (additional areas included that were excluded). Note: The proposed reconfiguration of the basement to accommodate the expansion of the pump room results in a reduction in the amount of deep soil on the site by approximately 22.4m ² . Notwithstanding, it is noted that more than 7% of the site is dedicated to deep soil with dimensions of 3m. Whilst the site denotes an	No – Supportable.

		area larger than 1,500m ² the calculation of deep soil with the dimension of 3m is consistent with the original application. Therefore, the proposed deep soil zone is considered to be supportable.	
<i>Communal Open Space</i> <i>Residential flat buildings must provide communal open space to meet the requirements of Section 3D of the Apartment Design Guide.</i>	A combined area of 485m ² of communal open space has been provided on the roof top and at ground level.	No change is proposed.	N/A.
<i>Private Open Space</i> <i>Private open space with a min. dimension of 2 metres must be provided for each dwelling as follows:</i> <i>a) 1-bedroom/studio units must provide a minimum of 8m² per dwelling.</i> <i>b) 2-bedroom units must provide a minimum of 12m² per dwellings.</i>	Each dwelling unit has a compliant POS, that meets the minimum dimensions.	No change is proposed.	N/A.
3.5.1.5 Parking Design and Vehicular Access	31 residential parking spaces including 3 accessible spaces, and 7 visitors parking spaces provided.	No change is proposed to the number of proposed parking spaces (including accessible spaces) and visitor spaces.	Yes.
3.5.1.6 Internal Amenity	Not applicable.	The development proposes 2.7m ceiling heights. The proposed development also provides compliant solar access and ventilation and as such sufficient internal amenity is considered to have been provided.	Yes.
3.6 Residential Subdivision			
3.6.1 Site Consolidation and Development on Isolated Sites	The proposal is for consolidation of three sites into one site. The proposal does not result in the isolation of any adjoining properties.	No change is proposed.	N/A.
Part 5 – Environmental Management			
5.1 Water Management	Council's Development Engineer considers the development proposal complies with the objectives of water sensitive urban design. The proposal has been supported subject to conditions.	No change is proposed.	Yes.
5.2 Hazard and Pollution management			
5.2.1 Control of Soil Erosion and Sedimentation	The submitted erosion and sedimentation plan has been considered satisfactory by Council. Appropriate conditions have been included in the consent to its effect.	No change is proposed.	N/A.
5.2.2 Acid Sulfate Soils	The proposed does not impact on acid sulfate soils.	The subject site is identified as containing Class 5 Acid Sulfate Soils. An Acid Sulfate Soils Management Plan is not required to be prepared.	N/A.

5.2.3 Salinity	The proposal does not impact on salinity.	No change is proposed.	N/A.
5.2.4 Earthworks and Development of Sloping Land	The cut proposed is to accommodate basement parking. No concerns have been raised by Council's development engineer in relation to impact on the nature of the overland flow path.	With the exception of the proposed level changes to the basement, no changes are proposed to the earthworks on site. Notwithstanding, the proposed additional cut is not expected to affect the likely future use or redevelopment of the land. Therefore, the proposed earthworks are considered to be consistent with the objectives of this clause	Yes.
5.2.5 Land Contamination	Conditions of consent are recommended that the developer must inform Council of any contamination that may be present on site that is found through the demolition and construction stages and compliance with the recommendation of the preliminary site investigation report	No change is proposed.	N/A.
5.2.6 Air Quality	The proposal does not impact on air quality.	No change is proposed.	N/A.
5.2.7 Bush Fire Prone Land	Not applicable.	The site is not identified as bushfire prone.	N/A.
5.3 Protection of the Natural Environment	The proposed development includes the removal of nine (9) trees from the site. Council's Tree Management and Landscape Officer has reviewed the application and raised no objections to the proposed development subject to conditions of consent.	No change is proposed.	N/A.
5.4 Environmental Performance			
5.4.1 Energy Efficiency	The requirements outlined in the BASIX certificate have been satisfied in the design of the proposal. A condition has been imposed to ensure such commitments are fulfilled during the construction of the development.	The requirements outlined in the BASIX certificate have been satisfied in the design of the proposal. A condition has been imposed to ensure such commitments are fulfilled during the construction of the development.	Yes.
5.4.2 Water Efficiency	The requirements outlined in the BASIX certificate have been satisfied in the design of the proposal. A condition has been imposed to ensure such commitments are fulfilled during the construction of the development.	The requirements outlined in the BASIX certificate have been satisfied in the design of the proposal. A condition has been imposed to ensure such commitments are fulfilled during the construction of the development.	Yes.
5.4.8 Waste Management	The Waste Management Plan is satisfactory, detailing the types and amounts of waste that will be generated by the development and the methods of removal and disposal.	No change is proposed.	N/A.
Part 6 – Traffic and Transport			
6.2 Parking and Vehicular Access	31 residential parking spaces including 3 accessible spaces, and 7 visitors parking spaces provided.	No change is proposed to the number of proposed parking spaces (including accessible spaces) and visitor spaces.	Yes.
6.3 Bicycle Parking	15 bicycle space provided.	No change is proposed.	N/A.
Part 7 – Heritage and Archaeology			
7.5 Development in The Vicinity of Heritage	Satisfactory.	As stated above, the subject site is located within the vicinity of heritage items as adjoining the subject site to the east is 6 Boundary Street	Yes.

		<p>which is identified as a heritage item I457 and opposing the subject site at 128-130 Railway Street is heritage item I208. Both items are listed in Schedule 5 of PLEP 2023 and have been identified as having local significance.</p> <p>The proposed modifications are considered to be predominantly internal with the exception of window changes and the proposed increase to the height of the development. No changes are proposed to overall scale of the development being for a four (4) storey RFB, the orientation of the proposed development or any setbacks which provide adequate space around the heritage items. Further, the proposed increase in height is considered to be minor and is not expected to degrade the views from the public domain to the heritage items.</p> <p>Therefore, the proposed modifications are not expected to impact on the curtilage of the existing heritage items within the vicinity of the subject site.</p>	
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12 REFERRALS

12.1 INTERNAL REFERRALS

Specialist	Comment
Development Engineering	Supported, subject to conditions of consent.

12.2 EXTERNAL REFERRALS

No external referrals required.

13 EP&A REGULATION 2021

The amended proposal would not alter compliance with the EP&A Regulations 2021.

14 PUBLIC CONSULTATION

14.1 NOTIFICATION AND ADVERTISING

The application was notified in accordance with Council’s Consolidated Notification Procedures. In response no (0) unique submissions were received.

14.2 CONCILIATION CONFERENCE

On 11 December 2017, Council resolved that:

“If more than 7 unique submissions are received over the whole LGA in the form of an objection relating to a development application during a formal notification period, Council will host a conciliation conference at Council offices.”

Conciliation Conference – Not Required

The application received no (0) unique submissions during the formal notification period and as a result a Conciliation Conference was not required to be held.

15 LIKELY IMPACTS OF THE DEVELOPMENT

The modified proposal would not have additional impacts as considered under the original application.

16 SUITABILITY OF THE SITE

Council is satisfied that the site is suitable for the modified proposal.

17 DEVELOPMENT CONTRIBUTIONS**17.1 SECTION 7.12 CONTRIBUTIONS**

The City of Parramatta (Outside CBD) Development Contributions Plan 2021 commenced on 20 September 2021. It was prepared by the City of Parramatta Council under section 7.11 of the Environmental Planning and Assessment Act 1979.

A section 7.11 contribution is applicable since the proposed development is identified on land to which this contribution plan applies and results in a net population increase. As such a condition of consent was imposed for the payment of the contribution during the assessment of the original development application.

As the subject modification does not result in any further net population increases, an amended development contribution amount is not applicable.

17.2 HOUSING PRODUCTIVITY CONTRIBUTION

The proposed Housing and Productivity Contribution (HPC) is an integrated approach for growth planning and infrastructure provision to support the delivery of new housing and jobs.

The *Environmental Planning and Assessment (Housing and Productivity Contributions) Order 2024* came into effect on the 1 October 2023 and applies to all development applications lodged on or after 1 October 2023. In this case as the original development application was determined on 8 March 2023, prior to the commencement of the HPC, the proposed development is exempt from paying the contribution.

18 CONCLUSION

After consideration of the development against Section 4.15 of the Environmental Planning and Assessment Act 1979, and the relevant statutory and policy provisions, the proposal *is* suitable for the site and *is* in the public interest. Therefore, it is recommended that the application be approved subject to the imposition of appropriate conditions.

19 RECOMMENDATION**A APPROVAL**

- A. That the Parramatta Local Planning Panel, support the variation to the Height of Buildings for the following reasons:
 - a. The departure representing a variation of 21.36% from the standard is reasonable and allows for a transition of height that is sympathetic with the existing topography whilst providing good urban design.
 - b. The departure does not result in adverse amenity impacts to adjoining developments.

- c. Despite the departure the development remains generally consistent with the controls and provisions of ADG and PDCP 2023.
- d. The variation to the height does not result in unreasonable perception of bulk and scale.
- B. Further, that the Parramatta Local Planning Panel, exercising the function of the consent authority, pursuant to Section 4.16 of the Environmental Planning and Assessment Act 1979, modify development consent DA/61/2022 for demolition of existing structures, tree removal, lot consolidation and the construction of a four (4) storey Residential Flat Building with basement parking to include internal and external changes on land at 85 Railway Street, Parramatta, subject to the following modified conditions of consent:
- a. Amend Condition Nos. 1, 25, 26, 96 and 103.
- b. All other conditions of DA/61/2022/A remain unchanged.

To facilitate the above modifications, the following conditions will need to be amended:

Condition No. 1 to be amended:

1. Development must be carried out in accordance with the following approved plans and supporting documentation (stamped by Council), except where the conditions of this consent expressly require otherwise:

Architectural Drawings (Project No. 140621 S4.55-200) by Design Cubicle Architectural Solutions & (Project No. 28806) by IDA Design Group

Drawing/Plan No.	Issue	Plan Title	Dated
S4.55 -200	A	Site Plan	01.07.2024
S4.55 -201	A	Basement Plan	01.07.2024
S4.55 -202	A	Ground Floor Plan	01.07.2024
S4.55 -203	A	First Floor Plan	01.07.2024
S4.55 -204	A	Second Floor Plan	01.07.2024
S4.55 -205	A	Third Floor Plan	01.07.2024
S4.55 -206	A	Roof Plan	01.07.2024
S4.55 -301	A	Elevations 1 of 2	01.07.2024
S4.55 -302	A	Elevations 1 of 2	01.07.2024
S4.55 -303	A	Sections	01.07.2024
4012	C	Details	24.02.2023
4017	C	Courtyard Details	24.02.2023

Civil Drawings/Stormwater (Project No.2021316) by Telford Civil

Drawing/Plan No.	Issue	Plan Title	Dated
000	H	Cover Sheet Plan	24.07.2024
101	H	Stormwater Concept Plan-Basement Level Sheet 1 of 2	24.07.2024
102	H	Stormwater Concept Plan-Basement Level Sheet 2 of 2	24.07.2024
103	H	Stormwater Concept Plan	24.07.2024
104	H	Site Plan	24.07.2024
105	H	WSUD Catchment Plan	24.07.2024
106	H	OSD & WSUD Details & Calculations Sheet 1 of 2	24.07.2024

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Drawing/Plan No.	Issue	Plan Title	Dated
107	H	OSD & WSUD Details & Calculations Sheet 2 of 2	24.07.2024
108	H	Miscellaneous Details Sheet	24.07.2024

Landscape Drawings by Canvas Landscape Architects

Drawing/Plan No.	Issue	Plan Title	Dated
DA-L101	B	Landscape Plan – Ground Floor	22.06.2022
DA-L102	B	Landscape Plan – roof top COS & Sections	22.06.2022

Specialist Reports

Document	Ref No.	Issue	Prepared By	Dated
Statement of Environmental Effects	-	-	Think Planners	19.12.2021
Waste Management Plan	-	-	Ali lbshara	16.12.2021
Finishes Schedule	140621	-	Design Cubicle Architectural Solutions	23.07.2024
BASIX Certificate No.1264524M_04	-	-	EPS	12.08.2024
Preliminary Site Investigation report	E21261-1	-	Geotechnical Consultants Australia	10.12.2021
Geotechnical Investigation & Acid Sulfate Soils Assessment report	31552/5832D-G	21/3410	STS Geotechnics P/L	2.12.2021
Traffic Report	N216716A	1b	Motion Traffic Engineers P/L	June 2022
Access report	21409	A	Vista Access Architects	11.12.2021
Arboricultural Impact Assessment Statement	-	-	TreeHaven Environmentscapes	6.12.2021
Addendum to Arboricultural Impact Assessment Statement	-	-	TreeHaven Environmentscapes	1.12.2022
Acoustic report	R210908 R1	2	Rodney Stevens Acoustics	24.07.2024
Hazardous Materials Survey	E21250-1	-	Geotechnical Consultants Australia	3.12.2021
BCA Compliance Assessment report	-	-	VCD Certification	25.11.2021
Design Verification Statement	-	-	Design Cubicle Pty Ltd	18.10.2024

In the event of any inconsistency between the approved plans and the supporting documentation, the approved plans prevail. In the event of any inconsistency between the approved plans and a condition of consent, the condition prevails.

Note: An inconsistency occurs between an approved plan and supporting documentation or between an approved plan and a condition when it is not possible to comply with both at the relevant time.

Reason: To ensure all parties are aware of the approved plans and supporting documentation that applies to the development.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

Condition No. 25 to be amended:

25. Full engineering construction details of the stormwater system, including OSD structures, pipe networks and calculations as per following points, shall be submitted for the approval of the PCA prior to release of the Construction Certificate for any work on the site.
- (a) The stormwater drainage detail design shall be prepared by a Registered Stormwater Design Engineer and shall be generally in accordance with the following Stormwater Plans approved by this consent and with Council's Stormwater Disposal Policy, Council's Design and Development Guidelines, The Upper Parramatta River Catchment Trust On Site Detention Hand book (Third or Fourth Edition), the relevant Australian Standards and the National Construction Code.
 - (i) Concept stormwater drainage plans, **Project No. 2021316, Issue H, dated 24 July 2024, prepared by Telford Civil.**
 - (b) A Site Storage Requirement of 215 m³/ha and a Permissible Site Discharge of 235 L/s/ha (when using 3rd edition of UPRCT's handbook).
 - (c) Adequate grate(s) to be provided so the OSD tank storage area can be inspected from outside for silt and debris, and to ensure adequate cross ventilation within the tank.
 - (d) Certificate from registered structural engineer certifying the structural adequacy of the OSD tank structure.
Reason: To minimise the quantity of storm water run-off from the site, surcharge from the existing drainage system and to manage downstream flooding.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

Condition No. 26 to be amended:

26. Water quality treatment devices must be installed to manage surface runoff water to satisfy Section 3.3.6.1 of Parramatta Development Control Plan 2011. Details of the proposed devices and their location must accompany the application for a Construction Certificate to the satisfaction of the Certifying Authority and shall be consistent with the concept stormwater drainage plans, **Project No. 2021316, Issue H, dated 24 July 2024, prepared by Telford Civil.**
- Reason:** To ensure appropriate water quality treatment measures are in place.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

Condition No. 96 to be amended:

96. Under Section 75 of the Environmental Planning & Assessment Regulation 2021, it is a condition of this development consent that all design measures identified in the BASIX Certificate No. **1264524M_04**, will be complied with prior to occupation.
- Reason:** To comply with legislative requirements of section 75 of the Environmental Planning & Assessment Regulation 2021.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

Condition No. 103 to be amended:

103. Prior to the issue of an occupation certificate (Interim or Final), written certification from a suitably qualified person(s) shall be submitted to the Principal Certifying Authority and City of Parramatta Council, stating that all works/methods/procedures/control measures approved by Council in the following report have been completed:

(a) Acoustic Report No. R210908 R1 rev. 2, dated 24 July 2024, prepared by Rodney Stevens Acoustics.

Reason: To demonstrate compliance with submitted reports.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

"Appendix 1" to Section 4.15 Assessment Report - DA/61/2022/B

DRAFT CONDITIONS OF CONSENT

Upon the signature of the applicable delegate, the conditions in this Appendix will form the conditions of development consent.

Development Consent No.: DA/61/2022/B
Property Address: Lot 126 DP 1301954
 85 Railway Street, PARRAMATTA NSW 2150

SCHEDULE 2:**PART A – GENERAL CONDITIONS**

1. Development must be carried out in accordance with the following approved plans and supporting documentation (stamped by Council), except where the conditions of this consent expressly require otherwise:

Architectural Drawings (Project No. 140621 S4.55-200) by Design Cubicle Architectural Solutions & (Project No. 28806) by IDA Design Group

Drawing/Plan No.	Issue	Plan Title	Dated
S4.55 -200	A	Site Plan	01.07.2024
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103	H	Stormwater Concept Plan	24.07.2024
104	H	Site Plan	24.07.2024

Drawing/Plan No.	Issue	Plan Title	Dated
105	H	WSUD Catchment Plan	24.07.2024
106	H	OSD & WSUD Details & Calculations Sheet 1 of 2	24.07.2024
107	H	OSD & WSUD Details & Calculations Sheet 2 of 2	24.07.2024
108	H	Miscellaneous Details Sheet	24.07.2024

Landscape Drawings by Canvas Landscape Architects

Drawing/Plan No.	Issue	Plan Title	Dated
DA-L101	B	Landscape Plan – Ground Floor	22.06.2022
DA-L102	B	Landscape Plan – roof top COS & Sections	22.06.2022

Specialist Reports

Document	Ref No.	Issue	Prepared By	Dated
Statement of Environmental Effects	-	-	Think Planners	19.12.2021
Waste Management Plan	-	-	Ali lbshara	16.12.2021
Finishes Schedule	140621	-	Design Cubicle Architectural Solutions	23.07.2024
BASIX Certificate No.1264524M_04	-	-	EPS	12.08.2024
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Traffic Report	N216716A	1b	Motion Traffic Engineers P/L	June 2022
Access report	21409	A	Vista Access Architects	11.12.2021
Arboricultural Impact Assessment Statement	-	-	TreeHaven Environmentscapes	6.12.2021
Addendum to Arboricultural Impact Assessment Statement	-	-	TreeHaven Environmentscapes	1.12.2022
Acoustic report	R210908 R1	2	Rodney Stevens Acoustics	24.07.2024
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BCA Compliance Assessment report	-	-	VCD Certification	25.11.2021
Design Verification	-	-	Design Cubicle Pty	18.10.2024

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Note: An inconsistency occurs between an approved plan and supporting documentation or between an approved plan and a condition when it is not possible to comply with both at the relevant time.

Reason: To ensure all parties are aware of the approved plans and supporting documentation that applies to the development.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

2. Prior to commencement of any construction works associated with the approved development (including excavation if applicable), it is mandatory to obtain a Construction Certificate. Plans, specifications and relevant documentation accompanying the Construction Certificate must include any requirements imposed by conditions of this Development Consent.

Reason: To ensure compliance with legislative requirements.

3. Approval is granted for the demolition of all buildings and outbuildings currently on the property, subject to compliance with the following: -

(a) Demolition is to be carried out in accordance with the applicable provisions of Australian Standard AS2601-2001 - Demolition of Structures.

Note: Developers are reminded that WorkCover requires that all plant and equipment used in demolition work must comply with the relevant Australian Standards and manufacturer specifications.

(b) The developer is to notify owners and occupiers of premises on either side, opposite and at the rear of the development site 5 working days prior to demolition commencing. Such notification is to be a clearly written on A4 size paper giving the date demolition will commence and is to be placed in the letterbox of every premises (including every residential flat or unit, if any). The demolition must not commence prior to the date stated in the notification.

(c) 5 working days (i.e., Monday to Friday with the exclusion of Public Holidays) notice in writing is to be given to City of Parramatta for inspection of the site prior to the commencement of works. Such written notice is to include the date when demolition will commence and details of the name, address, business hours, contact telephone number and licence number of the demolisher. Works are not to commence prior to Council's inspection and works must also not commence prior to the commencement date nominated in the written notice.

(d) On the first day of demolition, work is not to commence until City of Parramatta has inspected the site. Should the building to be demolished be found to be wholly or partly clad with asbestos cement, approval to commence demolition will not be given until Council is satisfied that all measures are in place so as to comply with Work Cover's document "Your Guide to Working with Asbestos", and demolition works must at all times comply with its requirements.

(e) On demolition sites where buildings to be demolished contain asbestos cement, a standard commercially manufactured sign containing the words "DANGER ASBESTOS REMOVAL IN PROGRESS" measuring not less than 400mm x 300mm is to be erected in a prominent visible position on the site to the satisfaction of Council's officers. The sign is to be erected prior to demolition work commencing and is to remain in place until such time as all asbestos cement has been removed from the site to an approved waste facility. This condition is imposed for the purpose of worker and public safety and to ensure compliance with Clause 469 of the Work Health and Safety Regulation 2017.

- (f) Demolition must not commence until all trees required to be retained are protected in accordance with the conditions detailed under "Prior to Works Commencing" in this Consent.
- (g) All previously connected services are to be appropriately disconnected as part of the demolition works. The applicant is obliged to consult with the various service authorities regarding their requirements for the disconnection of services.
- (h) Prior to the commencement of any demolition works, and where the site ceases to be occupied during works, the property owner must notify Council to discontinue the domestic waste service and to collect any garbage and recycling bins from any dwelling/ building that is to be demolished. Waste service charges will continue to be charged where this is not done. Construction and/ or demolition workers are not permitted to use Council's domestic waste service for the disposal of any waste.
- (i) Demolition works involving the removal and disposal of asbestos cement in excess of 10 square meters, must only be undertaken by contractors who hold a current WorkCover "Demolition Licence" and a current WorkCover "Class 2 (Restricted) Asbestos Licence".
- (j) Demolition is to be completed within 5 days of commencement.
- (k) Demolition works are restricted to Monday to Friday between the hours of 7.00am to 5.00pm. No demolition works are to be undertaken on Saturdays, Sundays or Public Holidays.
- (l) 1.8m high Protective fencing is to be installed to prevent public access to the site.
- (m) A pedestrian and Traffic Management Plan must be submitted to the satisfaction of Council prior to commencement of demolition and/or excavation. It must include details of the:
- Proposed ingress and egress of vehicles to and from the construction site;
 - Proposed protection of pedestrians adjacent to the site;
 - Proposed pedestrian management whilst vehicles are entering and leaving the site.
- (n) All asbestos laden waste, including asbestos cement flat and corrugated sheets must be disposed of at a tipping facility licensed by the NSW Environment Protection Authority (EPA).
- (o) Before demolition works begin, adequate toilet facilities are to be provided.
- (p) After completion, the applicant must notify City of Parramatta within 7 days to assess the site and ensure compliance with AS2601-2001 – Demolition of Structures.
- (q) Within 14 days of completion of demolition, the applicant must submit to Council:
- An asbestos clearance certificate issued by a suitably qualified person if asbestos was removed from the site; and
 - A signed statement verifying that demolition work and the recycling of materials was undertaken in accordance with the Waste Management Plan approved with this consent. In reviewing such documentation Council will require the provision of original.
 - Payment of fees in accordance with Council's current schedule of fees and charges for inspection by Parramatta Council of the demolition site prior to commencement of any demolition works and after the completion of the demolition works.

Reason: To protect the amenity of the area.

4. Trees to be retained are:

Tree No.	Name	Common Name	Location	Tree Protection Zone (m)
1	<i>Olea africana</i>	African Olive	3 Rosehill Street	6m

Reason: To protect significant trees which contribute to the landscape character of the area.

5. The following street trees shall be planted within the road reserve;

Qty	Name	Common Name	Minimum Pot Size	Name of Street Frontage
3	<i>Corymbia maculata</i>	Spotted Gum	45L	Railway Street
1	<i>Corymbia maculata</i>	Spotted Gum	45L	Boundary Street

Note: All approved street tree plantings shall be planted a minimum of 3m from any driveway and 12m from an intersection.

Reason: To ensure restoration of environmental amenity.

6. The development must be constructed within the confines of the property boundary. No portion of the proposed structure, including footings/slabs, gates and doors during opening and closing operations must encroach upon Council's footpath area or the boundaries of the adjacent properties.

Reason: To ensure no injury is caused to persons and the building is erected in accordance with the approval granted within the boundaries of the site.

7. Before the issue of a construction certificate, the applicant is to ensure that the person liable pays the long service levy of either 0.35% of the value of building and construction work where the cost of building is \$25,000 or more (inclusive of GST) or as calculated at the date of this consent to the Long Service Corporation or Council under section 34 of the Building and Construction Industry Long Service Payments Act 1986 and provides proof of this payment to the certifier.

Note: The Long Service Levy is to be paid directly to the **Long Service Corporation** at www.longservice.nsw.gov.au. For more information, please contact the Levy support team on 13 14 41.

Reason: To ensure that the long service levy is paid.

8. Before the commencement of any works on the site or the issue of a construction certificate, the applicant must make all of the following payments to Council and provide written evidence of these payments to the certifier:

Bond Type	Amount
Nature Strip and Roadway: Applies to all developments with a cost greater than \$1,000,000 (fee is per street frontage). See current Schedule of Fees and Charges.	\$51,500.00

The payments will be used for the cost of:

- making good any damage caused to any council property (including street trees) as a consequence of carrying out the works to which the consent relates,
- completing any public work such as roadwork, kerbing and guttering, footway construction, stormwater drainage and environmental controls, required in connection with this consent, and
- any inspection carried out by Council in connection with the completion of public work or the making good any damage to council property.

Note: The inspection fee includes Council's fees and charges and includes the Public Road and Footpath Infrastructure Inspection Fee (under the Roads Act 1993). The amount payable must be in accordance with council's fees and charges at the payment date.

Reason: To ensure any damage to public infrastructure is rectified and public works can be completed.

Note: The bond may be paid, by EFTPOS, bank cheque, or be an unconditional bank guarantee.

Should a bank guarantee be lodged it must:

- Have no expiry date;
- Be forwarded directly from the issuing bank with a cover letter that refers to Development Consent **DA/61/2022**;
- Specifically reference the items and amounts being guaranteed. If a single bank guarantee is submitted for multiple items it must be itemised.

Should it become necessary for Council to uplift the bank guarantee, notice in writing will be forwarded to the applicant fourteen days prior to such action being taken. No bank guarantee will be accepted that has been issued directly by the applicant.

A dilapidation report is required to be prepared and submitted electronically to the City of Parramatta Council (council@cityofparramatta.nsw.gov.au) prior to any work or demolition commencing and with the payment of the bond/s.

The dilapidation report is required to document/record any existing damage to kerbs, footpaths, roads, nature strips, street trees and furniture within street frontage/s bounding the site up to and including the centre of the road.

Reason: To safe guard the public assets of council and to ensure that these assets are repaired/maintained in a timely manner so as not to cause any disruption or possible accidents to the public.

9. All waste storage areas/rooms are to comply with the City of Parramatta Waste Management Guidelines for New Developments. No waste materials are to be stored outside the building or any approved waste storage area at any time.

Reason: To ensure waste is adequately separated and managed in mixed use developments.

10. A waste storage room is to be provided on the premises and shall be constructed to comply with all the relevant provisions of Council's Development Control Plan (DCP) including:
- The size being large enough to accommodate all waste generated on the premises, with allowances for the separation of waste types and bulky materials;
 - The floor being graded and drained to an approved drainage outlet connected to the sewer and having a smooth, even surface, coved at all intersections with walls;
 - The walls being cement rendered to a smooth, even surface and coved at all intersections;
 - Cold water being provided in the room with the outlet located 1.5m above floor level to avoid damage and a hose fitted with a nozzle being connected to the outlet;
 - The room shall be adequately ventilated (either natural or mechanical) in accordance with the Building Code of Australia.

Reason: To ensure provision of adequate waste storage arrangements

11. Hazardous or intractable wastes arising from the demolition process shall be removed and disposed of in accordance with the requirements of Safework NSW and the EPA, and with the provisions of:
- Work Health and Safety Act 2011;
 - NSW Protection Of the Environment Operations Act 1997 (NSW); and
 - NSW Environment Protection Authority (EPA) Waste Classification Guidelines.

Reason: To ensure that the land is suitable for the proposed development and any contaminating material required to be removed from the property is removed in accordance with the prescribed manner.

12. All fill imported onto the site shall be validated to ensure the imported fill is suitable for the proposed land use from a contamination perspective. Fill imported on to the site shall also be compatible with the existing soil characteristic for site drainage purposes.

Council may require details of appropriate validation of imported fill material to be submitted with any application for future development of the site. Hence all fill imported onto the site should be validated by either one or both of the following methods during remediation works:

- Imported fill should be accompanied by documentation from the supplier which certifies that the material is not contaminated based upon analyses of the material for the known past history of the site where the material is obtained; and/or
- Sampling and analysis of the fill material shall be conducted in accordance with NSW EPA (1995) Sampling Design Guidelines.

Reason: To ensure imported fill is of an acceptable standard.

13. A sign displaying the contact details of the remediation shall be displayed on the site adjacent to the site access. This sign shall be displayed throughout the duration of the remediation works.

Reason: To provide contact details for council inspectors and for the public to report any incidents.

14. Any new information which comes to light during remediation, demolition or construction works which has the potential to alter previous conclusions about site contamination shall be notified to the Council and the principal certifying authority immediately.
Reason: To ensure that the land is suitable for its proposed use and poses no risk to the environment and human health.
15. Groundwater shall be analysed for pH and any contaminants of concern identified during the preliminary or detailed site investigation, prior to discharge to the stormwater system. The analytical results must comply with relevant NSW EPA water quality standards and Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
- Other options for the disposal of groundwater include disposal to sewer with prior approval from Sydney Water or off-site disposal by a liquid waste transporter for treatment/disposal to an appropriate waste treatment/processing facility.
Reason: To ensure that contaminated groundwater does not impact upon waterways.
16. Any contamination material to be removed from the site shall be disposed of to an EPA licensed landfill.
Reason: To comply with the statutory requirements of the Protection of the Environment Operations Act 1997.
17. The Principal Certifying Authority (PCA) shall ensure the approved development complies with the following matters:
- Compliance with the recommendation of the accompanying *Access report ref. 21409 rev. A by Vista Access Architects dated 11.12.2021*;
 - Low level thresholds at the abutment of differing surfaces;
 - Abutment of surfaces have a smooth transition; and
 - Universal access to all common features and areas including the communal open spaces, seating, tables and BBQs etc.
- Reason:** To comply with the Australian Standards.
18. The Principal Certifying Authority (PCA) shall ensure the approved development complies with the recommendation of the accompanying *Preliminary Site Investigation report ref. E21261-1 by Geotechnical Consultants Australia dated 10 December 2021*
Reason: To comply with the Australian Standards.

PART B – BEFORE THE ISSUE OF A CONSTRUCTION CERTIFICATE

- (Note:** Some conditions contained in other sections of this consent (including prior to occupation/use commencing) may need to be considered when preparing detailed drawings/specifications for the Construction Certificate.)
19. Amended plans shall be submitted for satisfaction for the Principal Certifying Authority (PCA) showing 1.8m privacy screen installed to the north of the pedestrian ramp between the ground level communal open space and the northern side nature strip prior to issue of the Construction Certificate.
Reason: To prevent privacy impacts.
20. All roof water and surface water shall be connected to an operable drainage system. Details are to be shown on the plans and documentation accompanying the application for a Construction Certificate.
Reason: To ensure satisfactory stormwater disposal.

21. If no retaining walls are marked on the approved plans no approval is granted as part of this approval for the construction of any retaining wall that is greater than 600mm in height or within 900mm of any property boundary.

The provision of retaining walls along common boundary lines shall not impact on neighbouring properties. If impact upon neighbouring properties (including fences) is anticipated, then written approval from the affected neighbour shall be obtained and submitted to the certifying authority prior commencement of the works.

Structural details, certified by a practicing structural engineer, shall accompany the application for a Construction Certificate for assessment and approval by the certifying authority.

Reason: To minimise impact on adjoining properties.

22. A building plan approval must be obtained from Sydney Water Tap in™ to ensure that the approved development will not impact Sydney Water infrastructure.

A copy of the building plan approval receipt from Sydney Water Tap in™ must be submitted to the Principal Certifying Authority upon request prior to works commencing.

Please refer to the website <http://www.sydneywater.com.au/tapin/index.htm>, Sydney Water Tap in™, or telephone 13 20 92.

Reason: To ensure the requirements of Sydney Water have been complied with.

23. Prior to any excavation on or near the subject site the person/s having benefit of this consent are required to contact the NSW Dial Before You Dig Service (NDBYD) on 1100 to receive written confirmation from NDBYD that the proposed excavation will not conflict with any underground utility services. The person/s having the benefit of this consent are required to forward the written confirmation from NDBYD to their Principal Certifying Authority (PCA) prior to any excavation occurring.

Reason: To ensure Council's assets are not damaged.

24. The basement stormwater pump-out system, must be designed and constructed to include the following:

- (a) A holding tank capable of storing the run-off from a 100 year ARI (average reoccurrence interval) - 2 hour duration storm event, allowing for pump failure.
- (b) A two pump system (on an alternate basis) capable of emptying the holding tank at a rate equal to the lower of:
 - (i) The permissible site discharge (PSD) rate; or
 - (ii) The rate of inflow for the one hour, 5 year ARI storm event.
- (c) An alarm system comprising of basement pump-out failure warning sign together with a flashing strobe light and siren installed at a clearly visible location at the entrance to the basement in case of pump failure.
- (d) A 100 mm freeboard to all parking spaces.
- (e) Submission of full hydraulic details and pump manufacturers specifications.
- (f) Pump out system to be connected to a stilling pit and gravity line before discharge to the street gutter.

Plans and design calculations along with certification from the designer indicating that the design complies with the above requirements are to be submitted to the satisfaction of the Principal Certifying Authority prior to issue of the Construction Certificate.

Reason: To ensure satisfactory storm water disposal.

25. Full engineering construction details of the stormwater system, including OSD structures, pipe networks and calculations as per following points, shall be submitted for the approval of the PCA prior to release of the Construction Certificate for any work on the site.
- (a) The stormwater drainage detail design shall be prepared by a Registered Stormwater Design Engineer and shall be generally in accordance with the following Stormwater Plans approved by this consent and with Council's Stormwater Disposal Policy, Council's Design and Development Guidelines, The Upper Parramatta River Catchment Trust On Site Detention Hand book (Third or Fourth Edition), the relevant Australian Standards and the National Construction Code.
- (i) Concept stormwater drainage plans, **Project No. 2021316, Issue H, dated 24 July 2024, prepared by Telford Civil.**
- (b) A Site Storage Requirement of 215 m³/ha and a Permissible Site Discharge of 235 L/s/ha (when using 3rd edition of UPRCT's handbook).
- (c) Adequate grate(s) to be provided so the OSD tank storage area can be inspected from outside for silt and debris, and to ensure adequate cross ventilation within the tank.
- (d) Certificate from registered structural engineer certifying the structural adequacy of the OSD tank structure.
- Reason:** To minimise the quantity of storm water run-off from the site, surcharge from the existing drainage system and to manage downstream flooding.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

26. Water quality treatment devices must be installed to manage surface runoff water to satisfy Section 3.3.6.1 of Parramatta Development Control Plan 2011. Details of the proposed devices and their location must accompany the application for a Construction Certificate to the satisfaction of the Certifying Authority and shall be consistent with the concept stormwater drainage plans, **Project No. 2021316, Issue H, dated 24 July 2024, prepared by Telford Civil.**
- Reason:** To ensure appropriate water quality treatment measures are in place.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

27. Where shoring will be located on or will support Council property, engineering details of the shoring are to be prepared by an appropriately qualified and practising structural engineer. These details are to include the proposed shoring devices, the extent of encroachment and the method of removal and de-stressing of the shoring elements. These details shall accompany the application for a Construction Certificate. A copy of this documentation must be provided to Council for record purposes. All recommendations made by the qualified practising structural engineer must be complied with.
- Reason:** To ensure the protection of existing public infrastructure and adjoining properties.
28. A heavy duty vehicular crossing shall be constructed in accordance with Council's Standard Drawing numbers DS9 and DS10. Details must accompany an application for a Construction Certificate to the satisfaction of the Certifying Authority.
- A Vehicle Crossing application must be submitted to Council together with the appropriate fee as outlined in Council's adopted Fees and Charges prior to any work commencing.
- Reason:** To ensure appropriate vehicular access is provided.

29. Where work is likely to disturb or impact upon utility installations, (e.g. power pole, telecommunications infrastructure etc.) written confirmation from the affected utility provider that they raise no objections to the proposed works must accompany an application for a Construction Certificate to the satisfaction of the Certifying Authority.

Reason: To ensure no unauthorised work to public utility installations and to minimise costs to Council.

30. Council property adjoining the construction site must be fully supported at all times during all demolition, excavation and construction works. Details of any required shoring, propping and anchoring devices adjoining Council property, are to be prepared by a qualified structural or geotechnical engineer. These details must accompany an application for a Construction Certificate and be to the satisfaction of the Principal Certifying Authority (PCA). A copy of these details must be forwarded to Council prior to any work being commenced.

Backfilling of excavations adjoining Council property or any void remaining at the completion of the construction between the building and Council property must be fully compacted prior to the completion of works.

Reason: To protect Council's infrastructure.

31. The grades of the driveway, including transitions, must comply with Australian Standard 2890.1 to prevent the underside of the vehicles scraping. Where the geometric change in grade exceeds 18%, the gradients of the driveway and ramps shall be checked using the method at Appendix C in AS2890.1:2004 and adjustments will be made to accommodate suitable transition lengths. Details are to be provided with the application for a Construction Certificate.

Reason: To provide suitable vehicle access without disruption to pedestrian and vehicular traffic.

32. Plans and documents submitted must include the following with an application for a Construction Certificate:

- (a) Construction details are to be provided by a suitably qualified structural engineer showing substrate depth, drainage, waterproofing for all planting on structures, including planting over on-site detention tanks, raised planters and rooftop gardens.
- (b) All raised planting boxes/beds containing trees must be retained to a minimum height of 800mm.
- (c) Any soil mounding must not exceed a maximum 1:8 grade which must be demonstrated on amended plans and certified by a suitably qualified Landscape Architect.
- (d) Sections through the planters supporting the trees and shrubs at both ground level and podium level are required to show the soil volume and soil depth meet the prescribed soil standards as stated in "Apartment Design Guide – Part 4, 4P Planting on Structures - Tools for improving the design of residential apartment development" (NSW Department of Planning and Environment, 2015).
 - Typical tree planting on structure to show overall 800-1200mm soil depth. (Soil Volume to be reflective of proposed tree species size)
 - Typical shrub planting on structure 500-600mm soil depth;
 - Typical turf planting on structure 200-300mm soil depth.
- (e) Sections through the OSD supporting shrubs and groundcovers are required to show the soil volume and soil depth meet the prescribed soil standards as stated in "Apartment Design Guide – Part 4, 4P Planting on Structures - Tools for improving the design of residential apartment development" (NSW Department of Planning and Environment, 2015).
 - Typical shrub planting on structure 500-600mm soil depth;
 - Typical turf planting on structure 200-300mm soil depth.

- (f) Tree planting densities shall not exceed the prescribed soil volume and area as per ADG – Part 4 requirements.
- (g) A specification ('Fit-for-purpose' performance description) for soil type and a maintenance schedule specified by a suitably qualified Soil Scientist, to ensure sufficient nutrient and water availability is achieved.
- (h) An Irrigation plan and specification must be provided by a suitably qualified Hydraulic Engineer.

Reason: To ensure the creation of functional gardens.

33. Prior to the issue of the Construction Certificate, the Certifying Authority must be satisfied the installation of drainage pipes and sub-soil pipes within the Tree Protection Zones (TPZ) of tree T1 are to be installed using non-destructive construction method such as hydro-vac or careful hand-dig to retain all roots over 30mm in diameter. Pipes are to be tread through roots. Notes and Tree Protection Zones to be added to the civil plans and Arboricultural Impact Assessment Report.

All designs for these construction works will need to be pre-approved and done in consultation with the Project Arborist before they are issued for Construction Certificate to ensure they have minimise the impact to the tree roots within the Tree Protection Zone (TPZ) to below 10% encroachment as per the AS4970-2009 *Protection of trees on development sites*. Once all adequate design amendments have been made, plans submitted with the Construction Certificate application must reflect the above requirements.

Tree No.	Name	Common Name	Radius from the trunk
1	<i>Olea africana</i>	African Olive	6m

Plans submitted with the Construction Certificate application must reflect the above requirements.

Reason: To ensure adequate protection of existing trees.

34. The final Landscape Plan must be consistent with plan numbered DA-L101 to DA-L03, rev B dated 22.06.2022, prepared by Canvas Landscape Architects together with any additional criteria required by the Development Consent to the satisfaction of the Certifying Authority addressing the following requirements:
- (a) The landscape plan shall be updated to ensure consistency with the Ground Floor Drawing prepared by IDA Design Group. Drawing No. 1002 Issue C.
 - (b) Ensure screening between properties for the length of the northern and eastern boundaries to provide privacy and amenity. Hedge species must be able to reach a minimum mature height of 1.8m. Species to be planted include.
 - *Syzygium australe* 'Pinnacle' (Lilly Pilly)
 - *Photinia x fraseri* 'Red Robin' (Red Robin)
 - *Callistemon viminalis* 'Slim' (Bottlebrush)
 - *Acmena smithii* 'Firescreen' (Lilly Pilly)
 - *Syzygium australe* 'Resilience'
 - *Callistemon viminalis* 'Slim'
 - (c) Ensure all tree replacement species are located with a minimum setback of 3.5m to the outside enclosing wall of a legally constructed building edge, and a minimum 2m away from any existing or proposed drainage line.
 - (d) GFC planters supporting the trees at both ground level and podium level are to be replaced with suitably larger planters which meet the soil volume and soil depth prescribed in "Apartment Design Guide – Part 4, 4P Planting on Structures - Tools for improving the design of residential apartment development" (NSW Department of Planning and Environment, 2015).

- Typical planter supporting a small tree on structure to show overall 800-1200mm soil depth. (Soil volume to be reflective of proposed tree species size – Small trees must have a minimum 9m³ / 3.5 x 3.5m width).

(e) All landscape plans are to be prepared by a professionally qualified Landscape Architect.

Reason: To ensure restoration of environmental amenity

35. All landscape works shall be maintained for a minimum period of one (1) year following the issue of a Final Occupation Certificate, in accordance with the approved landscape plan and conditions.

Reason: To ensure restoration of environmental amenity.

36. Service ducts, plumbing installations and plant servicing the development must be concealed within the building to keep external walls free from service installations. Details are to be included within the plans and documentation accompanying the Construction Certificate to the satisfaction of the Certifying Authority.

Reason: To ensure the quality built form of the development.

37. A single master TV antenna not exceeding a height of 3.0m above the finished roof level must be installed on each building to service the development. A connection is to be provided internally to each dwelling/unit within the development.

Details of these connections are to be annotated on the plans and documentation accompanying the Construction Certificate to the satisfaction of the Certifying Authority.

Reason: To protect the visual amenity of the area.

38. Design Verification issued by a registered architect is to be provided with the application for a Construction Certificate detailing the construction drawings and specifications are consistent with the design quality principles in State Environmental Planning Policy No-65. Design Quality of Residential Flat Development.

Note: Qualified designer in this condition is as per the definition in SEPP 65.

Reason: To comply with the requirements of SEPP 65.

39. An Infrastructure and Restoration Administration Fee must be paid to Council prior to the issue of a Construction Certificate.

The fee will be in accordance with Councils adopted 'Fees and Charges' at the time of payment.

Note: Council's Customer Service Team can advise of the current fee and can be contacted on 9806 5524.

Reason: To comply with Council's adopted Fees and Charges Document and to ensure compliance with conditions of consent.

40. A noise management plan must be prepared in accordance with the NSW Department of Environment, Climate Change and Water 'Interim Noise Construction Guidelines 2009' and accompany the application for a Construction Certificate. The Certifying Authority must be satisfied the Construction Noise Management Plan will minimise noise impacts on the community during the construction of the development.

The Construction Noise Management Plan must include:

- Identification of nearby residences and other sensitive land uses.
- Assessment of expected noise impacts.
- Detailed examination of feasible and reasonable work practices that will be implemented to minimise noise impacts.
- Community Consultation and the methods that will be implemented for the whole project to liaise with affected community members to advise on and respond to noise related complaints and disputes.

Reason: To prevent loss of amenity to the area.

41. Documentary evidence to the satisfaction of the Certifying Authority is to accompany the application for a Construction Certificate confirming satisfactory arrangements have been made with the energy provider for the provision of electricity supply to the development.

If a substation is required of the energy provider, it must be located internally within a building/s.

Substations are not permitted within the front setback of the site or within the street elevation of the building; unless such a location has been outlined and approved on the Council stamped Development Application plans. Substations are not permitted within Council's road reserve.

Reason: To ensure adequate electricity supply to the development and to ensure appropriate streetscape amenity.

42. The development must incorporate three (3) adaptable dwellings. Plans submitted with the Construction Certificate must illustrate that the required adaptable dwellings have been designed in accordance with the requirements of AS 4299-1995 for a class C Adaptable House.

Reason: To ensure the required adaptable dwellings are appropriately designed.

43. The PCA shall ascertain that any new element in the basement carpark not illustrated on the approved plans such as columns, garage doors, fire safety measures and the like do not compromise appropriate manoeuvring and that compliance is maintained with AS 2890.1, AS 2890.2 and AS 2890.6. Details are to be illustrated on plans submitted with the construction certificate application.

Reason: To ensure appropriate vehicular manoeuvring is provided.

44. 15 bicycle spaces/racks are to be provided on-site and used accordingly. The bicycle storage/racks are to comply with AS 2890.3-2015. Details are to be illustrated on plans submitted with the construction certificate.

Reason: To comply with Council's parking requirements.

45. Parking spaces are to be provided in accordance with the approved plans and with AS 2890.1, AS 2890.2 and AS 2890.6. A total of 38 parking spaces is to be provided and be allocated as follows:

- (a) 31 spaces for the residential units including 3 spaces as accessible parking;
- (b) 7 visitor parking;

Tandem car spaces are to be allocated to same same unit. Details are to be illustrated on plans submitted with the construction certificate application.

Reason: To comply with Council's parking requirements and Australian Standards.

46. A splay extending 2m from the driveway edge along the front boundary and 2.5m from the boundary along the driveway in accordance with Figure 3.3 of AS2890.1 shall be provided to give clear sight lines of pedestrians from vehicles exiting the site. This shall be illustrated on plans submitted with the construction certificate and not be compromised by the landscaping, signage fences, walls or display materials.

Reason: To comply with Australian Standards and ensure pedestrian safety.

47. One (1) waiting bay and traffic signal system are to be installed and implemented on the ground level and basement level to regulate traffic flow and safety along the ramp to the basement. Details are to be illustrated on plans submitted with the construction certificate.

Reason: To ensure safe traffic movement at parking areas.

48. A monetary contribution comprising **\$400,726.85** is payable to City of Parramatta Council in accordance with Section 7.11 of the Environmental Planning and Assessment Act 1979 and the *City of Parramatta (Outside CBD) Development Contributions Plan 2021*. Payment must be made

by direct bank transfer or credit/debit card only. Payment can be made by contacting Council's Customer Contact Centre on 1300 617 058.

Contribution Type	Amount
Open space and outdoor recreation	\$ 260,963.76
Indoor sports courts	\$ 23,785.04
Community facilities	\$ 31,282.47
Aquatic facilities	\$ 7,290.63
Traffic and transport	\$ 73,578.62
Plan administration	\$ 3,826.33
Total	\$ 400,726.85

Timing of payment

The contribution is to be paid to Council prior to the release of the construction certificate. Deferred payments of contributions will not be accepted, and requests for payment by multiple instalments will not be granted.

The contribution levy is subject to indexation on a quarterly basis in accordance with movements in the Consumer Price Index (All Groups Index) for Sydney issued by the Australian Statistician. At the time of payment, the contribution levy may have been the subject of indexation

The *City of Parramatta (Outside CBD) Development Contributions Plan 2021* can be viewed on Council's website at: <https://www.cityofparramatta.nsw.gov.au/business-development/planning/development-contributions>

Reason: To comply with legislative requirements and to provide for the increased demand for public amenities and services resulting from the development.

49. Waste materials must be appropriately stored and secured within a designated waste area onsite at all times, prior to reuse or being sent offsite. This includes waste materials such as paper and containers which must not litter the site or leave the site onto neighbouring public or private property. Receipts of all waste/recycling tipping must be retained and produced in a legible form to any authorised officer of the Council who asks to see them.

Reason: To provide for the appropriate collection/ recycling of waste from the proposal whilst minimising the impact of the development upon adjoining residents.

50. Prior to the issue of a Construction Certificate, written certification from a suitably qualified person(s) shall be submitted to the Principal Certifying Authority and City of Parramatta Council, stating that appropriate design and construction materials are to be utilised within the development to ensure compliance with the following noise criteria specified for managing the noise impact on **residential buildings** from rail corridors and/or busy roads:

- (a) In any bedroom in the building: 35dB(A) between 10pm – 7am;
 (b) Anywhere else in the building (other than a garage, hallway, kitchen or bathroom) 40dB(A) at any time.

Reason: Compliance with relevant noise amenity criteria in Infrastructure SEPP.

51. A noise management plan must be submitted to Council for approval prior to any work commencing and complied with during any construction works. The plan must be prepared by a suitably qualified person, who possesses qualifications to render them eligible for membership of the Australian Acoustic Society, Institution of Engineers Australia or the Australian Association of Acoustic Consultants.

The plan must include, but not be limited to, the following:

- (a) Confirmation of the level of community engagement that has, is and will be undertaken with the Building Managers/occupiers of the main adjoining noise sensitive properties likely to be most affected by site works and the operation of plant/machinery particularly during the demolition and excavation phases;
- (b) Confirmation of noise, vibration and dust monitoring methodology that is to be undertaken during the main stages of work at neighbouring noise sensitive properties during the main stages of work;
- (c) The course of action that will be taken following receipt of a complaint concerning site noise, dust and vibration;
- (d) Details of any noise mitigation measures that have been outlined by an acoustic engineer or otherwise that will be deployed on site to reduce noise impacts on the occupiers of neighbouring properties to a minimum; and
- (e) What plant and equipment is to be used on the site, the level of sound mitigation measures to be undertaken in each case and the criteria adopted in their selection taking into account the likely noise impacts on the occupiers of neighbouring properties and other less intrusive technologies available.

Reason: To maintain appropriate amenity to nearby occupants.

PART C – BEFORE THE COMMENCEMENT OF BUILDING WORK

52. Prior to work commencing, adequate toilet facilities are to be provided on the work site.

Reason: To ensure adequate toilet facilities are provided.

53. The applicant must apply for a road-opening permit where a new pipeline is proposed to be constructed within or across Council owned land. Additional road opening permits and fees may be necessary where connections to public utilities are required (e.g. telephone, electricity, sewer, water or gas).

In addition, no drainage work can be carried out within the Council owned land without this permit being issued. A copy is required to be kept on site.

Reason: To protect Council's assets throughout the development process.

54. Prior to the commencement of any excavation works on site, the applicant must submit for approval by the Principal Certifying Authority (with an electronic copy forwarded to Council at council@cityofparramatta.nsw.gov.au) a dilapidation report on the visible and structural condition of all neighbouring structures within the 'zone of influence' of the excavation face to a depth of twice that of the excavation.

The report must include a photographic survey of the adjoining properties detailing their physical condition, both internally and externally, including such items as walls, ceilings, roof, structural members and other similar items. The report must be completed by a consulting structural/geotechnical engineer in accordance with the recommendation of the geotechnical report.

In the event access to adjoining allotments for the completion of a dilapidation survey is denied, the applicant must demonstrate in writing that all reasonable steps have been taken to advise the adjoining allotment owners of the benefit of this survey and details of failure to gain consent for access to the satisfaction of the Principle Certifying Authority.

Note: This documentation is for record keeping purposes only, and can be made available to an applicant or affected property owner should it be requested to resolve any dispute over damage to adjoining properties arising from works. It is in the applicant's and adjoining owner's interest for it to be as detailed as possible.

Reason: Management of records.

55. Prior to the commencement of any excavation works on site the applicant must submit, for approval by the Principal Certifying Authority (PCA), a geotechnical/civil engineering report which addresses (but is not limited to) the following:
- (a) The type and extent of substrata formations. A minimum of 4 representative bore hole logs which are to provide a full description of all material from the ground surface to a minimum of 1.0m below the finished basement floor level. The report is to include the location and description of any anomalies encountered in the profile, and the surface and depth of the bore hole logs shall be to Australian Height Datum.
 - (b) Having regard to the findings of the bore hole testing, details of the appropriate method of excavation/shoring together with the proximity to adjacent property and structures can be ascertained. As a result potential vibration caused by the method of excavation and how it will impact on nearby footings/foundations must be established together with methods to ameliorate any impact.
 - (c) The proposed methods for temporary and permanent support required by the extent of excavation can be established.
 - (d) The impact on groundwater levels in relation to the basement structure.
 - (e) The drawdown effects if any on adjacent properties (including the road reserve), resulting from the basement excavation will have on groundwater together with the appropriate construction methods to be utilised in controlling groundwater.

Where it is considered there is potential for the excavation to create a "dam" for natural groundwater flows, a groundwater drainage system must be designed to transfer groundwater through or under the proposed development. This design is to ensure there is no change in the range of the natural groundwater level fluctuations. Where an impediment to the natural flow path of groundwater results, artificial drains such as perimeter drains and through drainage may be utilised.

- (f) The recommendations resulting from the investigations are to demonstrate the works can be satisfactorily implemented. An implementation program is to be prepared along with a suitable monitoring program (where required) including control levels for vibration, shoring support, ground level and groundwater level movements during construction.

The implementation program is to nominate suitable hold points for the various stages of the works in order verify the design intent before certification can be issued and before proceeding with subsequent stages.

The geotechnical report must be prepared by a suitably qualified consulting geotechnical/hydrogeological engineer with demonstrated experience in such investigations and reporting. It is the responsibility of the engaged geotechnical specialist to undertake the appropriate investigations, reporting and specialist recommendations to ensure a reasonable level of protection to adjacent properties and structures both during and after construction. The report must contain site specific geotechnical recommendations and must specify the necessary hold/inspection points by relevant professionals as appropriate. The design principles for the geotechnical report are as follows:

- (i) No ground settlement or movement is to be induced which is sufficient enough to cause an adverse impact to adjoining property and/or infrastructure.
- (ii) No changes to the ground water level are to occur as a result of the development that is sufficient enough to cause an adverse impact to the surrounding property and infrastructure.
- (iii) No changes to the ground water level are to occur during the construction of the development that is sufficient enough to cause an adverse impact to the surrounding property and infrastructure.

- (iv) Vibration is to be minimised or eliminated to ensure no adverse impact on the surrounding property and infrastructure occurs, as a result of the construction of the development.
- (v) Appropriate support and retention systems are to be recommended and suitable designs prepared to allow the proposed development to comply with these design principles.
- (vi) An adverse impact can be assumed to be crack damage which would be classified as Category 2 or greater damage according to the classification given in Table Cl of AS 2870 - 1996.
- Reason:** To ensure the ongoing safety and protection of property.
56. Erosion and sediment control measures are to be installed in accordance with the publication 'Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) prior to the commencement of any demolition, excavation or construction works upon the site. These measures are to be maintained throughout the entire works.
- Reason:** To ensure soil and water management controls are in place before site works commence.
57. Prior to commencement of works and during construction works, the development site and any road verge immediately in front of the site must be maintained in a safe and tidy manner. In this regard the following must be undertaken:
- all existing buildings are to be secured and maintained to prevent unauthorised access and vandalism
 - all site boundaries are to be secured and maintained to prevent unauthorised access to the site;
 - all general refuse and/or litter (inclusive of any uncollected mail/advertising material) is to be removed from the site on a fortnightly basis;
 - the site is to be maintained clear of weeds; and
 - all grassed areas are to be mowed on a monthly basis.
- Reason:** To ensure public safety and maintenance of the amenity of the surrounding environment.
58. If development involves excavation that extends below the level of the base, of the footings of a building on adjoining land, the person having the benefit of the development consent must, at the persons own expense:
- Protect and support the adjoining premises from possible damage from the excavation
 - Where necessary, underpin the adjoining premises to prevent any such damage.
- Note:** If the person with the benefit of the development consent owns the adjoining land or the owner of the adjoining land has given consent in writing to the condition not applying, this condition does not apply.
- Reason:** As prescribed under the Environmental Planning and Assessment Regulation 2000.
59. Unless otherwise specifically approved in writing by Council, all works, processes, storage of materials, loading and unloading associated with the development are to occur entirely within the property boundaries. The applicant, owner or builder must apply for specific permits if the following activities are required seeking approval pursuant to Section 138 of the Roads Act 1993:
- On-street mobile plant:
E.g. Cranes, concrete pumps, cherry-pickers, etc. - restrictions apply to the hours of operation and the area where the operation will occur, etc. Separate permits are required for each occasion and each piece of equipment. It is the applicant's, owner's and builder's responsibilities to take whatever steps are necessary to ensure the use of any equipment does not violate adjoining property owner's rights.
 - Storage of building materials and building waste containers (skips) on Council's property.
 - Permits to utilise Council property for the storage of building materials and building waste containers (skips) are required for each location they are to be stored. Failure to obtain the relevant permits will result in the building materials or building waste containers (skips) being impounded. Storage of building materials and waste containers within Council's open space areas, reserves and parks is prohibited.

(d) Kerbside restrictions - construction zones:

The applicant's attention is drawn to the possible existing kerbside restrictions adjacent to the development. Should the applicant require alteration of existing kerbside restrictions, or the provision of a work zones, the appropriate application must be made to Council and the fee paid. Applicants should note that the alternatives of such restrictions may require referral to Council's Traffic Committee. An earlier application is suggested to avoid delays in construction programs..

The application is to be lodged with Council's Customer Service Centre.

Reason: Proper management of public land.

60. All works associated with the construction and/or extension of a driveway crossover/layback within Council owned land requires an application to be lodged and approved by Council.

All footpath crossings, laybacks and driveways are to be constructed according to Council's Specification for Construction or Reconstruction of Standard Footpath Crossings and in compliance with Standard Drawings DS1 (Kerbs & Laybacks); DS7 (Standard Passenger Car Clearance Profile); DS8 (Standard Vehicular Crossing); DS9 (Heavy Duty Vehicular Crossing) and DS10 (Vehicular Crossing Profiles).

The application for a driveway crossing requires the completion of the relevant application form and accompanied by plans, grades/levels and specifications. A fee in accordance with Councils adopted 'Fees and Charges' will need to be paid at the time of lodgement.

Note 1: This development consent is for works wholly within the property. Development consent does not imply approval of the footpath or driveway levels, materials or location within the road reserve, regardless of whether the information is shown on the development application plans.

Note 2: Council's Customer Service Team can advise of the current fee and can be contacted on 9806 5524

Reason: To provide suitable vehicular access without disruption to pedestrian and vehicular traffic.

61. The trees identified for protection within the consent shall be protected prior to and during the demolition/construction process in accordance with the Arboricultural Impact Assessment (including the Addendum) prepared by Treehaven Environscapes dated 20.06.2022 and 06.12.2021 and the conditions of consent.

Reason: To ensure the protection of tree 1 to be retained on the adjacent site.

62. Consent from Council must be obtained prior to any pruning works being undertaken on any tree on site, or any trees located in adjoining properties.

All approved pruning works must be supervised by an Australian Qualifications Framework (AQF) Level 3 certified Arborist. This includes the pruning of any roots that are 30mm in diameter or larger.

Reason: To ensure the protection of the tree(s) to be retained.

63. Tree protection measures are to be installed prior to works commencing on site and maintained, under the supervision of an Australian Qualification Framework (AQF) Level 5 Arborist in accordance with AS4970 - Protection of Trees on Development Sites.

Reason: To ensure trees are protected during construction.

64. Prior to commencement of work, the person having the benefit of the Development Consent and Construction Certificate approval must:

- (a) Appoint a Principal Certifying Authority (PCA) and notify Council in writing of the appointment (irrespective of whether Council or an accredited private certifier) within 7 days; and
- (b) Notify Council in writing a minimum of 48 hours prior to work commencing of the intended date of commencement.

The Principal Certifying Authority must determine and advise the person having the benefit of the Construction Certificate when inspections, certification and compliance certificates are required.

Reason: To comply with legislative requirements.

65. The site must be enclosed by a 1.8m high security fence erected wholly within the confines of the site to prevent unauthorised access. The fence must be installed to the satisfaction of the Principal Certifying Authority prior to the commencement of any work on site.

Reason: To ensure public safety.

66. A sign must be erected in a prominent position on any site involving excavation, erection or demolition of a building in accordance with Clause 70 of the Environmental Planning and Assessment Regulations 2000 detailing:

- (a) Unauthorised entry of the work site is prohibited;
- (b) The name of the principal contractor (or person in charge of the work site), their telephone number enabling 24hour contact; and
- (c) The name, address and telephone number of the Principal Certifying Authority;
- (d) The development consent approved construction hours;
- (e) The sign must be maintained during excavation, demolition and building work, and removed when the work has been completed.
- (f) This condition does not apply where works are being carried out inside an existing building.

Reason: Statutory requirement.

67. Public risk insurance in the amount of not less than \$20 million or such other amount as Council may require by notice) must be obtained and furnished to Council before any works authorised by this consent are conducted:

- (a) Above;
- (b) Below; or
- (c) On

Any public land owned or controlled by Council. The public risk insurance must be maintained for the period during which these works are being undertaken.

The public risk insurance must be satisfactory to Council and list Council as an insured and/or interested party.

A copy of the insurance policy obtained must be forwarded to Council before any of the works commence.

Note: Applications for hoarding permits, vehicular crossing etc. will require evidence of insurance upon lodgement of the application.

Reason: To ensure the community is protected from the cost of any claim for damages arising from works authorised by this consent conducted above, below or on any public land owned or controlled by Council.

68. Prior to the commencement of work, a registered surveyor is to undertake a set out survey to identify the location of all footings, slabs, posts and walls adjacent to a boundary. This is to ensure the development when complete, will be constructed wholly within the confines of the subject allotment. This set out survey showing the location of the development relative to the boundaries of the site, is to be forwarded to the Principal Certifying Authority prior to pouring of any footings or slabs and/or the construction of any walls/posts.

Reason: To ensure that the building is erected in accordance with the approval granted and within the boundaries of the site.

69. On demolition sites where buildings are known to contain friable or non-friable asbestos material, standard warning signs containing the words 'DANGER ASBESTOS REMOVAL IN PROGRESS' measuring not less than 400mm x 300mm are to be erected in a prominent position on site visible from the street kerb. The sign is to be erected prior to demolition work commencing and is to remain in place until such time as all asbestos material has been removed from the site. Advice on

the availability of these signs can be obtained by contacting the Safework NSW hotline or their website www.safework.nsw.gov.au.

Reason: To comply with the requirements of Safework NSW.

70. An updated Waste Management Plan is to be submitted immediately after the letting of all contracts detailing the:

- (a) expected volumes and types of waste to be generated during the demolition and construction stages of the development;
- (b) destination of each type of waste, including the name, address and contact number for each receiving facility.

The Waste Management Plan is to be submitted to the satisfaction of the Principal Certifying Authority prior to commencement of any works on site.

Reason: To ensure waste is managed and disposed of properly.

71. The preparation of an appropriate hazard management strategy by an appropriately licensed asbestos consultant pertaining to the removal of contaminated soil, encapsulation or enclosure of any asbestos material is required. This strategy shall ensure that any such proposed demolition works involving asbestos are carried out in accordance with the requirements of the 'Code of Practice: How to Safely Remove Asbestos' published by Safework NSW. The strategy shall be submitted to the Principal Certifying Authority, prior to the commencement of any works. The report shall confirm that the asbestos material has been removed or is appropriately encapsulated and that the site is rendered suitable for the development.

Reason: To ensure risks associated with the demolition have been identified and addressed prior to demolition work commencing.

PART D – WHILE BUILDING WORK IS BEING CARRIED OUT

72. Stormwater must be connected to the kerb and gutter within Rosehill Street via the drainage easement.

Reason: To ensure satisfactory storm water disposal.

73. Works are not to result in sedimentation and or run-off from the approved works onto the adjoining properties and or public lands. The person having the benefit of this consent must ensure sediment is not tracked out from the development site.

Reason: To ensure no adverse impacts on neighbouring properties.

74. Any damage to Council assets that impacts on public safety during construction is to be rectified immediately to the satisfaction of Council with all costs to be borne by the person having the benefit of the Development Consent.

Reason: To protect public safety.

75. All excavation within 6m of *Olea africana* (African Olive), located within the rear garden of 3 Rosehill Street, and any stormwater drainage works proposed within 3m of trees located within the adjoining properties is to be supervised by an Australian Qualifications Framework (AQF) Level 5 arborist. All works within this zone is to be carried out using non-destructive construction method such as hydrovac or careful hand-dig to retain all roots over 30mm in diameter. Pipes are to be tread through roots. If during excavation the Arborist identifies remedial work is necessary, it is to be supervised by this Arborist.

Once the work is completed a written report detailing the work undertaken is to be forwarded to the Principal Certifying Authority

Reason: To provided adequate protection of trees.

76. Trees to be removed are:

Tree No.	Species	Common Name	Location
2	<i>Schinus molle</i>	Pepper Tree	Rear garden
3	<i>Cinnamomum camphora</i>	Camphor Laurel	Rear garden
4	<i>Prunus cerasifera</i>	Ornamental Plum	Rear garden

5	<i>Macadamia tertraphylla</i>	Macadamia Nut Tree	Rear garden
6	<i>Lagerstroemia indica</i>	Crepe Myrtle	Front garden
7	<i>Brunsfelsia latifolia</i>	Yesterday, today, tomorrow	Front garden
8	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Front garden
9	<i>Hibiscus syriacus</i>	Rose of Sharon	Front garden
10	<i>Olea africana</i>	African Olive	Front garden

Reason: To facilitate development.

77. All trees/shrubs planted within the site must be of an adequate root volume and maturity so as not to require staking or mechanical support unless in a wind-prone area. Planting must be carried out in accordance with the approved Landscape Plan and conditions of consent.

Reason: To ensure the trees/shrubs planted within the site are able to reach their required potential.

78. All approved tree removal must be supervised by an Australian Qualification Framework (AQF) Level 3 Arborist and undertaken in accordance with the Code of Practice for Amenity Tree Industry 1998.

Reason: To ensure tree works are carried out safely.

79. The principal certifier must ensure that building work, demolition or vegetation removal is only carried out between:

- 7am to 5pm on Monday to Friday
- 8am to 5pm on Saturday

The principal certifier must ensure building work, demolition or vegetation removal is not carried out on Sundays and public holidays, except where there is an emergency.

Unless otherwise approved within a construction site management plan, construction vehicles, machinery, goods or materials must not be delivered to the site outside the approved hours of site works.

Note: Any variation to the hours of work requires Council's approval.

Council may permit an extension to the approved hours of work in extenuating or unforeseen circumstances subject to an application and approval by City of Parramatta Council (CoPC) in accordance with the 'After Hours Works for Approved Development Applications Policy' (Policy).

A copy of this Policy and associated application form is available on the CoPC website. A fee will apply to any application made in accordance with this Policy.

The matters of consideration of any extension sought would include, but not be limited to the following aspects and should be detailed in any application made:

- Nature of work to be conducted;
- Reason for after-hours completion;
- Residual effect of work (noise, traffic, parking);
- Demographic of area (residential, industrial);
- Compliance history of subject premises;
- Current hours of operation;
- Mitigating or extenuating circumstance; and
- Impact of works not being completed.

Reason: To protect the amenity of the surrounding area.

80. All building work must be carried out in accordance with the current provisions of the Building Code of Australia (National Construction Code).
Reason: To comply with the Environmental Planning & Assessment Act 1979, as amended and the Environmental Planning & Assessment Regulation 2000.
81. Occupation of any part of the footpath or road at or above (carrying out work, storage of building materials and the like) during construction of the development shall require a Road Occupancy Permit from Council. The applicant is to be required to submit an application for a Road Occupancy Permit through Council's Traffic and Transport Services, prior to carrying out the construction/restoration works.
Reason: To ensure proper management of Council assets.
82. Oversize vehicles using local roads require approval from the National Heavy Vehicle Regulator (NHVR). The applicant is required to submit an application for an Oversize Vehicle Access Permit through NHVR's portal (www.nhvr.gov.au/about-us/nhvr-portal) prior to driving through local roads within the City of Parramatta LGA.
Reason: To ensure maintenance of Council's assets.
83. All friable and non-friable asbestos-containing waste material on-site shall be handled and disposed off-site at an EPA licensed waste facility by an EPA licensed contractor in accordance with the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 and the Waste Classification Guidelines – Part 1 Classifying Waste (EPA 2014) and any other regulatory instrument as amended.
Reason: To ensure appropriate disposal of asbestos materials.
84. A Waste Data file is to be maintained, recording building/demolition contractor's details and waste disposal receipts/dockets for any demolition or construction wastes from the site. These records must be retained and made available to Council on request.
Reason: To confirm waste minimisation objectives under Parramatta Development Control Plan 2011 are met.
85. Any contamination material to be removed from the site shall be disposed of to an EPA licensed landfill.
Reason: To comply with the statutory requirements of the Protection of the Environment Operations Act 1997.

PART E – BEFORE THE ISSUE OF AN OCCUPATION CERTIFICATE

86. In accordance with Clause 162B of the Environmental Planning and Assessment Regulation 2000, the Principal Certifying Authority responsible for the critical stage inspections must make a record of each inspection as soon as practicable after it has been carried out. The record must include:
- The development application and Construction Certificate number as registered;
 - The address of the property at which the inspection was carried out;
 - The type of inspection;
 - The date on which it was carried out;
 - The name and accreditation number of the certifying authority by whom the inspection was carried out; and
 - Whether or not the inspection was satisfactory in the opinion of the certifying authority who carried it out.
- Reason:** To comply with statutory requirements.
87. Works-As-Executed stormwater plans are to address the following:
- A WAE survey shall be conducted and plans prepared showing the 'as built' of the complete on-site detention system including (but not limited to) discharge point into Council system, storage tank (including all critical elements), all pipes and pits connected to the OSD system, overland flow swale and surface levels that control surface flows to the OSD system and by design bypassing the OSD system.
 - The Work-As-Executed plans are prepared on the copies of the approved drainage plans issued with the Construction Certificate with the variations marked in red ink.

- (c) The Work-As-Executed plans have been prepared by a registered surveyor certifying the accuracy of dimensions, levels, storage volumes, etc.
- (d) The as built On-Site Detention (OSD) storage volumes are to be presented in a tabular form (depth verses volume table)
- (e) OSD Works-As-Executed dimensions form (refer to UPRCT Handbook).
- (f) Certificate of Hydraulic Compliance from a qualified drainage / hydraulic engineer (refer to UPRCT Handbook). The certificate must only be provided after conducting a satisfactory final inspection. The final inspection shall include the application of all the ancillary components of the system including but not limited to: step-irons, orifice plate, trash screen with appropriate wall attachment, hinged lockable grates, confined space sign, functioning return lap valve and relief drains within DCP sump etc.
- (g) Certificate of Structural compliance of the OSD tank shall reference the structural elements including floor slab/foundations, walls and cover slab from a qualified structural engineer

The above is to be submitted to the Principal Certifying Authority prior to the issue of an occupation certificate and a copy is to accompany the Occupation Certificate when lodged with Council.

Reason: To ensure works comply with approved plans and adequate information is available for Council to update the Upper Parramatta River Catchment Trust.

88. Prior to the issue of an Occupation Certificate a Positive Covenant and Restriction on the Use of Land under Section 88E of the Conveyancing Act 1919 must be created, burdening the owner with the requirement to maintain the on-site stormwater detention facilities on the lot.

The terms of the 88E Instruments are to be generally in accordance with Council's "standard terms" available in Council's website, under Development Forms.

Where a Title exists, the Positive Covenant and Restriction on the Use of Land is to be created through via an application to the NSW Land Registry Services using forms 13PC and 13RPA. Accompanying this form is the requirement for a plan to scale showing the relative location of the On-Site Detention facility, including its relationship to the building footprint.

Registered title documents showing the covenants and restrictions must be submitted to and approved by the Principal Certifying Authority prior to Occupation or use of on-site.

Electronic colour photographs in jpg format of the on-site detention facility shall accompany the application for the Positive Covenant and the Restriction on the Use of the Land. These photos shall include such elements as the orifice plate, trash screen, step irons, weir, sump and bench on the floor of the DCP, return pipe and flap valve, wide angle view of the storage area or multiple photos, grates closed from above, grates open showing the edges to the opening and under frame packing with mortar or concrete, all pipe entries to the DCP and confined space warning signs at each entry point. The photos must be well labelled and must differentiate between multiple tanks. Additional photos may be requested if required.

Reason: To ensure maintenance of on-site detention facilities.

89. A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained prior to the issue of any Occupation Certificate. The application must be made through an authorised Water Servicing Coordinator. Please refer to "Your Business" section of Sydney Water's web site at www.sydneywater.com.au then the "e-developer" icon or telephone 13 20 92.

Reason: To ensure the requirements of Sydney Water have been complied with.

90. All individual parcels of land holding a separate title within the development site must be consolidated into one lot. A plan of consolidation must be registered with the Land and Property Information Division of the NSW Land Registry Services, prior to an Occupation Certificate being issued.

Reason: To comply with the Conveyancing Act 1919.

91. Prior to the issue of any Occupation Certificate, an application is required to be obtained from Council for any new, reconstructed or extended sections of driveway crossings between the property boundary and road alignment.

All footpath crossings, laybacks and driveways are to be constructed according to Council's Specification for Construction or Reconstruction of Standard Footpath Crossings and in compliance with Standard Drawings DS1 (Kerbs & Laybacks); DS7 (Standard Passenger Car Clearance Profile); DS8 (Standard Vehicular Crossing); DS9 (Heavy Duty Vehicular Crossing) and DS10 (Vehicular Crossing Profiles).

The application for a driveway crossing requires the completion of the relevant application form and be accompanied by detailed plans showing, grades/levels and specifications that demonstrate compliance with Council's standards, without conflict with all internal finished surface levels. The detailed plan must be submitted to Council's Civil Assets Team for approval prior to commencement of the driveway crossing works. A fee in accordance with Councils adopted 'Fees and Charges' will need to be paid at the time of lodgement.

Note 1: This development consent is for works wholly within the property. Development consent does not imply approval of the footpath or driveway levels, materials or location within the road reserve, regardless of whether the information is shown on the development application plans.

Note 2: Council's Customer Service Team can advise of the current fee and can be contacted on 9806 5524.

Reason: Pedestrian and Vehicle safety.

92. All redundant lay-backs and vehicular crossings must be reinstated to conventional kerb and gutter, foot-paving or grassed verge in accordance with Council's Standard Plan No. DS1. The reinstatement must be completed prior to the issue of an Occupation Certificate. All costs must be borne by the applicant.

Reason: To provide satisfactory drainage.

93. A qualified Landscape Architect/Designer must certify that the completed works are in accordance with the approved landscape plan. All landscape works must be completed prior to the issue of an Occupation Certificate.

Reason: To ensure restoration of environmental amenity.

94. Occupation or use of the building or part is not permitted until an Occupation Certificate has been issued in accordance with Section 6.9 of the Environmental Planning and Assessment Act 1979.

Reason: To comply with legislative requirements of the Environmental Planning and Assessment Act 1979.

95. A street number is to be placed on the site in a readily visible location from a public place prior to the issue of an Occupation Certificate. The numbers are to have a minimum height of 75mm.

Reason: To ensure a visible house number is provided.

96. Under Section 75 of the Environmental Planning & Assessment Regulation 2021, it is a condition of this development consent that all design measures identified in the BASIX Certificate No. **1264524M_04**, will be complied with prior to occupation.

Reason: To comply with legislative requirements of section 75 of the Environmental Planning & Assessment Regulation 2021.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

97. Before the issue of the relevant occupation certificate, the principal certifier must ensure any adjustment or augmentation of any public utility services including gas, water, sewer, electricity, street lighting and telecommunications, required as a result of the development, is completed to the satisfaction of the relevant authority.

Before the issue of the occupation certificate, the certifier must request written confirmation from the relevant authority that the relevant services have been completed.

Reason: To ensure required changes to public utility services are completed, in accordance with the relevant agency requirements, before occupation

98. Design Verification issued by a registered architect is to be provided with the application for an Occupation Certificate verifying that the residential flat development achieves the design quality of the development as shown in the plans and specifications in respect of which the construction certificate was issued, having regard to the design quality principles set out in Part 2 of State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development.

Note: Qualified designer in this condition is as per the definition in SEPP 65.

Reason: To comply with the requirements of SEPP 65.

99. Certification must be provided prior to the issue of an occupation certificate that the required adaptable dwelling(s) have achieved a class C design in accordance with the requirements of AS 4299 -1995.

Reason: To ensure the requirements of DCP 2011 have been met.

100. Before the issue of an occupation certificate, a suitably qualified engineer must prepare a post-construction dilapidation report, to the satisfaction of the principal certifier, detailing whether:

- (a) after comparing the pre-construction dilapidation report to the postconstruction dilapidation report required under this condition, there has been any structural damage to any adjoining buildings; and
- (b) where there has been structural damage to any adjoining buildings, that it is a result of the building work approved under this development consent.

Before the issue of an occupation certificate, the principal certifier is to provide a copy of the post-construction dilapidation report to Council (where Council is not the principal certifier) and to the relevant adjoining property owner(s).

Reason: To identify damage to adjoining properties resulting from building work on the development site

101. Prior to the issue of any Occupation Certificate, communal waste facilities and associated vehicle access on the site shall be inspected and approved by Council's Waste Service Team. Written confirmation of the waste facility approval from Council shall be submitted to the Principal Certifying Authority before the issue of any Occupation Certificate.

Reason: To ensure that appropriate waste collection facilities are provided.

102. Prior to the issue of any Occupation Certificate, a draft strata by-law with the insertion of waste specific by-laws is to be provided to Council's Waste Service Team. The waste specific by-laws can be provided by Council's Waste Service Team.

Reason: To ensure that appropriate waste collection facilities are adequately managed by the authorised representatives and occupants of the building and to ensure no waste activities generated on site is placed on public land.

103. Prior to the issue of an occupation certificate (Interim or Final), written certification from a suitably qualified person(s) shall be submitted to the Principal Certifying Authority and City of Parramatta Council, stating that all works/methods/procedures/control measures approved by Council in the following report have been completed:

- (a) **Acoustic Report No. R210908 R1 rev. 2, dated 24 July 2024, prepared by Rodney Stevens Acoustics.**

Reason: To demonstrate compliance with submitted reports.

As amended under DA/61/2022/B pursuant to Section 4.55(2) of the Environmental Planning and Assessment Act 1979

PART F – OCCUPATION AND ONGOING USE

104. Any external plant/air-conditioning system must not exceed a noise level of 5dBA above the background noise level when measured at the boundaries of the property.

- Reason:** To minimise noise impact of mechanical equipment.
105. The owner/manager of the site/business is responsible for the removal of all graffiti from the building/structures/signage and/or fencing within 48 hours of its application.
- Reason:** To ensure the removal of graffiti.
106. When Council receives an occupation certificate from the principal certifier, the applicant may lodge an application to release the securities held in accordance with **Council's Schedule of Fees and Charges 2022-2023**.

Council may use part, or all of the securities held to complete the works to its satisfaction if the works do not meet Council's requirements.

Note: A written application to Council's Civil Assets Team is required for the release of a bond and must quote the following:

- (a) Council's Development Application number; and
- (b) Site address.

Note: Council's Civil Assets Team will take up to 21 days from receipt of the request to provide the written advice.

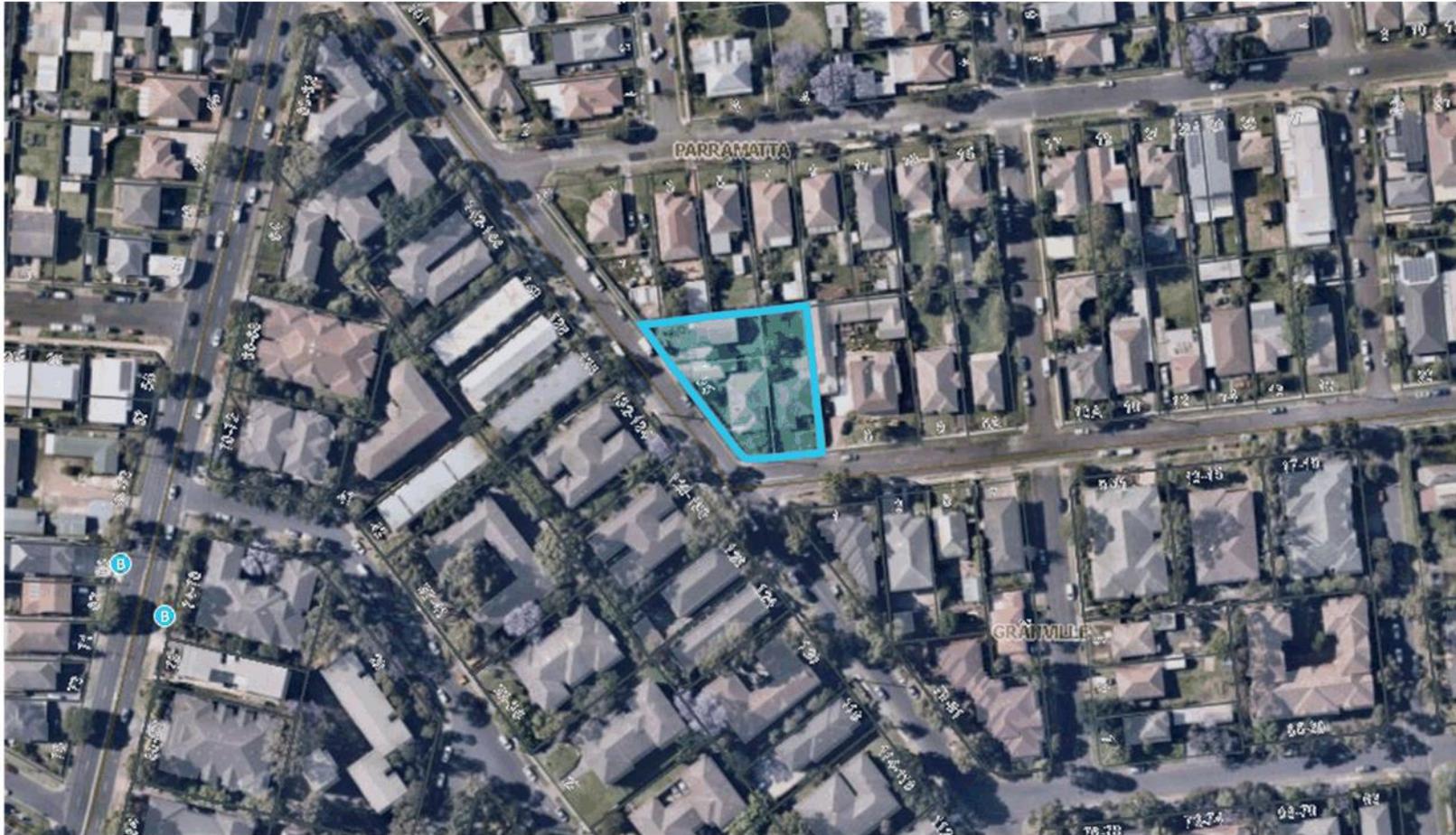
- Reason:** To allow release of securities and authorise Council to use the security deposit to complete works to its satisfaction.
107. If a roller shutter door is to be provided at the driveway entry and exit from Railway Street, it is to be operated via remote control. If an intercom is installed, it is to be provided at the centre of the driveway (not attached on the wall) to the carpark in accordance with Clause 3.3 (b) of AS 2890.1 - 2004.
- Reason:** To comply with Australian Standards.
108. All waste storage areas are to be maintained in a clean and tidy condition at all times.
- Reason:** To ensure the ongoing management of waste storage areas.
109. Between collection periods, all waste/recyclable materials generated on site must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste/recycling storage room(s) or area(s) between collection periods.
- Reason:** To ensure waste is adequately stored within the premises.
110. Signage to encourage correct recycling and reduce contamination is required within shared waste rooms / bin storage areas. Standard signage is available through Council.
- Reason:** To encourage proper waste and recycling practices onsite.
111. The use of the premises not giving rise to:
- (a) transmission of unacceptable vibration to any place of different occupancy,
 - (b) a sound pressure level measured at any point on the boundary of any affected residential premises that exceeds the background noise level by more than 5 dB(A). The source noise level shall be assessed as an LAeq,15 min and adjusted in accordance with Environment Protection Authority (EPA) guidelines for tonality, frequency weighting, impulsive characteristics, fluctuations, and temporal content as described in the NSW Environmental Planning & Assessment Act 1979: Noise Policy for Industry 2017 and the Protection of the Environment Operations Act 1997.
- Reason:** To prevent loss of amenity to the area.
112. Noise and vibration from the use and operation of any plant and equipment and/or building services associated with the premises shall not give rise to 'offensive noise' as defined by the Protection of the Environment Operations Act 1997.
- Reason:** To reduce noise levels.
113. The proposed use of the premises and the operation of all plant and equipment shall not give rise to an 'offensive noise' as defined in the Protection of the Environment Operations Act 1997.
- Reason:** To protect the amenity of the area.
114. The use of the premises not giving rise to:
- (a) transmission of unacceptable vibration to any place of different occupancy;
 - (b) a sound pressure level at any affected premises that exceeds the background (LA90) noise level in the absence of the noise under consideration by more than 5dB(A). The source noise

level shall be assessed as an LAeq,15min and adjusted in accordance with Environment Protection Authority guidelines for tonality, frequency weighting, impulsive characteristics, fluctuations and temporal content.

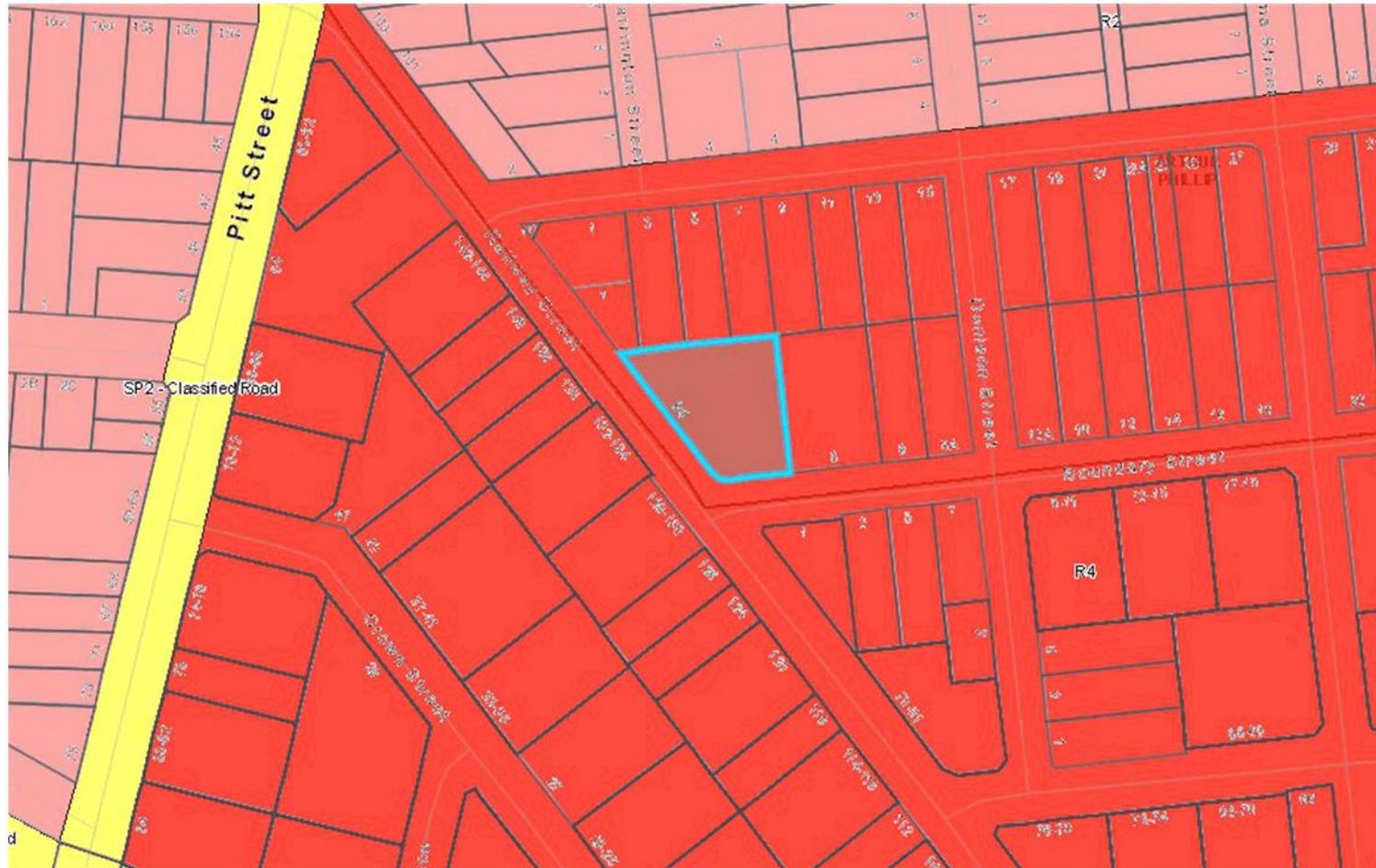
Reason: To prevent loss of amenity to the area.

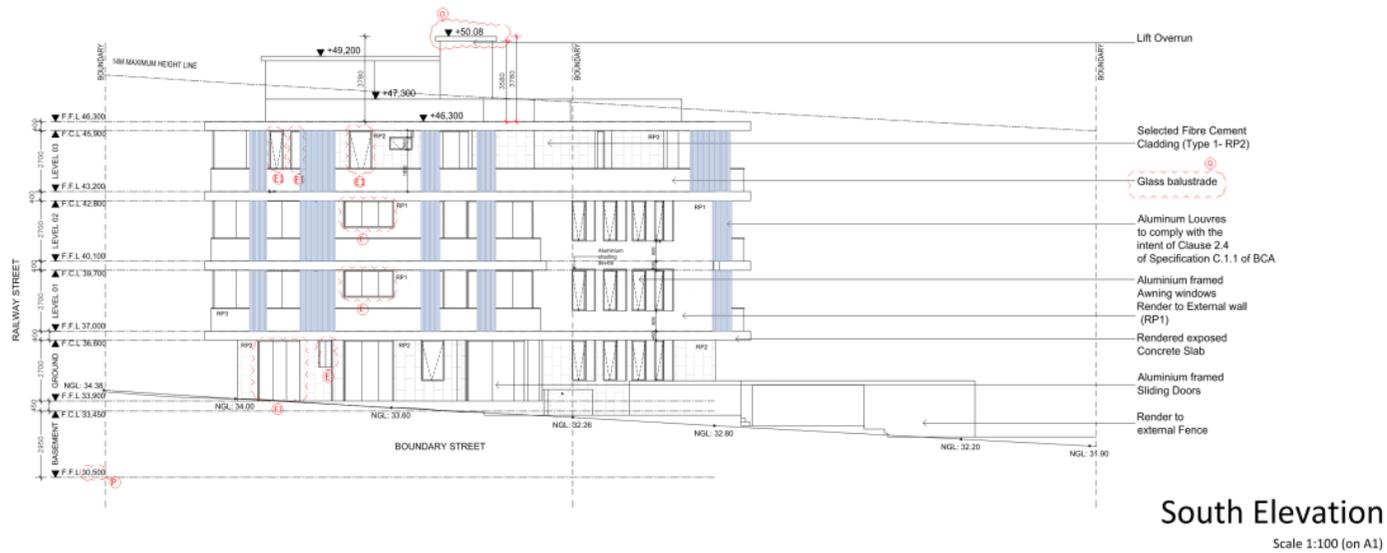
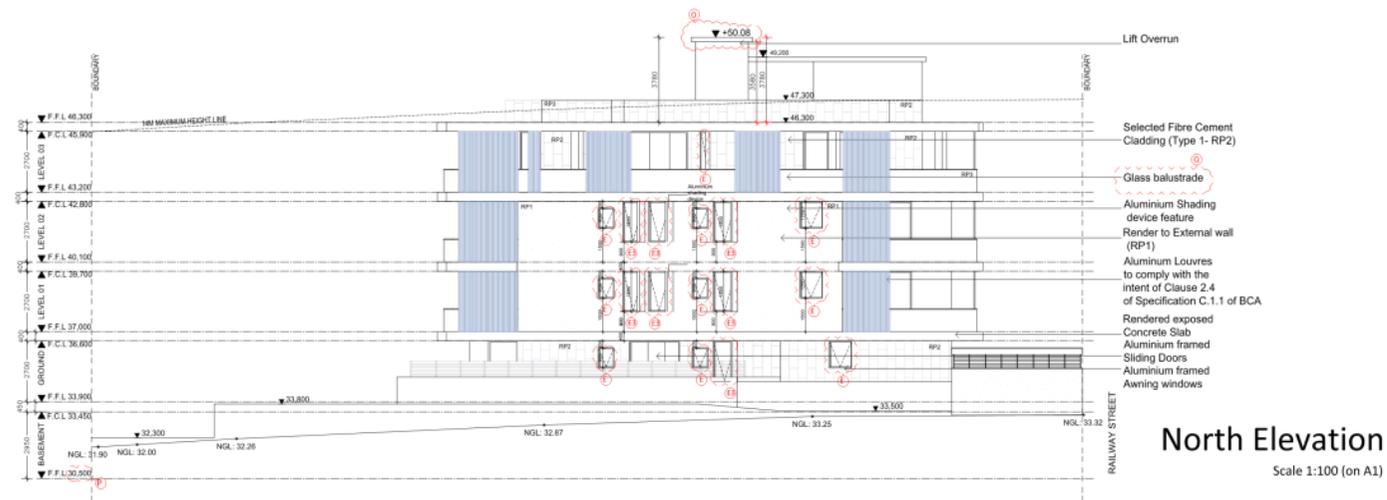
Date: 15 October 2024
Responsible Officer: Caitlin Hopper

Locality Map | DA/61/2022/B – 85 Railway Street, PARRAMATTA



Zoning Map | DA/61/2022/B – 85 Railway Street, PARRAMATTA





NO.	REVISION	DATE	BY

NOTE:
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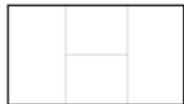


SHEET TITLE: ELEVATIONS 1 OF 2
LOCATED AT: PARRAMATTA CITY COUNCIL

DRAWN BY: FF
CHECKED BY: FFG
DATE: JULY 2023
JOB No: 140621_S4.55-301
SCALE: 1:100

PROPOSED RESIDENTIAL FLAT BUILDING
2-4 BOUNDARY & 85 RAILWAY STREET
PARRAMATTA
ISSUE: A





1. Fibre Cement Cladding - Equitone Lunara N164 colour (or equivalent)



2. Powder coated Aluminium Window, Door and Balustrade Frames – Colorbond Monument colour (or equivalent)



3. Render & Paint Finish - Dulux Ticking colour (or equivalent)



4. Opaque Glass Balcony - (or equivalent)



5. Timber Look Cladding Screen Wave - INNOWOOD Face & Rear Fixing System Premium Oak colour (or equivalent)



6. Fibre Cement Cladding - Stone Finish (or equivalent)



7. Render & Paint Finish - Dulux Hog Bristle Half colour (or equivalent)



8. Fibre Cement Cladding - Equitone Linea LT85 colour (or equivalent)



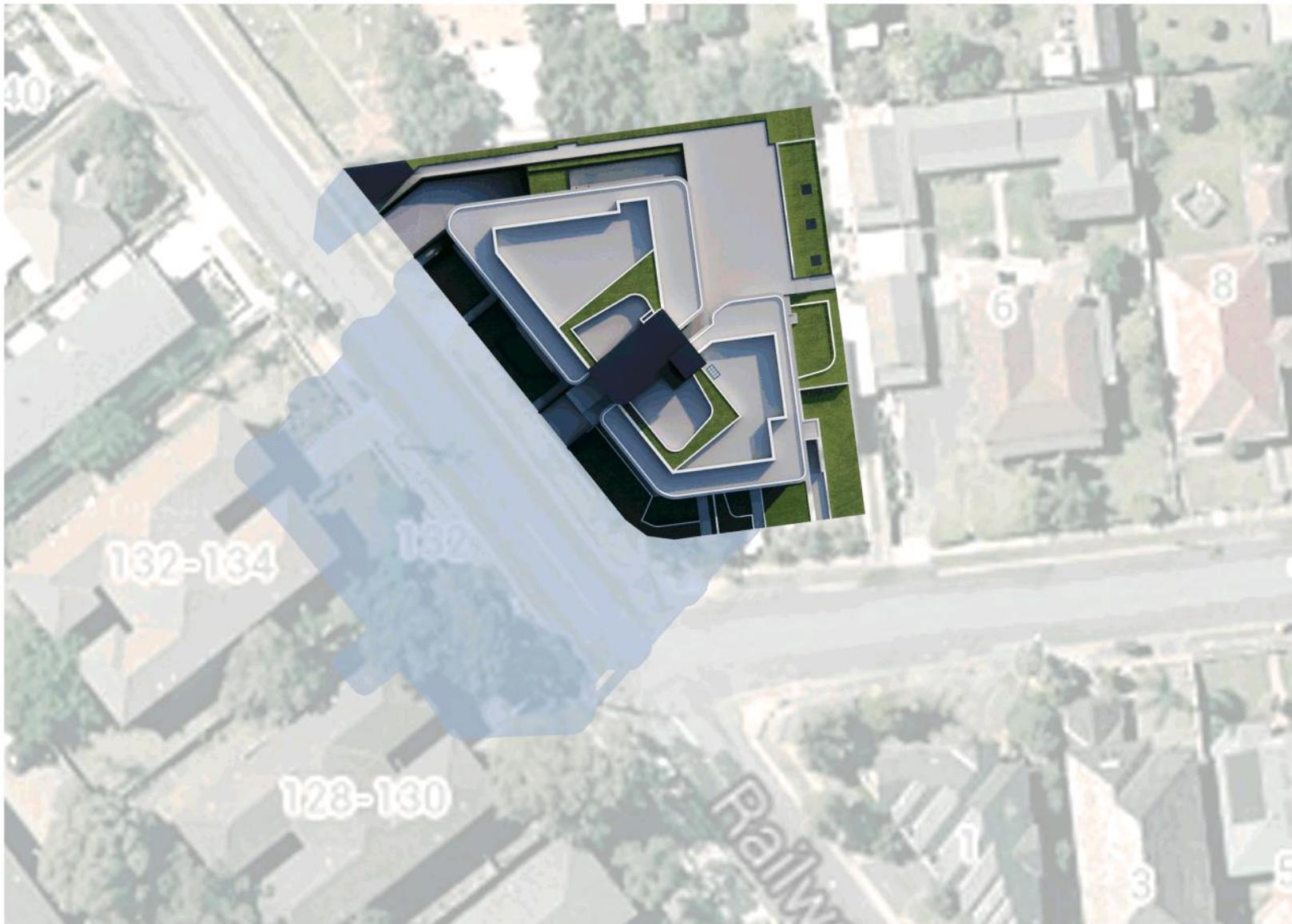
9. Render & Paint Finish - Dulux Vivid White colour (or equivalent)



• External Materials and Finishes – (23/07/24)
140621 - 2-4 Boundary Street & 85 Railway Street, Parramatta

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Version 1.0 (2024/06/20/2024)

design cubicle
ARCHITECTURAL SOLUTIONS
ph: 02 9683 2778 / f: 02 9683 3242
Nominated Architect - Sam Min-Han Lu (#8842)



• Shadow Diagram Study – 9:00am (21st June)
(19/07/24)
140621 - 2-4 Boundary Street & 85 Railway Street, Parramatta

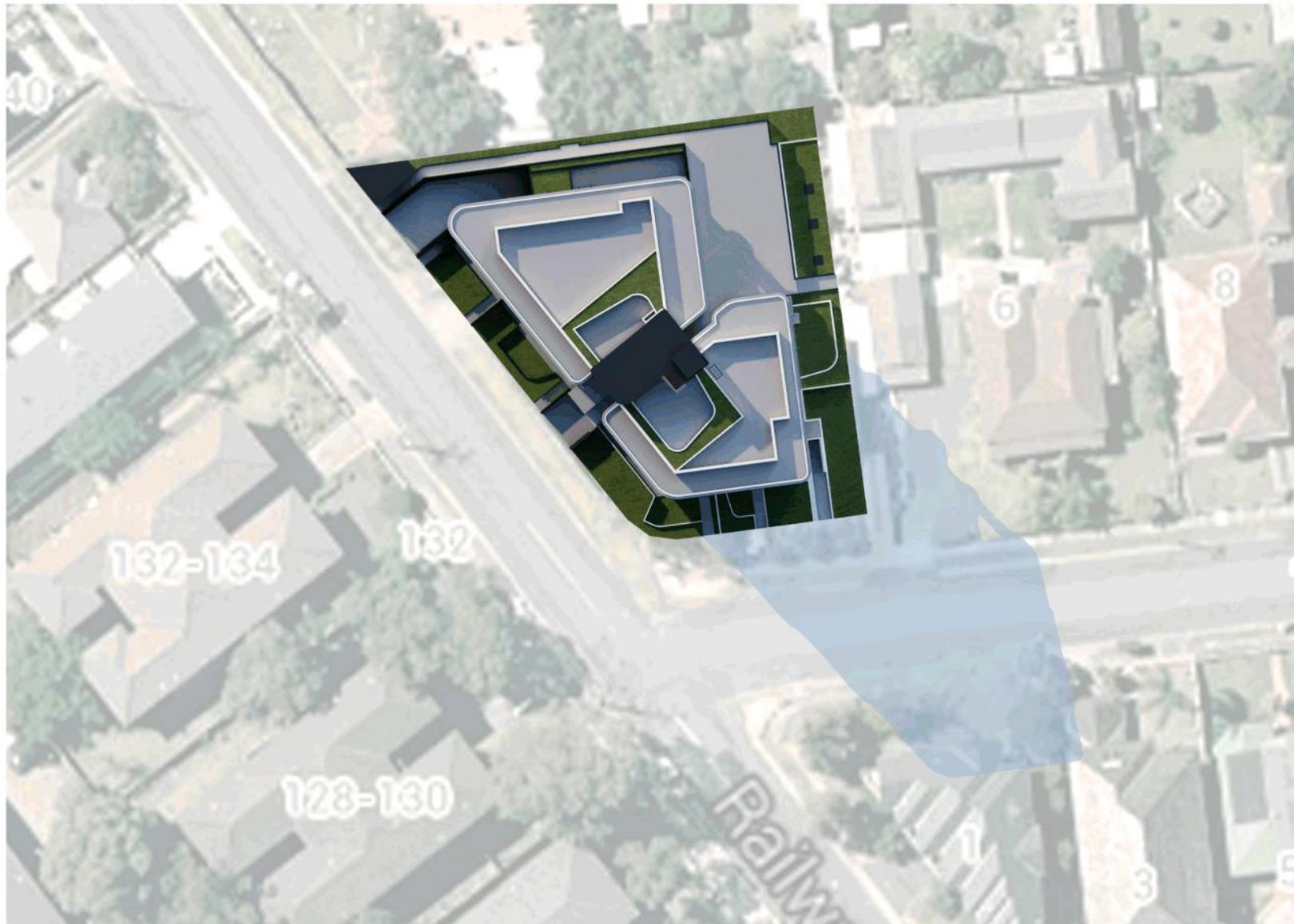
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design cubicle
ARCHITECTURAL SOLUTIONS
ph: 02 9683 2778 / f: 02 9683 3242
Nominated Architect - Sam Min-Han Lu (#8842)



• Shadow Diagram Study – 12:00pm (21st June)
(19/07/24)
140621 - 2-4 Boundary Street & 85 Railway Street, Parramatta

design cubicle
ARCHITECTURAL SOLUTIONS
ph: 02 9683 2778 / f: 02 9683 3242
Nominated Architect - Sam Min-Han Lu (#8842)



• Shadow Diagram Study – 3:00pm (21st June)
(19/07/24)
140621 - 2-4 Boundary Street & 85 Railway Street, Parramatta

design cubicle
ARCHITECTURAL SOLUTIONS
ph: 02 9683 2778 / f: 02 9683 3242
Nominated Architect - Sam Min-Han Lu (#8842)

2-4 BOUNDARY STREET & 85 RAILWAY STREET, PARRAMATTA PROPOSED RESIDENTIAL DEVELOPMENT

STORMWATER CONCEPT PLANS



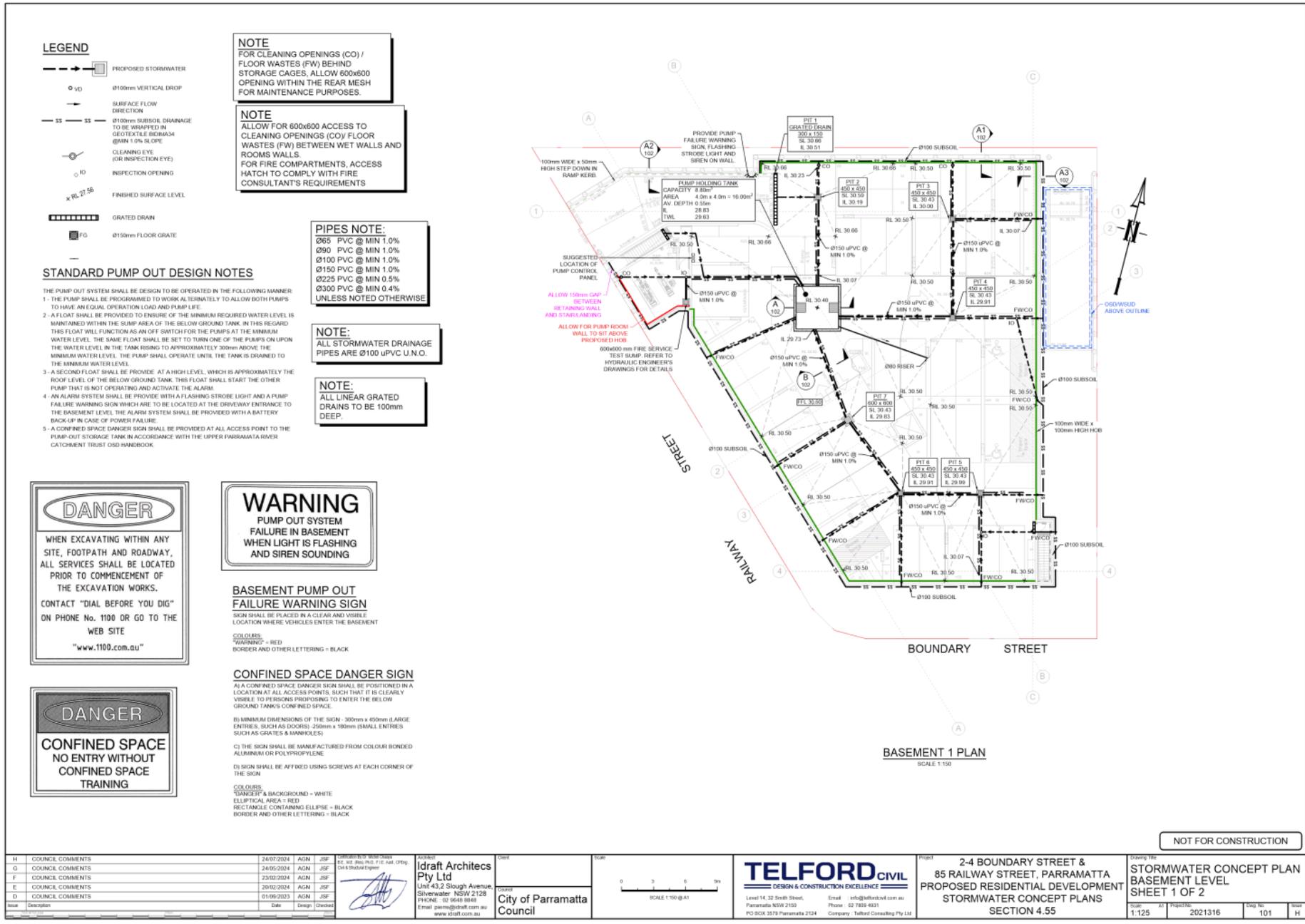
LOCALITY PLAN
N.T.S.

DRAWING INDEX	
Drawing No.	DESCRIPTION
000	COVER SHEET PLAN
101	STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 1 OF 2
102	STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 2 OF 2
103	STORMWATER CONCEPT PLAN
104	SITE PLAN
105	WSUD CATCHMENT PLAN
106	OSD & WSUD DETAILS & CALCULATIONS SHEET 1 OF 2
107	OSD & WSUD DETAILS & CALCULATIONS SHEET 2 OF 2
108	MISCELLANEOUS DETAILS SHEET

NOT FOR CONSTRUCTION

<table border="1"> <tr> <td>H</td> <td>COUNCIL COMMENTS</td> <td>24/07/2024</td> <td>AGN</td> <td>JSF</td> <td> <small> Designation by AGM (Class) E.S. Int. Plan, P.D. P. (E. Act. OFD) Oak & Shrub (Type) </small> </td> </tr> <tr> <td>G</td> <td>COUNCIL COMMENTS</td> <td>24/06/2024</td> <td>AGN</td> <td>JSF</td> <td></td> </tr> <tr> <td>F</td> <td>COUNCIL COMMENTS</td> <td>23/02/2024</td> <td>AGN</td> <td>JSF</td> <td></td> </tr> <tr> <td>E</td> <td>COUNCIL COMMENTS</td> <td>20/02/2024</td> <td>AGN</td> <td>JSF</td> <td></td> </tr> <tr> <td>D</td> <td>COUNCIL COMMENTS</td> <td>01/09/2023</td> <td>AGN</td> <td>JSF</td> <td></td> </tr> <tr> <td>Issue</td> <td>Description</td> <td>Date</td> <td>Design</td> <td>Checked</td> <td></td> </tr> </table>	H	COUNCIL COMMENTS	24/07/2024	AGN	JSF	<small> Designation by AGM (Class) E.S. Int. Plan, P.D. P. (E. Act. OFD) Oak & Shrub (Type) </small>	G	COUNCIL COMMENTS	24/06/2024	AGN	JSF		F	COUNCIL COMMENTS	23/02/2024	AGN	JSF		E	COUNCIL COMMENTS	20/02/2024	AGN	JSF		D	COUNCIL COMMENTS	01/09/2023	AGN	JSF		Issue	Description	Date	Design	Checked		 <p> draft Architects Pty Ltd Unit 43,2 Slough Avenue, Silverwater NSW 2128 PHONE: 02 9645 6648 Email: parr@draft.com.au www.draft.com.au </p>	Client City of Parramatta Council	Scale N.T.S.	TELFORD CIVIL <small>DESIGN & CONSTRUCTION EXCELLENCE</small> Level 14, 32 Smith Street, Parramatta NSW 2150 PO BOX 3878 Parramatta 2124 Email: info@telfordcivil.com.au Phone: 02 7899 4031 Company: Telford Consulting Pty Ltd	Project 2-4 BOUNDARY STREET & 85 RAILWAY STREET, PARRAMATTA PROPOSED RESIDENTIAL DEVELOPMENT STORMWATER CONCEPT PLANS SECTION 4.55	Drawing Title COVER SHEET PLAN	Scale N.T.S.	Project No. 2021316	Sheet No. 000	Issue H
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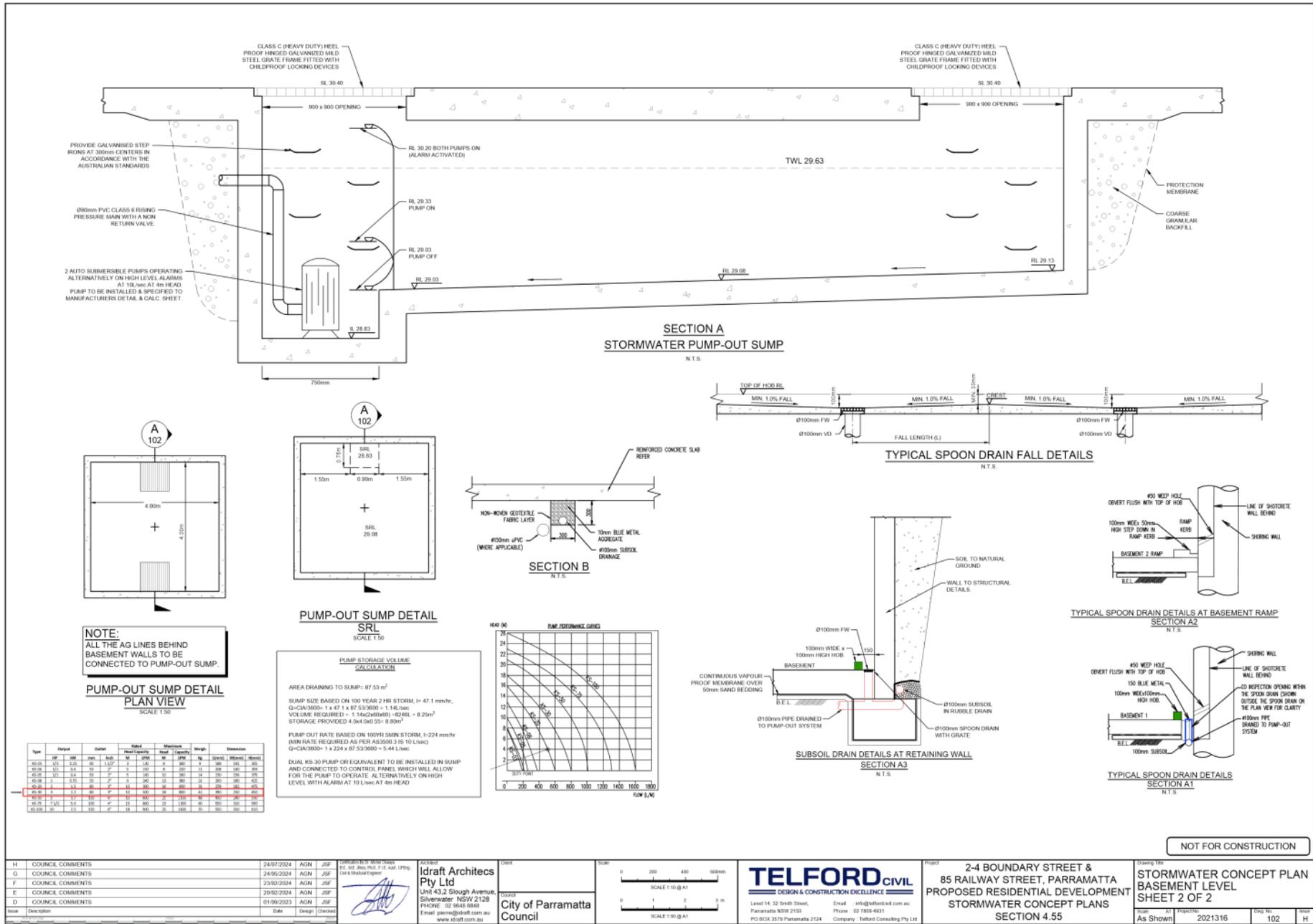
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Version: 1, Version Date: 09/09/2024

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D	COUNCIL COMMENTS	01/08/2023	AGN	JSF

Designed by: **Drift Architects Pty Ltd**
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 Phone: 02 9649 9948
 Email: parram@drift.com.au
 www.drift.com.au

Client: **City of Parramatta Council**

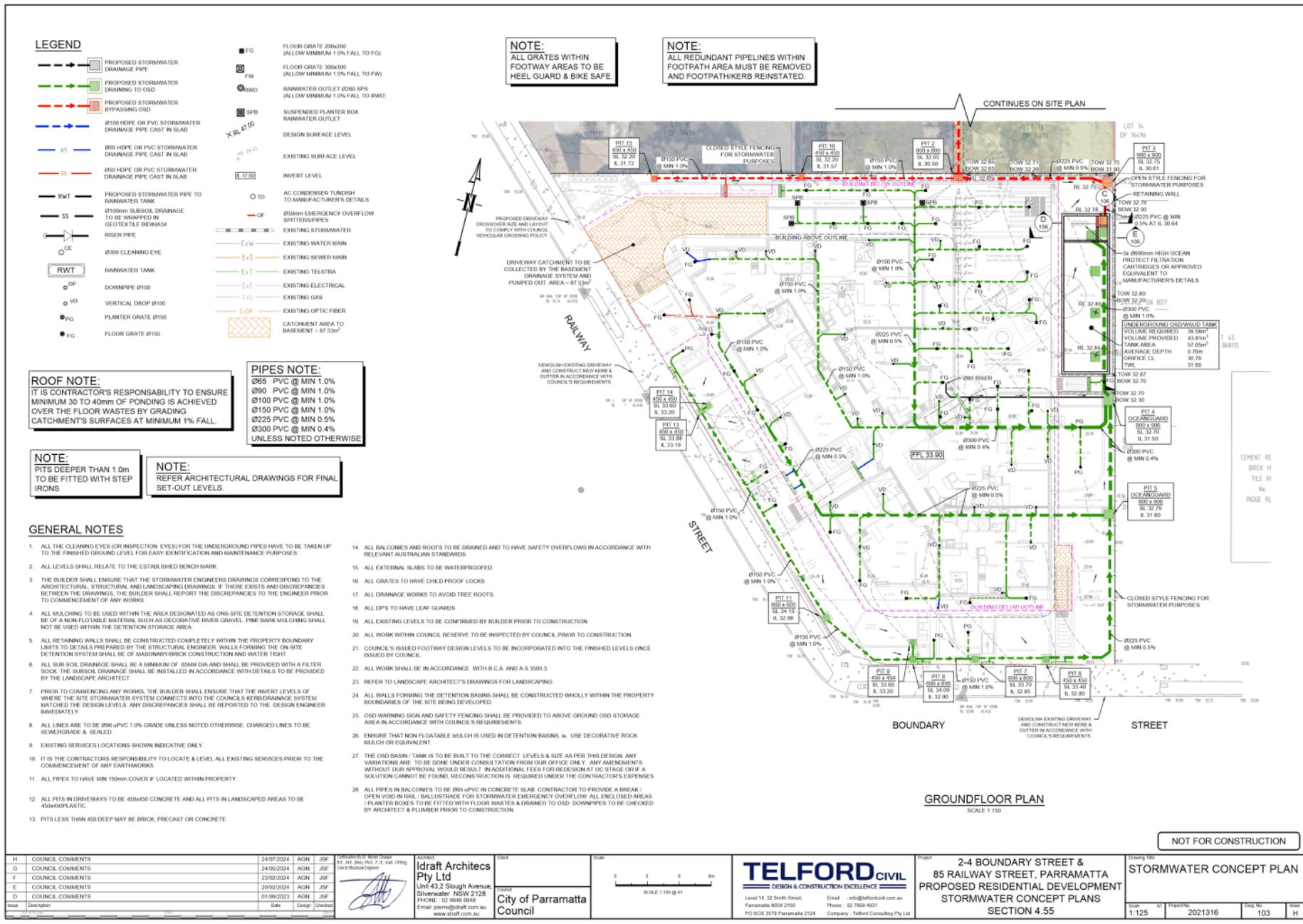
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 PO BOX 3478 Parramatta 2124 Company: Telford Consulting Pty Ltd

Project: **2-4 BOUNDARY STREET & 85 RAILWAY STREET, PARRAMATTA PROPOSED RESIDENTIAL DEVELOPMENT STORMWATER CONCEPT PLANS SECTION 4.55**

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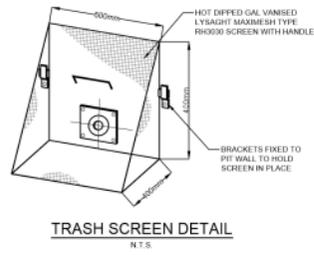




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WSUD CHAMBER DETAILS
 TOTAL SITE AREA = 1793.3m²
 BY-PASS AREA = 190.39m²
 SITE AREA SPANNING TO OSD = 1602.91m²
 EFFECTIVE DEPTH OF WATER WITHIN FILTRATION CHAMBER = 0.69 (CARTRIDGE HEIGHT) + 0.08 (HEAD REQUIRED FOR SW 490 CARTRIDGE) = 0.77m
 AREA NEEDED FOR THE FILTRATION CARTRIDGES = 1692.91/0.007 = 177.46.59m²
 AREA PROVIDED = 7.0m²
 3490mm PSORB CARTRIDGES PROVIDED - OUTFLOW = 2.79 L/s
OSD ORIFICE DETAILS
 PSD 101 = 1790 (1) - 2.79 L/s
 = 36.638 - 2.79 = 33.848 L/s
 ORIFICE HEAD = 31.00 - 30.70 = 0.64m NEW ORIFICE DIAMETER = Ø132mm

ORIFICE CALCULATIONS:
 $Q = C \times A \times \sqrt{2 \times g \times h}^{0.5}$
 $SO: A = Q / (C \times \sqrt{2 \times g \times h})$
 $= 0.033848 / (0.61 \times \sqrt{2 \times 9.81 \times 0.84})$
 $= 0.01367 \text{ m}^2$
THEREFORE:
 $d = \sqrt{4 \times A / \pi}$
 $= \sqrt{4 \times 0.01367 / 3.14159}$
 $= 132 \text{ mm}$

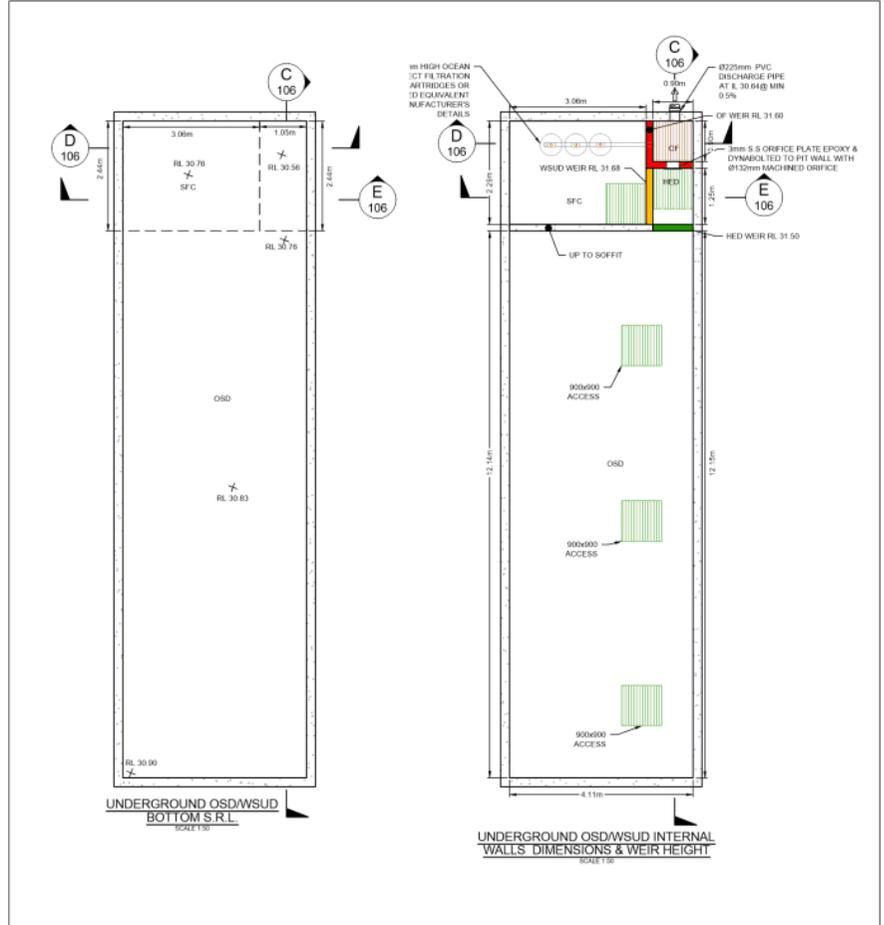
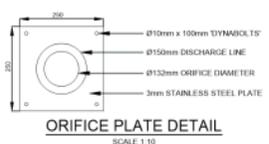


CITY OF PARRAMATTA COUNCIL
On-Site Detention Calculation Sheet

Project: TEL2021516 SW DA Lot No: 2
 Location: 2-4 Boundary St & 80 Railway St, Parramatta D.P. No: 202700
 Designer: Yara Karam D.A. No.
 Phone: 02 7809 4931

OSD Area	Front Lot	UPRCT	UPRCT
		Discard	Discard
Site Area	0.178	0.178	0.178
Basic Storage Volume	38.56	38.56	38.56
Basic Discharge	42.14	42.14	42.14
Area of Site to Storage	0.189	94%	0.189
Percentage of Site	94.40		94.40
Storage per ha of contributing area	227.75		227.75
Volume/PSD Adjustment	218.45		218.45
PSD for site	38.64		38.64
Maximum Head to Orifice Centre	0.840		0.800
Calculated Orifice Diameter	0.136		0.136
Maximum discharge	36.638		33.777
Head for high early discharge	0.740		0.700
High Early Discharge	34.388	94%	33.896
Mean Discharge	33.513		34.822
Average Discharge per Hectare	209.776		204.11
Final Site Storage Ratio	234		234
Site Storage Volume	39.58		40.13
Volume Provided	39.60	100%	41.80
Volume Provided	39.60	100%	41.80

Checked By: Joe Frangie
 Date Checked: 22-Aug-23
 OSD Plan Number: 101-112

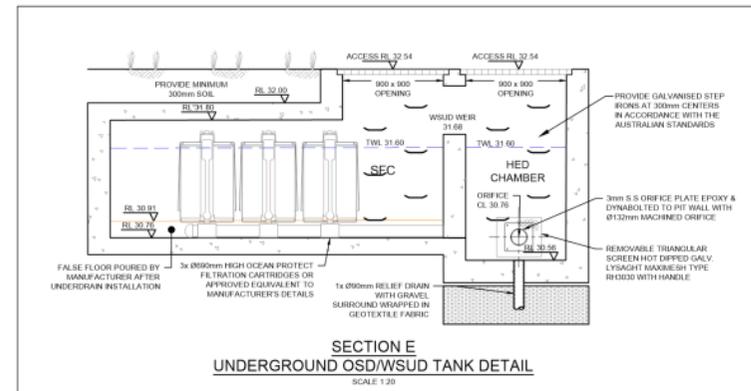
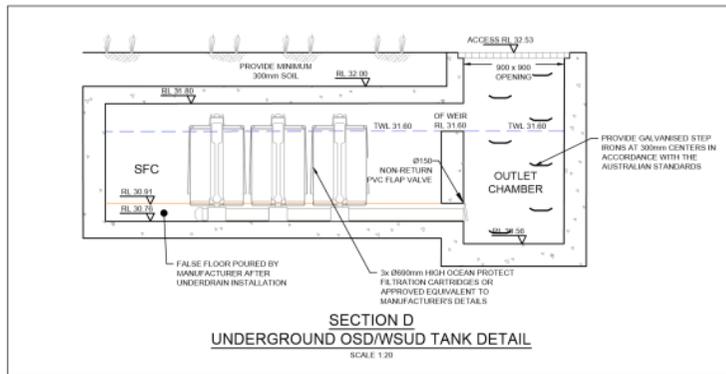
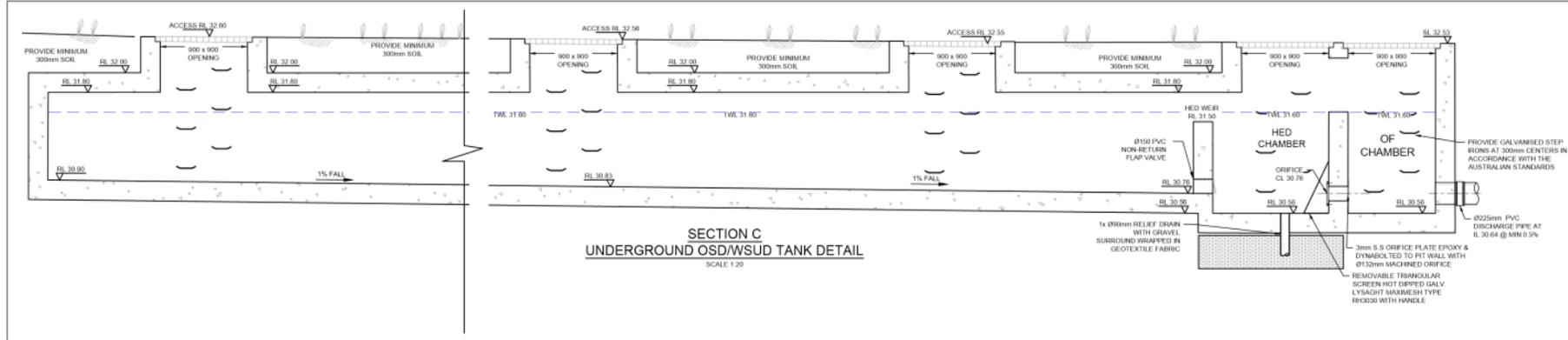


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24/08/2024	AGN JSF			
23/02/2024	AGN JSF			
20/02/2024	AGN JSF			
01/08/2023	AGN JSF			

Client: **City of Parramatta Council**
 Project: **2-4 BOUNDARY STREET & 85 RAILWAY STREET, PARRAMATTA PROPOSED RESIDENTIAL DEVELOPMENT STORMWATER CONCEPT PLANS SECTION 4.55**
 Drawing Title: **OSD & WSUD DETAILS & CALCULATIONS SHEET 1 OF 2**
 Scale: As Shown
 Project No: 2021316
 Sheet No: 106
 Issue: H

Document Set ID: #9689
 Version: 1, Version Date: 09/09/2024



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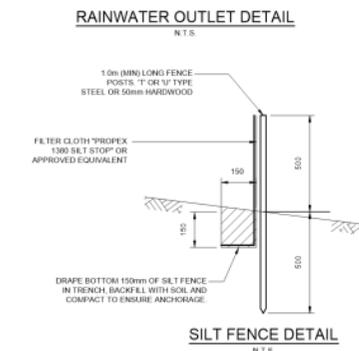
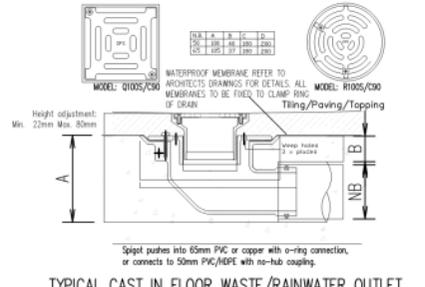
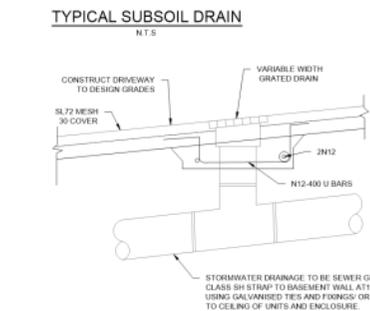
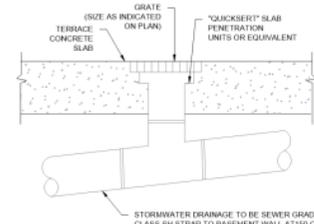
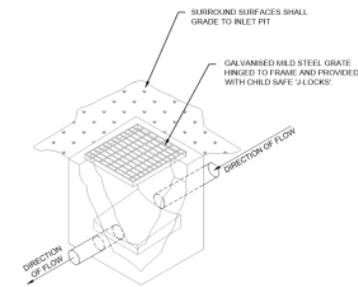
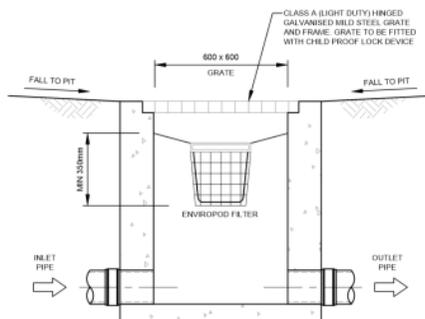
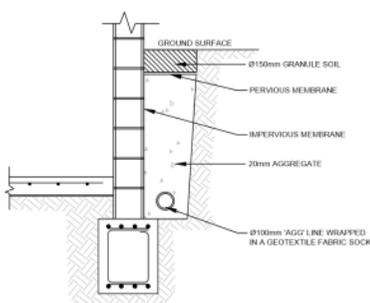
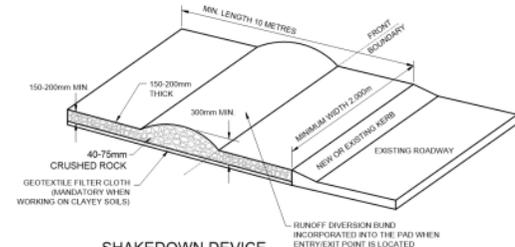
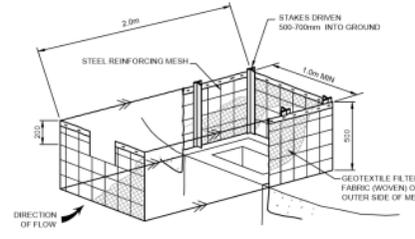
Drawing Title: **OSD & WSUD DETAILS & CALCULATIONS SHEET 2 OF 2**

Scale	As Shown	Project No.	2021316	Sheet No.	107	Issue	H
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Version: 1, Version Date: 09/09/2024

SEDIMENT & EROSION NOTES

1. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO NOMINATE THE LOCATIONS AND TYPES OF SEDIMENT AND EROSION CONTROL MEASURES TO BE ADOPTED. THESE MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CLEARING OR EARTHWORKS AND MAINTAINED UNTIL THE WORKS ARE COMPLETED AND NO LONGER POSE AN EROSION HAZARD, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
2. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO IDENTIFY AND MARK TREES WHICH ARE TO BE PRESERVED. NOTWITHSTANDING THE ABOVE, THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO MINIMISE DISTURBANCE TO EXISTING VEGETATION AND GROUND COVER OUTSIDE THE MINIMA AREAS REQUIRED TO COMPLETE THE WORKS AND SHALL BE RESPONSIBLE FOR RECTIFICATION, AT ITS OWN COST, OF ANY DISTURBANCE BEYOND THOSE AREAS.
3. PROVIDE GULLY GRATE INLET SEDIMENT TRAPS AT ALL GULLY PITS.
4. PROVIDE SILT FENCING ALONG PROPERTY LINE AS DIRECTED BY SUPERINTENDENT.
5. ADDITIONAL CONTROL DEVICES TO BE PLACED WHERE DIRECTED BY THE PRINCIPLE.
6. ALTERNATIVE DESIGNS TO BE APPROVED BY SUPERINTENDENT PRIOR TO CONSTRUCTION.
7. WASH DOWNWASHABLE AREA TO BE CONSTRUCTED WITH PROVISIONS RESTRICTING ALL SILT AND TRAFFICED DEBRIS FROM ENTERING THE STORMWATER SYSTEM.
8. NO WORK OR STOCKPILING OF MATERIALS TO BE PLACED OUTSIDE OF SITE WORK BOUNDARY.
9. APPROPRIATE EROSION AND SEDIMENT CONTROLS TO BE USED TO PROTECT STOCKPILES AND MAINTAINED THROUGHOUT CONSTRUCTION.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE DUE CARE OF NATURAL VEGETATION. NO CLEARING IS TO BE UNDERTAKEN WITHOUT PRIOR APPROVAL FROM THE SUPERINTENDENT.
11. TO AVOID DISTURBANCE TO EXISTING TREES, EARTHWORKS WILL BE MODIFIED AS DIRECTED ON-SITE BY THE SUPERINTENDENT.
12. THE LOCATION OF EROSION AND SEDIMENTATION CONTROLS WILL BE DETERMINED ON-SITE BY THE SUPERINTENDENT.
13. ACCESS TRACKS THROUGH THE SITE WILL BE LIMITED TO THOSE DETERMINED BY THE SUPERINTENDENT AND THE CONTRACTOR PRIOR TO ANY WORK COMMENCING.
14. ALL SETTING OUT IS THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO WORKS COMMENCING ON-SITE. THE SUPERINTENDENT'S SURVEYOR SHALL PEG ALL ALLOTMENT BOUNDARIES, PROVIDE COORDINATE INFORMATION TO THESE PEGS AND PLACE BENCH MARKS. THE CONTRACTOR SHALL SET OUT THE WORKS FROM AND MAINTAIN THESE PEGS.
15. PLANS ARE MINIMA REQUIREMENTS AND ARE TO BE USED AS A GUIDE ONLY. EXACT MEASURES USED SHALL BE DETERMINED ON-SITE IN CONJUNCTION WITH PROGRAM OF CONTRACTOR'S WORKS etc.



SILT FENCE NOTES:

1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH GALVANISED WIRE TIES, STAPLES OR ATTACHMENT BELTS.
2. POSTS SHOULD NOT BE SPACED MORE THAN 3m APART.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 150mm AND FOLDED.
4. FOR EXTRA STRENGTH TO SILT FENCE, WOVEN WIRE (14mm GAUGE, 150mm MESH SPACING) TO BE FASTENED SECURELY BETWEEN FILTER CLOTH AND POSTS BY WIRE TIES OR STAPLES.
5. INSPECTIONS SHALL BE PROVIDED ON A REGULAR BASIS, ESPECIALLY AFTER RAINFALL AND EXCESSIVE SILT DEPOSITS REMOVED WHEN 'BIGGEST' DEVELOP IN SILT FENCE.
6. SEDIMENT FENCES SHALL BE CONSTRUCTED WITH SEDIMENT TRAPS AND EMERGENCY SPILLWAYS AT SPACINGS NO GREATER THAN 400m ON FLAT TERRAIN DECREASING TO 200m SPACINGS ON STEEP TERRAIN.

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Rev	Description	Date	Design	Checked
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Client: City of Parramatta Council

Scale: 0 200 400 600mm

 SCALE 1:10 @ A1

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 PO BOX 3878 Parramatta 2124 Company: Telford Consulting Pty Ltd

Project: 2-4 BOUNDARY STREET & 85 RAILWAY STREET, PARRAMATTA PROPOSED RESIDENTIAL DEVELOPMENT STORMWATER CONCEPT PLANS SECTION 4.5.5

Drawing Title: MISCELLANEOUS DETAILS SHEET

 Scale: As Shown

 Project No: 2021316

 Page No: 108

 Issue: H

Document Set ID: #8681
Version: 1, Version Date: 09/09/2024



Statement of Environmental Effects

2-4 BOUNDARY STREET &
85 RAILWAY STREET,
PARRAMATTA

AUGUST 2024



QUALITY ASSURANCE	
PROJECT:	Statement of Environmental Effects: Section 4.55 Residential Flat Building
ADDRESS:	2-4 Boundary Street & 85 Railway Street, Parramatta
LOT/DP:	Lot 126 DP 1301954
COUNCIL:	City of Parramatta
AUTHOR:	Think Planners Pty Ltd

Date	Purpose of Issue	Revision	Author	Reviewed
7 August 2024	Co-ordination	Draft	BD	BD
12 August 2024	Lodgement Issue	Final	BD	BD



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Photograph 1: Shows the existing subject site as viewed from the intersection of Railway Street and Boundary Street..... 10

Photograph 2: Shows the streetscape of Boundary street, viewing eastwards. 10

Photograph 3: Shows the streetscape of Railway Street, viewing northwards. 11

Photograph 4 Shows the streetscape of Railway street, viewing southwards. 11

Figure 2: Zoning Map Extract Zoning Map Extract..... 30



EXECUTIVE SUMMARY

This Statement of Environmental Effects has been prepared in support of a further section 4.55(1A) Modification to an approved Development Application for the demolition of existing structures, lot consolidation and the construction of a four (4) storey residential flat building (RFB) containing 25 apartments at 2-4 Boundary Street & 85 Railway Street, Parramatta.

The parent development application (DA/61/2022) was granted a deferred commencement consent on 8 March 2023. The timeframe for the satisfaction of the deferred commencement was 2 years or until 8 March 2025.

Section 4.55(1A) Modification DA/61/2022/A was approved on 25 March 2024 by Council staff and granted approval for a revised location for the required easement to drain the site.

An operative consent was issued for the development application on 14 June 2024.

The approved unit mix of the development is:

- 4 x 1-bedroom units;
- 18 x 2-bedroom units; and
- 3 x 3-bedroom units.

This modification seeks the minor refinement of the design including:

- Changes to the internal floor plan of the complex to provide an ensuite to 14 x 2br units being units 1,2,5 and 7 of the GF, Level 1 and 2 as well as units 6 on levels 1 and 2;
- The above changes has resulted in some units increasing in internal floor areas and other units being slightly reduced to ensure that all units comply with ADG minimum apartment sizes;
- Changes to unit layouts such as kitchen, bathrooms as well as increasing the size of some bedrooms as a result of potential purchaser feedback;
- Introduction of 24 additional windows as a result of design refinement and the desire to increase light penetration within the apartments;
- Relocation of windows throughout the development and increasing the size of other windows;
- Refinement of the basement carpark including changes to the internal layout and expansion of the pump room adjacent to the driveway;
- Reduced excavation as a result of the FFL level of the basement being raised from RL 30.9 to RL 30.5; and
- Increasing the height of the lift overrun by 880mm as a result of the detailed design of the lift overrun.

A detailed description of the changes is provided by Design Cubicle.



It is noted that the development does not result in the footprint of the building increasing above ground, the FSR of the proposal increasing but the changes to the lift results in the development further exceeding the 14m height control by 880mm.

Situated in-between the Parramatta City Centre (1.3km north east) and Merrylands City Centre (1.2km south west), the subject site is located on the intersection of Boundary Street and Railway Street, approximately 700m west of Auto Alley. Bus stops with regular services to Parramatta and Liverpool (802, 904 & 806) are located within a 400m radius of the subject site.

The proposed development is situated within a residential block that is bound by Railway Street to the west, Rosehill Street to the north, Boundary Street to the south and Denison Street to the east. The residential block remains zoned R4 High Density Residential by Parramatta Local Environmental Plan 2023, with 'Residential Flat Buildings' remaining permissible with consent within the R4 Zone.

The development site is an irregular shaped corner allotment with a total site area of 1,789.50m², with a dwelling currently located on each lot.

Situated within an established residential block, the built form is characterised by low density residential dwellings of mixed age and architectural style. The locality has been earmarked for greater intensification of its built form by virtue of its R4 Zoning and over the next 5-10 it is expected that the subject block will undertake a transition from low density to high density.

The modified development seeks to utilise the land in accordance with the zoning and take advantage of its proximity to public transport and services. The subject site is going to play an important role in the renewal processes by setting the design standard and tone for the future character and built forms within the subject residential block. The amalgamation of the three land parcels will permit an orderly development of the site whilst significantly contributing towards increasing the housing stock and housing choice within Parramatta.

Having regard to the benefits of the proposal and considering the absence of adverse environmental, social or economic impacts, and that the proposal represents an appropriate use of well-located land; the application is submitted to Council for assessment. Think Planners Pty Ltd recommends the approval of the modification application subject to necessary, relevant and appropriate conditions of consent.



SITE AND CONTEXT

LEGAL DESCRIPTION

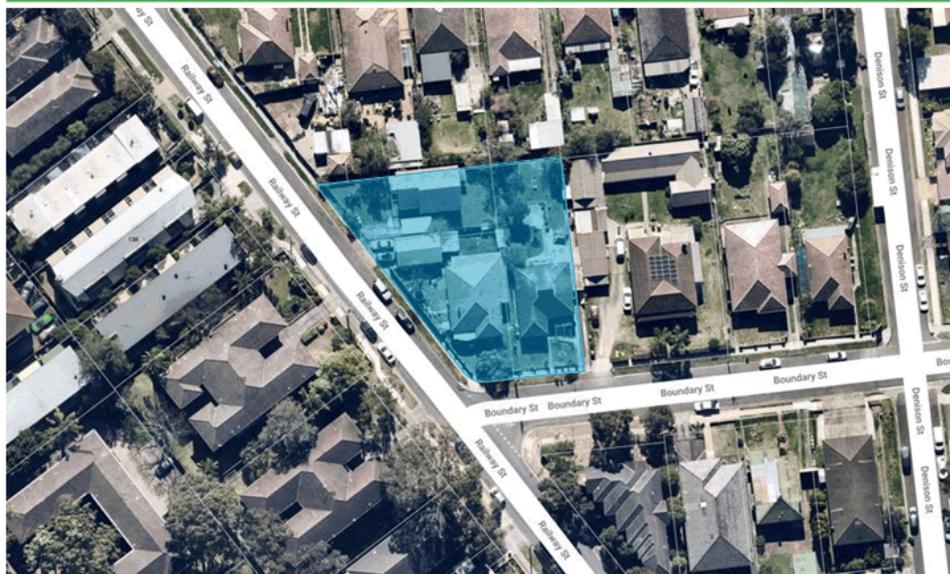
The subject site is legally described as Lot 126 in DP 1301954 though is more commonly known as 2-4 Boundary Street & 85 Railway Street, Parramatta.

SUBJECT SITE

The subject site is a regular shaped corner land parcel located on the intersection of Boundary Street and Railway Street and is situated approximately 700m west of Auto Alley. Bus stops with regular services to Parramatta and Liverpool (802, 904 & 806) is located within a 450m radius of the subject site. The site comprises of three (3) separate allotments and once consolidated will have a total site area of 1,789.50m². The site has a cross-fall of 2m fall from the north eastern section to the site towards Railway Street.

An aerial photograph is provided below for context of the subject site.

Figure 1: Aerial Map Extract of the Subject Site (Source: Near Maps).



■ Subject Site

Residing in-between the Parramatta City Centre (1.3km north east) and Merrylands City Centre (1.2km south west), the development site is located within an established

residential area comprising predominantly of low density residential dwellings of mix ages and architectural styles. The subject site currently accommodates three single storey residential dwellings that are to be demolished as part of the proposal. The dwellings are in a reasonable condition; however they are significantly underutilising the sites full development potential given the R4 High Density Residential Zone permits higher density residential development such as residential flat buildings.

The subject site resides within an established residential block that bounds the Railway Street to the west, Rosehill Street to the north, Boundary Street to the south and Denison Street to the east.

Currently the predominant land use within the subject residential block is older style low density residential dwellings of mixed ages and architectural styles, with a mix of older style and recently constructed modern residential flat buildings concentrated along the western side of Railway Street. The subject area is zoned R4 High Density Residential and as such has been earmarked for renewal with Council supporting higher forms of land uses within the area. With the current demand for housing within close proximity to essential services and public transport, it is expected that the remaining stock of low density housing will be redeveloped for higher densities over the next 5-10 years.

The Sydney Metropolitan Strategy supports higher residential development in strategic locations to accommodate future population growth, and Parramatta City Council has zoned the subject site as R4 – High Density Residential, which permits higher density residential development. The subject site is ideal to accommodate future high density development as it is within close proximity to both Parramatta Town Centre and Merrylands Town Centre, public transportation and recreational opportunities. The proposal is also located near key arterial roads such as Pitt Street and Great Western Highway. An aerial photograph demonstrating the sites location in the broader locality is provided below in the following page.





ZONING CONTROL

The subject site is zoned R4 High Density Residential with a height limit of 14m and maximum floor space ratio of 1.2:1 under the Parramatta Local Environmental Plan 2023. An extract of the mapping is provided later in this report.

With the current demand for housing near public transportation, services, employment hubs and recreational opportunities and considering the locality's R4 zoning which permits high density development, it is expected that the subject area will experience a transformation of its dwelling stock towards high density housing.

The development seeks to utilise the land in accordance with the zoning and take advantage of its proximity to Parramatta Town Centre, public transportation, schools, jobs and recreational opportunities.

Photographs are provided in the following pages that give context to the locality and also the relationship of the development site with adjoining developments.

Photograph 1: Shows the existing subject site as viewed from the intersection of Railway Street and Boundary Street.



Photograph 2: Shows the streetscape of Boundary street, viewing eastwards.



Photograph 3: Shows the streetscape of Railway Street, viewing northwards.



Photograph 4 Shows the streetscape of Railway street, viewing southwards.



PROPOSED SECTION 4.55(1A) MODIFICATION

This Section 4.55(1A) modification seeks approval for further minor modifications to the proposal including:

- Changes to the internal floor plan of the complex to provide an ensuite to 14 x 2br units being units 1,2,5 and 7 of the GF, Level 1 and 2 as well as units 6 on levels 1 and 2;
- The above changes has resulted in some units increasing in internal floor areas and other units being slightly reduced to ensure that all units comply with ADG minimum apartment sizes;
- Changes to unit layouts such as kitchen, bathrooms as well as increasing the size of some bedrooms as a result of potential purchaser feedback;
- Introduction of 24 additional windows as a result of design refinement and the desire to increase light penetration within the apartments;
- Relocation of windows throughout the development and increasing the size of other windows;
- Refinement of the basement carpark including changes to the internal layout and expansion of the pump room adjacent to the driveway;
- Reduced excavation as a result of the FFL level of the basement being raised from RL 30.9 to RL 30.5; and
- Increasing the height of the lift overrun by 880mm as a result of the detailed design of the lift overrun.

It is noted that the development does not result in the footprint of the building increasing above ground, the FSR of the proposal increasing but the changes to the lift results in the development further exceeding the 14m height control by 880mm.

The following plans and documents accompany this modification:

Plans/Reports	Prepared by
Architectural Plans	Design Cubicle
List of proposed changes	Design Cubicle
Basix Certificate	Outsource Ideas
Estimated Development Cost Report	Sitecorp
Acoustic Report	Rodney Stevens Acoustics

PLANNING CONTROLS

STATUTORY CONTROLS

The relevant Statutory Planning Controls include: -

- The Environmental Planning and Assessment Act 1979;
- State Environmental Planning Policy (Sustainability) 2022
- State Environmental Planning Policy (Resilience and Hazards) 2021;
- State Environmental Planning Policy (Biodiversity and Conservation) 2021 ;
- State Environmental Planning Policy Housing 2021;
- State Environmental Planning Policy (Transport and Infrastructure) 2021; and
- Parramatta Local Environmental Plan 2023.

POLICY CONTROLS

The applicable policy control documents are: -

- Parramatta Development Control Plan 2023; and
- The Apartment Design Guide;
-



CONSIDERATION OF PLANNING CONTROLS

The following summarises the relevant planning controls in relation to the proposal and the compliance of each.

SECTION 4.55 OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Pursuant to Section 4.55 (1A) of the Act, Council may consider an application to amend a development consent provided that it is substantially the same development and of minimal environmental impact.

An extract of Section 4.55 (1A) is provided below:

A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:

(a) it is satisfied that the proposed modification is of minimal environmental impact, and

(b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and

(c) it has notified the application in accordance with:

(i) the regulations, if the regulations so require, or

(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and

(d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be

The application is substantially the same as the approved development, with the minor refinement of the scheme that continues to contain 25 apartments is a series of minor revisions to facilitate the construction of the development that reflect the detailed design work undertaken. The minor changes to the plans are reasonably and appropriately considered 'substantially the same development' when having regard to case law set down by the Land and Environment Court

Section 4.55(3) of the Act is also relevant and states:

In determining an application for modification of a consent under this section, the consent authority must take into consideration such of the matters referred to in section 4.15(1) as are of relevance to the development the subject of the application. The consent authority must also take into consideration the



reasons given by the consent authority for the grant of the consent that is sought to be modified.

This SEE addresses the requirements of section 4.15(1) of the EP&A Act. The reasons for approval by the panel; are not publicly available but assumed to include compliance with the zone objectives.

The minor proposed modifications do not undermine the reasons for the approval and the modified development is considered to be consistent with them.

Land and Environment Court Judgments

The question as to whether a modified proposal is 'substantially the same' as that originally approved has been an ongoing issue dealt with in the Land and Environment Court. It is also important to note that the Court has consistently described the section 96-modification provision of the Act as "beneficial and facultative". It is designed to assist the modification process rather than to act as an impediment to it; "It is to be construed and applied in a way that is favourable to those who seek to benefit from the provision" (see *North Sydney Council v Michael Standley & Associates Pty Limited* [1998]).

As demonstrated below the change to an approval can be substantial without the amended proposal failing the 'substantially the same' test. By way of example, and relevant to the current proposal, the following cases were considered in the Court and found to be substantially the same development, with this extract contained in a *Gadens* Publication dated 17 June 2012:

Bassett and Jones Architects Pty Limited v Waverley Council (No 2) [2005]: The modification application sought an additional storey to the approved front building of a mixed commercial and residential development, which would alter the building from three- storeys to four-storeys; and the provision of a zero side setback for a part of the external side walls at all three levels. This resulted in an increase in floor space of 112 square metres, being a 20 per cent increase in floor space, and a 28 per cent increase in height (both of which exceeded the applicable council controls).

The Court found that the test was satisfied albeit only on "a very fine balance". The Court noted however that the modified design might give rise to privacy impacts that may warrant refusal of the application when the merits of the change are assessed. The application was later refused on its merits, but not before passing the "substantially the same" threshold test.

Davi Developments Pty Ltd v Leichhardt Council [2007]: A modification application sought to change consent for a seven storey residential flat building with two levels of basement parking. There was to be a reduction of one floor, but an increase in the main parapet height by 900mm, and the substantial reconfiguration of the unit mix such



that the numbers reduced from 42 to 30, with a rearrangement of the car park plan such that it was “entirely different”.

The Court nevertheless considered that the fundamental characteristics and essence of the building would remain essentially the same.

Bathla Investments Pty Limited v Blacktown City Council [2008]: The original approval was for eight townhouses presenting as four, single-storey buildings. Some of the townhouses were attached.

The modification application sought to change some of the townhouses to two storeys, and also sought to separate the dwellings and made changes to the garage designs and parking layout. The Court noted that there were “numerous differences” between the schemes, however, the townhouse development presented as materially and essentially the same development.

Marana Developments Pty Limited v Botany City Council [2011]: The original approval was for the construction of five residential flat buildings (with basement car parking) comprising a total of 76 units. The modification application sought ‘significant changes to the external appearance and layout of the buildings’ including an increase in unit numbers from 76 up to 102, and an additional level of basement car parking.

This also involved a changed unit mix. Despite significant internal changes, the minimal change to the external floor plates and layout was of great significance and the test was satisfied.

Boyd v Bega Valley Council [2007]: It was proposed to add a second storey to a single storey dual occupancy development. Although the application was unsuccessful on merit grounds reasons (visual impact from the waterway caused by poor architectural design), the Court was satisfied that the increase from a single storey to a two storey dwelling satisfied “substantially the same” test.

As can be seen above, particularly in Bathla v Blacktown, the Court noted that despite there being “numerous differences” the development presented as materially and essentially the same development. Having regard to the series of minor amendments proposed in this application, it is noted that the proposal remains materially and essentially the same development.

Therefore, the proposal is considered to be in essence substantially the same development as that originally approved.

It is anticipated that the development application will be notified to adjoining property owners and a discussion against the relevant planning controls is provided further in this statement.



STATE ENVIRONMENTAL PLANNING POLICY (SUSTAINABLE BUILDINGS) 2022

This SEPP came into effect on 1 October 2023 and incorporated the provision of the now repealed State Environmental Planning Policy (BASIX) 2004.

The Sustainable Building SEPP encourages the design and construction of more sustainable buildings across NSW. It applies to a range of development types, including residential and commercial developments.

Chapter 2 of the SEPP contains controls for the standards for residential development.

The application has been assessed and is accompanied by a revised BASIX certificate

Chapter 3 of the SEPP contains controls for the Standards for non-residential development. Not applicable to this development as the proposed is for the purpose of residential development.

STATE ENVIRONMENTAL PLANNING POLICY (TRANSPORT AND INFRASTRUCTURE) 2021

This SEPP came into effect on 1 March 2022 and incorporated the provisions of four now repealed SEPP's being:

- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017;
- State Environmental Planning Policy (Major Infrastructure Corridors) 2020; and
- State Environmental Planning Policy (Three Ports) 2013.

Chapter 2 – contains planning rules and controls from the former Infrastructure SEPP for infrastructure in NSW, such as for hospitals, roads, railways, emergency services, water supply and electricity delivery.

In accordance with this chapter, it is not anticipated that Council will refer the application to an electricity supply authority as additional works will not occur within 5m of an exposed overhead electricity power line.

In accordance with this chapter, the application is not required to be referred to Trains NSW as the proposal does not result in any additional excavation.

The development site is located within immediate proximity to a classified road and issues relating to noise from classified roads was considered as part of the parent



development application. This modification will adopt acoustic measures in accordance with the parent development application and accordingly this part of the SEPP continues to be satisfied.

Clause 104 identifies a number of types of development that require concurrence from Roads and Maritime Services where development is identified as 'traffic generating development'. The current modification is not identified as traffic generating development as the site does not trigger the threshold requirements. Therefore, concurrence from the RMS is not required.

Chapter 3 – contains planning provisions from the former Education and Childcare SEPP for child-care centres, schools, TAFEs and Universities. This chapter is not relevant to this modification.

Chapter 4 – contains provisions from the former Corridor SEPP, including planning controls and reserves land for the protection of 3 corridors (North South Rail Line, South West Rail Link extension and Western Sydney Freight Line). The site is not identified as being within any of these corridors and accordingly this chapter is not applicable to this development.

Chapter 5 – Contains the land-use planning and assessment framework from the former Three Ports SEPP for appropriate development at Port Kembla, Port Botany and Port of Newcastle. The site is not identified as being within any of these port precincts and accordingly this chapter is not applicable to this development

STATE ENVIRONMENTAL PLANNING POLICY (BIODIVERSITY AND CONSERVATION) 2021

This SEPP came into effect on 1 March 2022 and incorporated the provisions of eleven now repealed SEPP's being:

- SEPP (Vegetation in Non-Rural Areas) 2017 (Vegetation SEPP)
- SEPP (Koala Habitat Protection) 2020 (Koala SEPP 2020)
- SEPP (Koala Habitat Protection) 2021 (Koala SEPP 2021)
- Murray Regional Environmental Plan No 2—Riverine Land (Murray REP)
- SEPP No 19—Bushland in Urban Areas (SEPP 19)
- SEPP No 50—Canal Estate Development (SEPP 50)
- SEPP (Sydney Drinking Water Catchment) 2011 (Sydney Drinking Water SEPP)



- Sydney Regional Environmental Plan No 20 – Hawkesbury – Nepean River (No 2 – 1997) (Hawkesbury–Nepean River SREP)
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (Sydney Harbour Catchment SREP)
- Greater Metropolitan Regional Environmental Plan No 2 – Georges River Catchment (Georges River REP)
- Willandra Lakes Regional Environmental Plan No 1 – World Heritage Property (Willandra Lakes REP).

Chapter 2 of the SEPP contains planning rules and controls from the former Vegetation SEPP relating to the clearing of native vegetation in NSW on land zoned for urban and environmental purposes that is not linked to a development application. This chapter seeks to protect the biodiversity values of trees and other vegetation in non-rural areas of the state, and to preserve the amenity of non-rural areas of the State through the appropriate preservation of trees and other vegetation. The modification does not seek approval for any additional tree removal.

Chapter 3 – Koala habitat protection contains provisions from the Koala SEPP 2020 and, as an interim measure, applies in the NSW core rural zones of RU1, RU2 and RU3, except within the Greater Sydney and Central Coast areas. Given the sites location and zoning this chapter is not applicable to the development.

Chapter 4 – contains the land-use planning and assessment framework from the former Koala SEPP 2021 for koala habitat within Metropolitan Sydney and the Central Coast and applies to all zones except RU1, RU2 and RU3 in the short term. The site is not identified as containing koala habitat and accordingly this chapter is not applicable to this development.

Chapter 5 – contains the provisions from the former Murray REP, which establishes a consistent and co-ordinated approach to environmental planning and assessment along the River Murray. Given the sites location, this chapter is not applicable to this development.

Chapter 6 – contains provisions relating to water catchments, also incorporating clauses from the now-repealed Chapters 7-12 of this SEPP. This chapter applies as the site is within the Sydney Harbour Catchment. Appropriate water sensitive urban design and stormwater management features have been approved within the parent development application, with erosion and sedimentation control at the construction phase ensuring there is no unacceptable impacts on water quality. Accordingly, it can be considered that the proposed works will have a minimal impact on water quality, stormwater run-off and sedimentation; and the cumulative environmental impacts on the regulated catchment are negligible.



Therefore, the proposal satisfies the key provisions of the Sydney Harbour Catchment, The following table discusses the relevant requirements of Chapter 6.

Clause	Response
Division 2 Controls on development generally	
6.6 Water quality and quantity	
(1) In deciding whether to grant development consent to development on land in a regulated catchment, the consent authority must consider the following—	
(a) whether the development will have a neutral or beneficial effect on the quality of water entering a waterway,	The approved works and existing consent conditions will ensure that water leaving the site is appropriately managed and treated before entering the broader stormwater management system. This ensures that any water leaving the site will have at minimum a neutral effect before entering a waterway.
(b) whether the development will have an adverse impact on water flow in a natural waterbody,	The proposed modified basement will have no adverse impacts on waterflow in a natural waterbody.
(c) whether the development will increase the amount of stormwater run-off from a site,	Considered as part of parent DA and found to be satisfactory. Not altered by this modification.
(d) whether the development will incorporate on-site stormwater retention, infiltration or reuse,	The approved development incorporates a range of stormwater management measures consistent with the requirements of subclause (
(e) the impact of the development on the level and quality of the water table,	Considered as part of parent DA and found to be satisfactory. Not altered by this modification.
(f) the cumulative environmental impact of the development on the regulated catchment,	Considered as part of parent DA and found to be satisfactory. Not altered by this modification.
(g) whether the development makes adequate provision to protect the quality and quantity of ground water.	Considered as part of parent DA and found to be satisfactory. Not altered by this modification.
(2) Development consent must not be granted to development on land in a regulated catchment unless the consent authority is satisfied the development ensures—	The approved development proposal included appropriate measures to ensure that water leaving the site will not unacceptably impact on the water quality of a natural waterbody.
(a) the effect on the quality of water entering a natural waterbody will be as close as possible to neutral or beneficial, and	



<p>(b) the impact on water flow in a natural waterbody will be minimised.</p>	<p>The proposal drains to the piped drainage system within the street which has the capacity to move water in keeping with retaining a natural flow within natural waterbodies.</p>
<p>(3) Subsections (1)(a) and (2)(a) do not apply to development on land in the Sydney Drinking Water Catchment.</p>	<p>The site is not within the Sydney Drinking Water Catchment.</p>
<p>6.7 Aquatic ecology</p>	
<p>(1) In deciding whether to grant development consent to development on land in a regulated catchment, the consent authority must consider the following—</p>	
<p>(a) whether the development will have a direct, indirect or cumulative adverse impact on terrestrial, aquatic or migratory animals or vegetation,</p>	<p>The proposal has no impacts on the matters listed in (a).</p>
<p>(b) whether the development involves the clearing of riparian vegetation and, if so, whether the development will require—</p>	<p>A controlled activity approval is not required.</p>
<p>(i) a controlled activity approval under the Water Management Act 2000, or (ii) a permit under the Fisheries Management Act 1994,</p>	<p>A permit is not required under the Fisheries Management Act 1994</p>
<p>(c) whether the development will minimise or avoid—</p>	
<p>(i) the erosion of land abutting a natural waterbody, or</p>	<p>N/A</p>
<p>(ii) the sedimentation of a natural waterbody,</p>	<p>Relevant measures have been included to ensure that during and post development there is no opportunity for sedimentation of a natural waterbody. Refer to Stormwater Management Plans for details.</p>
<p>(d) whether the development will have an adverse impact on wetlands that are not in the coastal wetlands and littoral rainforests area,</p>	<p>Considered as part of parent DA and found to be satisfactory. Not altered by this modification.</p>
<p>(e) whether the development includes adequate safeguards and rehabilitation measures to protect aquatic ecology,</p>	<p>Not applicable to this modification.</p>
<p>(f) if the development site adjoins a natural waterbody—whether additional measures are required to ensure a neutral or beneficial effect on the water quality of the waterbody.</p>	<p>Not applicable to this modification.</p>
<p>Example—</p>	



<p>Additional measures may include the incorporation of a vegetated buffer between the waterbody and the site.</p> <p>(2) Development consent must not be granted to development on land in a regulated catchment unless the consent authority is satisfied of the following—</p> <p>(a) the direct, indirect or cumulative adverse impact on terrestrial, aquatic or migratory animals or vegetation will be kept to the minimum necessary for the carrying out of the development,</p> <p>(b) the development will not have a direct, indirect or cumulative adverse impact on aquatic reserves,</p> <p>(c) if a controlled activity approval under the Water Management Act 2000 or a permit under the Fisheries Management Act 1994 is required in relation to the clearing of riparian vegetation—the approval or permit has been obtained,</p> <p>(d) the erosion of land abutting a natural waterbody or the sedimentation of a natural waterbody will be minimised,</p> <p>(e) the adverse impact on wetlands that are not in the coastal wetlands and littoral rainforests area will be minimised.</p> <p>(3) In this section— coastal wetlands and littoral rainforests area has the same meaning as in the Coastal Management Act 2016, section 6.</p>	<p>Considered as part of parent DA and found to be satisfactory. Not altered by this modification.</p>
<p>6.8 Flooding</p> <p>(1) In deciding whether to grant development consent to development on land in a regulated catchment, the consent authority must consider the likely impact of the development on periodic flooding that benefits wetlands and other riverine ecosystems.</p> <p>(2) Development consent must not be granted to development on flood liable land in a regulated catchment unless the consent authority is satisfied the development will not—</p> <p>(a) if there is a flood, result in a release of pollutants that may have an adverse impact on the water quality of a natural waterbody, or</p>	<p>Noted.</p> <p>Considered as part of parent DA and found to be satisfactory. Not altered by this modification.</p> <p>Considered as part of parent DA and found to be satisfactory. Not altered by this modification.</p>



<p>(b) have an adverse impact on the natural recession of floodwaters into wetlands and other riverine ecosystems.</p>	<p>Considered as part of parent DA and found to be satisfactory. Not altered by this modification.</p>
<p>6.9 Recreation and public access</p>	
<p>(1) In deciding whether to grant development consent to development on land in a regulated catchment, the consent authority must consider—</p>	
<p>(a) the likely impact of the development on recreational land uses in the regulated catchment, and</p>	<p>No impact on any recreational uses.</p>
<p>(b) whether the development will maintain or improve public access to and around foreshores without adverse impact on natural waterbodies, watercourses, wetlands or riparian vegetation.</p>	<p>The proposed development does not impact any access or future access to the items identified in (b).</p>
<p>(2) Development consent must not be granted to development on land in a regulated catchment unless the consent authority is satisfied of the following—</p>	
<p>(a) the development will maintain or improve public access to and from natural waterbodies for recreational purposes, including fishing, swimming and boating, without adverse impact on natural waterbodies, watercourses, wetlands or riparian vegetation,</p>	<p>There will be no impact as a result of this development proposal on access to and from natural waterbodies for recreational purposes.</p>
<p>(b) new or existing points of public access between natural waterbodies and the site of the development will be stable and safe,</p>	<p>Not applicable</p>
<p>(c) if land forming part of the foreshore of a natural waterbody will be made available for public access as a result of the development but is not in public ownership—public access to and use of the land will be safeguarded.</p>	<p>Not applicable</p>
<p>(3) This section does not apply to development on land in a regulated catchment if the land is in a special area under the Water NSW Act 2014.</p>	<p>Noted.</p>
<p>6.10 Total catchment management</p>	
<p>In deciding whether to grant development consent to development on land in a regulated catchment, the consent authority must consult with the council of each adjacent or downstream local government area on which the development is likely to have an adverse environmental impact.</p>	<p>Considered as part of parent DA and found to be satisfactory. Not altered by this modification.</p>

Division 3 Controls on development in specific areas	
6.11 Land within 100m of natural waterbody	The site is not located within 100m of natural waterbody
6.12 Riverine Scenic Areas	The site is not in a Riverine Scenic Area or a Hawkesbury-Nepean conservation area sub-catchment
6.13 Hawkesbury-Nepean conservation area sub-catchments	The site is not in a Hawkesbury-Nepean conservation area sub-catchment
6.14 Temporary use of land in Sydney Harbour Catchment	The development is not classified as a temporary use of land
Division 4 Controls on development for specific purposes	Development does not fall under the specific purposes listed within Division 4.
Part 6.3 Foreshores and Waterways Area	Considered as part of parent DA and found to be satisfactory. Not altered by this modification.
Part 6.4 Heritage conservation in Sydney Harbour	Considered as part of parent DA and found to be satisfactory. Not altered by this modification.
Part 6.5 Sydney Drinking Water Catchment	The site is not located within the Sydney Drinking Water Catchment

STATE ENVIRONMENTAL PLANNING POLICY (RESILIENCE AND HAZARDS) 2021

This SEPP came into effect on 1 March 2022 and incorporated the provisions of three now repealed SEPP's being:

- State Environmental Planning Policy (Coastal Management) 2018;
- State Environmental Planning Policy No 33—Hazardous and Offensive Development; and
- State Environmental Planning Policy No 55—Remediation of Land.

Chapter 2 of the SEPP contains controls for coastal management and it not applicable to this development.

Chapter 3 of the SEPP contains controls for Hazardous and Offensive Development. This development is not for Hazardous and Offensive development and accordingly this chapter is not applicable to this development.

Chapter 4 of the SEPP contains a state-wide planning framework for the remediation of contaminated land and to minimise the risk of harm.



The following table considers the risk of the site being contaminated:

Matter for consideration	Yes	No
Does the application involve re-development of the site or a change of land use?	X	
Is the development going to be used for a sensitive land use (e.g. residential, educational, recreational, childcare or hospital)?	X	
Does information available to you indicate that an activity listed below has ever been approved, or occurred at the site? acid/alkali plant and formulation, agricultural/horticultural activities, airports, asbestos production and disposal, chemicals manufacture and formulation, defence works, drum re-conditioning works, dry cleaning establishments, electrical manufacturing (transformers), electroplating and heat treatment premises, engine works, explosive industry, gas works, iron and steel works, landfill sites, metal treatment, mining and extractive industries, oil production and storage, paint formulation and manufacture, pesticide manufacture and formulation, power stations, railway yards, scrap yards, service stations, sheep and cattle dips, smelting and refining, tanning and associated trades, waste storage and treatment, wood preservation		X
Is the site listed on Council's Contaminated land database?		X
Is the site subject to EPA clean-up order or other EPA restrictions?		X
Has the site been the subject of known pollution incidents or illegal dumping?		X
Does the site adjoin any contaminated land/previously contaminated land?		X
Has the appropriate level of investigation been carried out in respect of contamination matters for Council to be satisfied that the site is suitable to accommodate the proposed development or can be made suitable to accommodate the proposed development?	X	

This issue was considered by the City of Parramatta as part of the assessment of the parent application and found to be satisfactory.



CHAPTER 4 HOUSING SEPP – DESIGN QUALITY OF RESIDENTIAL FLAT DEVELOPMENT

The parent development application was accompanied by a design verification statement by IDraft Architects verifying that the company has directed and designed the proposal and that the design quality principles set out in Part 2 of the SEPP are achieved for the residential flat development.

Give the extent of modifications and noting that this is a 1A modification a revised Design Verification Statement is not required.

An assessment against the relevant objectives and design guidelines contained in parts 3 and 4 of the Architectural Design Guide can be found below, noting that a number of these provisions are embodied within the Parramatta Local Environmental Plan 2023 and the supporting Parramatta Development Control Plan 2023.

It is noted that the proposal is technically captured by the ADG as it applies to modification applications. A discussion against the ADG matters is outlined below, noting that it is of limited relevance, given the minor modification.

ADG Element	Requirement	Proposed
3A Site Analysis required	Appendix 1 of the ADG	Site Analysis has been provided via previous DA.
3B Orientation	Building to define the street, by facing it and incorporating direct access from the street	The building continues to incorporate direct access from the street.
3C Public Domain Interface	Terraces, balconies should have direct street entry, where appropriate.	The proposed modification will have no impact on the approved access arrangements to and from the site via the ground floor.
	Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	As per approved DA/61/2022 no changes. Not applicable.
	Substations, pump rooms, garbage storage rooms and other service rooms should be located in the basement carpark or out of view	The expanded ump room is located in the basement.
3D Communal and Public Open Space	Communal open space has a minimum area equal to 25% of the site	No changes to the communal open space arrangements approved via DA/61/2022 and subsequent modifications.



3E Deep Soil Zones	A deep soil zone equivalent to 7% of the site area must be provided If the site is between 650m ² to 1,500m ² then the DSZ must have minimum dimensions of 3m	The revised development provides a deep soil zone of 433.26m ² , that equates to 24.2% of the site.
3F Visual Privacy		
Building Separation Up to 4 storeys (up to 12m)	12m between habitable rooms (6m)	No changes.
5-8 Storeys (up to 25m)	18m between habitable rooms (9m)	No changes.
3G Pedestrian Access and Entries	Building entries should be clearly identifiable and communal entries should be clearly distinguished from private areas	No changes. The development continues to provide a clearly identifiable entrance to the lobby on the ground floor.
3H Vehicle Access	Car park access should be integrated with the building's overall façade Car park entry and access should be located on secondary streets or lanes where available Garbage collection, loading and servicing areas are screened	No change. No change to vehicular access arrangement approved via DA/295/2020. No change to the service arrangements approved via previous DA.
3J Carparking	Carparking for sites within 800m of a railway station or light rail stop can provide parking at the rate of: >20 units <u>Metropolitan Sub-Regional Centres:</u> 0.6 spaces per 1 bedroom unit. 0.9 spaces per 2 bedroom unit. 1.40 spaces per 3 bedroom unit. 1 space per 5 units (visitor parking) <u>Design Guidelines:</u> Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas	No change. No change

4A Solar Access	70% of Units to receive 2 Hours Solar Access between 9am and 3pm Mid Winter	No change.
4B Natural Ventilation	60% of Units are cross ventilated in a building up to 9 storeys	No change.
4C Ceiling Height	3.3m from ground and first floor in mixed use area; 2.7m for habitable; and 2.4m for non-habitable	No changes.
4D Unit Sizes		
Studio	35 m ²	N/A
1 bed	50m ²	Complies
2 bed	70m ²	Complies
3 bed	90m ²	Complies
4 bed	102m ²	N/A
+ 5m² for each unit with more than 1 bathroom.	Yes 14 apartments have increased in area as a result of the provision of an ensuite.	Complies
Bedroom sizes	10m ²	Complies
Master	9m ²	Complies
Other		
4E Private Open Space		
Balcony Sizes	Studio 4m ² 1br 8m ² 2br 10m ² 3br 12m ²	N/A No change No change No change
4F Common Circulation and Spaces		
Common Circulation Units per Plate	8 -12 Unit per Plate	No change
4G Storage		
Studio 4m³		Storage is provided within the basement/ground floor and
1 bed 6m³		



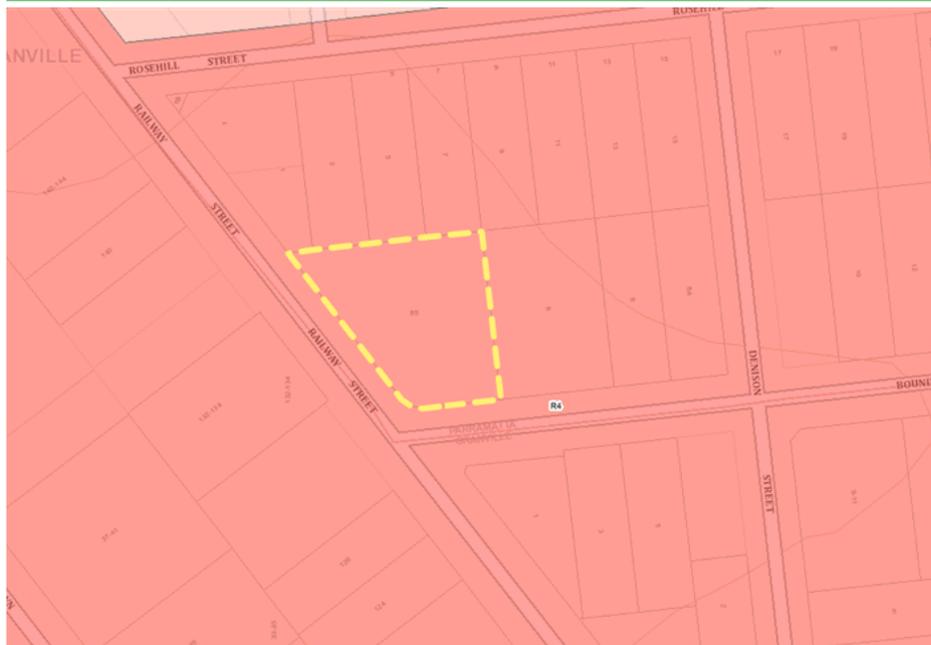
<p>2 bed 8m³ 3 bed 10m³</p> <p>Min 50% of required storage is within the apartment but not in kitchens, bathrooms and bedrooms.</p>		<p>within the units themselves, with a minimum of 50% of storage to be provided within each individual unit.</p> <p>The proposed development is considered to offer storage space in excess of the provisions of the ADG.</p>
4K Apartment Mix	A variety of apartment types is provided.	No Change
4O Landscape Design		No Change
4Q Universal Design		
20% of the total apartments	Achieve Liveable House Guidelines silver level universal design features	No change to the proposed number of adaptable units
4U Energy Efficiency		No Change
4V Water Management and Conservation	Reduce mains consumption and reduce the quantity of storm water runoff.	No Change
4W Waste Management	Supply WMP Allocate storage area	No changes proposed under this application.
4X Building Maintenance	To ensure long life and ease of maintenance for the development.	The proposed material is durable and able to be easily maintained.



PARRAMATTA LOCAL ENVIRONMENTAL PLAN 2023

The site is zoned R4 -High Density by Parramatta LEP 2023, as indicated on the zoning map extract below.

Figure 2: Zoning Map Extract Zoning Map Extract



The proposed modifications remain consistent with the prescribed zone objectives that are stipulated as:

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To provide for high density residential development close to open space, major transport nodes, services and employment opportunities.
- To provide opportunities for people to carry out a reasonable range of activities from their homes if the activities will not adversely affect the amenity of the neighbourhood.

The modified development continues to provide a residential apartment development that will positively contribute towards increasing the housing stock within Parramatta. The site is extremely well located and is within close proximity to essential services, public transportation and recreational opportunities.

The table below provides detail on the development standards relevant to the current proposal as well as other relevant LEP provisions.

Parramatta Local Environmental Plan 2023			
Clause	Control	Comment	Complies
Zoning	R4 High Density	A residential flat building is permissible with Council consent in the R4 High Density zone.	YES
Part 2 Permitted or Prohibited Development			
2.3	Zone Objectives and Land Use Table	The proposal is consistent with the zone objectives of the R4 High Density, in that the proposal will increase additional high density housing opportunities by providing a high quality residential flat building within close proximity to both Parramatta Town Centre and Merrylands Town Centre.	YES
2.6	Subdivision – Consent Requirements	No change to subdivision as part of this modification	N/A
2.7	Demolition Requires Consent	The demolition of the existing structures was approved in the parent development application.	N/A
Part 4 Principal Development Standards			
4.1	Minimum Subdivision Lot Size	The development site is not identified as having a minimum lot size.	N/A
4.3	Height of Buildings- 14m	The approved parent development varied this and had an approved height of 16.6m. This modification seeks to increase the height of the lift overrun as a result of detailed design and discussion with lift providers. This results in this portion of the building increasing by 880mm to 17.48m. The minor height departure will not be discernible from the approved height and is centrally located. The increase in height will not result in increased overshadowing of adjoining properties and will not be visible from the street level.	No
4.4	Floor Space Ratio-	The development site is identified as having a maximum floor space ratio of 1.2:1.	Yes



		The approved development has an FSR of 1.2:1 and this is not altered by this development.	
4.6	Exceptions to Development Standards	The modification does seek to further vary the LEP Height control, but as this is a modification clause 4.6 departure is not legally warranted.	N/A
Part 5 Miscellaneous Provisions Principal Development Standards			
5.1	Relevant Acquisition Authority	This Clause is not applicable to the subject site.	N/A
5.2	Classification and Reclassification of Public Land	This Clause is not applicable to the subject site.	N/A
5.3	Development near Zone Boundaries	This Clause is not applicable to the subject site.	N/A
5.4	Miscellaneous Permissible Uses	This Clause is not applicable to the subject site.	N/A
5.5	Coastal Zone Developments	This Clause is not applicable to the subject site.	N/A
5.6	Architectural Roof Features	This Clause is not applicable to the subject development.	N/A
5.7	Development below mean high water mark	This Clause is not applicable to the subject site.	N/A
5.8	Conversion of fire alarms	This Clause is not applicable to the subject site.	N/A
5.10	Heritage Conservation	<p>The site is not identified as containing a heritage item or as being within a heritage conservation area.</p> <p>The site is in the vicinity of local heritage items</p> <p>This issue was considered as part of the parent development application and found to be satisfactory. The minor changes proposed to the development are not considered to unduly impact on the curtilage of the adjoining heritage item.</p>	YES



PARRAMATTA DEVELOPMENT CONTROL PLAN 2023

All relevant Council controls have been considered in the following compliance table.

Parramatta Development Control Plan 2023 – Compliance Table			
Clause	Controls	Comments	Complies
Part 2 Site Planning			
2.2	Context Analysis	Addressed in Parent DA.	Yes
2.4	Building Mass and Form	Addressed in Parent DA with the proposal remaining consistent with the approved envelope	N/A
2.5	Streetscape and Building Address	Addressed in parent DA with no change to street address or streetscape.	N/A
2.7	Open Space and Landscape	Remains consistent with approved DA.	Yes
2.8	Views and Vistas	Addressed in parent DA	N/A
2.9	Public Domain	The development has been designed to address the public domain, ensuring that there is passive surveillance of the street. There is no change to existing site access points or treatment of the public domain.	N/A
2.10	Accessibility and Connectivity	Remains consistent with parent DA.	N/A
2.11	Access for people with a disability	Appropriate access is provided to, from and within the site for those with disability.	Yes
2.14	Safety and Security	Remains consistent with parent DA.	N/A
Part 3.1 Housing Diversity and Choice			
3.1.2	Dwelling Mix <small>a) 10% - 20% of dwellings to have 3 or more bedrooms b) 60% - 75% of dwellings to have 2 bedrooms. c) 10% - 20% of dwellings to have 1 bedroom/studio.</small>	No change as part of this modification. Not applicable	N/A
3.1.3	Accessible and Adaptable Housing 10 or more dwellings total: 15% of total dwellings as adaptable (to be rounded up)	The proposal remains compliant with accessible and adaptable housing requirements, making no change from the approved DA.	N/A
Part 3.2 General Residential Controls			
3.2.1	Solar Access and Cross Ventilation	No change as part of this modification. Not applicable	N/A

	<p>Dwellings within the development site and on adjoining properties are to receive a minimum 3 hours of sunlight to primary living areas between 9am and 3pm on 21 June.</p> <p>Private open spaces within the development site and on adjoining properties are to receive a minimum 3 hours of sunlight to at least 50% of the private open space area between 9am and 3pm on 21 June.</p> <p>Where existing development currently receives less sunlight than the above requirements, this should not be reduced.</p> <p>Solar collectors, such as photovoltaic solar panels, proposed as part of a new development or existing on adjoining properties, must not be subject to overshadowing for more than 3 hours between 9am and 3pm on 21 June.</p>		
3.2.2	Visual and Acoustic Privacy	<p>The proposal remains consistent with the existing approved building.</p> <p>An updated acoustic report is provided and confirms that there will be no noise impacts resultant from traffic in the immediate vicinity of the site.</p> <p>Refer to attached acoustic report for details.</p>	Yes
3.2.3	Attic Design	The development does not incorporate an attic.	N/A
3.2.4	Swimming Pools	The development does not incorporate a swimming pool.	N/A
3.2.5	Outbuildings	The development does not incorporate an outbuilding	N/A



3.5 Apartment Buildings

3.5.1.1	Minimum Site Frontage			
C.01	A development lot must have a minimum site frontage width of 24 metres as measured along the front boundary line.	Not relevant to this application, being addressed within the parent DA.		N/A
C.02	A corner lot must have a minimum site frontage width of 18 metres for the shortest street frontage.	Not relevant to this application, being addressed within the parent DA.		N/A
C.03	Where a site has the minimum frontage width or more, it must nonetheless be demonstrated that the objectives O.01 and O.02 can be satisfied.	Not relevant to this application, being addressed within the parent DA.		N/A
3.5.1.2	Preliminary Building Envelope	No change as part of this modification. Not applicable		N/A
C.01:	Height in storeys			
C.02:	Basement of subfloor level greater than 1m above ground floor level is a storey			
C.03:	6m setback to street			
C.04:	3 m setback to secondary street			
C.06:	10m setback to state and regional roads			
C.07:	3m upper level setback			
C.08:	Street wall height			
C.10:	Side and rear setbacks to comply with ADG			
C.11:	ADG separation			
3.5.1.3	Streetscape and Building Address			
C.01	Building entries	No change to approved DA		N/A



C.02	Individual entries to street	Not applicable	N/A
C.03	Criteria where entries are not able to be located on a street frontage	No change to approved DA	N/A
C.04	45m maximum building length along street frontage	No change to approved DA	N/A
C.07	25 dwellings per lift core/ stairs and building entry for buildings up to 8 storeys	No change to approved DA	N/A
C.09	Reflect the grain of existing subdivision	N/A	N/A
C.10	Finished ground level of dwelling on the ground level	No change to approved DA	N/A
C.11	Front setback not to be dominated by stairs, ramps, level changes and service structures	No change to approved DA	N/A

3.5.1.4	Open Space and Landscape		
C.01	A minimum 30% of the total site area is to be provided as deep soil, of which at least 50% is located to the rear of the site.	No change to approved DA	N/A
C.02	For sites less than 1,500m ² in size, the deep soil zone must have a minimum dimension of 4 metres x 4 metres.	N/A	N/A
C.03	On sites over 1,500m ² in size, a minimum dimension of 6 metres will be required for part of the deep soil zone, equal to at least 7% of the total site area in accordance with the Apartment Design Guide. The remaining 23% of the deep soil zone may be provided with a	No change to approved DA	N/A



	minimum dimension of 4 metres x 4 metres.		
C.04	Where basements are provided and extend beyond the building envelope, a minimum soil depth of 1.2 metres is to be provided, measured from the top of the slab, and will not be calculated as part of the deep soil zone.	No change to approved DA	N/A
C.05	Residential flat buildings must provide communal open space to meet the requirements of Section 3D of the Apartment Design Guide.	Remains compliant with ADG.	Yes
C.06	Communal open space is to be: a) Located where it is highly visible and directly accessible to the maximum number of dwellings. b) Designed with an integral role in the site and include uses such as circulation, BBQ, play areas or passive amenity. c) Integrated with the deep soil zone to provide a landscape setting with opportunities for large and medium size tree planting. d) Located adjacent to surrounding public open spaces such as reserves and public through site links where appropriate. e) Be dimensioned so that it provides a proportionate response to the length and height of the development.	No change to approved DA	N/A
C.07	If it is demonstrated that the minimum consolidated area of	No change to approved DA	

	<p>common open space cannot be provided at ground level due to constrained site conditions, the communal open space may be located on elevated gardens or roof tops, provided that:</p> <p>a) The area and overall design can be used for the recreation and amenity needs of all residents.</p> <p>b) There will be no significant impact on surrounding properties in respect to loss of privacy.</p> <p>c) The proposed common open space will provide a similar level of amenity as common open space at ground level.</p> <p>d) The area is accessible by a lift.</p>		
C.08	<p>A contiguous area of private open space with a minimum dimension of 2 metres must be provided for each dwelling as follows:</p> <p>a) 1-bedroom/studio units must provide a minimum of 8m² per dwelling.</p> <p>b) 2-bedroom units must provide a minimum of 12m² per dwellings.</p> <p>c) 3 or more-bedroom units must provide a minimum of 16m² per dwelling.</p>	<p>The proposal complies with balconies meeting ADG requirements.</p>	<p>Yes</p>
3.5.1.5	<p>Parking Design and Vehicular Access</p>		
C.01	<p>Carparking of residential flat buildings is to be located within a basement.</p>	<p>Carparking continues to be provided within a basement.</p>	<p>Yes</p>
C.02	<p>Access from car park to dwellings must be direct</p>	<p>No change to existing approved access arrangements.</p>	<p>N/A</p>



	and safe for residents during the day and night.		
C.03	Driveways and pedestrian access paths are to be setback a minimum of 1 metre from side and rear site boundaries to provide boundary landscaping.	No change to approved DA	N/A
C.04	Loading/manoeuvring areas are to be located within the building or behind the building line facing the street and screened from adjacent residential uses.	No change to approved DA	N/A
C.05	Residential and non-residential car parking spaces are to be physically separated.	No change to approved DA	N/A
3.5.1.6	Internal Amenity		
C.01	The minimum floor to ceiling height for all residential floors is to be consistent with the Apartment Design Guide.	Complies with the ADG.	Yes
C.02	Development is to be in accordance with the controls contained in Part 4 of the Apartment Design Guide. To demonstrate that this can be achieved, cross ventilation and solar access diagrams must be submitted with any development application.	The proposal remains consistent with the ADG and complies with cross ventilation and solar access requirements as shown in the attached diagrams.	Yes
C.03	Buildings are to be designed with narrow cross sections to support dual aspect dwellings that improve cross ventilation.	Retains proportions of existing approval.	Yes
C.04	The finished floor level of all dwellings must not be more than 900mm	N/A	N/A



above or 500mm below natural ground level. Where dwellings are located below natural ground level due to the slope of the land, development must:

a) demonstrate that adequate solar access to habitable rooms and private open space can be achieved,

b) provide a minimum of 5 metres between the face of the dwelling and any retaining wall or fencing, and

c) have a minimum floor to ceiling height of 3 metres.

N/A

N/A

N/A

N/A

3.6.1	Site Consolidation and development on isolated sites.	N/A	N/A
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Part 5 Environmental Management

5.1 Water Management

5.1.1	Floodplain Risk Management	Not applicable as the site is not flood impacted.	N/A
5.1.2	Water Sensitive Urban Design	No change as part of this modification. Not applicable	N/A
5.1.3	Stormwater Management	No change as part of this modification. Not applicable	N/A
5.1.4	On-site Detention Management	No change as part of this modification. Not applicable	N/A
5.1.5	Groundwater	Addressed in Parent DA	N/A

5.2 Hazard and Pollution Management

5.2.1	Control of Soil Erosion and Sedimentation	A detailed drainage concept and erosion and sediment control plan will be in place throughout the construction phase of the development.	Yes
5.2.2	Acid Sulfate Soils	Addressed in Parent DA. No further consideration of this clause is required, with the future development having no impact on acid sulfate soils.	Yes
5.2.3	Salinity	Construction techniques are to be employed that prevent structural damage to the development as a result of salinity.	Yes



5.2.4	Earthworks and Development On Sloping Land	Addressed in parent DA	Yes
5.2.5	Land Contamination	Addressed in parent DA	Yes
5.2.6	Air quality	Given the nature of the application, it is not likely to result in the emission of atmospheric pollutants.	N/A
5.2.7	Bush Fire Prone Land	The site is not identified as containing bush fire prone land.	N/A

5.3 Protection of the Natural Environment

5.3.1	Biodiversity	Addressed in parent DA	Yes
5.3.2	Waterways and Riparian Zone	The development site is not affected by Clause 6.7 Foreshore Building Line or Clause 6.5 Water Protection under the Parramatta LEP 2023.	N/A
5.3.3	Development on Land Adjoining Land Zoned C2 Environmental Protection or W1 Natural Waterways Zone	The development site does not adjoin land zoned C2 Environmental Protection or W1 Natural Waterways Zone.	N/A
5.3.4	Tree and Vegetation Preservation	Addressed in parent DA	Yes

5.4 Environmental Performance

5.4.1	Energy Efficiency	An updated BASIX Report is provided.	Yes
5.4.2	Water Efficiency	An updated BASIX Report is provided.	Yes
5.4.3	Urban Cooling		
	5.4.3.1 Roof Surface	The development is designed to comply with the shading/solar reflectivity requirements.	Yes
	5.4.3.2 Open Space	The development will comply with the open space shading requirements.	Yes
	5.4.3.3 Facades	The building facades will comply with the shading/reflectivity requirements.	Yes
	5.4.3.4 Heating Cooling Systems – Heat Rejection	The heating and cooling system remains as approved in the parent DA.	Yes
	5.4.3.5 Green roofs or walls	N/A	N/A
5.4.4	Solar Light Reflectivity (Glare)	Addressed in parent DA	N/A
5.4.5	Natural Refrigerants in Air Conditioning	Addressed in parent DA	Yes

5.4.6	Bird Friendly Design	Addressed in parent DA	N/A
5.4.7	Wind Mitigation A wind assessment report must be submitted with the DA for all buildings greater than 20 m in height.	Addressed in parent DA	N/A
5.4.8	Waste Management	No change as part of this modification. Not applicable	N/A
Part 6 Traffic and Transport			
6.1	Sustainable Transport 6.1.1 Car Share 6.1.2 Travel Plans 6.1.3 Electric Vehicle Charging Infrastructure	No change as part of this modification. Not applicable	N/A
6.2	Parking and Vehicular Access	The proposed modified parking layout complies with Council's DCP numerical requirements and AS2890 design requirements.	Yes
6.3	Bicycle Parking	No change as part of this modification. Not applicable	N/A
6.4	Loading and Servicing	There is no change to loading and servicing elements associated with the amending DA. This remains consistent with the approved DA.	Yes



CONCLUSION

Consideration has been given to the potential environmental and amenity impacts that are relevant to the proposed development and this report addresses these impacts.

Having regard to the benefits of the proposal and taking into account the absence of adverse environmental, social, or economic impacts, the application is submitted to Council for assessment and granting of development consent.

Following a review of the relevant planning controls, it is concluded that the proposed development is consistent with the objectives, planning strategies and detailed controls of these planning documents. Think Planners Pty Ltd recommends the approval of the modification application, subject to necessary, relevant, and appropriate conditions of consent.





18.10.2024

DESIGN VERIFICATION STATEMENT (S4.55)

**PROJECT FOR 25 RESIDENTIAL APARTMENTS ABOVE BASEMENT CAR PARKING
@ 2-4 BOUNDARY STREET & 85 RAILWAY STREET, PARRAMATTA**

Introduction:

This report should be read in conjunction with the architectural drawings provided in the project development application responding to each of the nine design principles for residential apartment development, in addition to the relevant objectives, design criteria and design guidance contained within the Apartment Design Guide.

Design Verification:

In accordance with Clauses 102(1) and 102(2) of the Environmental Planning and Assessment Regulation 2021, I, Sam Min-Han Lu, nominated Architect for Design Cubicle Pty Ltd, am a qualified designer, with registration as an Architect under the Architects Act 2003.

I verify that the S4.55 modifications to this proposed residential apartment were designed under my instruction, and these do not diminish or detract from the design quality, or compromise the design intent, of the development for which the development consent DA/61/2022 was granted. Furthermore, the design quality principles as set out in Schedule 9 (Design Principles for Residential Apartment Development) of SEPP (Housing) 2021, and the objectives set out in Parts 3 and 4 of the ADG still continue to be addressed and achieved for the 25 residential apartments proposed to the same extent as they were in the currently approved development, owing to the fact that the S4.55 modifications proposed do not diminish the compliance of these aspects in any way.

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Document Set ID: 211368
Version: 1, Version Date: 21/10/2024

Yours Faithfully,



.....
Sam Min-Han Lu (#8842)

Design Cubicle Pty Ltd

Nominated Architect: Sam Min-Han Lu (#8842)

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SEPP 65 DESIGN QUALITY PRINCIPLES

Principle 1: Context and Neighbourhood Character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

The site is situated at 2-4 Boundary Street & 85 Railway Street, Parramatta, NSW. The proposal provides for a quality development that responds to and utilises the advantages of its unique context. The immediate surroundings of the subject site fall within a precinct that is characterised by a nearby future diverse range of land uses, including more proposed medium-high density residential developments, and includes mainly existing residential and commercial / retail uses.

The immediate context for this site is residential development that varies between individual dwellings and selected higher density residential properties, as well as commercial / retail premises in the nearby vicinity. The close proximity of the subject site to nearby schools / shopping centre/ bus services / petrol station(s) / auto alley/ parks etc, and to the major arterial roadways and streets, as well as the fact the site is within a few minutes to the centre of the Parramatta CBD district, supports the view for higher residential densities. The site layout of the building generates favourable orientation with respect to solar access which further reinforces the appropriateness of the development.

The most important elements that have informed and influenced the design and aesthetics of the building were:

- The future vision of higher density for the immediate surrounding locality, resulting in the transformation of the surrounding subject area from low density to high density.
- An opportunity to access the sun, air, distant views and greenery.
- Current and future residential developments containing contemporary aesthetics.

The goal of our design is to generate a positive outcome towards the future character of the area, and we believe our proposed development responds to and creates a transitional buffer zone between the different components of the existing and future precinct situation.

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Principle 2: Built Form and Scale

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.

As indicated, the locality displays a mixed traditional character, consisting of a mixture of small, individual dwellings, higher density residential developments, as well as nearby commercial / retail premises. However, as discussed above, Council's vision for the subject area is a transformation from low density to high density over the coming years, hence the zoning of the site as high density residential, to help accommodate future population growth.

The site is considered suitable for an increased development, and our proposed development will establish a transitional buffer zone that bridges between the different scale evident in the surroundings, in addition to creating a climax / landmark effect, especially when perceived from the surrounding roads.

The development bulk and scale of this building will compliment the surroundings on each elevation, including the main facades to both Boundary & Railway Streets. The proposed building will dialogue with its immediate context and respond adequately, creating a contextual answer to a setting that is due to become more diversified and complex over time.

The proposed design has been developed in keeping with the requirements of the Apartment Design Guide and Council's requirements in relation to building alignment, proportions, building type, articulation and the manipulation of building elements. The proposal defines and activates the public realm by creating communal and public open space for the residents on Ground Floor and Rooftop of the proposal.

The proposed built form for the mixed use development consists of a four storey building component with Basement a car parking for 38 vehicles. The development contains 25 fully dedicated residential apartments, consisting of a mixture of 1, 2 and 3 bedroom apartments.

The proposed building block speaks to its surroundings through interpreting its context in a modern manner, dialoguing with surrounding buildings by interacting with them visually through scale and built form i.e. balcony / blade wall elements will give added interest to the facades with pleasing proportions, as well as reduces the comparable bulk and scale to the elevations of the building, which in turn helps our design to melt in with its surroundings.

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The shape of the site has informed the composition of the development. The building's internal room layouts are controlled to achieve better amenities and to minimise the impact of traffic noise and pollution. Facades honestly show their protective function, yet still present a residential face to the public view, using a variety of shapes, materials and colours, with a visual play between walls, entries, balconies and external finishes.

The facades also have a variety of elements to reflect a visually 'softer' presentation, to lessen the impact of the building, and to maximise apartments' exposure to the sun and views. Facade planes and masses of the building are visually divided into smaller elements by horizontals and verticals, and materials, to reduce building bulk. This composition helps the development to fit into the urban landscape setting, whilst maintaining its contextual uniqueness and importance in the existing streetscapes of Boundary & Railway Streets.

Principle 3: Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

The proposed density is a direct response to the regional context, availability of public transport, facilities in this precinct and the development capacity of the site.

The proposed development will consist of 25 apartments, over Basement car parking with the following breakdown:

- 4 x 1 bed apartments
- 18 x 2 bed apartments
- 3 x 3 bed apartments

The proposal presents an adequate variety of apartment mixture and orientation.

Principle 4: Sustainability

Good design combines positive environmental, social and economic outcomes.

The proposed design will promote ecologically sustainable development (ESD) through:

- Benefiting from its orientation more than 70% of the apartments will have adequate sun access.

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- At least 60% of the apartments will achieve natural cross-flow ventilation.
- The proposal incorporates both active and passive sun controls systems.
- Working towards ensuring waste minimisation during the construction phase and the lifespan of the building, including through the recycling and reuse of materials and waste.
- The development will incorporate the installation of low energy saving devices wherever possible.
- Adhering to the BASIX constraints.

Principle 5: Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

The landscape scheme is to incorporate adequate special experience for both the public and private realm. Incorporating a variety of activity spaces, the proposal promotes community involvement in the landscape through communal gardens and terraces located on the Ground Floor as well as the Rooftop, containing elements such as seating areas and the like. All common areas are accessible for people with a disability.

The landscape solution is designed by an experienced specialist landscape consultant, please refer to the landscape plan accompanying this submission for further details.

Principle 6: Amenity

Good design positively influences internal and external amenity for residents and neighbours. achieving good amenity contributes to positive living environments and resident well being.

Amenities were given high priority in the design through:

- Maximising the views and exposure.
- The apartments were orientated to have good solar aspect and enjoy cross-flow ventilation wherever possible.
- All apartments will enjoy good visual and acoustic privacy through orientation (the positioning of windows and private open spaces, setbacks etc.), or through the materials used.
- All apartments will be air-conditioned.
- All apartments will be equipped with adequate storage space either in the basement or

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inside each apartment.

- All apartments have efficient layouts and have been provided with adequate outdoor space.
- All apartments have access to the waste areas on the Ground Floor for the deposition of garbage and recyclables.
- All apartments will have the adequate number of car space(s) required according to Council's DCP requirements.

Principle 7: Safety

Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

The proposal optimises safety and security both within the development and the public domain. The proposal affords good casual surveillance of the street frontages, and the public and communal areas of the site, through the glazed openings and balconies of the Ground Floor and upper level apartments. The glazed openings of the lobbies also offer the opportunity for good casual surveillance of the Ground Floor communal areas of the site.

With regards to the parking area, secure access is to be maintained at all times to ensure that the parking premises are solely for the occupants of the building, and their visitors. Visitor access will be provided through an intercom system and remote control access or the like for residents.

Principle 8: Housing Diversity and Social Interaction

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

The proposal contributes to its social context by adhering to the desired future character of the area as highlighted in Council's LEP & DCP.

The proposal promotes social encounters while providing adequate privacy for each owner, resident or tenant. The public domain through the common open spaces complements the private spaces associated with each apartment, and promotes social interaction between the residents through the design and configuration of the landscaped areas and the like.

The proposal will provide quality residential apartments in multiple plan configurations of varying sizes, in order to cater for a wide variety of people.

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Persons with disabilities or restricted / impaired mobility are catered for through the provision of apartment(s) highlighted for future adaptability, compliant with relevant Australian Standards.

The provision of stretcher lift facilities in the building also allows for wheelchair access to be accommodated to the entry door of all units on all floors for persons with a disability, as required by the BCA.

Principle 9: Aesthetics

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The creation of a well articulated proposed building form is outlined in our proposal, along with the use of quality finishes, and will add to the visual interest to be generated by the future residential streetscape and character of this locality, which we aim to be at the forefront of driving forward in the future progress for the Parramatta area.

Materials and colours have been selected to add visual interest and identity, and to 'soften' the impact of the development's bulk and scale.

- The proposal incorporates a variety of materials, including rendered and painted finishes for the facade walls, a combination of solid balustrades as well as glazed balustrade treatments, and special cladding for partial walls.
- Balcony balustrades are of various types and serve differing purposes: painted and rendered solid walls work as compositional devices to divide facades, whilst the safety tinted glass plate balustrades allow for maximum views.
- Glazing will be fixed to powder-coated aluminium frames.
- The colours lessen the apparent bulk of the building. The overall external colour scheme helps to give our proposal a sharp, modern look whilst not overpowering its surroundings. The feature colours used add warmth, interest and a sense of identity to the building. The overall colour scheme is designed to complement its surroundings, including the rich, surrounding greens of the landscape, and to create a synergy with nearby existing structures.
- Together with the rich, soft landscaping, the hard surfaced landscaped areas of the site will contain a variety of materials and finishes, which may include stencil finished concrete, various pavement patterns and colours.
- The choice and composition of the building elements are contemporary to reflect the time,

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but also with a view to becoming a leader and guide towards the future character of the area.

The combination of glazing, blade walls and feature colours and materials help to bring life to the facades, and will serve as a positive reinforcement to the urban fabric of the evolving greater Parramatta area as the years progress.

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Apartment Design Guide

The following section outlines how the development performs in relation to relevant objectives, design criteria and design guidance contained in Parts 3 and 4 of the Apartment Design Guide:

3D - Communal and public open space:

- The total area of proposed communal open space remains unchanged from the already approved proposal.
- Direct sunlight is achieved to the principal useable part of the communal open space for a minimum of 2 hours between 9am and 3pm.
- Communal open space achieves requirement of a minimum dimension of 3m.

3E - Deep soil zones:

- A deep soil zone equivalent to 7% of the site area must be provided with minimum 6m dimensions, and an area of 433.26 m² has been provided including all dimensions, equating to approximately 24.2% of the site area.

3F - Visual privacy:

- For buildings up to 25m (5-8 storeys) in height, the minimum required separation distances to the side boundaries are 3m for non-habitable rooms, and 6m for habitable rooms and balconies for the lower 4 storeys of the development. In relation to the upper 4 storeys, the minimum required separation distances to the side boundaries are 4.5m for non-habitable rooms, and 9m for habitable rooms and balconies.

With regards to the proposed development, we would like to note compliance with the numerical standard with regards to ADG separation from the side boundaries continues to be achieved to the same extent as the DA approved proposal, as there are no changes proposed to the building setbacks.

4A - Solar and daylight access:

- The design & configuration of the units themselves remains unchanged from the DA

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approved proposal, so there is no change to the amount of solar & daylight access achieved.

- In the proposed development there are no apartments that receive no direct sunlight between 9am and 3pm in mid winter. With a maximum of 15% allowable, our project meets this control.

4B - Natural ventilation:

- The design & configuration of the units themselves remains unchanged from the DA approved proposal, so there is no change to the amount of natural cross-flow ventilation achieved.
- Overall depth of cross-over or cross-through apartments does not exceed 18m, meeting this control.

4C - Ceiling Heights:

- Minimum ceiling heights of 2.7m for habitable rooms and 2.4m for non-habitable rooms have been accommodated, as required.

4D - Apartment size and layout:

- 1 bedroom apartments which include only one bathroom are required to have a minimum internal area of 50m², and any additional bathrooms increase the minimum internal area by 5m² each. In the current proposal, all 1 bedroom apartments achieve or exceed the minimum internal area requirement based on the number of bathrooms provided.
- 2 bedroom apartments which include only one bathroom are required to have a minimum internal area of 70m², and any additional bathrooms increase the minimum internal area by 5m² each. In the current proposal, all 2 bedroom apartments achieve or exceed the minimum internal area requirement based on the number of bathrooms provided.
- 3 bedroom apartments which include only one bathroom are required to have a minimum internal area of 90m², and any additional bathrooms increase the minimum internal area by 5m² each. In the current proposal, all 3 bedroom apartments achieve or exceed the minimum internal area requirement based on the number of bathrooms provided.

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- Habitable room depths comply with the requirements of 8m from a window in an open plan layout, or else 2.5 x the ceiling height.
- Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space).
- Bedrooms have a minimum dimension of 3m (excluding wardrobe space).
- Living rooms or combined living / dining rooms have a minimum width of 3.6m for 1 bedroom apartments, and 4m for 2 and 3 bedroom apartments.
- The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.

4E - Private open space and balconies:

- 1 bedroom apartments are required to have primary balconies of 8m² minimum area, and a minimum depth of 2m. Our proposal meets this control.
- 2 bedroom apartments are required to have primary balconies of 10m² minimum area, and a minimum depth of 2m. Our proposal meets this control.
- 3 bedroom apartments are required to have primary balconies of 12m² minimum area, and a minimum depth of 2.4m. Our proposal meets this control.

4F - Common circulation and spaces:

- The maximum number of apartments being provided off a circulation core on a single level is 7 x apartments, therefore meeting the maximum number permitted being in the range of 8-12 x apartments.

4G - Storage:

- 1 bedroom apartments require a storage size volume of 6m³ to be provided for each apartment, which has been accommodated.

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- 2 bedroom apartments require a storage size volume of 8m³ to be provided for each apartment, which has been accommodated.
- 3 bedroom apartments require a storage size volume of 10m³ to be provided for each apartment, which has been accommodated.

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REPORT R210908 R1

Revision 2

Traffic Noise Assessment
Proposed Residential Development
2 - 4 Boundary Street & 85 Railway Street, Parramatta

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Traffic Noise Assessment

Proposed Residential Development

2 - 4 Boundary Street & 85 Railway Street, Parramatta

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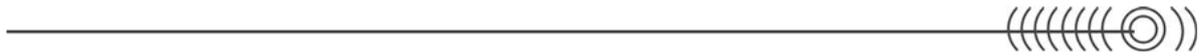


Figure 2-1 Site Location

5



1 INTRODUCTION

Rodney Stevens Acoustics Pty Ltd (here forth referred to as RSA) has been engaged by Infinity Idea Pty Ltd to conduct a road noise impact assessment for development application (DA) lodgement of the proposed residential development at 2 - 4 Boundary Street & 85 Railway Street, Parramatta.

This report addresses the road traffic noise impacts from Railway Street and Boundary Street on the amenity of the proposed residential development.

This assessment is to form part of the supporting documentation for the DA submission to Parramatta City Council. Specific acoustic terminology is used in this report. An explanation of common acoustic terms is provided in Appendix A.

2 PROJECT DESCRIPTION

2.1 Site Location

The proposed development site is located at 2 - 4 Boundary Street & 85 Railway Street, Parramatta. The site will be bounded by residential dwellings to the north and east, Railway Street to the west and Boundary Street to the south. The site and its surroundings are shown in Figure 2-1.

Figure 2-1 Site Location





Aerial image courtesy of Google Maps © 2021

2.2 Proposed Development

The proposal is to construct a new 4 storey multi residential development. The floor plans of the proposed residential development are presented in Appendix C.

3 BASELINE NOISE SURVEY

3.1 Unattended Noise Monitoring

In order to characterise the existing acoustical environment of the area, unattended noise monitoring was conducted between Wednesday 24th November – Wednesday 1st December at the logging location shown in Figure 2-1. Two noise loggers were set up on site. The first logger was located in the front yard of the site overlooking Railway Street and Boundary Street, this location is representative of the traffic noise levels that the site will be exposed to.

The second logger was located on the rear yard of the site, noise monitoring at this location is representative of the typical acoustic environment of the site.

Logger locations were selected with consideration to other noise sources which may influence readings, security issues for noise monitoring equipment and gaining permission for access from residents and landowners.

Instrumentation for the survey comprised of two RION NL-42 environmental noise loggers (serial numbers 572558 and 572542) fitted with microphone windshields. Calibration of the logger was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dB(A). All equipment carried appropriate and current NATA (or manufacturer) calibration certificates. Measured data has been filtered to remove data measured on 25th, 26th and 27th November during adverse weather conditions upon consultation with historical weather reports provided by the Bureau of Meteorology (BOM).

The logger determines LA1, LA10, LA90 and LAeq levels of the ambient noise. LA1, LA10, LA90 are the levels exceeded for 1%, 10% and 90% of the sample time respectively (see Glossary for definitions in Appendix A). Detailed results at the monitoring location are presented in graphical format in Appendix B. The graphs show measured values of LA1, LA10, LA90 and LAeq for each 15-minute monitoring period.

3.2 Ambient Noise Results

In order to establish the ambient noise criteria of the area, the data obtained from the noise logger has been processed in accordance with the procedures contained in the NSW Environmental Protection Authority's (EPA) Noise Policy for Industry (NPfI, 2017) to establish representative noise levels that can be expected in the residential vicinity of the site. The monitored baseline noise levels are detailed in Table 3-1

Table 3-1 Measured Baseline Noise Levels Corresponding to Defined NPfI Periods

Location	Measurement Descriptor	Measured Noise Level – dB(A) re 20 μ Pa		
		Daytime 7 am - 6 pm	Evening 6 pm – 10 pm	Night-time 10 pm – 7 am
Logger at north-east boundary of site	LAeq	52	50	48
	RBL (Background)	40	41	36



Notes: All values expressed as dB(A) and rounded to nearest 1 dB(A);
 LAeq Equivalent continuous (energy average) A-weighted sound pressure level. It is defined as the steady sound level that contains the same amount of acoustic energy as the corresponding time-varying sound.
 LA90 Noise level present for 90% of time (background level). The average minimum background sound level (in the absence of the source under consideration).

3.3 Noise Intrusion (State Environmental Planning Policy (Infrastructure) 2007)

To assess noise intrusion into the proposed multi residential development, the data obtained from the first logger location has been processed to establish representative ambient noise levels at the facades most exposed to Boundary Street and Railway Street.

The time periods used for this assessment are as defined in the State Environmental Planning Policy (Infrastructure) 2007 and the Development near Rail Corridors and Busy Roads Interim Guideline. Results are presented below in Table 3-2.

Table 3-2 Traffic Noise Levels Corresponding to Defined SEPP 2007 Periods

Location	Period	External Noise Levels dB(A)
Approximately 5m from Boundary Street and Railway Street	Day Time 7:00 am - 10:00 pm	L _{Aeq(15hour)} 58
	Night Time 10:00 pm - 7:00 am	L _{Aeq(9hour)} 53

4 NOISE GUIDELINES AND CRITERIA

4.1 Road Noise Criteria

The determination of an acceptable level of traffic noise impacting the internal residential spaces requires consideration of the activities carried out within the space and the degree to which noise will interfere with those activities.

As sleep is the activity most affected by traffic noise, bedrooms are considered to be the most sensitive internal living areas. Higher levels of noise are acceptable in living areas without interfering with activities such as reading, listening to the television etc. Noise levels in utility spaces such as kitchens, bathrooms, laundries etc. can be higher.

4.2 Parramatta City Council Requirements

Section 3.3.4 (Acoustic Amenity) of the Parramatta Council DCP 2011 provides acoustic objectives and design principles for residential developments. The objectives include:

O.1 To ensure that the siting and design of buildings minimises noise impacts from abutting busy roads, rail corridors and other noise-generating land uses.

O.2 To ensure that commercial or industrial development does not unreasonably diminish the amenity of nearby residential uses from noise intrusion.

The Design principles in the DCP include:

P.1 Where dwellings are proposed within proximity to noise-generating land uses such as major roads and rail corridors, entries, halls, storage rooms, bathrooms and laundries should be located on the noise affected side of each dwelling and should be able to be sealed off by doors from living areas and bedrooms where practicable.



P.2 Where dwellings are proposed within proximity to noise-generating land uses, appropriate materials with acoustic properties should be incorporated such as solid core doors with seal vents and insulation and suitably treated glazing.

P.3 Non-residential development is not to adversely affect the amenity of adjacent residential development as a result of noise, odour, hours of operation and/or service deliveries.

P.4 Council may require a report by an acoustic consultant to be submitted with development applications for noise generating developments or for residential developments on sites adjacent to noise generating sources such as busy roads and rail corridors.

P.5 The provisions of the State Environmental Planning Policy (Infrastructure) 2007 and Development near Rail Corridors and Busy Roads Interim Guideline must be taken into consideration, to minimise impacts of busy roads and railway corridors on residential and other sensitive development such as schools, child care centres, places of public worship and health services facilities.

4.2.1 State Environmental Planning Policy (Infrastructure) 2007

The NSW Government's State Environmental Planning Policy (Infrastructure) 2007 (SEPP (Infrastructure) 2007) was introduced to facilitate the delivery of infrastructure across the State by improving regulatory certainty and efficiency. In accordance with the SEPP, Table 3.1 of the NSW Department of Planning and Infrastructure's "Development near Rail Corridors and Busy Roads - Interim Guideline" (the DP&I Guideline) of December 2008 provides noise criteria for residential and non-residential buildings. These criteria are summarised in Table 4-1.

Table 4-1 DP&I Interim Guideline Noise Criteria

Type of occupancy	Noise Level dB(A)	Applicable time period
Sleeping areas (bedroom)	35	Night 10 pm to 7 am
Other habitable rooms (excl. garages, kitchens, bathrooms & hallways)	40	At any time

Note 1: Airborne noise is calculated as $L_{Aeq(15hour)}$ daytime and $L_{Aeq(9hour)}$ night-time

The following guidance is also provided in the DP&I Guideline:

"These criteria apply to all forms of residential buildings as well as aged care and nursing home facilities. For some residential buildings, the applicants may wish to apply more stringent design goals in response to market demand for a higher quality living environment.

The night-time "sleeping areas" criterion is 5 dB(A) more stringent than the "living areas" criteria to promote passive acoustic design principles. For example, designing the building such that sleeping areas are less exposed to road or rail noise than living areas may result in less onerous requirements for glazing, wall construction and acoustic seals. If internal noise levels with windows or doors open exceed the criteria by more than 10 dB(A), the design of the ventilation for these rooms should be such that occupants can leave windows closed, if they so desire, and also to meet the ventilation requirements of the Building Code of Australia."

The noise criteria presented in Section 0 and in Table 4-1 apply to a 'windows closed condition'. Standard window glazing of a building will typically attenuate noise ingress by 20 dB(A) with windows closed and 10 dB(A) with windows open (allowing for natural ventilation). Accordingly, the external noise threshold above which a development will require mechanical ventilation is an $L_{Aeq(9hour)}$ 55 dB(A) for bedrooms and $L_{Aeq(15hour)}$ 60 dB(A) for other areas.



Where windows must be kept closed, the adopted ventilation systems must meet the requirements of the Building Code of Australia and Australian Standard 1668 – The use of ventilation and air conditioning in buildings.

4.3 Operational Noise Project Trigger Noise Levels

Responsibility for the control of noise emissions in New South Wales is vested in Local Government and the EPA. The EPA oversees the Noise Policy for Industry (NPfI) October 2017 which provides a framework and process for deriving project trigger noise level. The NPfI project noise levels for industrial noise sources have two (2) components:

- Controlling the intrusive noise impacts for residents and other sensitive receivers in the short term; and
- Maintaining noise level amenity for particular land uses for residents and sensitive receivers in other land uses.

4.3.1 Intrusiveness Noise Levels

For assessing intrusiveness, the background noise generally needs to be measured. The intrusiveness noise level essentially means that the equivalent continuous noise level (LAeq) of the source should not be more than 5 dB(A) above the measured Rated Background Level (RBL), over any 15 minute period.

4.3.2 Amenity Noise Levels

The amenity noise level is based on land use and associated activities (and their sensitivity to noise emission). The cumulative effect of noise from industrial sources needs to be considered in assessing the impact. The noise levels relate only to other industrial-type noise sources and do not include road, rail or community noise. The existing noise level from industry is measured.

If it approaches the project trigger noise level value, then noise levels from new industrial-type noise sources, (including air-conditioning mechanical plant) need to be designed so that the cumulative effect does not produce total noise levels that would significantly exceed the project trigger noise level.

4.3.3 Area Classification

The NPfI characterises the “Suburban” noise environment as an area with an acoustical environment that:

- has local traffic with characteristically intermittent traffic flows or with some limited commerce or industry.
- This area often has the following characteristic: - evening ambient noise levels defined by the natural environment and human activity

The area surrounding the proposed development falls under the “Suburban” area classification.

4.3.4 Project Specific Trigger Noise Levels

Having defined the area type, the processed results of the unattended noise monitoring have been used to determine project specific project trigger noise levels. The intrusive and amenity project trigger noise levels for nearby residential premises are presented in Table 4-2. These project trigger noise levels are nominated for the purpose of assessing potential noise impacts from the proposed development.



Table 4-2 Operational Project Trigger Noise Levels

Receiver	Time of Day	ANL ¹ L _{Aeq} (15min)	Measured		Project Trigger Noise Levels	
			RBL ² L _{A90} (15min)	Existing L _{Aeq} (Period)	Intrusive L _{Aeq} (15min)	Amenity L _{Aeq} (15min)
Residential	Day	55	40	52	45	58
	Evening	45	41	50	46	48
	Night	40	36	48	41	43

Note 1: ANL = "Amenity Noise Level" for residences in Suburban Areas.

Note 2: RBL = "Rating Background Level".

5 NOISE IMPACT ASSESMENT

5.1 Traffic Noise Assessment

In order to ascertain the existing traffic noise levels from Boundary Street and Railway Street, the measured noise logger data was processed in accordance to the NSW Department of Planning and Infrastructure's "Development near Rail Corridors and Busy Roads - Interim Guideline" assessment time periods as shown in Table 3-2.

The final façade noise levels were predicted for each time period taking into account the distance attenuation from each respective source, virtual source, façade's orientation and any barrier effects.

The required noise reduction via the building façade for each respective room for each time period will be compared to determine the appropriate design criteria levels.

It is typically accepted that an open window (fractionally open to meet ventilation requirements) results in an attenuation of external noise by 10 dB. This reduction has been used to predict the room noise level in the window open condition.

5.2 Recommended Noise Control Treatment

The calculation procedure establishes the required noise insulation performance of each surface component such that the internal noise level is achieved whilst an equal contribution of traffic noise energy is distributed across each component. Building envelope components with a greater surface area must therefore offer increased noise insulation performance.

The recommended acoustic treatment is based on the following floor finishes:

- Bedrooms: Carpet and underlay
- Living Room: Hard Flooring
- Kitchen/Wet Areas: Tiles

The acoustic requirements shown in this report will increase further where the bedroom floor finishes are tiled or timber.

All recommendations must be checked by others to ensure compliance with other non-acoustic requirements that Council or other authority may impose (e.g. Thermal requirements for BASIX compliance).



5.3 Glazing

The R_w rating required for each window will vary from room to room. Recommendations for windows also apply to any other item of glazing located on the external facade of the building in a habitable room unless otherwise stated.

Note that the R_w rating is required for the complete glazing and frame assembly. The minimum glazing thicknesses will not necessarily meet the required R_w rating without an appropriate frame system. It will be therefore necessary to provide a window glass and frame system having a laboratory tested acoustic performance meeting the requirements below

The window systems must be tested in accordance with both of the following:

- Australian Window Association Industry Code of Practice Window and Door – Method of Acoustic Testing; and
- AS 1191 Acoustics – Method for laboratory measurement of airborne sound insulation of building elements.

It is necessary to submit such Laboratory certification for the proposed glazing systems (i.e. windows and framing systems) (e.g. NAL or CSIRO) for approval by RSA prior to ordering or commitment.

The entire frame associated with the glazing must be sealed into the structural opening using acoustic mastics and backer rods. Normal weather proofing details do not necessarily provide the full acoustic insulation potential of the window system. The manufacturers' installation instructions for the correct acoustic sealing of the frame must be followed.

It is possible that structural demands for wind loading or fire rating or the like may require more substantial glass and framing assemblies than nominated above. Where this is the case the acoustic requirements must clearly be superseded by the structural or fire rating demands.

Table 5-1 presents the minimum recommended R_w (weighted noise reduction) for glazing elements.

Table 5-1 Minimum Acoustic Rating (R_w) Required For Glazing Elements

Level	Facade	Windows	Glazed Door/Doors
All Levels	South-East (Facing Boundary Street)	R_w 30	R_w 30
All Levels	South-West (Facing Railway Street)	R_w 30	R_w 30
All Levels	North – West	R_w 25	R_w 25
All Levels	North – East	R_w 25	R_w 25



The above recommended glazing systems are indicative only. Care should be taken when selecting the system to ensure the acoustic rating (R_w) is verified through laboratory tested data. As a guide, the following table presents the R_w ratings of different glass thicknesses, please note that these are shown as a guide only, all final glazing system selections must comply with the requirements in Section 5.3.

Table 5-2 Glass Thickness Guideline

Glass Thickness	R_w Rating (Glass Pane Only)
5mm	26
6mm	28
6.38mm Laminated	32
8.38 Laminated	34
10.38 Laminated	36
12.38 Laminated	37
4mm – 50mm Airgap – 6mm Double Glazed	41

5.4 Detailing

Note that well-detailed construction and careful installation is needed to achieve the required R_w acoustic ratings. All gaps are to be minimised and fully sealed with an acoustic rated sealant, such as FireBan One by Bostik or Sikaflex Pro 2HP by Sika.

5.5 Mechanical Plant Noise Assessment

A specific mechanical plant selection has not been supplied at this stage. It is anticipated that the building will be serviced by typical mechanical ventilation/air conditioning equipment.

It is likely that the criteria set out in Table 4-2 will be met through the use of conventional noise control methods (e.g. selection of equipment on the basis of quiet operation and, where necessary, providing enclosures, localised barriers, silencers and lined ductwork).

An appropriately qualified acoustic consultant should review the mechanical plant associated with the development at the detailed design stage when final plant selections have been made.



6 CONCLUSION

RSA has conducted a traffic noise impact assessment of the proposed residential development at 2 - 4 Boundary Street & 85 Railway Street, Parramatta. The assessment has comprised the establishment of noise criteria and assess noise impacts with regard to relevant statutory requirements.

A noise survey has been conducted and the processed data has been used to determine traffic noise from Boundary Street and Railway Street at the project site.

Based on the noise impact study conducted, the proposed development is assessed to comply with the SEPP (Infrastructure) 2007 noise criteria with recommendations from this report. It is therefore recommended that planning approval be granted for the proposed development on the basis of acoustics.

Noise emissions criteria for mechanical plant have not been established at this stage, a future noise survey may be required once the mechanical plan schedules are available.

Approved:-

Rodney Stevens

Manager/Principal

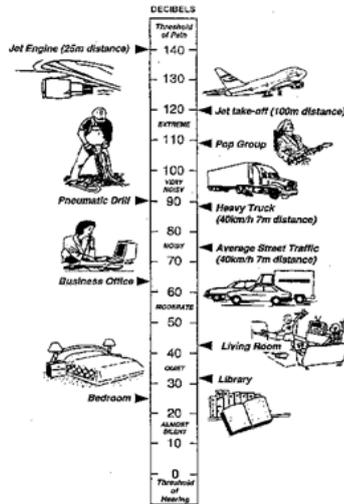


Appendix A – Acoustic Terminology

A-weighted sound pressure	The human ear is not equally sensitive to sound at different frequencies. People are more sensitive to sound in the range of 1 to 4 kHz (1000 – 4000 vibrations per second) and less sensitive to lower and higher frequency sound. During noise measurement an electronic ' <i>A-weighting</i> ' frequency filter is applied to the measured sound level <i>dB(A)</i> to account for these sensitivities. Other frequency weightings (B, C and D) are less commonly used. Sound measured without a filter is denoted as linear weighted <i>dB(linear)</i> .
Ambient noise	The total noise in a given situation, inclusive of all noise source contributions in the near and far field.
Community annoyance	Includes noise annoyance due to: character of the noise (e.g. sound pressure level, tonality, impulsiveness, low-frequency content) character of the environment (e.g. very quiet suburban, suburban, urban, near industry) miscellaneous circumstances (e.g. noise avoidance possibilities, cognitive noise, unpleasant associations) human activity being interrupted (e.g. sleep, communicating, reading, working, listening to radio/TV, recreation).
Compliance	The process of checking that source noise levels meet with the noise limits in a statutory context.
Cumulative noise level	The total level of noise from all sources.
Extraneous noise	Noise resulting from activities that are not typical to the area. Atypical activities may include construction, and traffic generated by holiday periods and by special events such as concerts or sporting events. Normal daily traffic is not considered to be extraneous.
Feasible and reasonable measures	Feasibility relates to engineering considerations and what is practical to build; reasonableness relates to the application of judgement in arriving at a decision, taking into account the following factors: Noise mitigation benefits (amount of noise reduction provided, number of people protected). Cost of mitigation (cost of mitigation versus benefit provided). Community views (aesthetic impacts and community wishes). Noise levels for affected land uses (existing and future levels, and changes in noise levels).



Impulsiveness	Impulsive noise is noise with a high peak of short duration or a sequence of these peaks. Impulsive noise is also considered annoying.
Low frequency	Noise containing major components in the low-frequency range (20 to 250 Hz) of the frequency spectrum.
Noise criteria	The general set of non-mandatory noise levels for protecting against intrusive noise (for example, background noise plus 5 dB) and loss of amenity (e.g. noise levels for various land use).
Noise level (goal)	A noise level that should be adopted for planning purposes as the highest acceptable noise level for the specific area, land use and time of day.
Noise limits	Enforceable noise levels that appear in conditions on consents and licences. The noise limits are based on achievable noise levels, which the proponent has predicted can be met during the environmental assessment. Exceedance of the noise limits can result in the requirement for either the development of noise management plans or legal action.
Performance-based goals	Goals specified in terms of the outcomes/performance to be achieved, but not in terms of the means of achieving them.
Rating Background Level (RBL)	The rating background level is the overall single figure background level representing each day, evening and night time period. The rating background level is the 10 th percentile min L _{A90} noise level measured over all day, evening and night time monitoring periods.
Receptor	The noise-sensitive land use at which noise from a development can be heard.
Sleep disturbance	Awakenings and disturbance of sleep stages.
Sound and decibels (dB)	<p>Sound (or noise) is caused by minute changes in atmospheric pressure that are detected by the human ear. The ratio between the quietest noise audible and that which should cause permanent hearing damage is a million times the change in sound pressure. To simplify this range the sound pressures are logarithmically converted to decibels from a reference level of 2×10^{-5} Pa.</p> <p>The picture below indicates typical noise levels from common noise sources.</p>



dB is the abbreviation for decibel – a unit of sound measurement. It is equivalent to 10 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure.

Sound power Level (SWL)

The sound power level of a noise source is the sound energy emitted by the source. Notated as SWL, sound power levels are typically presented in *dB(A)*.

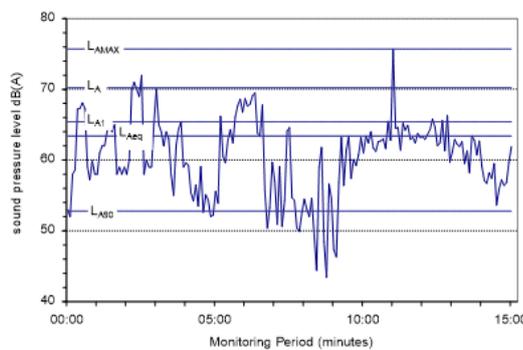
Sound Pressure Level (SPL)

The level of noise, usually expressed as SPL in *dB(A)*, as measured by a standard sound level meter with a pressure microphone. The sound pressure level in *dB(A)* gives a close indication of the subjective loudness of the noise.

Statistic noise levels

Noise levels varying over time (e.g. community noise, traffic noise, construction noise) are described in terms of the statistical exceedance level.

A hypothetical example of A weighted noise levels over a 15 minute measurement period is indicated in the following figure:



Key descriptors:

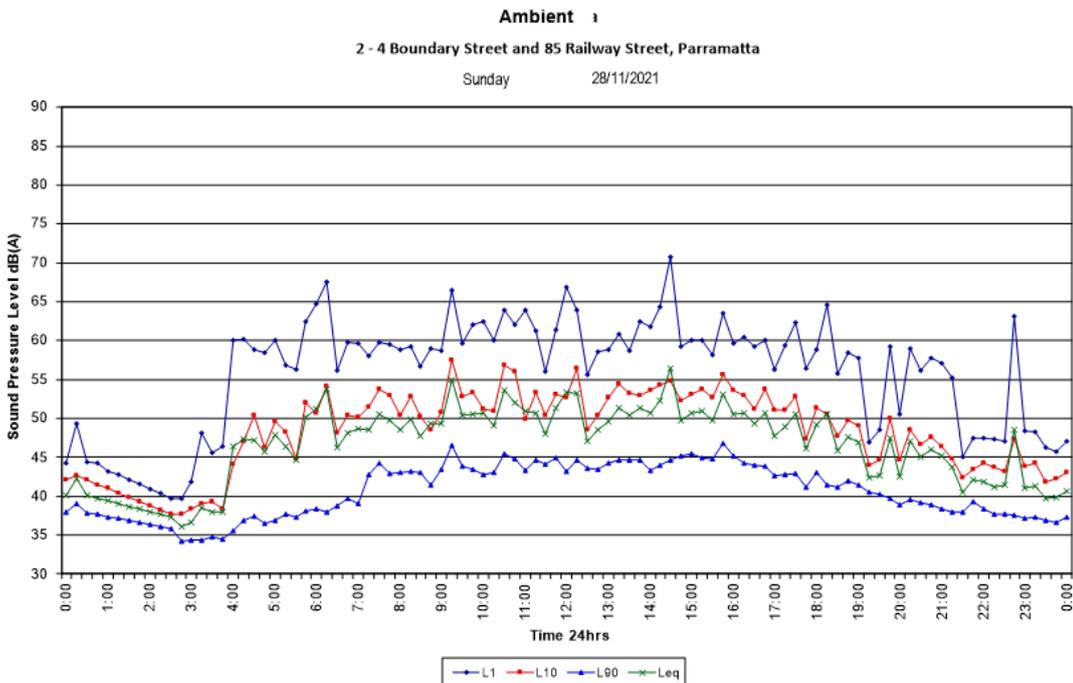
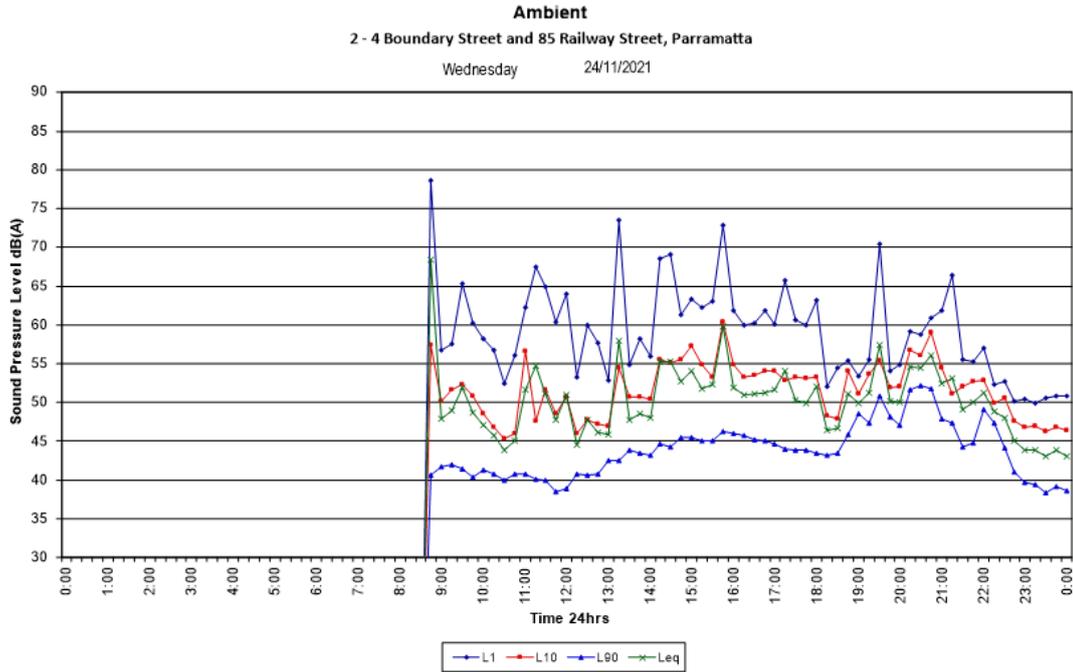


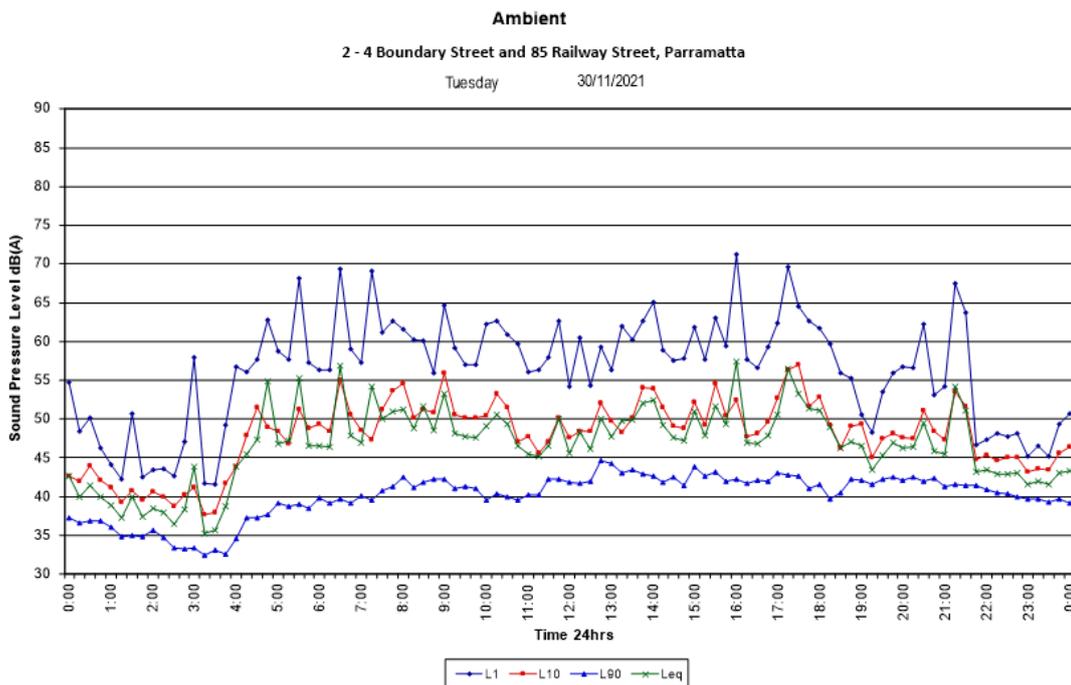
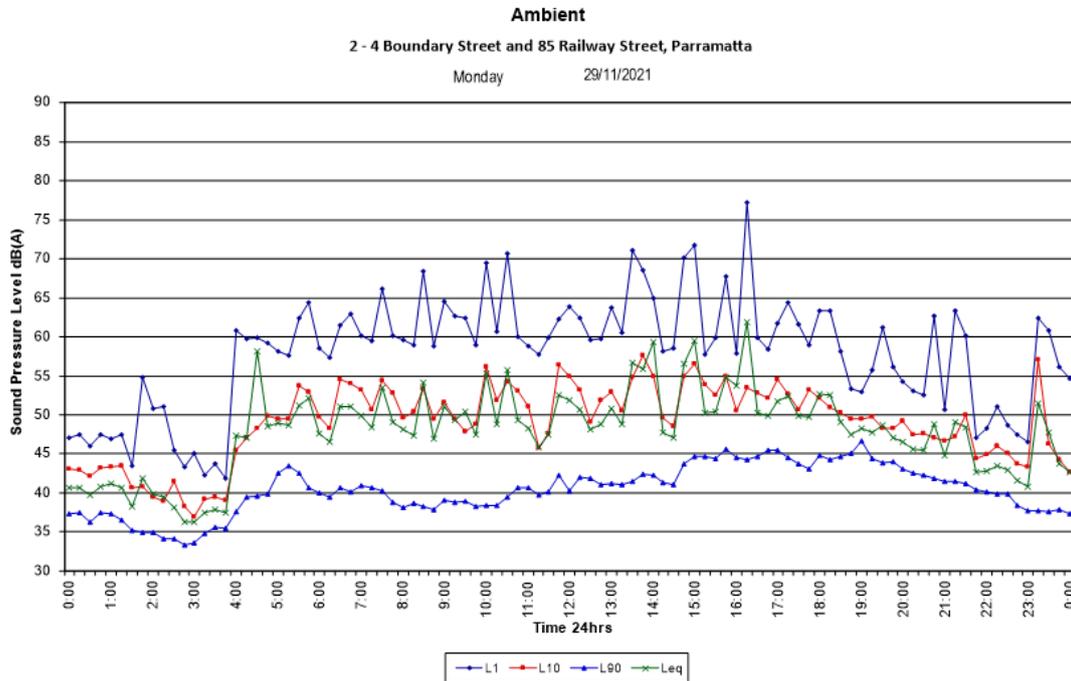
	L_{Amax}	Maximum recorded noise level.
	L_{A1}	The noise level exceeded for 1% of the 15 minute interval.
	L_{A10}	Noise level present for 10% of the 15 minute interval. Commonly referred to the average maximum noise level.
	L_{Aeq}	Equivalent continuous (energy average) A-weighted sound pressure level. It is defined as the steady sound level that contains the same amount of acoustic energy as the corresponding time-varying sound.
	L_{A90}	Noise level exceeded for 90% of time (background level). The average minimum background sound level (in the absence of the source under consideration).
Threshold		The lowest sound pressure level that produces a detectable response (in an instrument/person).
Tonality		Tonal noise contains one or more prominent tones (and characterised by a distinct frequency components) and is considered more annoying. A 2 to 5 dB(A) penalty is typically applied to noise sources with tonal characteristics

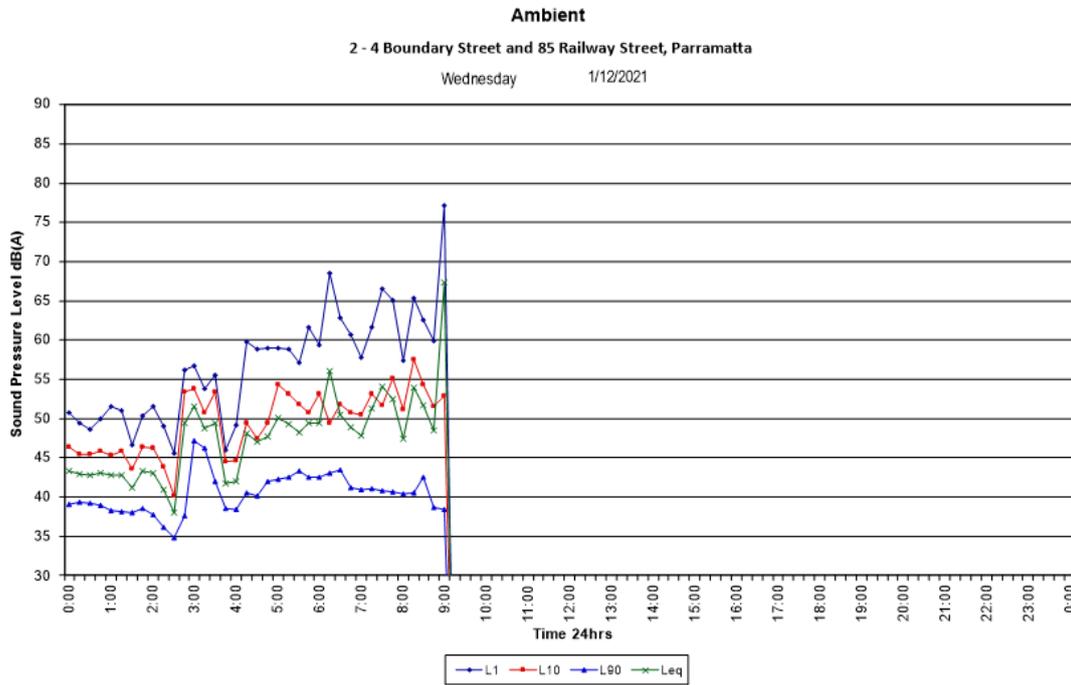


Appendix B – Logger Graphs

Ambient Logger

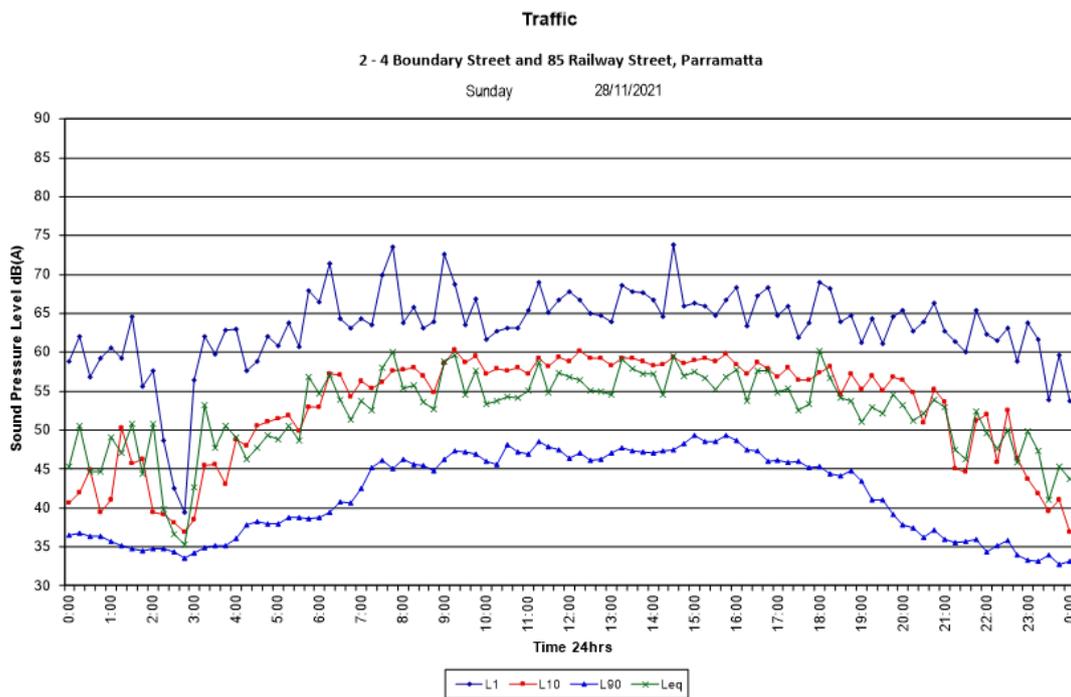
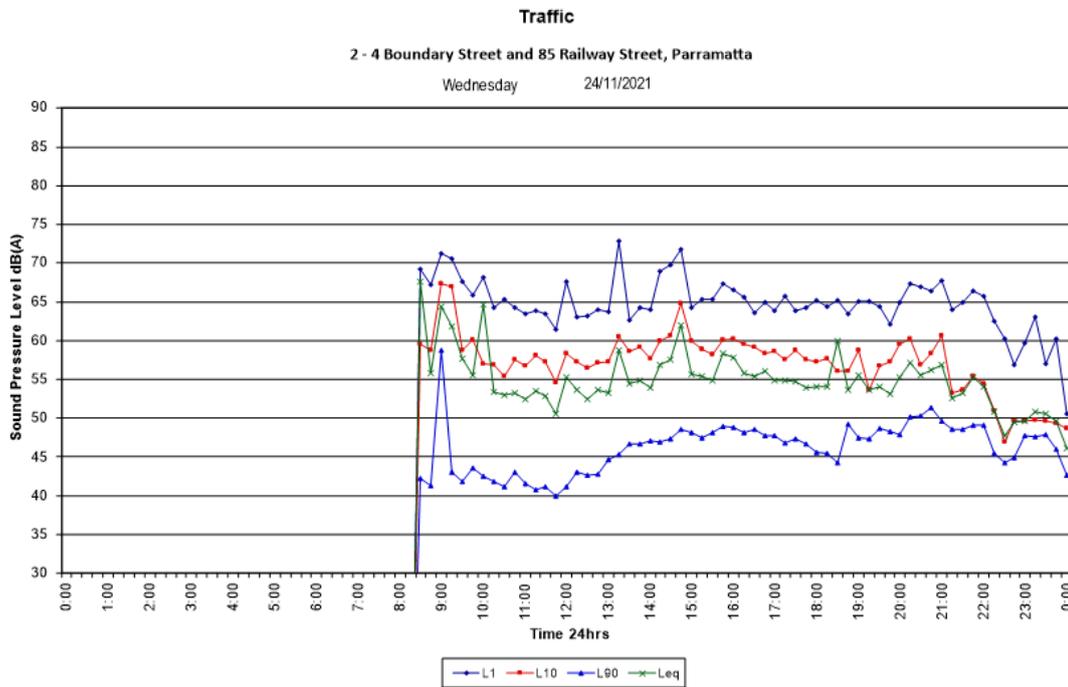


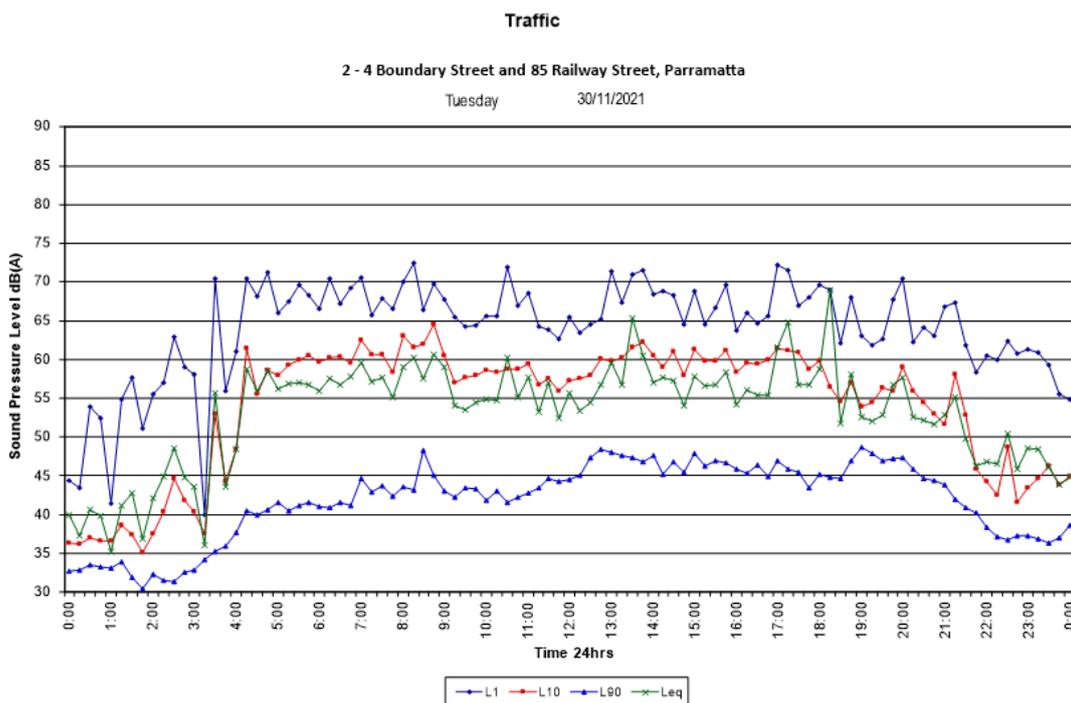
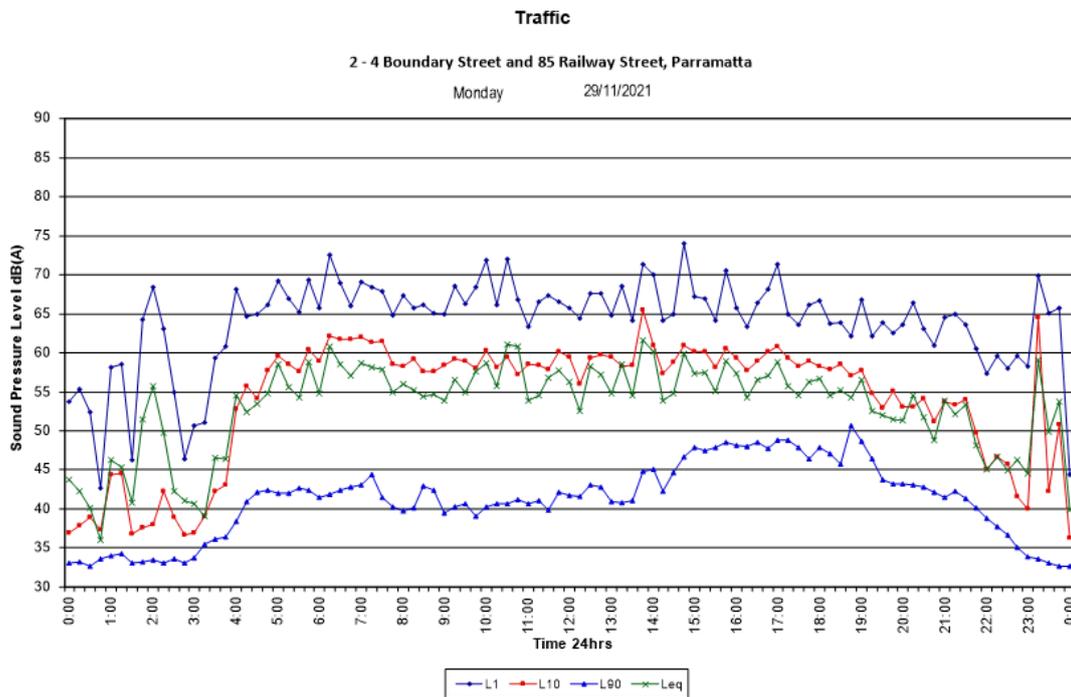
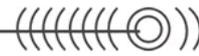






Traffic Logger



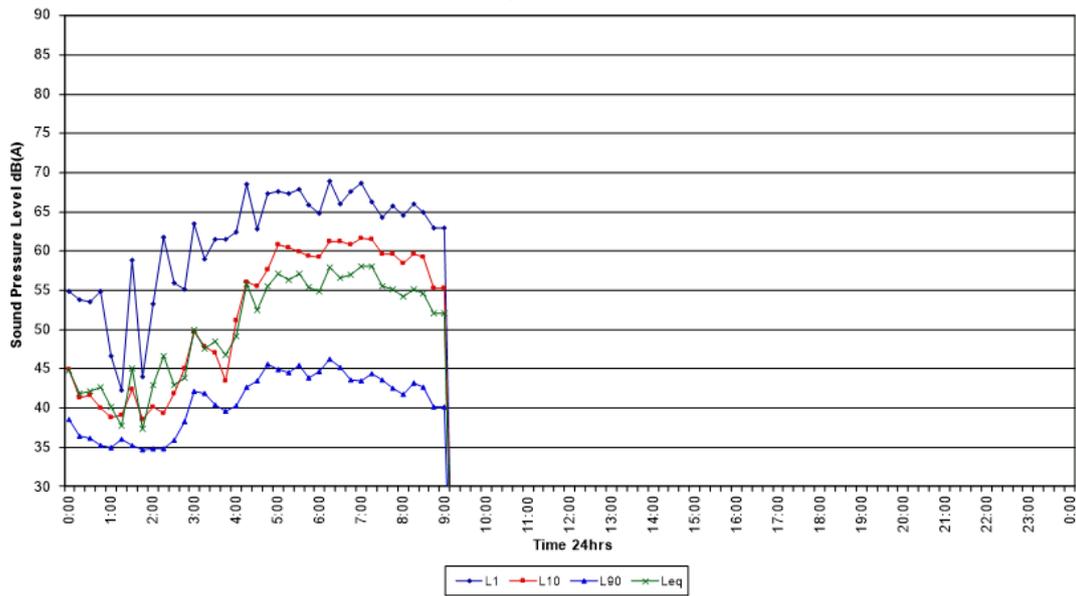




Traffic

2 - 4 Boundary Street and 85 Railway Street, Parramatta

Wednesday 1/12/2021





Appendix C – Calibration Certificate



Sound Level Meter
IEC 61672-3:2013
Calibration Certificate

Calibration Number C21521

Client Details	Rodney Stevens Acoustics Pty Ltd 1 Majura Close St Ives NSW 2075
Equipment Tested/ Model Number :	Rion NL-42EX
Instrument Serial Number :	00572558
Microphone Serial Number :	170393
Pre-amplifier Serial Number :	72896
Pre-Test Atmospheric Conditions	Post-Test Atmospheric Conditions
Ambient Temperature : 21.9°C	Ambient Temperature : 22.4°C
Relative Humidity : 36.5%	Relative Humidity : 35.5%
Barometric Pressure : 100.9kPa	Barometric Pressure : 100.9kPa
Calibration Technician : Lucky Jaiswal	Secondary Check: Max Moore
Calibration Date : 30 Jul 2021	Report Issue Date : 30 Jul 2021
Approved Signatory :	Ken Williams

Clause and Characteristic Tested	Result	Clause and Characteristic Tested	Result
12: Acoustical Sig. tests of a frequency weighting	Pass	17: Level linearity incl. the level range control	Pass
13: Electrical Sig. tests of frequency weightings	Pass	18: Toneburst response	Pass
14: Frequency and time weightings at 1 kHz	Pass	19: C Weighted Peak Sound Level	Pass
15: Long Term Stability	Pass	20: Overload Indication	Pass
16: Level linearity on the reference level range	Pass	21: High Level Stability	Pass

The sound level meter submitted for testing has successfully completed the class 2 periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed.

However, no general statement or conclusion can be made about conformance of the sound level meter to the full requirements of IEC 61672-1:2013 because evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1:2013 and because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Least Uncertainties of Measurement -			
Acoustic Tests		Environmental Conditions	
125Hz	$\pm 0.13\text{dB}$	Temperature	$\pm 0.2^\circ\text{C}$
1kHz	$\pm 0.13\text{dB}$	Relative Humidity	$\pm 2.4\%$
8kHz	$\pm 0.14\text{dB}$	Barometric Pressure	$\pm 0.015\text{kPa}$
Electrical Tests	$\pm 0.10\text{dB}$		

All uncertainties are derived at the 95% confidence level with a coverage factor $k=2$.



This calibration certificate is to be read in conjunction with the calibration test report.

Acoustic Research Labs Pty Ltd is NATA Accredited Laboratory Number 14172.
Accredited for compliance with ISO/IEC 17025 - calibration.

The results of the tests, calibrations and/or measurements included in this document are traceable to SI units.

NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration and inspection reports.

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Sound Level Meter
IEC 61672-3:2013
Calibration Certificate

Calibration Number C21461

Client Details	Rodney Stevens Acoustics Pty Ltd 1 Majura Close St Ives Chase NSW 2075
Equipment Tested/ Model Number :	Rion NL-42EX
Instrument Serial Number :	00572542
Microphone Serial Number :	170370
Pre-amplifier Serial Number :	72880
Pre-Test Atmospheric Conditions	Post-Test Atmospheric Conditions
Ambient Temperature : 21.3°C	Ambient Temperature : 21.5°C
Relative Humidity : 41.8%	Relative Humidity : 41.6%
Barometric Pressure : 101.3kPa	Barometric Pressure : 101.26kPa
Calibration Technician : Lucky Jaiswal	Secondary Check: Rhys Gravelle
Calibration Date : 8 Jul 2021	Report Issue Date : 8 Jul 2021
Approved Signatory :	Ken Williams

Clause and Characteristic Tested	Result	Clause and Characteristic Tested	Result
12: Acoustical Sig. tests of a frequency weighting	Pass	17: Level linearity incl. the level range control	Pass
13: Electrical Sig. tests of frequency weightings	Pass	18: Toneburst response	Pass
14: Frequency and time weightings at 1 kHz	Pass	19: C Weighted Peak Sound Level	Pass
15: Long Term Stability	Pass	20: Overload Indication	Pass
16: Level linearity on the reference level range	Pass	21: High Level Stability	Pass

The sound level meter submitted for testing has successfully completed the class 2 periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed.

However, no general statement or conclusion can be made about conformance of the sound level meter to the full requirements of IEC 61672-1:2013 because evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1:2013 and because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Least Uncertainties of Measurement - Environmental Conditions			
Acoustic Tests		Temperature	±0.2°C
125Hz	±0.12dB	Relative Humidity	±2.4%
1kHz	±0.11dB	Barometric Pressure	±0.015kPa
8kHz	±0.13dB		
Electrical Tests	±0.10dB		

All uncertainties are derived at the 95% confidence level with a coverage factor $k=2$.



This calibration certificate is to be read in conjunction with the calibration test report.

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