



**CAMPBELLTOWN
CITY COUNCIL**

LOCAL PLANNING PANEL

22 JUNE 2022

MEETING NOTICE

Campbelltown City Council Local Planning Panel

The meeting of the Campbelltown City Council Local Planning Panel will be held via Microsoft Teams on **Wednesday, 22 June 2022 at 3.00pm.**

MEETING AGENDA

1. ACKNOWLEDGEMENT OF COUNTRY

I would like to acknowledge the Traditional Custodians, the Dharawal people, whose Lands we are now meeting on. I would like to pay my respects to the Dharawal Elders, past and present and all other Aboriginal people who are here today.

2. APOLOGIES

3. DECLARATIONS OF INTEREST

4. REPORTS

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- 4.1 Development Application for demolition of structures and construction of 5 storey residential apartment building including space for a childcare centre on ground floor - 14-20 Palmer Street, Ingleburn

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5. CONFIDENTIAL ITEMS

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- 5.1 Planning Proposal - Campbelltown

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General Information

The role of the Local Planning Panel is to determine development applications and provide advice on planning proposals.

When the panel is considering a report relating to a development application, the panel will receive and consider verbal submissions from the applicant and from any person that made a written submission in regard to that development application (during the notification or exhibition period).

As required by the Minister's Local Planning Panels Direction, when considering a planning proposal, the role of the panel is to provide advice to Council. The panel is the first step in the evaluation process before Council and the State Government (through the Gateway process) to decide whether to support a formal public exhibition or consultation period on the proposal. It is possible that the proposal will be modified before or as part of the consideration by Council and/or through the Gateway process. The panel will consider verbal submissions made in relation to the matter from the applicant, if there is one, and from any other person. The panel will not consider written submissions tabled at the meeting, however they will be accepted and passed on to Council officers for consideration in their report to Council.

Any person who makes a verbal submission to the panel must identify themselves and must also accept that their presentation will include their images and sounds and will be webcast and stored on Council's website for future viewing. Any person who makes a verbal submission to the panel must also declare before their submission any political contributions or donations they have made over the last four years exceeding \$1,000 to any political party or candidate who contested the last Ordinary Election of Council.

If you would like to make a verbal submission to the panel, it is necessary to submit the "request to address – community access to meetings" form available on Council's website by midday the day prior to the meeting. The panel chair will invite the registered speakers to the table at the appropriate time in the agenda. Verbal submissions to the panel will be limited to five minutes each. The chairperson has the discretion to extend the period if considered appropriate. Panel members will have the opportunity to ask your questions at the end of your submission.

Recommendations of the Panel

The reports are presented to the Local Planning Panel for its consideration and recommendation.

After the panel has considered submissions made by interested parties, the panel will make recommendations to the Council. The Panel's recommendations become public the day following the Local Planning Panel meeting.

Information

Should you require information about the panel or any item listed on the agenda, please contact Council's City Development Division on 4645 4575 between 8.30 am and 4.30pm.

The following report is referred to the Local Planning Panel for its consideration and recommendation.

Lindy Deitz
General Manager

4. REPORTS

4.1 Development Application for demolition of structures and construction of 5 storey residential apartment building including space for a childcare centre on ground floor - 14-20 Palmer Street, Ingleburn

Community Strategic Plan

Objective	Strategy
1 Outcome One: A Vibrant, Liveable City	1.8 - Enable a range of housing choices to support different lifestyles

Referral criteria

In accordance with section 4.8 of *Environmental Planning and Assessment Act 1979* (EP&A Act) and the Local Planning Panel's direction this application is to be determined by the Campbelltown Local Planning Panel (the Panel) as prescribed in Schedule 1 of that direction due to the development seeking a variation to a development standard of a magnitude greater than 10 per cent, and the development being classified as sensitive development as State Environmental Planning Policy 65 applies to the development.

Executive Summary

- A development application has been received for demolition of existing structures and construction of a 5 storey residential apartment building containing 53 apartments and 2 levels of basement car parking, and provision of space for a childcare centre on the ground floor of the building at 14-20 Palmer Street, Ingleburn.
- The subject site is zoned R4 High Density Residential under the Campbelltown Local Environmental Plan 2015 (CLEP 2015). The proposed residential flat building is permitted on the site and is consistent with the objectives of the R4 High Density Residential zone.
- The application was publicly notified and exhibited between 4 May 2021 and 3 June 2021. Four submissions were received, one of which was from a Local State Member of Parliament.
- The proposal seeks approval for a variation to the maximum height of building set by Clause 4.3 of the CLEP 2015. The proposed height of 17.9 m, exceeds the maximum height of 15 m by 19.33 per cent.
- A previous development application was approved on part of the site (16-20 Palmer Street) for demolition of existing structures and construction of a 5 storey residential apartment building containing 51 apartments and 2 levels of basement car parking, and provision of space for a childcare centre on the ground floor under development consent 1985/2017/DA-RA on 26 September 2018 by the Panel. This application also included a Clause 4.6 variation to the maximum height of building development standard of 22 per cent.

- An assessment under section 4.15 of the EP&A Act has been undertaken and it is recommended that the application be approved subject to the conditions of consent listed in attachment 1.

Officer's Recommendation

That Development Application 1091/2021/DA-RA for the demolition of existing structures and construction of a 5 storey residential apartment building containing 53 apartments and 2 levels of basement car parking, and provision of space for a childcare centre on the ground floor of the building at 14-20 Palmer Street, Ingleburn be approved subject to the conditions listed in attachment 1.

Purpose

To assist the Local Planning Panel in its determination of the subject application in accordance with the provisions of the EP&A Act.

Property Description	Lot B DP385792, Lot B DP364581, Lots B & C DP 363519, 14-20 Palmer Street, Ingleburn
Application No	1091/2021/DA-RA
Applicant	A&M Group 1 Pty Ltd
Owner	A&M Group 1 Pty Ltd
Provisions	State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 State Environmental Planning Policy (Infrastructure) 2007 State Environmental Planning Policy (Resilience and Hazards) 2021 State Environmental Planning Policy 65 – Design Quality of Residential Apartment Development State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 State Environmental Planning Policy (Sydney Region Growth Centres) 2006 State Environmental Planning Policy (Biodiversity and Conservation) 2021 Campbelltown Local Environmental Plan 2015 Campbelltown (Sustainable City) Development Control Plan 2015 Campbelltown 2027
Date Received	12 April 2021

History

1576/2017/DA-RA

A development application (1576/2017/DA-RA) for a 5 storey residential flat building at 10-12 Palmer Street Ingleburn was approved by the Panel on 30 May 2018.

1985/2017/DA-RA

A development application (1985/2017/DA-RA) was approved by the Panel on 26 September 2018 for demolition of existing structures and construction of a 5 storey residential apartment building containing 51 apartments and 2 levels of basement car parking, and provision of space for a childcare centre on the ground floor of the building at 16-20 Palmer Street, Ingleburn.

Site and Surrounds

The site is identified as Lot B DP385792, Lot B DP364581, and Lots B & C DP 363519, known as 14-20 Palmer Street, Ingleburn. The site is irregular in shape with a north-east (side) boundary measuring 34.745 m, south-east (Palmer Street) boundary measuring 80.515 m and south-west (Suffolk Street) boundary measuring 36.73 m and north-west (rear) boundary measuring 80.515 m. The site has an area of 2905.7 m² and the site slopes from west to east by approximately 2.5 m.

The site is comprised of 4 existing residential sites, each occupied by a detached single storey dwelling with ancillary structures and vehicular crossovers to Palmer Street.

The subject site is adjoined by detached dwellings to the side and rear of the site. The locality is characterised by detached residential dwellings, dual occupancy development and multi dwelling developments.

The property is not listed as an item of Environmental Heritage, and is not located within a heritage conservation area.



Figure 1: Locality map



Figure 2: Render of the corner of Suffolk Street and Palmer Street



Figure 3: Render of Palmer Street elevation



Figure 4: Existing Streetscape

Proposal

The proposal includes the following works:

Basement 2:

- 32 residential car parking spaces, including 6 accessible spaces.
- Storage areas for 47 units
- Service room, 2 lifts and stairs

Basement 1:

- 51 parking spaces, 11 visitor, 25 childcare, 14 residential and one accessible space.
- 2 waste storage rooms, one includes separate storage for childcare waste.
- 3 lifts
- Stairs
- 11 bike parking spaces
- 6 storage areas
- 3 service rooms

Ground Floor

- Basement access ramp from Palmer Street
- Commercial space for future childcare centre 497m²
- Childcare outdoor play area
- 2 ground floor units with front terraces to Palmer Street, one x 1 bedroom one x 2 bedroom
- Communal open space area and landscaping
- Communal space to the Palmer Street frontage with landscaping and seating
- Communal room with kitchenette and accessible bathroom
- On site detention area

Level 1 to 3

- 14 units comprising of 2 x one bedroom and 12 x 2 bedroom units
- Lift, stairs and waste services

Level 4

- 9 units comprising of one x 1 bedroom, 7 x 2 bedroom and one x 3 bedroom
- Lift, stairs and waste services
- Communal open space area with seating and landscaping

Referrals

The application was referred to Council's Engineering, Environment, and Waste Officers. The application was also externally referred to Endeavour Energy. Comments were provided from the relevant officers and additional information has been sought or conditions of consent recommended.

Design Excellence Panel

The application was also referred to Council's Design Excellence Panel (DEP) on 17 June 2021, the comments are provided in attachment 3.

The application was deferred and subsequently amended with the following (as received) comments provided by the applicant in response to the DEP's comments.

- An updated context analysis has been prepared.
- Most apartments are north facing and well ventilated, minimising the need for mechanical heating/cooling. Skylights have been provided to some apartments on the top floor. The proposed finishes – brick and concrete are low maintenance.
- Accessible bathrooms have been placed in the ground floor communal room as well as rooftop communal open space. This option was explored in an earlier concept and was considered unfeasible as it removes substantial area from the north facing apartments.
- Adaptable units have been amended to minimize the amendment between the pre and post adaptable layouts where possible.
- Additional contextual analysis has been done in relation to material choices. See sheet DA-901.
- To alleviate privacy concerns, the glass balustrades and lower portion of the glass windows have been amended to be obscure. The photomontages have also been amended to demonstrate this.
- This area together with the communal area has been amended to highlight the building lobby entries.
- We agree with Council's comments. Moving an apartment from the top floor onto the ground floor communal area will only create more unsheltered communal open space

which will be undesirable in the hot summer months. The drawings have been updated to include a communal room on the ground floor with kitchen, seating, dining areas. This will provide the tenants with some flexibility in terms of the use of the space and improve the overall amenity.

- The streetscapes have been extended further and now also show the potential future development dashed.
- The balustrades have been updated to be obscure.
- Apartments 1.03, 2.05, 2.09 and typical as well as 4.08 have been updated to avoid having the entry open directly into the kitchen/living/dining area. The front door and storage were swapped.
- Crime Prevention Through Environmental Design (CPTED) principles and initial lighting approach is described in the design verification statement. Artificial lighting drawings will be produced at Construction Certificate (CC).
- Deep longer than minimum balconies have been proposed to provide shelter to most apartments. The building is well articulated to break strong wind forces.
- Most apartments are north facing and well ventilated, minimising the need for mechanical heating/cooling. Skylights have been provided to some apartments on the top floor. The proposed finishes – brick and concrete are low maintenance.

It is considered that the amendments to the proposal are consistent with the requests from the panel and also consistent with relevant policies.

Report

1. Vision

Campbelltown 2027

Campbelltown 2027 is the Community Strategic Plan for the City of Campbelltown. The Strategic Plan addresses 4 key strategic outcomes that Council and other stakeholders will work to achieve over the next 10 years:

- Outcome 1: A vibrant, liveable city
- Outcome 2: A respected and protected natural environment
- Outcome 3: A thriving, attractive city
- Outcome 4: A successful city

Outcome 1 is most relevant to the proposed development. The relevant strategy to this proposed development is:

- 1.8 – Enable a range of housing choices to support different lifestyles.

The proposed development would provide residents with alternative and affordable housing options that would support different lifestyles and deliver a vibrant and livable city.

2. Planning Provisions

The development has been assessed in accordance with the heads of consideration under section 4.15 of the EP&A Act, and having regard to those matters, the following issues have been identified for further consideration.

2.1 Section 4.15(1)(a)(i) The provisions of any environmental planning instrument

2.1.1 State Environmental Planning Policy (Building Sustainability Index): BASIX) 2004

A BASIX Certificate for the development (No. 1173124M_02) was submitted with the development application. The BASIX Certificate lists measures to satisfy BASIX requirements which have been incorporated into the proposal. It is considered that the development is acceptable under State Environmental Planning Policy (Building Sustainability Index – BASIX) 2004.

2.1.2 State Environmental Planning Policy (Infrastructure) 2007

The aim of this Policy is to facilitate the effective delivery of infrastructure across the State.

Clause 45 Determination of development applications—other development

- (1) This clause applies to a development application (or an application for modification of a consent) for development comprising or involving any of the following—
 - (b) development carried out—
 - (i) within or immediately adjacent to an easement for electricity purposes (whether or not the electricity infrastructure exists), or
 - (ii) immediately adjacent to an electricity substation, or
 - (iii) within 5 m of an exposed overhead electricity power line,
 - (d) development involving or requiring the placement of power lines underground, unless an agreement with respect to the placement underground of power lines is in force between the electricity supply authority and the council for the land concerned.
- (2) Before determining a development application (or an application for modification of a consent) for development to which this clause applies, the consent authority must—
 - (a) give written notice to the electricity supply authority for the area in which the development is to be carried out, inviting comments about potential safety risks, and
 - (b) take into consideration any response to the notice that is received within 21 days after the notice is given.

The proposal does not include undergrounding or relocation of existing electricity infrastructure. However, a new substation is proposed along the Palmer Street frontage of the

site, within the landscaped setback. A referral was undertaken to Endeavour Energy and conditions of consent have been recommended in attachment 1.

Clause 104 Traffic-generating development

(1) This clause applies to development specified in Column 1 of the Table to Schedule 3.

The proposed development does not meet the requirement of development specified in Schedule 3.

2.1.3 State Environmental Planning Policy (Resilience and Hazards) 2021

State Environmental Planning Policy (Resilience and Hazards) (SEPP RH) aims to provide a state-wide planning approach to the remediation of contaminated land. In particular the policy aims to promote the remediation of contaminated land in order to reduce the risk of harm to human health or any other aspect of the environment.

The SEPP RH requires the consent authority to consider whether the subject land of any development application is contaminated. An assessment of Clause 4.6 of SEPP RH is provided in table below.

State Environmental Planning Policy 55 - Remediation of Land		
Requirement	Action	Response
Clause 4.6(1) 1. Is the development for a change of use to a sensitive land use or for residential subdivision? Sensitive land use include residential, educational, recreational, child care purposes or hospital.	a. Check if the DA proposes a new childcare centre, residential accommodation or residential subdivision.	The proposal includes a residential flat building and provision for a future childcare centre.
	b. If the DA is for a dwelling (including dual occupancies and secondary dwellings) on lots subdivided as part of a residential subdivision consent issued after 28/8/1998 then you should answer no to this question.	The subject site was subdivided prior to 1998 and has been used as a dwelling houses for many years.
Clause 4.6(1) 2. Is Council aware of any previous investigation or orders about contamination on the land?	a. Is there any property information for any evidence of contamination information?	A search of Council's records for evidence of potentially contaminating activities was undertaken. No evidence was found of contaminating land activities having occurred on the land.
	b. Check for contamination information and planning certificates linked to the property.	A search of planning certificates linked to the property was undertaken. No evidence was found of

State Environmental Planning Policy 55 - Remediation of Land		
Requirement	Action	Response
		contaminating land activities having occurred on the land.
Clause 4.6(1) 3. Do existing records held by Council show that a contaminating land activity has occurred on the land?	a. Check the approval for any potentially contaminating uses have been approved on the site.	A search of previous contaminated land uses approved on the site was undertaken. No evidence was found of approved contaminated land activities having occurred on the land.
Clause 4.6(1) 4. Has the land previously been zoned for potentially contaminating uses?	a. Check if the land is currently zoned, or was zoned under the previous LEP, Rural, Industrial or Special Purposes for a contaminating use. NB: if the proposal is industrial then you should answer no to this question.	The Campbelltown (Urban Area) Local Environmental Plan 2002 was the previous EPI that applied to the land and the site was previously zoned 2 (b)– Residential B which did not allow for potentially contaminating uses.
Clause 4.6(1) 5. Is the land currently being used for a potentially contaminating use or is there any evidence of a potentially contaminating use on site?	a. Conduct site inspection to check for any obvious signs on the site or adjoining land of an industrial use, underground storage tanks, land filling, agriculture, chemical storage, dumping or unregulated building demolition (especially fibro material).	No evidence of potentially contaminated signs were present on site when the site was inspected.

The applicant has submitted a Preliminary Site Investigation (PSI) in accordance with the requirements under State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017, the report concludes:

Based on the findings of the PSI with limited soil testing, it is concluded that the site is suitable for the proposed high-density residential land use including a childcare centre on the ground floor.

The report also recommends:

Prior to the commencement of works and any demolition on the site a hazardous building materials survey (HAZMAT) of all existing site structures (house and sheds) prior to demolition.

Prior to the commencement of excavation on the site, and following the demolition of the dwellings and structures on the site, additional soil testing is required to be undertaken to characterise soils to confirm the above preliminary waste classification for disposal, including where the dwellings were located.

The recommendations have been included as conditions of consent in attachment 1.

Based on the above assessment, the provisions of Clause 4.6 of SEPP RH have been considered and the contaminated land planning guidelines and the site is considered suitable for the proposed development.

2.1.4 State Environmental Planning Policy No 65- Design Quality of Residential Apartment Development

State Environmental Planning Policy No 65- Design Quality of Residential Apartment Development (SEPP 65) was introduced by the state government in 2002 to improve the design of residential apartments in NSW. The aims of the policy are listed below:

- (1) This Policy aims to improve the design quality of residential apartment development in New South Wales.
- (2) This Policy recognises that the design quality of residential apartment development is of significance for environmental planning for the State due to the economic, environmental, cultural and social benefits of high quality design.
- (3) Improving the design quality of residential apartment development aims:
 - a. to ensure that it contributes to the sustainable development of New South Wales:
 - (i) by providing sustainable housing in social and environmental terms, and
 - (ii) by being a long-term asset to its neighbourhood, and
 - (iii) by achieving the urban planning policies for its regional and local contexts, and
 - b. to achieve better built form and aesthetics of buildings and of the streetscapes and the public spaces they define, and
 - c. to better satisfy the increasing demand, the changing social and demographic profile of the community, and the needs of the widest range of people from childhood to old age, including those with disabilities, and
 - d. to maximise amenity, safety and security for the benefit of its occupants and the wider community, and
 - e. to minimise the consumption of energy from non-renewable resources, to conserve the environment and to reduce greenhouse gas emissions, and
 - f. to contribute to the provision of a variety of dwelling types to meet population growth, and
 - g. to support housing affordability, and
 - h. to facilitate the timely and efficient assessment of applications for development to which this Policy applies.

- (4) This Policy aims to provide:
- a. consistency of policy and mechanisms across the State, and
 - b. a framework for local and regional planning to achieve identified outcomes for specific places.

The proposed development satisfies the aims of this policy.

This policy is required to be applied to development for the purpose of the following:

Residential flat building, shop top housing or mixed use development with a residential accommodation component if:

- a. the development consists of any of the following:
 - (i) the erection of a new building,
 - (ii) the substantial redevelopment or the substantial refurbishment of an existing building,
 - (iii) the conversion of an existing building, and
- b. the building concerned is at least 3 or more storeys (not including levels below ground level (existing) or levels that are less than 1.2 metres above ground level (existing) that provide for car parking), and
- c. the building concerned contains at least 4 or more dwellings.

The proposed development meets the abovementioned requirement and is therefore required to be assessed in accordance with this policy.

Part 4 of the SEPP 65 states that a development application that relates to residential flat development must be accompanied by a design verification from a qualified designer, being a statement in which the qualified designer verifies:

- a. that he or she designed, or directed the design, of the residential flat development, and
- b. that the design quality principles set out in Part 2 of SEPP 65 are achieved for the residential flat development.

The design verification statement has been provided by Ziad Boumelhem (NSW Architecture Board Registration No. 8008), of Urbanlink.

The application was assessed against the 9 design quality principles under SEPP 65 and a planning response to each comment are set out in Table 1 below:

Table 1: Assessment against the 10 Design Quality Principles under SEPP 65

Principle	Verification Statement	Planning Comment
1. Context and Neighbourhood Character	<ul style="list-style-type: none"> The surrounding area is characterised by low to medium density residential and mixed-use buildings. The zoning and relevant built form controls allow for the style of building proposed and following CLEP 2015, it is likely that the area will increase in density with the future uplift. Within this context the proposal will sit well and contribute in a positive manner to the quality and identity of the precinct. 	The proposed development is contextually appropriate with the current controls within the CLEP 2015 and the desired future character of the locality.
2. Built form and scale	<ul style="list-style-type: none"> The built form of the proposed development is appropriate for this site. The proposed development is deemed appropriate in terms of its bulk and scale and its overall suitability to the surrounding context. A 5.5 m setback from the boundary via Palmer Street and Suffolk Street provides a comfortable relationship to the street interface. There is no conflict between private access and public domain. The proposed development complies with councils Apartment Design Guide (ADG) setback controls. It proposes appropriate proportions, articulation and positive manipulation of building/architectural elements which contributes positively to the character of streetscapes and parks, views and vistas, amenity and overall outlook. 	The proposed built form is considered to be appropriate for the subject site.
3. Density	<ul style="list-style-type: none"> The density of the proposed development is considered to be satisfactory and a reasonable response to the desired future character of the site and the precinct. 	The density is acceptable.

Principle	Verification Statement	Planning Comment
4. Sustainability	<ul style="list-style-type: none"> • It is apparent that the proposal promotes the longer-term sustainability of the local area. • Natural ventilation is provided to at least 60% of apartments, above the ADG minimum. • Over 2 hours of sun are provided to at least 70% of units between 9:00 am-3:00 pm on the 21 June as per the ADG guidelines. Balconies provide shelter from the summer sun while allowing winter sun to penetrate well into living areas. This will reduce the need for mechanical heating and cooling. • Substantial communal open space is provided at ground level with well-designed landscaping. 	Appropriate measures have been included in the development to provide for the long term sustainability of the development with regard to solar access, natural ventilation, insulation, water saving measures and energy consumption.
5. Landscape	<ul style="list-style-type: none"> • All of the proposed units have access to outdoor balconies and/or terraces, some with various aspects. Large communal open space at ground level and level 4 providing recreational opportunities for future residents. The spaces are generously landscaped to provide good quality and usable spaces. • The space is generous that provided seating and BBQ facilities as well as community kid friendly spaces. 	The proposed landscaping, private and communal open space areas throughout the site are considered to be appropriate for the development and will contribute to the landscape character of the locality.

Principle	Verification Statement	Planning Comment
6. Amenity	<ul style="list-style-type: none">• The proposed units will have considerable internal amenity and are compliant with the minimum sizes contained within the ADG. They are of a sufficient size and appropriate room dimension to meet the needs of future occupants. Storage is provided within all units. The outdoor areas (communal and private) are of sufficient size to meet the recreational needs of future occupants.• The building has been designed in compliance with the principal development standards to achieve high levels of internal and external amenity with at least 70% of units achieving the solar access requirements, and at least 60% to achieve cross ventilation• The proposed building has been provided with setbacks to limit overshadowing, maximise solar access and minimise privacy and overlooking impacts within the site's constraints.	The proposed development provides for the amenity of the existing and future residents in the locality.

Principle	Verification Statement	Planning Comment
7. Safety	<ul style="list-style-type: none"> • The principles of CPTED include the consideration of Natural Surveillance, Natural Access Control and Natural Territorial Reinforcement as demonstrated below: • Surveillance-The development embodies good levels of casual surveillance from within the building and from the street. The proposed building and landscaping design do not create any concealment areas. • Access - The main ground level entry will be secured and fitted with a telecom for visitors. The entry to the building lobby is accessed from the street frontages of the property and is fully glazed, maximizing the potential for casual surveillance. The basement carparking is accessed from a secure garage entry. The lifts and all access gates will be restricted to resident use only by coded key cards. • Generally, the proposed layout provides a high level of privacy and security. Adequate lighting to be provided for the lobby, car parks and communal open spaces, details will be submitted with the CC documents. • Territorial Reinforcement. The proposed development and its presentation to the street make it clearly identifiable by the public. The proposed development is considered to represent a good outcome in terms of security and crime prevention. • We can conclude that the proposed development has been designed in accordance with the objectives and better design practice of the CPTED. 	<p>The proposal clearly delineates between public and private property and also provides for a clear lobby entry. Casual surveillance is provided to both street frontages, whilst still providing for privacy.</p>
8. Housing Diversity and social interaction	<ul style="list-style-type: none"> • The proposed design incorporates various dwelling sizes and shapes, with units capable of adaption and meeting the liveable housing level required, thereby promoting diversity, affordability and access to housing choice. 	<p>The proposal provides for a mix of 1, 2 and 3 bedroom units. The number of 3 bedroom units is limited, however it is considered acceptable given the predominant housing stock are dwellings with 3 and four bedrooms in the locality.</p>

Principle	Verification Statement	Planning Comment
9. Aesthetics	<ul style="list-style-type: none"> • As discussed in the Architect Design Statement the design has a well-considered composition of elements. • Finishes have been selected to compliment the elements they envelope and to create a modern yet not overpowering contribution to the streetscape and architectural quality in the area. • Bulk and scale are controlled through use of elements such as projected balconies, projecting screens and mixed materials on the facade. 	The proposed design is considered to be well designed and would contribute to the streetscape character of Ingleburn.

2.1.4.1 Apartment Design Guide

Clause 30(2)(c) of SEPP 65 states that in determining a development application for consent to carry out a residential flat development, a consent authority is to take into consideration the ADG. It should be noted that the ADG is a set of guidelines and need not be strictly complied with in every circumstance. Where the current proposal departs from these guidelines, the objectives of the recommended standards have been met. An assessment of the application against the ADG prepared by Council is provided in attachment 2.

4P – Planting on Structures

The proposed development does not demonstrate the proposal complies with the requirements in Part 4P with regard to planting on structures. This would include planting over the basement areas and on the level 4 communal open space areas. A condition of consent has been recommended to amend the approved plans to ensure the proposal complies with the ADG.

2.1.5 State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

The purpose of this instrument is to facilitate the provision of educational establishments and child care facilities across the State.

The proposed development provides an indoor and outdoor space within which to provide a future childcare centre. The aspects of the childcare centre have not been assessed as part of this development application, as sufficient details have not been provided for a thorough assessment. A preliminary assessment of the proposal against the childcare guideline and Part 8 of the Campbelltown (Sustainable City) Development Control Plan 2015 (SCDCP) is provided in attachment 2.

It is noted the submitted acoustic report does not address the future childcare centre and a revised report will be required as part of any future development application for a childcare centre on the site.

A full assessment of the indoor and outdoor areas will be required as part of the future development application. Elements of the building may be required to be upgraded including

but not limited to acoustics, privacy and fencing to address compliance with the SEPP (Educational Establishments and Child Care Facilities) 2017.

3.5 Privacy Mitigation

Part C20 requires privacy mitigations which have not been detailed in the application with regard to privacy measures to units located above the outdoor play areas. The proposal includes obscure balconies to reduce overlooking, however it is considered that privacy screens are required to level one to limit direct viewing to outdoor play spaces. Therefore a condition of consent has been recommended in attachment 1, for moveable privacy screens to level one balconies on the western elevation which overlook outdoor play areas associated with the childcare centre.

3.8 Traffic, Car parking and pedestrian access

Part C35 requires safe access in emergency situations for childcare center's located on cul-de-sacs. The proposed development has a frontage to Suffolk Street, which is a through street and Palmer Street, though a no through road has a pedestrianised road area which does not limit pedestrian access or egress in the event of an emergency and is therefore considered to be acceptable.

4.11 Shade

While solar access is achieved to 30 per cent of the outdoor play area, it is noted that the external area to Palmer Street receives no solar access and this would not be suitable to use as an outdoor play space. Solar access to the outdoor play space will be required to be demonstrated with a future development application for a childcare centre on the site.

2.1.6 State Environmental Planning Policy (Sydney Region Growth Centres) 2006

The Sydney Region Growth Centres SEPP (GC SEPP) was amended on 6 December 2019 to include the Greater Macarthur Growth Area as a designated growth centre. The subject site is located within the boundaries of the Greater Macarthur Growth Area, and is therefore subject to the provisions of the GC SEPP. Clauses 16 and 17 of the GC SEPP are relevant to the application and are discussed below.

The GC SEPP does not include a precinct plan for the Greater Macarthur Growth Area, and therefore Clause 16 of the GC SEPP is to be considered. In this regard, the Ingleburn Precinct Plan released under the Glenfield to Macarthur Urban Renewal Corridor Strategy (which is not a Precinct Plan for the purposes of the GC SEPP but is rather a structure plan) indicates that the subject site would be "Medium Rise Residential". This implies that a future land use zoning of R4 would apply. As the proposed development is for a residential flat building, the proposed development would be consistent with the relevant precinct planning strategy.

Therefore, the proposed development is considered to be satisfactory with regard to Clause 16 of the GC SEPP.

2.1.7 State Environmental Planning Policy (Biodiversity and Conservation) 2021 (SEPP B&C)

The proposal is within the Georges River Catchment and therefore Chapter 11 of SEPP (B&C) applies. The general aims and objectives of this plan are as follows:

- a. to maintain and improve the water quality and river flows of the Georges River and its tributaries and ensure that development is managed in a manner that is in keeping with the national, State, regional and local significance of the Catchment.
- b. to protect and enhance the environmental quality of the Catchment for the benefit of all users through the management and use of the resources in the Catchment in an ecologically sustainable manner.
- c. to ensure consistency with local environmental plans and also in the delivery of the principles of ecologically sustainable development in the assessment of development within the Catchment where there is potential to impact adversely on groundwater and on the water quality and river flows within the Georges River or its tributaries.
- d. to establish a consistent and coordinated approach to environmental planning and assessment for land along the Georges River and its tributaries and to promote integrated catchment management policies and programs in the planning and management of the Catchment.
- e. to provide a mechanism that assists in achieving the water quality objectives and river flow objectives agreed under the Water Reform Package.

The proposal is not considered to conflict with any of the relevant provisions of the SEPP B&C and is therefore considered acceptable in this regard.

2.1.8 Campbelltown Local Environmental Plan 2015

The site is zoned R4 High Density Residential under the CLEP 2015. In accordance with the provisions of the CLEP 2015 the consent authority must have regard for the zone objectives in determining any development application.

The objectives for R4 High Density Residential zone are:

- a. To provide for the housing needs of the community within a high density residential environment.
- b. To provide a variety of housing types within a high density residential environment.
- c. To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- d. To encourage high density residential development in close proximity to centres and public transport hubs.
- e. To maximise redevelopment and infill opportunities for high density housing within walking distance of centres.

- f. To enable development for purposes other than residential only if that development is compatible with the character and scale of the living area.
- g. To minimise overshadowing and ensure a desired level of solar access to all properties.

The proposed development is consistent with the objectives.

The proposed development is defined as a residential flat building:

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

Residential flat buildings are permissible with Council's development consent within the R4 High Density Residential zone.

Clause 4.1C Minimum qualifying site area and lot size for certain residential and centre-based child care facility development in residential zones

The objectives of this clause are to achieve planned residential densities, achieve satisfactory environmental and infrastructure outcomes, minimise impact on residential amenity and minimise land use conflicts.

The minimum qualifying site area for childcare centres is 800 m² and the minimum qualifying site area for residential flat buildings is 1200 m². The site has a total area of 3025 m² and as such complies with this clause.

Clause 4.3 Height of Buildings

Clause 4.3 sets out the maximum building height in accordance with the Height of Buildings map. The subject site has a height limit of 15 m. The proposed development has a maximum height of 17.9 m. The proposal exceeds the maximum height development standard by 2.9 m. The variation to the development standard is discussed below.

Clause 4.3A Height restrictions for certain residential accommodation

Clause 4.3A sets out the maximum number of storeys for certain types of residential development. A dwelling within a residential flat building has a 2 storey height limit. The proposed dwellings are a maximum of one storey and as such comply with this clause.

Clause 4.4 Floor Space Ratio

Clause 4.4 sets out the floor space ratio requirements for all developments in accordance with the floor space ratio map. The floor space ratio map provides an FSR of 0.55:1 for childcare centres in a residential zone. The childcare centre has a FSR of 0.16:1 and complies with this clause.

Clause 4.6 Exceptions to Development Standards

The purpose of this clause is to provide flexibility in the application of planning controls operating by virtue of development standards in circumstances where strict compliance with

those standards would, in any particular case, be unreasonable or unnecessary or tend to hinder the attainment of the objects of the EP&A Act.

The proposed development includes a variation to Clause 4.3 of the CLEP 2015 with respect to the maximum height of building. The applicant has provided a Clause 4.6 variation request which is assessed in detail below.

The objectives of Clause 4.6 are as follows:

- a. to provide an appropriate degree of flexibility in applying certain development standards to particular development,
- b. to achieve better outcomes for and from development by allowing flexibility in particular circumstances"

Clause 4.6 allows consent to be granted for development even though the development would contravene a development standard, being Clause 4.3 relating to a proposed building height of 17.9 m in this instance.

The Clause 4.6 variation is an attachment to this report and addresses each provision of Clause 4.6, including the underlying objectives of the standard; why compliance with the development standard is unreasonable or unnecessary in the circumstances of the case as the underlying objectives of the control, and the objectives of the zone, are achieved despite the non-compliance to the numerical development standard as set out above, which satisfies Wehbe Test 1; environmental planning grounds to support the numerical non-compliance; and public interest.

Below are key points from the Clause 4.6 Variation Request with respect to the proposed development:

- The overall height of the development presents as a compatible form of development within the residential area.
- The proposal is predominantly consistent with the height control and is appropriate in scale and intensity.
- The development is consistent with the zone objectives noting that:
 - The proposed development provides for the housing needs of the community through the provision of a high density mixed use development.
 - The proposed development provides an appropriate unit mix that provides a variety of housing types within an appropriate high density residential environment.
 - The proposal provides a ground floor commercial unit with the indicative use of a child care centre which will enable a land use that provide facilities or services to meet the day to day needs of residents.
- Compliance with the development standard is unreasonable and unnecessary in the circumstances of the case.

- There are sufficient environmental planning grounds to justify contravening the development standard.
- The development is in the public interest.
- The development is consistent with the objectives of the height of building development standard.
- The development is consistent with the objectives for development within the zone and long term strategic intentions for the Ingleburn town Centre.
- The height of the proposed development does not result in an undesirable visual impact, disruption to views or loss of privacy or solar access.
- The proposed height exceedance is deemed to be reasonable as it involves a minimal percentage of the building volume and habitable floor space, it does not result in adverse impacts on surrounding development, is below the height previously approved onsite and is not readily apparent from the streetscape.
- The proposed design does not unreasonably detract from the amenity of adjacent residents or the existing quality of the environment as demonstrated in architectural plans prepared by Urbanlink.
- Strict compliance with the building height development standard would result in a development that does not achieve the desired development density for the site and would be inconsistent with the future building height control for the site.
- The proposed development has been designed to respond to the future height control and provide a development that is consistent with the bulk, scale and design of development envisaged within the Ingleburn Town Centre.
- The massing of Palmer Street and Suffolk Street as well as other elevations has been designed to achieve an aesthetic outcome to fit within a desired building envelope. Its facades are all designed with various architectural elements to provide articulation, depth, shade and a pleasing aesthetic.
- The proposed development is consistent with the objectives of Clause 4.3 and Clause 4.6 of CLEP 2015 and therefore is in the public interest pursuant to clause 4.6(4).
- The Ingleburn Town Centre Planning Proposal was issued Gateway Determination by the Department of Planning on 9 March 2020. The Ingleburn Town Centre Planning Proposal aims to increase the residential density of the Ingleburn Central Business District in alignment with Ingleburn Precinct Plan within the Glenfield to Macarthur Urban Renewal Corridor Strategy. The Ingleburn Town Centre Planning Proposal seeks to amend the controls applicable to the Ingleburn Town Centre which would result in the increase in the maximum building height control for the site to 26 m.

The figures stated are contained within the Clause 4.6 variation document. The proposal presents a departure to the height controls by way of an encroachment to the prescribed height limit by 2.9 m at the highest point.

Below is an extract from the architectural plans which clearly indicates the area of the building above the maximum height limit.

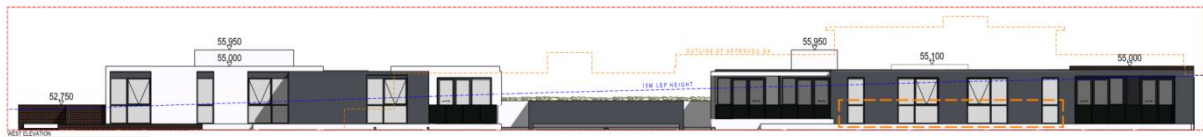


Figure 5: West elevation rooftop



Figure 6: East elevation to Palmer Street.



Figure 7: North elevation.

In accordance with Clause 4.6(3), as part of the assessment, the consent authority must consider a written request from the applicant that seeks to justify the contravention of the development standard which demonstrates:

- a. that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case; and

- b. that there are sufficient environmental planning grounds to justify contravening the development standard.”

The assessment below has regard to the submitted Clause 4.6 variation request.

Is the planning control in question a development standard?

The 15 m maximum permissible building height applying to the subject land under Clauses 4.3 of CLEP 2015 is a development standards for the purposes of Clause 4.6 (Exceptions to development standards) and may therefore be varied by the consent authority pursuant to the provisions of Clauses 4.6 (2) - (5) of the LEP.

What are the underlying objectives or purpose of the development standard?

The underlying objective or purpose of the maximum permissible building height development standard applicable to the subject land under Clause 4.3 and the proposed development is stated within the objectives to CLEP 2015 - Clause 4.3 (1) - Height of Buildings, as follows:

- a. to nominate a range of building heights that will provide a transition in built form and land use intensity across all zones.
- b. to ensure that the heights of buildings reflect the intended scale of development appropriate to the locality and the proximity to business centres and transport facilities.
- c. to provide for built form that is compatible with the hierarchy and role of centres.
- d. to assist in the minimisation of opportunities for undesirable visual impact, disruption to views, loss of privacy and loss of solar access to existing and future development and to the public domain.

As can be seen on the building elevations, the proposed development exhibits a variation to the maximum permitted building height. This is principally a reflection of existing ground level, and to ensure the functionality of the development is achieved.

The proposed development exhibits architectural quality and urban form consistent with the desired future character of the R4 zone in Ingleburn.

The proposed building height exceedance does not significantly reduce the opportunity for either the proposed development, or adjoining properties to receive satisfactory exposure to sunlight. The size of the site and the location of non-compliant built form to the north-east of the site result in the location of the height exceedance not being visibly non-compliant from the public domain or a discernible variation when viewed from adjoining properties.

The design height of the proposed development is appropriate to the residential area and has had regard to the surrounding future development. The departure from the 15m maximum permissible building height development standard does not cause significant visual impact and does not adversely impact view corridors from public spaces.

Matters for Consideration by the Director-General

Clause 4.6(4)(b) of CLEP 2015 requires the concurrence of the Director-General to be obtained for development that contravenes a development standard. Under Clause 4.6(5), the Director-General is required to consider the following matters in deciding whether to grant concurrence.

Whether contravention of the development standard raises any matter of significance for State or regional environmental planning

The proposed development is consistent with State and regional planning policies/strategic directions including A Metropolis of Three Cities - the Greater Sydney Region Plan. Approval of the proposed development and the proposed exceedance of the applicable maximum permissible building height development standard in this particular case, would not raise any matter of significance for State or regional planning.

The public benefit of maintaining the development standard

This report demonstrates that the proposed exceedance of the permissible maximum building height development standard does not have adverse scenic/visual impacts, or amenity impacts on either the public domain, or neighbouring properties. It is also noted that the subject site is located within the area of the Council's Ingleburn Town Centre Planning Proposal which proposes to amend CLEP 2015 to increase to the permissible building height on the subject site and adjoining properties.

Any other matters required to be taken into consideration by the Director-General before granting concurrence

There are no other matters currently specified to be taken into consideration by the Director-General before granting concurrence.

Consideration

It is considered that any requirement for the proposed development to strictly comply with the applicable 15 m maximum permissible building height development standard of Clause 4.3 of CLEP 2015 would be unreasonable or unnecessary in the particular circumstances. The proposed development is in the public interest as it will facilitate the redevelopment of the site to delivery additional housing in the locality and commercial space for a childcare centre to provide services to local residents, the development of the site is considered to be consistent with the strategic planning objectives for the development of the area.

Further, the proposed development is consistent with objectives for development within the zone and the proposed development is consistent with the objectives of the maximum building height development standard as expressed in Clause 4.3(1) of CLEP 2015.

The particular circumstances relating to the subject land and the proposed development are unique to this application due to the topography of the site and will not lead to similar development applications which would cumulatively undermine the planning objectives for the locality.

The proposed exceedance in maximum permissible building height does not significantly increase the bulk and scale of the proposed development, cause any additional view loss from

neighbouring properties, or have any significant additional adverse scenic/visual impacts or amenity (privacy/overshadowing) impacts on the public domain.

There is no public benefit to be derived, or planning purpose to be served, in requiring the proposed development to strictly comply with the applicable maximum permissible building height development standards of CLEP 2015.

This request demonstrates that there are sufficient environmental planning grounds for the proposed development to contravene the maximum permissible building height development standard applying to the subject land under Clause 4.3 of CLEP 2015.

The Clause 4.6 variation to the height requirement for the proposed building is supported in this instance.

Clause 5.6 Architectural Roof Features

The objectives of this clause are to permit variations to the maximum height standards only where roof features contribute to the building design and to ensure that the majority of the roof is contained within the maximum building height.

The proposed building does not include architectural roof features.

Clause 7.1 Earthworks

The objectives of this clause are to ensure that required earthworks will not have a detrimental impact on environmental functions and processes. Earthworks are required for the proposed development however it is considered that the proposed excavation would not adversely impact on environmental functions and processes, subject to standard conditions of consent being applied in regards to sediment control.

Clause 7.4 Salinity

Pursuant to Clause 7.4 of CLEP 2015, development consent must not be granted unless the consent authority is satisfied that the development:

- a. the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or
- b. if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or
- c. if that impact cannot be minimised—the development will be managed to mitigate that impact.

The proposed development has been designed to minimise the disturbance of the existing ground levels, where possible. Additionally, a condition has been recommended that the design and construction of any structures within the ground shall be in accordance with any geotechnical provisions.

Clause 7.10 Essential Services

This clause ensures that development consent is not granted to development unless the consent authority is satisfied that essential services such as the supply of water, the supply of electricity, the disposal and management of sewage, stormwater drainage or on-site conservation, suitable road and vehicular access, telecommunication services and the supply of natural gas are available. All required essential services are already in place for the existing dwellings and available for the proposed development.

Clause 7.13 Design Excellence

Pursuant to Clause 7.13 of CLEP 2015, development consent must not be granted unless the consent authority has had regard to the following matters:

- a. whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,

The proposed development has incorporated a wide variety of façade treatments and materials which are consistent with what one would expect from a residential flat building development.

- b. whether the form and external appearance of the development will improve the quality and amenity of the public domain,

The external façade is of a contemporary design that is appropriate with the streetscape and public domain. The DEP stated the façade treatment was well proportioned, balanced and interesting.

- c. whether the development detrimentally impacts on view corridors,

The proposed development does not impact any significant view corridors.

- d. how the development addresses the following matters—

- (i) the suitability of the land for development,

The site is suitable for residential development.

- (ii) existing and proposed uses,

The proposed development is consistent with the zone objectives and the proposed uses are permissible within the zone.

- (iii) heritage issues and streetscape constraints,

There are no heritage items within the proximity of the site.

- (iv) bulk, massing and modulation of buildings,

The design of the building is consistent with the future expectation of the area. The building design and presentation is what is expected from high density residential development. The

DEP "appreciated how the building massing had been broken down to create distinctively different sections/portions (also with different materials/colours)".

- (v) street frontage heights,

The proposed development as viewed from the street level provides for an appropriate upper level setback to reduce the visibility of the building that exceeds the maximum height of building control from the street level. Therefore the proposed street frontage heights are considered to be acceptable. The proposed height non-compliance is discussed in detail elsewhere in this report.

- (vi) environmental impacts such as sustainable design, overshadowing, wind and reflectivity,

The proposed development has given due consideration to its potential to result in an undesirable impact on the local environment. The provided shadow diagrams indicate that the proposed development allows the neighbouring allotments sufficient solar access. The proposed scale and materials would not cause wind or reflectivity issues, beyond what would be expected by high density development, and the materials are low reflectivity.

- (vii) the achievement of the principles of ecologically sustainable development,

The proposed development has been designed with consideration to ecologically sustainable development particularly in the use of windows and balconies to take advantage of passive heating and cooling. Additionally the proposed development would need to comply with the Building Code of Australia and BASIX which further encourages ecologically sustainable development.

- (viii) pedestrian, cycle, vehicular and service access, circulation and requirements,

The proposed development would not adversely impact on the existing pedestrian networks surrounding the site. The proposed development provides car parking that is sufficient to the development requirements. The site is also well connected with existing pedestrian access to the Ingleburn Town Centre. It is however noted that a footpath is required to the Palmer Street frontage to connect the site to the wider pedestrian network and a recommended condition of consent has been included to address this in attachment 1.

- (ix) the impact on, and any proposed improvements to the public domain,

The proposed development and associated landscaping would assist to complete the streetscape setting and associated public domain of the land which is evolving as the existing low density area is redeveloped into a high density locale.

- (x) the interface with the public domain,

The proposed development addresses the public domain to create visual interest through architectural features, changes in building materials and landscaping.

- (xi) the quality and integration of landscape design,

The proposed landscaping enhances the streetscape and integrates well to compliment the built form.

2.2 Section 4.15(1)(a)(iii) The provisions of any development control plan

2.2.1 Campbelltown (Sustainable City) Development Control Plan 2015

Part 2 of the SCDCP aims to reduce the resultant environmental impacts of all development proposed within the Campbelltown Local Government Area. An assessment of the applicable controls are presented in attachment 2, the non-compliances are discussed in detail below.

Section 2.3 Rainwater Tank

The proposed development is required to provide a rainwater tank under the SCDCP. The proposed development includes an underground rainwater harvesting tank connected to a Water Sensitive Urban Design system to treat water collected from the site. The submitted BASIX certificate does not require a rainwater tank on the site and it is therefore acceptable that a rainwater tank is not provided on the site.

Section 2.10.2 Stormwater and 5.4.6 Stormwater

The proposed internal stormwater design was review by Council's Engineer and is supported by recommended conditions of consent included in attachment 1.

The external proposed stormwater configuration which seeks to construct a stormwater pipe across Palmer Street is not supported. A revised stormwater plan which complies with Council's requirements to construct a stormwater pipe along the northern side of Palmer Street to connect to the existing pit at the end of the street has been required as part of the recommended conditions of consent.

Section 2.13 Crime Report

The applicant has not submitted a Crime Prevention Report in support of the proposed development. It is considered that the proposed development is well designed to minimise crime risk at the site. The public and private areas are clearly delineated with fencing and landscaping, the letterboxes are well located within the front setback to mitigate members of the public tampering with mailboxes and the lobbies are setback from the street and clearly visible to either side of the courtyard to Palmer Street.

The proposed public private open space area to Palmer Street does provide for a concealment opportunity to people approaching the lobby and it is therefore considered appropriate to require access restrictions to the courtyard area such as a gate which is included as a recommended condition of consent in attachment 1.

Section 2.15.3 Ongoing Waste Management

The SCDCP requires a bin lift or bin tug to be provided where the bin carting route exceeds the maximum distance or gradient. As the bin route exceeds the maximum distance and gradient by utilising the driveway as part of the route, a bin tug device is required to relocate all bins to the street for collection. In addition the details of the use of the bin tug device and operator are required to be provided, a caretaker will be required for the site to present bins to the street for

collection for the residential development utilising a bin tug device. In addition storage of the bin tug device on basement level 1 will be required to be provided in the surplus childcare parking nominated on the site. This will reduce the overall available car parking for the childcare centre on the site but, as the number of children on the site have not been provided for assessment, the future application will have to be adjusted accordingly.

Recommended conditions of consent have been included in attachment 1 with regard to the provision and storage of a bin tug device and the engagement of a building caretaker to present the bins to the street for collection to address controls (f) and (g).

Part 5 – Residential Flat Buildings and Mixed-Use Development

The development application was assessed under the relevant controls outlined in Part 5 of the SCDCP with regard to requirements for residential flat buildings and mixed-use development the compliance table is contained within attachment 2. A discussion of the non-compliant controls is presented below.

Section 5.4.8.1 Number of Bins

The SCDCP requires a caretaker to present bins to the street as outlined above. A condition of consent has been recommended in attachment 1, to address the engagement of a caretaker for the site and presentation of bins to the street.

Section 5.4.8.3 Waste Service Rooms, Garbage Chutes and Provision for Recyclables Bins

The SCDCP prescribes bin rooms to be built in accordance with the controls, full details have not been provided with the application with regard to this, however a condition of consent has been recommended in attachment 1 to ensure bin rooms are constructed on accordance with the relevant controls outlined in the SCDCP.

The gradient of the bin path exceeds the maximum permitted, however this is considered to be acceptable as a bin tug device will assist in transporting bins to the street.

Section 5.4.12 Advertising Material

The SCDCP requires a manager/caretaker to empty the newspaper/advertisement containers associated with the letterboxes. A condition of consent has been recommended in attachment 1 that outlines the engagement of a caretaker and the responsibilities of the caretaker.

Section 5.5.3 General Requirements for Residential Flat Buildings

Control (f) requires each dwelling to be provided with a dedicated study/nook area to facilitate working and studying from home. The proposed development has made provision for 41 per cent of the apartments to have a dedicated study area. Twelve units have dedicated spaces that have a bi-fold door for privacy. The remainder of the units have a dedicated study space in addition to the dedicated storage area within each unit. The remainder of the units do not include a dedicated study space in addition to the storage areas within the unit, some of the spaces are wide enough that the spaces could be fit out as a dual desk and storage space if required, however this would still not achieve full compliance with the control. It is considered the provision of 41 per cent of the units having a dedicated study area is an acceptable outcome

for a development of this size, and the objectives of part 5 of the SCDCP are achieved in this instance.

Section 5.5.8 Communal Recreation Facilities

The SCDCP requires all communal open space to be located at the ground floor level and any open space located on the roof on the building not be included as required open space. The proposed upper level communal open space area is located on the fourth floor between units and not on the building rooftop. In addition, the ground floor communal open space is 23.2 per cent of the required 25 per cent required to be provided. The shortfall of the provision of 25 per cent of communal open space at the ground floor level is considered to be minor and in addition, the fourth level communal open space area would receive greater solar access than that of additional communal open space at the ground floor level. The upper level space is considered to provide greater amenity and a greater variety of options for communal open space and is therefore supported.

Part 8 – Centre-based Child Care Facilities

The development application was assessed under the relevant controls outlined in Part 8 of the SCDCP with regard to requirements for childcare centres the compliance table is contained within attachment 2. A discussion of the non-compliant controls is presented below.

Section 8.5 Landscaping

The SCDCP requires a 1.5 m landscape strip to be provided to the side and rear boundaries. The proposed landscaping to the childcare centre area has a 1.2 m wide landscape strip to Palmer Street and 1 m to the north-western side boundary. The proposed landscaping to Palmer Street and the side boundary are considered to achieve the objectives for landscaping for childcare centres and are therefore supported.

Part 11 – Vegetation and Wildlife Management

The proposal includes the removal of 25 trees from the site, including 2 street trees (2 and 3) and retention of 3 trees on the site (22, 25 and 30). Seventeen of the trees proposed for removal from within the site are exotic species and 5 are native. The tree proposed for retention within the site include one exotic species and 2 native species.

Tree number 3 within the road reserve is in poor health and a replacement street tree would be a more desirable outcome.

There are no significant trees of note on the adjoining properties that would require protection during construction. Notwithstanding, Council's standard tree conditions with regard to tree protection are recommended in attachment 1.

The submitted landscape plan provides for 26 trees, which does not include street trees. The trees are not predominantly native species however, a condition of consent is recommended to ensure the landscape plan is amended to provide 50 per cent native species for all proposed plant species and shall also include 50 per cent of species selected from Council's 'Native Gardening Guide'.

3. Planning Assessment

3.1 Section 4.15(1)(a)(iia) The provisions of any Planning Agreement

The proposed development is not subject to the provisions of a planning agreement pursuant to Section 7.4 of the EP&A Act.

3.2 Section 4.15(1)(a)(iv) The provisions of the Regulations

The proposal does not contravene the Environmental Planning and Assessment Regulation 2021.

3.3 Section 4.15(1)(b) The likely impacts of the Development

Section 4.15(1)(b) of the EP&A Act requires Council to assess the development's potential impacts on the natural and built environment, as well as potential social and economic impacts.

The key matters for consideration when considering the development's potential impact on the natural and built environment is as follows:

- Childcare centre development application
- Geotechnical
- Sunlight access
- Access and transport and traffic
- Public domain
- Utilities
- Waste
- Noise and vibration
- Safety security and crime prevention
- Privacy
- Construction
- Built Form

Childcare centre development application

The subject application includes floor space, outdoor space and parking for a future child care centre which will be subject to a future development application. The application does not include assessment against the majority of the provisions of the SEPP (Childcare) 2017, therefore the fit out and use of the space as a childcare centre will be subject to a separate development application including a revised acoustic report and additional acoustic measures where required.

Geotechnical

The applicant has submitted a geotechnical report prepared by Geotechnique Pty Ltd ref 14137/1-AA Amended dated 6 October 2021.

The report addresses the proposed excavation and that soil salinity and groundwater conditions do not impose any constraints on the proposed residential development at the site.

The report acknowledges that retaining walls may require anchorage or tie back, but does not state rock anchors are required for the proposed basement. Notwithstanding, a condition of consent is recommended to ensure rock anchors and not placed in adjoining properties without adjoining owners consent and a separate DA consent.

Sunlight access

The proposed development achieves compliance with the ADG with regards to solar access to the proposed development. Due to the orientation of the site the majority of the overshadowing from the proposed development is located over Suffolk Street and Palmer Street and the front setbacks of the properties at 7-11 Palmer Street and 1-22 Palmer Street. The properties located at 75-81 Carlisle Street would not be overshadowed by the proposed development. The private open space areas of the adjoining properties will maintain the existing levels of solar access currently provided to each site.

Access, transport and traffic

The site has basement access via Palmer Street, the driveway access is well setback from the street corner. The applicant has submitted a traffic report in support of the proposed development which takes into consideration the potential future childcare centre with an estimate of 100 children (this has not been confirmed by the applicant). The report states 'that projected traffic activity as a consequence of the development proposal is minimal, consistent with the land zoning objectives of the site, and will clearly not have any unacceptable traffic implications in terms of road network capacity'. Overall, it is considered the proposal is acceptable with regard to traffic and car parking and relevant conditions of consent have been recommended in attachment 1.

Public domain

The subject site is required to dedicate a splay corner at 20 Palmer Street, the corner splay has been detailed on the plans and a condition of consent has been recommended in attachment 1. The proposed development is considered to complement the public domain with regard to landscaping and built form at the ground floor level. The proposal seeks to ensure the frontages to Suffolk and Palmer Streets are open and provide for interaction at the ground floor level and casual surveillance.

It is noted that the site does not have a footpath to Palmer Street, as discussed elsewhere in this report, a footpath is required to connect the site to the wider pedestrian network and a condition of consent has been recommended in attachment 1.

The Arborist report states one of the existing street trees (tree 3) is in poor health and a replacement tree would result in a better outcome for the street tree planting on the site, upon site inspection it is noted a replacement advanced stock tree would be a more desirable outcome. It was also noted that there is an absence of street trees between the corner of Palmer Street and the location of the existing tree 3 street tree and as such an additional street tree should also be provided in a suitable location. Relevant conditions of consent have been recommended in attachment 1 with regard to the provision of street trees to Palmer Street.

Utilities

The proposed development includes an electrical substation to the east of the site. The application was referred to Endeavor Energy for comment and relevant conditions of consent have been recommended in attachment 1.

The proposal requires the construction of a stormwater pipe in the road reserve to connect to the pit at the end of Palmer Street. The applicant has proposed pipes traversing Palmer Street to prevent damage to Council street trees, however this will require extensive works in the road which will significantly affect resident's access in the street and is not supported.

Council's engineer has recommended the pipe be located within the road reserve along the northern side of Palmer Street and connect to the existing pit. A condition of consent has been included to ensure the proposal complies with Council's requirements prior to the issue of a construction certificate.

Waste

The proposed development will have kerb side collection for residential waste for general waste and recyclables. Green waste for the site is required to be managed under a private contract as specified by Council's waste officer, a condition of consent has been recommended in attachment 1.

The applicant has stated a small rigid vehicle will collect waste from the basement for the childcare centre, however sufficient details have not been provided for assessment. This will be assessed as part of any future development application for a child care centre on the site. It should also be noted the site has sufficient frontage for kerbside collection of the childcare centre waste bins if basement collection cannot be achieved.

Noise and vibration

The applicant has submitted an acoustic report prepared by Acoustic Works dated 14 September 2021. Ref. 1021003. The report addresses the proposed residential development and makes recommendations for acoustic barriers to be provided on the northern and eastern boundary at heights of 2.1 m and 1.8 m respectively. The acoustic requirements have not been sufficiently detailed on the architectural plans and as such a condition of consent has been recommended in attachment 1 to ensure all acoustic measures are detailed on the plans.

It is noted the acoustic report does not address the potential future childcare centre at ground floor level. The proposed development only provides for a ground floor space which may be used as a childcare centre, subject to development consent.

Safety security and crime prevention

The proposed development is considered to provide for safety and casual surveillance. It is noted that the proposed front communal open space area presents as an entrapment area and as such a condition has been recommended in attachment 1 to ensure a gate is provided to this area.

Privacy

The proposed development does not provide for privacy screens to the development, particularly where the development is adjacent to adjoining residential development. Whilst the proposal complies with the setback requirements and privacy requirements within the ADG and the SCDCP it is considered that privacy measures should be implemented to the north-west elevation to 12 Palmer Street. In this regard stackable privacy screens would be appropriate to provide privacy for the unit occupants and the adjoining properties. Therefore a condition of consent has been recommended in attachment 1 for sliding privacy screens to the north-west elevation.

Privacy screens have been recommended to the first floor units above the childcare outdoor play areas to mitigate overlooking from the level above. The higher levels are not considered to have direct viewing to the outdoor play areas.

Construction

The construction phase of the development has the potential to generate short term environmental impacts through the generation of dust, noise and vibration.

Conditions of consent have been recommended to manage the proposed works, including the installation of erosion and sediment control measures prior to works commencing on site.

Built Form

The proposed development provides an appropriate design with a range of building materials which reflects the predominant building materials in the local area. The use of face brick and render finish on the building façade provides for a low maintenance durable façade which reflects the desired future character of the local area.

The proposed setbacks and massing to the fourth level are also considered to provide two distinct built forms and reduce the overall appearance of visual bulk of the building within the streetscape.

Overall, it is considered the proposed development is consistent with the desired future character for development in the locality.

Social, economic and environmental impacts

Having regard to social and economic impacts generated by the development, the principal dwelling will contribute to the provision of housing choice within the Campbelltown locality, to meet the housing needs of the local community.

The demolition and construction phases of the development will have minor flow on economic benefits for the locality, through the generation of employment.

3.4 Section 4.15(1)(c) The suitability of the development

Section 4.15(1)(c) of the EP&A Act requires Council to assess the suitability of the site for the proposed development.

It is considered the proposed development is of a scale and design that it is suitable for the site. The proposal responds well to site conditions in terms of its size, shape, topography and relationship to adjoining dwellings.

No constraints or hazards have been identified which would deem the site unsuitable for the proposed development.

4. Public Participation

Section 4.15(1)(d) of the EP&A Act requires Council to consider submissions.

The application was notified and publicly exhibited in accordance with the Campbelltown Community Participation Plan from 4 May 2021 to 32 June 2021 and 4 submissions were received including one from a State MP.

The issues outlined in the submissions are addressed below:

Issue: Development application is inconsistent with community expectations and wishes

Response: The proposal is permissible within the zone and consistent with the zone objectives and the majority of the controls relevant to the proposed development.

Issue: Increased traffic and parking demand

Response: The proposed development provides for parking in accordance with the ADG and surplus parking for a potential future childcare centre. The application is accompanied by a traffic report that states overall the development would not significantly affect local traffic.

Issue: Location of the site on a cul-de-sac.

Response: The site has a dual street frontage to Suffolk Street and Palmer Street, whilst Palmer Street is a no through road, the street actually connects through to Norfolk Street, albeit via a pedestrian walkway between Palmer Street and Norfolk Street. The proposed development on the subject site is considered to be acceptable with regard to the proposed location.

Issue: View rights from property

Response: There are no view rights from properties and views from the site to/from neighbouring yards and distant trees are not considered views, but are more akin to an outlook.

Issue: Obstruction of light

Response: The submitted shadow diagrams demonstrate that the proposal would affect the front setback of the Palmer Street properties between 2:00 pm and 3:00 pm on the winter solstice, the front setbacks and front windows of the dwellings would retain solar access between 9:00 am and 2:00 pm, well beyond 3 hours as required by the SCDCP.

Issue: Dust

Response: The objector has stated they are allergic to dust and hold Council responsible for their ill health. The proposed development would generate dust associated with construction with regard to the demolition and excavation of the site. Conditions of consent have been recommended in attachment 1 with regard to construction management.

Issue: Council responsible for neighbours health issues if approved

Response: The objector has stated that Council is responsible if the objector falls ill, Council has assessed a development application that is permissible within the zone and the recommendation contains conditions of consent to mitigate impacts to adjoining properties.

Issue: Noise Pollution

Response: The proposed development will result in some increase in noise within the locality, however, an acoustic report has been provided and includes measures to mitigate acoustic impacts on the surrounding properties in line with Council's controls regarding to ensure the development does not exceed the relevant noise criteria.

Issue: Air Pollution

Response: The proposed development will result in a net increase in traffic in the area which will result in a subsequent increase in car emissions, however, the increase is considered to be minor and would not generate a significant level of emissions that would be cause for concern.

Issue: Traffic congestion

Response: The proposed development will result in a net increase in cars within the locality, the applicant has submitted a traffic report in support of the proposed development. Overall the proposed development is not considered to result in a significant increase in traffic on local roads and is therefore considered to be acceptable.

Issue: Redevelopment in the locality

Response: The objector has raised that they intended to live at the property for a number of years and object to developers purchasing properties for redevelopment.

The locality has been rezoned since the purchase of the property and as such redevelopment of surrounding sites with development that is permissible within the zone is an acceptable outcome.

Issue: Resubmission of submission provided for previous application 1985/2017/DA-RA

Response: As the resubmission of a submission to Council regarding a separate development application on the site, the issues raised in this letter are not considered to be relevant to the proposal at hand and the submission was addressed in the previous determination for that application.

Issue: Overdevelopment and overpopulation

Response: The proposed development is permissible in the zone and consistent with the majority of controls in relation to the proposed development. The proposal is not considered to be an overdevelopment of the site and is consistent with the strategic directions for the locality.

5. Section 4.15(1)(e) Public Interest

The proposed development has addressed the requirements of the relevant planning instruments and development controls including the objectives of the R4 High Density Residential zone.

The proposed development has demonstrated that the site is suitable for the proposed development. The proposal is considered to be in the interest of the public.

6. Local Developer Contributions

The proposed development is subject to development contributions, the application was referred to Council's Contribution Officer and a relevant condition of consent is recommended in attachment 1.

Conclusion

The subject development application (1091/2021/DA-RH) proposing the demolition of existing structures and construction of a 5 storey residential apartment building containing 53 apartments and two levels of basement car parking, and provision of space for a childcare centre on the ground floor at 14-20 Palmer Street, Ingelburn (Lot B DP385792, Lot B DP364581, Lots B & C DP 363519) has been assessed under the matters for consideration of section 4.15 of the *Environmental Planning and Assessment Act, 1979*.

The proposed development is consistent with the general intent of Campbelltown 2027 which outlines the long term vision for the Campbelltown and Macarthur Region. The proposed use is permissible within the R4 High Density Residential zone and is generally in support of the zone objectives.

The proposed development is consistent with the relevant controls within SEPP 65, SEPP (Educational Establishments and Childcare Facilities) and the Campbelltown (Sustainable City) Development Control Plan 2015.

The proposed development exceeds the maximum permissible height of building control in Clause 4.3 of the CLEP 2015. The development application includes a request under Clause 4.6 of the CLEP 2015 that the application be approved despite the non-compliance with this control. The clause 4.6 request satisfies the requirements of Clause 4.6 and demonstrates that compliance with the control is unreasonable and unnecessary in the circumstances of the case and that there are sufficient environmental planning grounds to support the variation.

In assessing the Development Application against the development standards and objectives outlined in the CLEP 2015 and SCDCP, the proposal is supported for approval subject to the recommended conditions of consent in attachment 1.

Attachments

1. Recommended Conditions of Consent (contained within this report)
2. Compliance Tables (contained within this report)
3. Design Excellence Panel Minutes (contained within this report)
4. Clause 4.6 Variation (contained within this report)
5. Architectural Plans (contained within this report)
6. Landscape plans (contained within this report)
7. Stormwater Plans (contained within this report)
8. Traffic Report (contained within this report)
9. Arborist Report (contained within this report)
10. Waste Management Plan (contained within this report)
11. Preliminary Site Investigation (contained within this report)
12. Acoustic Report (due to confidentiality) (distributed under separate cover)
13. Floor Plans (due to confidentiality) (distributed under separate cover)

Reporting Officer

Executive Manager Urban Centres

ATTACHMENT 1
1091/2021/DA-RA
Recommended Conditions of Consent

GENERAL CONDITIONS

The following conditions have been applied to ensure that the use of the land and/or building is carried out in such a manner that is consistent with the aims and objectives of the planning instrument affecting the land.

For the purpose of these conditions, the term 'applicant' means any person who has the authority to act on or benefit of the development consent.

1. Approved Development

The development shall be carried out in accordance with the approved plans and documents listed in the table below, and all associated documentation supporting this consent, except as modified in red by Council and/or any conditions within.

Plan Detail	Job Number	Revision	Prepared by	Date
DA-000 Project Information	2020-036	B	UrbanLink	14.09.2021
DA-001 Cover	2020-036	B	UrbanLink	14.09.2021
DA-002 Site Location	2020-036	B	UrbanLink	14.09.2021
DA-003 Site Plan & Analysis	2020-036	B	UrbanLink	14.09.2021
DA-004 Demolition Plan	2020-036	B	UrbanLink	14.09.2021
DA-101 Basement 02	2020-036	B	UrbanLink	14.09.2021
DA-102 Basement 01	2020-036	B	UrbanLink	14.09.2021
DA-103 Ground Level	2020-036	B	UrbanLink	14.09.2021
DA-104 Level 01-03	2020-036	B	UrbanLink	14.09.2021
DA-105 Level 04	2020-036	B	UrbanLink	14.09.2021
DA-106 Roof	2020-036	B	UrbanLink	14.09.2021
DA-201 North and South Elevation	2020-036	B	UrbanLink	14.09.2021
DA-202 East Elevation	2020-036	B	UrbanLink	14.09.2021
DA-203 West Elevation	2020-036	B	UrbanLink	14.09.2021
DA-204 Streetscapes	2020-036	B	UrbanLink	14.09.2021
DA-301 Sections	2020-036	B	UrbanLink	14.09.2021
DA-901 Material Studies	2020-036	B	UrbanLink	14.09.2021
DA-902 Finishes Schedule	2020-036	B	UrbanLink	14.09.2021
DA-1401 GFA Diagramsn	2020-036	B	UrbanLink	14.09.2021
DA-1402 Adaptable Units	2020-036	B	UrbanLink	14.09.2021
DA-1403 COS & Seep Soil	2020-036	B	UrbanLink	14.09.2021
DA-1404 Cross Flow & Solar Diagrams	2020-036	B	UrbanLink	14.09.2021
DA-1405 Solar Access Diagrams	2020-036	B	UrbanLink	14.09.2021
DA-1406 Shadow Studies	2020-036	B	UrbanLink	14.09.2021
DA-1407 Shadow Studies	2020-036	B	UrbanLink	14.09.2021
DA-1408 Height Plan	2020-036	B	UrbanLink	14.09.2021
DA-1409 BASIX	2020-036	B	UrbanLink	14.09.2021
000 Landscape Coversheet	SS21-4596	D	Site Image Landscape Architects	23.09.2021
101 Landscape Plan – Ground Floor	SS21-4596	E	Site Image Landscape Architects	23.09.2021

102 Landscape Plan - Level 4	SS21-4596	B	Site Image Landscape Architects	23.09.2021
501 Landscape Details	SS21-4596	A	Site Image Landscape Architects	22.01.2021
20029-S001 Cover Sheet	20029	P1	TDL Engineering Consulting Pty Ltd	19.03.2021
20029-S002 Catchment Plan	20029	P3	TDL Engineering Consulting Pty Ltd	19.03.2021
20029-S003 Erosion and Sediment Control Plan	20029	P2	TDL Engineering Consulting Pty Ltd	19.03.2021
20029-S101 Basement 2 Stormwater Management Plan	20029	P3	TDL Engineering Consulting Pty Ltd	19.03.2021
20029-S102 Basement 1 Stormwater Management Plan	20029	P3	TDL Engineering Consulting Pty Ltd	19.03.2021
20029-S103 Ground Floor Stormwater Management Plan	20029	P4	TDL Engineering Consulting Pty Ltd	19.03.2021
20029-S201 OSD Details and Sections	20029	P4	TDL Engineering Consulting Pty Ltd	19.03.2021

- a. Acoustic Report prepared by Acousticworks ref 1021003 R01G dated 14 September 2021.
- b. BASIX Certificate 1173124M_02
- c. Geotechnical Report prepared by Geotechnique Pty Ltd ref. 14137/1-AA dated 6 October 2021.
- d. Preliminary Site investigation prepared by Geosyntec ref. 21233PSI dated 6 October 2021.
- e. Waste Management Plan prepared by Dickens Solutions dated September 2021.
- f. Traffic and Parking Assessment Report ref. 20636 prepared by Varga Traffic Planning dated 6 April 2021.
- g. Access Compliance Report prepared by Access Link Consulting ref, 20-125 dated 31 March 2021.
- h. Arboricultural Impact Assessment prepared by TALC, dated 5 March 2021.
- i. Traffic Report prepared by Varga Traffic Planning dated 6 April 2021.

2. Amended Plans

The development is to incorporate the following amendments and the amended plans are to be submitted to the Principal Certifier, for approval, prior to the issuing of a Construction Certificate:

- a. A bin tug storage space shall be provided on Basement level 01 in one of the car parking spaces allocated to the child care centre.
- b. The erosion sediment control plan is to be amended to show tree protection measures in accordance with the Arborist report.
- c. A gate shall be provided to restrict access after daylight hours to the seating area on Palmer Street.

- d. Units that are universally design to comply with Part 40 of the Apartment Design Guide shall be notated on the approved plans.
- e. All acoustic measures outlined within the approved acoustic report in condition 1 are required to be notated on the architectural plans.

3. Childcare Centre

No consent is granted or implied for use of any part of the site for the purpose of a childcare centre. Separate development consent is required to be obtained for any use of the site as a childcare centre.

4. Building Code of Australia

All building work must be carried out in accordance with the provisions of the *Building Code of Australia*. In this clause, a reference to the *Building Code of Australia* is a reference to that Code as in force on the date the application for the relevant construction certificate is made.

5. Contract of Insurance (residential building work)

In the case of residential building work for which the *Home Building Act 1989* requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance is in force before any building work authorised to be carried out by the consent commences.

This clause does not apply:

- a. To the extent to which an exemption is in force under Clause 187 or 188 of the Environmental Planning and Assessment Regulation 2000, subject to the terms of any condition or requirement referred to in Clause 187(6) or 188(4) of that regulation, or
- b. To the erection of a temporary building.

6. Notification of Home Building Act 1989 Requirements

Residential building work within the meaning of the *Home Building Act 1989* must not be carried out unless the appointed Principal Certifier for the development to which the work relates (not being Council) has given Council written notice of the following information:

- a. In the case of work for which a principal certifier is required to be appointed:
 - i. The name and licence number of the principal certifier, and
 - ii. The name of the insurer by which the work is insured under Part 6 of that Act.
- b. In the case of work to be done by an owner-builder:
 - i. The name of the owner-builder, and
 - ii. If the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

If arrangements for doing the residential building work are changed while the work is in progress so that the information notified becomes out of date, further work must not be carried out unless the appointed Principal Certifier for the development to which the work relates (not being Council) has given Council written notification of the updated information.

7. Landscaping

The provision and maintenance of landscaping shall be in accordance with the approved landscape plan containing Council's approved development stamp including the engagement of a suitably qualified landscape consultant/ contractor for landscaping works.

8. External Finishes

The external finishes shall be in accordance with the approved plans and the schedule of finishes submitted with this application. Any proposed alterations to these finishes are considered to be a modification to the development consent and require separate approval by Council.

9. Fencing

Fencing shall be erected on the site's side and rear boundaries behind the front building alignment and between each required courtyard at the sole cost of the developer. The fencing materials and height shall be consistent with the requirements in the approved acoustic report in condition 1.

10. Waste Management

The garbage storage room identified on the approved plans shall:

- a. Be fully enclosed and shall be provided with a concrete floor, with concrete or cement rendered walls coved to the floor, and be finished with a smooth faced, non-absorbent material(s) in a light colour and capable of being easily cleaned.
- b. Have a self-closing door openable from within the room.
- c. Be constructed in such a manner to prevent the entry of vermin.
- d. Have the floor graded to an approved sewer connection incorporating a sump and galvanised grate cover or basket.
- e. Be provided with an adequate supply of hot and cold water mixed through a centralised mixing valve with a hose cock.
- f. Be vented to the external air by natural or artificial means.

The outlet area in which the garbage chute outlets and mechanical collection devices are located shall be secured to prevent access by occupants.

The rubbish and recycling bins shall not be stored within vehicle parking, vehicle manoeuvring areas or landscaped areas. The bin(s) shall only be stored in accordance with the approved plans.

All bins shall be presented to the street and returned to the waste storage room by a building manager. Residents shall not be responsible for presentation and return of bins.

11. Building Caretaker/ Manager

A building caretaker or manager shall be appointed for the building, the roles and responsibilities shall include the presentation of bins to the street and relocation to the basement after collection

12. Switchboards/Utilities/Air Conditioning Units

Switchboards, air conditioning units, garbage storage areas and storage for other utilities shall not be attached to the front elevations of the building or side elevations that can be seen from a public place.

13. Driveway

The gradients of driveways and manoeuvring areas shall be designed in accordance with *Australian Standard AS 2890.1 and AS 2890.2 (as amended)*.

14. Advertising Signs – Separate DA Required

This consent does not permit the erection or display of any advertising signs.

Most advertising signs or structures require development consent. You should make separate enquiries with Council prior to erecting or displaying any advertising or signage.

13. Lighting

Illumination of the site is to be arranged to provide an appropriate level of lighting and in accordance with the requirements of *Australian Standard 4282 (as amended)* so as not to impact upon the amenity of the occupants of adjoining and nearby residential premises or traffic.

14. Graffiti Removal

In accordance with the environmental maintenance objectives of 'Crime Prevention Through Environmental Design', the owner/lessee of the building shall be responsible for the removal of any graffiti which appears on the buildings, fences, signs and other surfaces of the property within 48 hours of its application.

15. Unreasonable Noise, Dust and Vibration

The development, including operation of vehicles, shall be conducted so as to avoid the generation of unreasonable noise, dust or vibration and cause no interference to adjoining or nearby occupants. Special precautions must be taken to avoid nuisance in neighbouring residential areas, particularly from machinery, vehicles, warning sirens, public address systems and the like.

In the event of a noise related issue arising during construction, the person in charge of the premises shall when instructed by Council, cause to be carried out an acoustic investigation by an appropriate acoustical consultant and submit the results to Council. If required by Council, the person in charge of the premises shall implement any or all of the recommendations of the consultant and any additional requirements of Council to its satisfaction.

16. Engineering Design Works

The design of all engineering works shall be carried out in accordance with the requirements set out in *Council's 'Engineering Design for Developments Guide'* (as amended) and the applicable development control plan.

17. Car Parking Spaces

82 car parking spaces shall be designed, sealed, line marked and made available to all users of the site in accordance with Australian Standards 2890.1 and 2 (as amended).

- 32 parking spaces to be provided on basement level 2 with 6 accessible parking spaces and
- 50 parking spaces to be provided on basement level 1 with one accessible space, 22 childcare spaces, 1 service bay, 1 bin tug storage bay, 11 visitor spaces for the residential development and 14 residential spaces.

18. Rubbish/Recycling Bin Storage

The rubbish and recycling bins shall not be stored within vehicle parking, vehicle manoeuvring areas or landscaped areas.

The bin(s) shall only be stored in accordance with the approved plans.

19. Shoring and Adequacy of Adjoining Property

If the development referred to in this development consent involves an 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 person's own expense:

- Protect and support the adjoining premises from possible damage from the excavation, and
- Where necessary, underpin the adjoining premises to prevent any such damage.

This condition does not apply if the person having the benefit of the development consent owns the adjoining land or the owner of the adjoining land has given consent in writing to that condition not applying.

20. Construction Certificate

Prior to the commencement of any works that require a construction certificate:

- the applicant shall appoint a Principal Certifier;
- the applicant shall obtain a construction certificate for the particular works; and
- when Council is not the Principal Certifier, the appointed Principal Certifier shall notify Council of their appointment no less than two days prior to the commencement of any works.

PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE

The following conditions of consent must be complied with prior to the issue of a construction certificate by either Campbelltown City Council or the appointed Principal Certifier. All necessary information to comply with the following conditions of consent must be submitted with the application for a construction certificate.

23. Waste management Plan

The waste management plan shall be amended to ensure a bin tug device is used to transport bins from the basement to the kerb for collection by the appointed building manager/ caretaker.

24. Lighting Plan

Prior to the issue of a Construction Certificate by the Principal Certifying Authority an external lighting shall be designed to comply with Section 2.13 Volume 1 of the SCDCP 2015 and an external lighting plan shall be prepared and all details noted on the plans.

Prior to the issue of a Construction Certificate the landscape plans and all relevant documents shall be amended and submitted for approval to the Principal Certifying Authority incorporating the following amendments:

- a. The landscape plan shall be amended to ensure 50% of all species are selected from the 'Native Gardening Guide for the Campbelltown Local Government Area', in this regard 50% of all tree species shall be native species selected from the 'Native Gardening Guide for the Campbelltown Local Government Area'.
- b. All landscaping provided over basements and slabs shall comply with the requirements in Part 4P of the Apartment Design Guide.
- c. Landscaping species selection shall not include toxic species and shall comply with Part 4.10 of the Childcare Planning Guideline.

27. Detailed Drainage Design

A detailed drainage design of the site must be submitted and approved by the Principal Certifying Authority prior to the release of the Construction Certificate. The detailed plan must:

- a. drain to the council pit,
- b. indicate the method of disposal of all stormwater and must include rainwater tanks, existing ground levels, finished surface levels on all paved areas, estimated flow rates, invert levels and sizes of all pipelines,
- c. be to the satisfaction of the Certifying Authority,
- d. be designed to cater for a 1 in 20 year Average Recurrence Interval storm event,
- e. overflow drainage paths are to be provided and be designed to cater for 1 in 100 year Average Recurrence Interval storm event,
- f. The proposed stormwater drainage system shall comply with Campbelltown (Sustainable City) Development Control Plan, and Engineering Design for Development guides (as amended), Australian Standard 3500, Australian Rainfall and Runoff and the NSW Floodplain Development Manual (current versions).
- g. RCP pipes must run alongside the northern side Palmer Street to the existing council pit and is not permitted to cross the Palmer Street.

28. Pit Grates

All pits must have flush fitting grates. All pits larger than 600mm x 600mm are to be grated galvanised steel grid hinged and be heavy duty type where traffic loading is expected. All relevant plans are required to be updated prior to the Principal Certifying Authority prior to the issue of a Construction Certificate.

29. Structural Design of Deep Pits

All pits deeper than 0.9 metres must be designed by a certified structural engineer and be in accordance with AS3600-2009. Pits deeper than 1.2 metres must have **galvanised steel step irons (plastic coated black steel step irons will not be accepted)** and pits deeper than 1.8 metres are to be reinforced concrete. Step irons at 300mm interval spacing from bottom of pit. Top step minimum 500mm below top surface level. Details to this effect shall be incorporated

on the detailed drainage design that is submitted to the certifying authority for the Construction Certificate.

30. Engineer Designed Pavement

All car parking areas, manoeuvring areas and the access aisle must be paved, drained and marked. The pavement must be designed by a qualified civil engineer and certified to be satisfactory for the expected traffic loadings from a development of this size and type. *AUSTROADS Guide to Pavement Technology* can be used as the design guideline for the pavement design.

The laybacks and crossings must be designed to accommodate expected traffic loadings. In this regard they must be constructed to a commercial/industrial standard with the work carried out at the Developer's expense, including all alteration to public infrastructure where necessary.

31. Civil Works under S138 Roads Act

Prior to Council or appointed Principal certifier issuing any Construction Certificate, a S138 Roads Act application, including payment of plan assessment and inspection fees shall be lodged with Campbelltown City Council for construction of stormwater drainage system, vehicle crossings in Palmer Street & Suffolk Street road reserve and any associated civil works.

Detailed engineering plans for the proposed works in Palmer Street & Suffolk Street road reserve shall be submitted to Council for approval. All works shall be carried out in accordance with Roads

To lodge your application you will need to submit the following information:

- a. detailed engineering drawings of the proposed works in the road and footpath area,
- b. traffic management plan,
- c. provision of public liability insurance,
- d. details of timing and length of works and,

32. Substation Details

Prior to the issue of a Construction Certificate, the applicant will provide details to Council or the appointed principal certifier for the construction and installation for 3 pad mount style substation, external to the buildings. The substations shall be designed in accordance with Endeavour Energy's standards and requirements for access, noise influence and fire rating.

33. Utility Servicing Provisions

Prior to Council or the appointed Principal Certifier issuing a construction certificate, the applicant shall obtain a letter from both the relevant electricity authority and the relevant telecommunications authority stating that satisfactory arrangements have been made to service the proposed development.

Note: The applicant should also contact the relevant water servicing authority to determine whether the development will affect the authorities water or sewer infrastructure.

34. Soil and Water Management Plan

Prior to the issue of the Construction Certificate, the applicant must submit to and obtain the Certifying Authority approval of a Soil and Water Management Plan. The SWMP must clearly identify site features, constraints and soil types together with the nature of the proposed land disturbing activities and also specifies the type and location of erosion and sediment control measures. In addition rehabilitation techniques that are necessary to deal with such activities should be referred to.

The SWMP must take into account the requirements of Landcom's publication *Managing Urban Stormwater - Soils and Construction (2004)* thus ensuring the following objectives are achieved, namely:

- a. minimise the area of soils exposed at any one time,
- b. conserve topsoil for reuse on site,
- c. identify and protect proposed stockpile locations,
- d. preserve existing vegetation and identify revegetation techniques and materials.
- e. control surface water flows through the development construction site on a manner that:
 - i. diverts clean run-off around disturbed areas.
 - ii. minimises slope gradient and flow distance within disturbed areas.
 - iii. ensures surface run-off occurs at non-erodible velocities.
 - iv. ensures disturbed areas are promptly rehabilitated.
- f. trap sediment on site to prevent off site damage. Hay bales are not to be used as sediment control devices. To ensure regular monitoring and maintenance of erosion and sediment control measures and rehabilitation works until the site is stabilized (includes landscaping).
- g. specifies measures to control dust generated as a result of construction activities on site.
- h. temporary sediment ponds must be fenced where the batter slope exceeds 1 vertical to 5 horizontal,
- i. design scour protection for the 10 year ARI event at all inlet and outlet structures.
- j. including measures to prevent the tracking of sediment off the site.

35. Waste Management – Private Collection

Prior to Council or the appointed Principal Certifier issuing a construction certificate, the applicant shall submit to Council details of the collection and disposal of green waste generated by the occupants to be arranged through a licensed authorised contractor.

36. Traffic Control Plans

Prior to Council or the appointed Principal Certifier issuing a construction certificate, the applicant shall prepare and obtain approval from an accredited person, a Traffic Control Plan (TCP) in accordance with the State Roads Authority manual "Traffic Control at Work Sites" and Australian Standard AS 1742.3 (as amended). A copy of the approved TCP shall be kept on site for the duration of the works in accordance with Work Cover Authority requirements. A copy shall be submitted to Council for its records.

37. Traffic Committee

Prior to Council or an accredited certifier issuing a construction certificate, the applicant shall submit plans and obtain approval from Council's Local Traffic Committee for any proposals for the construction of prescribed traffic control devices and traffic control facilities and all associated line marking and/or sign posting.

In this regard, approval is required for the establishment of a 'No Stopping' zone in Palmer Street on the day of waste collection.

38. Stormwater Management Plan

Prior to Council or the appointed Principal Certifier issuing a construction certificate, a plan indicating all engineering details and calculations relevant to site regrading and the collection and disposal of stormwater from the site, building/s and adjacent catchment, shall be submitted for approval.

39. Dilapidation Report

Dilapidation surveys must be conducted and dilapidation reports prepared by a practising professional engineer (structural) of all buildings, (both internal and external), including ancillary structures located on land adjoining the site and of such further buildings located within the likely "zone of influence" of any excavation, dewatering and/or construction induced vibration. The survey must identify which properties are within the likely 'zone of influence'.

These properties must include (but are not limited to) **73-81 Carlisle Street and 12 Palmer Street Ingleburn**, and any others identified to be in the zone of influence in the Dilapidation Survey.

The dilapidation reports must be completed and submitted to Council and the Principal Certifying Authority with or prior to the Notice of Commencement and prior to the commencement of any development work. The adjoining building owner(s) must be given a copy of the dilapidation report for their building(s) prior to the commencement of any work.

Please note the following:

- (a) The dilapidation report will be made available to affected property owners on request and may be used by them in the event of a dispute relating to damage allegedly due to the carrying out of the development.
- (b) This condition cannot prevent neighbouring buildings being damaged by the carrying out of the development.
- (c) Council will not be held responsible for any damage which may be caused to adjoining buildings as a consequence of the development being carried out.
- (d) Council will not become directly involved in disputes between the Developer, its contractors and the owners of neighbouring buildings.
- (e) In the event that access for undertaking the dilapidation survey is denied the applicant is to demonstrate in writing to the satisfaction of the Council that all reasonable steps were taken to obtain access to the adjoining property. The dilapidation report will need to be based on a survey of what can be observed externally.

40. Work on Public Land

Prior to Council or the appointed Principal Certifier issuing a construction certificate, the applicant shall obtain written approval from Council for any proposed work on public land. Inspection of this work shall be undertaken by Council at the applicants expense and a

compliance certificate, approving the works, shall be obtained from Council prior to the Principal Certifier issuing an occupation certificate.

41. Design for Access and Mobility

Prior to Council or the appointed Principal Certifier issuing a Construction Certificate, the applicant shall demonstrate by way of detailed design, compliance with the relevant access requirements of the BCA and AS 1428 – Design for Access and Mobility.

42. Telecommunications Infrastructure

- a. If the development is likely to disturb or impact upon telecommunications infrastructure, written confirmation from the service provider that they have agreed to proposed works must be submitted to the appointed Principal Certifier prior to the issue of a Construction Certificate or any works commencing, whichever occurs first; and
- b. The arrangements and costs associated with any adjustment to telecommunications infrastructure shall be borne in full by the applicant/developer.

43. Sydney Water

Prior to Council or the appointed Principal Certifier issuing a construction certificate, the approved plans must be submitted to Sydney Water via the Sydney Water Tap In service, to determine whether the development will affect any Sydney Water wastewater and water mains, stormwater drains and/or easements, and if any requirements need to be met.

An approval receipt will be issued if the building plans have been approved. The approval receipt shall be submitted to the appointed Principal Certifier prior to issue of a construction certificate.

The Sydney Water Tap In service can be accessed at www.sydneywater.com.au.

44. Section 7.11 Contribution

Contribution

The developer must make a monetary contribution to Campbelltown City Council in the amount of **\$621,442.00** for the purposes of the Local Infrastructure identified in the Campbelltown Local Infrastructure Contributions Plan 2018 (the Plan).

Open space and recreation facilities	57% of total
Community facilities	16.4% of total
Traffic, transport and access facilities	16.1% of total
Cycleways	5.6% of total
Town centre public domain facilities	3.5% of total
Plan management and administration	1.4% of total
Total	\$621,442.00

The contribution rate will be adjusted on a quarterly basis with CPI indexation as detailed in Section 6.3.2 of the Plan. The exact amount of the contribution will be calculated at the rate applicable at the time of payment.

Indexation

The monetary contribution must be indexed between the date of this certificate and the date of payment in accordance with the following formula:

$$\frac{\$CC \times CPI_P}{CPI_C}$$

Where:

- \$CC is the contribution amount shown in this certificate expressed in dollars.
- CPI_P is the Consumer Price Index (All Groups Index) for Sydney as published by the Australian Statistician at the time of the payment of the contribution.
- CPI_C is the Consumer Price Index (All Groups Index) for Sydney as published by the Australian Statistician which applied at the time of the issue of this certificate.

Time for payment

The contribution must be paid prior to the release of a construction certificate for any works authorising construction above the floor level of the ground floor.

Works in kind agreement

This condition does not need to be complied with to the extent specified, if a works in kind agreement is entered into between the developer and the Council.

How to make the contribution payment

Contact Council's Development Contributions Officer on 4645 4000 or email, council@campbelltown.nsw.gov.au for an invoice which will also provide details of the various methods of payment available, prior to payment.

45. Unexpected finds protocol

Prior to the issue of any construction certificate, an unexpected finds protocol, endorsed by a suitably qualified contaminated land consultant, is to be provided to the appointed principal certifier the following shall be provided to the certifier for approval.

46. Basement Operation and Car Parking Spaces

Prior to Council or an accredited certifier issuing a Construction Certificate the applicant shall submit to Council for approval engineering design plans and design report for the basement car parking space. The basement car parking space must be designed in accordance with the approved plans, Australian Standard 2890, Council's Engineering Design for Development, and must also:

- a) have a minimum of one car parking space allocated to each dwelling as part of any future strata subdivision of the development. Visitor car parking spaces shall not be allocated to a dwelling.
- b) be provided with electronic access controls to ensure the safety of residents and to also ensure the availability of off-street parking in accordance with Council's controls.
- c) have convex mirrors installed at the entry and exit points of all basement ramps and circulation areas between parking aisles to assist vision around corners,
- d) have suitable signage installed in locations that provides easy navigation of the site once a vehicle enters the site driveway, and to direct visitors, child care centre customers, and staff to an appropriate parking space,
- e) have clearly line marked or signposted parking spaces identifying who as the right to use.
- f) have a pedestrian access pathway delineated for the safety of child care drop-off, and disabled access parking space users, separated from the parking aisles and circulation areas, with a direct link to basement access points leading to the child-care centre.

- g) have wheel stops installed in all parking bays to prevent vehicles protruding into pedestrian pathways, and to prevent damage to basement walls and infrastructure.

47. Construction Vehicle/ Pedestrian Plan of Management

- a. A Construction Vehicle/Pedestrian Plan of Management is to be submitted for the and approved by the Principal Certifying Authority for each stage of works prior to the issue of a Construction Certificate and the undertaking of any demolition, remediation or construction works on the site.
- b. Should the Construction Vehicle/Pedestrian Plan of Management identify the need to occupy the public road to perform site construction activities, the applicant shall separately obtain approval for a Road Occupancy and Standing Plant Application from Council's Executive Manager Infrastructure prior to undertaking of any demolition, remediation or construction works on the site.

PRIOR TO THE COMMENCEMENT OF ANY WORKS

The following conditions of consent have been imposed to ensure that the administration and amenities relating to the proposed development comply with all relevant requirements. These conditions are to be complied with prior to the commencement of any works on site.

48. Contamination Investigation

Prior to the commencement of works and any demolition on the site a hazardous building materials survey (HAZMAT) of all existing site structures (house and sheds) prior to demolition.

Prior to the commencement of excavation on the site, and following the demolition of the dwellings and structures on the site, additional soil testing is required to be undertaken to characterise soils to confirm the above preliminary waste classification for disposal, including where the dwellings were located.

49. Soil and Water Management Plan Implementation (SWMP)

The measures required in the Soil and Water Management Plan approved by the Certifying Authority must be implemented prior to the commencement of works.

50. Erosion and Sediment Control

Prior to the commencement of any works on the land, adequate/approved erosion and sediment control measures shall be fully installed/implemented.

51. Damage to public areas

It is the applicant's responsibility to notify Council of any existing damage to public areas in the vicinity of the development site through the submission of a Dilapidation Report. This including kerbs, gutters, footpaths, and the like. Failure to identify existing damage may result in all damage detected after completion of the development being repaired at the applicant's expense. The report must be supported with suitable photographic records. This information must be submitted to Council prior to the commencement of work.

52. Site Management Plan

Prior to the commencement of works, the applicant must submit to and obtain approval for a construction and site management plan from the Certifying Authority that clearly sets out the following:

- a. what actions are proposed to ensure safe access to and from the site and what protection will be provided to the road and footpath area from building activities, crossings by heavy equipment, plant and materials delivery and static load from cranes, concrete pumps and the like,
- b. the proposed method of loading and unloading excavation machines, building materials and formwork within the site,
- c. the proposed areas within the site to be used for the storage of excavated material, construction materials and waste containers during the construction period,
- d. sediment and erosion control measures as per Landcom's publication 'Managing Urban Stormwater - Soils and Construction (2004)' also known as the 'Blue Book' or subsequent revisions.
- e. how it is proposed to ensure that soil/excavated materials are not transported on wheels or tracks of vehicles or plant and deposited on the roadway and,
- f. the proposed method of support to any excavation adjacent to adjoining buildings or the road reserve. The proposed method of support is to be certified by an appropriately qualified and experienced engineer.

53. Erection of Construction Sign

Prior to the commencement of any works on the land, signs must be erected in prominent positions on the site:

- a. Showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours
- b. Stating that unauthorised entry to the work site is prohibited
- c. Pollution warning sign promoting the protection of waterways (a digital copy is provided with this consent that can be printed, laminated and affixed to the site or a corflute sign is available for free pick up at Council's administration office)
- d. Stating the approved construction hours in which all works can occur
- e. Showing the name, address and telephone number of the principal certifying authority for the work.

Any such signs are to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

54. Toilet on Construction Site

Prior to the commencement of any works on the land, toilet facilities are to be provided, at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out, at the rate of one toilet for every 20 persons or part thereof. Each toilet provided must be a standard flushing toilet and be connected to:

- a. A public sewer, or
- b. If connection to a public sewer is not practicable, to an accredited sewage management facility approved by Council, or
- c. If connection to a public sewer or an accredited sewage management facility is not practicable, to some other management facility approved by Council.

55. Trade Waste

Prior to the commencement of any works on the land, a trade waste facility shall be provided on-site to store all waste pending disposal. The facility shall be screened, regularly cleaned and accessible to collection vehicles.

56. Vehicular Access during Construction

Prior to the commencement of any works on the land, a single vehicle/plant access to the site shall be provided, to minimise ground disturbance and prevent the transportation of soil onto any public road system. Single sized aggregate, 40mm or larger placed 150mm deep, extending from the kerb and gutter to the property boundary, shall be provided as a minimum requirement.

57. Public Property

Prior to the commencement of any works on site, the applicant shall provide Council with a report establishing the condition of the property which is controlled by Council which adjoins the site including (but not limited to) kerbs, gutters, footpaths, and the like.

Failure to identify existing damage may result in all damage detected after completion of the development being repaired at the applicant's expense.

58. Footpath and Vehicular Crossing Levels

Prior to the commencement of any work, footpath and vehicular crossing levels are to be obtained from Council.

59. Demolition Works

Demolition works shall be carried out in accordance with the following:

- a) Prior to the commencement of any works on the land, a detailed demolition work plan designed in accordance with Clause 1.7.3 of Australian Standard AS 2601-2001 – The Demolition of Structures, prepared by a suitably qualified person with suitable expertise or experience, shall be submitted to and approved by Council and shall include the identification of any hazardous materials, method of demolition, precautions to be employed to minimise any dust nuisance and the disposal methods for hazardous materials.
- b) Prior to commencement of any works on the land, the demolition Contractor(s) licence details must be provided to Council.
- c) The handling or removal of any asbestos product from the building/site must be carried out by a NSW Work Cover licensed contractor irrespective of the size or nature of the works. Under no circumstances shall any asbestos on site be handled or removed by a non-licensed person. The licensed contractor shall carry out all works in accordance with NSW Work Cover requirements.
- d) An appropriate fence preventing public access to the site shall be erected for the duration of demolition works
- e) Immediately prior to the commencement of the demolition or handling of any building or structure that contains asbestos, the applicant shall request that the principal certifying authority attend the site to ensure that all appropriate safety measures are in place. The applicant shall also notify the occupants of the adjoining premises and Workcover NSW prior to the commencement of any works.

60. Hoarding / Fence

Prior to the commencement of any works, a hoarding or fence must be erected between the work site and a public place if the work involved in the development is likely to cause pedestrian or vehicular traffic in a public place to be obstructed or rendered inconvenient, or if the building involves the enclosure of a public place in accordance with Work Cover requirements.

The work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place.

A separate land use application under *Section 68 of the Local Government Act 1993* shall be submitted to and approved by Council prior to the erection of any hoarding on public land.

61. Fencing

An appropriate fence preventing public access to the site shall be erected for the duration of construction works.

62. Geotechnical Reference

Prior to the commencement of any works, a certificate prepared by the designing structural engineer certifying that the design is in accordance with the geotechnical report approved in condition 1.

63. Structural Engineer Details

Prior to the commencement of any works, the submission to the principal certifying authority of all details prepared by a practicing structural engineer.

64. Demolition of Existing Dwelling

Prior to the commencement of any other works, the existing dwelling and all other improvements on the land shall be demolished in accordance with the conditions of this consent.

DEVELOPMENT REQUIREMENTS DURING CONSTRUCTION

The following conditions of consent have been imposed to ensure that the administration and amenities relating to the proposed development comply with all relevant requirements. These conditions are to be complied with during the construction of the development on site.

65. Construction Work Hours

All work on site shall only occur between the following hours:

Monday to Friday	7.00 am to 6.00 pm
Saturday	8.00 am to 5.00 pm
Sunday and public holidays	No Work.

66. Erosion and Sediment Control

Erosion and sediment control measures shall be provided and maintained throughout the construction period, in accordance with the requirements of the manual – Soils and Construction (2004) (Bluebook), the approved plans, Council specifications and to the satisfaction of the principal certifying authority. The erosion and sedimentation control devices shall remain in place until the site has been stabilised and revegetated.

Note: On the spot penalties up to \$8,000 will be issued for any non-compliance with this requirement without any further notification or warning.

67. Work Zones

All loading, unloading and other activities undertaken during construction shall be accommodated on the development site.

Where it is not practical to load, unload or undertake specific activities on the site during construction, the provision of a 'Work Zone' external to the site may be approved by Council following an application being submitted to Council's Traffic Unit outlining the proposal for the work zone. The application is required to be made prior to the commencement of any works and is to include a suitable 'Traffic / Pedestrian Management and Control Plan' for the area of the work zone that will be affected. All costs of approved traffic/pedestrian control measures, including relevant fees, shall be borne by the applicant.

68. Protection of Existing Trees

During construction, trees are to be cut down, lopped, destroyed or removed without the separate written approval of Council unless approved in the arborist report.

All trees that are to be retained are to be protected by fencing, firmly staked within the drip line/canopy of the tree and maintained during the duration of the works. The area within the fencing must not be used for stockpiling of any material, nor for vehicle or pedestrian convenience.

All useable trees and shrubs shall be salvaged for re-use, either in log form, or as woodchip mulch for erosion control or garden beds or site rehabilitation. Non-salvable materials such as roots and stumps shall be disposed of to a waste management centre or other approved form.

69. Excavation and Backfilling

All excavations and backfilling associated with the approved works must be executed safely and in accordance with appropriate professional standards. All excavations must be properly guarded and protected to prevent them from being dangerous to life or property.

If an excavation associated with the approved works extends below the level of the base of the footings of a building on an adjoining allotment of land, the person causing the excavation to be made:

- Must preserve and protect the building from damage; and
- If necessary, must underpin and support the building in an approved manner, and
- Must at least 7 days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation to the owner of the building being erected or demolished.

The owner of the adjoining allotment of land is not liable for any part of the cost of work carried out, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

70. Fill Contamination

Any landfill used on the site is to be validated in accordance with the Environment Protection Authority's guidelines for consultants reporting on contaminated sites. The validation report shall state in an end statement that the fill material is suitable for the proposed use on the land.

71. Dust Nuisance

Measures shall be implemented to minimise wind erosion and dust nuisance in accordance with the requirements of the manual – 'Soils and Construction (2004)(Bluebook). Construction areas shall be treated/regularly watered to the satisfaction of the appointed Principal Certifier.

72. Certification of Location of Building during Construction

Prior to the positioning of wall panels/bricks or block work, the applicant shall submit to the appointed Principal Certifier a qualified practicing surveyor's certificate showing the boundaries of the allotment, distances of walls and footings from the boundaries, and the dimensions of the building.

73. Certification of Location of Building upon Completion

Upon completion of the building, the applicant shall submit to the appointed Principal Certifier a qualified practicing surveyor's certificate showing the boundaries of the allotment, distances of walls and footings from boundaries.

74. Excess Material

All excess material is to be removed from the site. The spreading of excess material or stockpiling on site will not be permitted without prior written approval from Council.

75. Earth Works/Filling Works

All earthworks, including stripping, filling, and compaction shall be:

- Undertaken in accordance with Council's 'Specification for Construction of Subdivisional Roads and Drainage Works' (as amended), AS 3798 'Guidelines for Earthworks for Commercial and Residential Development' (as amended), and approved construction drawings;
- Supervised, monitored, inspected, tested and reported in accordance with AS 3798 Appendix B 2(a) Level 1 and Appendix C by a NATA registered laboratory appointed by the applicant. Two collated copies of the report and fill plan shall be forwarded to Council; and
- Certified by the laboratory upon completion as complying, so far as it has been able to determine, with Council's specification and AS 3798.

76. Public Safety

Any works undertaken in a public place are to be maintained in a safe condition at all times in accordance with AS 1742.3. Council may at any time and without prior notification make safe any such works Council considers to be unsafe, and recover all reasonable costs incurred from the applicant.

77. Compliance with Council Specification

All design and construction work shall be in accordance with:

- a. Council's specification for Construction of Subdivisional Road and Drainage Works (as amended);
- b. Council's Engineering Design for Developments guide;
- c. *Campbelltown (Sustainable City) DCP - Volumes 1 (as amended)*;
- d. 'Soils and Construction (2004)(Bluebook); and
- e. Relevant Australian standards and State Government publications.

78. Industrial / Commercial Driveway and Layback Crossing

The applicant shall provide a reinforced concrete driveway and layback crossing/s to Council's Industrial/Commercial Vehicle Crossing Specification and Campbelltown (Sustainable City) DCP - Volumes 1 and 3 (as amended).

A separate application for this work, which will be subject to a crossing inspection fee, fixing of levels and inspections by Council, must be lodged with Council. Conduits must be provided to service authority requirements.

79. Associated Works

The applicant shall undertake any works external to the development, that are made necessary by the development, including additional road and drainage works or any civil works directed by Council, to make a smooth junction with existing work.

80. Redundant Laybacks

All redundant layback/s shall be reinstated to conventional kerb and gutter to Council's Specification for Construction of Subdivisional Road and Drainage Works (as amended) and with the design requirements of the Campbelltown (Sustainable City) DCP - Volumes 1 and 3 (as amended).

81. Completion of Construction Works

Unless otherwise specified in this consent, all construction works associated with the approved development shall be completed within 12 months of the date of the notice of the intention to commence construction works under *Section 81A of the Act*.

In the event that construction works are not continually ongoing, the applicant shall appropriately screen the construction site from public view with architectural devices and landscaping to Council's written satisfaction.

82. Imported 'waste-derived' fill material

The only waste-derived fill material that may be received at the development site is:

- virgin excavated natural material (within the meaning of the *Protection of the Environment Operations Act 1997*); and
- any other waste-derived material the subject of a resource recovery exemption under cl.51A of the *Protection of the Environment Operations (Waste) Regulation 2005* that is permitted to be used as fill material.

Any waste-derived material the subject of resource recovery exemption received at the development site must be accompanied by documentation as to the material's compliance with the exemption conditions and must be provided to the Principal Certifying Authority on request.

83. Maintenance of Soil and Water Management Plan (SWMP)

The soil and water management controls must be maintained at all times during each stage of the development and checked for adequacy daily. The controls must not be removed until the development is completed and the disturbed areas have been stabilised.

Maintenance must include but is not limited to ensuring:

- a. all sediment fences, sediment traps and socks are properly placed and are working effectively and,

- b. drains, gutters and roads are maintained clear of sediment at all times.

Note: It is an offence under the *Protection of the Environment Operations Act 1997* to allow soil or other pollutants to fall or be washed into any waters or be placed where it is likely to fall or be washed into any waters. Substantial penalties may be issued for any offence.

84. Connection to Council Pit and/or Pipe

Any connection to a Council pit and/or pipe must:

- a. be made at the pipe obvert (pipe only),
- b. be through a hole that is neatly made by cutting or drilling with any reinforcement encountered cut away,
- c. not protrude past the inner surface of the pit and/or pipe,
- d. have all junctions finished with 2:1 cement mortar,
- e. have a minimum pipe size of 150mm in diameter and either sewer grade PVC or concrete and
- f. when the diameter of the connection is more than 1/3 the diameter of the Council pipe, connection is to be made by construction of a standard pit.

The Certifying Authority must arrange for a satisfactory inspection by Council prior to backfilling. At least one working days' notice is required for the inspection and is to be arranged through Council's Customer Services.

PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE

The following conditions of consent must be complied with prior to the issue of an occupation certificate by the appointed Principal Certifier. All necessary information to comply with the following conditions of consent must be submitted with the application for an occupation certificate.

85. Replacement Street Trees

Prior to the appointed Principal Certifier issuing an occupation certificate the applicant shall liaise with Council's Coordinator Open Space with regard to suitable street tree replacement species for Palmer Street to replace tree 3 and provide an additional street tree between the intersection of Suffolk Street and Palmers Street and Tree 3.

86. Footpath

A new 1.5m wide footpath is to be constructed along the frontage of Palmer Street. And shall be completed to Council's Standard prior to the issue of any Occupation Certificate.

87. Section 73 Certificate

Prior to the appointed Principal Certifier issuing an occupation certificate, a Section 73 Compliance Certificate under the *Sydney Water Act 1994* must be obtained from Sydney Water Corporation. Early application for the certificate is suggested as this can also impact on other services and building, driveway or landscape design.

Application must be made through an authorised Water Servicing Coordinator.

For help either visit www.sydneywater.com.au > Building and developing > Developing your Land > Water Servicing Coordinator or telephone 13 20 92.

The Section 73 Certificate must be submitted to the appointed Principal Certifier prior to the issue of an occupation certificate.

88. Structural Engineering Certificate

Prior to the appointed Principal Certifier issuing an occupation certificate, the submission of a certificate from a practising structural engineer certifying that the building has been erected in compliance with the approved structural drawings, the relevant Standards Association of Australia Codes and is structurally adequate.

89. Maintenance Security Bond

Prior to the appointed principal certifying authority issuing a subdivision certificate, a maintenance security bond of 5 per cent of the contract value or \$5000, whichever is the greater, shall be lodged with Council. This security will be held in full until completion of maintenance, minor outstanding works and full establishment of vegetation to the satisfaction of Council, or for a period of six months from the date of release of the subdivision certificate, whichever is the longer. All bonds are to be provided in the form of Cash or a written Bank Guarantee from an Australian Banking Institution.

The applicant is responsible for applying to Council for the return of the bond. Should no request be made to Council for the return of the bond six years after the issue of the subdivision certificate, Council will surrender the bond to the Office of State Revenue.

90. Splay Corner (Residential)

Prior to the appointed principal certifying authority issuing an occupation certificate, the applicant shall dedicate a 4m x 4m splay corner as road widening at the intersection of Suffolk Street and Palmer Street at no cost to Council.

91. Completion of External Works Onsite

Prior to the principal certifying authority issuing an occupation certificate, all external works, repairs and renovations detailed in the schedule of treatment/finishes, landscaping, driveways, fencing and retaining walls to be completed to the satisfaction of the principal certifying authority.

92. Final Inspection – Works as Executed Plans

Prior to the appointed Principal Certifier issuing an occupation certificate, the applicant shall submit to Council a copy of a work as executed plan, certified by a qualified surveyor, which has been prepared in accordance with the requirements detailed in Council's *Specification for Construction of Subdivisional Road and Drainage Works (as amended)* and *Engineering Design Guide for Development (as amended)*.

Works As Executed plans must be submitted by a registered surveyor certifying compliance with the approved design plans in relation to all drainage works. The Works As Executed dimensions and levels must be shown in red on a copy of the approved Construction Certificate plans. The plans must verify surface level of constructed paved areas, surface and invert levels on all pits, invert levels and sizes of all pipelines. All levels must relate to Australian Height Datum.

93. Restoration of Public Roads

Prior to the appointed Principal Certifier issuing an occupation certificate, the restoration of public road and associated works required as a result of the development shall be carried out by Council and all costs shall be paid by the applicant.

94. Public Utilities

Prior to the appointed Principal Certifier issuing an occupation certificate, any adjustments to public utilities, required as a result of the development, shall be completed to the satisfaction of the relevant authority and at the applicant's expense.

95. Service Authorities

To ensure that an adequate level of services and infrastructure is provided to this development, prior to the appointed Principal Certifier issuing a Subdivision Certificate the following is required:

- a. Energy supplier – A Notice of Arrangement for the provision of distribution of electricity from Endeavour Energy to service the proposed development
- b. Telecommunications – Evidence demonstrating that satisfactory arrangements have been made with a telecommunications carrier to service the proposed development
- c. Gas supplier (if relevant)- Evidence demonstrating that satisfactory arrangements have been made with a gas supplier to service the proposed development; and
- d. Water supplier – A Section 73 Compliance Certificate demonstrating that satisfactory arrangements have been made with a water supply provider to service the proposed development.

All construction work shall conform to the relevant authorities' specifications.

The final seal shall be deferred pending installation of all services. In this regard the applicant shall provide a temporary seal and lodge with Council as security, the amount to be determined by Council, to cover the cost of trench restoration by Council and the placement of the final asphaltic concrete seal.

96. BASIX

Prior to the appointed principal certifier issuing an occupation certificate, completion of all requirements listed in the relevant BASIX certificate for the subject development shall be completed/installed.

97. Line Marking / Sign Posting Documentation (development)

Prior to the principal certifying authority issuing an occupation certificate, the applicant shall submit to Council for Local Traffic Committee records two copies of work as executed plans of the line marking / sign posting approved by the Traffic Committee for the development. The plans shall show all works undertaken and the date of installation.

98. Council Fees and Charges

Prior to the appointed Principal Certifier issuing an occupation certificate, the applicant shall obtain written confirmation from Council that all applicable Council fees and charges associated with the development have been paid in full. Written confirmation will be provided to the applicant following Council's final inspection and satisfactory clearance of the public area adjacent the site.

99. Restriction on the Use of Land

Prior to the principal certifying authority issuing an occupation certificate, the applicant shall create appropriate restrictions on the use of land under Section 88B of the Conveyancing Act.

100. Substation restrictions

The applicant shall liaise with Council regarding the required wording. Design plans and work as executed plans shall show affected lots marked with Council approved symbols. The authority empowered to release, vary or modify these restrictions on the use of land shall be the Council of the City of Campbelltown. The cost and expense of any such release, variation or modification shall be borne by the person or corporation requesting the same in all respects.

101. CCTV footage verifying integrity of all new pipes and existing pipes

Prior to Council or an accredited certifier issuing a Subdivision Certificate, the applicant shall provide CCTV footage to Council for all new pipes and for all existing pipes which are modified by works prior to Linen release. The footage shall comply with the following requirements:

- the files shall be in MP4 format
- file resolution shall be 640 by 480 pixels, 3 Mbps and 25 frames per second
- each pipe reach (i.e. between two pits) shall be provided as a separate file
- the CCTV inspection shall be undertaken in accordance with the IPWEA Condition Assessment and Asset Performance Guidelines, Practice Note 5, Stormwater Drainage
- the speed and panning of the footage shall be sufficient to demonstrate that there are no significant cracks in the pipe and that the joints have been properly constructed
- the files shall have a name corresponding with the unique label provided in the associated stamped approved drawings and
- a summary report (*.pdf) shall accompany the data.

102. Consolidation of Allotments

Prior to Council or an appointed certifier issuing any occupation certificate, the applicant shall provide evidence that the allotments that are the subject of the application have been consolidated. The registered plan of consolidation as endorsed by the Registrar General shall be submitted to Council for information. Should the allotments be affected by easements, restrictions, or covenants, for which Council is the relevant authority to release, vary or modify, then the plan of consolidation must be endorsed by Council prior to lodgement with Land and Property Information NSW.

103. Acoustic Certification

Prior to the issue of an occupation certificate, a qualified acoustic engineer shall certify that the recommendations of the acoustic report prepared by Acouras Consultancy dated 21 May 2018 have been implemented.

104. Lift Access

Prior to the issue of an occupation certificate, a certificate shall be provided from the installer of the lifts on site, certifying that:

- a. Persons entering the lift from the childcare entry would not be able to access levels 1-5 of the building.
- b. Persons entering the lift from the residential entry would not be able to access the childcare centre.

ADVISORY NOTES

The following information is provided for your assistance to ensure compliance with the Environmental Planning and Assessment Act 1979, Environmental Planning and Assessment Regulation 2000, other relevant Council Policy/s and other relevant requirements. This information does not form part of the conditions of development consent pursuant to Section 4.17 of the Act.

Advice 1. Environmental Planning and Assessment Act 1979 Requirements

The Environmental Planning and Assessment Act 1979 requires you to:

- a. Obtain a construction certificate prior to the commencement of any works. Enquiries regarding the issue of a construction certificate can be made to Council's Customer Service Centre on 4645 4608.
- b. Nominate a Principal Certifier and notify Council of that appointment prior to the commencement of any works.
- c. Give Council at least two days notice prior to the commencement of any works.
- d. Have mandatory inspections of nominated stages of the construction inspected.
- e. Obtain an occupation certificate before occupying any building or commencing the use of the land.

Advice 2. Tree Preservation Order

To ensure the maintenance and protection of the existing natural environment, you are not permitted to ringbark, cut down, top, lop, remove, wilfully injure or destroy a tree outside three metres of the building envelope unless you have obtained prior written consent from Council. Fines may be imposed if you choose to contravene Council's Tree Preservation Order.

A tree is defined as a perennial plant with self supporting stems that are more than three metres or has a trunk diameter more than 150mm measured one metre above ground level, and excludes any tree declared under the *NSW Biosecurity Act 2015* or included within the *NSW Governments Greater Sydney Strategic Management Plan 2017-2022*.

Advice 3. Provision of Equitable Access

Nothing in this consent is to be taken to imply that the development meets the requirements of the *Disability Discrimination Act 1992* (DDA1992) or *Disability (Access to Premises – Buildings) Standards 2010* (Premises Standards).

Where a Construction Certificate is required for the approved works, due regard is to be given to the requirements of the *Building Code of Australia* (BCA) & the Premises Standards. In this regard it is the sole responsibility of the certifier, building developer and building manager to ensure compliance with the Premises Standards.

Where no building works are proposed and a Construction Certificate is not required, it is the sole responsibility of the applicant and building owner to ensure compliance with the DDA1992.

Advice 4. Smoke Alarms

All NSW residents are required to have at least one working smoke alarm installed on each level of their home. This includes owner occupier, rental properties, relocatable homes and any other residential building where people sleep.

The installation of smoke alarms is required to be carried out in accordance with AS 3786. The licensed electrical contractor is required to submit to the appointed Principal Certifier a certificate certifying compliance with AS 3000 and AS 3786.

Advice 5. Filling on Site

Council's records in respect of this lot indicate that varying depths of filling covers the natural ground surface.

Advice 6. Buried Waste

Should buried materials/wastes or the like be uncovered during the excavation of footings or trenches on site works, Council is to be contacted immediately for advice on the treatment/removal methods required to be implemented.

Advice 7. Covenants

The land upon which the subject building is to be constructed may be affected by restrictive covenants. Council issues this approval without enquiry as to whether any restrictive covenant affecting the land would be breached by the construction of the building, the subject of this permit. Persons to whom this permit is issued rely on their own enquiries as to whether or not the building breaches any such covenant.

Advice 8. Inspection within Public Areas

All works within public areas are required to be inspected at all stages of construction and approved by Council prior to the principal certifying authority releasing the Occupation Certificate.

Advice 9. Adjustment to Public Utilities

Adjustment to any public utilities necessitated by the development is required to be completed prior to the occupation of the premises and in accordance with the requirements of the relevant Authority. Any costs associated with these adjustments are to be borne by the applicant.

Advice 10. Swimming Pools - Limit evaporation and save water

To limit evaporation and save water, Council encourages that you investigate placing a pool blanket over the swimming pool.

Advice 11. Asbestos Warning

Should asbestos or asbestos products be encountered during construction or demolition works you are advised to seek advice and information prior to disturbing the material. It is recommended that a contractor holding an asbestos-handling permit (issued by Work Cover NSW), be engaged to manage the

proper disposal and handling of the material. Further information regarding the safe handling and removal of asbestos can be found at:

www.environment.nsw.gov.au
www.nsw.gov.au/fibro
www.adfa.org.au
www.workcover.nsw.gov.au

Alternatively, call Work Cover Asbestos and Demolition Team on 8260 5885.

Advice 12. Dial before you Dig

Underground assets may exist in the area that is subject to your application. In the interests of health and safety and in order to protect damage to third party assets please contact Dial before you dig at www.1100.com.au or telephone on 1100 before excavating or erecting structures (This is the law in NSW). If alterations are required to the configuration, size, form or design of the development upon contacting the Dial before you dig service, an amendment to the development consent (or a new development application) may be necessary. Individuals owe asset owners a duty of care that must be observed when working in the vicinity of plant or assets. It is the individual's responsibility to anticipate and request the nominal location of plant or assets on the relevant property via contacting the Dial before you dig service in advance of any construction or planning activities.

Advice 13. Telecommunications Act 1997 (Commonwealth)

Telstra (and its authorised contractors) are the only companies that are permitted to conduct works on Telstra's network and assets. Any persons interfering with a facility or installation owned by Telstra is committing an offence under the Criminal Code Act 1995 (Cth) and is liable for prosecution.

Furthermore, damage to Telstra's infrastructure may result in interruption to the provision of essential services and significant costs. If you are aware of any works or proposed works which may affect or impact on Telstra's assets in any way, you are required to contact: Telstra's Network Integrity Team on phone number 1800 810 443.

Advice 14. Swimming Pool Owner's Responsibility

- a. A securely fenced pool is no substitute for responsible adult supervision. When children are in or around a swimming pool they should always be responsibly supervised.
- b. Since October 2013 Swimming pool owners are required, under the provisions of the Swimming Pool Act, to register their swimming pools online on the NSW Swimming Pools Register.

A penalty (currently \$220) may apply to owners who fail to register their pool.

For further information visit the Department of Local Government website www.dlg.nsw.gov.au or Campbelltown City Council website www.campbelltown.nsw.gov.au.

- c. As from 29 April 2016, owners of properties with a swimming pool are required under the relevant provisions of the *Swimming Pools Act* to:
 - If selling a property - obtain either a valid Certificate of Compliance, Certificate of Non-Compliance or Occupation Certificate (as applicable) prior to sale of their property; or
 - If leasing a property - obtain a valid Certificate of Compliance or Occupation Certificate (as applicable) prior to lease of their property.

For further information visit the Department of Local Government website www.dlg.nsw.gov.au or Campbelltown City Council website www.campbelltown.nsw.gov.au.

END OF CONDITIONS

Attachment 2:**Apartment Design Guide**

An assessment against the requirements of the Apartment Design Guide is provided below:

CONTROL	PROPOSAL	COMPLIANCE
Part 1: Identifying the context		
1A: Apartment Building Types <u>Infill development</u>	The proposal is infill development.	Yes
1B: Local Character and Context <u>Urban Neighbourhoods/ Suburban Neighbourhoods</u>	The development is considered to be within a suburban neighbourhood.	
1C Precincts and individual sites <u>Individual Sites</u>	The site is an individual site.	Yes
Part 2: Developing the controls		
2F: Building separation <u>Up to four storeys</u> 12 between habitable rooms/ balconies 9m between habitable and non-habitable rooms 6m between non-habitable rooms <u>Five to eight storeys (approximately 25m):</u> 18m between habitable rooms/ balconies 12m between habitable and non-habitable rooms 9m between non-habitable rooms	The proposal provides for setbacks of 6m to the side and rear boundaries up to four stories, and 9m setbacks on the top floor, which is consistent with the application of half the required setback outlined in the ADG.	Yes
2G Street setbacks Street setbacks to be consistent with existing/desired future setbacks.	5.5m setbacks are provided to Palmer and Suffolk Streets	Yes
2H: Side and rear setbacks On infill sites follow the existing open space	Side and rear setbacks are application of half rate of building separation controls, which is 6m to the first four storeys and 9m to top floor.	Yes

patterns, limit side setbacks and locate habitable rooms to face the street and rear boundary to optimise amenity and privacy for all.		
Part 3: Siting the development		
3A Site Analysis	Site analysis plan provided.	Yes
3B: Orientation	The development is designed to respond to the orientation of the site.	Yes
3C: Public domain interface	The interface with the public domain at the ground floor provides for safety and security.	Yes
3D: Communal and public open space Controls: 25% (756.25m ²) communal open space. 50% direct sunlight to useable communal open space for min 2 hours between 9am - 3pm on 21 June	Ground floor communal open space 675m ² . 23.2% at the ground floor level. 193m ² communal open space at level 4. Total communal open space 868m ² In total 29.8% communal open space is provided to the site. 55% of the required communal open space area has 2 hours solar access at the ground floor level.	Yes Yes
3E: Deep Soil Control: Min deep soil provisions: Site 1500m ² +, minimum dimensions 6m 7% deep soil Site: 2905.7m ² 7% = 204m ²	The total deep soil planting to the site is 19.68% (572m ²) which includes deep soil planting within the childcare centre area. However, excluding this area the site still complies.	Yes
3F: Visual privacy Control: Min separation distance from buildings to side and rear boundaries: Up to 12m (4 Storeys): Habitable 6m, non-habitable 3m Up to 25m (5-8 storeys): habitable 9m, non-habitable 4.5m	The site has 6m setbacks to the side and rear boundaries at the first four levels and 9m setbacks to the upper level.	Yes

3G Pedestrian access and entries	The development has vehicular access and separate pedestrian access to the lobby.	Yes
3F Vehicle access	Vehicle access is considered to be acceptable and is appropriately located on the site.	Yes
3J: Bicycle and car parking For development in the following locations: on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less	Based on RTA guide the development requires a total of 57 parking spaces for the residential flat building component, 46 resident spaces and 11 visitor spaces. An additional 25 car parking spaces are provided to service the future childcare centre, which will be subject to a separate application.	Yes
Part 4: Designing the building		
4A: Solar and Daylight Access Living rooms and private open spaces for at least 70% of apartments should receive 2 hours direct solar access on winter solstice (Sydney metro area)	70% of the units receive 2 hours solar access.	Yes
Max 15% of apartments receive no direct sunlight between 9am and 3pm in mid winter	12% of units receive no sun at mid-winter. 18% of units receive between 30 minutes and 1 hours of solar access. Units to level 4 will receive several hours of solar access, through skylights.	Yes
4B: Natural ventilation At least 60% of apartments are naturally cross ventilated, in first 9 storeys Overall depth of crossover or cross through unit does not exceed 18m, measured glass line to glass line	The proposal provides for 62% of apartment to be cross ventilated. The depth of units does not exceed 18m.	Yes Yes
4C: Ceiling heights Habitable room 2.7m	All ceiling heights are 2.7m.	Yes

<p>4D: Apartment size and layout 4D-1: Minimum internal areas:</p> <p>1 bed 50m² 2 bed 70m² 3 bed 90m²</p> <p>More than 1 bathroom increase area by 5m²</p>	All apartment sizes comply.	Yes
Every habitable room must have 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	All habitable rooms comply.	Yes
<p>4D-2 : Environmental performance Habitable room depth limited to 2.5m x max ceiling height</p> <p>In Open plan layout (i.e. combined living, dining, kitchen) max habitable room depth is 8m from a window</p>	<p>Room depth comply.</p> <p>Room depths do not exceed 8m to a window.</p>	<p>Yes</p> <p>Yes</p>
<p>4D-3: Layout designed to accommodate variety of household activities and noise Master bedroom min area 10m², other bedrooms 9m²</p> <p>Bedroom min dimensions 3m</p> <p>Living rooms: 3.6m (1 bed) 4m (2 bed+)</p>	<p>All rooms comply.</p> <p>All rooms comply.</p> <p>Living rooms comply</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>4E: Private open space and balconies Primary balconies minimum area:</p> <p>1 bed - 8m², 2m 2 bed - 10m², 2m 3+ bed - 12m², 2.4m</p>	<p>All balconies comply.</p> <p>Ground floor terraces comply.</p>	<p>Yes</p> <p>Yes</p>

Ground floor units: 15m ² , depth 3m		
4F: Common circulation spaces Max units off core per level is 8	The maximum of 7 units per lift.	Yes
4G: Storage 1 bed 6m ³ 2 bed 8m ³ 3+ bed 10m ³ 50% of required storage to be located within the unit	Storage areas comply. 50% of the storage is provided within the units.	Yes Yes
4H: Acoustic Privacy	The applicant has submitted an acoustic report in support of the proposed development.	Yes
4J: Noise and Pollution	The site is not located near rail lines or flight paths.	N/A
4K: Apartment Mix	The apartment mix is considered to be appropriate for the subject site.	Yes
4L: Ground Floor Apartments	The ground floor apartments address Palmer Street and have large terraces with appropriate landscaping to provide for privacy.	Yes
4M: Facades	The proposed façade and mix of materials create visual interest to the street and the Design Excellence Panel have "commended the proponent for a generally well resolved and thoughtful scheme".	Yes
4N: Roof Design	The roof design is a flat roof design. The fourth floor roof terraces is located between the two top floor building masses.	Yes
4O: Landscape Design 1 large tree or 2 medium trees per 80m ² of deep soil zone	The landscaping design is considered to be suitable for the subject site.	
4P: Planting on Structures	The proposal includes planting on the basement area and roof top to third floor. Conditions will be applied with regard to planting over slabs.	Yes, conditioned
4Q: Universal Design	The applicant has provided adaptable apartments. The applicant has submitted an access report in support of the proposal and demonstrates 11 liveable units will be provided. A condition of consent has been recommended to ensure all requirements are details on the Construction Certificate plans.	Yes, conditioned

4S: Mixed Use	The building provides for a ground floor space for a future childcare centre. The childcare centre will be assessed as a separate development application to Council. The location of the childcare centre to Suffolk Street is considered to be acceptable	Yes
4U: Energy Efficiency	Adequate solar access is provided to dwellings and communal open space areas. A BASIX certificate was submitted in support of the proposal.	Yes
4V: Water Management and Conservation	The site includes a WSUD system and on site detention.	Yes
4W: Waste Management	The site has appropriate waste management facilities in the building.	Yes
4X: Building Maintenance	The proposed building materials are considered to be low maintenance.	Yes

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

An assessment against the relevant provisions of SEPP (Educational Establishments and Child Care Facilities) 2017 is presented below:

Provisions	Proposed	Compliance
Clause 22 Concurrence of Regulatory Authority	The applicant maintains that as the proposal does not include the use of the childcare centre the number of children will be provided as a separate application.	N/A
Clause 23 Consider Child Care Planning Guideline	The childcare planning guideline is assessed in detail below, where relevant to the current proposal.	Yes
Clause 25 (a) Location	The site is not located near any other child care facilities.	Yes
(b) indoor and outdoor space	The number of children has not been clarified by the applicant.	No
(c) Site area and site dimensions	The site area and frontage is acceptable.	Yes
(d) colour of building materials and shade structures	The colour and building materials are acceptable.	Yes
Clause 26 Centre based child care facility - DCP	The provisions in the SEPP will supersede the SCDCP where applicable.	Yes

Child Care Planning Guideline

In accordance with clause 23 of the State Environmental Planning Policy (Educational Establishments and Child Care Facilities), prior to determining a development application for development for the purpose of a centre-based child care facility, the consent authority must take into consideration any applicable provisions of the *Child Care Planning Guideline*, in relation to the proposed development. A compliance table is provided below assessing the development against the provisions of the Child Care Planning Guideline.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
3.1 Site Selection and Location			
To ensure that appropriate zone considerations are assessed when selecting a site.	<p>C1 - For proposed developments in or adjacent to a residential zone, consider:</p> <ul style="list-style-type: none"> -the acoustic and privacy impacts of the proposed development on the residential properties -the setbacks and siting of buildings within the residential context -traffic and parking impacts of the proposal on residential amenity. 	An acoustic report has been provided for the development application, however it does not address the acoustic impact of the childcare centre and a revised acoustic report will be required for any future development application.	No, compliance matter for future development application.
To ensure that the site selected for a proposed child care facility is suitable for the use.	<p>C2 - When selecting a site, ensure that:</p> <ul style="list-style-type: none"> • the location and surrounding uses are compatible with the proposed development or use • the site is environmentally safe including risks such as flooding, land slip, bushfires, coastal hazards • there are no potential environmental contaminants on the land, in the building or the general proximity, and whether hazardous materials remediation is needed 	The applicant submitted a PSI for the proposed development and potential future childcare centre. The report concluded "the PSI and limited site testing concludes the site is suitable for the proposed high-density residential land use and a child care centre at the ground floor."	Yes

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	<ul style="list-style-type: none"> • the characteristics of the site are suitable for the scale and type of development proposed having regard to: <ul style="list-style-type: none"> - size of street frontage, lot configuration, dimensions and overall size - number of shared boundaries with residential properties - the development will not have adverse environmental impacts on the surrounding area, particularly in sensitive environmental or cultural areas • where the proposal is to occupy or retrofit an existing premises, the interior and exterior spaces are suitable for the proposed use • there are suitable drop off and pick up areas, and off and on street parking • the type of adjoining road (for example classified, arterial, local road, cul-de-sac) is appropriate and safe for the proposed use • it is not located closely to incompatible social activities and uses such as restricted premises, injecting rooms, drug clinics and the like, premises licensed for alcohol or gambling such as hotels, clubs, cellar door premises and sex services premises. 	<p>The characteristics of the site are suitable.</p> <p>The proposal will be a first use of a new building.</p> <p>Basement parking is provided.</p> <p>The site has a frontage to a through road.</p> <p>The site is not located near incompatible uses.</p>	
To ensure that sites for child care facilities are	<p>C3 - A child care facility should be located:</p> <ul style="list-style-type: none"> • near compatible social uses such as schools and other 	The childcare centre is located 300m to Ingleburn Public School and approximately 600m to the Ingleburn town centre.	Yes

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
appropriately located.	<p>educational establishments, parks and other public open space, community facilities, places of public worship</p> <ul style="list-style-type: none"> • near or within employment areas, town centres, business centres, shops • with access to public transport including rail, buses, ferries • in areas with pedestrian connectivity to the local community, businesses, shops, services and the like 		
To ensure that sites for child care facilities do not incur risks from environmental, health or safety hazards.	<p>C4 - A child care facility should be located to avoid risks to children, staff or visitors and adverse environmental conditions arising from:</p> <ul style="list-style-type: none"> • proximity to: <ul style="list-style-type: none"> - heavy or hazardous industry, waste transfer depots or landfill sites - LPG tanks or service stations - water cooling and water warming systems - odour (and other air pollutant) generating uses and sources or sites which, due to prevailing land use zoning, may in future accommodate noise or odour generating uses 	The site is located in a residential zone.	Yes
3.2 Local Character, Streetscape and the Public Domain Interface			
To ensure that the child care facility is compatible with the local character and	<p>C5 - The proposed development should:</p> <ul style="list-style-type: none"> • contribute to the local area by being designed in character with the locality and existing streetscape 	The future child care centre is located within a proposed residential flat building which is designed to incorporate into the desired future character of the R4 zone.	Yes

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
surrounding streetscape.	<ul style="list-style-type: none"> • reflect the predominant form of surrounding land uses, particularly in low density residential areas • recognise predominant streetscape qualities, such as building form, scale, materials and colours • include design and architectural treatments that respond to and integrate with the existing streetscape • use landscaping to positively contribute to the streetscape and neighbouring amenity • integrate car parking into the building and site landscaping design in residential areas. 		
To ensure clear delineation between the child care facility and public spaces.	<p>C6 - Create a threshold with a clear transition between public and private realms, including:</p> <ul style="list-style-type: none"> • fencing to ensure safety for children entering and leaving the facility • windows facing from the facility towards the public domain to provide passive surveillance to the street as a safety measure and connection between the facility and the community • integrating existing and proposed landscaping with fencing. 	The proposed fencing and windows appear to satisfy the SEPP, but will be assessed during the application for the use of the site as these details may change.	Subject to future Development Application
To ensure clear delineation between the child care facility and public spaces.	<p>C7 - On sites with multiple buildings and/or entries, pedestrian entries and spaces associated with the child care facility should be differentiated to improve legibility for visitors and</p>	<p>The site has pedestrian access from Palmer Street and Suffolk Street.</p> <p>The centre will have access from the basement carpark via a separate lift</p>	Subject to future Development Application

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	children by changes in materials, plant species and colours.	that only services the basement and the entry to the centre.	
To ensure clear delineation between the child care facility and public spaces.	<p>C8 - Where development adjoins public parks, open space or bushland, the facility should provide an appealing streetscape frontage by adopting some of the following design solutions:</p> <ul style="list-style-type: none"> • clearly defined street access, pedestrian paths and building entries • low fences and planting which delineate communal/ private open space from adjoining public open space • minimal use of blank walls and high fences. 	The site is located in the residential zone.	N/A
To ensure that front fences and retaining walls respond to and complement the context and character of the area and do not dominate the public domain.	C9 - Front fences and walls within the front setback should be constructed of visually permeable materials and treatments.	The fencing to Suffolk and Palmer Street appear to be acceptable, however this will be required to comply for the DA for the fitout and use.	Subject to future Development Application
To ensure that front fences and retaining walls respond to and complement the context and character of the area and do not dominate the public domain.	C10 - High solid acoustic fencing may be used when shielding the facility from noise on classified roads. The walls should be setback from the property boundary with screen landscaping of a similar height between the wall and the boundary.	The submitted acoustic report requires solid acoustic walls on the boundary to 2.1 and 1.8m. However, further acoustic treatments maybe required for the childcare centre application, the submitted acoustic report did not account for a child care centre use on the site.	Subject to future Development Application
3.3 Building Orientation, Envelope and Design			

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
To respond to the streetscape and site, while optimising solar access and opportunities for shade.	<p>C11 - Orient a development on a site and design the building layout to:</p> <ul style="list-style-type: none"> • ensure visual privacy and minimise potential noise and overlooking impacts on neighbours by: <ul style="list-style-type: none"> - facing doors and windows away from private open space, living rooms and bedrooms in adjoining residential properties - placing play equipment away from common boundaries with residential properties - locating outdoor play areas away from residential dwellings and other sensitive uses • optimise solar access to internal and external play areas • avoid overshadowing of adjoining residential properties • minimise cut and fill • ensure buildings along the street frontage define the street by facing it • ensure that where a child care facility is located above ground level, outdoor play areas are protected from wind and other climatic conditions. 	<p>The play area is located along the rear boundary of 77-81 Carlisle Street.</p> <p>Privacy mitigation has not been demonstrated.</p> <p>Solar access to the facility has not been demonstrated.</p> <p>The development does not result in overshadowing to adjoining properties.</p>	Subject to future Development Application
To ensure that the scale of the child care facility is compatible with adjoining	C12 - The following matters may be considered to minimise the impacts of the proposal on local character:	The height of the building is considered in the assessment of the residential flat building, as the commercial space is	N/A

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
development and the impact on adjoining buildings is minimised.	<ul style="list-style-type: none"> • building height should be consistent with other buildings in the locality • building height should respond to the scale and character of the street • setbacks should allow for adequate privacy for neighbours and children at the proposed child care facility • setbacks should provide adequate access for building maintenance • setbacks to the street should be consistent with the existing character. 	only located on the ground floor.	
To ensure that setbacks from the boundary of a child care facility are consistent with the predominant development within the immediate context.	C13 - Where there are no prevailing setback controls minimum setback to a classified road should be 10 metres. On other road frontages where there are existing buildings within 50 metres, the setback should be the average of the two closest buildings. Where there are no buildings within 50 metres, the same setback is required for the predominant adjoining land use.	The setbacks are in accordance with the SCDCP for Residential Flat Buildings.	N/A
To ensure that setbacks from the boundary of a child care facility are consistent with the predominant development within the immediate context.	C14 - On land in a residential zone, side and rear boundary setbacks should observe the prevailing setbacks required for a dwelling house.	The building provides setbacks in accordance with the SCDCP for Residential Flat Buildings and childcare centres setback requirements	Yes
To ensure that the built form, articulation	C15 - The built form of the development should	Built form of the development is predominantly a	Acceptable.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
and scale of development relates to its context and buildings are well designed to contribute to an area's character.	<p>contribute to the character of the local area, including how it:</p> <ul style="list-style-type: none"> • respects and responds to its physical context such as adjacent built form, neighbourhood character, streetscape quality and heritage • contributes to the identity of the place • retains and reinforces existing built form and vegetation where significant • considers heritage within the local neighbourhood including identified heritage items and conservation areas • responds to its natural environment including local landscape setting and climate • contributes to the identity of place 	residential flat building assessed under SEPP 65.	
To ensure that buildings are designed to create safe environments for all users.	<p>C16 - Entry to the facility should be limited to one secure point which is:</p> <ul style="list-style-type: none"> • located to allow ease of access, particularly for pedestrians • directly accessible from the street where possible • directly visible from the street frontage • easily monitored through natural or camera surveillance • not accessed through an outdoor play area. 	The entry to the child care centre space provides for easy pedestrian access from Suffolk Street.	Yes

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	<ul style="list-style-type: none"> in a mixed-use development, clearly defined and separate from entrances to other uses in the building. 		
To ensure that child care facilities are designed to be accessible by all potential users.	<p>C17 - Accessible design can be achieved by:</p> <ul style="list-style-type: none"> providing accessibility to and within the building in accordance with all relevant legislation linking all key areas of the site by level or ramped pathways that are accessible to prams and wheelchairs, including between all car parking areas and the main building entry providing a continuous path of travel to and within the building, including access between the street entry and car parking and main building entrance. Platform lifts should be avoided where possible minimising ramping by ensuring building entries and ground floors are well located relative to the level of the footpath. 	<p>Ramp pedestrian access is provided from Suffolk Street.</p> <p>Lift access is provided from the basement.</p>	Yes
3.4 Landscaping			
To provide landscape design that contributes to the streetscape and amenity.	<p>C18 - Appropriate planting should be provided along the boundary integrated with fencing. Screen planting should not be included in calculations of unencumbered outdoor space.</p> <p>Use the existing landscape where feasible to provide a high quality landscaped area by:</p> <ul style="list-style-type: none"> reflecting and reinforcing the local context 	<p>Landscaping details have been submitted for the outdoor play area. Screen planting is provided along the western boundary.</p>	Yes

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	<ul style="list-style-type: none"> incorporating natural features of the site, such as trees, rocky outcrops and vegetation communities into landscaping. 		
To provide landscape design that contributes to the streetscape and amenity.	<p>C19 - Incorporate car parking into the landscape design of the site by:</p> <ul style="list-style-type: none"> planting shade trees in large car parking areas to create a cool outdoor environment and reduce summer heat radiating into buildings taking into account streetscape, local character and context when siting car parking areas within the front setback using low level landscaping to soften and screen parking areas. 	Basement parking is provided.	Yes
3.5 Visual and Acoustic Privacy			
To protect the privacy and security of children attending the facility.	C20 - Open balconies in mixed use developments should not overlook facilities nor overhang outdoor play spaces.	Privacy mitigation measures are not proposed as part of the development application with regard to the balconies on the higher levels located above the outdoor play spaces. See discussion in the report.	No
To protect the privacy and security of children attending the facility.	<p>C21 - Minimise direct overlooking of indoor rooms and outdoor play spaces from public areas through:</p> <ul style="list-style-type: none"> appropriate site and building layout suitably locating pathways, windows and doors permanent screening and landscape design. 	<p>The development has frontage to Suffolk Street and Palmer Street. The outdoor play space to the western side of the site is screened by fencing.</p> <p>The outdoor play space to located in the secondary street setback to Palmer Street has fencing and landscaping proposed, however further screening</p>	Partial compliance, further details required with future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
		<p>may be required if the space is to be used as an outdoor play area.</p> <p>Views to indoor play rooms from the street cannot be ascertained as the details have not been provided with this application.</p>	
To minimise impacts on privacy of adjoining properties.	<p>C22 - Minimise direct overlooking of main internal living areas and private open spaces in adjoining developments through:</p> <ul style="list-style-type: none"> • appropriate site and building layout • suitable location of pathways, windows and doors • landscape design and screening. 	The development is located at the ground floor and fences will provide screening.	Yes
To minimise the impact of child care facilities on the acoustic privacy of neighbouring residential developments.	<p>C23 - A new development, or development that includes alterations to more than 50 per cent of the existing floor area, and is located adjacent to residential accommodation should:</p> <ul style="list-style-type: none"> • provide an acoustic fence along any boundary where the adjoining property contains a residential use. (An acoustic fence is one that is a solid, gap free fence). • ensure that mechanical plant or equipment is screened by solid, gap free material and constructed to reduce noise levels e.g. acoustic fence, building, or enclosure. 	An acoustic report was provided for the residential development which requires acoustic walls to the residential boundaries. A further acoustic report is required for the fit out and use of the premises development application, which will be required to meet this clause.	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
To minimise the impact of child care facilities on the acoustic privacy of neighbouring residential developments.	<p>C24 - A suitably qualified acoustic professional should prepare an acoustic report which will cover the following matters:</p> <ul style="list-style-type: none"> • identify an appropriate noise level for a child care facility located in residential and other zones • determine an appropriate background noise level for outdoor play areas during times they are proposed to be in use • determine the appropriate height of any acoustic fence to enable the noise criteria to be met. 	An acoustic report was provided for the residential development which requires acoustic walls to the residential boundaries. A further acoustic report is required for the fit out and use of the premises development application, which will be required to meet this clause.	Required for future development application.
3.6 Noise and Air Pollution			
To ensure that outside noise levels on the facility are minimised to acceptable levels.	<p>C25 - Adopt design solutions to minimise the impacts of noise, such as:</p> <ul style="list-style-type: none"> • creating physical separation between buildings and the noise source • orienting the facility perpendicular to the noise source and where possible buffered by other uses • using landscaping to reduce the perception of noise • limiting the number and size of openings facing noise sources • using double or acoustic glazing, acoustic louvers or enclosed balconies (wintergardens) • using materials with mass and/or sound insulation or 	A future application for the fit out and use of premise will require a revised acoustic report to address this matter.	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	<p>absorption properties, such as solid balcony balustrades, external screens and softs</p> <ul style="list-style-type: none"> • locating cot rooms, sleeping areas and play areas away from external noise sources. 		
To ensure that outside noise levels on the facility are minimised to acceptable levels.	<p>C26 - An acoustic report should identify appropriate noise levels for sleeping areas and other non-play areas and examine impacts and noise attenuation measures where a child care facility is proposed in any of the following locations:</p> <ul style="list-style-type: none"> • on industrial zoned land • where the ANEF contour is between 20 and 25, consistent with AS 2021 - 2000 • along a railway or mass transit corridor, as defined by State Environmental Planning Policy (Infrastructure) 2007 • on a major or busy road • other land that is impacted by substantial external noise. 	A future application for the fit out and use of premise will require a revised acoustic report to address this matter.	Required for future development application.
To ensure air quality is acceptable where child care facilities are proposed close to external sources of air pollution such as major roads and industrial development.	C27 - Locate child care facilities on sites which avoid or minimise the potential impact of external sources of air pollution such as major roads and industrial development.	The site is in a residential area.	Yes
To ensure air quality is acceptable where child	C28 - A suitably qualified air quality professional should prepare an air quality assessment report to	Details will be require for the future development application for the fit out and use of premise.	N/A

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
care facilities are proposed close to external sources of air pollution such as major roads and industrial development.	<p>demonstrate that proposed child care facilities close to major roads or industrial developments can meet air quality standards in accordance with relevant legislation and guidelines. The air quality assessment report should evaluate design considerations to minimise air pollution such as:</p> <ul style="list-style-type: none"> • creating an appropriate separation distance between the facility and the pollution source. The location of play areas, sleeping areas and outdoor areas should be as far as practicable from the major source of air pollution • using landscaping to act as a filter for air pollution generated by traffic and industry. Landscaping has the added benefit of improving aesthetics and minimising visual intrusion from an adjacent roadway • incorporating ventilation design into the design of the facility. 		
3.7 Hours of Operation			
To minimise the impact of the child care facility on the amenity of neighbouring residential developments.	C29 - Hours of operation within areas where the predominant land use is residential should be confined to the core hours of 7.00am to 7.00pm weekdays. The hours of operation of the proposed child care facility may be extended if it adjoins or is adjacent to non-residential land uses.	Details will be require for the future development application for the fit out and use of premise.	N/A
To minimise the impact of the child care facility on the	C30 - Within mixed use areas or predominantly commercial areas, the hours of operation for each child care facility	The development site is within a residential area.	N/A

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
amenity of neighbouring residential developments.	should be assessed with respect to its compatibility with adjoining and co-located land uses.		
3.8 Traffic, Parking and Pedestrian Circulation			
To provide parking that satisfies the needs of users and demand generated by the centre.	C31- Within 400 metres of a metropolitan train station: • 1 space per 10 children • 1 space per 2 staff. Staff parking may be stack or tandem parking with no more than 2 spaces in each tandem space Off street car parking should be provided at the rates for child care facilities specified in a Development Control Plan that applies to the land.	The site is located 650m from Ingleburn train station. Therefore in accordance with the SCDCP a rate of 1 space for 4 children will apply. The basement provides for 25 car parking spaces to service the future childcare centre. The number of students have not been provided with this application.	Required for future development application.
To provide parking that satisfies the needs of users and demand generated by the centre.	C32 - In commercial or industrial zones and mixed use developments, on street parking may only be considered where there are no conflicts with adjoining uses, that is, no high levels of vehicle movement or potential conflicts with trucks and large vehicles.	Residential land.	N/A
To provide parking that satisfies the needs of users and demand generated by the centre.	C33 - A Traffic and Parking Study should be prepared to support the proposal to quantify potential impacts on the surrounding land uses and demonstrate how impacts on amenity will be minimised. The study should also address any proposed variations to parking rates and demonstrate that: <ul style="list-style-type: none"> • the amenity of the surrounding area will not be affected • there will be no impacts on the safe operation of the surrounding road network. 	The parking study addresses the childcare centre. The number of spaces provided limit the number of children to 100 children, however this is also dependent on compliance with indoor and outdoor space provisions. The proposal is also dependent on the effective car parking rate at the time the use application is lodged with Council.	Required for future development application.
To provide vehicle access	C34 - Alternate vehicular access should be provided	The site located on local roads.	N/A

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
from the street in a safe environment that does not disrupt traffic flows.	where child care facilities are on sites fronting: <ul style="list-style-type: none"> • a classified road • roads which carry freight traffic or transport dangerous goods or hazardous materials. 		
To provide vehicle access from the street in a safe environment that does not disrupt traffic flows.	C35 - Child care facilities proposed within cul-de-sacs or narrow lanes or roads should ensure that safe access can be provided to and from the site, and to and from the wider locality in times of emergency.	The site has a dual street frontage, Palmer Street has a pedestrianised section where the street connects to Norfolk Avenue. Pedestrian access is via Suffolk Street and basement vehicle access is via Palmer Street.	Yes, details are required for a future development application
To provide a safe and connected environment for pedestrians both on and around the site.	C36 - The following design solutions may be incorporated into a development to help provide a safe pedestrian environment: <ul style="list-style-type: none"> • separate pedestrian access from the car park to the facility • defined pedestrian crossings included within large car parking areas • separate pedestrian and vehicle entries from the street for parents, children and visitors • pedestrian paths that enable two prams to pass each other • delivery and loading areas located away from the main pedestrian access to the building and in clearly designated, separate facilities • vehicles can enter and leave the site in a forward direction. 	The pedestrian access to the childcare centre is separate to the residential lobby and the vehicular access on Palmer Street	Yes

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
To provide a safe and connected environment for pedestrians both on and around the site.	<p>C37 - Mixed use developments should include:</p> <ul style="list-style-type: none"> •driveway access, maneuvering areas and parking areas for the facility that are separate to parking and maneuvering areas used by trucks • drop of and pick up zones that are exclusively available for use during the facility's operating hours with spaces clearly marked accordingly, close to the main entrance and preferably at the same floor level. Alternatively, direct access should avoid crossing driveways or maneuvering areas used by vehicles accessing other parts of the site • parking that is separate from other uses, located and grouped together and conveniently located near the entrance or access point to the facility. 	<p>Details for the access of a small rigid vehicle for basement waste collection has not been provided with the application. This information will be required for future development application for the childcare centre.</p> <p>No drop off or pick up zone is proposed for the centre.</p> <p>Childcare parking on separate level to residents allocated parking</p>	Required for future development application.
To provide a safe and connected environment for pedestrians both on and around the site.	<p>C38 - Car parking design should:</p> <ul style="list-style-type: none"> • include a child safe fence to separate car parking areas from the building entrance and play areas • provide clearly marked accessible parking as close as possible to the primary entrance to the building in accordance with appropriate Australian Standards • include wheelchair and pram accessible parking. 	<p>Car parking is located in the basement, which is separated from the building entrance and play areas.</p> <p>The building provides for a separate lift access from the basement directly to the childcare centre, which does not conflict with the residential lift services.</p>	Yes

Part 4

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
4.1 Indoor Space Requirements	Every child being educated and cared for within a facility must have a minimum of 3.25m ² of unencumbered indoor space.	No details provided.	Required for future development application.
	Storage areas including joinery units are not to be included in the calculation of indoor space. To achieve a functional unencumbered area free of clutter, storage areas must be considered when designing and calculating the spatial requirements of the facility. It is recommended that a child care facility provide: <ul style="list-style-type: none"> • a minimum of 0.3m³ per child of external storage space • a minimum of 0.2m³ per child of internal storage space. 	No details provided.	Required for future development application.
4.2 Laundry and hygiene facilities	There must be laundry facilities or access to laundry facilities; or other arrangements for dealing with soiled clothing, nappies and linen, including hygienic facilities for storage prior to their disposal or laundering. The laundry and hygienic facilities must be located and maintained in a way that does not pose a risk to children.	No details provided.	Required for future development application.
4.3 Toilet and hygiene facilities	Toilet and hygiene facilities should be designed to maintain the amenity and dignity of the occupants (refer to Figure 3). Design considerations could include: <ul style="list-style-type: none"> • junior toilet pans, low level sinks and hand drying facilities for children • a sink and handwashing facilities in all bathrooms for adults • direct access from both activity rooms and outdoor play areas 	No details provided.	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	<ul style="list-style-type: none"> • windows into bathrooms and cubicles without doors to allow supervision by staff • external windows in locations that prevent observation from neighbouring properties or from side boundaries 		
4.4 Ventilation and natural light	<p>Ventilation Good ventilation can be achieved through a mixture of natural cross ventilation and air conditioning. Encouraging natural ventilation is the basis of sustainable design; however, there will be circumstances where mechanical ventilation will be essential to creating ambient temperatures within a facility. To achieve adequate natural ventilation, the design of the child care facilities must address the orientation of the building, the configuration of rooms and the external building envelope, with natural air flow generally reducing the deeper a building becomes. It is recommended that child care facilities ensure natural ventilation is available to each indoor activity room.</p>	No details provided.	Required for future development application.
	<p>Natural light Solar and daylight access reduces reliance on artificial lighting and heating, improves energy efficiency and creates comfortable learning environments through pleasant conditions. Natural light contributes to a sense of well-being, is important to the development of children and improves service outcomes. Daylight and solar access changes with the time of day, seasons and weather conditions. When designing child care facilities consideration should be given to:</p>	No details provided.	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	<ul style="list-style-type: none"> • providing windows facing different orientations • using skylights as appropriate • ceiling heights. 		
4.5 Administrative Space	<p>Design considerations could include closing doors for privacy and glass partitions to ensure supervision.</p> <p>When designing administrative spaces, consideration should be given to functions which can share spaces and those which cannot (refer Figure 4). Sound proofing of meeting rooms may be appropriate where they are located adjacent to public areas, or in large rooms where sound can easily travel.</p> <p>Administrative spaces should be designed to ensure equitable use by parents and children at the facility. A reception desk may be designed to have a portion of it at a lower level for children or people in a wheel chair</p>	No details provided.	Required for future development application.
4.6 Nappy Change facilities	<p>In circumstances where nappy change facilities must be provided, design considerations could include:</p> <ul style="list-style-type: none"> • properly constructed nappy changing bench or benches • a bench type baby bath within one metre from the nappy change bench • the provision of hand cleansing facilities for adults in the immediate vicinity of the nappy change area • a space to store steps • positioning to enable supervision of the activity and play areas. 	No details provided.	Required for future development application.
4.7 Premises designed to facilitate supervision	<ul style="list-style-type: none"> • solid walls in children's toilet cubicles (but no doors) to provide dignity whilst enabling supervision 	No details provided.	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	<ul style="list-style-type: none"> • locating windows into bathrooms or nappy change areas away from view of visitors to the facility, the public or neighbouring properties • avoiding room layouts with hidden corners where supervision is poor, or multi room activity rooms for single groups of children • avoiding multi-level rooms which compromise, or require additional staffing, to ensure proper supervision. If multilevel spaces are proposed, consideration should be given to providing areas that can be closed off and used only under supervision for controlled activities (refer to Figures 5, 6 and 7). 		
4.8 Emergency and evacuation procedures	<p>Regulation 97 sets out the detail for what those procedures must cover including:</p> <ul style="list-style-type: none"> • instructions for what must be done in the event of an emergency • an emergency and evacuation floor plan, a copy of which is displayed in a prominent position near each exit • a risk assessment to identify potential emergencies that are relevant to the service. 	No details provided.	Required for future development application.
4.9 Outdoor space requirements	An education and care service premises must provide for every child being educated and cared for within the facility to have a minimum of 7.0m ² of unencumbered outdoor space.	The applicant has not provided sufficient information at this stage with regard to the outdoor open space and the number of proposed children. This will be left for further assessment under a future fit out and use DA, where the outdoor space compliance will be required to be achieved for the proposed number of children.	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
4.10 Natural environment	<p>Shrubs and trees selected for the play space must be safe for children. Avoid plant species that risk the health, safety and welfare of the facility's occupants, such as those which:</p> <ul style="list-style-type: none"> • are known to be poisonous, produce toxins or have toxic leaves or berries • have seed pods or stone fruit, attract bees, have thorns, spikes or prickly foliage or drop branches <p>The outdoor space should be designed to:</p> <ul style="list-style-type: none"> • provide a variety of experiences that facilitate the development of cognitive and physical skills, provide opportunities for social interaction and appreciation of the natural environment • assist supervision and minimise opportunities for bullying and antisocial behaviour • enhance outdoor learning, socialisation and recreation by positioning outdoor urban furniture and play equipment in configurations that facilitate interaction. 	The landscaping plan can be conditioned to comply with the Childcare Planning Guideline.	Yes, conditioned
4.11 Shade Providing the correct balance of sunlight and shade to play areas is important for the health and well-being of children and staff. Combining built and natural shade will often be the best option	<p>Solar access Controlled exposure to daylight for limited periods is essential as sunlight provides vitamin D which promotes healthy muscles, bones and overall wellbeing. Outdoor play areas should be provided with controlled solar access throughout the year. Outdoor play areas should:</p> <ul style="list-style-type: none"> • have year-round solar access to at least 30 per cent of the ground area, with no more than 60 per cent of the outdoor space covered. • provide shade in the form of trees or built shade structures giving protection from 	<p>The applicant has not provided details as to whether or not the proposed open space area complies with solar access.</p> <p>Based on the plans supplied 51% of the outdoor place space is covered.</p> <p>Assessment is required as part of a separate development application.</p>	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	ultraviolet radiation to at least 30 per cent of the outdoor play area <ul style="list-style-type: none"> • have evenly distributed shade structures over different activity spaces. 		
	Natural shade should be a major element in outdoor play areas. Trees with dense foliage and wide-spreading canopies provide the best protection. Existing stands of trees, particularly in rear setbacks, should be retained to provide shaded play areas. Species that suit local soil and climatic conditions and the character of the environment are recommended. Dense shrubs can also provide shade. They should be planted around the site perimeter so they don't obstruct supervision. Pruning shrubs on the underside may create shaded play nooks underneath. Planting for shade and solar access is enhanced by: <ul style="list-style-type: none"> • placing appropriately scaled trees near the eastern and western elevations • providing a balance of evergreen and deciduous trees to give shade in summer and sunlight access in winter. 	Shade is provided form the balconies and the levels above.	Required for future development application.
	Built shade structures Built structures providing effective shade include: <ul style="list-style-type: none"> • permanent structures (pergolas, sails and verandahs) • demountable shade (marquees and tents) • adjustable systems (awnings) • shade sails. Shade structures should not create safety hazards. Support systems such as upright posts should be clearly visible with rounded edges or padding. Vertical barriers at the sides of shade structures should be	Shade is provided form the balconies and the levels above.	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	designed to prevent children using them for climbing. Shade structures should allow adults to view and access the children's play areas, with a recommended head clearance of 2.1 metres. The floor area underneath the structure should be of a sufficient size and shape to allow children to gather or play actively.		
4.12 Fencing	<p>Fencing at child care facilities must provide a secure, safe environment for children and minimise access to dangerous areas. Fencing also needs to positively contribute to the visual amenity of the streetscape and surrounding area. In general, fencing around outdoor spaces should:</p> <ul style="list-style-type: none"> • prevent children climbing over, under or through fences • prevent people outside the facility from gaining access by climbing over, under or through the fence • not create a sense of enclosure. 	The proposed fences appear to comply, notwithstanding fences will be required to comply with any future development application for a childcare centre.	Required for future development application.
	<p>Design considerations for side and rear boundary fences could include: Heights and requirements for child care facility fencing.</p> <ul style="list-style-type: none"> • being made from solid prefinished metal, timber or masonry • having a minimum height of 1.8 metres • having no rails or elements for climbing higher than 150mm from the ground. Fencing and gates should be designed to ensure adequate sightlines for vehicles and pedestrian safety in accordance with Australian Standards and Roads and Maritime Services Traffic Management Guidelines. Gates should be designed to prevent 	The proposed fences appear to comply, notwithstanding fences will be required to comply with any future development application for a childcare centre.	Required for future development application.

Child Care Planning Guidelines			
Objective	Provision	Proposed	Compliance
	children leaving/entering unsupervised by use of childproof locking systems		
4.13 Soil assessment	Where children will have access to soil the regulatory authority requires a preliminary investigation of the soil.	A PSI was provided with the application and has been assessed elsewhere in this report.	Yes

Campbelltown (Sustainable City) Development Control Plan Compliance Tables:

An Assessment against Part 2 if the Campbelltown (Sustainable City) Development Control Plan 2015 is provided below:

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
Part 2 Requirements Applying to all Types of Development			
2.2 Site Analysis	a) A Site Analysis Plan shall be lodged with the development application for all development involving the construction of a building and the Torrens title subdivision of land. The scope of the site analysis will depend on the scale and nature of the development and shall address: <ul style="list-style-type: none"> i) contours, slope and north point; ii) existing landscaping and vegetation; iii) existing buildings and structures; iv) location of windows and other openings on adjoining buildings; v) roads, access points, parking, and traffic management devices and the like; vi) linkages; open space networks, pedestrian/cycle paths and the like; vii) easements, services, existing infrastructure and utilities; viii) hydraulic features, drainage lines, water features, drainage constraints, and the like; 	A site analysis plan was provided with the application.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	ix) natural hazards (e.g. flooding, bushfire); x) solar orientation, overshadowing, prevailing winds; xi) views and vistas to, from and within the site; xii) a streetscape analysis; xiii) special environmental features such as threatened species habitat, endangered ecological communities and wetlands; xiv) items and relics of and/or aboriginal place of heritage significance ; and xv) any identified road widening applying to the subject land.		
2.3 Views and Vistas	a) Development shall appropriately respond to Campbelltown's important views and vistas to and from public places.	The application is not considered to affect views from surrounding properties.	Yes
	b) District views and existing significant view corridors as viewed to and from public places shall be protected	The application is not considered to affect views from surrounding public places.	Yes
2.4.1 Rain Water Tanks	a) In addition to satisfying BASIX, residential development is encouraged to provide a rain water tank for new buildings	A rainwater tank is not required on the BASIX certificate. A rainwater tank has not been provided.	No
2.4.2 Natural Ventilation	a) The design of new buildings shall be encouraged to maximise opportunities for cross flow ventilation, where practical, thus minimising the need for air conditioning.	Natural ventilation is maximised where possible.	Yes
2.4.4 Light Pollution	Outdoor lighting shall be designed to minimise pollution from the unnecessary dispersion of light into the night sky and neighbouring properties.	Outdoor lighting will be conditioned to mitigate impacts on neighbouring properties	Yes, conditioned
2.4.3 BASIX	A BASIX certificate is to be submitted with residential development in	The BASIX certificate is included as a consent document.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	accordance with the SEPP (Building Sustainability Index) 2004.		
2.5 Landscaping - Design Requirements	a) Landscape design shall enhance the visual character of the development and complement the design/use of spaces within and adjacent to the site.	The landscape design will enhance the development and the communal open spaces.	Yes
	b) Landscape design shall retain and enhance the existing native flora and fauna characteristics of a site wherever possible.	The proposal seeks to retain three trees on the site two of which are native palms.	Yes
	c) Landscape design shall add value to the quality and character of the streetscape.	The proposed landscaping design will contribute to the visual character of Suffolk Street and Palmer Street.	Yes
	d) A Landscape Concept Plan is required to be submitted with a development application for residential flat buildings.	A landscape plan was submitted with the application.	Yes
	e) The Landscape Concept Plan shall illustrate mature height, spread of species, trees to be removed/retained and shall be prepared by a suitably qualified person.	Landscape details are provided.	Yes
	f) Landscaping shall maximise the use of locally indigenous and other drought tolerant native plants and avoid the use of invasive species.	Native plantings are required to be increased, particularly for tree species	Yes, conditioned
2.7 Erosion and Sediment Control - Design Requirements	a) An Erosion and Sediment Control Plan shall be prepared and submitted with a development application proposing construction and/or activities involving the disturbance of the land surface.	An erosion and sediment control plan was submitted with the application.	Yes
2.8	a) A Cut and Fill Management Plan (CFMP) shall be submitted with a development application where the	The proposal includes excavation for a basement, however a	N/A

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
Cut, Fill and Floor Levels	development incorporates cut and/or fill operations.	CFMP is not considered to be required.	
	c) Any excavation within the zone of influence of any other structure requires a 'dilapidation report' (prepared by a suitably qualified person) demonstrating that adequate ameliorative measures are to be implemented to protect the integrity of any structure.	A dilapidation report will be required as a condition on consent	Yes, conditioned
	e) All fill shall be 'Virgin Excavated Natural Material' (VENM).	No fill is proposed.	Yes
	f) No fill shall be deposited in the vicinity of native vegetation.	No fill is proposed.	Yes
	g) All basement excavation shall be setback a minimum of 900mm from the property boundaries.	Basement excavation is setback a minimum of 1.2m.	Yes
	h) Provisions of basements shall not result in non-compliance with deep soil planting controls contained within this plan	The development complies with the deep soil planting requirements in the ADG.	Yes
2.8.2 Surface Water and Floor Levels	a) Development shall not occur on land that is affected by the 100-year ARI event unless the development is consistent with the NSW Floodplain Development Manual.	The site is not identified as being flood affected.	N/A
	b) All development on land affected by stormwater flow from main stream, local creek or over land flow shall satisfy the relevant fill and floor level requirements as specified in Table 2.8.1.	The site is not affected by overland flow.	N/A
	c) All development shall have a ground surface level, at or above a minimum, equal to the 100-year 'average recurrence interval' (ARI) flood level.	The site is not flood affected.	N/A
	g) Where underground car parking is proposed, measures shall be taken in design and construction to ensure	The basement design has been reviewed by Council's Senior	Yes, conditioned

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	escape routes, pump out drainage systems (which include backup systems) and location of service utilities (including power, phone, lifts) are appropriately located in relation to the 100 year ARI event, in accordance with Section 4.13.8 of Council's Engineering Design Guide for Development	Development Engineer and relevant conditions of consent are included in attachment 1.	
2.9 Demolition - Design Requirements	<p>a) A development application involving demolition shall be considered having regard to the following information:</p> <p>i) a detailed work plan prepared by a suitably qualified person, in accordance with AS2601-2001-The Demolition of Structures (as amended);</p> <p>ii) details of the licensed demolition contractor engaged to carry out the work (including name, address and building licence number);</p> <p>iii) a hazardous materials report that lists details of methods to prevent air, noise and water pollution and the escape of hazardous substances into the public domain;</p> <p>iv) details of any asbestos or other hazardous substances to be removed from the site and/or damaged during demolition; and</p> <p>v) a dilapidation report where any demolition work is to be undertaken within the zone of influence of any other structure.</p>	The proposed demolition of the dwellings will be conditioned accordingly.	Yes, conditioned
2.10.1 Water Cycle Management	a) A comprehensive Water Cycle Management Plan (WCMP) shall be prepared and submitted as part of a development application.	A WSUD system is included with the development and has been reviewed by Council's Senior Development Engineer and relevant conditions of	Yes, conditioned

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
		consent are included in attachment 1.	
2.10.2 Stormwater – Design requirements	a) All stormwater systems shall be sized to accommodate the 100-year ARI event (refer to Section 4 of Council's Engineering Design Guide for Development available from Council's website at www.campbelltown.nsw.gov.au).	The proposed stormwater system has been reviewed by Council's Senior Development Engineer and relevant conditions of consent are included in attachment 1.	No, conditioned
	b) The design and certification of any stormwater system shall be undertaken by a suitably qualified person.	A suitably qualified person prepared the stormwater management plan	Yes
	d) Development shall not impact on adjoining sites by way of overland flow of stormwater unless an easement is provided. All overland flow shall be directed to designated overland flow paths such as roads.	The proposed development does not result in overland flow on adjoining properties.	Yes
	h) Stormwater collected on a development site shall be disposed of (under gravity) directly to the street or to another Council drainage system/device. Where stormwater cannot be discharged directly to a public drainage facility, a drainage easement of a suitable width shall be created over a downstream property(s) allowing for the provision of a drainage pipe of suitable size to adequately drain the proposed development to a public drainage facility.	The proposal disposes of stormwater via gravity to Palmer Street.	Yes
	j) Development shall not result in water run-off causing flooding or erosion on adjacent properties.	The proposal would not result in run off or erosion to adjoining properties.	Yes
	k) Stormwater run-off shall be appropriately channelled into a stormwater drain in accordance with Council's Engineering Design Guide for Development	Stormwater runoff will be disposed of to Palmer Street	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
2.10.3 Stormwater Drainage – Design requirements	a) A stormwater Drainage Concept Plan shall be prepared by a suitably qualified person, and submitted with all development applications, involving construction (except for internal alterations/fitouts), demonstrating to Council how the stormwater will be collected and discharged from the site.	A stormwater concept plan was submitted with the application.	Yes
	b) The stormwater concept plan shall include the following information as a minimum: i) locations, layouts and sizes of stormwater pipes and pits; ii) minimum grades and capacity of stormwater pipes; and iii) existing and proposed easements, site contours and overland flow path/s.	The proposed stormwater system has been reviewed by Council's Senior Development Engineer and relevant conditions of consent are included in attachment 1. The current design to connect to Council's system are not supported, see discussion in report.	Yes, conditioned
2.12 Retaining Walls – Design requirements	a) Any retaining wall that is not complying or exempt development as specified in the E&CDC shall be designed by a suitably qualified person.	The proposed retaining walls will be conditioned to ensure the retaining walls are located wholly within the property and designed by a suitably qualified person.	Yes conditioned
	b) In the case of retaining walls constructed to support proposed fill on an allotment, the following design criteria shall apply: i) No filling shall be permitted within 2 metres of any property boundary unless sufficient details are submitted to Council illustrating how privacy, overshadowing, stormwater management and access issues have been addressed to Council's satisfaction.	The proposed retaining walls and associated fill are located on the boundary, the level of fill is not considered to affect privacy or overshadowing to adjoining properties.	Yes
	f) Any excavation within the zone of influence for any other structure or building requires a Structural Engineering Report (prepared by a	A condition of consent has been recommended for a dilapidation report for adjoining structures.	Yes conditioned

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	suitably qualified professional) demonstrating that adequate and appropriate measures are to be implemented to protect the integrity of any structure.		
2.13 Security – Design requirements	a) Development shall be designed to: i) maximise, where possible, casual surveillance opportunities to the street and surrounding public places; ii) minimise dead ends and other possible entrapment areas; iii) clearly identify and illuminate access points to buildings and designated public places; and iv) clearly differentiate between private and public space.	The design maximises casual surveillance to the street and clearly delineates between private property and the public domain.	Yes
	b) External lighting shall be designed to: i) encourage the use of safe areas; ii) define safe corridors for movement of people; and iii) allow facial recognition of approaching pedestrians at 15 metres.	External lighting details have not been provided.	Yes conditioned
	c) Development shall incorporate appropriate landscaping, fencing and security devices to assist in crime prevention.	The development incorporates reasonable measures to assist in crime prevention. See discussion in report.	Yes
	e) Development applications for residential flat buildings, shall be accompanied by a crime prevention plan to be prepared by a suitably qualified person addressing how the development embraces the principles of Crime Prevention Through Environmental Design	A report was not provided, see discussion in report.	No, condition
2.15.1 Waste Management Plan –	a) A detailed 'Waste Management Plan' (WMP) shall accompany development applications for certain types of development/land uses, as detailed in Table 2.15.1 and for any other	The applicant has submitted a waste management plan for the	Yes

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Part	Requirement	Proposed	Compliance
Design requirements	development that in the opinion of Council a WMP is required.	residential component of the development.	
	b) Plans submitted with a development application shall detail the following (as applicable): <ul style="list-style-type: none"> i) the size and location of waste and recycling storage areas; ii) routes for occupants to access waste and recycling areas; iii) collection point and/or access route for collection vehicles; iv) ventilation of waste and recycling storage areas; v) location of garbage chute and service rooms; vi) bin and storage area washing facilities; and vii) occupants' disposal points for all waste streams. 	Waste storage details and waste collection areas are provided on the plans.	Yes
2.15.2 Waste Management During Demolition and Construction	b) All storage areas/containers for each waste and recycling stream shall be kept on the site at all times and shall be indicated on the site plans/drawings as part of the WMP.	Construction waste storage is detailed in the WMP.	Yes
	e) The removal, handling and disposal of asbestos or other hazardous materials shall be carried out in accordance with WorkCover NSW, NSW Environment & Protection Authority (EPA), Office of Environment and Heritage and other regulatory authority guidelines and requirements.	The removal of asbestos will be addressed within the recommended conditions of consent included in attachment 1.	Yes, conditioned
2.15.3 On-going Waste Management	a) Provision shall be made for all waste and recycling storage containers to be located behind the primary and secondary building line and out of public view.	Bin storage rooms are located in the building basement.	Yes

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Part	Requirement	Proposed	Compliance
	b) Any room(s) for storing garbage and recycling receptacles shall be located in a position that provides convenient access for residents, maintenance and waste collection staff. Bin storage rooms shall complement the development and not be visibly obtrusive when viewed from any public place.	Bin storage rooms are located in the building basement.	Yes
	c) A waste collection point shall be nominated demonstrating that waste-loading operations can occur on a level surface not adjacent to steep gradients, vehicle ramps and pedestrian access points.	The waste collection point on Palmer Street is acceptable.	Yes
	e) For safety and ease of manoeuvrability, the distance required for residents, building managers and caretakers to wheel bins to their collection point shall be the minimum achievable.	The distance from the basement to the collection point is acceptable	Yes
	f) Where the bin-carting route from the storage area to the collection point exceeds the maximum distance or gradient, or a large number of bins need to be moved around the site, a dock leveler, bin lift or tow tug device may be used.	A bin tug is required for the bins and a condition of consent is recommended in Attachment 1. See discussion in the report.	No, conditioned
	g) Where any such device listed above is proposed to be used, details of the device and its proposed operation must be provided. This information must demonstrate that the device can be used safely by a nominated competent person, and that the use of the device will not conflict with other activities to be carried out on the site (such as vehicle access)	The bin tug device will be required to be storage in one of the existing car parking spaces on basement level 1, a condition of consent is recommended in Attachment 1. See discussion in the report.	No, conditioned
2.15.5 Effective Waste and Resource	c) Functional and adequate storage spaces be provided for all waste and recycling streams, including temporary storage areas for bulky waste materials.	Bulk waste storage is provided on basement level 1.	Yes

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Part	Requirement	Proposed	Compliance
Management			
2.15.6 Clean, Safe and Healthy Living Environments	a) Negative impacts on amenity for residents, neighbours and the general public such as visually unpleasant waste storage areas, bad odours and noise from bin collection shall be minimised.	The bin storage area is located in the basement.	Yes
	c) Safe and easy access to waste and resource recovery storage areas shall be provided for residents, building managers and collection service providers.	Access to waste services is appropriate on each level of the building.	Yes
2.15.7 Vehicle Turning Circles	a) Turning circles and clearances to kerbs, existing buildings or other obstructions shall be designed to accommodate the largest collection vehicle that could service the property (heavy rigid class in most cases)	Kerbside collection is proposed	Yes
2.15.8 Improving Resource Recovery	a) Waste management systems shall be convenient and simple to use.	The waste management system is easy to use.	Yes
	b) Effective systems shall encourage proper use, reduce illegal dumping, maintain cleanliness and amenity of the building and its surrounds and reduce contamination.	The proposed waste system is acceptable.	Yes
2.15.9 Bin Storage Areas	a) The design of the bin storage areas shall be considered early in the design process so that they can be successfully integrated into the overall design of the development and are convenient for all users.	Bin storage areas are detailed on the plans. Bulky waste storage is provided on basement level 1.	Yes
2.17.2 Working Near Public Land	a) Notwithstanding clause 2.17.1 a) a hoarding or fence shall be erected between the work site and a public place where: i) the work involved in the development is likely to cause pedestrian or vehicle traffic in a public place to be obstructed or altered; and/or	Conditions are recommended in attachment 1 regarding fencing and hoarding.	Yes, conditioned

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	ii) the building involves the enclosure of a public place in accordance with Work Cover requirements		
	b) Where a hoarding fence is required to be erected upon public land, including any road, road related area, footpath or nature strip, prior written approval shall be obtained from Council.	Hoarding will be required as a condition of consent.	Yes conditioned
	c) Where the site work is likely to be hazardous to persons on a public place, the work site shall be kept lit between the sunset and sunrise.	Hoarding will be required as a condition of consent.	Yes, conditioned
2.21 Acoustic Privacy	a) Development shall comply with any relevant provisions in the following documents. The event of an inconsistency between the noise related controls in this plan and the documents below, the documents below prevail to the extent of the inconsistency. i) The NSW Noise Policy for Industry (NPfI) ii) The NSW Road Noise Policy iii) The NSW Development Near Rail Corridors and Busy Roads - Interim Guideline iv) Association of Australasian Acoustical Consultants Guideline for Child Care Centre Acoustic Assessment	An acoustic report was provided for the development to address the residential component of the development. The acoustic report is acceptable for the residential development. However, it does not address the proposed future childcare development. This will be assessed as part of a future development application for the childcare centre.	Yes acceptable for residential development
	b) A Noise Impact Assessment prepared by a suitably qualified acoustic consultant will be required in cases where the consent authority is not satisfied that a development will: i) Achieve a satisfactory level of acoustic amenity for occupants within the existing noise environment; and ii) Produce noise only at levels that will not exceed the relevant noise criteria.	An acoustic report was provided for the development to address the residential component of the development.	Yes

Part 5

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Part	Requirement	Proposed	Compliance
Part 5 – Residential Flat Buildings and Mixed-Use Development			
5.2 Desired Future Character for High Density Residential Neighbourhoods (R4)	<p>High density residential neighbourhoods shall be characterised by:</p> <ul style="list-style-type: none"> • building forms that have a high level of architectural merit and make a positive contribution to the local area; • a diversity of high density residential forms; • residential forms that provide high quality residential living environments; • integration with high intensity public transport forms and fine grained pedestrian/ cycleway networks; • access to a safe and high quality public domain; • articulated front facades with balconies and deep soil planting and landscaping of street frontages. 	The proposed development is considered to be of high architectural merit and would be consistent with the desired future character for high density residential areas.	Yes
5.4.1 Relationship of the Plan to SEPP 65 Design Quality of Residential Flat Development	a) In addition to satisfying the requirements of the Plan, all residential flat buildings, and mixed use development having a height greater than 12 metres or 4 or more self-contained dwellings (whether or not the building includes uses for other purposes, such as shops) shall satisfy all the standards within State Environmental Planning Policy No. 65 - Design Quality of Residential Flat Development (SEPP 65) and Apartment Design Guide	The proposal has been assessed against SEPP 65 in the assessment report.	Yes
5.4.2 Building Form and Character	a) Building design shall consider foremost the qualities (both natural and built) and the	The proposal is consistent with the desired future character of the locality.	Yes

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Part	Requirement	Proposed	Compliance
	desired future character of the areas including the significance of any heritage item on the land.		
	<p>b) Building design shall incorporate the following features to assist in the achievement of high quality architectural outcomes:</p> <p>i) incorporation of appropriate facade treatments that help the development properly address the respective street frontages, key vistas and to add visual interest to the skyline;</p> <p>ii) incorporation of articulation in walls, roof lines, variety of roof pitch, individualised architectural features (balconies, columns, porches, colours, materials etc) into the facade of the building;</p> <p>iii) variation in the vertical planes of exterior walls in depth and/or direction;</p> <p>iv) variation in the vertical and horizontal planes of the building so that the building appears to be divided into distinct base, middle and top massing elements;</p> <p>v) articulation of building facade (including rear and side elevations visible from a public place) by appropriate use of colour, arrangement of facade elements, and variation in the types of materials used;</p> <p>vi) utilisation of landscaping and interesting architectural detailing at the ground level; and</p> <p>vii) avoidance of blank walls at ground and lower levels.</p>	The proposal incorporates appropriate façade treatments, articulation, and materials and finishes which results in a high quality architectural outcome.	Yes
	c) Building design shall demonstrate to Council's		Yes

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	<p>satisfaction that the development will:</p> <p>i) facilitate casual surveillance and active interaction with the street;</p> <p>ii) be sufficiently setback from the property boundary to enable the planting of vegetation to soften the visual impact of the building at street level; and</p> <p>iii) maximise cross flow ventilation, therefore minimising the need for air conditioning.</p>	<p>The design of the development facilitates casual surveillance to the street.</p> <p>Appropriate landscaping is provided.</p> <p>Cross floor ventilation is achieved.</p>	
	d) Building colours, materials and finishes shall generally achieve subtle contrast. The use of highly reflective or gloss materials or colours shall be minimised to feature and highlight element only.	The building materials and finishes are acceptable.	Yes
	e) Building materials shall be high quality, durable and low maintenance	The proposed materials are high quality and low maintenance.	Yes
5.4.3 Site Services	a) The location, design and construction of utility services shall satisfy requirements of the relevant servicing authority and Council.	The location of services is acceptable.	Yes
	b) Development shall ensure that adequate provision has been made for all essential services (i.e. water, sewerage, electricity, gas, telephone, internet and stormwater drainage).	The proposal has existing electrical, sewer and gas access. A substation is required to upgrade electrical services to the development.	Yes
	c) All roof-mounted air conditioning or heating equipment, vents or ducts, lift wells and the like shall not be visible from any public place and	The lift run to the roof top is acceptable and is integrated into the design of the development.	Yes

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Part	Requirement	Proposed	Compliance
	shall be integrated into the design of the development		
	d) All communication dishes, antennae and the like shall be located or integrated into the built form so as to minimise visual prominence	No communication dishes are proposed.	N/A
	e) An external lighting plan shall be prepared by a suitably qualified person and submitted with the development application.	External lighting is addressed by way of condition.	Yes, conditioned
	f) All site services areas including any associated equipment and storage structures shall be incorporated into the design of the building and screened from public view.	Site services are located in the basement where possible. The substation is located to the rear of the Palmer street frontage and is screened by the building.	Yes
	g) An on-going waste management plan shall be prepared by a suitably qualified person and submitted with the development application	A Waste Management Plan was provided.	Yes
	h) For applications involving new construction work with a value of \$30 million or greater, any existing above ground power lines, traversing the property's frontage, shall be relocated underground at the developers expense.	The cost of works is less than 30 million	N/A
5.4.4 Acoustic Privacy	<p>a) Residential flat buildings, and the residential component of a mixed use development shall provide noise mitigation measures to ensure that the following LAeq levels are not exceeded:</p> <p>i) in any bedroom in the building—35 dBA ,</p> <p>ii) anywhere else in the building (other than a garage, kitchen,</p>	Acoustic report provided does not assess childcare component, an acoustic report will be required for any future development application and additional measures would be required to ensure the acoustic amenity of the residents in the building and surrounding properties is maintained	Yes

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Part	Requirement	Proposed	Compliance
	bathroom or hallway)—40 dBA. b) Residential flat buildings, and the residential component of a mixed-use development near railway corridors and major roads shall demonstrate to Council's satisfaction compliance with the requirements under the Guidelines entitled Development Near Rail Corridors and Busy Roads - Interim Guideline, 2008)		
5.4.5 Vehicular Access	a) Residential flat buildings and mixed-use developments shall only be permitted where Council is satisfied that existing road networks are capable of providing safe and efficient vehicle access to and from the proposed development.	A traffic report was submitted by the applicant and reviewed by Council's Engineer.	Yes
5.4.6 Stormwater Drainage	a) Residential flat buildings and mixed-use developments shall only be permitted where Council is satisfied that sufficient provisions made for the management of stormwater. All necessary upgrades to existing public and private stormwater infrastructure shall be addressed as part of the proposed development and shall be in accordance with Council's Engineering Design Guide for Development	The proposed stormwater drainage connection to cross Palmer Street is not supported. An amended design is required to be provided to Council prior to the issue of a Construction Certificate. See discussion in report.	No, conditioned
5.4.7 Thermal Comfort	a) Residential flat buildings and mixed-use developments shall be designed to maximise natural thermal comfort for occupants through the use of appropriate building materials. Examples include the use of energy efficient glazing and/or shading devices for windows and the like.	The proposal is supported by a BASIX certificate which specifies thermal comfort requirements.	Yes

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Part	Requirement	Proposed	Compliance
5.4.8.1 Number of Bins	a) All buildings shall be provided with household garbage bins at the following rates: i) one (1) x 240 litre bin per 2.5 dwellings/ week for household garbage;	The proposal requires 22 general waste bins.	Yes
	b) All buildings shall be designed with provision for recyclable bins at a ratio of one (1) x 240 litre bin per 2.5 dwellings per fortnight.	The proposal requires 22 recycling bins.	Yes
	c) A caretaker shall be available for all sites where bins are shared between occupants, to ensure bins are correctly presented for collection and returned to the designated bin storage area when emptied.	A caretaker will be appointed for the building and required by a condition recommended in attachment 1. See discussion in report.	Yes, conditioned
5.4.8.2 Waste Service Rooms, Garbage Chutes and Provision for Recyclables Bins	a) All buildings with a rise of four (4) storeys or more (including the ground floor) shall make provision for a Waste Service Room on each section of each residential floor which is accessible for all residents.	Two waste rooms are provided on each level with a bin chute for garbage and a bin for recyclables.	Yes
	b) All Waste Service Rooms shall have chutes to enable residents to dispose of garbage. Waste chutes must: i) not be located adjacent to bedrooms or living rooms unless they are outside the sound transmission barrier surrounding each unit. ii) Not open into any habitable or public space and doors must have an effective self-sealing system; iii) Feed into appropriately sized bins located in the bin storage room. During collection periods, empty bins must be placed	Bin rooms are appropriately located adjacent to bathrooms. Chutes open into the waste room. The chute feeds into 240L bins.	Yes

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Part	Requirement	Proposed	Compliance
	<p>under the chute outlet to maintain continuity of access to the chute system for residents;</p> <p>iv) Be completely enclosed in a fire rated shaft construction of an approved material and be fitted with sprinklers;</p> <p>v) Comply with the BCA;</p> <p>vi) Be accessible to anyone with a disability and comply with AS1428 Design for access and mobility; and</p> <p>vii) Include signage that explains the correct use of the system and which materials are able to be placed in the chute, and which must go in the recycling bin.</p>	<p>Bin shaft will be constructed appropriately.</p> <p>Bin shaft will be constructed appropriately.</p> <p>Waste room access is accessible.</p> <p>Signage will be provided.</p>	
	c) The outlet area, in which the chute outlets and mechanical collection devices are located, shall be secured to prevent access by unauthorised persons.	Bin rooms will be secure.	Yes
	d) Mechanical devices are permitted in order to assist with waste collection.	The proposal complies.	Yes
	e) Compaction is NOT permitted for either garbage or recyclables.	Compaction is not proposed.	N/A
	f) Each Waste Service Room shall make provision for a sufficient number of 240-litre mobile recycling bins for residents on each floor to dispose of recyclables. Chute systems for recyclables are not permitted.	The proposal complies.	Yes
5.4.8.3 Bin Storage Room	a) The development shall make provision for an appropriately	Bin storage rooms are appropriately located in the basement.	Yes, conditioned

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Part	Requirement	Proposed	Compliance
	<p>sized bin storage room(s) that provides convenient access for all residents, maintenance and waste collection staff. The bin storage room shall:</p> <p>i) be located behind the primary and secondary building alignment;</p> <p>ii) be located to restrict or deter access by non-residents;</p> <p>iii) have a non-slip floor constructed of concrete or other approved impervious material at least 75mm thick and be provided with a ramp to the doorway (where necessary);</p> <p>iv) be graded and drained to a Sydney Water approved drainage fitting;</p> <p>v) have coving at all wall and floor intersections;</p> <p>vi) be finished with a smooth faced, non-absorbent material(s) in a light colour and capable of being easily cleaned;</p> <p>vii) be provided with an adequate supply of hot and cold water mixed through a centralised mixing valve with hose cock; and</p> <p>viii) have a self-closing door openable from within the room with a door width of at least 1.5m (or 2.5m if bulk bins are proposed); and</p> <p>ix) allow access and manoeuvrability of the largest bin and any required waste handling equipment.</p>	<p>The construction of the waste room has been addressed with a recommended condition of consent in attachment 1.</p>	
	<p>b) Bin storage rooms shall have sufficient capacity to allow for:</p> <p>i) Access, manoeuvring, cleaning and maintaining all bins</p>	<p>The bin rooms provide sufficient space for storage and cleaning.</p>	<p>Yes</p>

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Part	Requirement	Proposed	Compliance
	<p>by providing an extra 30% of the footprint of each waste container to the overall size of the storage area;</p> <p>ii) Spacing of at least 50cm between all bins allocated for the development;</p> <p>iii) All bins to be arranged side by side within the bin storage room (no stacking);</p> <p>iv) A minimum 1.5m aisle between rows of bins to minimise potential obstructions; and</p> <p>v) Future modifications of services, bin sizes and/or configurations by minimising the installation of fixed structures within bin storage areas.</p>		
	<p>c) Bin storage rooms shall be ventilated by:</p> <p>i) a mechanical exhaust ventilation system; or</p> <p>ii) Permanent, unobstructed natural ventilation openings having direct access to external air, and a total area of not less than one-twentieth (1/20th) of the floor area of the room.</p>	Mechanical ventilation will be required for the bin rooms. A recommended condition of consent is included in attachment 1.	Yes, conditioned
	<p>d) Exterior doors of bin storage rooms shall be:</p> <p>i) consistent with the overall design of the building;</p> <p>ii) at least 1.5m wide (or 2.5m where bulk bins are proposed)</p> <p>iii) located away from the frontage of the building; and iv) fitted with a Council compatible keyed locking system that provides access to the room or activates the electronic opening</p>	No exterior doors are proposed for the bin rooms.	N/A

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Part	Requirement	Proposed	Compliance
	and closing of the door (if collection service is to be carried out by Council).		
	e) All bin storage rooms and Waste Service Rooms shall be constructed in such a manner to prevent the entry of vermin.	The proposal complies.	Yes
	f) All bin storage rooms must be located in an area where bins can be easily moved to the waste collection point.	The bin room is in the basement and the bins can be presented to the street via a bin tug.	Yes
	g) Any bin travel path must be free of steps or kerbs and have a maximum gradient of 1V:8H.	The bins will be wheeled up the basement ramp, which is acceptable. See discussion in report.	No
	h) Where waste collection personnel are required to enter the premises to service bins, the collection point shall be no further than five (5) metres from the collection vehicle.	No onsite waste collection is proposed for the residential building. Waste collection for the childcare centre will be a separate application to Council.	Yes
	i) Where residents have access to bin storage rooms, signage on the correct use of the waste management system shall be displayed in all bin storage rooms.	The proposal complies.	Yes
5.4.8.4 Bulky Waste Storage	a) Developments must make provision for the storage of bulky waste (kerbside clean-up) materials, ensuring that: i) a minimum area of ten (10) square metres per building is provided; ii) the area is secure and caged for visibility into the enclosure; iii) the area is accessible to all residents and has a minimum doorway width of 1.5m; and iv) the area is not more than ten (10) metres from the waste collection point	A bulk waste store room is provided on basement level 1.	Yes

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Part	Requirement	Proposed	Compliance
5.4.8.5 On-site Waste Collection	<p>a) Any development:</p> <ul style="list-style-type: none"> • containing 20 or more dwellings, and/ or • when the number of bins proposed cannot be accommodated within 50% of the development's net frontage width on collection day, shall be designed to accommodate forward-in, forward-out, drive-on vehicular collection for on-site servicing. <p>b) Where on-site waste and recycling collection is proposed, the site plan and layout shall consider how waste and recycling vehicles can access and move around the development.</p> <p>c) The area designated for on-site servicing must meet the following requirements:</p> <ul style="list-style-type: none"> i) there shall be a minimum unobstructed height clearance of 5.2 metres; ii) there shall be provision for a waste collection vehicle to empty bins on the vehicle's left side, allowing for a width of 3.8 metres from the right hand side of the vehicle to the collection point; iii) where the waste collection vehicle is required to turn around on site, there must be provision for a heavy rigid vehicle of 10.4 metres length (refer to indicative vehicle dimensions at Table 2.15.2) to negotiate a maximum three-point turn allowing the waste collection truck to enter and leave the property in a forward direction; iv) the maximum grade of any path of travel for collection vehicle shall be 1V:20H for the first 6 metres from the street, and 1V:12H thereafter; v) the minimum driveway width for a collection 	Kerbside collection is proposed.	N/A

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Part	Requirement	Proposed	Compliance
	<p>vehicle shall be 3.6 metres wide, with sufficient area provided for another vehicle to pass; and vi) access driveway and servicing area to be constructed to withstand the loaded mass of the waste collection vehicle of 24 tonnes. vii) buildings and other structures must not extend over roads or corners where they may be struck by waste collection vehicles. d) The distance between any dwelling and the waste disposal point shall be a maximum of 40 metres (excluding distance travelled in a lift). e) Where on-site waste collection is required, the development must be designed and constructed to accommodate the above requirements, regardless of whether Council will be engaged to provide waste services or not. f) Where on-site collection is required, Council and its collection contractor must be indemnified against any loss or damages that may arise during the course of waste collection services.</p>		
5.4.8.6 Mixed Use Developments	<p>a) In addition to the above requirements, mixed use developments must ensure that:</p> <p>i) separate and lockable bin storage rooms are provided to service residential and commercial sections of the development.</p> <p>ii) the commercial bin room is identified with its own signage clearly indicating its use ('For Commercial Tenancies Only') and likewise, the residential bin room is identified with its own</p>	Separate waste rooms are provided.	Yes

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Part	Requirement	Proposed	Compliance
	signage clearly indicating its use ('For Residential Tenancies Only').		
5.4.9 Strata Subdivision	a) No more than 50% of the required car parking within a strata title subdivision shall be allocated to individual commercial units within the mixed-use development.	No strata subdivision proposed	N/A
	b) All car parking spaces that are allocated to individual units shall be proportioned in number to the size of the units.	No strata subdivision proposed	N/A
	c) No car parking spaces shall be created as a separate allotment.	No strata subdivision proposed	N/A
	d) No internal or outdoor storage space shall be created as a separate allotment.	No strata subdivision proposed	N/A
5.4.10 Car Parking	a) Car parking provided for the residential dwellings shall be secured, separated from commercial car parking (where relevant) and have a separate access.	Residential and child care parking spaces are separated by a roller door.	Yes
	b) The design of car parking spaces shall take into consideration the principles of Crime Prevention Through Environmental Design (CPTED) to minimise opportunities for crime and enhance security	The proposal complies.	Yes
5.4.11 Access for People with Disabilities	a) Residential flat buildings and mixed use development shall comply with the minimum access requirements contained within the BCA, the Disability (Access to Premises – Buildings) Standards 2010 and Australian Standard 1428 – Design for Access and Mobility (as amended).	An access report was provided with the application.	Yes

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Part	Requirement	Proposed	Compliance
5.4.12 Advertising Material	a) As part of the letter box design for residential flat buildings and mixed use development a special container shall be provided for the placement of advertising and newspaper materials. Such container shall be located behind the building line and designed to be part of the letter box arrangement for the development.	Letter box design is appropriate.	Yes
	b) The newspaper / advertisement container shall be regularly emptied by the manager/caretaker of the building.	Manager/ care taker responsibilities will be outlined in a condition of consent as recommended in Attachment 1. See discussion in report.	Yes, conditioned
5.5 Residential Flat Buildings (Zone R4) 5.5.1 Site Requirements for Residential Flat Buildings	a) Residential flat buildings shall only be permitted on an allotment having a minimum width of 30 metres measured at the front property boundary.	The site frontage exceeds 30m	Yes
	b) Sites shall be amalgamated where required, to achieve the minimum site area and width requirement applicable to the proposed development.	Four sites will be amalgamated.	Yes
	c) Development shall not result in an "isolated allotment" adjoining the development site.	No isolated lot.	Yes
	d) For the purpose of Clause 5.5.1c) above, an "isolated allotment" is an allotment that has a site area of less than 1200 square metres and/or a width at the front property boundary of less than 30 metres that has no immediate potential for amalgamation with any other adjoining allotments to achieve a minimum site area of 1200 square metres and a width at the	No isolated lot.	Yes

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Part	Requirement	Proposed	Compliance
	front property boundary of 30 metres.		
5.5.2 Building Setbacks for Residential Flat Buildings	a) Residential flat buildings shall be setback a minimum of: i) 5.5 metres from any street boundary; and ii) 6 metres from any other boundary.	The proposal complies	Yes
5.5.3 General Requirements for Residential Flat Buildings	a) A minimum of 5% of the total number of dwellings within a residential flat building shall be one (1) bedroom flat(s) or a studio(s).	15% one bedroom apartments.	Yes
	b) A minimum of 10% of the total number of dwellings within a residential flat building shall be adaptable dwelling(s).	11% of units are adaptable.	Yes
	c) The floor space occupied by each dwelling within a residential flat building shall not be less than: i) 35sqm in the case of a studio flat; ii) 50sqm in case of a 1 bedroom flat; iii) 70sqm in case of a 2 bedroom flat; iv) 90sqm in case of a 3 bedroom flat or more.	The proposal complies.	Yes
	d) For the purpose of clause 5.5.3 c), the floor space includes only one bathroom. Additional bathrooms shall increase the minimum floor space of each dwelling by 5sqm for each additional bathroom.	The proposal complies.	Yes
	e) A fourth bedroom and further additional bedrooms shall	Not applicable.	N/A

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Part	Requirement	Proposed	Compliance
	increase the minimum internal area by 12sqm for each additional bedroom.		
	f) Each apartment building shall include a study/nook area that is capable of accommodating a desk for working/ studying from home purposes. Such area shall be shown furnished on the proposed plans and shall have a minimum width 1.6 m.	41% of units have dedicated study spaces. See discussion in report.	No
	g) The main entry to each apartment building shall be designed to include an entrance nook for privacy purposes.	Entrance nooks are provided	Yes
	h) A maximum of 8 dwellings shall be accessible from a common lobby area or corridor on each level of a residential flat building.	The proposal complies.	Yes
	i) All residential flat buildings shall contain at least one (1) lift for access from the basement to the upper most storey that provide access to a dwelling space. Further, the lift(s) shall extend to provide access to the roof space if the roof is intended for use by occupants of the building as a roof terrace.	The proposal complies.	Yes
	j) A maximum of fifty (50) dwellings shall be accessible from a single common lift.	The proposal complies.	Yes
	k) Access to lifts shall be direct and well illuminated.	The proposal complies.	Yes
	l) A minimum of 25% of the required open space area, or 15% of the total site area, whichever is the greater, shall be available for deep soil planting.	The site has 19.68% deep soil planting.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	<p>m) Each flat shall be provided with an 'incidentals' storage facility within the unit and/or the basement, which shall be available for personal use of the occupants of each dwelling, and designed and constructed of materials to Council's satisfaction. Such storage facility shall have a storage capacity of not less than the following:</p> <p>i) 4 cubic metres in the case of a studio flat;</p> <p>ii) 6 cubic metres in case of a 1 bedroom flat;</p> <p>iii) 8 cubic metres in case of a 2 bedroom flat; and</p> <p>iv) 10 cubic metres in case of a 3 bedroom flat or more. Note: A suspended storage facility within the basement may be included as part of, or the whole of, the required incidentals storage facility.</p>	The proposal complies.	Yes
	n) The incidentals storage facility shall not be created as a separate (strata) allotment to the unit it services.	No strata subdivision is proposed	N/A
5.5.4 Car Parking and Access	a) All car parking and access for vehicles, including disabled access spaces, shall be in accordance with AS2890 parts 1 and 2 (as amended), except as otherwise specified in the Plan.	The proposal complies.	Yes
	b) The minimum dimensions of any parking space shall be 2.5 x 5.5 metres. The minimum width of any car parking space shall be increased by 300mm for each side that adjoins a vertical edge.	The proposal complies.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	c) Driveways shall be located a minimum distance of 6 metres from the splay of any unsignalled intersection (refer to Figure 5.5.4).	The proposal complies.	Yes
	d) For development incorporating 20 or more dwellings, the DA shall be accompanied by a 'Traffic Impact Assessment Report'.	A traffic impact assessment was provided with the application.	Yes
	e) Where existing, vehicular entry points shall be located at the rear or side streets.	The proposal complies.	Yes
	f) Development containing 3 or more storeys shall provide all required car parking at basement level.	The proposal complies.	Yes
	g) Parking provided at ground level shall be appropriately screened from public view.	Basement parking provided.	N/A
	h) Each dwelling shall be provided with a minimum of one car parking space, and: i) an additional car parking space for every 4 dwellings (or part thereof); and ii) an additional visitor car parking space for every 10 dwellings (or part thereof).	The controls in the ADG supersede the SCDCP.	N/A
	i) No required car parking space shall be in a stacked configuration.	The proposal complies.	Yes
	j) Each development shall make provision for bicycle storage at a rate of 1 space per 5 dwellings within common property	11 bike parking spaces are proposed.	Yes
5.5.5 Solar Access	a) Buildings shall be orientated and sited to maximise northern	The proposal complies.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	sunlight to internal living and open spaces.		
	b) A minimum 20sqm area of the required private open space on adjoining land, (having a minimum width of 3 metres), shall receive three (3) hours of continuous direct solar access on 21 June, between 9.00am and 3.00pm, measured at ground level.	The proposal complies.	Yes
	c) Living rooms and private open spaces of at least 70% of dwellings within a residential flat building shall receive a minimum of 2 hours direct sunlight between 9:00am and 3:00pm at mid winter.	The proposal complies.	Yes
	d) Council expects that with innovative and thoughtful design, all dwellings should receive some direct sunlight, however, when it can be shown that providing sunlight to every dwelling is unachievable, Council may allow a design solution that result in up to 15% of the dwelling receiving no direct sunlight between 9:00am and 3:00pm at mid winter	The proposal complies.	Yes
5.5.7 Privacy	a) Ground level dwellings incorporating a courtyard shall be provided with a privacy screen.	The proposal complies.	Yes
	b) No window of a habitable room or balcony shall be directly face a window of another habitable room, balcony or private courtyard of another dwelling located within 9 metres of the proposed window or balcony.	The proposal complies.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	<p>c) Notwithstanding 5.5.7(b) a window of a habitable room may be permitted only where it:</p> <p>i) is offset by 2 metres to limit views between windows, or</p> <p>ii) has a sill height 1.7 metres above the floor level; or</p> <p>iii) is splayed to avoid direct views between windows; or</p> <p>iv) has a fixed translucent glazing in any part of the window within 1.7 metres of the floor level; or</p> <p>v) is otherwise appropriately screened.</p>	The proposal complies	Check on site
5.5.8 Communal Recreation Facilities	<p>a) Each residential flat building shall be provided with communal recreation facilities for the use of all the occupants of the building comprising:</p> <p>i) a recreation room with a minimum area of a 50sqm per 50 dwellings (or part thereof); and</p> <p>ii) a bbq/outdoor dining area with a minimum area of 50sqm per 50 dwellings (or part thereof).</p>	<p>Communal room 88m².</p> <p>Rooftop outdoor dining area 50m².</p>	Yes
	b) Communal recreation facilities shall not be located within the primary or secondary street boundary setback.	Communal recreation areas are located in the rear setback.	Yes
	c) All communal recreational facilities shall be provided on the same land as the residential flat building.	The proposal complies.	Yes
	d) Communal open space provided on the roof of a building shall not be included as part of the required communal open space.	The communal space is located on the fourth floor not the rooftop. The ground floor COS is 23.2%, see report for discussion.	No

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	e) All required communal and recreational facilities are required to be constructed prior to the issue of an interim occupation certificate for any residential units within a staged development.	The development is not staged	N/A

Part 8 Childcare centres

An assessment under Part 8 if the Campbelltown (Sustainable City) Development control plan is presented below:

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
Part 8 – Childcare Centres			
8.3.1 Locality Requirements	a) Centre-based Child Care Facilities shall not be located on an allotment that: <ul style="list-style-type: none"> i) is accessed from a State road (refer to Table 8.3.1 for a list of State roads in Campbelltown LGA); ii) is within 100 metres of the intersection of a State road; iii) is within a no through road; iv) has vehicular access to a road where the carriageway is less than 6.5 metres in width; v) has a building erected upon it that is constructed of materials that contain asbestos or lead paint; vi) is adjacent to a: <ul style="list-style-type: none"> - potentially hazardous industry; - hazardous industry; - potentially offensive industry; - offensive industry; 	The site is not on a State Road. The site is not within 100m of a State Road. The site has dual frontage and complies. Each road is wider than 6.5m A PSI has been submitted to address site suitability. The site is residential.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	<ul style="list-style-type: none"> - agricultural produce industries; - livestock processing industries; - heavy industrial storage establishments; or waste or resource management facility. <p>vii) is within a 150 metre radius of a sex restricted premises; sex services premises or home occupation (sex services);</p> <p>viii) presents a potential safety hazard for vehicle and pedestrian traffic, unless it can be demonstrated to Council's satisfaction that there would be no vehicular/ pedestrian conflict (refer to Figure 8.3.1);</p>	<p>The site is not within 150m of a restricted premise.</p> <p>The location does not pose a safety hazard.</p>	
	b) Centre-based Child Care Facilities shall not be located within a basement of a building (excluding storage rooms and offices ancillary to the Centre-based Child Care Facility)	The allocated space is located on the ground floor.	Yes
	<p>c) Centre-based Child Care Facilities shall not be permitted on a local street, unless it can be demonstrated to Council's satisfaction that:</p> <ul style="list-style-type: none"> i) the proposed Centre-based Child Care Facility will not impact negatively on the local traffic network; ii) the proposed Centre-based Child Care Facility has adequate on site parking and manoeuvring/turning spaces; and iii) the amenity of the surrounding properties is maintained. 	The site is located on a local road, a traffic report is required to be submitted for the future childcare centre development application.	Future development application

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	d) Where a Centre-based Child Care Facility is proposed to be located in a building on land within Business zones, the Centre-based Child Care Facility (excluding storage rooms and offices) shall: i) be directly accessible by car; ii) not occupy more than one (1) storey; and iii) be located no higher than the first floor to ensure the easy evacuation of children in case of emergency	Site is in a residential zone.	N/A
8.3.2 Site Requirements	a) Council may consider a proposal for a Centrebased Child Care Facility within an existing building on sites within areas zoned B3, B4 or B5 that do not necessarily meet the site width requirement.	Site is in a residential zone.	N/A
8.3.3 Streetscape	a) The design of new purpose built buildings (including facade treatments, building massing, roof design and entrance features, setbacks and landscaping) shall complement the scale of surrounding development, character and qualities of the desired streetscape	The proposed building is acceptable.	Yes
	b) Notwithstanding Clause 8.3.1 a) viii) new buildings on corner sites shall incorporate facade treatments that address both street frontages and achieve positive articulation in building design.	The façade is acceptable.	Yes
	c) Clothes lines and air conditioning units shall be screened and not visible by the public when viewed from a public area	No details have been provided.	Future development application

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	d) The built form, design and layout of all outdoor play areas shall relate to the natural land form and setting to ensure that the amenity (visual and acoustic privacy) of adjoining properties is protected	The location of the play areas is detailed on the plans however, the acoustic impact of the play spaces on the adjoining neighbours has not been detailed in the report and future details will be required for the application for the fit out and use of the space. The development may be limited with regard to the number of children to ensure the amenity of the surrounding properties and residents within the building is maintained.	Future development application
8.3.4 Fencing	a) Fencing along the primary and secondary street boundaries shall: i) not be constructed of bonded sheet metal; ii) not be higher than 1.2 metres; iii) be articulated, incorporate landscape treatments and complement the design and finish of the development.	The fencing provided is acceptable, but maybe required to be upgraded to ensure compliance with all relevant child care safety and acoustic requirements.	Future development application
	b) Fencing to the rear and side boundaries shall be: i) located behind the primary and secondary street setbacks; and ii) a maximum of 2.1 metres in height (excluding retaining walls).	The fencing provided is acceptable, but maybe required to be upgraded to ensure compliance with all relevant child care safety and acoustic requirements.	Future development application
	c) Bonded sheet metal fencing shall only be permitted where all of the following criteria have been met: i) the fence is located behind a 1.5 metre wide landscaped buffer; and	The fencing provided is acceptable, but maybe required to be upgraded to ensure compliance with all relevant child care safety and acoustic requirements.	Future development application

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	ii) the fence is located behind the building line of all street frontages.		
8.3.5 Visual and Acoustic Privacy	a) An acoustic report prepared by a suitably qualified person shall be submitted with all Centre-based Child Care Facility development applications demonstrating : i) that the noise levels generated from the Centre-based Child Care Facility, when measured over a 15 minute period, does not exceed the background noise by more than 5 dBA; ii) that the noise levels comply with the requirement of the Protection of The Environment Operations Act 1997; and iii) illustrating ways to minimise the impacts of noise on adjoining properties.	An acoustic report for the childcare centre has not been provided and is subject of a future development application	Future development application
	b) Direct views to and from neighbouring and surrounding properties shall be minimised through: i) appropriate building design and location of outdoor play areas; and ii) the use of fencing and landscaping buffers.	Fencing is provided to the outdoor play areas.	Yes
8.3.6 Waste Management	a) A waste management plan shall be submitted for all Centre-based Child Care Facility developments including information with regard to the storage and disposal of used nappies, general waste and recycling.	Waste storage areas are provided however, the remainder of the waste requirements are subject of a separate application.	Future development application
	b) The development shall make provision for an enclosed onsite waste and recycling storage	An enclosed waste storage room is provided in the basement.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	area that provides adequate space to accommodate the size and number of bins proposed, and volume of waste and recycling generated at the centre.		
	c) Waste storage, collection areas and service/ delivery areas shall be screened from public view and located to minimise adverse impacts on adjoining properties.	An enclosed waste storage room is provided in the basement.	Yes
	d) The waste collection area shall be located and designed to minimise safety hazards for any person within the site or within the adjacent private/public areas.	Waste collection details have not been finalised for the childcare centre.	Future development application
	e) The waste storage area shall: i) be no more than 30 metres from the point of collection; ii) contain a hose connection; iii) have an impervious floor that is connected to the sewer; iv) be adequately ventilated; v) incorporate appropriate design and construction materials (including colours and finishes) which complement the development; vi) be appropriately screened from public view by a visual barrier of at least 1.5m high; vii) provide an opening sufficient to allow egress of the maximum sized bin to be used at the development; and viii) Be positioned to ensure that the path for wheeling bins between the waste storage area(s) and the collection point is free of steps and kerbs and	Waste storage areas have been addressed with a recommended condition of consent in Attachment 1.	Yes, conditioned

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	has a maximum gradient of 1V:8H.		
	f) All premises shall produce evidence of a collection contract with a licensed waste and recycling collection contractor, if requested by Council.	Waste collection details have not been finalised for the childcare centre.	Future development application
	g) The development must be designed in such a way that an Australian Standard heavy rigid vehicle can provide waste collection services to the development. If on-site servicing is required, the site plan and layout shall consider how heavy rigid vehicles can access and move around the development, and make appropriate provisions for this to occur safely.	Waste collection details have not been finalised for the childcare centre.	Future development application
	h) All waste and recycling generated from the business is to be kept within an appropriate storage receptacle on the premises. Waste is not to be stored or placed outside of a waste storage receptacle or in such a manner that it will become a litter, odour or health nuisance.	An enclosed waste storage room is provided in the basement.	Yes
8.3.7 Additional Requirements - Residential Zones	a) A maximum of 50 children shall occupy a Centrebased Child Care Facility on any single allotment	The number of children proposed for the centre has not been detailed in this application.	Future development application
	b) The Centre-based Child Care Facility shall be wholly located on the ground floor of the building (excluding offices and storage rooms).	The centre is located on the ground floor.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	<p>c) Centre-based Child Care Facilities shall be setback a minimum of:</p> <p>i) 5.5 metres from the primary street boundary;</p> <p>ii) 5 metres from the rear boundary;</p> <p>iii) 3.0 metres from the side boundary; and</p> <p>iv) 3 metres from any secondary street boundary.</p>	The proposal complies with all setbacks.	Yes
8.4.1 Car Parking and Access	b) A minimum of one (1) on site car parking space shall be provided for every four (4) children approved to attend the Centre-based Child Care Facility	25 car parking spaces are provided in the basement. However, details of the proposed number of children have not been provided.	N/A
	c) Off street parking and loading shall be designed in accordance with Australian Standards 2890.1 and 2 (as amended), except as otherwise provided by this Plan.	The proposed parking was reviewed by Council's Development Engineer and supported.	Yes
	d) No required car parking space shall be designed in a stacked configuration.	No stacked parking is proposed.	Yes
	f) Pedestrian access shall be separated from vehicular access with clearly defined paths to and from the building	Pedestrian access is separate.	Yes
	h) The vehicular and pedestrian access points to/from the centre must be adequately lit (during operating hours) and appropriately signposted	Details have not been provided.	Future development application
	i) Each site shall have a maximum of one ingress and one egress driveway	A combined driveway is provided and is considered to be acceptable as a maximum of one ingress and egress is provided.	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	<p>j) The minimum width of a driveway shall be:</p> <p>i) three (3) metres for one way traffic movement; and</p> <p>ii) six (6) metres for two way traffic movement.</p> <p>iii) Driveways shall be located a minimum distance of six (6) metres from the tangent point of any unsignalled intersection.</p>	Driveway is 6m wide.	Yes
	k) Sufficient space shall be provided on site so that no vehicle shall be required to make more than a three-point turn to exit the site in a forward direction. Significant reverse movements for vehicles within child care centres shall not be permitted.	Basement car park may require turning bay for compliant car parking to childcare centre.	Future development application
	l) The car parking area shall be suitably line marked and delineated by appropriate signage and pavement line marking. This shall include the line-marking and signposting of disabled car parking spaces, staff parking arrangements, emergency and service vehicle parking bays.	Line marking provided	Yes
	<p>m) Development applications Centre-based Child Care Facilities catering for 20 or more children shall include a Traffic Impact Statement, prepared by a suitably qualified person addressing the following criteria:</p> <p>i) the existing traffic environment; ii) anticipated traffic generation from the proposed development; iii) the potential cumulative impact on the locality;</p>	The submitted traffic report addresses the proposed childcare centre as part of the report. However, this will also be required to be addressed as part of the future development application for the use of the site.	Future development application

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	iv) the need for local traffic improvements in the locality; v) traffic egress/ingress; and vi) sight distance and other relevant safety issues including vehicular/pedestrian movements.		
	n) Any fencing on site shall be designed to be of appropriate height and shall not obstruct sight distances between pedestrians and vehicles.	Fencing does not affect sightlines.	Yes
8.4.2 Access for People with Disabilities	a) Centre-based Child Care Facilities shall comply with the minimum access requirements contained within the BCA, the Disability (Access to Premises – Buildings) Standards 2010 and Australian Standard 1428 – Design for Access and Mobility (as amended)	Details have not been provided.	Future development application
8.4.3 Emergency Evacuation	a) Development applications for Centre-based Child Care Facilities catering for 20 or more children shall include an Emergency Evacuation Plan prepared by a suitably qualified person in accordance with Australian Standard 3745 Emergency Control Organization and Procedures for Buildings, Structures and Workplaces (as amended), addressing: i) the mobility of children and how this is to be accommodated during an evacuation; ii) the location of a safe congregation area, away from the evacuated building, busy roads, other hazards and the evacuation points of other residents or tenants within the	Details have not been provided.	Future development application

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	<p>building or surrounding buildings;</p> <p>iii) where the Centre-based Child Care Facility is part of a larger building or complex, that the emergency evacuation plan for the Centre-based Child Care Facility is complementary and consistent with other emergency evacuation plans for the complex; and</p> <p>iv) the supervision of children during an evacuation and at the safe congregation area, giving regard to the capacity of the Centre-based Child Care Facility and its approved child:staff ratios.</p>		
8.5 Landscaping	<p>a) Landscaping shall be provided to a minimum of a:</p> <p>i) 3 metre wide strip along the primary and secondary street frontage (other than vehicle driveways); and</p> <p>ii) 1.5 metre wide strip along the full length of side and rear setbacks.</p>	<p>3m landscaping to Suffolk Street.</p> <p>1.2m landscaping to Palmer St</p> <p>1m to side boundary.</p> <p>See discussions report.</p>	No
	<p>b) Native mature trees on site shall be retained.</p>	<p>Tree retention has been addressed elsewhere in this report.</p>	Yes
	<p>c) Development applications for Centre based Child Care Facilities shall include a Landscape Plan and report, prepared by a suitably qualified person addressing the following:</p> <p>i) species, location and mature height of proposed planting;</p> <p>ii) location of play equipment;</p> <p>iii) separation from car parking spaces and driveway areas;</p>	<p>Landscape plan provided.</p>	Yes

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	iv) fencing height and materials; and v) surfaces (sand, grass or the like).		
	d) All existing vegetation on the site and on adjoining sites shall be assessed to ensure that the plants: i) are not toxic or dangerous (refer to Appendix 7 for a list of Unsuitable Plant Species); and ii) do not impose a safety hazard such as personal injury from falling branches and seeds, poisoning and/ or choking.	Majority of trees will be removed and retained trees are not located in the outdoor play area.	Yes
8.6 Play Areas	a) Centre-based Child Care Facility play areas shall: i) comply with the Children (Education and Care Services) Supplementary Provisions Regulation 2004 (as amended); ii) be appropriately designed and located to minimise noise impacts to adjoining properties; and iii) be naturally lit and ventilated.	Details of compliance with the Children (Education and Care Services) Supplementary Provisions Regulation 2004 (as amended) have not been provided.	Future development application
	b) The siting of outdoor play areas shall: i) be located on a predominantly flat gradient; ii) allow direct supervision from within the centre; and iii) provide adequate fencing	Details are required for a future development application for the fit out and use of the space.	Future development application
	c) Where a Centre-based Child Care Facility is proposed to be located on the first floor of a building (in the case of a Centrebased Child Care Facility proposed within a	Centre is located on the ground floor.	N/A

		Campbelltown (Sustainable City) Development Control Plan 2015	
Part	Requirement	Proposed	Compliance
	comprehensive centre zone), the designated play areas shall: i) be provided on the same level and directly accessible from the Centrebased Child Care Facility; ii) have a minimum ceiling height of 2.7 metres; and iii) be physically separated from the indoor space area.		
8.7 Advertising Signs	a) Despite any other provision of this Plan, a Centre-based Child Care Facility shall have a limit of one (1) business identification sign in accordance with the following: i) not an illuminated sign; ii) the sign shall be located at the building or mounted within the front landscaped area no higher than 1 metre from the natural ground level of the landscaped area; iii) the sign shall only include the name of the centre and business related information such as opening hours, type of Centre-based Child Care Facility and the owners of the centre and any other accreditation relevant to the Centre-based Child Care Facility. iv) the sign shall not exceed 1.0 square metres in area	No signage is proposed.	Future development application
	b) An advanced warning sign that is approved by Council shall be provided on each road approach, warning motorists that they are approaching a child care facility. The sign shall be provided and erected by Council at the applicant's expense.	No signage is proposed.	Future development application

The application was also referred to Council's Design Excellence Panel on 17 June 2021, the following comments were received:

General Comments from the Panel

1. The Panel commended the proponent for a generally well resolved and thoughtful scheme. We appreciated how the building massing had been broken down to create distinctively different sections/portions (also with different materials/colours), and how the façade treatment was generally well proportioned, balanced and interesting.
2. Context analysis and design justifications are to accompany submissions to the panel.
3. Future submission to describe/document sustainable design strategies and initiatives.

Specific Issues/comments, and recommended actions identified by the Panel in relation to:	
<p>1. Architectural Design</p> <ul style="list-style-type: none"> a. Functionality b. Aesthetic c. Material d. Facades 	<p>a. Functionality</p> <ul style="list-style-type: none"> - Provide accessible bathroom to rooftop garden for resident access. - Consider opening up corridor on northern-eastern end for views, light and ventilation (similar to south-western end), while still maintaining apartments with good solar access. - On adaptable units make sure their adaptability does not come with too high a financial/functional impost – e.g., reconfiguration of the kitchen/loss of storage space. <p>b. Aesthetic</p> <p>c. Materiality</p> <ul style="list-style-type: none"> - Contextual observations, research and analysis should inform/justify material choices - Balustrade materials could vary across the different building portions to reinforce the massing strategy. Balcony balustrade treatment and opacity should consider the role of screening any AC units, drying laundry etc. <p>d. Facades</p> <ul style="list-style-type: none"> - Apart from comments re balustrades, the approach to façade design is commended.
<p>2. Urban Design</p> <ul style="list-style-type: none"> a. Human scale b. Integration with the surrounding environment c. Overall aesthetic d. Fit 	<ul style="list-style-type: none"> - In addition to the stronger definition of the entries discussed further development should be considered to develop a public / private meeting crossover space in the identified landscape terrace on the street front.

<p>3. Landscaping</p>	<ul style="list-style-type: none"> - We liked the generosity of the centrally set back area that both provided for some semi-public space and helped visually separate the building into different sections/portions. It was noted that the actual entries were rather under-developed and could be more generous/better highlighted. - The amount of landscape shown, including large trees at both public and private site boundaries, is positive (noting that the landscape plan shows trees to Suffolk Street, but that these are not shown on the renders: we assume/hope the landscape plan is the approved version). Use of rooftop space for additional greening / communal space (central portion) is supported. - Ground floor communal spaces to the northwest of the proposal that are partly under cover – the panel queried whether the under-croft space was too deep to receive solar access and might be a cold and uninviting place through winter months (it looks particularly problematic in section). The proponent explained that they had done sun studies to demonstrate daylight penetration of these spaces, but this was not provided with the plan set. The Panel would have preferred to see the evidence that amenity will be sufficient. The panel suggested the proponent consider relocating apartment units to that part of the space least conducive to communal use. Another, preferred, option would be to <u>enclose</u> that deeper part of the under-croft space for an <u>internal</u> communal activity, e.g., a room with kitchen facilities for children’s birthday parties, gatherings/strata committee meetings etc. This change would improve the amenity overall.
<p>4. Heritage (if relevant)</p>	<p>N/A</p>
<p>5. Streetscape</p>	<p>- Urban design analysis and context fit was not submitted. This work should accompany future submissions.</p>
<p>6. Solar Access</p>	<p>- The panel commends the use of a dual core and through apartments to maximise solar access.</p>
<p>7. Privacy</p>	<p>- The ‘blanket’ use of glass balustrades, which would be better opaque / solid for privacy, and could also serve to add</p>

	<p>variety to the western portion of the street façade.</p> <ul style="list-style-type: none"> - Generally, the entries to apartments would benefit from a layered approach to privacy – i.e., not entering straight into living / bedroom spaces but creating a lobby nook/space of delay. - Ensure that sight-lines through front doors into living areas of apartments are not possible from corridors and shared space, especially from lift lobby/arrival.
8. Lighting/natural/artificial	<ul style="list-style-type: none"> - Not demonstrated. Lighting proposed should not impact neighbour amenity and should be guided by CPTED principles.
9. Ventilation	<ul style="list-style-type: none"> - The panel commends the use of a dual core and through apartments to maximise naturally ventilated apartments.
10. Wind	<ul style="list-style-type: none"> - To be mitigated in accordance with specialist advice
11. Sustainable Design	<ul style="list-style-type: none"> - Not demonstrated, future submission to describe/document sustainable design strategies and initiatives.



REQUEST UNDER CLAUSE 4.6 OF CAMPBELLTOWN LEP 2015

**Proposed Mixed Use Development,
14-20 Palmer Street, Ingleburn**



Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

1.0 The Proposal

This request is written in support of a development application (DA) that proposes a mixed-use development comprising a child care centre and residential apartments and associated works at 14-20 Palmer Street, Ingleburn

This Clause 4.6 Request relates to a variation proposed to Council's Maximum Building Height control as prescribed by Campbelltown Local Environmental Plan (LEP) 2015.

1.1 Relevant Case Law

Clause 4.6 of the Campbelltown Local Environmental Plan (LEP) 2015 allows the consent authority to grant consent for development even though the development contravenes a development standard imposed by the LEP.

(3) Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:

- (a) that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and*
- (b) that there are sufficient environmental planning grounds to justify contravening the development standard.*

Further Clause 4.6(4) provides that:

(4) Development consent must not be granted for development that contravenes a development standard unless:

- (a) the consent authority is satisfied that:*
 - (i) the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and*
 - (ii) the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and*
- (b) the concurrence of the Secretary has been obtained.*

The clause aims to provide an appropriate degree of flexibility in applying certain development standards to achieve better outcomes for and from development.

Assistance on the approach to justifying a contravention to a development standard is also to be taken from the applicable decisions of the NSW Land and Environment Court (the Court) and the NSW Court of Appeal in:

1. *Wehbe v Pittwater Council* [2007] NSW LEC 827;

Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

2. Four2Five Pty Ltd v Ashfield Council [2015] NSWLEC 1009;
3. Randwick City Council V Micaul Holdings Pty Ltd [2016] NSWLEC 7;
4. Brigham v Canterbury-Bankstown Council [2018] NSWLEC 1406;
5. Initial Action v Woollahra Municipal Council [2018] NSWLEC 118; and
6. Turland v Wingercarribee Shire Council [2018] NSWLEC 1511.

The common ways in which an applicant might demonstrate that compliance with a development standard is unreasonable or unnecessary are summarised by Preston CJ in *Wehbe v Pittwater Council* (2007) 156 LGERA 446 [42]-[51] and repeated in *Initial Action* [17]-[21]. Although *Wehbe* concerned a SEPP 1 objection, the common ways to demonstrate that compliance with a development standard is unreasonable or unnecessary in *Wehbe* are equally applicable to cl 4.6 (*Initial Action* [16]):

1. The objectives of the development standard are achieved notwithstanding noncompliance with the standard;
2. The underlying objective or purpose of the development standard is not relevant to the development, so that compliance is unnecessary;
3. Underlying objective or purpose would be defeated or thwarted if compliance was required, so that compliance is unreasonable;
4. The development standard has been abandoned by the council; or
5. The zoning of the site was unreasonable or inappropriate so that the development standard was also unreasonable or unnecessary (note this is a limited way of establishing that compliance is not necessary as it is not a way to effect general planning changes as an alternative to strategic planning powers).

The five ways to demonstrate compliance is unreasonable/unnecessary are not exhaustive, and it may be sufficient to establish only one way (*Initial Action* [22]).

The environmental planning grounds relied on in the written request under cl 4.6 must be sufficient to justify contravening the development standard. The focus is on the aspect of the development that contravenes the development standard, not the development as a whole. Therefore, the environmental planning grounds advanced in the written request must justify the contravention of the development standard and not simply promote the benefits of carrying out the development as a whole (*Initial Action* [24]).

1.2 Relevant Development Standard

The relevant development standard to which this objection relates to is Clause 4.3 Height of Buildings. Clause 4.3 Height of Buildings sets out the following:

(1) *The objectives of this clause are as follows:*

- (a) *to nominate a range of building heights that will provide a transition in built form and land use intensity across all zones,*
- (b) *to ensure that the heights of buildings reflect the intended scale of development appropriate to the locality and the proximity to business centres and transport facilities,*

Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

- (c) to provide for built form that is compatible with the hierarchy and role of centres,
- (d) to assist in the minimisation of opportunities for undesirable visual impact, disruption to views, loss of privacy and loss of solar access to existing and future development and to the public domain.

(2) The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.

Comment:

The applicable maximum building height for the site is 15m. The development proposes a portion of the building which exceeds the height control by a maximum of 2.9m.

1.3 Future Development Standard

The Ingleburn Town Centre Planning Proposal was issued Gateway Determination by the Department of Planning on 9 March 2020. The Ingleburn Town Centre Planning Proposal aims to increase the residential density of the Ingleburn Central Business District in alignment with Ingleburn Precinct Plan within the Glenfield to Macarthur Urban Renewal Corridor Strategy.

The Ingleburn Town Centre Planning Proposal seeks to amend the controls applicable to the Ingleburn Town Centre which would result in the increase in the maximum building height control for the site to 26m.

The Planning Proposal is still in the Pre-Exhibition stage so it has not been considered as part of this proposal however should be taken into consideration in the review of the proposed height variation and the design of the development with regard to the desired future character of the Ingleburn Town Centre.

1.4 Is the Planning Control in Question a Development Standard?

'Development Standards' are defined under Section 1.4(1) of the EP&A Act as follows:

“development standards means provisions of an environmental planning instrument or the regulations in relation to the carrying out of development, being provisions by or under which requirements are specified or standards are fixed in respect of any aspect of that development, including, but without limiting the generality of the foregoing, requirements or standards in respect of: ...

(a) the character, location, siting, bulk, scale, shape, size, height, density, design or external appearance of a building or work,...”

Comment:

The maximum building height control under Clause 4.3 of the Campbelltown LEP 2015 is clearly a development standard.

Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

2.0 The Contravention

The proposal results in the following variation to Council’s Maximum Building Height Control as demonstrated in the table below:

Table 1: Variation to Council’s Maximum Building Height Control		
	Control	Proposed
Maximum Building Height	15m	17.9m
Variation	-	2.9m 19.33%

As described in the Statement of Environmental Effects (SEE) and identified on the Architectural Drawings prepared by Urban Link, the height of the proposed development will exceed the maximum building height of 15m by 2.9m, which equates to a variation of 19.33%. The proposed variation accommodates a minimal percentage of the total building volume proposed.

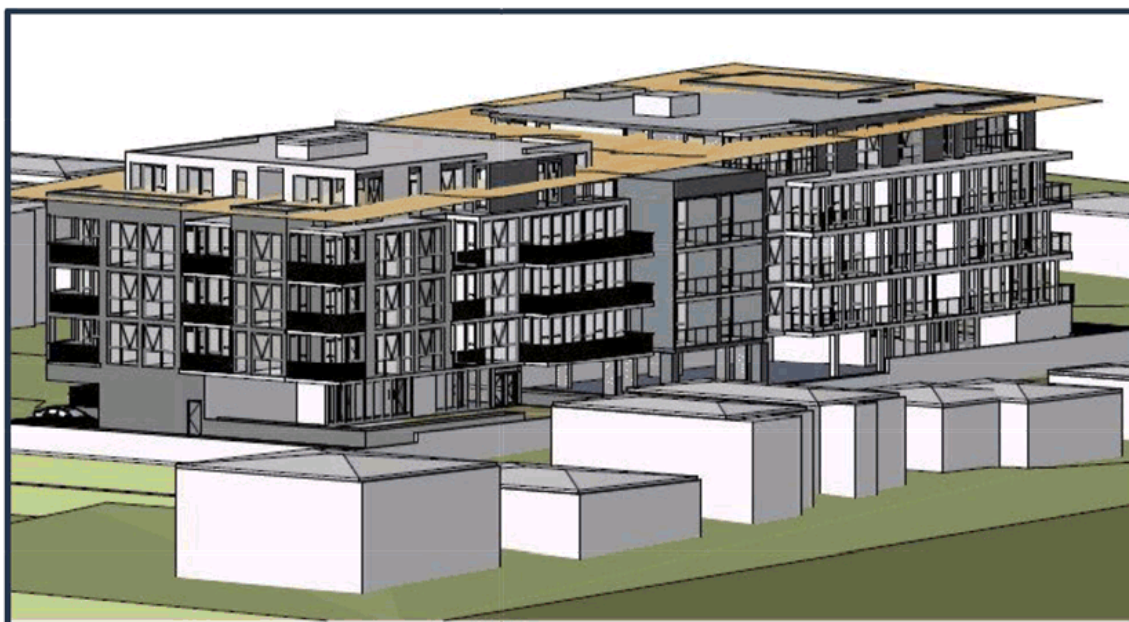


Figure 1: 3D Height Plane demonstrating the proposed exceedance of the building height control (Source: Urbanlink)

2.1 Impacts of the Contravention

There are no adverse impacts as a result of the proposed contravention. The proposed exceedance does not result in any visual impacts and is consistent with the desired future character of the Ingleburn Town Centre, as detailed below.

Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

Visual Impacts

From a visual perspective, an appropriate composition of building elements, material textures and colours have been utilised to reflect the buildings commercial and residential use character.

The external appearance of the building reflects consideration to various development controls and the articulation of the building along with its massing composition reflects the desired future character of the mixed-use area.

The massing of Palmer Street and Suffolk Street as well as other elevations has been designed to achieve an aesthetic outcome to fit within a desired building envelope. Its facades are all designed with various architectural elements to provide articulation, depth, shade and a pleasing aesthetic.

The development is considered to represent a positive contribution to the streetscape and its siting design and location of car parking with a basement ensures the amenity of adjoining residents is not unduly compromised.

The upper levels of the proposed development have been setback to reduce the visual bulk of the development and to ensure the exceedance is not visually prominent or apparent from the public domain.

The height exceedance is deemed to be reasonable as once the height limit changes the breach will be eliminated and the proposal will be consistent with the desired future character of the Ingleburn Town Centre

3.0 Justification of the Contravention

3.1 The Site Context

Site context is a key consideration when determining the appropriateness and necessity of a development standard. The site and its surroundings consist of a mix of residential and commercial uses. The site is identified as being located in the Ingleburn Town Centre, which is currently undergoing redevelopment. The proposed development is consistent with the future character of the Ingleburn Town Centre.

The following table details recent variations to the height standard in proximity to the subject site.

Table 2: Recently Approved Developments in Proximity to the Subject Site that Varied Council’s Maximum Building Height Control			
DA No & Address	Proposed	Comment	Approved
DA-1470/2018	Demolition of existing dwelling and construction of a three	The development exceeded the maximum building height by 8%. The development was approved with the height variation as the	23 September 2020



Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

Table 2: Recently Approved Developments in Proximity to the Subject Site that Varied Council's Maximum Building Height Control			
DA No & Address	Proposed	Comment	Approved
1 Koala Avenue, Ingleburn	storey boarding house consisting of 14 self serviced rooms including a manager's room and associated car parking.	exceedance was not readily apparent from the street and it did not adversely impact surrounding development.	
DA-1576/2017 10-12 Palmer Street, Ingleburn	Demolition of existing structures, consolidation of two lots and construction of a five storey residential flat building with 24 units, communal roof terrace and two levels of basement parking.	The development exceeded the maximum building height by 1%. The development was approved with the variation as the breach only comprised services on the roof and did not adversely impact surrounding development.	30 May 2018
DA-259/2017 35-47 Stennett Road, Ingleburn	Earthworks and construction of two warehouse buildings with ancillary offices and associated car parking and signage and for the use of the buildings for warehousing and distribution operating 24 hours, 7 days per week	The development exceeded the maximum building height by 14.17% The development was approved with the height variation as it did not result in any built form, environmental or amenity impacts.	12 September 2017

As detailed the above developments were approved due to their location within proximity to the Ingleburn Town Centre, architectural merit and no adverse impacts on surrounding development resulting from the variation. The proposed development has been designed to respond to the future height control and provide a development that is consistent with the bulk, scale and design of development envisaged within the Ingleburn Town Centre.

The proposed height exceedance is deemed to be reasonable as it involves a minimal percentage of the building volume and habitable floor space, it does not result in adverse impacts on surrounding development, is below the height previously approved onsite and is not readily apparent from the streetscape.

Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

3.2 Public Interest

Clause 4.6(4)(a)(ii) of Campbelltown LEP 2015 requires that development consent must not be granted for development that contravenes a development standard unless the consent authority is satisfied that the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out.

The proposed development has been assessed against the objectives for the R4 High Density Residential zone below. Despite the proposed variation to the maximum building height development standard, the proposal is considered in the public interest as it satisfies the objectives of the zone and the objectives of the development standard.

3.3 Consistency with R4 High Density Residential Zone

The consistency of the proposal against the objectives of the R4 High Density Residential zone is outlined below.

- ***To provide for the housing needs of the community within a high density residential environment***

The proposed development provides for the housing needs of the community through the provision of a high density mixed use development.

- ***To provide a variety of housing types within a high density residential environment***

The proposed development provides an appropriate unit mix that provides a variety of housing types within an appropriate high density residential environment.

- ***To enable other land uses that provide facilities or services to meet the day to day needs of residents***

The proposal provides a ground floor commercial unit with the indicative use of a child care centre which will enable a land use that provide facilities or services to meet the day to day needs of residents.

- ***To encourage high density residential development in close proximity to centres and public transport hubs***

The proposed development provides a high density mixed use development within the Ingleburn Town Centre and in close proximity to the Ingleburn Train Station.

- ***To maximise redevelopment and infill opportunities for high density housing within walking distance of centres***

The proposed development involves the redevelopment of existing residential land to provide high density housing within the Ingleburn Town Centre.

Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

- ***To enable development for purposes other than residential only if that development is compatible with the character and scale of the living area***

The proposal provides a ground floor commercial unit with the indicative use of a child care centre which has been incorporated into the design of the development that is compatible with the desired future character of the area.

- ***To minimise overshadowing and ensure a desired level of solar access to all properties***

The proposed development has been designed to ensure an appropriate level of solar access is provided to the proposed units and maintained for surrounding development as detailed in the Shadow Analysis provided in the Architectural Plans (**Appendix A**).

3.4 Consistency with Objectives of the Building Height Development Standard

The consistency of the proposal against the objectives of the maximum building height standard is outlined below.

- ***To nominate a range of building heights that will provide a transition in built form and land use intensity across all zones***

The height of the proposed development is reflective of the R4 zoning of the site and its location within the Ingleburn Town Centre. The height of the proposal will ensure an appropriate transition can be achieved across adjoining zones.

- ***To ensure that the heights of buildings reflect the intended scale of development appropriate to the locality and the proximity to business centres and transport facilities***

The height of the proposed development is reflective of the R4 zoning of the site, its location within the Ingleburn Town Centre and proximity to the Ingleburn Train Station.

- ***To provide for built form that is compatible with the hierarchy and role of centres***

The height of the proposed development is reflective of the R4 zoning of the site and its location within the Ingleburn Town Centre.

- ***To assist in the minimisation of opportunities for undesirable visual impact, disruption to views, loss of privacy and loss of solar access to existing and future development and to the public domain.***

The height of the proposed development does not result in an undesirable visual impact, disruption to views or loss of privacy or solar access.

4.0 Is Compliance with the Development Standard Unreasonable or Unnecessary in the Circumstances of the Case (Clause 4.6(3)(a))?



Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

Clause 4.6(3)(a) of Campbelltown LEP 2015 requires the departure from the development standard to be justified by demonstrating:

- ***Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case***

Comment

As detailed in the section above, the proposal provides a built form that is reflective of the future higher density-built form envisaged for the Ingleburn Town Centre. The numeric increase in building height for the proposed development is approximately 2.9m. The proposed height exceedance is deemed to be reasonable as it involves a minimal percentage of the building volume and habitable floor space, it does not result in adverse impacts on surrounding development, is below the height previously approved onsite and is not readily apparent from the streetscape.

The proposed development, including the proposed building elements that exceed the height limits, will continue to achieve the objectives of the standard. It is therefore considered that the objectives of the development standard are met notwithstanding the breach of the height of buildings standard.

5.0 Are there Sufficient Environmental Planning Grounds to Justify Contravening the Development Standard (Clause 4.6(3)(b))?

Clause 4.6(3)(b) of Campbelltown LEP 2015 requires the departure from the development standard to be justified by demonstrating:

- ***There are sufficient environmental planning grounds to justify contravening the development standard***

Comment

It is our opinion that there are sufficient environmental planning grounds to justify contravening the building height standard in this instance. These are as follows:

- The proposed development is consistent with the objectives of the zone and the objectives of the building height control.
- The proposal does not result in any adverse impact on adjoining properties.
- The height of the proposed development is reflective of the desired character of the Ingleburn Town Centre and is less than the variation approved on the site under **DA-1985/2017**.

It is considered the objectives of the LEP height standard are achieved in this instance where the proposal produces a high quality-built form that ensures a high level of amenity for residents.

Clause 4.6 Variation Request – 14-20 Palmer Street, Ingleburn

Whilst the built form exceeds the building height control applicable to the site, it is considered that the proposed design does not unreasonably detract from the amenity of adjacent residents or the existing quality of the environment as demonstrated in architectural plans prepared by Urbanlink.

Strict compliance with the building height development standard would result in a development that does not achieve the desired development density for the site and would be inconsistent with the future building height control for the site.

6.0 Conclusion

The proposed contravention of the 15m maximum building height is based on the reasons outlined in this request that are summarised as follows:

- It is considered that this proposal represents an individual circumstance in which Clause 4.6 was intended and to be available to set aside compliance with unreasonable or unnecessary development standards.
- The proposed development will not create an undesirable precedent.
- The proposed development is consistent with the objectives of Clause 4.3 and Clause 4.6 of Campbelltown LEP 2015 and therefore is in the public interest pursuant to clause 4.6(4).

In view of the above, it is considered that this written request has adequately addressed the matters required by Clause 4.6(3) of the Campbelltown LEP 2015 and Council's support to contravene the maximum building height development standard of Clause 4.3 is therefore sought.



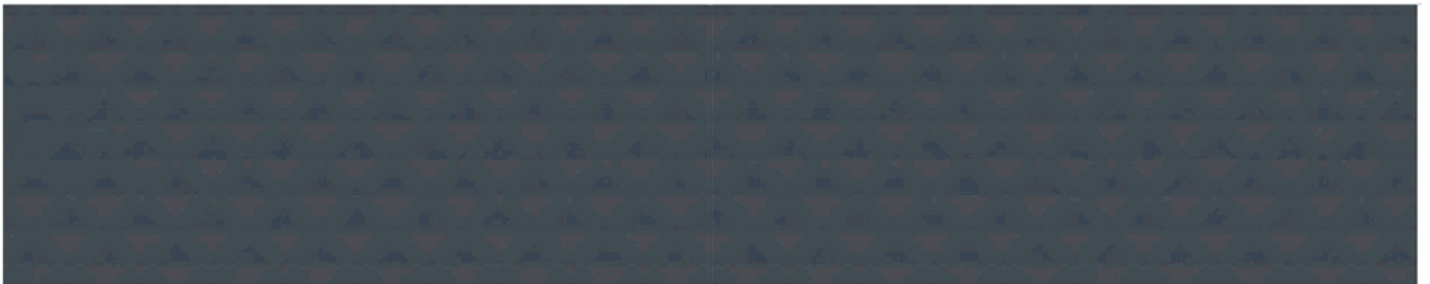
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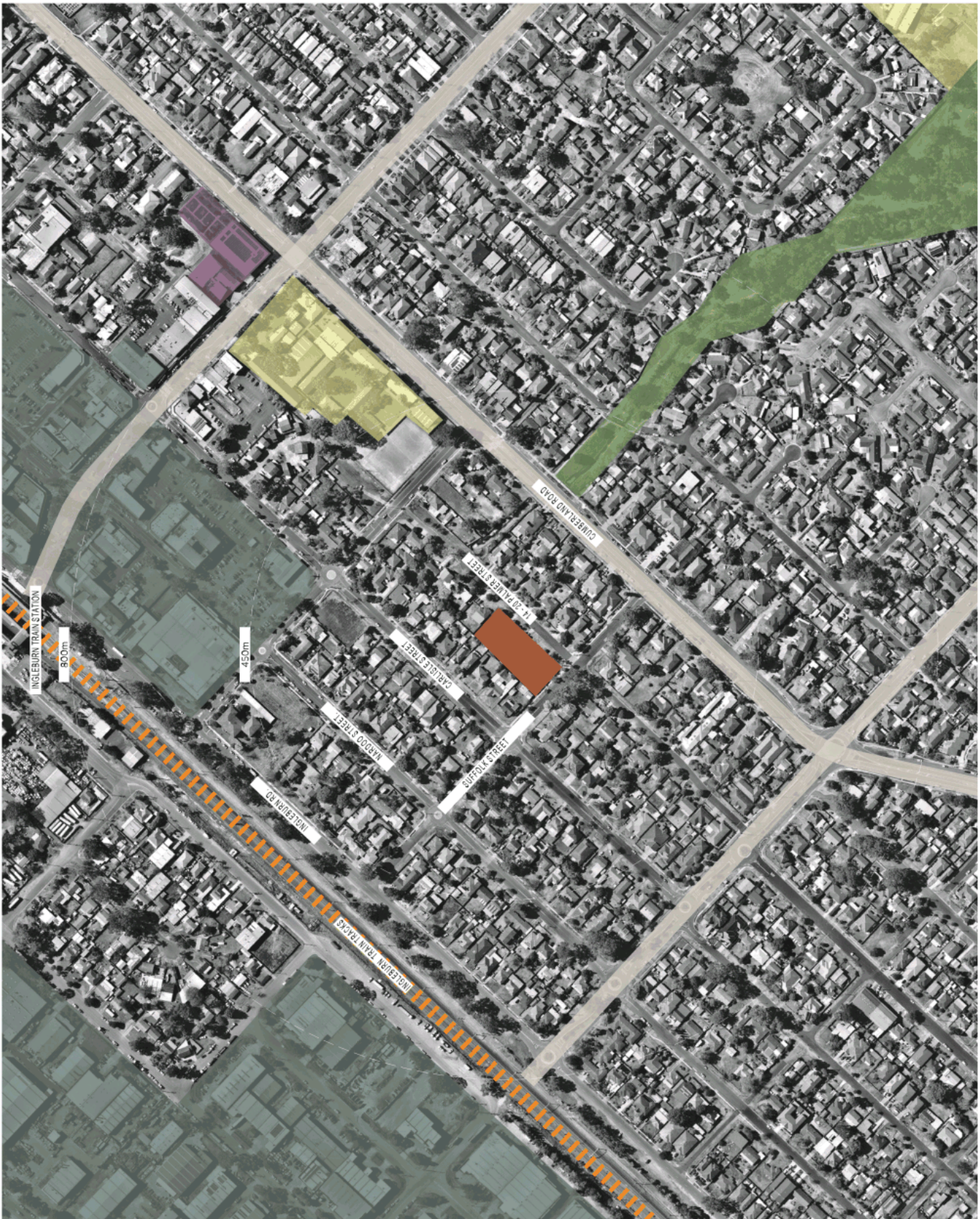
- LEGEND**
- Site
 - School
 - Retail
 - Park
 - Library

Development Application No: 2020-026
 Date: 22/06/2022
 Project: 14-20 Palmer Street Ingleburn
 Applicant: 14-20 Palmer Street
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SITE LOCATION
 14-20 Palmer Street
 Ingleburn NSW 2574

Project Number: 2020-026
 Development Application: DA-026 B



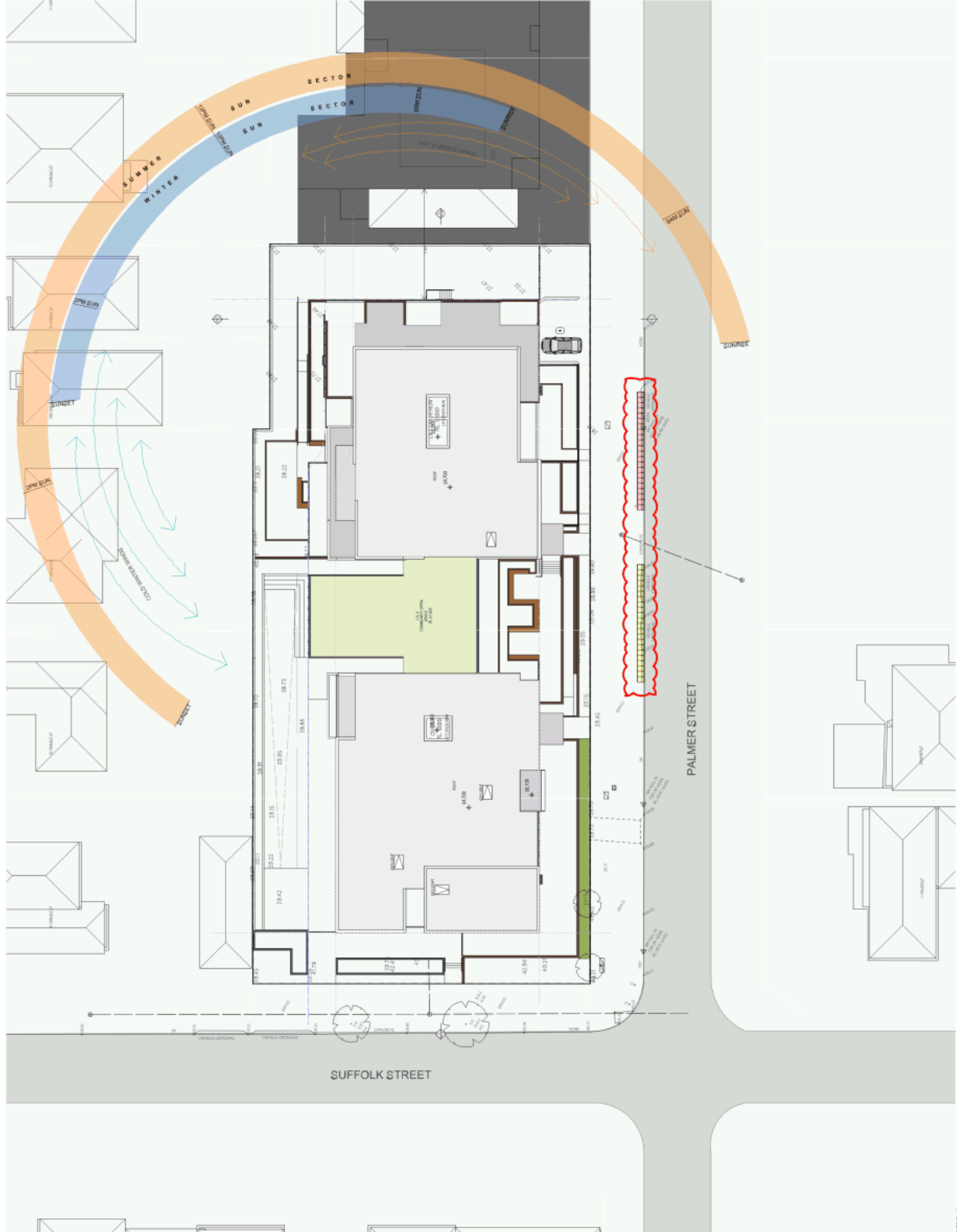
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Development Application
 2020-006
 14-20 Palmer Street, Ingleburn
 Date: 11/06/2022

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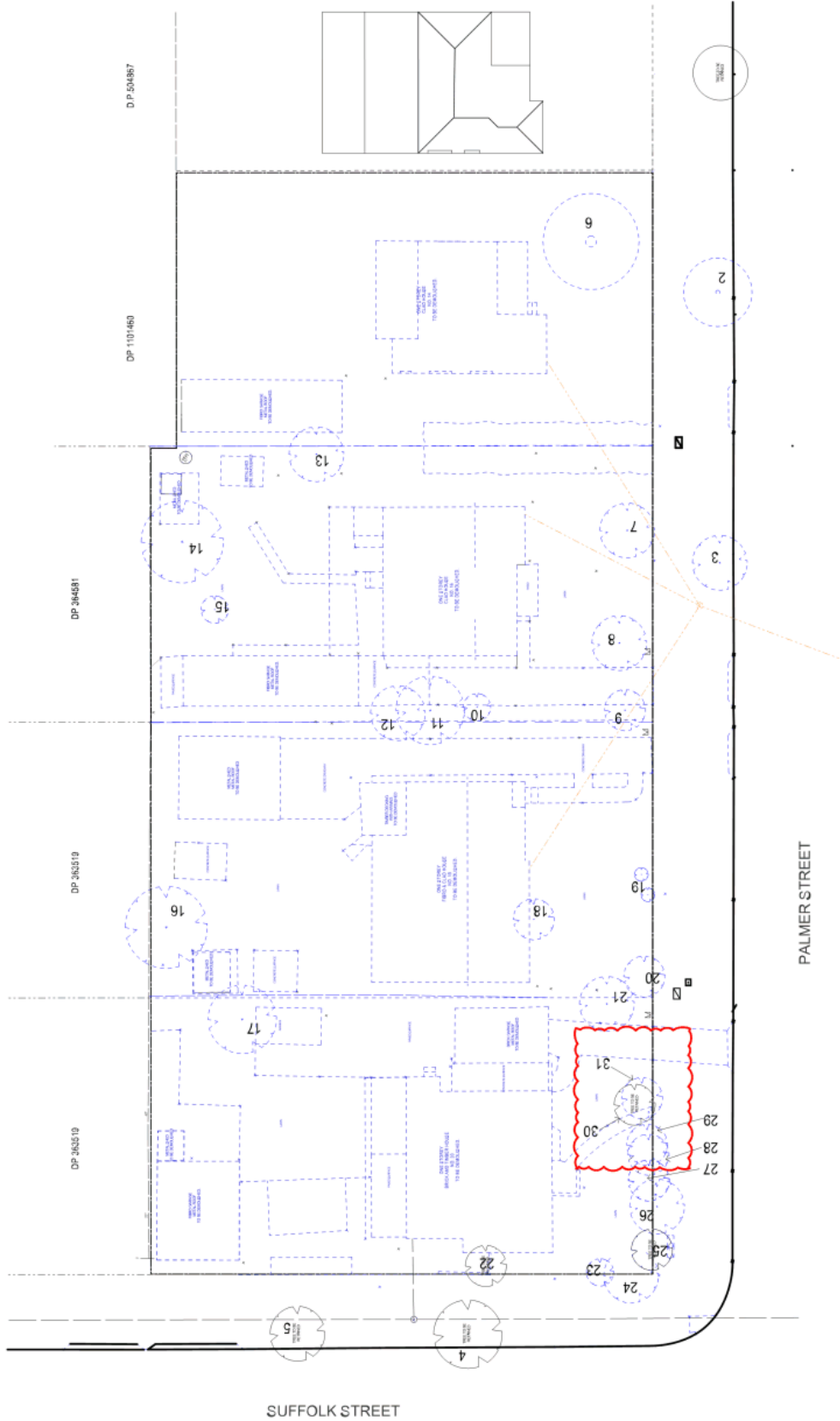
Site
 SITE PLAN & ANALYSIS
 Scale: 1:200 @ A1
 Project Name: 2020-006
 Development: DA-000 B
 DEVELOPMENT APPLICATION



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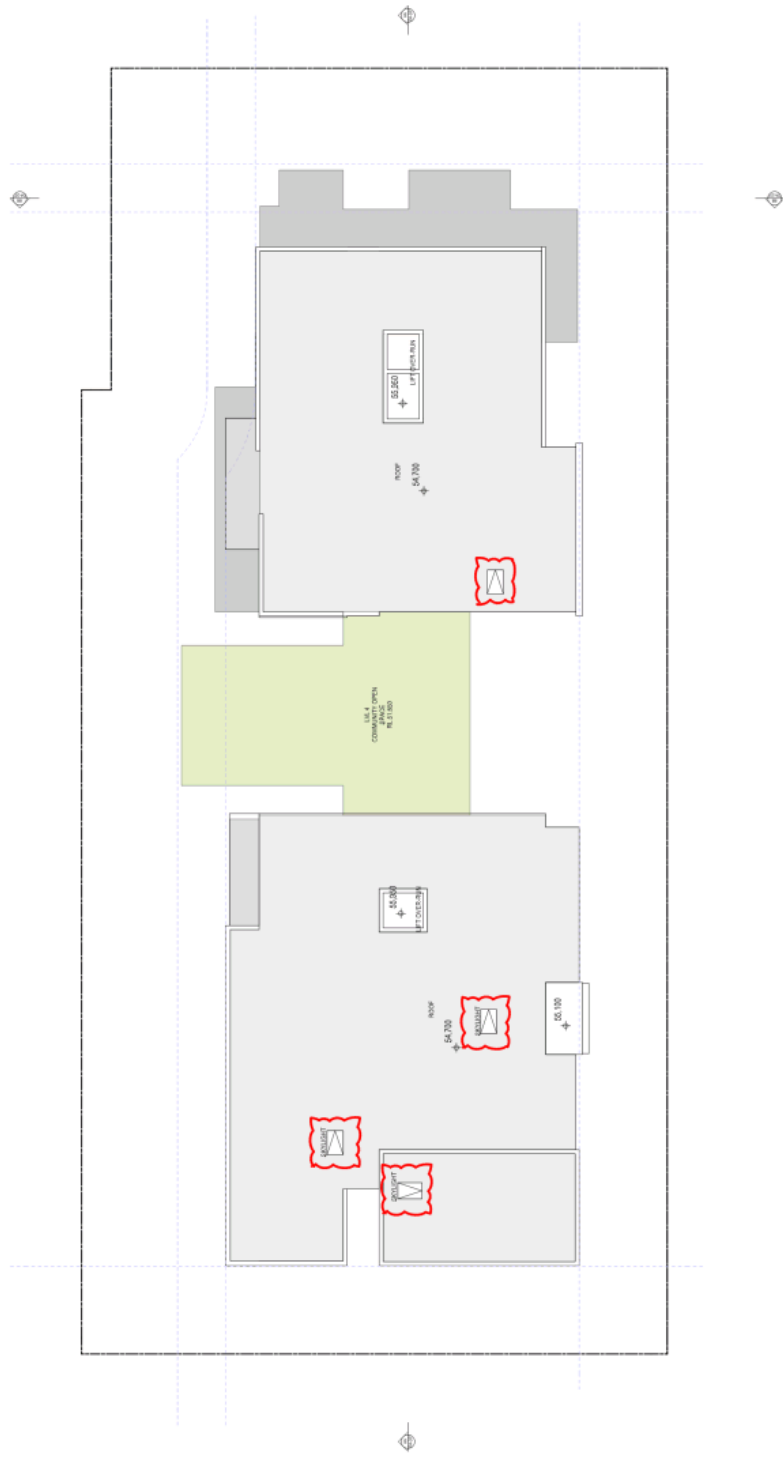


Development Application
14-20 Palmer Street Ingleburn
14-20 Palmer Street
Ingleburn NSW 2564
Project: 14-20 Palmer Street Ingleburn
Date: 22/06/2022
Scale: 1:500

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SITE DEMOLITION PLAN
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Development Application
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ROOF SCALE 1:100

14-20 Palmer Street, Ingleburn
 14-20 Palmer Street
 Development Application
 DA-106 B
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F FROSTED GLASS

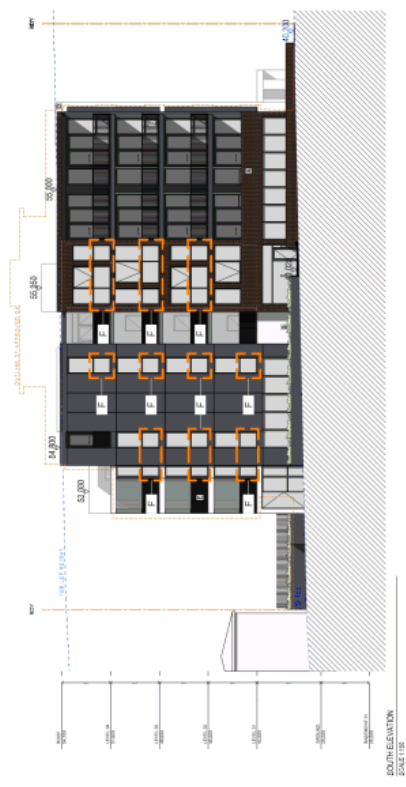
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- D** POLISHED
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- E** POLISHED
 CONCRETE
 FINISH
- F** FROSTED
 GLASS
 WITH
 POLISHED
 FINISH

14-20 Palmer Street Ingleburn
 Project:
 Date:
 Scale:

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ELEVATIONS
 NORTH AND SOUTH ELEVATION
 SCALE: 1:100 @ A1

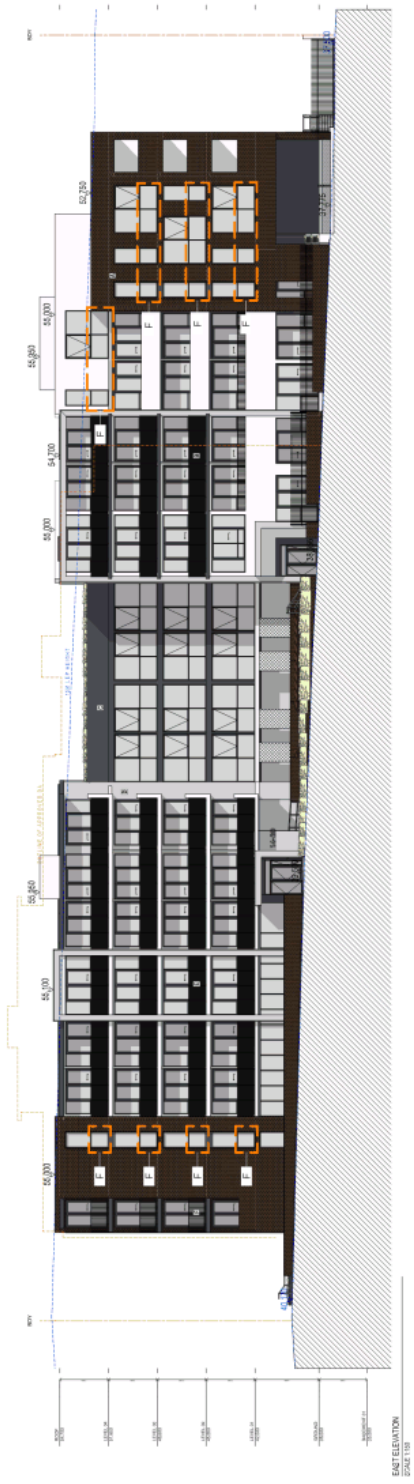
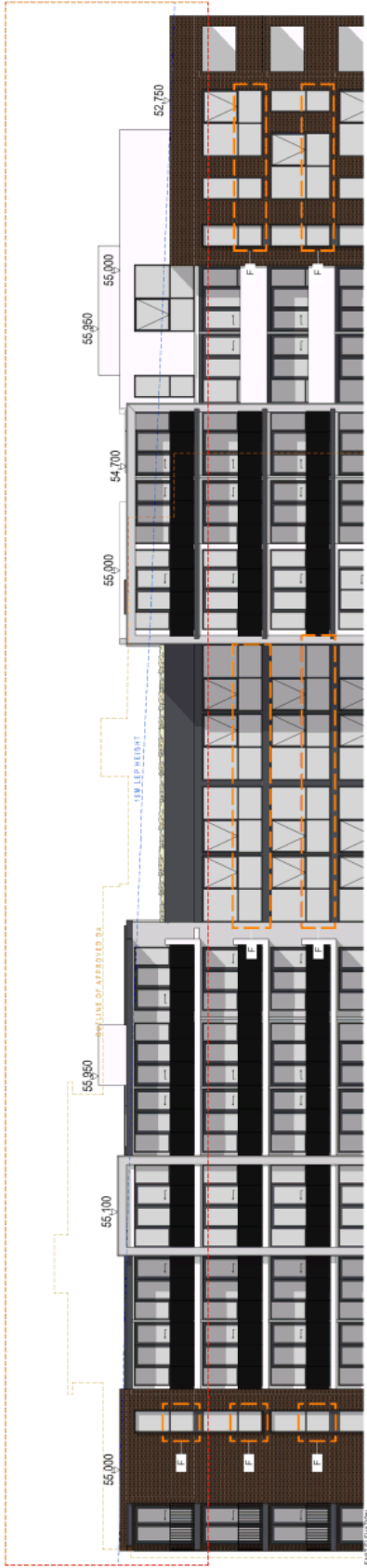
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F FROSTED GLASS

- A** BRICK
 PERFORATED
 BRICKWORK
 WITH
 CONCRETE
 POINTING
- B** FINE
 SAND
 CONCRETE
 WITH
 POLYMER
 MODIFIED
 GROUT
- C** CONCRETE
 WITH
 POLYMER
 MODIFIED
 GROUT
- D** RAW CONCRETE
 WITH
 POLYMER
 MODIFIED
 GROUT
- E** ALUMINIUM
 FRAME
 GLAZING
 SYSTEM
- F** FROSTED
 GLASS
 WITH
 POLYMER
 MODIFIED
 GROUT



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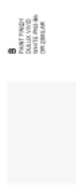
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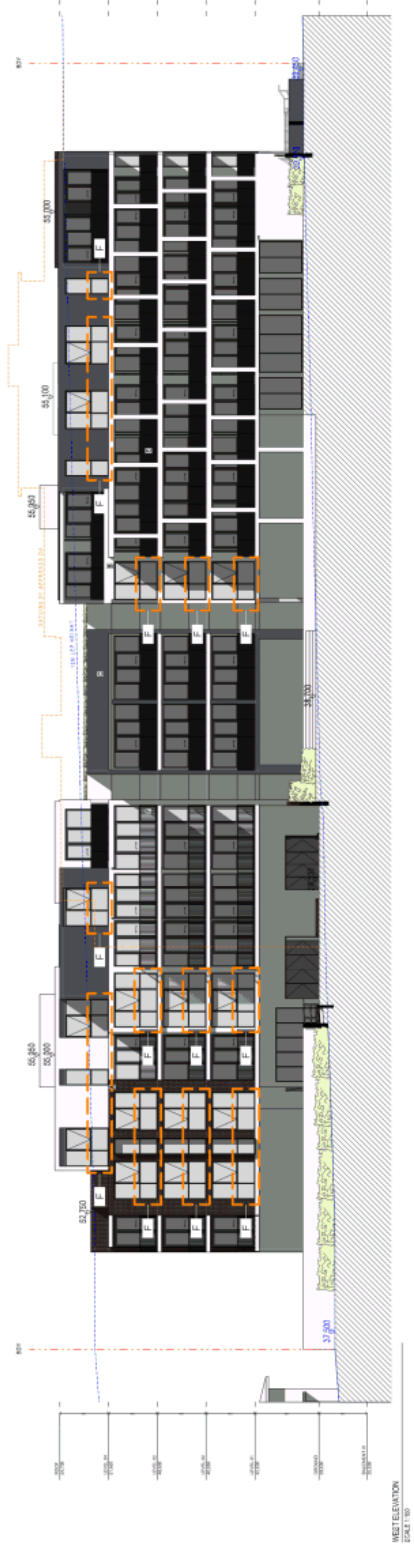
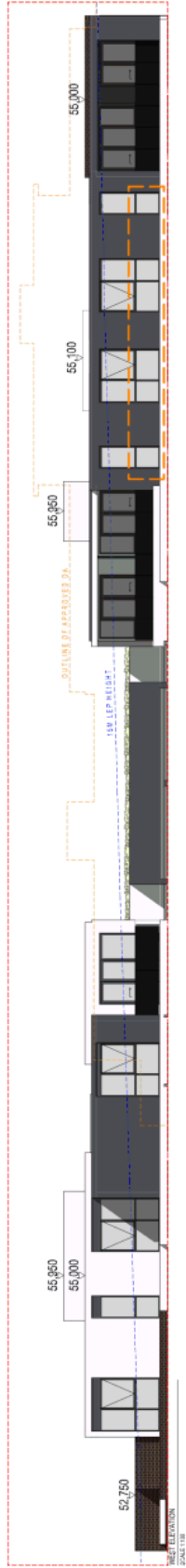
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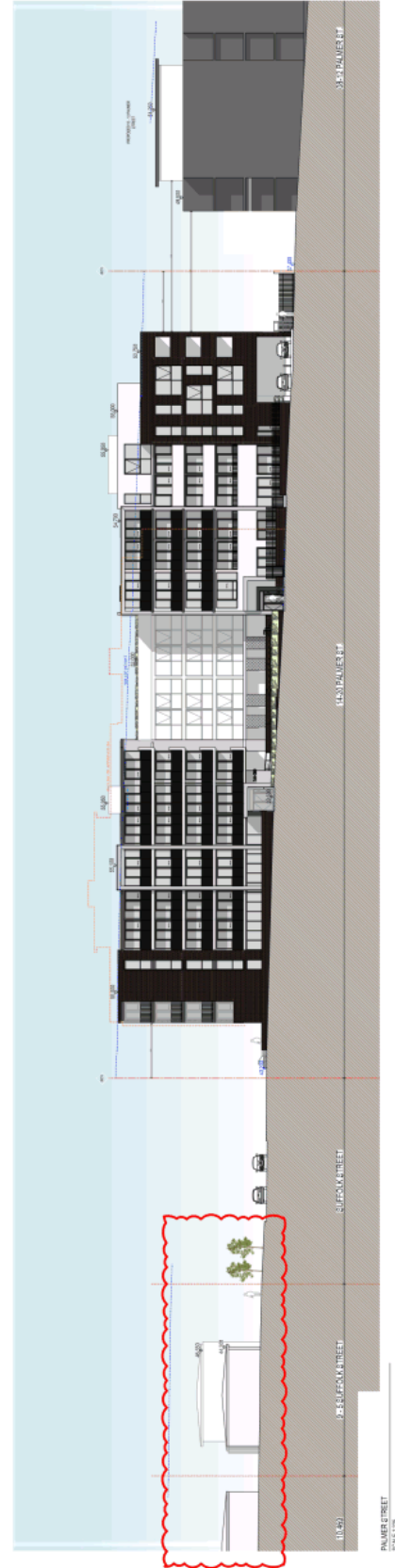
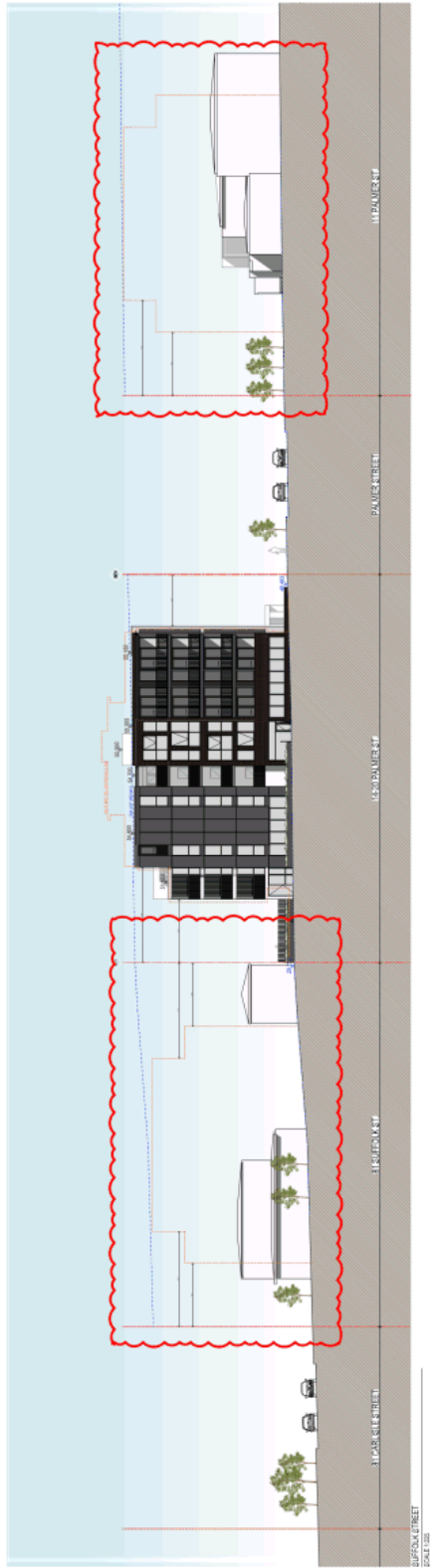
Client: Development Application
 Project: 14-20 Palmer Street, Ingleburn
 Date: 2022

14-20 Palmer Street
 Ingleburn NSW 2508
URBAN LINK
 Architects & Planners
 14-20 Palmer Street, Ingleburn NSW 2508
 Phone: 02 9333 2222
 Email: info@urbanlink.com.au
 Website: www.urbanlink.com.au

ELEVATIONS
 WEST ELEVATION
 Scale: 1:100
 Project Name: 2020-006
 Development Application



CONCEPT ARCHITECTURAL ELEVATIONS
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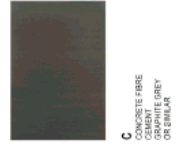
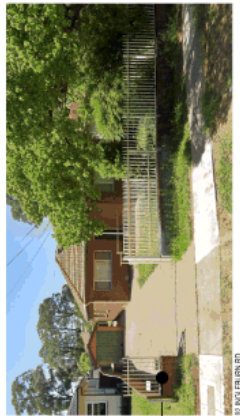


14-20 Palmer Street
 Palmer Street, Auckland
 Project: 14-20 Palmer Street
 Date: 2022

URBAN LINK
 ARCHITECTS
 14-20 Palmer Street, Auckland
 Phone: 09 308 1234
 Email: info@urbanlink.co.nz
 Website: www.urbanlink.co.nz

**ELEVATIONS
 STREETSCAPES**
 Scale: 1:200 @ A1
 Project Name: 14-20 Palmer Street
 Development Application: DA-204 B

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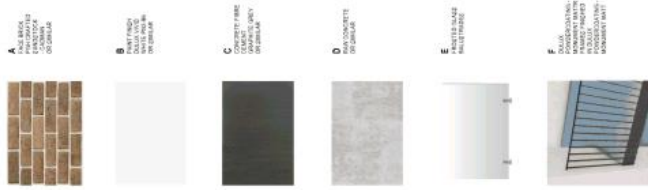


Development Application
 14-20 Palmer Street Ingleburn
 14-20 Palmer Street
 Ingleburn NSW 2507
 URBAN LINK PTY LTD
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EXTERNAL FINISHES RENDER
 MATERIAL STUDIES

Project Name: 14-20 Palmer Street Ingleburn
 Project Number: DA-301 B
 Development Application
 URBAN LINK PTY LTD

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Development Application
 2020-006
 14-20 Palmer Street Ingleburn
 14-20 Palmer Street
 Ingleburn NSW 2562
 Project
 Date: 10/06/2022
 Title: DA-302 B

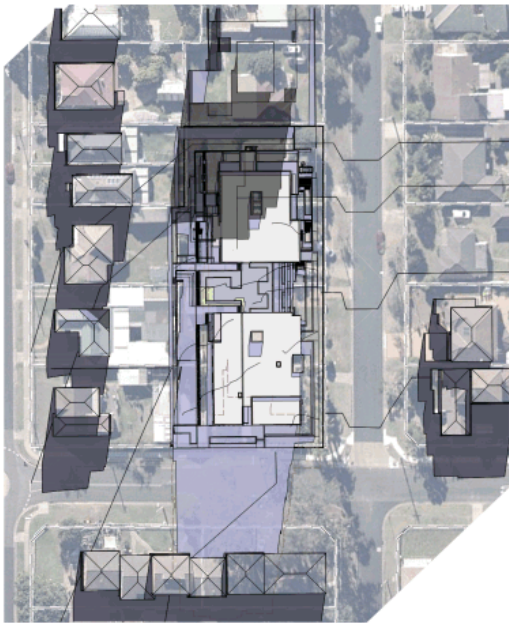


EXTERNAL FINISHES RENDER
FINISHES SCHEDULE
 Project No: 2020-006
 Development: DA-302 B
 DEVELOPMENT APPLICATION

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JUNE 21 - 12PM



JUNE 21 - 9AM



JUNE 21 - 3PM

KEY

- EXISTING SHADOW
- PROPOSED ADDITIONAL SHADOW
- SHADOW OF APPROVED DA

Development Application No. DA-1465 B
 Project: 14-20 Palmer Street, Ingelburn
 Applicant: URBAN LINK PTY LTD
 Date: 14/06/2022

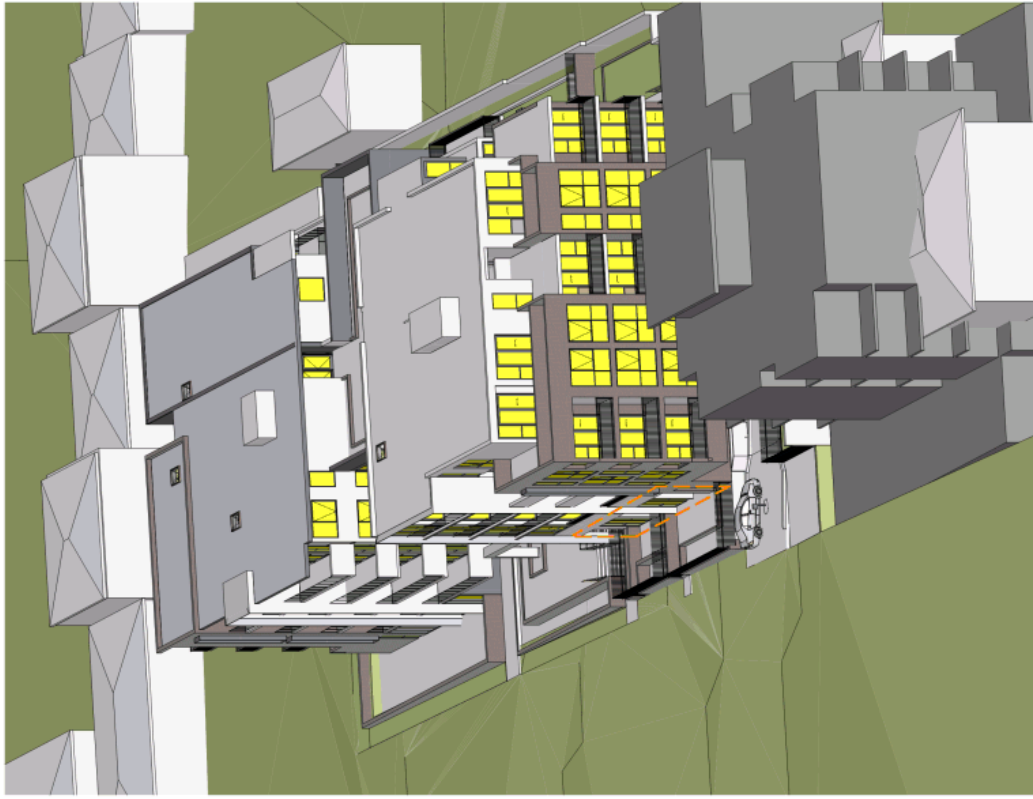
URBAN LINK
 14-20 Palmer Street, Ingelburn, VIC 3088
 Phone: 03 9477 1234
 Email: info@urbanlink.com.au
 Website: www.urbanlink.com.au

OPTIONS - COMPLIANCE SOLAR ACCESS DIAGRAMS
 Scale: 1:150 @ A1

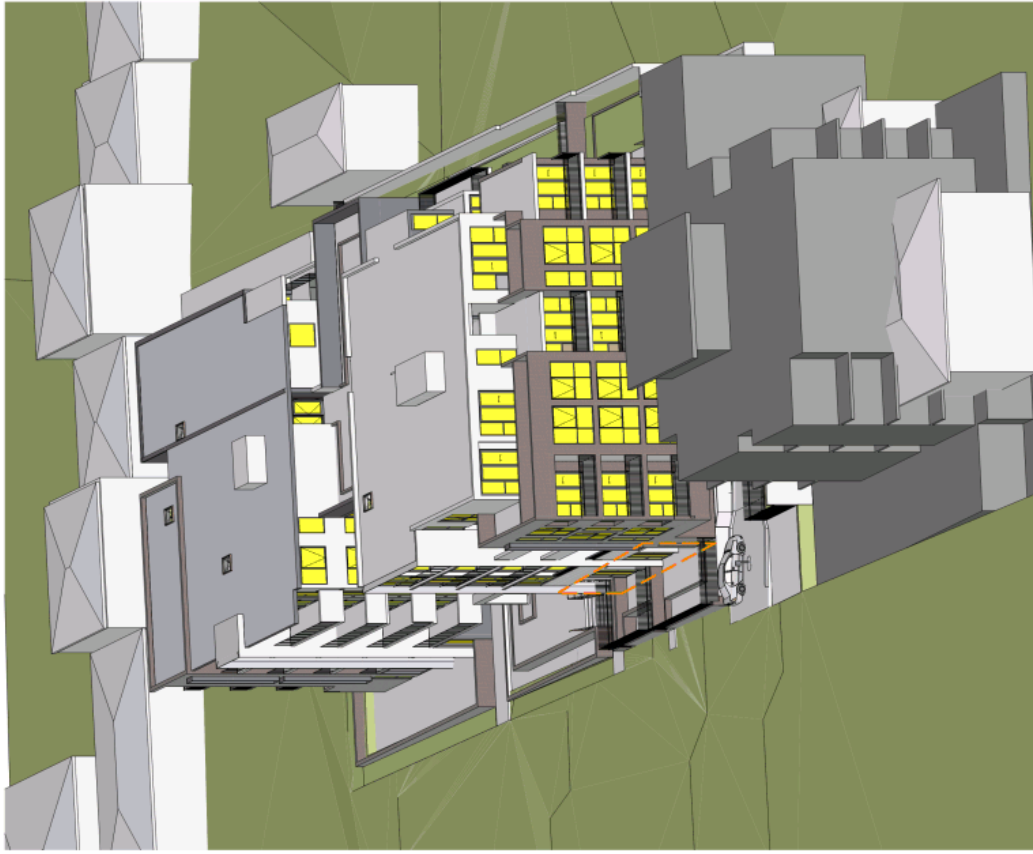
Project Name: DA-1465 B
 Development Application: DA-1465 B
 DEVELOPMENT APPLICATION

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22/06/2022
 SCALE 1:100



22/06/2022
 SCALE 1:100

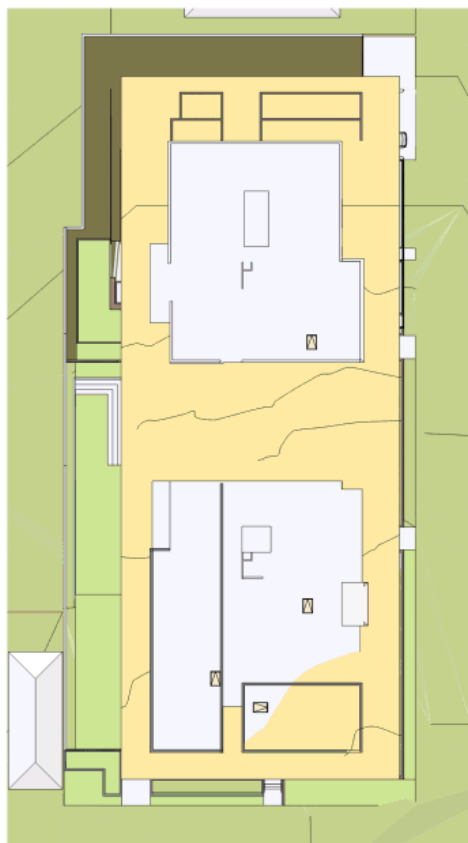
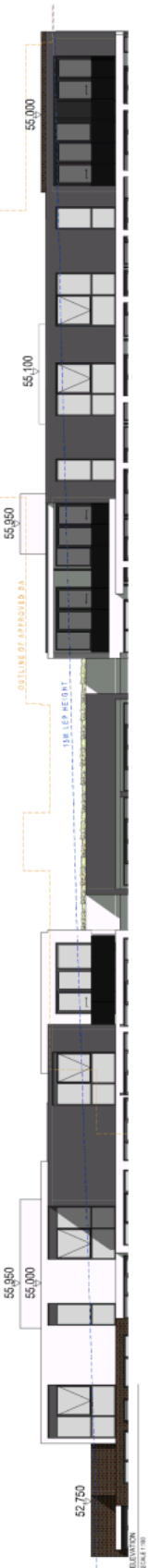
Development Application
 14-20 Palmer Street Ingleburn
 Project
 Date: 22/06/2022

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 Ingleburn NSW 2562
 URBAN LINK
 14-20 Palmer Street Ingleburn NSW 2562
 Phone: 02 9333 1234
 Fax: 02 9333 1235
 Email: info@urbanlink.com.au
 Website: www.urbanlink.com.au

**OPTIONS - COMPLIANCE
 SHADOW STUDIES**

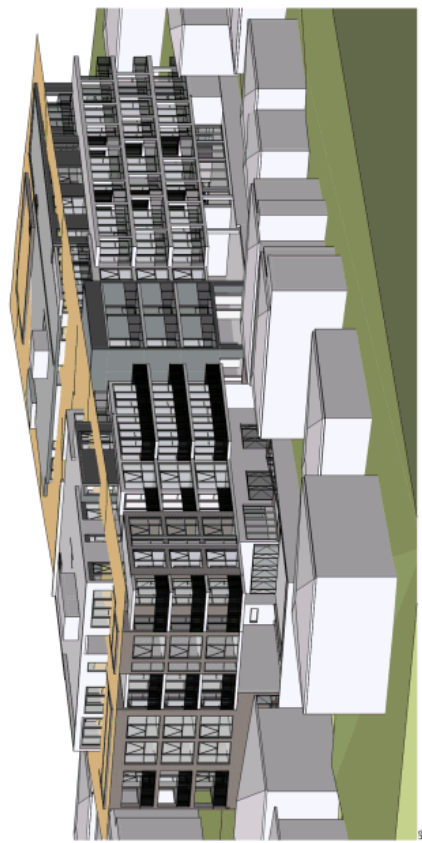
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Compliance

CONTROL	REQUIREMENT	PROPOSED	COMPLIES
Building Height	15.00 m MAX	17.90 m	X



Development Application
 14-20 Palmer Street Ingleburn
 URBAN LINK
 URBAN LINK PTY LTD
 14-20 Palmer Street Ingleburn NSW 2502
 Phone: 02 9339 4444
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 Website: www.urbanlink.com.au

Project Name: 2020 - 006
 DA-1408 B
 DEVELOPMENT APPLICATION

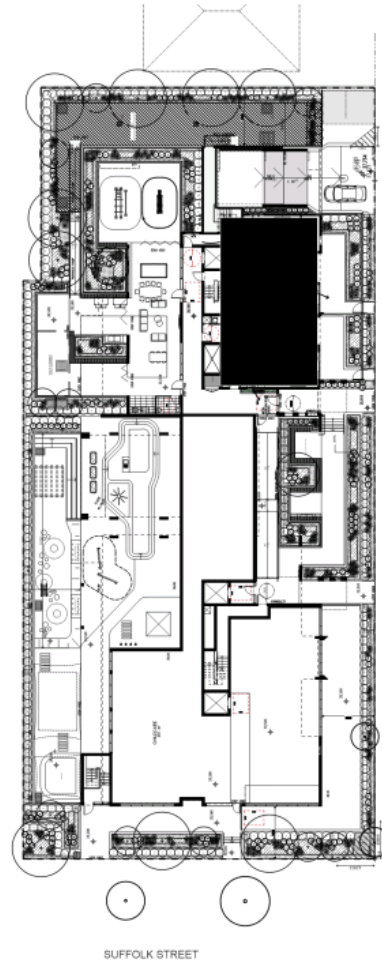
PROPOSED DEVELOPMENT

14-20 Palmer Street, Ingleburn Landscape Development Application

Drawing Schedule

Drawing Number	Drawing Title	Scale
000	Landscape Coversheet	N/A
101	Landscape Plan - Ground Floor	1:100
102	Landscape Plan - Level 4	1:100
501	Landscape Details	AS SHOWN

SYMBOL	BOTANICAL NAME	COMMON NAME	HWT (m)	POT SIZE	SPACING	QTY GP	QTY LA
TREES							
L1	<i>Leptocarpus indicus</i> x <i>L. laurifolius</i> 'Nalidar'	Crepe Myrtle (White)	8 x 6	100L	As shown	4	
MLG	<i>Magnolia Lilloi</i> 'Glen'	Magnolia	5 x 3	100L	As shown	9	4
Pu	<i>Pyrus assensensis</i>	Marchmont Pear	9 x 7	100L	As shown	2	
Up	<i>Ulmus parvifolia</i>	Chinese Elm	13 x 10	100L	As shown	1	2
WF	<i>Waterhousea floribunda</i>	Weeping Lily Ply	20 x 8	100L	As shown	4	
SHRUBS / ACCENTS							
Ga	<i>Corymbia australis</i> 'Red Stevedor'	Indian Hawthorne	3 x 3	300mm	As shown	33	7
AI	<i>Allocasuarina impenabilis</i> 'Rubra'	Bumekid	0.3 x 0.7	300mm	As shown	182	16
By	<i>Burchardia racemoides</i>	American Lily	1 x 2	300mm	As shown	92	23
PBB	<i>Prostratum Newze</i> 'Bronze Baby'	Bronze Lilly	75 x 75	300mm	As shown	21	3
PMM	<i>Photinia Newze</i> 'Miss Muffet'	Miss Muffet	1 x 1	300mm	As shown	28	15
PK	<i>Philadelphus Kameda</i>	Kameda	0.8 x 1	300mm	As shown	96	6
R	<i>Raphidopis indica</i> 'Cosmos White'	Indian Hawthorne	1.5 x 2	300mm	As shown	123	21
Vo	<i>Viburnum cibrati-stilicosum</i>	Sweet Viburnum	5 x 3.5	300mm	As shown	285	59
CLIMBERS / GROUNDCOVERS / GRASSES							
Cg	<i>Cappadocia glaucescens</i>	Ply Pece	0.1 x 1	150mm	5mtr/4m	346	228
LEB	<i>Liriodendron muscari</i> 'Emergreen Giant'	Liriodendron	0.8 x 0.5	150mm	5mtr	96	45
LSL	<i>Liriodendron muscari</i> 'Silver Jazzer'	Liriodendron	0.35 x 0.4	150mm	5mtr	73	15
LT	<i>Lomandra 7mtr</i>	Fire Leaf Deer Lomandra	0.5 x 0.5	150mm	5mtr	102	4
Ms	<i>Mentha subverticillata</i>	Mint	0.45 x 0.5	150mm	5mtr	3	
Oh	<i>Ocimum basilicum</i>	Common Basil	0.8 x 0.3	150mm	5mtr	3	
PN	<i>Pennisetum alopecuroides</i> 'Nalidar'	Nalidar Pennisetum	0.8 x 0.6	150mm	5mtr/3.1	57	18
ReJ	<i>Ruellia bicolorata</i> 'Snow'	Ruellia	0.75 x 1	150mm	5mtr/4m	19	106
TJ	<i>Trachypogonum jasmoides</i>	Sun Jasmine	0.5m spreading	150mm	5mtr/4m	857	10
Ts	<i>Thymus spp</i>	Thyme	0.3 x 0.3	100mm	5mtr	3	



PALMER STREET

Site Plan 1:250

SUFFOLK STREET

SITE IMAGE

CLIENT: A&M Group 1 Pty Ltd
PROJECT: Proposed Development
 14-20 Palmer St, Ingleburn

DATE: 22/06/2022
SCALE: 1:100
JOB NUMBER: SS21-4596
CHECK NUMBER: 000 D

PRELIMINARY
 Landscape Coversheet

NOT FOR CONSTRUCTION

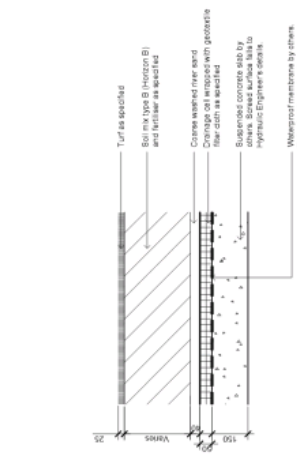
LEGEND

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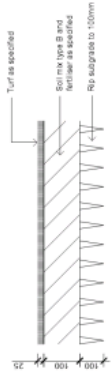
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 CH: 22/06/2021

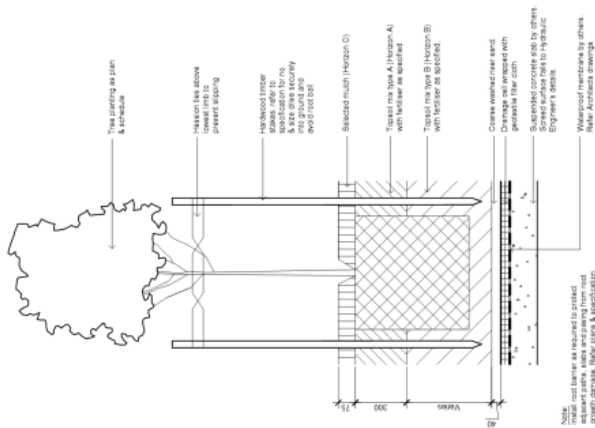
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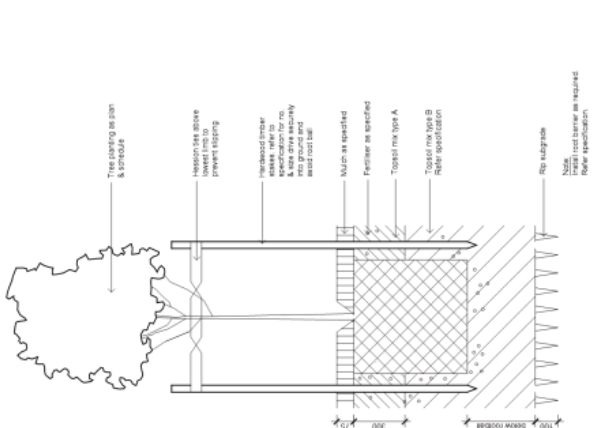
Detail Turf on Suspended Structure
SCALE 1:10



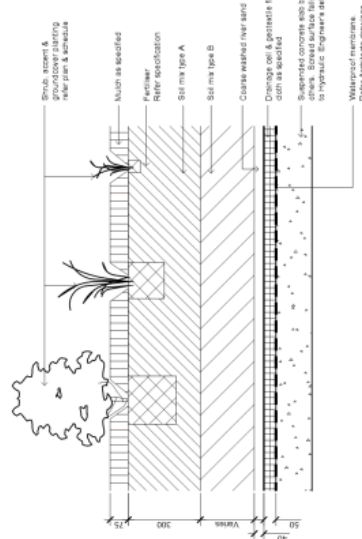
Detail Turf on Even Grade
SCALE 1:10



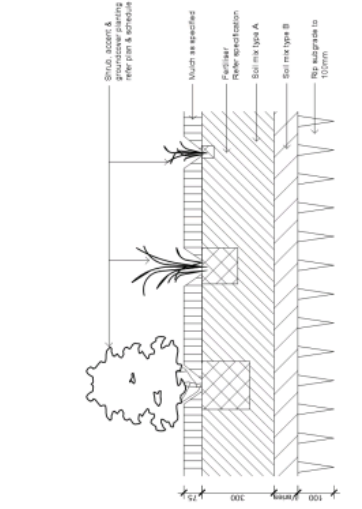
Detail 75-200L Tree Planting on Structure
SCALE 1:10



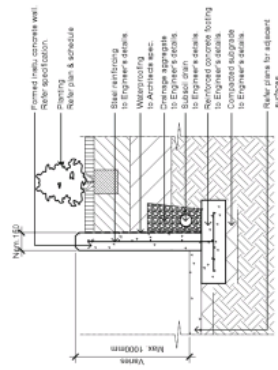
Detail 75-200L Tree Planting on Grade
SCALE 1:10



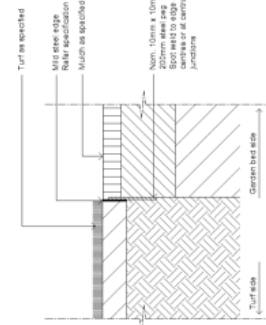
Detail Shrub Accent & Groundcover Planting on Structure
SCALE 1:10



Detail Shrub Accent & Groundcover Planting on Grade
SCALE 1:10



FORMED INSITU CONCRETE RETAINING WALL
SCALE 1:20



TYPICAL MILD STEEL EDGE
SCALE 1:10

LEGEND

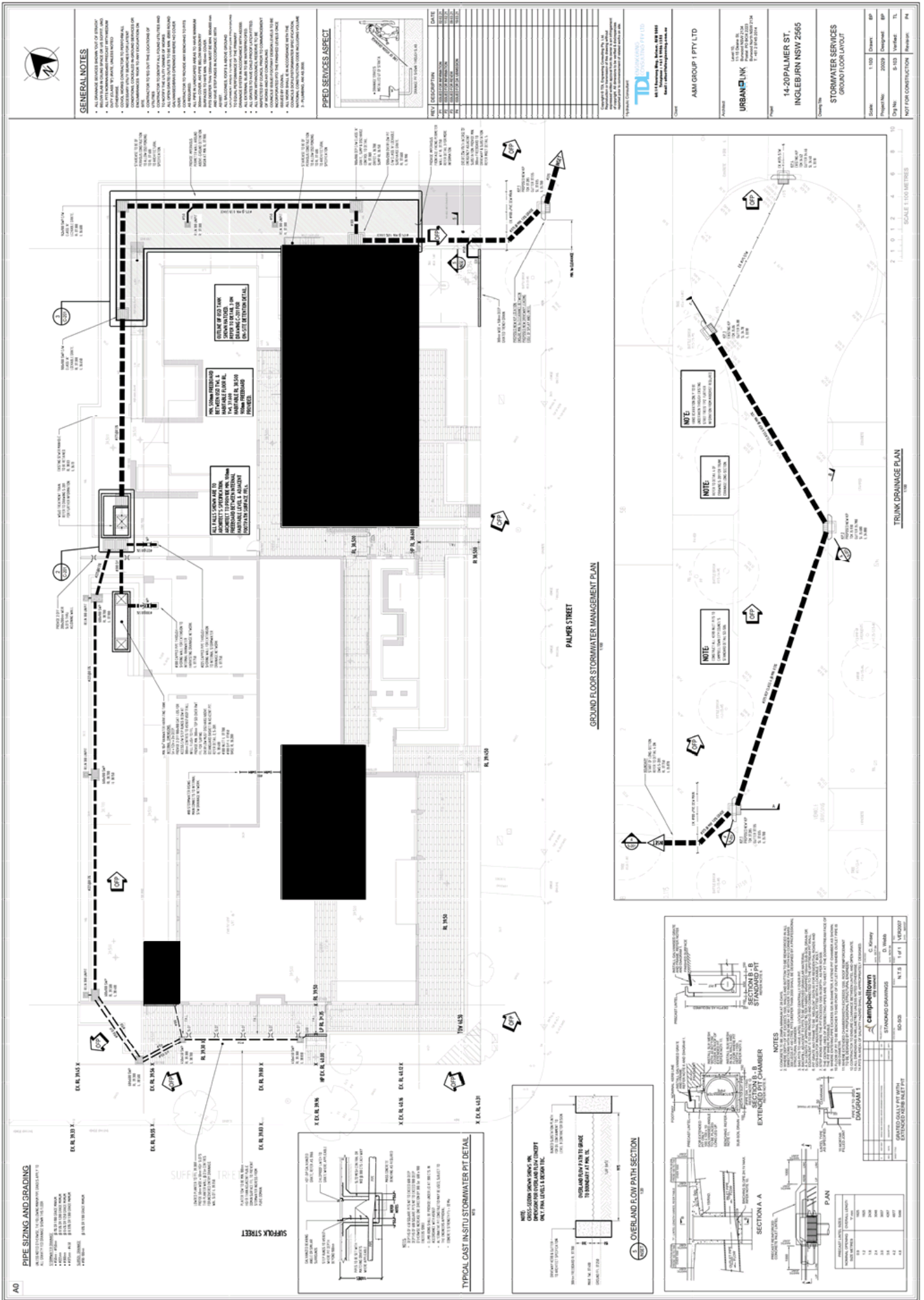
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Project: Landscape Details
Drawing Number: 501 A
Status: PRELIMINARY AS SHOWN
Job Number: SS21-4596

Client: A&M Group 1 Pty Ltd
Proposed Development: 14-20 Palmer St, Ingleburn





Proposed Mixed-Use Development

**14-20 Palmer Street,
Ingleburn**

TRAFFIC AND PARKING ASSESSMENT REPORT

6 April 2021

Ref 20636

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants 

Suite 6, 20 Young Street, Neutral Bay NSW 2089 - PO Box 1868, Neutral Bay NSW 2089
Ph: 9904 3224

TABLE OF CONTENTS

1. INTRODUCTION	1
2. PROPOSED DEVELOPMENT	4
3. TRAFFIC ASSESSMENT	10
4. PARKING ASSESSMENT	18

LIST OF ILLUSTRATIONS

Figure 1	Location
Figure 2	Site
Figure 3	Road Hierarchy
Figure 4	Existing Traffic Controls
Figure 5	Existing Public Transport

1. INTRODUCTION

This report has been prepared to accompany a development application to Campbelltown City Council for a mixed-use development proposal to be located at 14-20 Palmer Street, Ingleburn (Figures 1 and 2).

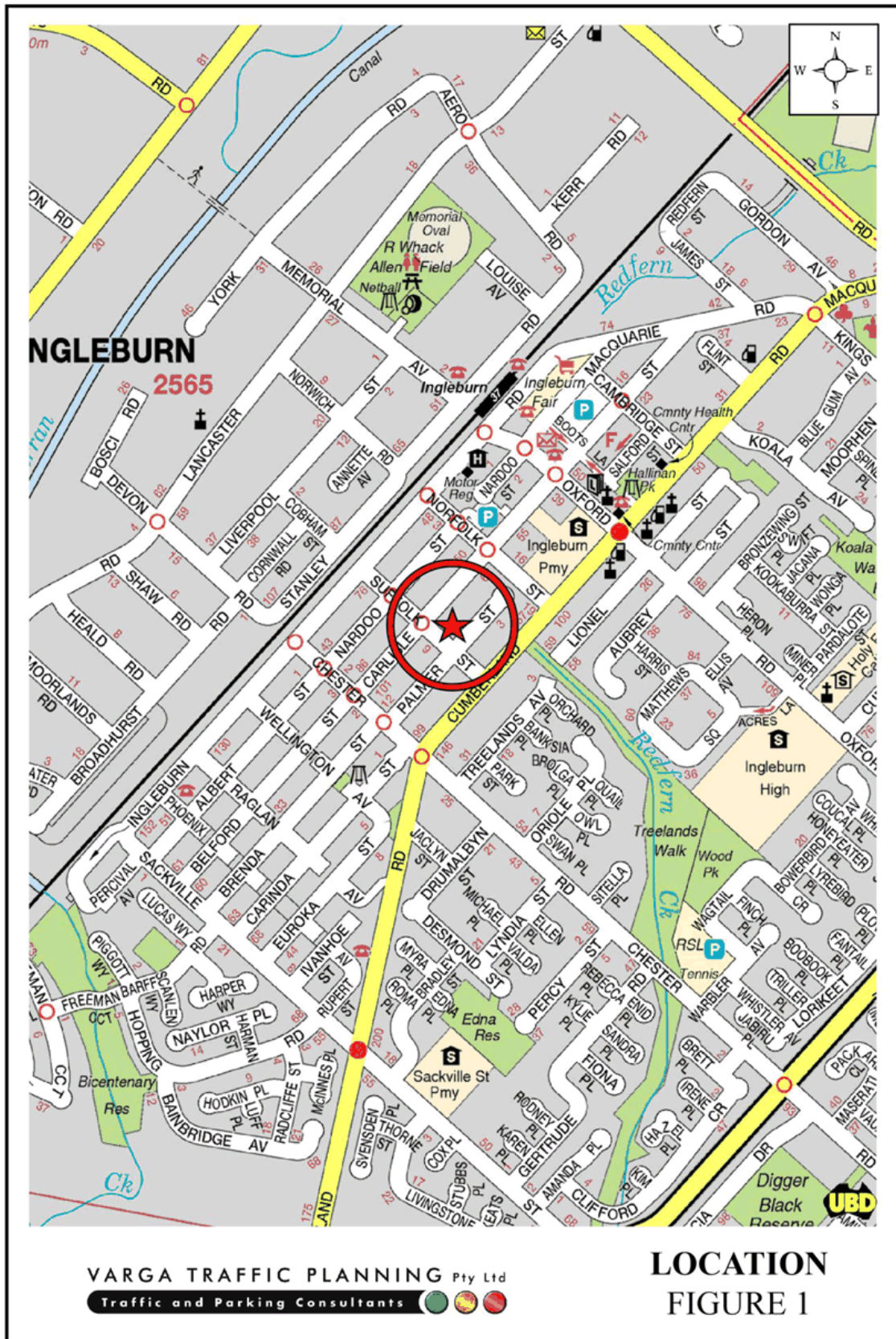
The proposed development involves demolition of existing structures on the site to facilitate the construction of a new mixed-use building with a ground floor childcare component, and residential apartments on the levels above.

Off-street parking is to be provided in a multi-level basement car parking area in accordance with Council requirements.

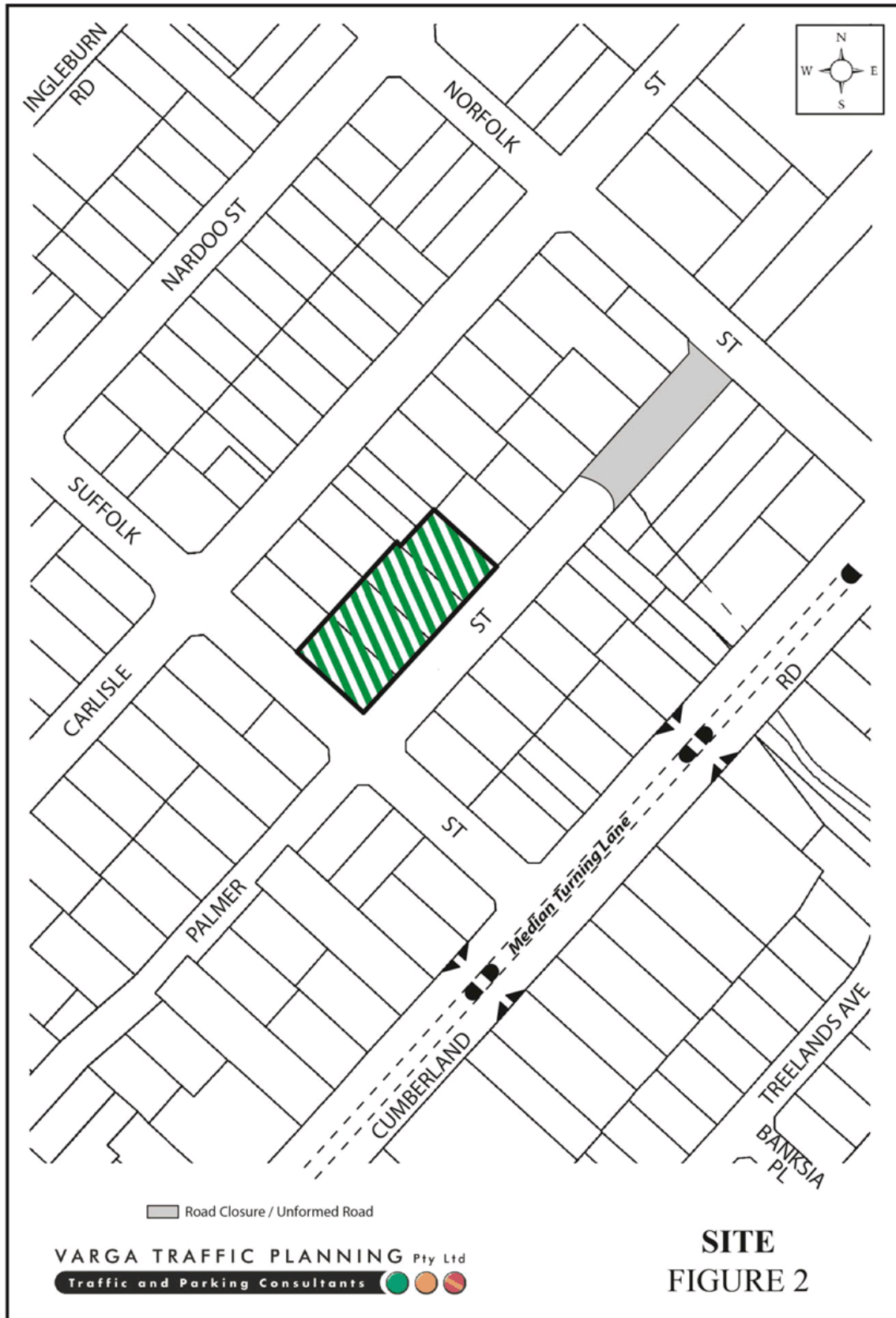
The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the available public transport services in the vicinity of the site
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking provided on the site.

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2. PROPOSED DEVELOPMENT

Site

The subject site is located at the north-western corner of the Palmer Street and Suffolk Street intersection. The site has street frontages approximately 36 metres in length to Suffolk Street, approximately 82 metres in length to Palmer Street, and occupies an area of approximately 3,025m².

The site is currently occupied by 4 residential dwellings, each with a separate vehicular driveway off Palmer Street.

A recent aerial image of the site and its surroundings is reproduced below.



Courtesy of Nearmap Imagery

Proposed Development

The proposed development involves demolition of existing structures on the site to facilitate the construction of a new mixed-use building.

A total of 53 residential units are proposed as follows:

1 bedroom apartments:	8
2 bedroom apartments:	44
3 bedroom apartments:	1
TOTAL APARTMENTS:	53

A childcare component is also proposed on the ground floor level of the building. Notwithstanding, a future tenant will only be sought nearing building completion, subject to a separate DA for its exact operating parameters, and the current application has made allowance for an operator to cater for up to 100 children.

Off-street parking is proposed for a total of 83 cars plus a service bay in a multi-level basement car parking area in accordance with Council requirements.

Vehicular access to the car parking facilities is to be provided via a new combined entry and exit driveway located at the north-eastern end of the Palmer Street site frontage.

Garbage collection is expected to be undertaken by Council's waste contractor, with bins stored on site and brought out onto kerbside locations on collection days.

The loading / servicing needs of the childcare component of the development will be minimal and is expected to be undertaken outside drop-off/pick-up times by a variety of light commercial vehicles such as vans, utility vehicles and the like up to the size of a B99 vehicle, which will be accommodated in the proposed service bay located on the upper basement level.

Plans of the proposed development have been prepared by *Urban Link* and are reproduced in the following pages.

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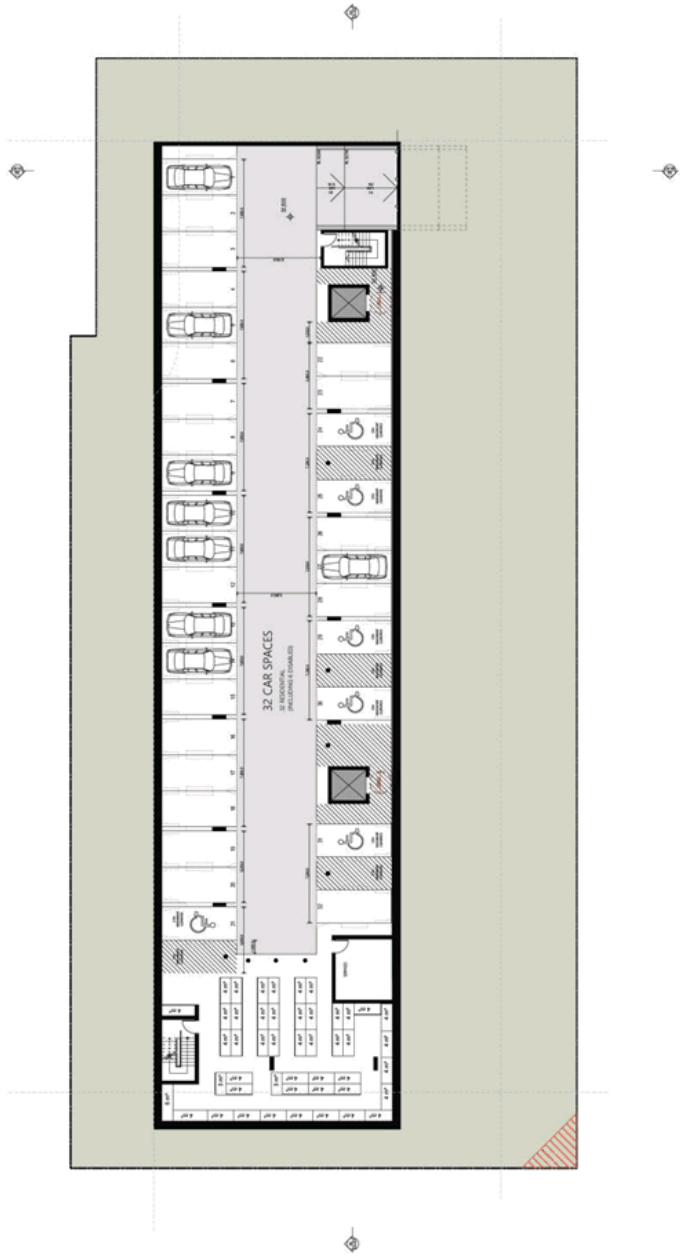
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 Australia

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 Australia
 Phone: 02 9333 3333
 Email: info@urbanlink.com.au
 Website: www.urbanlink.com.au

FLOOR PLANS
 BASEMENT 02
 Scale: 1:100 @ A1

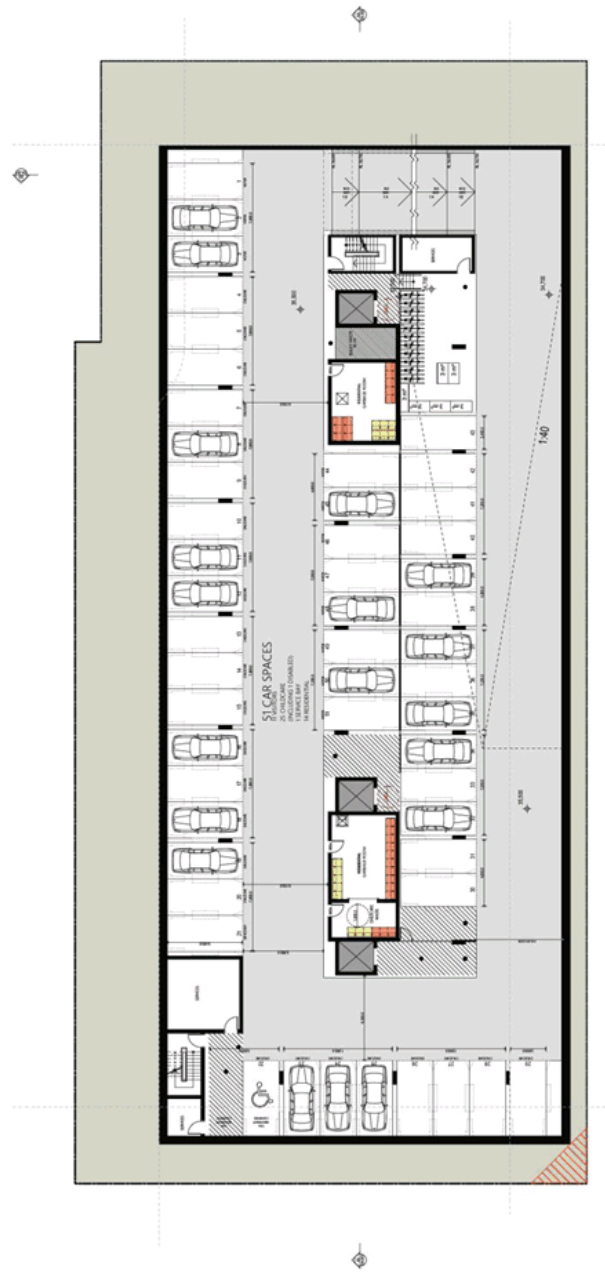
Project No: 2021-008
 Date: 20/06/2022
 Drawing No: DM-01 - A
 DEVELOPMENT APPLICATION



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 6. URBAN LINK ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE ARISING FROM THE USE OF THIS PLAN.
 7. URBAN LINK ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE ARISING FROM THE USE OF THIS PLAN.
 8. URBAN LINK ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE ARISING FROM THE USE OF THIS PLAN.
 9. URBAN LINK ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE ARISING FROM THE USE OF THIS PLAN.
 10. URBAN LINK ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE ARISING FROM THE USE OF THIS PLAN.

A. Development Application 24221/22
 Date: 14/06/2022
 14-20 Palmer Street Ingolburn
 14-20 Palmer Street
 Ingolburn VIC 3606
 URBAN LINK
 URBAN LINK PTY LTD
 14-20 Palmer Street
 Ingolburn VIC 3606
 Phone: 03 5222 2222
 Email: info@urbanlink.com.au
 Website: www.urbanlink.com.au
 Floor Plans
 BASEMENT 01
 Scale: 1:100 (A1)
 Drawing No: DM-106
 Date: 14/06/2022
 DEVELOPMENT APPLICATION

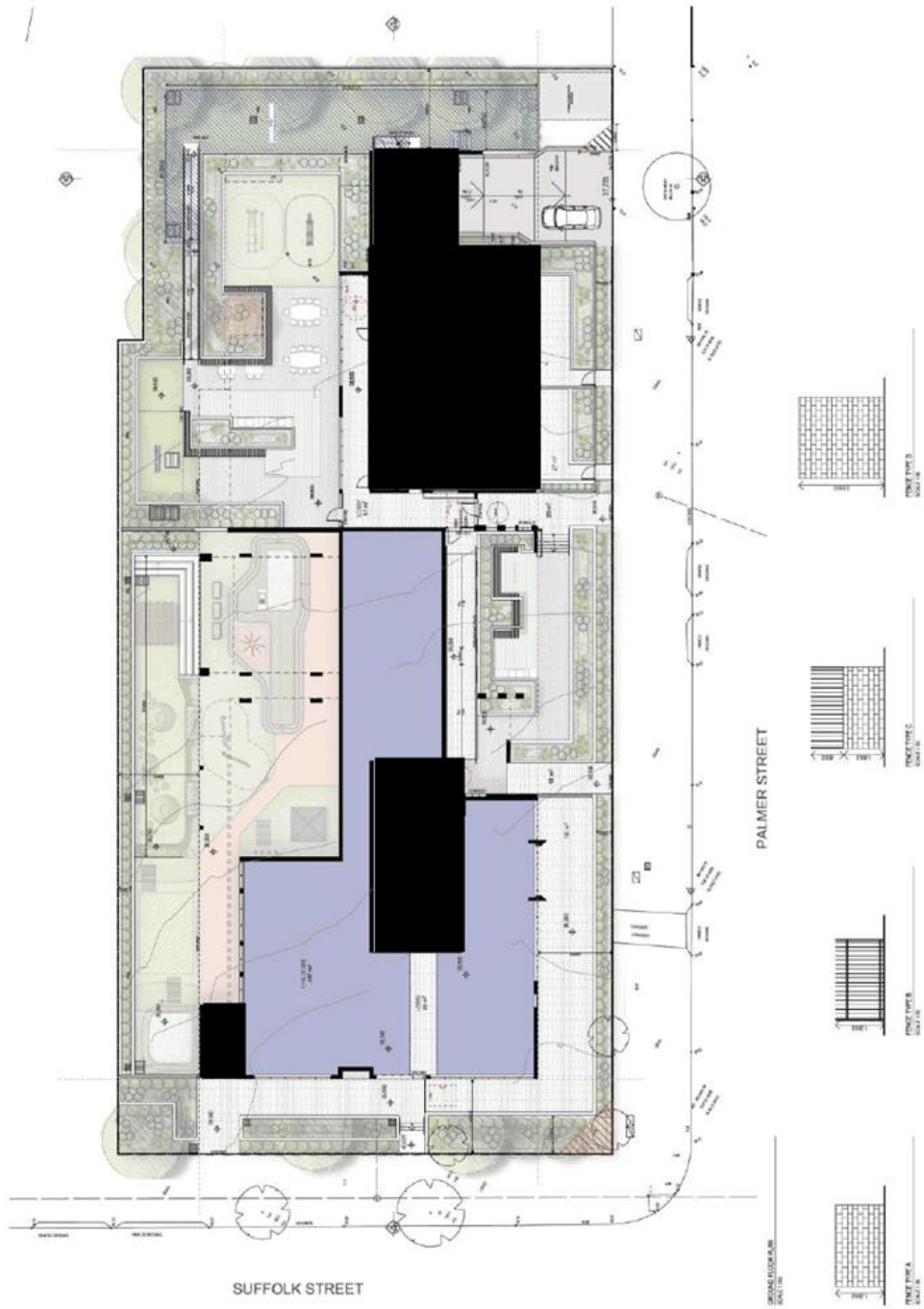


BASEMENT 01
 SCALE 1:100

VARGA TRAFFIC PLANNING PTY LTD

Project: VARGA TRAFFIC PLANNING PTY LTD
Client: VARGA TRAFFIC PLANNING PTY LTD
Site: 14-20 Palmer Street, Richmond
Scale: 1:100
Date: 22/06/2022

1. Development Application
2. DA-193 A
3. 14-20 Palmer Street Richmond
4. URBAN LINK
5. FLOOR PLANS
6. GROUND LEVEL
7. DA-193 A
8. DEVELOPMENT APPLICATION



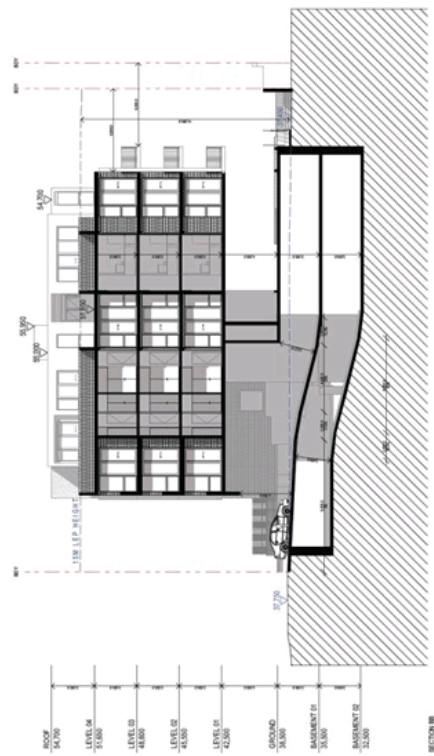
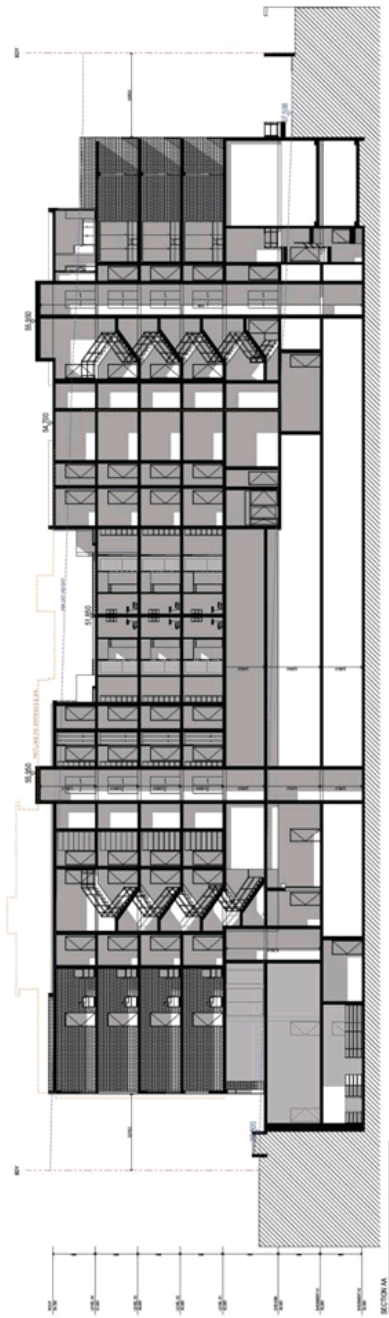
VARGA TRAFFIC PLANNING PTY LTD

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Project Location: 14-20 Palmer Street, Sydney
Project Name: 14-20 Palmer Street, Sydney
Project Number: DA-301
Project Date: 2020-05-06
Project Status: DEVELOPMENT APPLICATION

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Sections:
SECTION A
SECTION B



3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

The Hume Motorway is classified by the RMS as a *State Road* and forms part of a national highway between Melbourne and Sydney. It typically carries four traffic lanes in each direction separated by a central median island. All intersections with the Hume Motorway are grade-separated.

Cumberland Road is classified by the RMS as a *Regional Road* and provides the key north-south road link in the area, linking Macquarie Road / Kings Road and Collins Promenade / Minto Road. It typically carries one traffic lane in each direction with a median turning lane. Kerbside parking is generally permitted on both sides of the road.

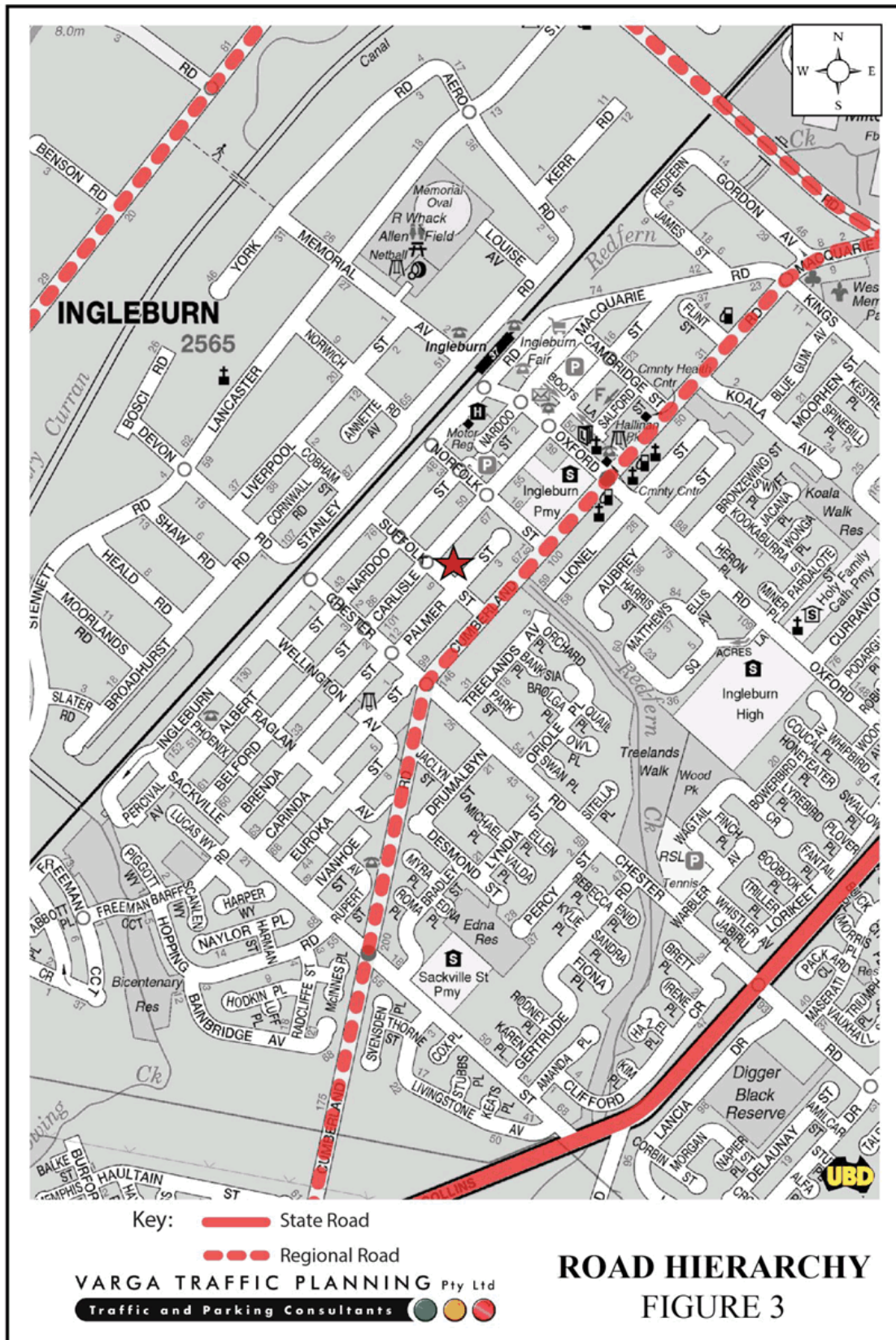
Suffolk Street and Palmer Street are local, unclassified roads that are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of both roads.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 60 km/h SPEED LIMIT which applies to Cumberland Road
- a 50 km/h SPEED LIMIT which applies to Suffolk Street and all other local roads in the area
- ROUNDABOUTS in Suffolk Street where it intersects with Carlisle Street and Nardoo Street

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- ROUNDABOUTS in Norfolk Street where it intersects with Carlisle Street and Nordoo Street
- a MEDIAN TURNING LANE along the centre of Cumberland Road.

Existing Public Transport Services

The existing public transport services available in the vicinity of the subject site are illustrated on Figure 5.

Ingleburn Railway Station is located within a convenient 600 metres walking distance from the site which lies on the T8 Airport & South Line, operating between Campbelltown or Macarthur to Sydney CBD via Sydney Kingsford Smith Airport. Train services typically arrive / depart the station at less than 10-minute intervals during commuter peak periods, and 15-minute intervals throughout the day.

Several bus services are also available at bus stops located in Chester Road and Cumberland Road that are within a short walking distance from the site, these include:

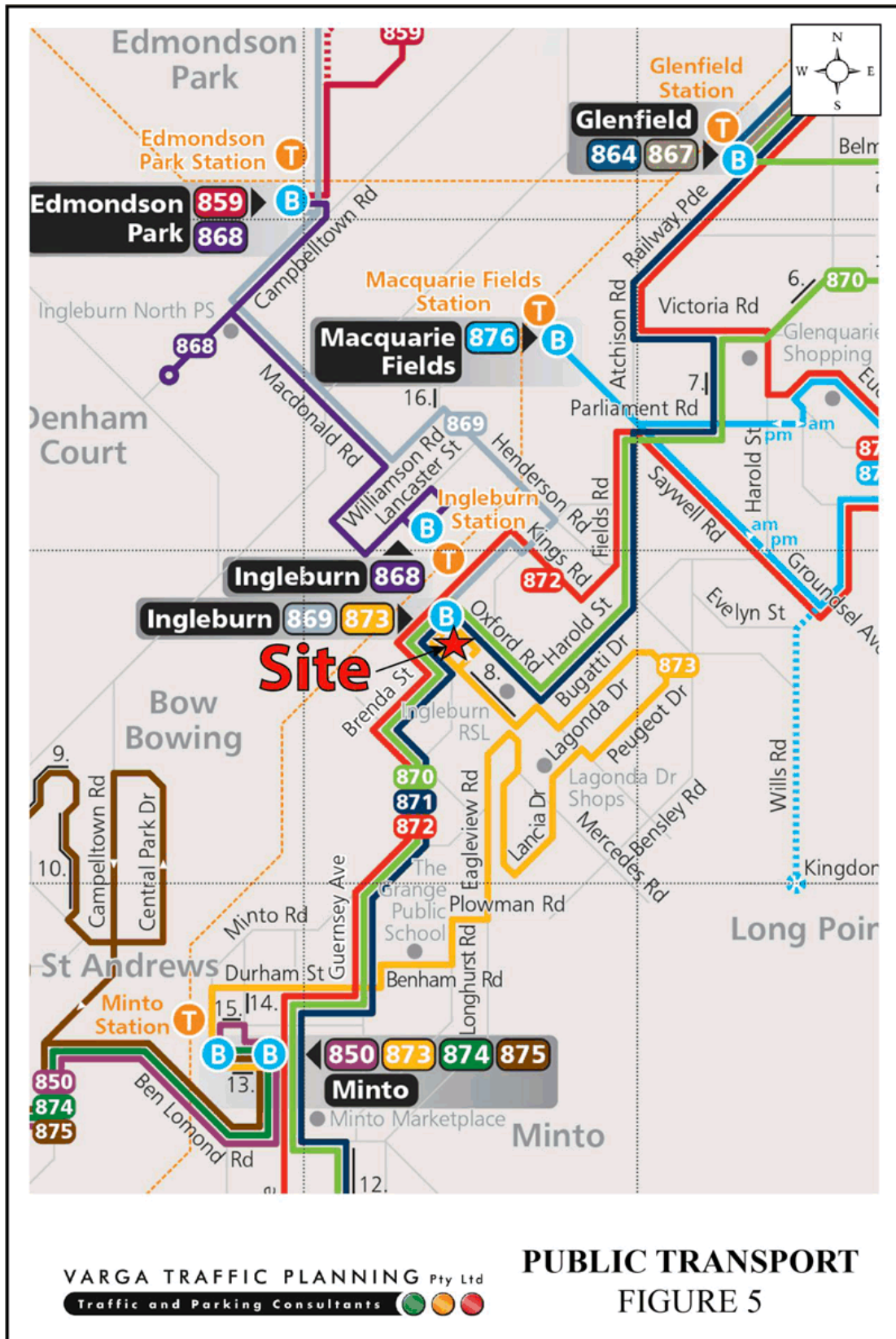
- route 870 – Campbelltown to Liverpool
- route 871 – Campbelltown to Liverpool via Glenfield
- route 872 – Campbelltown to Liverpool via Macquarie Fields, and
- route 873 – Minto to Ingleburn.

On the above basis, it is clear that the site has excellent connectivity to existing public transport services and is ideally located to facilitate a positive shift towards sustainable travel habits.

Projected Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the RMS *Technical Direction (TDT 2013/04a)* document.

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The RMS *Guidelines* and the updated *TDT 2013/04a* are based on extensive surveys of a wide range of land uses and nominate the following traffic generation rates which are applicable to the development proposal:

High Density Residential Flat Dwellings

AM: 0.19 peak hour vehicle trips per unit

PM: 0.15 peak hour vehicle trips per unit

Childcare Centre

AM: 0.8 peak hour vehicle trips per child

PM: 0.7 peak hour vehicle trips per child

Application of the above traffic generation rates the 53 residential apartments and childcare centre envisaged to cater for up to 100 children outlined in the development proposal yields a traffic generation potential of approximately 90 vehicle trips per hour (vph) during the AM peak hour and 78 vph during the PM peak hour, as set out below:

Projected Future Traffic Generation Potential

	AM	PM
Residential apartments (53 apartments):	10.1 vph	8.0 vph
Childcare Centre (100 children):	80.0 vph	70.0 vph
TOTAL TRAFFIC GENERATION POTENTIAL:	90.1 vph	78.0 vph

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing uses of the site, in order to determine the *nett increase (or decrease)* in traffic generation potential expected to occur as a consequence of the development proposal.

Application of the “low density residential dwellings” traffic generation rates to the 4 existing residential dwellings on the site yields a traffic generation potential of approximately 4 vph during both the AM and PM peak hour

Accordingly, it is likely that the proposed development will result in a *nett increase* in the traffic generation potential of the site of approximately 86 vph during the AM peak hour and 74 vph during the PM peak hour, as set out below:

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**Projected Nett Increase in Peak Hour Traffic Generation Potential
of the site as a consequence of the development proposal**

	AM	PM
Projected Future Traffic Generation Potential:	90 vph	78 vph
Less Existing Traffic Generation Potential:	-4 vph	-4 vph
NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:	86 vph	74 vph

That projected traffic activity as a consequence of the development proposal is minimal, consistent with the land zoning objectives of the site, and will clearly not have any unacceptable traffic implications in terms of road network capacity.

Childcare Centres Located in a No-Through Road (Cul-de-sac)

The *Campbelltown (Sustainable City) Development Control Plan 2015, Part 8, Section 8.3* makes the following locality requirements applicable to the proposed childcare centre:

Clause 8.3.1 Locality Requirements

- a) Centre-based Child Care Facilities shall not be located on an allotment that:
 - iii) is within a no through road

Further reference to the *NSW Child Care Planning Guidelines (latest revision August 2017)* notes the following in regards to childcare centre located in a cul-de-sac:

Clause C35

Childcare facilities proposed within cul-de-sacs or narrow lanes or roads should ensure that safe access can be provided to and from the site, and to and from the wider locality in times of emergency.

Based on the above, it is noted that the site has a second street frontage to Suffolk Street which provides the main pedestrian access to and from the childcare building, and Palmer Street with a pavement width of 8 metres is suitable to be used for vehicular access into and out of the basement car parking area.

Parking for the proposed childcare centre is to be fully accommodated in the basement carparking area in accordance with Council's RMS Guidelines requirements, thereby minimising the need for any on-street parking by parents/carers.

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Accordingly, there are no negative traffic engineering implications for the proposed childcare centre to be located next to a no-through road, and the proposed vehicular access / egress arrangements via Palmer Street is satisfactory and complies with relevant *AS2890.1* requirements.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

Given the current low density residential nature of the local area, there are generally no kerbside restrictions that apply on both sides of Palmer Street and also Suffolk Street.

Off-Street Car Parking Provisions

The off-street car parking requirements applicable to the various components of the development proposal are specified in *Campbelltown (Sustainable City) Development Control Plan 2015, Volume 1* document in the following terms:

Clause 5.5.4 (h) - Residential

- Each dwelling shall be provided with a minimum of one car parking space, and
- An additional car parking space for every 4 dwellings (or part thereof), and
- An additional visitor car parking space for every 10 dwellings (or part thereof).

Clause 8.4.1 (b) – Childcare Centre

A minimum of one (1) on site car parking space shall be provided for every four (4) children).

Application of the above car parking requirements to the 53 residential apartments and childcare centre envisaged to cater for up to 100 children outlined in the development proposal yields a minimum off-street car parking requirement of 97 spaces, as set out below:

Campbelltown DCP	
Off-Street Parking Requirements	
Residents (53 apartments):	66 spaces
Visitors:	6 spaces
Childcare Centre (100 children):	25 spaces
TOTAL:	97 spaces

Notwithstanding, the subject site is located within 800 metres radius of a railway station in the Sydney metropolitan area, and therefore the residential component of the development is also subject to the parking requirements specified in the *State Environmental Planning Policy*

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No 65 – Design Quality of Residential Flat Development (Amendment No 3), 2015 in the following terms:

30 Standards that cannot be used to refuse development consent or modification of development consent

(1) If an application for the modification of a development consent or a development application for the carrying out of development to which this Policy applies satisfies the following design criteria, the consent authority must not refuse the application because of those matters:

- a) if the car parking for the building will be equal to, or greater than, the recommended minimum amount of car parking specified in Part 3J of the Apartment Design Guide.

Reference is therefore made to the *Apartment Design Guide 2015, Section 3J – Bicycle and Car Parking* document which nominates the following car parking requirements:

Objective 3J-1

Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas

For development in the following locations:

- on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or
- on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

the minimum car parking requirements for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.

The car parking needs for a development must be provided off street.

Comparison therefore needs to be drawn between the off-street car parking requirements for residential flat buildings outlined in Council's DCP and also the TfNSW *Guidelines* to determine the *lesser* requirement. The relevant car parking rates outlined in the TfNSW *Guidelines* are reproduced below:

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**TfNSW Guidelines – Off-Street Parking Requirements for
High Density Residential Flat Buildings in Metropolitan Sub-Regional Centres**

- 0.6 spaces per 1 bedroom unit
- 0.9 spaces per 2 bedroom unit
- 1.4 spaces per 3 bedroom unit
- 1 space per 5 units for visitor parking

Accordingly, application of the above parking rates to the residential component of the development proposal yields a minimum off-street car parking requirement of 57 spaces for the residential component as set out in the table below:

RESIDENTIAL SEPP 65 / TfNSW GUIDELINES OFF-STREET PARKING REQUIREMENTS	
Residents (53 apartments):	46 spaces
Visitors:	11 spaces
TOTAL:	57 spaces

A comparison of the off-street parking requirements undertaken in accordance with SEPP 65 indicates that the off-street parking requirements applicable to the development proposal are in the range 82 spaces to 97 spaces as set out in the table below:

MINIMUM OFF-STREET PARKING REQUIREMENTS		
	COUNCIL'S DCP	SEPP 65 / TfNSW
Residents (53 apartments):	66 spaces (DCP)	46 spaces (TfNSW Guidelines)
Visitors:	6 spaces (DCP)	11 spaces (TfNSW Guidelines)
Childcare Centre (100 children):	25 spaces (DCP)	25 spaces (DCP)
	97 spaces	82 spaces

The proposed development makes provision for a total of 83 car spaces plus a service bay, thereby satisfying the above car parking code requirements.

The geometric design layout of the proposed car parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* and *Parking Facilities Part 6 -*

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Off-Street Parking for People with Disabilities AS2890.6 in respect of ramp grades & grade transitions, driveway & aisle widths, parking bay dimensions and height clearances.

Off-Street Bicycle Parking Provisions

An off-street bicycle parking requirement is applicable to the residential component of the development proposal as specified in *Campbelltown (Sustainable City) Development Control Plan 2015, Volume 1* document in the following terms:

Clause 5.5.4 (j) - Residential

Each development shall make provision for bicycle storage at a rate of 1 space per 5 dwellings within common property.

Application of the above bicycle parking requirements to the 53 residential apartments outlined in the development proposal yields an off-street bicycle parking requirement of 11 spaces.

The proposed development makes provision for 11 bicycle spaces, thereby satisfying Council's bicycle parking code requirements.

Conclusion

In summary, the proposed parking facilities satisfy the relevant requirements specified in Council's *DCP* as well as relevant Australian Standards, and it is therefore concluded that the proposed development will not have any unacceptable parking implications.

Arboricultural Impact Assessment



Prepared 5th March 2021

Site Location

14-20 Palmer Street
Ingleburn NSW 2565

Client

A & M Group 1 Pty Ltd

DISCLAIMER

The author and Tree & Landscape Consultants take no responsibility for actions taken and their consequences, contrary to those expert and professional instructions given as recommendations pertaining to safety by way of exercising our responsibility to our client and the public as our duty of care commitment, to mitigate or prevent hazards from arising, from a failure moment in full or part, from a structurally deficient or unsound tree or a tree likely to be rendered thus by its retention and subsequent modification/s to its growing environment either above or below ground contrary to our advice.

Peter Richards
Tree & Landscape Consultants

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2. Aims & Objectives	5
3. Methodology	6
4. Tree Assessments	7
5. Recommendations	9

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Appendices

Appendix A	Sustainable Retention Index Value (S.R.I.V.)© Version 4 (IACA 20010)
Appendix B	Definitions & Terminology
Appendix C	Survey Plan/ Tree Locations
Appendix D	Tree Protection Plan
Appendix E	Extract from Australian Standard AS4970 2009 Protection of trees on development sites "Determining TPZs"
Appendix F	Extract from Australian Standard AS4970 2009 Protection of trees on development sites "Determining SRZs"
Appendix G	References



TREE & LANDSCAPE CONSULTANTS

Site Analysis, Arboricultural Assessments

INSTITUTE OF AUSTRALIAN
CONSULTING ARBORICULTURISTS



MANAGING URBAN TREES ®

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5th March 2021

A & M Group 1 Pty Ltd

14-20 Palmer Street

Ingleburn NSW 2565

Our reference: 5142

Arboricultural Impact Assessment:

14-20 Palmer Street

Ingleburn NSW 2565

1. INTRODUCTION

This report has been prepared by Tree & Landscape Consultants for A & M Group 1 Pty Ltd. The site was inspected by the author and the subject trees and their general growing environment evaluated on the 21st January 2021.

The site is subject to a Development Application and this report and any works recommended herein, that require approval from the consenting authority are provided to form part of that development application and its consent conditions. The Tree Locations (Appendix C) and Tree Protection Plan (Appendix D) are to be included into and used in conjunction with the approval for *the site*.

The aims and objectives of this report are to detail and comply with the tree protection requirements specified in AS4970 (2009) *Protection of trees on development sites* to identify and assesses the condition of the subject tree/s; determine the impact of development on the subject tree/s; provide recommendations for retention or removal of the subject tree/s; provide specifications for protection of tree/s to be retained. The information in this report is intended to provided tree management and protection through all stages of development.

2.0 AIMS & OBJECTIVES

Aims

Detail the condition of the tree/s on the site or on adjoining sites where such tree/s may be affected by the proposed works, by assessment of individual specimens or stands, and indicate remedial works or protection measures for their retention in a safe and healthy condition, or a condition not less than that at the time of initial inspection for this report, or in a reduced but sustainable condition due to the impact of the development but ameliorated through tree protection measures able to be applied, and will consider the location and condition of the trees in relation to the proposed building works, or recommend removal and replacement where appropriate.

Provide as an outcome of the assessment, the following: a description of the tree/s, observations made, discussion of the effects the location of the proposed building works may have on the tree/s, and make recommendations required for remedial or other works to the trees, if and where appropriate.

Determine from the assessment a description of the works or measures required to ameliorate the impact upon the tree/s to be retained, by the proposed building works or future impacts the trees may have upon the new building works if and where appropriate, or the benefits of removal and replacement if appropriate for the medium to long term safety and amenity of the site.

Objectives

Assess the condition of the subject trees.

Determine impact of development on the subject trees.

Provide recommendations for management of the subject trees.

3. METHODOLOGY

- 3.1 The method of assessment of tree/s is applied from the ongoing knowledge and development of the author and considers but is not confined to:
- Tree health and subsequent stability, both long and short term
 - Sustainable Retention Index Value (S.R.I.V.)© IACA 2009)
 - Amenity values
 - Significance
- 3.2 This assessment is undertaken using a standard tree assessment criteria for each tree based on the values above and is implemented as a result of at least one comprehensive and detailed site inspection.
- 3.3 In this report the dimensions of the tree recorded by the author for the trunk *diameter at breast height* (DBH) measurement is calculated at 1.4m above ground from the base of the tree. Where a tree is trunkless or branches at or near ground such as a mallee formed tree, an average diameter is determined by recording the radial extent of the stem mass at its narrowest and widest dimensions, adding the two dimensions together and dividing them by 2 to record an average.
- 3.4 Crown spreads are expressed as length by breadth measurements to accurately record their dimensions. Where appropriate, *crown spread orientation* is described along the length of the crown spread e.g. North/South, or as *radial* if the crown is distributed at an approximately even radius from the trunk e.g. 6x6m.
- 3.5 The Australian Standard AS 4970-2009 "Protection of trees on development sites, where applicable is applied to trees to be retained in this report as a point of reference and guide for the recommended minimum clearances from the centre of tree trunks to development works and is applied as a generalised benchmark and the distances may be increased or decreased by the author as a result of other factors providing mitigating circumstances or constraints as indicated by but not restricted to the following:
- *Tolerance of individual species to disturbance,*
 - *Geology e.g. physical barriers in soil, floaters, bedrock to surface*
 - *Topography e.g. slope, drainage,*
 - *Soil e.g. depth, drainage, fertility, structure,*
 - *Microclimate e.g. due to landform, exposure to dominant wind,*
 - *Engineering e.g. techniques to ameliorate impact on trees such as structural soil, lateral boring,*
 - *Construction e.g. techniques to ameliorate impact on trees such as pier and beam, bridge footings, suspended slabs*
 - *Arboriculture e.g. exploration trenches to map location of roots,*
 - *Physical limitations - existing modifications to the environment and any impact to tree/s by development e.g. property boundaries, road reserves, previous impact by excavation in other directions, soil level changes by cutting or filling, existing landscaping works within close proximity, modified drainage patterns.*

4. TREE ASSESSMENTS

4.1 Table 1

tree No	Genus & Species Common Name	Age Y = Young M = Mid O = Old	Condition G = Good F = Fair P = Poor D = Dead	Pest & Diseases	Branch Bark Included	Canopy Orientation Sy = Sy at ca N S E W = No 1 So 1 East West	Trunk Diameter (1 above g o d)	Height (m)	Spread (m)	Tree Vigour L = Low G = Good A = Acc slow M = Moderate	Trunk Lean X = St ag to S g ty L = g A = Acc slow M = Moderate	SRV (Age Vp Co-elo I ax) Ref 9
1	Callistemon viminalis Bottlebrush	M	F	No	No	Sy	150	5	4	G	A	MGVF9
	Comments Crown previously lopped to clear overhead wires											
2	Callistemon viminalis Bottlebrush	M	F	No	No	Sy	200	5	3	G	A	MGVF9
	Comments Crown previously lopped to clear overhead wires											
3	Callistemon viminalis Bottlebrush	M	P	No	No	Sy	150	5	3	G	A	MGVP6
	Comments Crown previously lopped Failed damaged central leader											
4	Melaleuca styphelloides Prickly-leaved Paperbark	M	P	No	No	Sy	300	4	5	G	A	MGVP6
	Comments Crown previously lopped											
5	Callistemon viminalis Bottlebrush	M	P	No	No	Sy	150	4	3	G	A	MGVP6
	Comments Crown previously lopped											
6	Acmena smithii Lillypilly	M	P	No	No	Sy	500	15	8	G	A	MGVP6
	Comments Crown previously lopped as part o past management											
7	Agonis flexuosa Willow Myrtle	M	F	No	No	Sy	300	6	4	G	A	MGVF9
	Comments Smaller tree appearing ree o insect predation or disease											
8	Tristania laurina Watergum	M	F	No	No	Sy	200	3	3	G	A	MGVF9
	Comments Smaller tree appearing ree o insect predation or disease											
9	Olea africana Wild Olive	M	F	No	No	Sy	50	2	1	G	A	MGVF9
	Comments Urban weed species											
10	Euonymus japonicus Japanese laurel	M	F	No	No	Sy	200	2	1	G	A	MGVF9
	Comments Smaller insigni cant specimen											
11	Lagerstroemia indica Crepe Myrtle	M	F	No	No	Sy	200	7	6	G	A	MGVF9
	Comments Multi leader specimen appearing ree o insect predation and disease											
12	Cinnamomum camphora Camphor laurel	M	P	No	No	Sy	200	3	3	G	A	MGVP6
	Comments Most likely a sel seeded specimen											
13	Viburnum tinus Viburnum	M	F	No	No	Sy	100	2.5	3	G	A	MGVF9
	Comments Multi leader specimen appearing ree o insect predation and disease											
14	Callistemon viminalis Bottlebrush	M	F	No	No	Sy	200	4	4	G	A	MGVF9
	Comments Smaller tree appearing ree o insect predation or disease											
15	Ligustrum lucidum Broad-leaved Privet	M	F	No	No	Sy	200	3	2	G	A	MGVF9
	Comments Urban weed species											
16	Cupressus sempervirens Cupressus	M	P	No	No	Sy	300	15	6	G	X	MGVP6
	Comments ree poor in condition exhibiting dieback											
17	Eriobotrya japonica Eriobotrya	M	F	No	No	Sy	150	4	2	G	0	MGVF9
	Comments Smaller ruit tree											
18		0	0	0	0	0	0	0	0	0	0	#N/A
	Comments ree previously removed											
19	Rosa sp. Rose											
	Comments Smaller insigni cant specimens											
20	Murraya paniculata Murraya	M	F	No	No	Sy	50	2.5	2	G	A	MGVF9
	Comments Smaller insigni cant specimen											
21	Syagrus romanzoffiana Cocos Palm	M	F	No	No	Sy	0	12	3	G	X	MGVF9
	Comments Palm appearing ree o insect predation or disease											
22	Archontophoenix alexandrae Alexandra Palm	M	F	No	No	Sy	300	12	3	G	X	MGVF9
	Comments Palm appearing ree o insect predation or disease											
23	Chamaecyparis obtusa Cypress	M	F	No	No	Sy	100	2	1	G	A	MGVF9
	Comments Smaller insigni cant specimen											
24	Euphorbia tirucalli Fire Sticks	M	F	No	No	Sy	300	4	2	G	M	MGVF9
	Comments Smaller leaning exotic tree											
25	Washingtonia robusta Mexican Fan Palm	M	F	No	No	Sy	450	18	4	G	X	MGVF9
	Comments Palm appearing ree o insect predation or disease											
26	Syagrus romanzoffiana Cocos Palm	M	F	No	No	Sy	400	10	3	G	X	MGVF9
	Comments Palm appearing ree o insect predation or disease											
27	Syagrus romanzoffiana Cocos Palm	M	F	No	No	Sy	300	12	3	G	X	MGVF9
	Comments Palm appearing ree o insect predation or disease											
28	Archontophoenix alexandrae Alexandra Palm	M	F	No	No	Sy	200	7	3	G	X	MGVF9
	Comments Palm appearing ree o insect predation or disease											
29	Syagrus romanzoffiana Cocos Palm	M	F	No	No	Sy	400	12	3	G	X	MGVF9
	Comments Palm appearing ree o insect predation or disease											
30	Archontophoenix alexandrae Alexandra Palm	M	F	No	No	Sy	300	6	3	G	X	MGVF9
	Comments Palm appearing ree o insect predation or disease											
31	Syagrus romanzoffiana Cocos Palm	M	P	No	No	Sy	300	7	3	G	X	MGVP6
	Comments Palm appearing ree o insect predation or disease											

Discussion

4.2 AS4970 (2009) section 3 requires a radial Tree Protection Zone (TPZ) setback of 12 x DBH from center of trunk (COT) but allows for a 10% reduction of area equal to a reduction of 30% of radius on one side only as per AS4970 (2009) section 3, 3.3.3 which requires the Project Arborist to demonstrate that where a retained tree is subject to a major encroachment (>10% of area of TPZ) it can be protected to remain viable.

4.3 Setback for Tree Protection Zones

A	B	C	D	E	F	G	H
Tree No.	Trunk Diameter (14m above root buttress in mm)	Trunk Diameter (above root buttress)	Tree Vigour L= Low G= Good A= Abnormal	Age of Tree Y= Young M= Mature O= Over-Mature (Senescent)	Calculated Structural Root Zone (SRZ) (radius in meters- Calculated Structural Root Zone (SRZ) in metres being Radius=(Dx50)0.42 x0.64)	Distance of Tree Protection Zone (TPZ) (radius in meters Australian Standard AS 4970-2009 "Protection o trees on development sites" PZ=DBH x 12)	Recommended Distance of Tree Protection Fence/Zone (radius in meters- (See explanatory notes below & report recommendations))
2	200	220	G	M	1.8	2.4	See recommendations
4	300	320	G	M	2.1	3.6	See recommendations
5	150	170	G	M	1.6	1.8	See recommendations
22	300	320	G	M	2.1	3.6	See recommendations
25	450	470	G	M	2.5	5.4	See recommendations
30	300	320	G	M	2.1	3.6	See recommendations

- Descriptors for modified setbacks in columns above.**
- 1 Spec a cond tions app y to protect the roots of trees genera y, see Append x D.
 - 2 Add tona protect ve fenc ng nformat on s deta ed n Append ces D.
 - 3 Acceptab e due to the good re at ve to erance of the spec es to deve opment mpacts.
 - 4 Range of setbacks for the trees at each end of a near stand, see Append x D.
 - 5 Acceptab e as fence ocated at a substanta d stance beyond dr p ne or may a so ncude the ocation of a sma er tree n prox m ty to a arger tree to be reta ned and the sma er tree be ng protected we th n the protect ve fenc ng for that arger tree.
 - 6 Acceptab e due to add tona spec a protect on works, see Append x D for th s tree.
 - 7 Acceptab e as pre ex st ng ste cond tions were conduc ve to hav ng restr cted the deve opment of root growth n th s d rect on.
 - 8 Street tree w th protect ve fenc ng of m n ma w dth to a ow for pedestran access a ong road reserve.
 - 9 Acceptab e as tree transp anted reduc ng the area of the root zone.
 - 10 Acceptab e as not effected by deve opment works.
 - 11 Young tree not expected to have estab shed a substanta y expans ve root system and ab e to re estab sh or mod fy growth to be susta nab e due to age and good v gour.
 - 12 Set back prescr bed by the consent author ty.
 - 13 Acceptab e as tree grow ng on a ean and encroachment on compress on wood s de where root growth s of reduced structura mpportance.
 - 14 Acceptab e as root mapp ng has nd cated extent of structura woody roots w th a d ameter of 20 mm or more.
 - 15 Acceptab e as a spec men of pam taxa to erant of encroachment.
 - 16 Acceptab e as excavat on on down s ope or across s ope s de of tree.
 - 17 Acceptab e as encroachment nto grow ng area be ow ground m nor, w th one corner of bu d ng or excavat on works extend ng to w th n the rad us of the dr p ne.
 - 18 Acceptab e as encroachment by per, nc ud ng screw pes, w th m n ma d sturbance.
 - 19 Acceptab e as encroachment above grade w thout excavat on or sub base compact on.
 - 20 Acceptab e as ocated w th n 0.5 m from edge of dr p ne.
 - 21 Acceptab e as encroachment w th gap graded f that can accommodate gaseous exchange between roots/so and the atmosphere and ongo ng root growth.
 - 22 M n mum TPZ setback 2 m, AS4970 (2009) sect on 3, 3.2.
 - 23 Max mum TPZ setback 15 m, AS4970 (2009) sect on 3, 3.2.
 - 24 Tree s a pam, other monocot, cycad or tree fern TPZ s to be 1 m outs de crown project on AS4970 (2009) sect on 3, 3.2.
 - 25 M n mum Structura Root Zone (SRZ) for trees ess than 0.15 m d ameter s 1.5 m, AS4970 (2009) sect on 3, 3.5.
 - 26 Acceptab e due to compensat on of TPZ encroachment w th cont guous so vo ume n other d rect ons AS4970 (2009) sect on 3, 3.3.3.
 - 27 Acceptab e as encroachment for bu k earthworks by shor ng w th pes reduc ng over excavat on e.g. bench ng or batters.

4.4 Discussion

Trees numbered 1,2,3,4 & 5 are specimens located within the street reserve. Of these trees numbers 1 & 2 are fair in condition, tree 3 is poor in condition having previously failed in part and trees 4 & 5 have been allocated a poor condition rating due to lopping of their crowns but still exhibit good vigour.

In regard to trees internal to the site tree 6 has been subject to past lopping and the current crown habit is a result of this comprising multiple stems from previous lopped points. Trees 7, 11 & 14 are smaller trees marginally over a height for them to be included under the TPO and are not significant within the landscape. Trees numbered 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 26, 27, 28, 29, 30, 31 are either exempt species, undesirable trees, smaller specimens or are no longer present.

It is considered that trees 4, 5, 22, 25 & 30 can be retained subject to the following protection measures being introduced. Tree 1 is not affected by the proposed works and requires no formal protection.

4.5 Trunk Protection (T4, 5, 22, 25 & 30)

(Extract from AS4970-2009- 4.5.2 Trunk and branch protection)

Where necessary, install protection to the trunk and branches of the trees. The materials and positioning of protection are to be specified by the project arborist. A minimum height of 2 m is recommended. Do not attach temporary powerlines, stays, guys and the like to the tree. Do not drive nails into the trunks or branches.

Response: Trunk protection is to be erected as per AS4970- section 4.5.2. so as to allow site movement and access along the public walkway. See also appendix D-Tree Protection Plan.

4.6 Ground Protection within TPZs- (Tree – T4, 5, 22, 25 & 30)

(Extract from AS4970-2009- 4.5.3 Ground protection)

If temporary access for machinery is required within the TPZ ground protection measures will be required. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Measures may include a permeable membrane such as geotextile fabric beneath a layer of mulch or crushed rock below rumble boards.

Response: Any site movement required within prescribed TPZs (see section 4.3) is to be subject to ground protection as per AS4970 section 4.5.3. See also appendix D-Tree Protection Plan.

5. RECOMMENDATIONS

- a. That trees 1, 4, 5, 22, 25 & 30 be retained.
- b. That trees 2, 3, 6, 21, 23, 24, 26-29 & 31 be removed.
- c. That protection for trees 4, 5, 22, 25 & 30 be in accordance with sections 4.5 & 4.6 of this D".



Peter Richards
Tree & Landscape Consultants

Appendix A

Matrix - Sustainable Retention Index Value (S.R.I.V.)©

Deve oped by IACA – Inst tute of Austr a n Consu t ng Arbor cu tur sts www.aca.org.au
Vers on 4, 2010

To be used with the values defined in the Glossary.
An Index value as indicated where ten (10) is the highest value.

Age Class	Vigour Class and Condition Class					
	Good Vigour & Good Condition (GVG)	Good Vigour & Fair Condition (GVF)	Good Vigour & Poor Condition (GVP)	Low Vigour & Good Condition (LVG)	Low Vigour & Fair Condition (LVF)	Low Vigour & Poor Condition (LVP)
	Able to be retained in sufficient space available above and below ground or future growth. No remedial work or improvement to growing environment required. May be subject to high vigour. Retention potential - Medium - Long term	Able to be retained in sufficient space available above and below ground or future growth. Remedial work may be required or improvement to growing environment may assist. Retention potential - Medium term Potential or longer with remediation or favourable environmental conditions	Able to be retained in sufficient space available above and below ground or future growth. Remedial work unlikely to assist condition improvement to growing environment may assist. Retention potential - Short term Potential or longer with remediation or favourable environmental conditions	May be able to be retained in sufficient space available above and below ground or future growth. No remedial work required but improvement to growing environment may assist vigour. Retention potential - Short term Potential or longer with remediation or favourable environmental conditions	May be able to be retained in sufficient space available above and below ground or future growth. Remedial work or improvement to growing environment may assist condition and vigour. Retention potential - Short term Potential or longer with remediation or favourable environmental conditions	Unlikely to be able to be retained in sufficient space available above and below ground or future growth. Remedial work or improvement to growing environment unlikely to assist condition or vigour. Retention potential - Likely to be removed immediately or retained or Short term Potential or longer with remediation or favourable environmental conditions
(Y) Young	YGVG - 9 Index Value 9 Retention potential - Long term Likely to provide minimal contribution to local amenity i height <5 m. High potential or future growth and adaptability. Retain move or replace	YGVF - 8 Index Value 8 Retention potential - Short - Medium term Potential or longer with improved growing conditions. Likely to provide minimal contribution to local amenity i height <5 m. Medium-high potential or future growth and adaptability. Retain move or replace	YGVP - 5 Index Value 5 Retention potential - Short term Potential or longer with improved growing conditions. Likely to provide minimal contribution to local amenity i height <5 m. Low-medium potential or future growth and adaptability. Retain move or replace	YLVG - 4 Index Value 4 Retention potential - Short term Potential or longer with improved growing conditions. Likely to provide minimal contribution to local amenity i height <5 m. Medium potential or future growth and adaptability. Retain move or replace	YLVF - 3 Index Value 3 Retention potential - Short term Potential or longer with improved growing conditions. Likely to provide minimal contribution to local amenity i height <5m. Low-medium potential or future growth and adaptability. Retain move or replace	YLVP - 1 Index Value 1 Retention potential - Short term Potential or longer with improved growing conditions. Likely to provide minimal contribution to local amenity i height <5 m. Low potential or future growth and adaptability
(M) Mature	MGVG - 10 Index Value 10 Retention potential - Medium - Long term	MGVF - 9 Index Value 9 Retention potential - Medium term Potential or longer with improved growing conditions	MGVP - 6 Index Value 6 Retention potential - Short term Potential or longer with improved growing conditions	MLVG - 5 Index Value 5 Retention potential - Short term Potential or longer with improved growing conditions	MLVF - 4 Index Value 4 Retention potential - Short term Potential or longer with improved growing conditions	MLVP - 2 Index Value 2 Retention potential - Likely to be removed immediately or retained or Short term
(O) Over-mature	OGVG - 6 Index Value 6 Retention potential - Medium - Long term	OGVF - 5 Index Value 5 Retention potential - Medium term	OGVP - 4 Index Value 4 Retention potential - Short term	OLVG - 3 Index Value 3 Retention potential - Short term Potential or longer with improved growing conditions	OLVF - 2 Index Value 2 Retention potential - Short term	OLVP - 0 Index Value 0 Retention potential - Likely to be removed immediately or retained or Short term

Appendix B Definitions & Terminology

From
Dictionary for Managing Trees in Urban Environments
Institute of Australian Consulting Arboriculturists (IACA) 2009.

Condition of trees

Condition A tree's *crown form* and growth habit, as modified by its *environment* (aspect, suppression by other trees, so on), the *stability* and *viability* of the *root plate*, trunk and structural branches (first (1st) and possibly second (2nd) order branches), including structural defects such as wounds, cavities or hollows, *crooked* trunk or weak trunk/branch junctions and the effects of predation by pests and diseases. These may not be directly connected with *vigour* and it is possible for a tree to be of *normal vigour* but in *poor condition*. Condition can be categorized as *Good Condition*, *Fair Condition*, *Poor Condition* and *Dead*.

Good Condition Trees of good habit, with *crown form* not severely restricted for space and light, physically free from the adverse effects of *predation* by pests and diseases, obvious instability or structural weaknesses, fungal, bacterial or insect infestation and is expected to continue to live in much the same condition as at the time of inspection provided conditions around it for its basic survival do not alter greatly. This may be independent from, or contributed to by *vigour*.

Fair Condition Trees of good habit or *misshapen*, a form not severely restricted for space and light, has some physical condition of *decline* due to the early effects of *predation* by pests and diseases, fungal, bacterial, or insect infestation, or has suffered physical injury to itself that may be contributing to instability or structural weaknesses, or suffering due to the modification of the *environment* essential for its basic survival. Such a tree may recover with remedial works where appropriate, or without intervention may stabilize or improve over time, or in response to the implementation of beneficial changes to its local environment. This may be independent from, or contributed to by *vigour*.

Poor Condition Trees of good habit or *misshapen*, a form that may be severely restricted for space and light, exhibits symptoms of advanced and *irreversible decline* such as fungal, or bacterial infestation, major dieback in the branch and *foliage crown*, *structural deterioration* from insect damage e.g. termite infestation, or storm damage or ghting strike, ring bark from borer activity in the trunk, root damage or instability of the tree, or damage from physical wound impacts or abrasion, or from altered local environmental conditions and has been unable to adapt to such changes and may decline further to death regardless of remedial works or other modifications to the local environment that would normally be sufficient to provide for its basic survival in good to fair condition. Deterioration on physical, often characterized by a gradual and continuous reduction in *vigour* but may be independent of a change in *vigour*, but characterized by a proportionate increase in susceptibility to, and *predation* by pests and diseases against which the tree cannot be sustained. Such conditions may also be evident in trees of advanced senescence due to normal phenological processes, without modifications to the growing environment or physical damage having been inflicted upon the tree. This may be independent from, or contributed to by *vigour*.

Dead Trees no longer capable of performing any of the following processes or exhibiting any of the following symptoms;

Processes

Photosynthesis via its foliage crown (as indicated by the presence of moist, green or other coloured leaves);

Osmosis (the ability of the root system to take up water);

Turgidity (the ability of the plant to sustain moisture pressure in its cells);

Epithelial shoots or *epicormic strands* in Eucalypts (the production of new shoots as a response to stress, generated from latent or adventitious buds or from a *lignotuber*);

Symptoms

Permanent leaf loss;

Permanent wilting (the loss of turgidity which is marked by desiccation of stems, leaves and roots);

Abscission of the *epidermis* (bark desiccates and peels off to the beginning of the sapwood).

Removed No longer present, or tree not able to be located or having been cut down and retained on a site, or having been taken away from a site prior to site inspection.

Description of Tree Dimensions

Height The distance measured vertically between the horizontal plane at the lowest point at the base of a tree, which is immediately above ground, and the horizontal plane immediately above the uppermost point of a tree.

Spread The furthest expanse of the crown when measured horizontally from one side of the tree to the other, generally through the centre of the trunk. Where the crown is not circular a measurement should be an average of the narrowest and widest diameters and this is dependent upon crown form and to a lesser extent its symmetry.

Crown Cover Percent of the homogenous distribution of foliage across the entire crown based upon that expected for a specimen of that species in good condition and of normal *vigour*, depending on form and size, e.g. this may be influenced by crown dieback, proximity to other trees or structures, moisture stress, or overshadowing.

Vigour

Vigour Ability of a tree to sustain its life processes. This is independent of the *condition* of a tree but may impact upon it. *Vigour* can appear to alter rapidly with change of seasons (seasonality) e.g. *dormant*, *deciduous* or *semi-deciduous* trees. *Vigour* can be categorized as *Normal Vigour*, *High Vigour*, *Low Vigour* and *Dormant Tree Vigour*.

Normal Vigour Ability of a tree to maintain and sustain its life processes. This may be evident by the typical growth of leaves, crown cover and crown density, branches, roots and trunk and resistance to predation. This is independent of the condition of a tree but may impact upon it, and especially the ability of a tree to sustain itself against predation.

High Vigour *Accelerated growth* of a tree due to incidental or deliberate artificial changes to its growing *environment* that are seemingly beneficial, but may result in *premature aging* or *failure* if the favourable conditions cease, or promote *prolonged senescence* if the favourable conditions remain, e.g. water from a leak in pipe; water and nutrients from a leak or disrupted sewer pipe; nutrients from an animal waste, a tree growing next to a chicken coop, or a stock feed lot, or a regularly used stockyard; a tree subject to a stringent watering and fertilising program; or some trees may achieve an extended lifespan from continuous *pollarding* practices over the life of the tree.

Low Vigour Reduced ability of a tree to sustain its life processes. This may be evident by the atypical growth of leaves, reduced crown cover and reduced crown density, branches, roots and trunk, and a deterioration of the functions with reduced resistance to predation. This is independent of the condition of a tree but may impact upon it, and especially the ability of a tree to sustain itself against predation.

Dormant Tree Vigour Determined by existing tertiary lowest order branches in the outer extremity of the crown, with good bud set and formation, and where the last extension growth is distinct from those most recently preceding it, evident by bud scale scars. Normal vigour during dormancy is achieved when such growth is evident on a majority of branches throughout the crown.

Poor Vigour See low vigour

Good Vigour See Normal Vigour

Age of Trees

Age of Trees Most trees have a stable biomass for the major proportion of their life. The estimation of the age of a tree is based on the knowledge of the expected lifespan of the taxon subdivided into three distinct stages of measurable biomass, when the exact age of the tree from its date of cultivation or planting is unknown. These increments are Young, Mature and Overmature.

Young Tree aged less than 20% of life expectancy.

Mature Tree aged 20-80% of life expectancy.

Over-mature Tree aged greater than 80% of life expectancy tending to senescent with or without reduced vigour, and declining gradually or rapidly but reversibly to death.

Sapling A young tree, early in its development with small dimensions.

Senescent Advanced old age, over mature.

General Terms

Significant Important, worthy or more than ordinary.

Significant Tree A tree considered important, worthy or more than ordinary. Example: due to prominence of location, or in situ, or contribution as a component of the overall landscape for amenity or aesthetic qualities, or curtilage to structures, or importance due to uniqueness of taxa for species, subspecies, variety, form, or as an historical or cultural planting, or for age, or substantial dimensions, or habit, or as remnant vegetation, or habitat potential, or a rare or threatened species, or uncommon cultivation, or of Aboriginal cultural importance, or as a commemorative planting.

Substantial A tree with large dimensions or proportions in relation to its place in the landscape.

Excurrent Tree where the crown is comprised of one (1) dominant first order structural branch which is usually an extension of the trunk, erect, straight and continuous, tapering gradually, with the main axis clear from base to apex, e.g. *Araucaria heterophylla* Norfolk Is and Pine. Note: some tree species of typical excurrent habit may be altered to decurrent by physical damage of the apical meristem, or from toppling, or from the propagation of nfer or quality stock. However, formative pruning may be able to correct a crown to excurrent if undertaken when a tree is young.

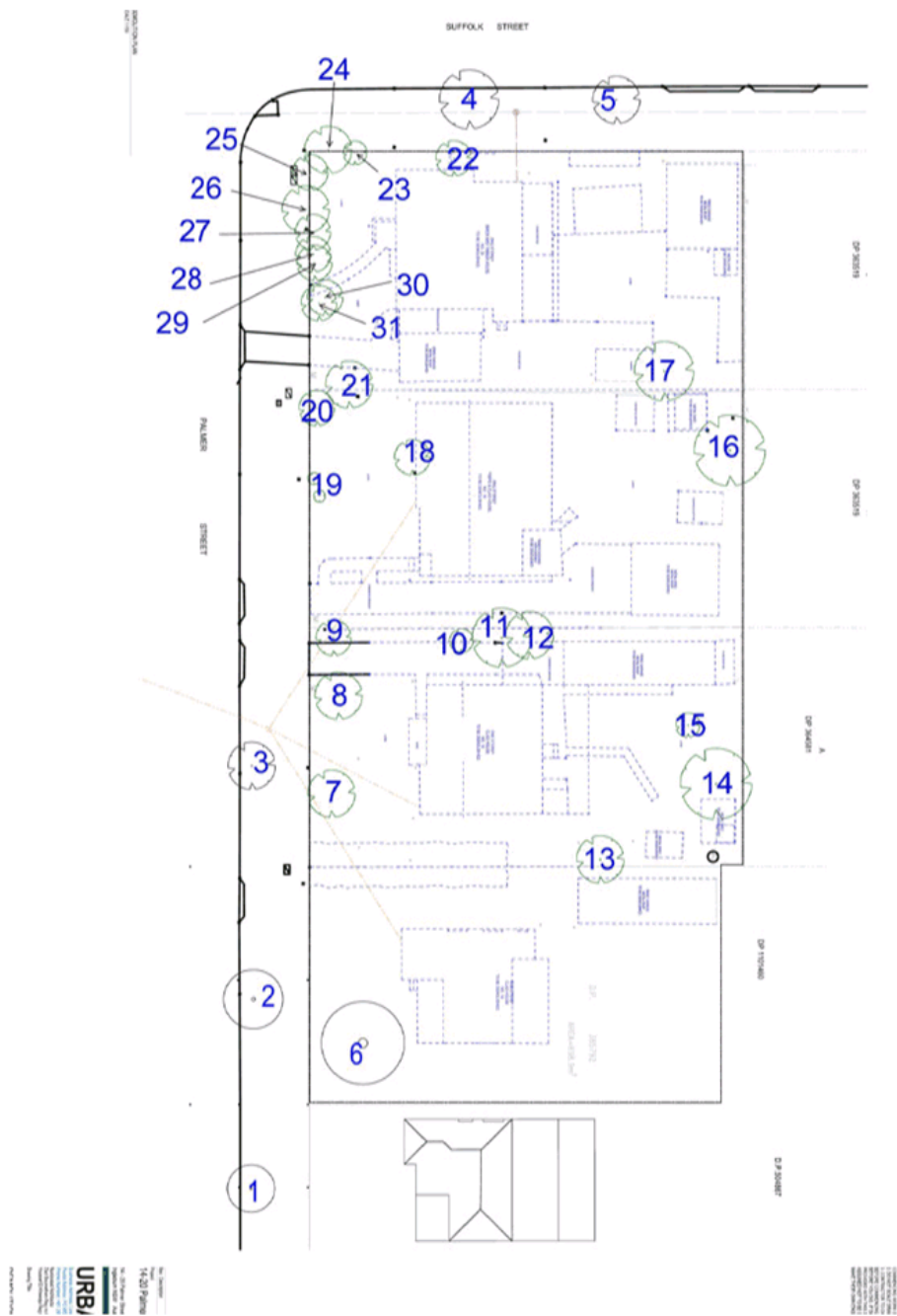
Sustainable Retention Index Value (SRIV) A visual method of rating the value of urban trees for development sites and management, based on general tree and landscape assessment criteria. SRIV© is for the professional manager of urban trees to consider the tree in situ with an assumed knowledge of the taxa and its growing environment and is based on the physical attributes of the tree and its response to its environment considering its age class, vigour class, condition class and its sustainable retention with regard to the safety of people or damage to property and the ability to retain the tree with remedial work or beneficial modifications to its growing environment or removal and replacement. (ICA 2005)

Crown Spread Orientation Direction of the axis of crown spread which can be categorized as *Orientation Radial* and *Orientation Non radial*.

Diameter at Breast Height (DBH) Measurement of trunk width calculated at a given distance above ground from the base of the tree often measured at 1.4m. The trunk of a tree is usually not a circle when viewed in cross section due to the presence of reaction wood or adaptive wood therefore an average diameter is determined with a diameter tape or by recording the trunk along its narrowest and widest axes adding the two dimensions together and dividing them by 2 to record an average and allowing the orientation of the longest axis of the trunk to also be recorded. Where a tree is growing on a lean the distance along the top of the trunk is measured to 1.4m and the diameter then recorded from that point perpendicular to the edge of the trunk. Where a leaning trunk is crooked a vertical distance of 1.4m is measured from the ground. Where a tree branches from a trunk that is less than 1.4m above ground the trunk diameter is recorded perpendicular to the length of the trunk from the point immediately below the base of the flange of the branch collar extending the furthest down the trunk and the distance of this point above ground recorded as trunk length. Where a tree is located on sloping ground the DBH should be measured at half way along the side of the tree to average out the angle of slope. Where a tree is acalcescent or trunkless branching at or near ground an average diameter is determined by recording the radial extent of the trunk at or near ground and noting where the measurement was recorded e.g. at ground.

Structural Root Zone (SRZ) The minimum area around the base of a tree, generally circular, required for its stability in the ground. The section of root plate within this area and subsequent soil cohesion necessary to hold the tree upright against wind throw, therefore the entire depth of the root zone must be included.

Appendix C Demolition Plan/Tree Locations



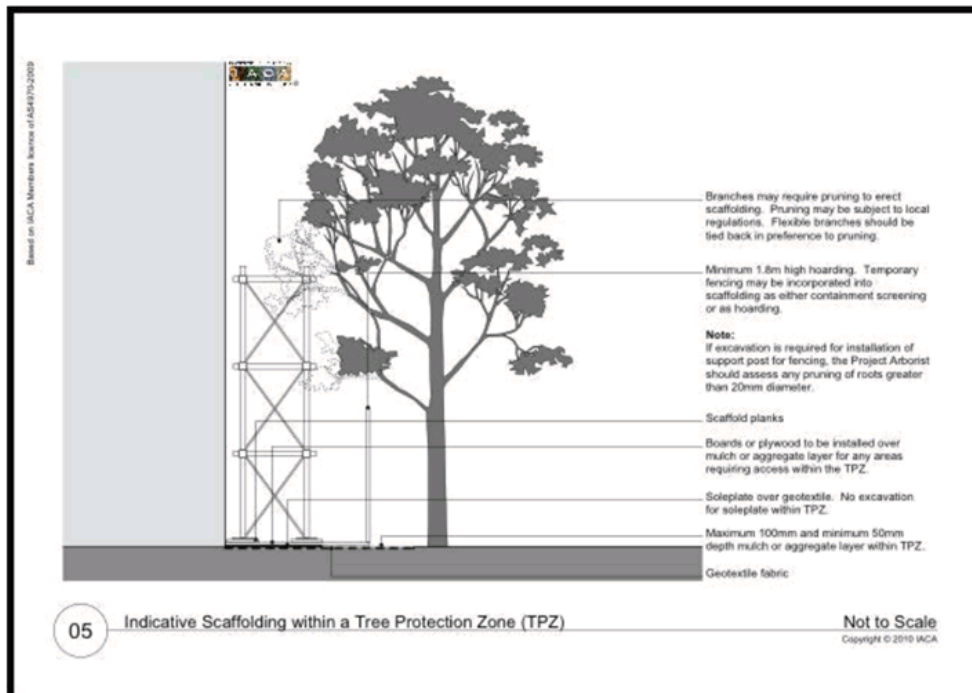
Appendix D Tree Protection Plan

Pge 1 of 3 – Construction Constraints

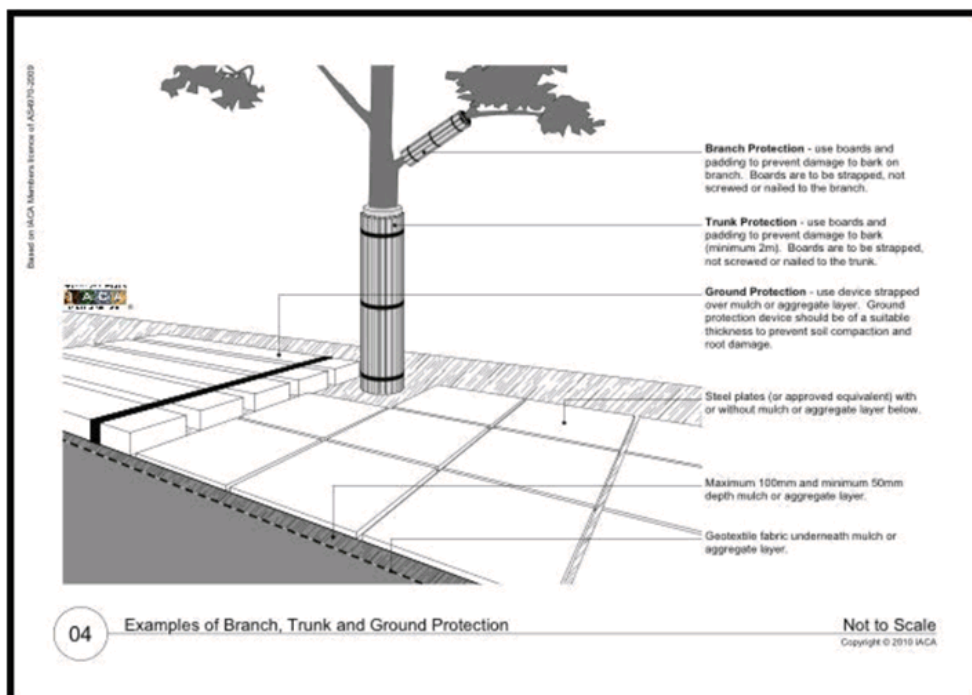


Pge 2 of 3-

Drawing #1 - Scaffolding Within a TPZ

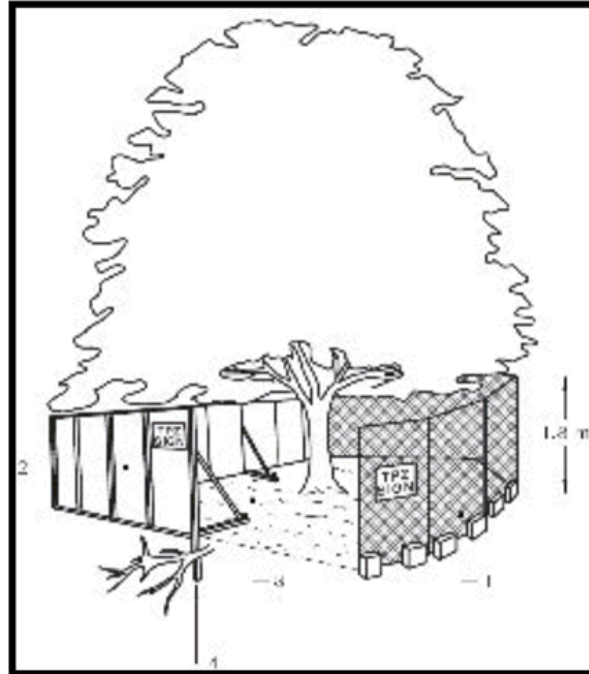


Drawing #2 - Branch, Trunk and Ground Protection



Page 3 of 3-

Drawing #3 - Example of TPZ Fencing



Drawing #4 - Example of TPZ Signage



Appendix E

Extract from Australian Standard AS4970 2009 Protection of trees on development sites

Section 3, Determining the tree protection zones of the selected trees

3.1 Tree protection zone (TPZ)

"The tree protection zone (TPZ) is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance so that the tree remains viable.

The TPZ incorporates the structural root zone (SRZ) (refer to Clause 3.3.5)."

3.2 Determining the TPZ

The radius of the TPZ is calculated for each tree by multiplying its DBH x 12.

$$\text{TPZ} = \text{DBH} \times 12$$

where

DBH = trunk diameter measured at 1.4 m above ground

Radius is measured from the centre of the stem at ground level.

Appendix F

Extract from Australian Standard AS4970 2009 Protection of trees on development sites

Section 3, Determining the protection zones of the selected trees

3.3.5 Structural root zone (SRZ)

"The SRZ is the area required for tree stability. A larger area is required to maintain a viable tree. The SRZ only needs to be calculated when a major encroachment into a TPZ is proposed. Root investigation may provide more information on the extent of these roots."

Determining the SRZ

The radius of the TPZ is calculated for each tree by multiplying its DBH x 12.

SRZ radius expressed by the curve is calculated by the following formula,

$$R_{SRZ} = (D \times 50)^{0.42} \times 0.64$$

where

D = trunk diameter, in metres measured immediately above the root buttress.

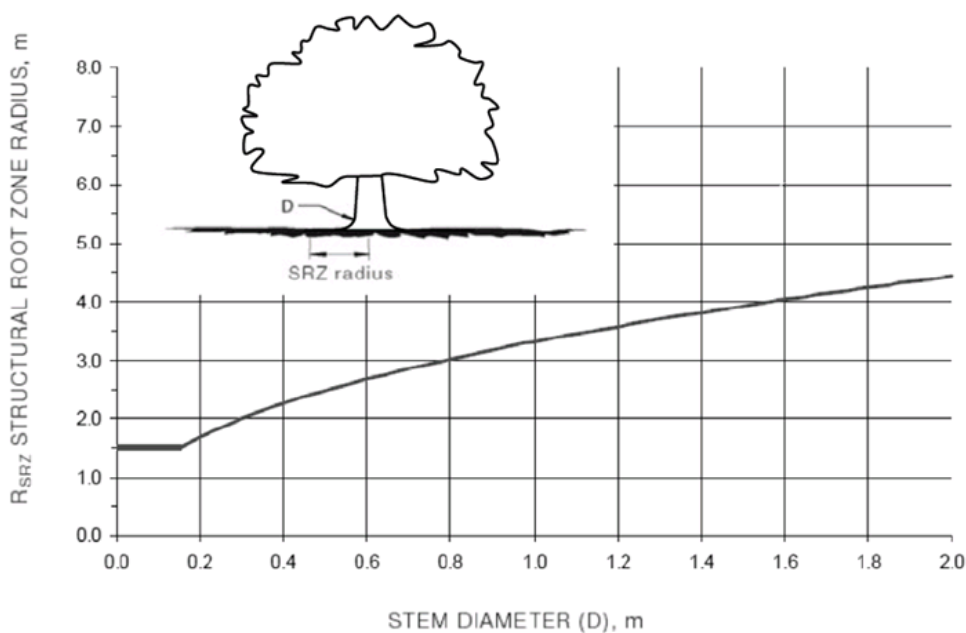


FIGURE 1 STRUCTURAL ROOT ZONE CALCULATION

(AS 4970 – 2009, Amendment No. 1 March 2010)

NOTES:

- 1 R_{SRZ} is the calculated structural root zone radius (SRZ radius).
- 2 D is the stem diameter measured immediately above root buttress.
- 3 The R_{SRZ} for trees less than 0.15 m diameter is 1.5 m.
- 4 The R_{SRZ} formula and graph do not apply to palms, other monocots, cycads and tree ferns.
- 5 This does not apply to trees with an asymmetrical root plate.

Appendix G

References

REFERENCES

1. IACA (2009), Sustainable Retention Index Value, Institute of Australian Consulting Arboriculturists, www.iaca.org.au .
2. Australian Standard® AS 4373 – 2007 Pruning of amenity Trees.
3. Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.
4. Work Cover NSW 2007, *Code of Practice Tree Work*, New South Wales Government, Australia.

DICKENS SOLUTIONS

AMENDED **WASTE MANAGEMENT PLAN**

URBAN LINK PTY LTD
(A & M GROUP 1 PTY LTD)

PROPOSED MIXED USE
RESIDENTIAL & COMMERCIAL
DEVELOPMENT

@
14-20 PALMER STREET
INGLEBURN

SEPTEMBER 2021

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PART 1 – OVERVIEW AND PROPOSAL

1.1 INTRODUCTION

This Waste Management Plan (WMP) is an operational plan that describes in detail the manner in which all waste and other materials resulting from the demolition, construction and on-going use of the building on the site are to be dealt with.

The aims and objectives of this WMP are to: -

- a) Satisfy all State and Local Government regulatory controls regarding waste management and minimisation practices;
- b) Promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
- c) Maximise waste reduction, material separation, and resource recovery in all stages of the development;
- d) Ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access; and,
- e) Ensure that the provision of waste and recycling services to the completed building is carried out in an efficient manner, which will not impact negatively on the health, safety and convenience of all stakeholders.

This WMP is prepared in accordance with: -

- Campbelltown Local Environment Plan;
- Campbelltown (Sustainable City) DCP 2015;
- All conditions of consent issued under the approved Development Application;
- The 'Better Practice Guide for Waste Management in Multi Unit Dwellings';
- The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be effective and efficient, as well as promote the principles of health, safety and convenience.

This Waste Management Plan has been prepared for a Development Application to be submitted to Campbelltown City Council, for the construction of a five (5) storey residential flat building, containing 53 x one, two and three bed room units, as well as incorporating a child care centre on part of the ground floor area, at 14-20 Palmer Street, Ingleburn.

This Amended WMP is dated 21 September 2021.

1.2 HISTORY

The original WMP for this project was dated 8 April 2021 and was submitted to Council as part of the DA Package.

As a result of the initial assessment of the DA, on 8 September 2021, Council provided correspondence to the Applicant in the form of a RFI (Request for Further Information).

Among the issues identified for clarification were a number related to waste management. This includes (but is not limited to) the following points. These issues are detailed below in **BOLD TYPE TEXT** with specific responses following each item.

Item 1 – Service Frequency

The Waste Management Plan (WMP) shall be amended to reflect the correct servicing frequency for the residential portion of the development, and therefore the correct number of bins required, as indicated in clause 5.4.8.1 of Council's DCP which requires 22 waste bins and 22 recycling bins. The bin presentation area is also required to be shown on the site plan.

RESPONSE – Due to Council's inability to service waste bins two (2) days per week, the Waste Management Plan (WMP) has been amended to provide 22 x 240-litre waste bins, to be serviced one (1) day per week – refer to Part 5.5 on page 28.

Item 2 – Size of Bin Storage Area

Bin storage rooms shall be increased in size to accommodate the correct number of bins required for the residential portion of the development, with all bin storage room dimensions to be marked on the architectural plans.

Double doors to be provided to all bin storage rooms and within any bin travel paths to allow for flexibility with bin configurations.

RESPONSE – Both the Waste Management Plan and the Architectural Drawings have been amended to comply with the above.

Item 3 – Service Rooms

Confirmation is required that the chute inlets provided on each floor are contained within each waste service room, and not located on lobby walls.

RESPONSE – As detailed in Part in Parts 4.2 and 4.3 on pages 22 and 23, the chute inlets will be contained within separate waste and recycling compartments which will have dimensions of 2.8m x 2.0m, with a floor area of 5.6 square metres, and will provide space for: -

- 1 x 240 litre recycling bin;
- A Garbage Chute compartment, which will have internal dimensions of 750 mm x 750 mm. The Garbage Chute will be installed within these confines in a fire rated compartment.

Item 4 – Travel Paths

The intended travel path for residential bins to the street shall be detailed in an amended WMP.

RESPONSE – Bins will be transferred to and from the basement bin rooms to the kerbside collection point using a Mobile Bin Towing Device as detailed in Part 5.6.5 on page 31.

Item 5 – Access to Commercial Bin Storage Area

A lockable door must be provided between the commercial bin storage area and the adjoining residential bin storage area, as required by clause 5.6.5 of Council's DCP.

RESPONSE – A lockable door will be provided between the commercial bin storage area and the adjoining residential bin storage area, as required by clause 5.6.5 of Council's DCP.

Item 6 – Recycling of Garden Organics

Confirmation is required that all garden organics generated on site will be responsibly recycled by a landscape maintenance contractor via a properly executed service agreement.

RESPONSE – All garden organics (green waste) generated on site will be responsibly recycled by a landscape maintenance contractor via a properly executed service agreement as detailed in Part 5.4 on page 27.

Item 7 – Location of Bulky Waste Area

The bulky waste storage is to be provided within 10 metres of the collection point, in accordance with clause 5.4.8.3 (h) of Council's DCP.

RESPONSE – Due to design constraints it is not possible to relocate the Bulky Waste Storage Area within 10 metres of the collection points. Notwithstanding as detailed in Part 5.9 on page 34, the Building Manager will be responsible for coordinating all issues and activities in relation to the storage and collection of bulky waste material, including liaising with Council officers regarding presentation requirements and scheduling arrangements.

It is also note that the bulky waste stiorgae area was approved in this location in the original Consent.

Item 8 – Child Care Centre

An amended WMP is required to make provision for increased waste and recycling capacity to be supplied for the proposed child care centre.

RESPONSE – All waste and recycling generation rates have been calculated in accordance with the provisions of the Better Practice Guide for Resource Recovery, published by the NSW EPA. The WMP has been amended to reflect these rates, which are detailed in Part 5.7.1 on page 33.

Item 9 – Private Waste and Recycling Collection Contractor

Evidence to be provided that an appropriately licenced waste contractor can provide collection services to the proposed child care centre (i.e. they operate in the Campbelltown area) using a SRV of dimensions that are able to safely access the basement level of the development.

RESPONSE – Written evidence will be provided to Council that an appropriately licenced waste contractor can provide collection services to the proposed child care centre (i.e., they operate in the Campbelltown area) using a SRV of dimensions that are able to safely access the basement level of the development. This will be forwarded to Council prior to the issue of an Occupation Certificate, and can easily be conditioned by Council.

1.3 PROJECT AND PROPERTY DESCRIPTION

This Waste Management Plan (WMP) has been specifically designed for the development described below: -

PROJECT DESCRIPTION	One x five (5) storey building of mixed residential and commercial components.
NUMBER OF UNITS	53 Residential Units consisting of: - - 8 x 1 bed units; - 44 x 2 bed units; - 1 x 3 bed units; One Child Care Centre on the ground floor; and, Two (2) basement Levels for the provision of car parking, service and ancillary facilities
PROPERTY DESCRIPTION	The development is to be constructed over four (4) existing Torrens Title allotments at No's 14, 16, 18 and 20 Palmer Street, Ingleburn.
STREET ADDRESS	14-20 Palmer Street, Ingleburn.
DIMENSIONS	- Front (Palmer Street) Boundary – 78.5m; - Rear (North) Boundary – 78.5m; - Side (Suffolk Street) Boundary – 36.8m; and, - Side (East) Boundary – 34.0m.
AREA	3,025sqm
LGA	Campbelltown City Council
ZONING	Zone R4 – High Density Residential
PLANNING INSTRUMENTS	Campbelltown LEP. Campbelltown (Sustainable City) DCP 2015.

The site occupies four (4) individual Torrens Title allotments at 14, 16, 18 and 20 Palmer Street, Ingleburn. It is located on the north-eastern corner of Palmer and Suffolk Streets, and will have frontages to both streets.

The site is situated approximately 1.5km south-west of the Ingleburn shopping precinct and main southern railway, with Ingleburn Road to its north and Cumberland Road to its south.

Single storey dwellings currently occupy each of the four (4) sites. The immediate surrounding development to the north, on the opposite side of the rail line, primarily

consists of low density residential housing, with some pockets of medium density (villa, town houses) in its vicinity. South of the site, also consists of low density housing.

To the east of the site is the Ingleburn shopping site, which mainly comprises the small to medium size commercial and retail land uses.

1.4 APPLICANTS DETAILS

APPLICANT	Urban Link Pty Ltd (A & M Group 1 Pty Ltd)
ADDRESS	PO Box 2223, Burwood. NSW. 2134.
TELEPHONE	02 9745 2014
E-MAIL	lujie@urbanlink.com.au

1.5 PROPOSAL

The proposal involves the construction of a five (5) storey residential flat building, at 16-20 Palmer Street, Ingleburn, comprising:

- 53 residential units (8 x 1 bed, 44 x 2 bed, and 1 x 3 bed rooms);
- A child care centre on part of the ground floor area; and,
- Two (2) basement levels.

The basements provide for: -

- Resident, visitor, and adaptable car parking for 96 spaces;
- Storage spaces, bicycle spaces;
- Provision for waste management facilities; and,
- Ancillary services, areas for lift wells, and other facilities in each basement.

Vehicular egress from the site will be onto Suffolk Street at the western end of the site.

All waste management facilities are located in Basement 1. Collections for the residential component of the development will take place from the kerbsides as described in Parts 5.6.4, 5.6.5 and 5.6.6 on pages 27 and 28 of this document.

Two garbage chute systems for the reception of waste material will be incorporated into the building design.

Current structures on the site are: -

- No 14 Palmer Street – a single storey timber framed weatherboard clad dwelling with tile roof at the front and iron roof, detached timber framed fibro garage, metal and timber fencing, concrete driveway and pathway, asphalt paving, some trees and miscellaneous vegetation;
- No 16 Palmer Street – a single storey timber framed weatherboard dwelling with tile roof at the front and iron roof, partly attached timber framed and fibro clad garage/shed, detached outbuilding, metal and timber fencing, concrete driveway and pathway, asphalt paving, some trees and miscellaneous vegetation;
- No 18 Palmer Street – a single storey timber framed weatherboard dwelling with tile roof, detached garage and shed, metal and timber fencing, concrete driveway and pathway, paving, some trees and miscellaneous vegetation; and,
- No 20 Palmer Street – a single storey brick rendered dwelling and attachments, detached shed and outbuilding, detached garage (fronting Suffolk Street), metal and timber fencing, concrete driveway and pathways, some trees and miscellaneous vegetation.

The project consists of: -

- a) The demolition of all existing buildings on the site;
- b) The removal of all demolished materials in accordance with this WMP;
- c) The excavation of the site to construct two (2) basement levels for car parking and other services;
- d) The construction of the residential flat building;
- e) The provision of new roads, landscaping, driveways, concrete pathways and other elements associated with the development; and,
- f) The on-going use of the building.

PART 2 – DEMOLITION

2.1 DEMOLITION – GENERALLY

It is recognised that Sydney has an ever-increasing waste problem, and this practice is not sustainable. In alignment with current NSW waste management legislation, this WMP aims, where possible, to promote waste avoidance, reuse and the recycling of material, particularly during the course of demolition and construction works.

Part 2.2 on Pages 9, 10, 11, 12, 13, 14 and 15 of this WMP describes the manner in which waste is to be managed during the course of the demolition of the existing structures.

The processes outlined in Part 2.2 are to be read in conjunction with and comply with the Development Consent issued in respect of the proposal. It will be the developer's overall responsibility to ensure compliance in this regard.

All material moved offsite shall be transported in accordance with the requirements of the Protection of the Environment Operations Act (1997).

Approved receptacles of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

2.2 MANAGEMENT OF HAZARDOUS MATERIALS

Due to the age and construction of the existing buildings on the site, there may be potential for hazardous building materials to be present in the buildings to be demolished. Accordingly, the generation, storage, treatment, and the disposal of hazardous waste (including asbestos) will be conducted in accordance with relevant waste legislation administered by the NSW EPA and any applicable WH&S legislation administered by Work Cover NSW.

All friable and non-friable asbestos-containing material shall be handled and disposed of 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 Classifications Guidelines – Part 1 'Classifying Waste (EPA 2014) and any other instrument as amended.

All friable hazardous waste arising from the demolition process shall be removed and disposed of in accordance with the requirements of Work Cover NSW and the EPA, and with the provisions of:

- a) Work Health and Safety Act 2011,
- b) NSW Protection of the Environment Operations Act 1997 (NSW), and,
- c) NSW Department of Environment and Climate Change Environmental Guidelines; Assessment, Classification and Management of Liquid and Non-Liquid Wastes.

2.3 DEMOLITION – RECYCLING, REUSE & DISPOSAL DETAILS

The following details prescribe the manner in which all material involved in the demolition of the building will be dealt with, and includes: -

- a) An estimate of the types and volumes of waste and recyclables to be generated;
- b) A site plan showing sorting and storage areas for demolition waste and vehicle access to these areas (see Part 2.3 of this Plan);

- c) How excavation and demolition waste materials will be reused, and, or recycled and where residual wastes will be disposed (see below); and,
- d) The total percentage of demolition waste that will be reused or recycled.

It is noted that the quantities of materials detailed in this section (Part 2.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of site constraints, weather conditions, and any other unforeseeable activities associated with the demolition works, which are beyond the control of the developer, including but not being limited to theft, accidents, and, or, other acts of misadventure.

Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

1. Excavated Materials & Overburden

Volume / Weight	1,060 cubic metres / 1,802 Tonnes
On Site Reuse	Yes. Keep and reuse topsoil for landscaping. Shore on site. Use some for support of retaining walls (Excavated Materials are only to be used if the material is not contaminated or has been remediated in accordance with any requirements specified by any Environmental Consultancy engaged to carry out any contamination assessment of excavated material).
Percentage Reused or Recycled	To be determined (see above comments)
Off Site Destination	To an approved Agency – excavated materials may need to be assessed to determine the quality of the material to ensure that all excavated material will be acceptable to the designated receival authority.

2. Green Waste

Volume / Weight	320 cubic metres / 48 Tonnes
On Site Reuse	To be separated. Chipped and stored on site for re-use in landscaping.
Percentage Reused or Recycled	90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Australian Native Landscapes, Lot 22, Martin Road, Badgerys Creek (Tel 02 4774 8484)

3. Bricks

Volume / Weight	64 cubic metres / 64 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks. Re-use in new footings. Broken bricks for internal walls. Crush and reuse as drainage backfill. Crushed and used as aggregate.
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Brandown, Lot 9 Elizabeth Drive, Kemps Creek (Tel 02 9826 1256) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

4. Concrete

Volume / Weight	100 cubic metres / 240 Tonnes
On Site Reuse	Existing driveway to be retained during construction. Crushed and used as aggregate, drainage backfill.
Percentage Reused or Recycled	60% - 75%
Off Site Destination	Brandown, Lot 9 Elizabeth Drive, Kemps Creek (Tel 02 9826 1256) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

5. Timber

Volume / Weight	100 cubic metres / 40 Tonnes
On Site Reuse	Re-use for formwork and studwork, landscaping, shoring.
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883)

6. Plasterboard & Fibro

Volume / Weight	60 cubic metres / 20 Tonnes
On Site Reuse	Nil – all to be disposed of, off-site.
Percentage Reused or Recycled	To be determined (dependent on asbestos content)
Off Site Destination	Ecocycle, 155 Newtown Road, Wetherill Park (Tel 02 0757 2999) or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)
Off Site Destination (Asbestos)	Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116) or, Enviroguard, Cnr Mamre and Erskine Roads, Erskine Park (Tel 02 9834 3411).

7. Metals / Steel / Guttering & Downpipes

Volume / Weight	40 cubic metres / 12.5 Tonnes
On Site Reuse	No
Percentage Reused or Recycle	70% - 90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Boral Recycling, 3 Thackeray Street, Camelia (Tel 9529 4424) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883) or, Jacobson Metaland, 62-70 Silverwater Road, Silverwater (Tel 02 9748 2487)

8. Roof Tiles / Tiles

Volume / Weight	50 cubic metres / 37.5 Tonnes
On Site Reuse	Broken up and used as fill, aggregate, driveways.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Obsolete Tiles, 3 South Street, Rydalmere. (Tel 02 9684 6333) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646)

9. Fixture & Fittings (Doors Fittings, Other Fixtures, etc.)

Volume	40 cubic metres / 16.5 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

10. Glass, Electrical & Light Fittings, PC items, Ceramics, etc.

Volume / Weight	40 cubic metres / 15 Tonnes
On Site Reuse	No
Percentage Reused or Recycle	To be determined (dependent upon nature of material)
Off Site Destination	To an approved agency, or agencies.

11. Residual Waste

Volume / Weight	185 cubic metres / 185 Tonnes
On Site Reuse	No
Off Site Destination	Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, other authorised facility
Notes on calculation of volume of residual waste	<ol style="list-style-type: none"> 1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that approximately 10% of it, will be residual waste. 2. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.

The facilities and agencies that have been nominated to receive the materials listed above have been identified within the NSW waste industry as being a facility or agency that will accept the materials specified in each respective table.

The developer understands that any costs associated with the transportation and receipt of these materials will be their responsibility.

The developer is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the developers' responsibility to ensure that all demolished materials removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials associated with the demolition of all structures on site.

2.4 DEMOLITION – ON SITE STORAGE OF MATERIALS

During the demolition stage of the project, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

- Material sorting;
- Segregation of materials that may be hazardous and which will be required to be disposed of;
- Recovery equipment, such as concrete crushers, chippers, and skip bins;
- Material storage; and,
- Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclable, and waste materials.

Prior to the commencement of demolition works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Demolition'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

2.5 DEMOLITION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of the demolition of all buildings, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to their removal, transportation and disposal to an approved waste management facility.

All relevant details must be reported to the PCA.

PART 3 – CONSTRUCTION

3.1 CONSTRUCTION – GENERALLY

Upon completion of all demolition works, construction of the building will commence with the excavation of the site for the basement levels of the building. All materials sourced from these activities will be disposed of in accordance with the information provided in Part 3.2 on pages 16, 17, 18, 19, 20 and 21 of this WMP.

Additionally, all materials used in the construction of the building that are not required to be incorporated into it, shall be recycled, reused or disposed of in accordance with these provisions, and the requirements of the Protection of the Environment Operations Act (1997). It will be the developer’s overall responsibility to ensure compliance in this regard.

Mobile Bins of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

3.2 CONSTRUCTION – RECYCLING, REUSE & DISPOSAL DETAILS

The following details prescribe the manner in which all materials surplus to the construction of the building will be dealt with, and includes: -

- a) An estimate of the types and volumes of waste and recyclables to be generated;
- b) A site plan showing sorting and storage areas for construction waste and vehicle access to these areas (see Part 3.3 of this Plan);
- c) How excavated and other materials surplus to construction will be reused or recycled and where residual wastes will be disposed (see below); and,
- d) The total percentage of construction waste that will be reused or recycled.

1. Excavated Materials

Volume / Weight	19,500 cubic metres / 33,150 Tonnes
On Site Reuse	Yes. Keep and reuse topsoil for landscaping. Store on site. Use some for support of retaining walls (Excavated Materials are only to be used if the material is not contaminated or has been remediated in accordance with any requirements specified by any Environmental Consultancy engaged to carry out any contamination assessment of excavated material).
Percentage Reused or Recycled	To be determined (see above comments)
Off Site Destination	To an approved Agency – excavated materials may need to be assessed to determine the quality of the material to ensure that all excavated material will be acceptable to the designated receival authority.

2. Bricks

Volume / Weight	10 cubic metres / 13 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks. Re-use in new footings. Broken bricks for internal walls. Crush and reuse as drainage backfill. Crushed and used as aggregate.
Percentage Reused or Recycle	75% - 90%
Off Site Destination	Brandown, Lot 9 Elizabeth Drive, Kemps Creek (Tel 02 9826 1256) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

3. Concrete

Volume / Weight	5 cubic metres / 12 Tonnes
On Site Reuse	Existing driveway to be retained during construction. Crushed and used as aggregate, drainage backfill.
Percentage Reused or Recycled	60% - 75%
Off Site Destination	Brandown, Lot 9 Elizabeth Drive, Kemps Creek (Tel 02 9826 1256) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

4. Timber

Volume / Weight	5 cubic metres / 7 Tonnes
On Site Reuse	Re-use for formwork and studwork, and for landscaping
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883)

5. Plasterboard & Fibro

Volume / Weight	12 cubic metres / 4 Tonnes
On Site Reuse	Break up and use in landscaping. Any material containing asbestos will be dealt with separately
Percentage Reused or Recycled	To be determined – depended on quantities of asbestos
Off Site Destination	Ecocycle, 155 Newtown Road, Wetherill Park (Tel 02 0757 2999) or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)
Off Site Destination (Asbestos)	Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116) or, Enviroguard, Cnr Mamre and Erskine Roads, Erskine Park (Tel 02 9834 3411).

6. Metals / Steel / Guttering & Downpipes

Volume / Weight	15 cubic metres / 3.75 Tonnes
On Site Reuse	No
Percentage Reused or Recycled	60 – 90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Boral Recycling, 3 Thackeray Street, Camelia (Tel 9529 4424) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883), or Jacobson Metaland, 62-70 Silverwater Road, Silverwater (Tel 02 9748 2487)

7. Roof Tiles / Tiles

Volume / Weight	8 cubic metres / 6 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycled	80% - 90%
Off Site Destination	Obsolete Tiles, 3 South Street, Rydalmere. (Tel 02 9684 6333) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646)

8. Plastics

Volume / Weight	6 cubic metres / 1 Tonne
On Site Reuse	Nil
Percentage Reused or Recycled	80% - 95%
Off Site Destination	Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

9. Glass, Electrical & Light Fittings, PC items

Volume / Weight	6 cubic metres / 1 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 90%
Off Site Destination	To an approved agency, or agencies.

10. Fixture & Fittings (Doors Fittings, Other Fixtures, etc.)

Volume	25 cubic metres / 8 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

11. Pallets

Volume / Weight	25 cubic metres / 8 Tonne
On Site Reuse	No
Percentage Reused or Recycle	90% - 100%
Off Site Destination	To an approved agency, or agencies, for reuse and resale.

12. Residual Waste

Volume / Weight	205 cubic metres / 205 Tonnes
On Site Reuse	No
Off Site Destination	Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, other authorised facility
Notes on calculation of volume of residual waste	<p>3. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that approximately 10% of it, will be residual waste.</p> <p>4. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.</p>

It is noted that the quantities of materials detailed in this section (Part 3.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, weather conditions, and any other unforeseeable activities associated with the construction of the building, which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure.

The facilities and agencies that have been nominated to receive the materials listed above have been identified within the NSW waste industry as being a facility or agency that will accept the materials specified in each respective table. The developer understands that any costs associated with the transportation and receipt of these materials will be their responsibility.

The developer is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the developers' responsibility to ensure that all demolished materials removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials excess to the construction of the building.

Additionally, during the construction of the building, every effort will be made to reduce and minimise the amount of building materials excess to construction.

3.3 CONSTRUCTION – ON SITE STORAGE OF MATERIALS

During the construction of the buildings, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

- Material sorting;
- Segregation of materials that may be hazardous and which will be required to be disposed of;

- Recovery equipment, such as concrete crushers, chippers, and skip bins;
- Material storage; and,
- Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclables, and waste materials.

Prior to the commencement of construction works, the developer will provide Council with a 'Site Plan for the On Site Storage of Materials at Construction'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

3.4 CONSTRUCTION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of any activities associated with the construction of the building, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to removal, transportation and disposal to an approved waste management facility.

All relevant details must be reported to the PCA.

PART 4 – GARBAGE CHUTE SYSTEM

4.1 DESIGN REQUIREMENTS

A linear Garbage Chute System, will be incorporated into the building design for the reception of waste material only.

Two (2) Garbage Chute Systems will be installed in the building: -

- Chute 1 – Southern Core (26 units); and,
- Chute 2 – Northern Core (27 units).

All waste deposited into the waste chutes, will discharge into a 4 x 240-litre bin carousel system located in bin rooms for that core of the building (see Basement 1 Floor Plan).

At a minimum, the Garbage Chute System will be designed to meet the following requirements: -

1. Chutes and service openings must be constructed of metal or other smooth faced, durable, fire resistant and impervious material of a non-corrosive nature.
2. Chutes will be cylindrical in section with a minimal internal diameter of 500 mm. The diameter around each chute will be a minimum width of 750 mm to allow for infrastructure fittings, such as fixing brackets and noise insulation.
3. Chutes will be vertical without bends or “off-sets” (except for the chute outlets) and not be reduced in diameter.
4. Chute 1 in the Southern Core will terminate in Bin Room 1 located in Basement 1 of the building and discharge all waste directly into a 4 x 240-litre bin carousel located directly below the chute outlet.
5. Chute 2 in the Northern Core will terminate in Bin Room 2 located in Basement 1 of the building and discharge all waste directly into a 4 x 240 litre bin carousel located directly below the chute outlet.
6. The Chutes and service openings must be capable of being easily cleaned.
7. Chutes must be ventilated to ensure that air does not flow from the chute through any service opening.
8. The Garbage Chute systems must comply with the relative provisions of the Building Code of Australia, and relevant Australian Standards (e.g., AS1530.4-2005).
9. The chute point will be caged in accordance with the manufacturers specification.

4.2 USE & OPERATION OF GARBAGE CHUTE 1 – SOUTHERN CORE

In the Southern Core of the building, a service room in the form of a ‘Waste Room’ (see Floor Plans) will be provided on each residential floor level. Each Waste Room will be located on the main corridor on each floor immediately next to the lift and the fire stair.

The Waste Rooms will have dimensions of 2.8m x 2.0m, with a floor area of 5.6 square metres, and will provide space for: -

- 1 x 240 litre recycling bin;
- A Garbage Chute compartment, which will have internal dimensions of 750 mm x 750 mm. The Garbage Chute will be installed within these confines in a fire rated compartment.

Residents will deposit waste material into the chute inlet hopper. Waste from the chute outlet will fall directly into a 240-litre bin on a 240-litre bin carousel in Bin Room 1, in Basement 1.

Based on Council's waste generation rates (96-litres of space per unit per week), it is anticipated that all 26 units in this core of the building will generate 2,496 litres of waste per week, or 356.58 litres per day.

With the capacity of the 4 x 240-litre bin carousel system, being 960 litres, the unit will be inspected at least once a day in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation, will monitor all activities associated with the use and operation of the Chute, the depositing of waste into it in order to ensure that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 240-litre waste bins from the carousel into the waste bin storage area, adjacent (see Architectural Drawings).

The Carousel will be inspected daily in order to ensure that receptacles will be removed when full. Full bins will be removed from the carousel and replaced with an empty one.

4.3 USE & OPERATION OF GARBAGE CHUTE 2 – NORTHERN CORE

In the Northern Core of the building, a service room in the form of a 'Waste Room' (see Floor Plans) will be provided on each residential floor level.

Each Waste Room will be located on the main corridor on each floor immediately next to the lift and fire stair.

The Waste Rooms will have dimensions of 2.8m x 2.0m, with a floor area of 5.6 square metres, and will provide space for: -

- 1 x 240 litre recycling bin;
- A Garbage Chute compartment, which will have internal dimensions of 750 mm x 750 mm. The Garbage Chute will be installed within these confines in a fire rated compartment.

Residents will deposit waste material into the chute inlet hopper. Waste from the chute outlet will fall directly into a 240-litre bin on a 240-litre bin carousel in Bin Room 2, in Basement 1.

Based on Council's waste generation rates (96-litres of space per unit per week), it is anticipated that all 27 units in this core of the building will generate 2,592 litres of waste per week, or 370.29 litres per day.

With the capacity of the 4 x 240-litre bin carousel system, being 960 litres, the unit will be inspected at least once a day in order to ensure that waste receptacles will be removed when full.

Representatives of the Owners Corporation, will monitor all activities associated with the use and operation of the Chute, the depositing of waste into it in order to ensure

that there will be no spillage as a result of these activities, and that the system operates effectively.

Representatives of the Owners Corporation will be responsible for transferring full 240-litre waste bins from the carousel in Bin Room 2, into the main waste storage area, in Bin Room1 (see Architectural Drawings).

The Carousel will be inspected daily in order to ensure that receptacles will be removed when full. Full bins will be removed from the carousel and replaced with an empty one.

4.4 ON GOING MANAGEMENT & MAINTENANCE OF CHUTE SYSTEM

4.4.1 Generally

The Owners Corporation will be responsible for all issues associated with the on-going management and maintenance of the Garbage Chute Systems and all activities associated with it.

These activities will include, but not be limited, to the following: -

1. Displaying signage indicating appropriate use of all waste management systems, including what is and what is not recyclable.
2. Educating residents in the correct use of the chute, and the need to keep bulky items out of the chute systems.
3. Providing regular maintenance, including cleaning and unblocking chutes.
4. Regular inspection of the Garbage Chute Compartments, the Garbage Chute Outlet Compartments, and the Bin Rooms to ensure that all waste and recyclables are managed appropriately.
5. Educating residents in the correct use of each chute, to ensure that waste material is not deposited into the recycling chute, and that recycling material is not placed into the waste chute.

4.4.2 Chute Room Infrastructure

The following infrastructure will be incorporated into the design of all chute rooms: -

1. Suitable door access for the service of bins;
2. All floors will be finished with a non-slip and smooth and even surface covered at all intersections;
3. The floor will be graded to a central drainage point connected to the sewer;
4. The room will be fully enclosed and roofed with a minimum internal room height in accordance with the BCA 2016
5. The room is to be provided with an adequate supply of water through a centralised mixing valve with hose cock; and.
6. Incorporation of adequate light and ventilation to meet the requirements of the BCA 2016.

4.5 MANAGEMENT OF RECYCLING

Residents will place their recycling material into a 240-litre mobile recycling bin located in the Waste Room in the Core of that level of the building.

A representative of the Owners Corporation will be responsible for transporting the 240-litre mobile bin from the Waste Room on each floor of both Northern and Southern Cores into the recycling bin storage area of Garbage Room 1, located in Basement 1.

An empty 240 litre mobile recycling bin will be placed in the Waste Room when the full one is removed.

Servicing and replacement of 240 litre recycling bins located in the Waste Room on each residential level of the building will take place on a regular basis to avoid hygiene, spillage and dumping problems.

All waste handing activities (including the transfer of recycling bins) will be undertaken by representatives of the Owners Corporation.

PART 5 – ON GOING USE OF BUILDING

5.1 OBJECTIVES

1. To ensure the storage, amenity and management of waste is sufficient to meet the needs of the development.
2. To ensure that all waste management activities are carried efficiently, and in a manner, that is efficient, and promotes the principles of health, safety, and convenience.
3. To promote waste minimisation practices.

5.2 ASSUMPTIONS

In preparing this proposal, the following assumptions have been made: -

1. The proposal involves the construction of a five (5) storey building of mixed residential and commercial components.
2. The residential component comprises of 53 (8 x 1 bed, 44 x 2 bed, and 1 x 3 bed rooms).
3. The commercial component comprises of a child care centre on part of the ground floor area.
4. The residential component of the building is separated into two (2) cores:
 - a) Chute 1 – South Core – 26 units, and
 - b) Chute 2 – North Core – 27 units.
5. Two (2) Garbage Chute Systems will be incorporated into the development, with separate Chute Systems being installed in both its northern and southern cores.
6. The chutes will be for the reception of waste only.
7. Chute 1 in the Southern Core will terminate in Bin Room 1 located in Basement 1 of the building and discharge all waste directly into a 4 x 240-litre bin carousel located directly below the chute outlet.
8. Chute 2 in the Northern Core will terminate in Bin Room 2 located in Basement 1 of the building and discharge all waste directly into a 4 x 240 litre bin carousel located directly below the chute outlet.
9. Waste Rooms will be provided to all residential levels of both cores for the use of residents to deposit both waste (into the garbage chute) and recyclable material (into a 240- litre mobile bin) – (see Floor Plans).
10. Within each Waste Room will be the garbage chute and one (1) 240 litre recycling bin.
11. Two (2) bin rooms located in the basement, will each house the 4 x 240-litre bin carousel system, as well as provide storage space for all waste and recycling bins allocated for the development.
12. Bin Room 1 is located on the southern side of the basement and will house one (1) 4 x 240-litre bin carousel, and storage space for 2 x 240-litre waste bins and 11 x 240-litre recycling bins.
13. Bin Room 2 is located on the northern side of the basement and will house one (1) 4 x 240-litre bin carousel, and storage space for 2 x 240-litre waste bins and 11 x 240-litre recycling bins.
14. The number and size of bins have been calculated from information provided by Campbelltown City Council.
15. All residential waste will be stored in 22 x 240 litre mobile bins.
16. All residential recycling will be stored in 22 x 240 litre mobile bins.

17. All residential waste services will be provided one (1) day per week.
18. All residential recycling services will be provided fortnightly.
19. All residential waste and recycling bins will be presented for servicing at the kerbside in accordance with Council's requirements that no more than 50% of the street frontage will be occupied by the bins when presented for collection.
20. All residential waste bins will be presented to the Suffolk Street kerbside.
21. All residential recycling bins will be presented to the Palmer Street kerbside.
22. The Owners Corporation will appoint a Building Manager / Caretaker, whose responsibility it will be to manage all activities associated with the provision of residential waste and recycling services to the development.
23. All residential bins will be presented for servicing, and returned to Bin Room 1, after servicing by representatives of the Owners Corporation.
24. Campbelltown City Council will provide all residential waste and recycling services to the development.
25. A Child Care Centre is to be incorporated into the development. As such, a commercial waste and recycling service will be provided to the centre.
26. All commercial waste and recycling services will be provided by a licensed private waste and recycling collection contractor.

5.3 WASTE HANDLING & MANAGEMENT

A cabinet will be located within each residential unit so that a receptacle, or receptacles, may be stored or housed in a convenient and practical location within the unit, for the reception of waste and recyclable material.

All waste and recyclables should be appropriately bagged or wrapped prior to being deposited into the designated garbage chute or recycling bin.

5.4 WASTE & RECYCLING – SERVICE REQUIREMENTS

All waste and recycling materials will be stored in approved receptacles of an appropriate size. The lids of the bins shall be closed at all times to reduce litter, stormwater pollution, odour and vermin.

The Council in general requires that colour coded receptacle lids that distinguish each service component are to be provided: -

- Waste Service – Red Lidded receptacle;
- Recycling Service – Yellow Lidded receptacle; and,
- Green Waste – Green Lidded receptacle.

All bins will be colour coded appropriately to reflect the nature of each service component.

No green waste services will be provided to this development.

All garden and green waste generated from the on-going use of the building will be collected and disposed of privately, and will be responsibly recycled by a landscape maintenance contractor via a properly executed service agreement.

5.5 WASTE & RECYCLING – SERVICE ARRANGEMENTS

The following tables (Table 1 & 2) specify the criteria for waste and recycling generation rates (as specified in Part 5.4.8.1 of Campbelltown City Council's DCP 2015) based on:

- Waste – 96 litres of bin space per unit per week; and,
- Recycling – 96 litres of bin space per unit per week.

TABLE 1 – WASTE & RECYCLING GENERATION RATES

SERVICE TYPE	UNITS	BIN SPACE PER UNIT	TOTAL SPACE REQUIRED	BINS SIZE	SERVICES PER WEEK	BINS REQUIRED	BINS PROVIDED
Waste	53	96	5,088	240	1	21.20	22
Recycling	53	96	5,088	240	0.5	21.20	22

The following table (Table 2) specifies the proposed bin servicing requirements for the building and is based on the above waste and recycling generation rates: -

TABLE 2 – PROPOSED SERVICING ARRANGEMENTS

WASTE	RECYCLING
22 x 240 litre bins One (1) Service per week	22 x 240 litre bins / One (1) Service per Fortnight

5.6 PROVISION OF WASTE & RECYCLING SERVICES

Campbelltown City Council's waste and recycling collection contractor provide all waste and recycling services to the complex.

5.6.1 Details of Mobile Containers

In relation to the size and design of the waste and recycling mobile bins, the following technical information is provided: -

CONTAINER TYPE	HEIGHT (metres)	DEPTH (metres)	WIDTH (metres)
240 litre mobile container	1.080	0.735	0.585

In addition to the 22 x 240 litre mobile waste bins required by Council as part of their service requirements, the Owners Corporation will provide an additional number of 240 litre mobile waste bins in order to ensure that a bin is provided at all times in the carousel below each of the Garbage Chute Outlet Compartments.

Similarly, in addition to the 22 x 240 litre mobile recycling waste bins required by Council as part of their service requirements, the Owners Corporation will provide an additional number of 240 litre mobile recycling bins in order to ensure that a bin is provided at all times to the Recycling Service Compartments of each residential floor the building.

5.6.2 Waste & Recycling Requirements

All waste and recycling requirements are provided in the table below.

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	22 x 240 litre mobile containers	Once per week
Recycling Service	22 x 240 litre mobile containers	Once per fortnight

5.6.3 Location, Design, and Construction of Waste Storage Areas

5.6.3.1 Waste Rooms – All Residential Floors

Waste Rooms will be located on each residential floor level of the complex, in both cores.

The Waste Rooms will have dimensions of 2.8m x 2.0m, with a floor area of 5.6 square metres, and will provide space for: -

- 1 x 240 litre recycling bin;
- A Garbage Chute compartment, which will have internal dimensions of 750 mm x 750 mm. The Garbage Chute will be installed within these confines in a fire rated compartment.

Residents will deposit waste into the garbage chute and recyclable material into a 240-litre mobile bin.

5.6.3.2 Garbage Bin Room 1 – Southern Core

Bin Room 1 is located on the southern side of the basement. It is an enclosed rectangular structure measuring 6.0m x 5.0m with an area of 30sqm.

Within the confines of the room will be separate areas for: -

- The garbage chute outlet;
- One (1) x 4 x 240-litre bin carousel system, installed under the chute outlet;
- 12 x 240-litre mobile waste bins;
- 12 x 240-litre mobile recycling bins; and,
- The provision of washing and ancillary facilities.

All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.

Natural and mechanical ventilation will be required to be installed within each WSA in accordance with the relative provisions of the Building Code of Australia.

As resident access to the bin rooms is not permitted, all bins will be stored in a stacked configuration, and will be removed for servicing and returned to the bin room by the building manager, or their representative.

In assessing the size and design of the WSA, it is considered that it is of a sufficient size and dimension to adequately facilitate all waste management activities.

5.6.3.3 Garbage Bin Room 2 – Northern Core

Bin Room 2 is located on the northern side of the basement. It is a fully enclosed rectangular structure, measuring 5.8m x 5.0m with an area of approximately 29sqm.

Within the confines of the room will be separate areas for: -

- The garbage chute outlet;
- One (1) x 4 x 240-litre bin carousel system, installed under the chute outlet;
- 10 x 240-litre mobile waste bins;
- 10 x 240-litre mobile recycling bins; and,
- The provision of washing and ancillary facilities.

All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.

Natural and mechanical ventilation will be required to be installed within each WSA in accordance with the relative provisions of the Building Code of Australia.

As resident access to the bin rooms is not permitted, all bins will be stored in a stacked configuration, and will be removed for servicing and returned to the bin room by the building manager, or their representative.

In assessing the size and design of the WSA, it is considered that it is of a sufficient size and dimension to adequately facilitate all waste management activities.

5.6.4 Bin Presentation Requirements

Part 5.4.8.4 (a) 'Waste Collection' of Council's DCP 2015, states that "any development containing 20 or more dwellings and, or, the number of bins proposed cannot be accommodated within 50% of the development's frontage on collection day shall be designed to accommodate a forward-out / drive on collection for on-site servicing"

This development has two (2) frontages:

- Suffolk Street – 36.2 metres, and,
- Palmer Street – 72.5 metre frontage.

Although the waste bins occupy slightly more than 50% of the kerb, exceeding by 3.77%, the recycling bins presented to Palmer Street occupy only 26.85 of the frontage.

When both frontages are included in the calculations, the 22 x 240-litre waste and recycling bins occupy 40.32% of the frontage of the development which technically complies with the provisions of Council's DCP for kerbside bin presentation.

As it is proposed to service residential waste bins from the Suffolk Street kerbside, and the recycling bins from Palmer Street, this will considerably lessen the impact on the streetscape, particularly as the recycling bins will be presented once per fortnight.

TABLE 3 – BIN PRESENTATION REQUIREMENTS

Service Component	Street	Frontage (metres)	No of Bins Presented	Length of Bins on Kerb	% of Bins over Frontage
Waste	Suffolk St	36.2	22	19.47	53.77%
Recycling	Palmer St	72.5	22	19.47	26.86%

Notes

1. Calculations include Bin Width 585mm plus 300mm clearance between bins as required by Council's DCP
2. Driveway at Palmer Street excluded from calculations.

5.6.5 Mobile Bin Towing Devices

A Mobile Bin Towing Device (bin tug), of an appropriate size and approved type, will be provided to transport and manoeuvre bins through the development. A trailer will be used to assist in moving the bins.

Each approved Mobile Bin Towing Device will be designed and manufactured to transport a minimum of up to eight (8) x 240-litre recycling bins (with the trailer), with a weight of 1,200kg's.

A manufacturers specification of both the towing device and trailer will be provided to Council. The trailer will be attached to the towing device, where required, to assist in the transporting the bins over large basement areas. Bins will be attached directly to the towing device, or attached to the trailer for towing, depending upon the bin size.

The bins will be transported to and from the bin/chute rooms along basement driveway, to the kerbside collection points along the driveway up the basement ramp to both collection points in Palmer Street and Suffolk Street, collectively. The bins will be transported in accordance with all relative work, health and safety requirements.

The towing device will be stored in the Bin Holding Room As indicated on the Architectural Drawings.

Prior to occupation, a Risk Management Assessment will be undertaken to determine the most convenient and safest method of transporting the bins.

5.6.6 Servicing Arrangements – Waste Collections

All waste services will be provided by Campbelltown City Council's waste collection contractor, using a side-loading collection vehicle.

Representatives of the Owners Corporation will be responsible for presenting the bins for servicing and returning them to the main waste storage area and the waste storage area of the respective bin rooms after collection.

All waste services will be provided twice per week. It is anticipated to service these bins on Monday and Thursday, of each week.

On the evening prior to each collection day, all 240-litre red lidded waste bins will be removed from the bin rooms in the basement, and transferred to the Suffolk Street kerbside for collection. The bins will be presented for servicing no earlier than 4.00pm on the evening prior to collection day.

All waste bins will be presented to the Suffolk Street kerbside so that the bins take up no more space than the measurements prescribed in Table 3 on page 29 of this WMP.

The bins will be returned to the applicable waste storage areas within two hours of completed servicing.

All 22 x 240 litre mobile waste bins will be presented for servicing on each collection day.

5.6.7 Servicing Arrangements – Recycling Collections

All recycling services will be provided by Campbelltown City Council's recycling collection contractor, using a side-loading collection vehicle.

Representatives of the Owners Corporation will be responsible for presenting the bins for servicing and returning them to the respective bin rooms after collection.

All recycling services will be provided fortnightly. It is anticipated that recycling bins will be serviced on the Thursday, of each fortnight.

On the evening prior to each collection day, 22 x 240 litre yellow lidded recycling bins will be removed from the bin rooms in the basement, and transferred to the Palmer Street kerbside for collection. The bins will be presented for servicing no earlier than 4.00pm on the evening prior to the collection day.

All recycling bins will be presented to the Palmer Street kerbside so that the bins take up no more space than the measurements prescribed in Table 3 on page 29 of this WMP.

The bins will be returned to the bin rooms within two hours of completed servicing.

All 22 x 240 litre mobile recycling bins will be presented for servicing on each collection day.

5.7 COMMERCIAL WASTE & RECYCLING SERVICES – CHILD CARE CENTRE

5.7.1 Waste & Recycling Generation – Child Care Centres

A Child Care Facility, of 497sqm, providing day care for 75 children, will be incorporated into the development. It will be located on the ground floor of the building, fronting Suffolk Street.

For the purposes of this WMP, all waste and recycling generation rates have been calculated in accordance with the provisions of the Better Practice Guide for Resource Recovery, published by the NSW EPA.

TABLE 4 – FORMULA FOR CALCULATION WASTE & RECYCLING GENERATION RATES FOR CHILD CARE CENTRES

SERVICE	WASTE & RECYCLING GENERATION RATES
Waste	5.0 litres of waste per child per day (5.0 litres x 75 children x 5 days)
Recycling	5.0 litres of recyclable material per child per day (5.0 litres x 75 children x 5 days)

The following table (Table 5) specifies the criteria for waste and recycling generation rates based on the above formula.

TABLE 5 – COMMERCIAL WASTE & RECYCLING GENERATION RATES & SERVICE REQUIREMENTS

SERVICE TYPE	WASTE GENERATION RATES Litres of Space / Child / Day			TOTAL SPACE REQUIRED	BIN SIZE	SERVICES PER WEEK	BINS REQUIRED	BINS PROVIDED
	Litres	Children	Days					
Waste	5.0	75	5	1,875.0	240	3	2.61	3
Recycling	5.0	75	5	1,875.0	240	3	2.61	3

5.7.2 Waste and Recycling Collection Service Provider Details

A licensed private waste and recycling collection contractor will provide all commercial waste and recycling services to the Child Care Centre.

5.7.3 Waste & Recycling Requirements

Waste and recycling requirements are provided in the table below.

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	3 x 240 litre mobile containers	Three (3) Services per Week
Recycling Service	3 x 240 litre mobile container	Three (3) Services per Week

5.7.4 Location, Design, and Construction of Child Care Waste Storage Area

A Waste Storage Area (WSA) is provided to facilitate all waste and recycling storage and collection activities.

The Commercial WSA is located next to Bin Room 1 in the basement, and provides adequate storage space for all waste and recycling bins required for the commercial (child care) component of the development.

A lockable door will be provided between the commercial bin storage area and the adjoining residential bin storage area, as required by clause 5.6.5 of Council's DCP.

All mobile waste and recycling bins required for the on-going operation of the development will be stored within the confines of this WSA.

5.7.5 Servicing Arrangements – Child Care Waste Collections

All commercial waste bins shall be serviced from the basement adjacent to the Commercial WSA.

The bins will be serviced by a licensed private contractor using a SRV collection vehicle that can adequately access the building.

Waste bins will be serviced twice weekly, on days to be determined, but not on the same days as for the residential component of the building.

All 3 x 240 litre mobile waste bins will be presented for servicing on each collection day.

The waste bins will be returned to the WSA as soon as practicable after they have been serviced.

5.7.6 Servicing Arrangements – Child Care Recycling Collections

All commercial recycling bins shall be serviced from the basement adjacent to the Commercial WSA.

The bins will be serviced by a licensed private contractor using a SRV collection vehicle that can adequately access the building.

Recycling will be serviced weekly, on a day to be determined, but not on the same days as for the residential component of the building.

All 3 x 240 litre recycling bins will be presented for servicing on each collection day.

The waste bins will be returned to the WSA as soon as practicable after they have been serviced.

5.8 GREEN WASTE

No formal green waste service will be provided to the development.

It will be the responsibility of the Owners Corporation to ensure that all green waste generated from the on-going use of the development is disposed of appropriately.

5.9 BULKY WASTE STORAGE

Secure storage spaces are required to be provided for the storage of bulk waste materials in accordance with the provisions of Part 5.4.8.3(h) of Council's DCP 2015.

Consistent with these requirements, a storage area has been provided and is located next to Bin Room 2 as indicated on the Architectural Drawings. It has a floor area of 10 square metres.

Due to design constraints, it is not possible to relocate the Bulky Waste Storage Area within 10 metres of the collection points. Notwithstanding as detailed in Part 5.8 on page, the Building Manager will be responsible for coordinating all issues and activities in relation to the storage and collection of bulky waste material, including liaising with Council officers regarding presentation requirements and scheduling arrangements.

5.10 ON GOING OPERATION, USE & MAINTENANCE OF WASTE MANAGEMENT FACILITIES

All waste management facilities will be maintained in a clean and hygienic condition that will promote the principles of health, safety and convenience.

In order to achieve these objectives, the following facilities and devices will be required: -

1. All bin storage areas will be designed and constructed in accordance with the provisions of Part 5.4.8.3 of the Campbelltown City DCP.
2. The walls and floors of the Waste Storage Areas (WSA), all Chute Rooms and all Waste and Recycling Rooms are to be constructed of smooth faced masonry or concrete, and all walls will be painted with light coloured and washable paint.
3. The junction between all floors and walls will be covered and sealed up to 100mm above the floor level, in order to eliminate the build-up of dirt and grime.
4. A floor waste, connected to the Sydney Water drainage system in accordance with that Authority's requirements, will be provided to the WSA, and all Chute Rooms, and the floors will be graded to drain into it.
5. Appropriate washing facilities will be provided to the WSA, and all Chute Rooms, including appropriate plumbing and drainage fixtures and fittings, and the provision of running water.
6. All Bin Storage Areas will be washed and cleaned on a regular basis.
7. All mobile bins will be washed and cleaned on a regular basis.
8. All 'Four Bin Carousel Systems' will be maintained on a regular basis.
9. In the event of a malfunction or technical issue that causes any of the carousel systems to breakdown or not work as it was designed to immediate arrangements will be made for its repair.
10. All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
11. Natural and mechanical ventilation will be required to be installed within the WSA in accordance with the relative provisions of the Building Code of Australia.
12. Appropriate signage will be erected within each WSA providing instruction to residents on how to use waste and recycling facilities, including what is and what is not recyclable.
13. The Owners Corporation will be responsible for ensuring that all waste and recyclable matter and materials are placed and stored within the appropriate containers provided.

PART 6 – SUMMARY

5.1 SUMMARY

In summarising this proposal, the following information is provided:

1. This Waste Management Plan (WMP) has been developed and documented in accordance with the requirements of Campbelltown Council, and in particular the Campbelltown City DCP 2015.
2. This WMP aims to promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
3. This WMP aims to ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access.
4. This WMP aims to ensure that the provision of waste and recycling services to the completed building are carried out in an efficient manner, which will promote the principles of health, safety and convenience.

This is a unique development with a unique set of arrangements for its waste management activities.

The measures set out in this WMP aim to demonstrate that all such activities will be carried out efficiently and effectively, in a healthy, safe and convenient manner, to acceptable community standards, the buildings occupants, and to the requirements of Campbelltown City Council.

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**Preliminary Site
Investigation**

14 - 20 Palmer Street, Ingleburn, NSW 2565


A&M Group 1 Pty Ltd
6 October 2021

21233 PSI



Quality Management

Document Distribution

Issue/Revision	Issue 1	Revision 1	Revision 2
Remarks	DRAFT	FINAL	
Date	6 October 2021	6 October 2021	
Prepared by	Edward Munnings	Edward Munnings	
Signature	DRAFT		
Reviewed by	Peter Moore	Peter Moore (CEnvP – Site Contamination)	
Signature	DRAFT		
File reference	21233 DRAFT PSI with Limited Testing A&M Group 1 Ingleburn 6Oct21	21233 FINAL PSI with Limited Testing A&M Group 1 Ingleburn 6Oct21	
Distribution	<ul style="list-style-type: none"> Australex Group Pty Ltd on behalf of A&M Group 1 Pty Ltd Geosyntec Electronic File 	<ul style="list-style-type: none"> Australex Group Pty Ltd on behalf of A&M Group 1 Pty Ltd Geosyntec Electronic File 	

This report was prepared in accordance with the scope of services set out in the contract between Geosyntec Consultants Pty Ltd (ABN 23 154 745 525) and the client.

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Executive Summary

Australex Group Pty Ltd (Australex), on behalf of A&M Group 1 Pty Ltd ('the Client'), commissioned Geosyntec Consultants Pty Ltd (Geosyntec) to undertake a Preliminary Site Investigation (PSI) with limited soil testing for the properties located on 14 - 20 Palmer Street, Ingleburn, NSW 2565 ('the site'), and prepare this Preliminary Site Investigation Report ('Report').

The site location is shown in Figure 1 and the site layout is shown in Figure 2, Appendix A.

It is understood that the site is proposed to be redeveloped into a five-storey residential apartment building including two levels of basement car parking and a childcare centre on the ground floor of the building. A PSI including soil testing was required for the site as part of a Development Application submission.

Key findings of the PSI with limited soil testing are presented below:

- The site and its immediate surrounds have comprised low density residential land use since at least 1961. Prior to development, the site comprised vacant rural land.
- Encountered soils consisted of brown topsoil, comprising silty sandy clay in all boreholes to a depth of 0.3m below ground level (bgl). Topsoil was underlain by light brown natural clays.
- No visual or olfactory indicators of contamination or potential asbestos-containing materials were observed in any of the borehole locations.
- The analytical results for tested in-situ soils reported concentrations of the contaminants of potential concern (COPC) below laboratory detection limits, with the exception of some heavy metals, which were present at background concentrations. All results were below the adopted human health and ecological criteria.
- A preliminary waste classification of underlying natural clay soils provides a classification of General Solid Waste (GSW) – Non-putrescible.
- Given that concentrations of the COPC were below laboratory detection limits, with heavy metals present at background concentrations, and that no sources of gross contamination were identified during review of site history and site walkover, underlying natural clay soils at the site may be classifiable as Virgin Excavated Natural Material (VENM) pending further assessment prior to or during excavations.
- Asbestos was not detected in any of the soil samples analysed. However, given the age of the buildings on site the presence of hazardous materials should not be discounted.

Based on the findings of this PSI with limited soil testing, it is concluded that the site is suitable for the proposed high-density residential land use including a childcare centre on the ground floor.

The following should be undertaken:

- A Hazardous Building Materials Survey (HAZMAT) of all existing site structures (houses and sheds) prior to demolition.
- Following demolition, undertake additional soil testing to characterise soils to confirm the above preliminary waste classification for disposal, including under building footprints.

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1 Introduction

Australex Group Pty Ltd (Australex), on behalf of A&M Group 1 Pty Ltd ('the Client'), commissioned Geosyntec Consultants Pty Ltd (Geosyntec) to undertake a Preliminary Site Investigation (PSI) with limited soil testing for the properties located on 14 - 20 Palmer Street, Ingleburn, NSW 2565 ('the site'), and prepare this Preliminary Site Investigation Report ('Report').

The site location is shown in Figure 1 and the site layout is shown in Figure 2, Appendix A.

It is understood that the site is proposed to be redeveloped into a five-storey residential apartment building including two levels of basement car parking and a childcare centre on the ground floor of the building. A PSI including soil testing was required for the site as part of a Development Application submission.

1.1 Objective

The objective of the PSI with limited soil testing was to identify the potential for land contamination to occur at the site based on desktop studies, observations made during the site walkover and soil testing. Specifically, this PSI was conducted to:

- Identify past and present potentially contaminating land use activities
- Evaluate current site condition and activities
- Observe the potential for significant contamination to occur at the site
- Conclude whether further investigation is required

1.2 Scope of Work

The scope of work included:

- A desktop review of information on site history. This included a review of historical aerial photographs, ownership title records and EPA searches
- Review of any other available historical records or information related to the site provided by the Client (if any)
- Review of the site's environmental setting with reference to published maps and groundwater searches
- A site walkover to observe current conditions of the site and surrounding area
- Drilling of five (5) boreholes in the front and back yards of the residential properties comprising the site using a hand auger to a target depth of 0.5-1.0m below ground level (bgl), to natural soils or to prior refusal.
- Collection of representative soil samples from each location, logging of soil observations and field screening based on and any visual or olfactory and indicators of contamination.
- Laboratory analysis of selected soil samples for heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc); benzene, toluene, ethylbenzene and xylenes (BTEX); total recoverable hydrocarbons (TRH); polycyclic aromatic hydrocarbons (PAH); organochlorine pesticides and asbestos (presence/absence).
- Preparation of this report outlining the results of the PSI and soil testing.



This report has generally been prepared consistent with the requirements outlined in the NSW EPA (2020) Consultants Reporting on Contaminated Land - Contaminated Land Guidelines for a Preliminary Site Investigation.

2 Site Identification and Description

This section provides detail on the site and its land use. It describes the surrounding land uses and summarises any potential sensitive receptors that were identified.

2.1 Site Identification

Table 2.1: Site Identification

Title	Details
Street Address:	14 - 20 Palmer Street, Ingleburn, NSW 2565
Property Description:	Lot B DP363519 Lot C DP363519 Lot B DP364581 Lot B DP385792
Current Site Ownership:	Unknown
Geographical Coordinates:	Lat: -34.001781° Long: 150.863992° (approx. centre)
Property Size:	Approximately 2900m ²
Local Government Area:	City of Campbelltown
Current Use:	Low-density residential properties
Proposed Use:	High density (Five-storey) residential apartment building including two levels of basement car parking and a childcare centre on the ground floor of the building.
Zoning – Existing:	R4 High Density Residential (Campbelltown Local Environment Plan 2015)

2.2 Surrounding Land Use

The land use immediately adjoining the site is described as follows:

Table 2.2: Immediate Site Surrounds

Title	Details
North:	Low density residential properties followed by Carlisle Street, more low-density residential properties and a commercial complex including a service station (175m to the north in a downgradient location relative to the site), carpark and other commercial buildings. Ingleburn Presbyterian Church is located approximately 155m to the northwest of the site and a railway line is located approximately 270m to the northwest.
East:	Palmer Street then low-density residential properties, Cumberland Road then more low-density residential properties. Ingleburn Public School is located approximately 180m to the northeast of the site.
South:	Palmer Street then low-density residential properties, Suffolk Street, Cumberland Road and more low-density residential properties.
West:	Low-density residential properties and Suffolk Street followed by more low-density residential properties.

3 General Site Condition and Surrounding Environment

The site condition information is summarised using available information presented in the Land Insight (LI) Report (as included in Appendix B).

Table 2.2: General Site Conditions

Title	Details
Topography and Drainage:	The site is positioned at approximately 10m AHD, with a regional slope to the northwest.
Boundary Condition:	The south-eastern boundary of the site comprised open front yards of the four residential properties. The south-western, north-eastern and north-western boundaries of the site comprised steel fencing between surrounding properties and Suffolk Street to the southwest.
Vegetation:	Vegetation at the site included turf covering, garden beds, shrubs and trees in the front and back yard areas of all four constituent properties. Some small trees also lined Palmer Street.
Visible Signs of Contamination:	No visible signs of contamination were observed during the site walkover.
Visible Signs of Plant Stress:	Vegetation at the site appeared to be in generally healthy condition.
Presence of Drums, Wastes and Fill Materials:	No drums or stored wastes were observed during the site inspection. Topsoil comprising silty sandy clay were observed in all borehole locations to a maximum depth of 0.3m, with no indicators of contamination observed.
Odours:	No odours were noted during the site inspection.
Condition of Buildings & Roads:	<p>The exteriors of the four residential dwellings present at the site appeared to be in generally average to poor condition. Buildings were constructed of brick, fibre cement, timber and metal exterior cladding with either tile, fibre cement or metal roofs.</p> <p>Sheds observed at 16 and 20 Palmer Street were constructed from fibre cement board and were noted to be in average to poor condition, with some areas of cracked and broken board and some holes.</p> <p>Dwelling interiors were not able to be inspected as they were occupied at the time of the site visit.</p> <p>The rear of 18 Palmer Street was not accessible for visual inspection or sampling as the premises were locked.</p>
Quality of Surface Water:	Surface water was not observed during the investigation.
Flood Potential:	Not identified.
Relevant Local Sensitive Environments:	Redfern Creek located approximately 140m to the southeast, which flows north west via the local stormwater system into Bunbury Curran Creek located approximately 1km to the northwest of the site.
Other Relevant Information:	N/A.

4 Site History

A summary of the information on site history is provided in Table 4.1 below:

Table 4.1: Summary of Site History

Title	Details
Summary of Previous Land Use & Chronological List	The site consisted of partially cleared rural land in 1947, and by 1961, the site had been developed into the four existing low density residential properties. By 1994, the layout of all four dwellings at the site appeared the same as at the time of assessment. The site remained relatively unchanged from 1994 to 2021.
Land Titles Records	<p>Land title records indicate that the following relevant historical land uses were present in the vicinity of the site:</p> <p>1965 Historical business data</p> <ul style="list-style-type: none"> • Agricultural Machinery Tractors and Parts, 39m to the southeast • Concrete – Pumping, 113m to the northeast • Engineers – Motor and Repairs, 117m to the southwest • Fibreglass Repairs and Products, 197m to the northwest • Automotive Equipment and Services, >140m to the northwest <p>1970 Historical business data</p> <ul style="list-style-type: none"> • Car retail, >140m to the northwest <p>1980 Historical business data</p> <ul style="list-style-type: none"> • Road Construction Contractors, 170m to the northwest • Engineers – General, Unknown Address Suffolk Street • Automotive Equipment and Services, >140m to the northwest <p>1990 Historical business data</p> <ul style="list-style-type: none"> • Road Construction Contractors, 170m to the northwest <p>2005 Historical business data</p> <ul style="list-style-type: none"> • Car and Truck Cleaning Products and Equipment, 79m to the southeast <p>2010 Historical business data</p> <ul style="list-style-type: none"> • Cleaning – Chemical Steam pressure Contractors, 177m to the south <p>2015 Historical business data</p> <ul style="list-style-type: none"> • Cleaning – Chemical Steam pressure Contractors, 177m to the south • Petrol Stations and Garages, 182m to the north <p>A complete list of historical business data is available in the LI Report, Appendix B.</p>
Council Records:	Not reviewed.
EPA Records:	<p>The site is not listed on the NSW EPA's register of contaminated sites and has not been notified as contaminated to the NSW EPA.</p> <p>A site located at 72 Cumberland Road, corner of Oxford Road, Ingleburn, comprising a service station, has been notified to the EPA. The EPA Site Management Class is listed as 'Regulation under CLM Act Not required'. No other sites in the immediate vicinity (1km buffer) are listed in the NSW EPA Contaminated Land Public Register. The service station is noted to be in a down gradient location relative to the site.</p> <p>The site is not listed as having any licences under the Protection of the Environment Operations (PoEO) Act.</p> <p>The following PoEO Act licences were identified in the vicinity of the site, associated with the railway line located approximately 270m to the northwest of the site:</p> <ul style="list-style-type: none"> • Licence for Railway structure operations and Rolling stock operations (Sydney Trains) • Licence for Railway structure operations (John Holland Rail Pty Ltd) • Licence for Rolling stock operations (Qube Logistics (Rail) Pty Ltd)

Title	Details
	One licence for 'Crushing, grinding or separating, Land-based extractive activity' is noted to have been previously issued and since surrendered (CPB Contractors Pty Ltd), however the location of these past activities in relation to the site is unknown.
Summary of Aerial Photographs (on site and adjacent sites):	<p>1947: The site comprises partially cleared rural land, including several trees and dirt tracks. Surrounding areas consist of a mixture of partially cleared rural land and low density / rural residential properties. Dirt tracks are present in the locations of Palmer Street to the southeast and Suffolk Street to the southwest of the site. Other roads including Cumberland Road are also present as dirt roads. The railway line is present to the far northwest of the site.</p> <p>1961: The site has been developed and comprises four low density residential dwellings. Surrounding areas have been developed extensively into low density residential properties, including the adjoining properties to the immediate north, as well as to the southwest and southeast. Many of the streets around the site appear to have been sealed with the exception of Palmer Street which appears to remain unsealed. Ingleburn Public School is present to the northeast of the site.</p> <p>1969 - 2002: The site and surrounding areas remain largely unchanged, with further development to residential and commercial areas occurring in surrounding areas.</p> <p>2008-2021: The site and surrounding areas remain largely unchanged from the previous aerial photograph, with some minor changes including redevelopment of an outdoor recreation area at Ingleburn Public School.</p> <p>Historical aerial photographs are presented in Appendix C.</p>
SafeWork NSW Dangerous Goods Licenses/ USTs/ ASTs:	A dangerous goods search was not completed as part of the investigation. No evidence of Underground or Aboveground Storage Tanks (USTs/ASTs) was observed or reported to be on site.
Inventory of Chemicals and Wastes and their Location:	No stored chemicals were observed at the site other than some containers of paint and automotive fluids / oils in the garage of 20 Palmer Street, all of which were observed to be sealed and in upright position.
Description of Manufacturing / Industrial Processes and Location:	No manufacturing or industrial activities are or appear to have been carried out at the site.
Product Spill and Loss History:	No documentation or discussion regarding spill or product loss was available.
Discharges to Land, Air & Water:	No documentation regarding discharge to land, air and water was available for review.
Complaint History:	No documentation regarding complaint history was available for review.
Sewer and Service Plans:	No service plans were reviewed as part of this investigation.
Local Site Knowledge:	Not available.
Local Literature Review:	Not available.
Permits, Licenses and Approvals:	None provided for the site.
Previous Assessment	Not available.
Integrity Assessment	Reviewed sources of information were in general agreement with information provided from the current site owner. The degree of consistency suggests that the historical assessment described above has an appropriate level of accuracy.

5 Geology, Hydrogeology and Hydrology

The geology, hydrogeology and hydrology are summarised in this section. This information has been sourced from Geological and Soil Landscape sheets, and the NSW Natural Resource Atlas for groundwater bores registered and located in the vicinity of the site.

Table 5.1: Summary of Geology, Hydrogeology and Hydrology

Title	Details
Geology Map Conditions:	According to the Wollongong – Port Hacking 1:100000 Geological Sheet, the site is located on Ashfield Shale formation of the Wianamatta Group, consisting of black to light grey shale and laminate.
Soil Map Conditions:	The site is located on Blacktown Soil landscape, comprising shallow to moderately deep (>1m) hardsetting mottled texture contrast soils, red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and in drainage lines.
Acid Sulfate Soils:	The site is not listed as having an acid sulfate soil (ASS) class on the ASS Risk Map, and is listed as having extremely low probability of occurrence on the National Acid Sulfate Soil Atlas.
Salinity:	No salinity hazard was identified at the site.
Location of Fill Materials:	Topsoil fill soils were observed at all borehole locations to a maximum depth of 0.3m, with no visual or olfactory indicators of contamination observed.
Summary of Registered Bores:	Seven registered bores were identified within a 500m buffer, ranging between 164m and 361m from the site, to the north, northeast and east. All bores were listed as being used for monitoring purposes.
Depth to Groundwater:	Site specific groundwater depth was not available for the site. Four of the bores identified within a 500m buffer had listed standing water levels of 2.9m. These were located between 164m and 191m from the site to the north and northeast.
Direction and Rate of Groundwater Flow:	Groundwater is expected to follow the local topography, flowing towards the north east.
Use of Water Abstraction:	Available information does not indicate that water abstraction takes place on the site.
Nearest Water Body:	Redfern Creek located approximately 140m to the southeast, which flows via the local stormwater system into Bunbury Curran Creek located approximately 1km to the northwest of the site.
Direction of Surface Water Run Off:	Surface water at the site is expected to flow into the local stormwater system on Palmers Street, with some water also expected to infiltrate into site soils in unsealed front and back yard areas.
Background Water Quality:	Not available.
Preferential Water Courses:	Downgradient into the local stormwater system.
Summary of Local Meteorology:	Mean Max Temp: 23.5°C Mean Min Temp: 11.2°C Mean Rainfall: 706.5mm

6 Sampling Analysis and Quality Plan

6.1 Data Quality Objectives

The data quality objectives (DQO) process is a systematic planning tool based on the scientific method for establishing criteria for data quality and for developing data collection designs. The DQO defines the experimental process required to test a hypothesis. By using the DQO process to plan the investigation effort, the relevant parties can improve the effectiveness, efficiency and defensibility of a decision in a resource and cost-effective manner.

The DQO process consists of seven steps, which are designed to clarify the study objectives, define the appropriate type of data and specify tolerable levels of potential decision errors. The seven-step DQO process adopted for the works was as follows:

- Step 1 – Defining the Problem. The first step in the DQO process is to 'define the problem' that has initiated the investigation;
- Step 2 – Identify the Decision. The second step in the process is to define the decision statement that the study will attempt to resolve;
- Step 3 – Identify Inputs to the Decision. In this step, the different types of information needed to resolve the decision statement are identified;
- Step 4 – Define the Study Boundaries;
- Step 5 – Develop a Decision Rule;
- Step 6 – Specify Limits on Decision Errors; and
- Step 7 – Optimise the Design for obtaining the Data.

These Steps have been followed for the investigation, with DQO and DQI presented in Appendix F.

6.2 Sampling and Analysis Plan

The rationale behind the sampling and analysis plan is presented in the sections below.

6.2.1 Sampling Pattern

Soil sampling was limited to the front and back yards of the constituent properties, as the central portions of each of the four properties were occupied by dwellings.

Boreholes BH1 to BH7 were positioned based on accessibility and to provide general coverage across all the properties.

Soil investigation locations are shown on Figure 2.

6.2.2 Soil Sampling Methodology

Soil sampling was carried out using a hand auger. The soil sampling methodology involved the following:

- Ground conditions were logged with detail on stratigraphy, any discolouration, staining, odours, moisture or other indicators of contamination.
- Soil samples were taken with clean disposable nitrile gloves directly from the auger with care taken to collect soil that had not come in contact with the auger blade. Samples were then placed in laboratory-supplied sample containers with Teflon sealed lid.
- Samples were placed in an iced Esky to cool samples.



- Containers were labelled with the sample number, project number and date with samples despatched under a chain of custody.
- Samples were transported to the primary laboratory, Eurofins in Sydney, after the completion of soil sampling activities to allow technical holding times for analysis to be achieved and to minimise any interference with the samples.

6.2.3 Analytical Schedule

Soil samples were analysed for contaminants of potential concern: heavy metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, and xylene (BTEX), polycyclic aromatic hydrocarbons (PAH), organochlorine pesticides (OCP) and asbestos. Results summary tables are presented in Table 1, Appendix D and laboratory certificates are presented in Appendix I.

6.2.4 Field Quality Assurance / Quality Control (QA/QC) Sampling

No field QA/QC samples were collected given that soil sampling was preliminary in nature.

7 Evaluation of QA/QC

Field QA/QC

Soil samples were taken with clean disposable nitrile gloves directly from the hand-auger with care taken to collect soil that had not come in contact with the auger stem. Samples were then placed in laboratory-supplied sample containers with Teflon sealed lid.

Laboratory QA/QC

Samples were received by the primary laboratory at suitably low temperatures and analysed within sample holding times.

Detailed QA/QC results are presented on the laboratory testing certificates presented in Appendix I and summarised in Appendix H.

Based on the above, it is concluded that the data collected is considered suitable for the purposes of this assessment.

8 Site Assessment Criteria

8.1 Site Suitability Assessment Criteria

The adopted criteria have been selected based on the proposed future land use consisting of a five-storey residential apartment building including two levels of basement car parking and a childcare centre on the ground floor of the building.

The following low-density residential land use criteria has been adopted given the proposed childcare centre on the ground floor, which is regarded as a sensitive land use, as required by the National Environment Protection Council (NEPC) National Environment Protection (Assessment of Site Contamination) Measure (NEPM (2013)):

- NEPM (2013) Health Investigation Levels (HIL) and Health Screening Levels (HSL) for Residential land uses with garden/accessible soil, also including children's day care centres, preschools and primary schools (HIL-A). Coarse soil criteria (0 to <1m) has been adopted for both the silty sandy clay topsoil fill and natural clay soils as a conservative measure.
- NEPM (2013) Ecological Investigation Levels (EIL) and Ecological Screening Levels (ESL) for Urban Residential and Public Open Space land use.
- NEPM (2013) Management Limits for Total Recoverable Hydrocarbons for Residential, Parkland and Public Open Space land use for coarse soils as a conservative measure.

The most conservative ecological criteria have been adopted. It is noted that ecological soil criteria are only considered applicable to site areas proposed to contain vegetation and ecological receptors potentially exposed to site soils (if present), and would apply to any landscaped areas proposed for the development.

Table 8.1: Adopted Soil Criteria (mg/kg)

Criteria	Soil HIL A Residential	Soil HSL A&B for 0m to <1m Depth and Sand Soil Type	Soil EIL B Urban Residential and Public Open Space	Soil ESL Urban Residential and Public Open, Coarse Soil Type	Hydrocarbon Management Limits for Residential, parkland and public open space, Coarse Soil Type
TRH					
F1	-	45	-	180	700
F2	-	110	-	120	1,000
F3 (>C16-C34)	-	-	-	300	2,500
F4 (>C34-C40)	-	-	-	2,800	10,000
BTEX					
Benzene	-	0.5	-	50	-
Toluene	-	160	-	85	-
Ethylbenzene	-	55	-	70	-
Xylenes (Total)	-	40	-	105	-
PAHs					
Naphthalene	-	3	170	-	-
Benzo(a)pyrene	3	-	-	0.7	-
Total PAHs	300	-	-	-	-

Criteria	Soil HIL A Residential	Soil HSL A&B for 0m to <1m Depth and Sand Soil Type	Soil EIL B Urban Residential and Public Open Space	Soil ESL Urban Residential and Public Open, Coarse Soil Type	Hydrocarbon Management Limits for Residential, parkland and public open space, Coarse Soil Type
Heavy Metals					
Arsenic	100	-	100	-	-
Cadmium	20	-	-	-	-
Chromium (VI)	100	-	190	-	-
Copper	6,000	-	95	-	-
Lead	300	-	1,100	-	-
Mercury	40	-	-	-	-
Nickel	400	-	30	-	-
Zinc	7,400	-	70	-	-
OCPs					
DDT+DDE+DDD	240	-	-	-	-
DDT	-	-	180	-	-
Aldrin and dieldrin	6	-	-	-	-
Chlordane	50	-	-	-	-
Endosulfan	270	-	-	-	-
Endrin	10	-	-	-	-
Heptachlor	6	-	-	-	-
HCB	10	-	-	-	-
Asbestos					
Asbestos	Presence	-	-	-	-

8.2 Preliminary Waste Classification Assessment Criteria

Given that excavation and disposal of fill material will be required as part of the proposed development, soil results were also compared against NSW Environment Protection Authority (EPA) Waste Classification Criteria found in the NSW EPA (2014) Waste Classification Guidelines Part 1: Classifying Waste. Waste Classification Contaminant Threshold 1 (CT1), Specific Contaminant Concentration 1 (SCC1) and Toxicity Characteristic Leaching Procedure 1 (TCLP1) criteria for General Solid Waste (GSW) are displayed in Table 7.2. The relevant Waste Classification are listed below:

- NSW EPA Waste Classification CT1 Criteria for GSW
- NSW EPA Waste Classification TCLP1 and SCC1 Criteria for GSW. It is noted that no leachate testing was included given the preliminary nature of the waste classification assessment. If any results are above CT1 criteria, TCLP testing would be required to assess for GSW against TCLP1 and SCC1 criteria.

Table 7.2. Waste Classification Criteria for General Solid Waste.

NSW EPA (2014) General Solid Waste	CT1 (mg/kg)	TCLP1 (mg/L)	SCC1 (mg/kg)
TPH			
TPH C ₆ – C ₉ Fraction	650	N/A	650
TPH C ₁₀ – C ₂₆ Fraction	10,000	N/A	10,000
BTEX			
Benzene	10	0.5	18
Toluene	288		
Ethylbenzene	600	30	1080
Xylenes (Total)	1,000	50	1,800
PAHs			
Benzo (a) Pyrene	0.8	0.04	10
Total PAHs	200	N/A	200
Heavy Metals			
Arsenic	100	5.0	500
Cadmium	20	1.0	100
Chromium (VI)	100	5.0	1,900
Lead	100	5	1,500
Mercury	4	0.2	50
Nickel	40	2	1050
PCBs			
Total PCBs	<50	N/A	<50
Pesticides			
Total Pesticides	250	N/A	250

9 Field Observations and Laboratory Results

9.1 Field Observations

A site walkover was conducted by a Geosyntec Environmental Scientist on 22 September 2022. Photographs taken of relevant site features are presented in Appendix E. Soil observations are presented in borehole logs in Appendix F.

At the time of site walkover, the site comprised four low density residential properties, each with a main dwelling, front yard and back yard. The following observations were made:

- General Observations
 - Surfaces of front and back yard areas consisted of turf, with some concrete pathways and concrete foundations of sheds where present.
 - Encountered soils consisted of brown topsoil, comprising silty sandy clay in all boreholes to a depth of 0.3m below ground level (bgl). Topsoil was underlain by light brown natural clays to end depth (maximum 0.9m bgl).
 - No visual or olfactory indicators of contamination or potential asbestos-containing materials were observed in any of the borehole locations.
 - Building interiors were not accessible for inspection with the exception of the garage at 20 Palmer Street.
- 14 Palmer Street
 - The main dwelling was constructed of timber with tile roofing.
 - A shed constructed with timber and fibre-cement board walls was present along the south-western boundary of the back yard and appeared to be in average condition.
 - A brick barbeque / fireplace was present in the northwest of the back yard.
 - A brick garden bed was present in the eastern portion of the back yard beside the main dwelling.
- 16 Palmer Street
 - The main dwelling was constructed of timber with tile roofing.
 - A shed constructed with fibre-cement board walls was present along the the south-western boundary of the back yard, and appeared to be in average to poor condition, with some cracked and broken areas with missing fragments.
 - A smaller steel shed was also present in the northeast of the back yard.
 - A brick fireplace was present in the north-western portion of the back yard.
- 18 Palmer Street
 - The main dwelling was constructed of timber with tile roofing.
 - The back yard of 18 Palmer Street was not accessible at the time of the site visit.
 - A shed is noted to be present in the back yard based on aerial photographs, however it is unknown what materials this is constructed with given the back yard was inaccessible.
- 20 Palmer Street
 - The main dwelling was constructed of brick with fibre-cement roofing. Fibre-cement board cladding was also observed in the eaves of some parts of the building.

- A shed constructed with fibre-cement board walls was present in the northwest of the back yard, and appeared to be in average to poor condition, with some cracked and broken areas with missing fragments.
- Two steel under-cover areas with a paved surface were present in the northeast of the back yard.
- A garden bed approximately of 2mx2m was present in the middle of the back yard and was overgrown with weeds and grasses.
- A brick barbeque / fireplace was present on a concreted area in the southern part of the site between the main dwelling and the southwestern site boundary.
- The garage was open and accessible, and observed to be in a well-kept condition. Some containers of household chemical, automotive fluids / oils and paints were observed, and noted to be sealed and in upright position. No indication of leakage or spillage was observed. Various other household items were observed including tyres, tools and two lawn mowers.
- During the site walkover, the following offsite activities were observed:
 - Land use in the immediate vicinity of the site consisted of low density residential use.
 - A service station is located approximately 175m to the north of the site, however this is noted to be in a downgradient location relative to the site and therefore unlikely to impact the site.
 - No dry cleaners or industrial activities were observed in the immediate vicinity.

9.2 Laboratory Results

9.2.1 Site Suitability

The analytical results for tested in-situ soils at the site reported concentrations of the contaminants of potential concern (COPC) below laboratory detection limits, with the exception of some heavy metals, which were present at background concentrations. All results were below the adopted human health and ecological criteria.

9.2.2 Preliminary Waste Classification

Analytical results were also assessed against NSW EPA (2014) Waste Classification Criteria to provide a preliminary waste classification for underlying natural clay soils. This was done as part of the five-step waste classification process presented in the NSW EPA (2014) Waste Classification Guidelines Part 1: Classifying Waste. Preliminary waste classification of tested natural clay soils at the site is presented below in Table 9.1.

Table 9.1. Preliminary Waste Classification

NSW EPA (2014) Waste Classification Guidelines – Part 1: Classifying Waste Steps

Is the waste special waste?	No. No materials classified as special waste were observed (e.g. asbestos containing fibre cement fragments)
Is the waste liquid waste?	No.
Is the waste pre-classified?	No.
Does the waste possess hazardous characteristics?	No.



NSW EPA (2014) Waste Classification Guidelines – Part 1: Classifying Waste Steps

Determining a waste's classification using chemical assessment	All results were below CT1 criteria for general solid waste.
Is the waste putrescible or non-putrescible?	Non-putrescible.
Preliminary Waste classification	General Solid Waste (GSW) – Non-putrescible
	Given that concentrations of the COPC were below laboratory detection limits, with heavy metals present at background concentrations, and that no sources of gross contamination were identified during review of site history and site walkover, underlying natural clay soils at the site may be classifiable as Virgin Excavated Natural Material (VENM) pending further assessment during bulk excavations.

Soil analytical data is summarised in Appendix D, and copies of laboratory certificates are provided in Appendix I.



10 Conceptual Site Model

The conceptual site model is provided in the table below.

Table 10.1. Conceptual Site Model

Activity & Potential Contaminants	Potentially Affected Media	Potential Human and Ecological Receptors	Potential Exposure Pathways	Discussion
Historic land use.	<ul style="list-style-type: none"> • Soil • Surface Water • Groundwater 	<p>Potential human receptors may include:</p> <ul style="list-style-type: none"> • Current site occupants and visitors. • Future occupants, intrusive maintenance workers, site users and visitors. <p>Potential ecological receptors may include:</p> <ul style="list-style-type: none"> • Bunbury Curran Creek. 	<p>Potential exposure pathways include:</p> <ul style="list-style-type: none"> • Accidental ingestion of soil or groundwater. • Accidental inhalation of soil. • Dermal contact with soil and/or groundwater. • Leaching of fill materials to the underlying groundwater. 	<p>No evidence of contaminants above adopted criteria were identified at the site.</p> <p>Furthermore, soils are anticipated to require removal as part of the development for underground basement car parking, preliminary assessment has classified the soils as VENM and General Solid Waste. Further assessment of soils including those underlying building footprints should be undertaken after demolition works and prior to earthworks commencing.</p>
Total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylene (BTEX), heavy metals (cadmium, arsenic, copper, lead, mercury), polycyclic aromatic hydrocarbons (PAHs), pesticides and asbestos.	<ul style="list-style-type: none"> • Soil 	<p>Potential human receptors may include:</p> <ul style="list-style-type: none"> • Current site occupants and visitors. • Future occupants, intrusive maintenance workers, site users and visitors. 	<p>Potential exposure pathways include:</p> <ul style="list-style-type: none"> • Inhalation of dust containing asbestos / SMF fibres or lead. 	<p>Given the age of the onsite structures (constructed between the 1960s and 1990s), fibre-cement board used in roofing, sheds, eaves and other areas is likely to contain asbestos.</p>
Demolition of previous site structures / Degradation of existing site structures	<ul style="list-style-type: none"> • Soil 	<p>Potential human receptors may include:</p> <ul style="list-style-type: none"> • Current site occupants and visitors. • Future occupants, intrusive maintenance workers, site users and visitors. 	<p>Potential exposure pathways include:</p> <ul style="list-style-type: none"> • Inhalation of dust containing asbestos / SMF fibres or lead. 	<p>A hazardous materials inspection of all four residential dwellings and associated sheds would help to identify any potential asbestos or other hazardous building materials.</p>
Heavy metals and asbestos				

11 Conclusions

Geosyntec completed a PSI with limited soil testing for the properties located on 14 - 20 Palmer Street, Ingleburn, NSW 2565 ('the site'). The purpose of the investigation was to identify the potential for land contamination to occur at the site based on desktop studies, observations made during the site walkover and soil testing. Key findings of the PSI with limited soil testing are presented below:

- The site and its immediate surrounds have comprised low density residential land use since at least 1961. Prior to development, the site comprised vacant rural land.
- Encountered soils consisted of brown topsoil, comprising silty sandy clay in all boreholes to a depth of 0.3m below ground level (bgl). Topsoil was underlain by light brown natural clays.
- No visual or olfactory indicators of contamination or potential asbestos-containing materials were observed in any of the borehole locations.
- The analytical results for tested in-situ soils reported concentrations of the contaminants of potential concern (COPC) below laboratory detection limits, with the exception of some heavy metals, which were present at background concentrations. All results were below the adopted human health and ecological criteria.
- A preliminary waste classification of underlying natural clay soils provides a classification of General Solid Waste (GSW) – Non-putrescible.
- Given that concentrations of the COPC were below laboratory detection limits, with heavy metals present at background concentrations, and that no sources of gross contamination were identified during review of site history and site walkover, underlying natural clay soils at the site may be classifiable as Virgin Excavated Natural Material (VENM) pending further assessment prior to or during excavations.
- Asbestos was not detected in any of the soil samples analysed. However, given the age of the buildings on site the presence of hazardous materials should not be discounted.

Based on the findings of this PSI with limited soil testing, it is concluded that the site is suitable for the proposed high-density residential land use including a childcare centre on the ground floor.

The following should be undertaken:

- A Hazardous Building Materials Survey (HAZMAT) of all existing site structures (houses and sheds) prior to demolition.
- Following demolition, undertake additional soil testing to characterise soils to confirm the above preliminary waste classification for disposal, including under building footprints.

12 References

CSIRO Atlas of Australian Soils Data Source, <http://www.asris.csiro.au/themes/Atlas.html>

DECCW (2016) UPSS Regulation Sensitive Zone Map, <http://www.epa.nsw.gov.au/your-environment/contaminated-land/preventing-contaminated-land/upss/upss-exemptions/sensitive-zone-maps>

NEPM (2013) National Environment Protection (Assessment of Site Contamination) Measure, Schedule A and Schedules B(1)-B(9). National Environment Protection Council, Adelaide.

NSW EPA (2020) Consultants Reporting on Contaminated Land - Contaminated Land Guidelines.

13 Limitations

This report has been prepared by Geosyntec Consultants Pty Ltd ("Geosyntec") for use by the Client who commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the Client and other parties. The findings of this report are based on the scope of work outlined in Section 1. The report has been prepared specifically for the Client for the purposes of the commission, and use by any explicitly nominated third party in the agreement between Geosyntec and the Client. No warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party (other than where specifically nominated in an agreement with the Client).

This report relates to only this project and all results, conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be reproduced without prior approval by the Client, or amended in any way without prior written approval by Geosyntec.

Geosyntec's assessment was limited strictly to identifying environmental conditions associated with the subject property area as identified in the scope of work and does not include evaluation of any other issues.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigation.

This report does not comment on any regulatory obligations based on the findings. This report relates only to the objectives stated and does not relate to any other work conducted for the Client.

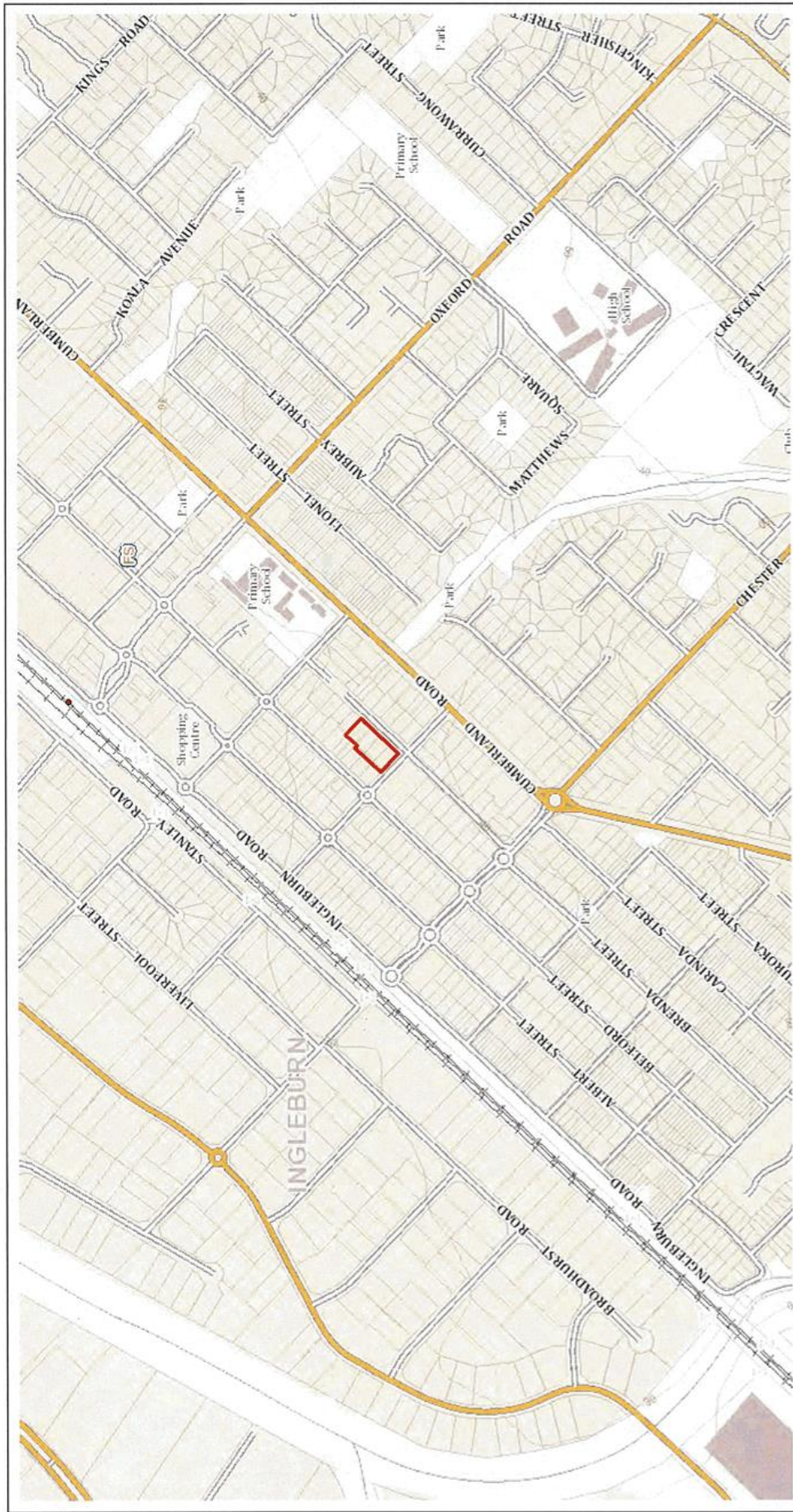
The absence of any identified hazardous or toxic materials on the site should not be interpreted as a guarantee that such materials do not exist on the site.

All conclusions regarding the site are the professional opinions of the Geosyntec personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, Geosyntec has not independently verified and assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Geosyntec, or developments resulting from situations outside the scope of this project.

Geosyntec is not engaged in environmental assessment and reporting for the purpose of advertising sales promoting, or endorsement of any client interests, including raising investment capital, recommending investment decisions, or other publicity purposes. The Client acknowledges that this report is for its exclusive use.

Appendix A Figures

21233 PSI



LEGEND
 Site Boundary

Figure 1: Site Location
 Preliminary Site Investigation

Site Address: 14 - 20 Palmer Street, Ingleburn, NSW 2565

Client: A&M Group 1 Pty Ltd
 Job Number: 21233
 Date: September 2021

Approx. 150 m
 Datum: GDA 1994 MGA Zone 56 - AHD

This product has been created to support the main report and is not suitable for other purposes. Image courtesy of SixMaps

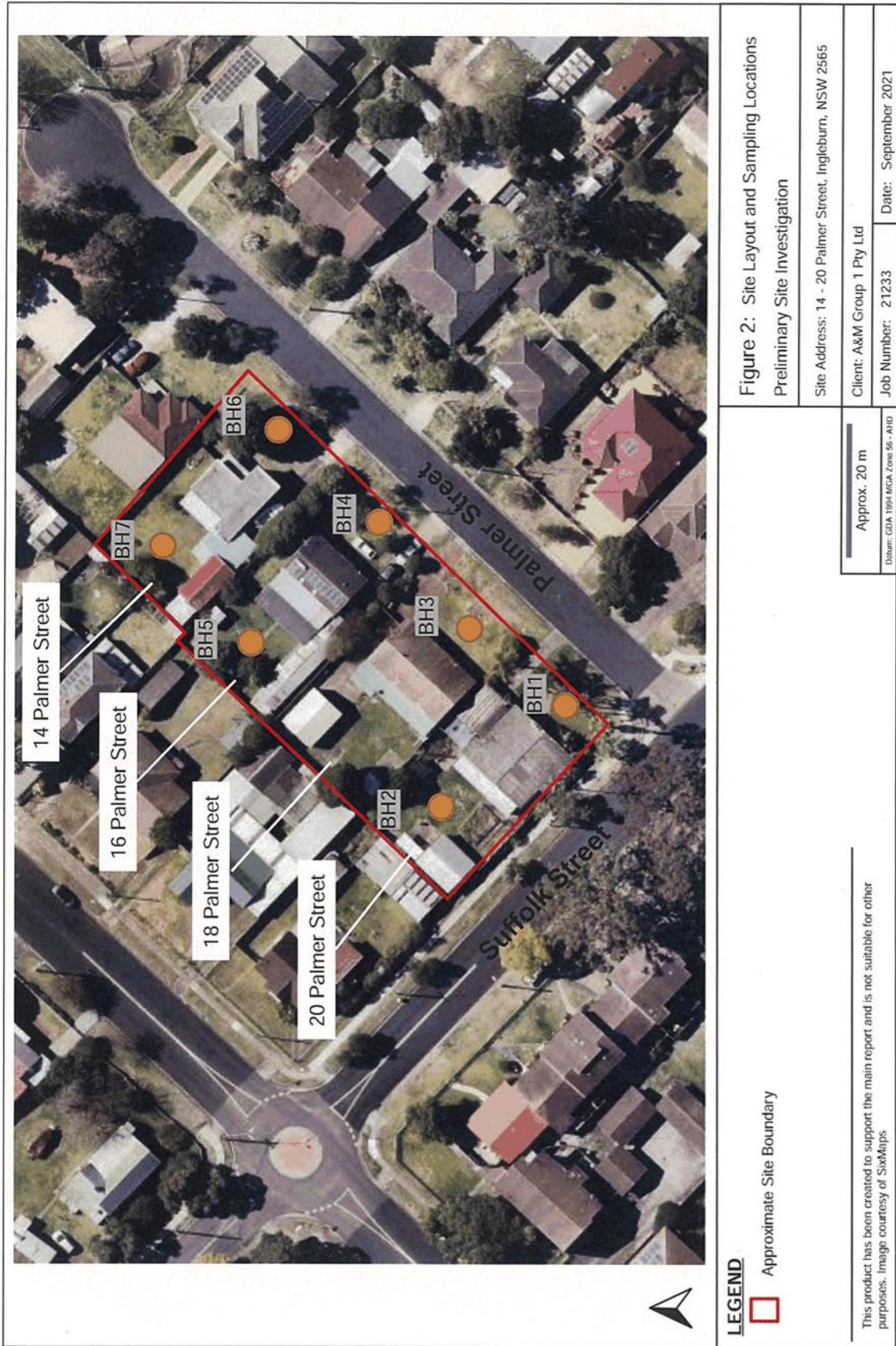


Figure 2: Site Layout and Sampling Locations
 Preliminary Site Investigation
 Site Address: 14 - 20 Palmer Street, Ingleburn, NSW 2565
 Client: A&M Group 1 Pty Ltd
 Job Number: 21233
 Date: September 2021

LEGEND
 Approximate Site Boundary

Approx. 20 m
Datum: GDA 1994 MGA Zone 56 - AHID

This product has been created to support the main report and is not suitable for other purposes. Image courtesy of SixMaps





Appendix B Background Searches

21233 PSI



Due Diligence Insight Report

14-20 Palmer Street
Ingleburn, NSW

21 September 2021





Understanding your report

Your Report has been produced by Land Insight and Resources (Land Insight).

Your Report is based on information available from public databases and sources at the date of reporting. The information gathered relates to land that is within a 200 to 2000m radius (buffer zone) from the boundaries of the Property. A smaller or larger radius may be applied for certain records (as listed under records and as shown in report maps).

While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information or data provided.

The report provided by Land Insight includes data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact info@liresources.com.au

The report does not include title searches; dangerous good searches or; property certificates (unless requested); or information derived from a physical inspection, such as hazardous building materials, areas of infilling or dumping/spilling of potentially contaminated materials. It is important to note that these documents and an inspection can contain information relevant to contamination that may not be identified by this Report.

Due to the ongoing nature of database development and frequency of updates provided by various state government regulators the data displayed within this report is only current from date of production.

This Report, and your use of it, is regulated by Land Insight's Terms and Conditions (See Land Insight's Product Guide).

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ATTACHMENTS

Attachment A - Report Maps

Attachment B - Historical Imagery

Land Insight Product Guide and Terms and Conditions

SUMMARY

 Section 1	PROPERTY SETTING	Identified
Sensitive Receptors Planning Control Heritage Soil and Land Information Geology and Topography		
 Section 2	HYDROGEOLOGY	Identified
Aquifer Groundwater Bores and Other Borehole investigations Groundwater Dependent Ecosystems (GDE) Hydrogeology Units Wetlands		
 Section 3	ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS	Identified
Contaminated Land Public Register Sites Regulate by Other Jurisdictional Body (Former Gaswork sites / PFAS sites) Licensing and Regulated Sites National Pollutant Inventory (NPI)		
 Section 4	POTENTIALLY CONTAMINATED AREAS	Identified
Former Potentially Contaminated Land Current and Historical Potentially Contaminating activities (PCA)		
 Section 5	NATURAL HAZARDS	Identified
Erosion risk Bushfire prone land Fire history Flood hazards		



Section 1 Property Setting



1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Category	Distance (m)	Direction
Ingleburn Public School	School Education	182.0	North-east
Presbyterian Church in NSW Ingleburn	Places of Worship & Religious Organisations	155.0	North-west

1.2 PLANNING CONTROLS

Map 1.2 (onsite)

Zoning

Code	Zoning	Details
R4	High Density Residential	Campbelltown Local Environmental Plan 2015

Environmental Planning Instruments

Type	Category	Details
Former LEP and IDO Boundaries	Miscellaneous	Campbelltown Local Environmental Plan 2015
Wind Turbine Buffer Zone Map	Miscellaneous	State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

Other Planning Information

Type	Category	Details
Not identified	-	-

1.3 HERITAGE**Map 1.3 (200m Buffer)****State and Local Heritage**

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Australian Heritage Database

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Commonwealth Heritage List, National Heritage List and World Heritage Area.

1.4 SOIL AND LAND USE INFORMATION**Map 1.4a/1.4b (onsite)****Soil Landscape**

Soil Landscape	REbt	RESIDUAL	Soil Group	BLACKTOWN
Description	<p>Landscape—gently undulating rises on Wianamatta Group shales. Local relief to 30 m, slopes usually >5%. Broad rounded crests and ridges with gently inclined slopes. Cleared Eucalypt woodland and tall open-forest (dry sclerophyll forest).</p> <p>Soils—shallow to moderately deep (>100 cm) hardsetting mottled texture contrast soils, red and brown podzolic soils (Dr3.21, Dr3.31, Db2.11, Db2.21) on crests grading to yellow podzolic soils (Dy2.11, Dy3.11) on lower slopes and in drainage lines.</p> <p>Limitations—localised seasonal waterlogging, localised water erosion hazard, moderately reactive highly plastic subsoil, localised surface movement potential.</p>			

Salinity

Salinity Hazard	Not identified	-
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Radon

Radon Level	Bq/m ³	7
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Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

Acid Sulfate Soil

ASS Risk Map (Table 1.4.1)	On the Property?	Within Buffer?
Class	Not identified	Not identified

National Acid Sulfate Soils Atlas

Atlas of Australian ASS (Table 1.4.2)	Cq(p4)	ASS in inland lakes, waterways, wetlands and riparian zones	Probability of Occurrence	Extremely low probability of occurrence
--	--------	---	---------------------------	---

Table 1.4.1. Classification scheme in the ASS Planning Maps

Class of Land as shown on ASS Planning Maps	
1	Any works.
2a	Works below the natural ground surface. Works by which the watertable is likely to be lowered.
2b	Works other than ploughing below the natural ground surface. Works by which the watertable is likely to be lowered.
3	Works more than 1 metre below the natural ground surface. Works by which the watertable is likely to be lowered more than 1 metre below the natural ground surface.
4	Works more than 2 metres below the natural ground surface. Works by which the watertable is likely to be lowered more than 2 metres below the natural ground surface.
5	Works within 500 metres of adjacent Class 1, 2a, 2b, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2a, 2b, 3 or 4 land.

For each class of land, the maps identify the type of works likely to present an environmental risk if undertaken in the particular class of land. If these types of works are proposed, further investigation is required to determine if ASS are actually present and whether they are present in such concentrations as to pose a risk to the environment.

Table 1.4.2. Atlas of Australian Acid Sulfate Soils¹ (ASRIS) (CSIRO/NatCASS)

Probability of Occurrence of ASS ¹	
A	High Probability of occurrence - (>70% chance of occurrence in mapping unit)
B	Low Probability of occurrence - (6-70% chance of occurrence in mapping unit)
C	Extremely low probability of occurrence - (1-5% chance of occurrence in mapping unit)
D	No probability of occurrence - (<1% chance of occurrence in mapping unit)
x	Disturbed ASS ¹ terrain - (ASS ¹ material present below urban development).
u	Unclassified - (Insufficient information to classify map unit)
Zones	
a	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).
b, c	Potential acid sulfate soil generally within upper 1 m.
c, d, e	ASS ¹ generally within upper 1 m.
f	ASS ¹ generally below 1 m from the surface
g	ASS ¹ , generally below 3 m from the surface.
h	ASS ¹ generally within 1 m of the surface.
i, j	ASS ¹ generally below 1 m of the surface.
k	ASS ¹ material and/or Monosulfidic Black Ooze (MBO).
l, m, n, o, p, q	ASS ¹ generally within upper 1 m in wet / riparian areas.
Subscripts to codes	
(a)	Actual acid sulfate soil (AASS) = sulfuric material.
(p)	Potential acid sulfate soil (PASS) = sulfidic material.
(q)	Monosulfidic Black Ooze (MBO) is organic ooze enriched by iron monosulfides.
Confidence levels	
(1)	All necessary analytical and morphological data are available
(2)	Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence
(3)	No necessary analytical data are available, but confidence is fair, based on a knowledge of similar soils in similar environments
(4)	No necessary analytical data are available, and classifier has little knowledge or experience with ASS, hence classification is provisional

¹Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics (Pons 1973). Acid sulfate soil (ASS) may include PASS or AASS + PASS. Potential acid sulfate soil (PASS) = sulfidic material. Actual acid sulfate soil (AASS) = sulfuric material.

1.5 GEOLOGY AND TOPOGRAPHY

Map 1.5 (onsite)

Geology

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description
Wollongong-Port Hacking 100k mod. by Southern CF 100K	Twia	Ashfield Shale	Middle Triassic	Wianamatta Group	Shale	Black to light grey shale and laminite.

Naturally Occurring Asbestos Potential (NOA)

Category	On the Property?	Within Buffer?
Not identified	-	-

Topography

Topography	40 mAHD
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Section 2 Hydrogeology



2.1 HYDROGEOLOGY AND GROUNDWATER BORES

Map 2.1 (2000m Buffer)

	On the Property?	Within Buffer?
Aquifer Type	Porous, extensive aquifers of low to moderate productivity	Porous, extensive aquifers of low to moderate productivity
Drinking Water Catchments	Not identified	Not identified
Protected Riparian Corridor	Not identified	Bunbury Curran Creek
UPSS Environmentally Sensitive Zone	Not identified	Sydney Coast-Georges River
Wetlands	Not identified	Not identified

Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
9	GW112958	Monitoring	1/09/2012	7.0	7.0	2.9			164.3	North
7	GW112956	Monitoring	1/09/2012	7.0	7.0	2.9			178.6	North
10	GW112959	Monitoring	1/09/2012	7.0	7.0	2.9			180.3	North-east
8	GW112957	Monitoring	1/09/2012	7.0	7.0	2.9			190.5	North
3	GW110665	Monitoring	23/09/2007	10.0	10.0				348.2	North-east
5	GW110666	Monitoring	23/09/2009	10.0	10.0				353.3	East
4	GW110664	Monitoring	23/09/2009	10.0	10.0				361.1	North-east
1	GW100295	Household	15/07/1994	50.0	50.0	12	Good	0.45	1252.6	North-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
6	GW031197	Irrigated agriculture	1/01/1967		1.8		invalid code		1384.9	North-west
11	GW104349	Household	28/06/2002	60.5	60.5	1.3		3.4	1860.5	West
2	GW106942	Household	26/09/2003	243.0	243.0	28	Fresh		1870.0	North-west
12	GW107055	Household	17/02/2005	249.0	249.0	64	Fresh	0.12	1919.8	South-east

Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m)	Lithology	Distance (m)	Direction
GW112958	#N/A		164.3	North
GW112956	#N/A		178.6	North
GW112959	#N/A		180.3	North-east
GW112957	#N/A		190.5	North
GW110665	0m-0.15m Concrete 0.15m-0.9m Fill 0.9m-1.5m Sandstone weathered 1.5m-7m Sandstone yellow, grey lenses 7m-10m Sandstone grey weathered, clay		348.2	North-east
GW110666	0m-0.15m Concrete 0.15m-0.9m Fill 0.9m-1.5m Sandstone weathered 1.5m-7m Sandstone yellow/grey lenses 7m-10m Sandstone grey weathered, clay		353.3	East
GW110664	0m-0.15m Concrete 0.15m-0.9m Fill 0.9m-1.5m Sandstone weathered 1.5m-7m Sandstone yellow, grey lenses 7m-10m Sandstone grey weathered/clay		361.1	North-east
GW100295	0m-1m Soil and clay 1m-50m Sandstone		1252.6	North-west
GW031197	#N/A		1384.9	North-west
GW104349	0m-5m Brown clay 5m-13m Shale 13m-16m Sandstone white 16m-17m Sandstone fractured 17m-21m Sandstone white 21m-24.5m Sandstone fractured 24.5m-29m Sandstone white 29m-30m Sandstone fractured 30m-34m Sandstone white 34m-34.5m Sandstone fractured 34.5m-46m Sandstone white 46m-46.5m Sandstone fractured 46.5m-57m Sandstone white 57m-58m Shale soft 58m-60.5m Sandstone white		1860.5	West
GW106942	0m-1m Topsoil 1m-4m Clay, red 4m-5m Shale, weathered 5m-8m Shale, brown 8m-46m Shale, blue 46m-50m Shale, grey 50m-243m Sandstone		1870.0	North-west
GW107055	0m-0.3m Topsoil 0.3m-1.5m Clay, red		1919.8	South-east

Groundwater Bore ID	From Depth – To Depth (m)	Lithology	Distance (m)	Direction
	1.5m-2.2m	Shale, weathered		
	2.2m-4.1m	Shale, brown		
	4.1m-10m	Shale, blue		
	10m-249m	Sandstone, bands of black shale		

2.2 HYDROGEOLOGY AND OTHER BOREHOLES

Map 2.2 (500m Buffer)

	On the Property?	Within Buffer?
Groundwater Vulnerability	Not identified	Not identified
Groundwater Exclusion Zones ^{1,2}	Not identified	Not identified
Hydrogeologic Unit	Late Permian/Triassic sediments (porous media - consolidated)	Surficial Sediment Aquifer (porous media - unconsolidated) Late Permian/Triassic sediments (porous media - consolidated)

¹ - Botany Groundwater Management Zones (BGMZ): Zone 1 – the use of groundwater remains banned; Zones 2 to 4 – domestic groundwater use is banned, especially for drinking water, watering gardens, washing windows and cars, bathing, or to fill swimming pools.

² - Williamstown Groundwater Management Zones (WGMZ): Primary Management Zone – this area has significantly higher levels of PFAS detected and therefore, the strongest advice applies. Secondary Management Zone – this area has some detected levels of PFAS; Broader Management Zone – the topography and hydrology of the area means PFAS detections could occur now and into the future.

Groundwater Dependent Ecosystems (GDE)

	On the Property?	Within Buffer?
Aquatic	Not identified	Not identified
Terrestrial	Not identified	Not identified

Aquatic - Ecosystems that rely on the Surface expression of groundwater.

Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.

Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Borehole ID	Purpose	Project	Client/Licence	Date Drilled	Depth (m)	Distance (m)	Direction
Not identified	-	-	-	-	-	-	-



Section 3 Environmental Registers, Licences and Incidents



3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

Sites Notified as Contaminated to the EPA

Site Name	Address	Activity that caused Contamination	EPA Site Management Class (Table 3.1.1)	Distance (m)	Direction
7-Eleven Ingleburn	72 Cumberland Road, corner Oxford Road, INGLEBURN	Service Station	Regulation under CLM Act not required	335.0	East

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Contaminated Land Record of Notices

Site Name	Area n°	Address	Notices	Distance (m)	Direction
Not identified	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Table 3.1.1. EPA Site Management Class Explanation

Table 3.1.1 EPA Site Management Class	
EPA Site Management Class	
Under Assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.

Table 3.1.1 EPA Site Management Class	
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Contamination currently regulated under the CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under the POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record.

The EPA maintains a record of sites that have been notified to the EPA by owners or occupiers as contaminated land. The sites notified to the EPA are recorded on the register at various stages of the assessment and/or remediation process.

3.2 SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.2 (2000m Buffer)

Defence, Military Sites and UXO Areas

Site name	Type*	Details	Distance (m)	Direction
Not identified	-	-	-	-

*RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas)

Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

PFAS Sites

Site name	Description	Source	Distance (m) *	Direction
Not identified	-	-	-	-

National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Pax Australia	9 Williamson Road	Cosmetic and Toiletry Preparation Manufacturing	2018/2019	1214.0	North-west
AUSTRALIAN PETRO CHEMICAL STORAGE PTY LTD	14 Williamson Road	Other Warehousing and Storage Services	2018/2019	1051.4	West
CSR Bradford Insulation	55 Stennett Road	Glass and Glass Product Manufacturing	2018/2019	1990.0	West
Alsco Pty Ltd Ingleburn	65 Williamson Road	Laundry and Dry-Cleaning Services	2007/2008	1218.9	North-west
CSR Viridian Ingleburn	8 Williamson Road	Glass and Glass Product Manufacturing	2018/2019	1359.1	West
Consolidated Extrusions Ingleburn	10 Williamson Road	Non-Ferrous Metal Casting	2005/2006	1120.5	West
GE Infrastructure, Water & Process Technologies	69-77 Williamson Road	Basic Inorganic Chemical Manufacturing	2010/2011	1252.0	North-west

3.3 LICENCES, APPROVALS & NOTICES**Map 3.3 (500m Buffer)****Licences**

Licence N°	Licence holder	Location Name	Premise Address	Fee Based Activity	Distance (m)*	Direction
SYDNEY TRAINS	SYDNEY TRAINS	SYDNEY TRAINS, HAYMARKET	SYDNEY TRAINS	Railway infrastructure operations Rolling stock operations	Not mapped	Not mapped
JOHN HOLLAND RAIL PTY LTD	JOHN HOLLAND RAIL NETWORK	JOHN HOLLAND RAIL NETWORK, PARRAMATTA	JOHN HOLLAND RAIL PTY LTD	Railway infrastructure operations	Not mapped	Not mapped
QUBE LOGISTICS (RAIL) PTY LTD	ROLLING STOCK OPERATED ON A LICENSED RAIL NETWORK, MOOREBANK, NSW	ROLLING STOCK OPERATED ON A LICENSED RAIL NETWORK, MOOREBANK, NSW	QUBE LOGISTICS (RAIL) PTY LTD	Rolling stock operations	Not mapped	Not mapped

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Other Licences still Regulated by EPA

Licence N°	Licence holder	Location Name	Premise Address	Fee Based Activity	Status	Distance (m)*	Direction
20966	CPB CONTRACTORS PTY LIMITED	CPB CONTRACTORS PTY LIMITED	CPB CONTRACTORS PTY LIMITED	Crushing, grinding or separating, Land-based extractive activity	Surrendered	Not mapped	Not mapped

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Clean Up and Penalty Notices

Location ID	Notice Type	Notice N°	Licence holder	Location Name	Premise Address	Distance (m)*	Direction
Not identified	-	-	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.



Section 4 Potentially Contaminated Areas



4.1 FORMER POTENTIALLY CONTAMINATED LAND

Map 4.1 (500m Buffer)

Contaminated Legacy Areas / Historic Incident Sites

Site Name	Description	Distance (m)	Direction
Not identified	-	-	-

Includes known contaminated areas such as James Hardies Asbestos waste legacy areas, Pasminco Smelter and Uranium processing site.

Derelict Mines and Quarries

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

Historical Landfills

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

4.2 CURRENT POTENTIALLY CONTAMINATING ACTIVITIES (PCA)**Map 4.2 (500m Buffer)****Industries, businesses and activities that may cause contamination**

Site name	Category	Location	Status*	Distance (m)	Direction
7-Eleven Ingleburn	Petrol Station	63 Oxford Street, Ingleburn	Operational	355.0	North-east
Woolworths Caltex Ingleburn	Petrol Station	12-14 Norfolk Street, Ingleburn	Operational	175.0	North
BP Ingleburn	Petrol Station	Stanley Rd Ingleburn NSW 2565	Former	405.0	North
Shell	Petrol Station	68 Cumberland Rd, Ingleburn, NSW,2565	Former	450.0	North-east
Ingleburn Laundry	Dry Cleaner	79 Macquarie Rd, Ingleburn NSW 2565	Former	435.0	North
Liquid Self Service Laundromat	Dry Cleaner	2/60 Oxford Rd, Ingleburn NSW 2565	Operational	380.0	North-east
Fire and Rescue NSW Ingleburn Fire Station	Fire Station	41 Carlisle St, Ingleburn NSW 2565	Operational	434.0	North-east

***Status:**

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former. Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

Included in this search:

Type	Type	Type
Cattle Dip Sites	Liquid Fuel Depots	Substation/Switching Stations
Dry Cleaners	Operating Mines	Telephone Exchanges
Fire Rescue	Power Stations	Wastewater Treatment Plants
Gas Terminals	Petrol Stations	Waste Management Facilities

Includes industries or business activities associated with potentially contaminating activities. Records identified within section 4.2 are considered to have a higher likelihood of contamination risk associated with the type of business activity. The contamination risk associated with these records is based solely on the type of activity undertaken by the business, and in conjunction with business activities deemed to be of moderate to high risk of potential contamination identified in State Government regulatory body (EPA) published regulations or guidelines.

The records identified have not been risk ranked based on any current or previous site inspection. Please note that records not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

4.3 OTHER POTENTIALLY CONTAMINATING ACTIVITIES**Map 4.3 (200m Buffer)****Industries, businesses and activities that may cause contamination considered of lesser risk**

Site name	Category	Location	Status*	Distance (m)	Direction
Not identified	-	-	-	-	-

***Status:**

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former. Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

Includes industries or business activities records associated with potentially contaminating activities that are not listed in section 4.2 of this report. Records identified within this section are considered to have a lesser likelihood of contamination risk associated with the type of business activity. The contamination risk associated with the records listed in this section are based solely on the type of activity undertaken and have not been risk ranked based on any current or previous site inspection, as such, some of the sites listed in section 4.3 can be potentially of high risk. Industries or business activities deemed of a negligible risk of contamination are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

4.4 HISTORICAL POTENTIALLY CONTAMINATING ACTIVITIES

(not mapped)

1930 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Not identified	-	-	-	-	-

1940 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Not identified	-	-	-	-	-

1950 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Not identified	-	-	-	-	-

1965 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Agricultural Machinery Tractors & Parts	NORWOOD MOTORS	7,Palmer,NSW	Address	38.5	South-east
Concrete - Pumping	Supreme Concrete Co Pty Ltd	63,Carlisle,NSW	Address	113.1	North-east
Fabric - Knitted/Woven	Empire Knitting Mills Pty Ltd	27,Palmer,NSW	Address	116.5	South-west
Engineers - Motor & Repairers	Replacement Parts (NSW Divsn) Pty Ltd	27,Palmer,NSW	Address	116.5	South-west
Windows - Steel	Easy Fix Screens	97,Carlisle,NSW	Address	175.0	South-west
Bathroom Accessories & Equipment - Retail	AHERN G	66-70, Ingleburn Rd, NSW	Address	196.6	North-west
Fibreglass Repairs & Products	AHERN G	66-70, Ingleburn Rd,NSW	Address	196.6	North-west
Motor Garage Equipment & Supplies	P.&J. Motors	Nardoo St, NSW	Street		North-west
Motor Sport Services	SHELL SERVICE STATIONS	Nardoo St, NSW	Street		North-west

1970 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Cars - New	P&J Motors Pty Ltd	Nardoo Street, Ingleburn,NSW	Street		North-west
Cars - New	P & J Motors	Nardoo Street, Ingleburn	Street		North-west

1980 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Road Construction Contractors	Bundi Developments Pty Ltd	21 Nardoo Street, Ingleburn, NSW	Address	168.6	North-west
Road Construction Contractors	Bundi Developments Pty Ltd	21 Nardoo St, Ingleburn, NSW	Address	170.5	North-west
Engineers - General	Ingleburn Engineering	Suffolk St.,Ingleburn,NSW	Street		North-west

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Motor Garage Equipment & Supplies	Shell Service Stations	Nardoo St, Ingleburn, NSW	Street		North-west

1990 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Printers - General	P & R Printing	72 Carlisle, Ingleburn, NSW	Address	90.1	West
Road Construction Contractors	Bundi Developments Pty Ltd	21 Nardoo St, Ingleburn, NSW	Address	170.5	North-west
Photographer - General	Chalker Kay Wedding Photography	55 Carlisle St, Ingleburn, NSW	Address	197.3	North-east

2005 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Car & Truck Cleaning Products & Equipment	Leo Bustos	81 Cumberland Rd, INGLEBURN, NSW, 2565	Address	78.5	South-east
Printers - General	P & R Printing	72 Carlisle St, INGLEBURN, NSW, 2565	Address	90.1	West
Computer Equipment - Supplies & Service	Alphazone Computers & Internet Cafe'	1/6 Nardoo St, INGLEBURN, NSW, 2565	Address	114.5	North-west
Medical Clinics	Tan W L Dr	19 Norfolk St, INGLEBURN, NSW, 2565	Address	137.0	East
Medical Clinics	Polon Melvyn	Suite 14, Cnr Nardoo & Norfolk Sts, INGLEBURN, NSW, 2565	Address	146.4	North-west
Computer Equipment - Installation Services	Blackbird Computers & Communications	Shop 3 17 Nardoo St, INGLEBURN, NSW, 2565	Address	166.7	North-west
Church Religious & Theological Supplies	Presbyterian Church In NSW, Ingleburn	19a Nardoo St, INGLEBURN, NSW, 2565	Address	171.5	North-west

2010 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Printers - General	P & R Printing	72 Carlisle St INGLEBURN 2565 NSW	Address	90.1	West
Carpenters Joiners & Fitters	Twentyman D	34 Palmer St INGLEBURN 2565 NSW	Address	171.8	South-west
Cleaning - Chemical Steam Pressure Contractors	Wiz Cleaners	1/ 93-95 Cumberland Rd INGLEBURN 2565 NSW	Address	176.5	South

2015 Historical Business Data

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Acupuncturist	Peterson Colin M	16 Palmer St, Ingleburn, NSW, 2565	Address	0.0	South
Pa Systems & Megaphones	Audio Visual Australia	62 Carlisle St, Ingleburn, NSW, 2565	Address	72.5	North-west
Printers - General	P & R Printing	72 Carlisle St, Ingleburn, NSW, 2565	Address	90.1	West
Doctors & Medical Practitioners	Tan W L Dr	19 Norfolk St, Ingleburn, NSW, 2565	Address	127.4	East
Timber - Retailer/Trader	Armour Timber Trading Company	1a/ 32 Williamson Rd, Ingleburn, NSW, 2565	Address	144.8	East
Property & Real Estate Management	Stevon D & D Pty Ltd	128 Cumberland Rd, Ingleburn, NSW, 2565	Address	162.8	South-east

Activity	Name	Address	Positional accuracy ¹	Distance (m)	Direction
Chuches & Other Places Of Worship	Presbyterian Church In NSW	19a Nardoo St, Ingleburn,NSW,2565	Address	167.9	North-west
Carpenters Joiners & Fitters	Twentyman D	34 Palmer St, Ingleburn,NSW,2565	Address	172.6	South-west
Cleaning - Chemical Steam Pressure Contractors	Wiz Cleaners	1/ 93-95 Cumberland Rd, Ingleburn,NSW,2565	Address	176.5	South
Petrol Stations & Garages	Caltex Woolworths	12-14 Norfolk St, Ingleburn,NSW,2565	Address	182.2	North
Tobacconists	Free Choice Tobacconist Ingleburn	Shp 7/ 11 Nardoo St, Ingleburn,NSW,2565	Address	189.1	North
Newsagents	Town Centre Newsagency	Shop 5 7 Nardoo St, Ingleburn,NSW,2565	Address	189.1	North
Supermarket & Grocer	Woolworths	Ingleburn Town Centre Cnr Nardoo & Norfolk Street, Ingleburn,NSW,2565	Place	196.9	North
Chuches & Other Places Of Worship	Baptist Union Of New South Wales	Cumberland Rd, Ingleburn,NSW,2565	Street		South

Land Insight uses a number of address geocoding techniques and characterised them according to the following criteria: completeness (match rates) and positional accuracy. When a historical street address does not contain complete details or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. The positional accuracy of the records is listed below:

Historical data positional accuracy and georeferencing results explanation		
Positional accuracy	Georeferenced	Description
Address	Located to the address level	<i>When street address and names fully match.</i>
Street	Located to the street centroid	<i>When street names match but no exact address was found. Location is approximate.</i>
Place	Located to the structure, building or complex	<i>When building, residential complex or structure name match but no exact address was found. Location is approximate.</i>
Suburb	Located to the suburb area	<i>When suburb name match but no exact address was found. Location is approximate.</i>

The data used in this section was extracted from range of historical commercial trade directories and historical business listing information. The business addresses were geocoded using historical information and cannot be relied upon as some of the addresses no longer exist. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at info@landinsight.co.

Historical Industries or business activities deemed to be of negligible or lesser risk are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.



Section 5 Natural Hazards



5.1 Natural Hazards

Map 5.1 (500m Buffer)

Erosion Risk

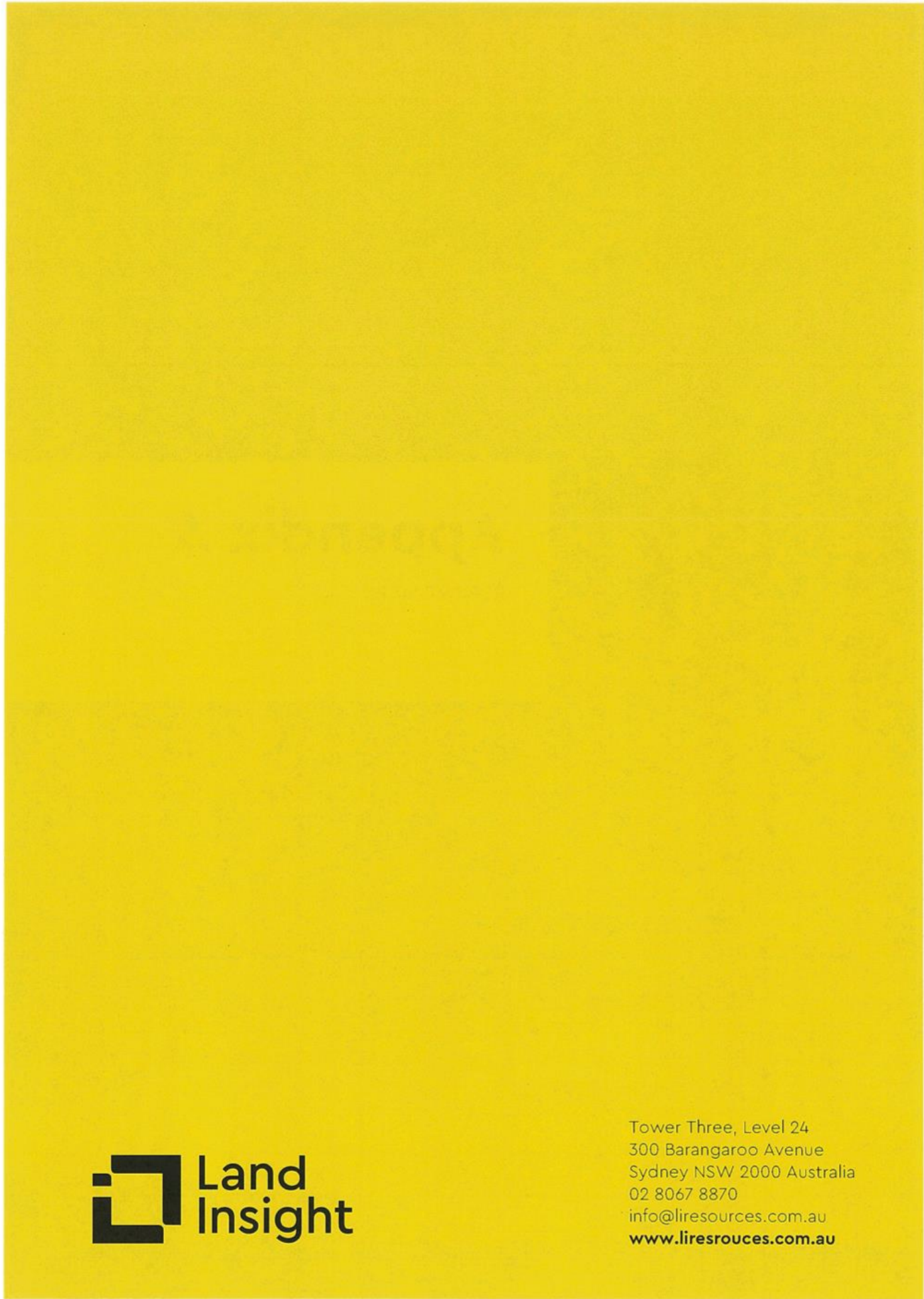
Category	On the Property?	Within Buffer?
Existing Erosion/ Sedimentation	Some instability of batters/ Minor to moderate sheet erosion/ rilling of batters and along roads and tracks	Some instability of batters/ Minor to moderate sheet erosion/ rilling of batters and along roads and tracks Highly unstable/ fluting of batters/ sheet erosion common/ table drain scouring/ gully erosion may be evident

Fire Hazard

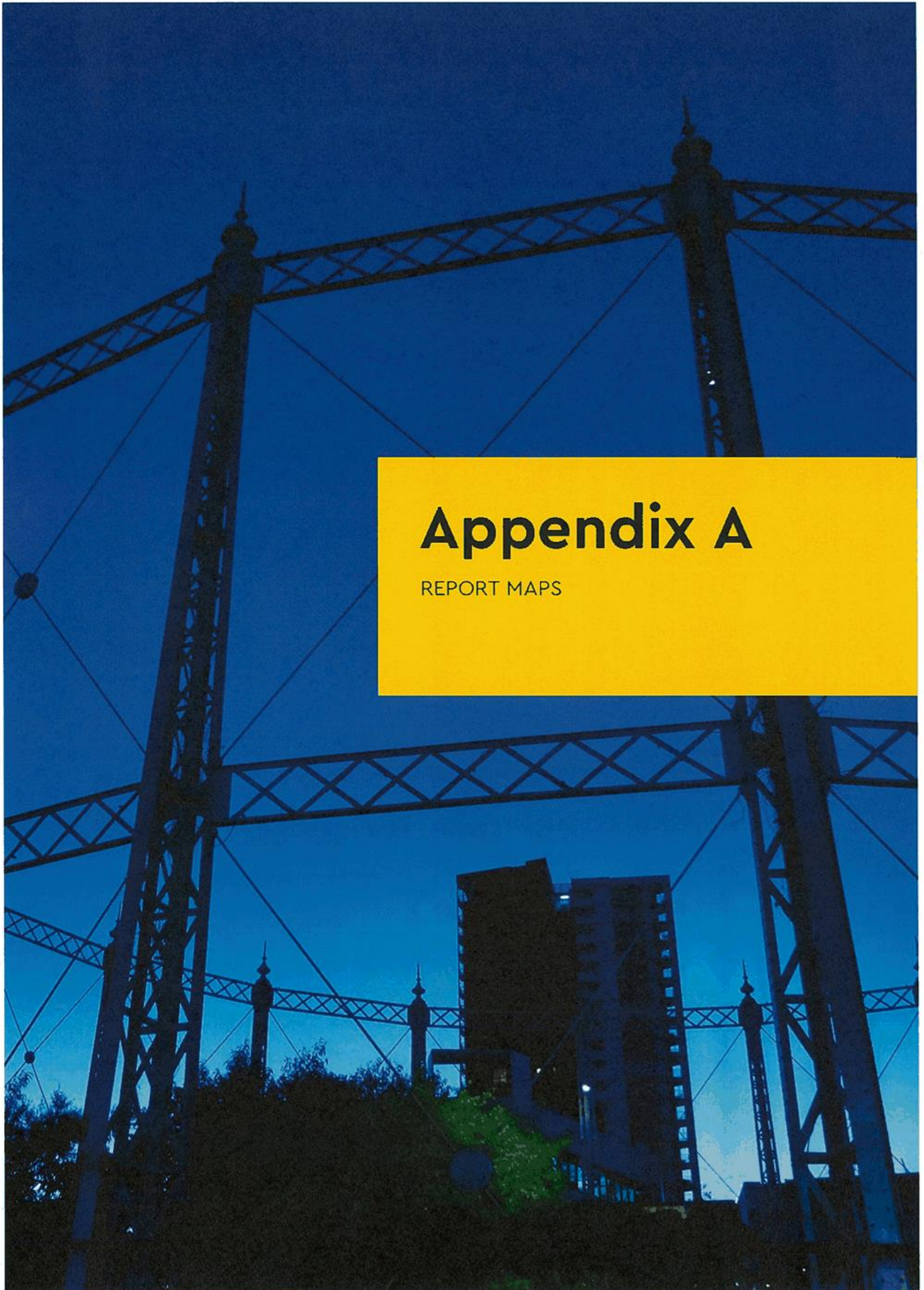
Category	On the Property?	Within Buffer?
Bush Fire Prone Land (BLP)	-	-
Fire History	-	-

Flood Hazard

Category	On the Property?	Within Buffer?
Not identified	-	-



Tower Three, Level 24
300 Barangaroo Avenue
Sydney NSW 2000 Australia
02 8067 8870
info@liresources.com.au
www.liresources.com.au



Appendix A

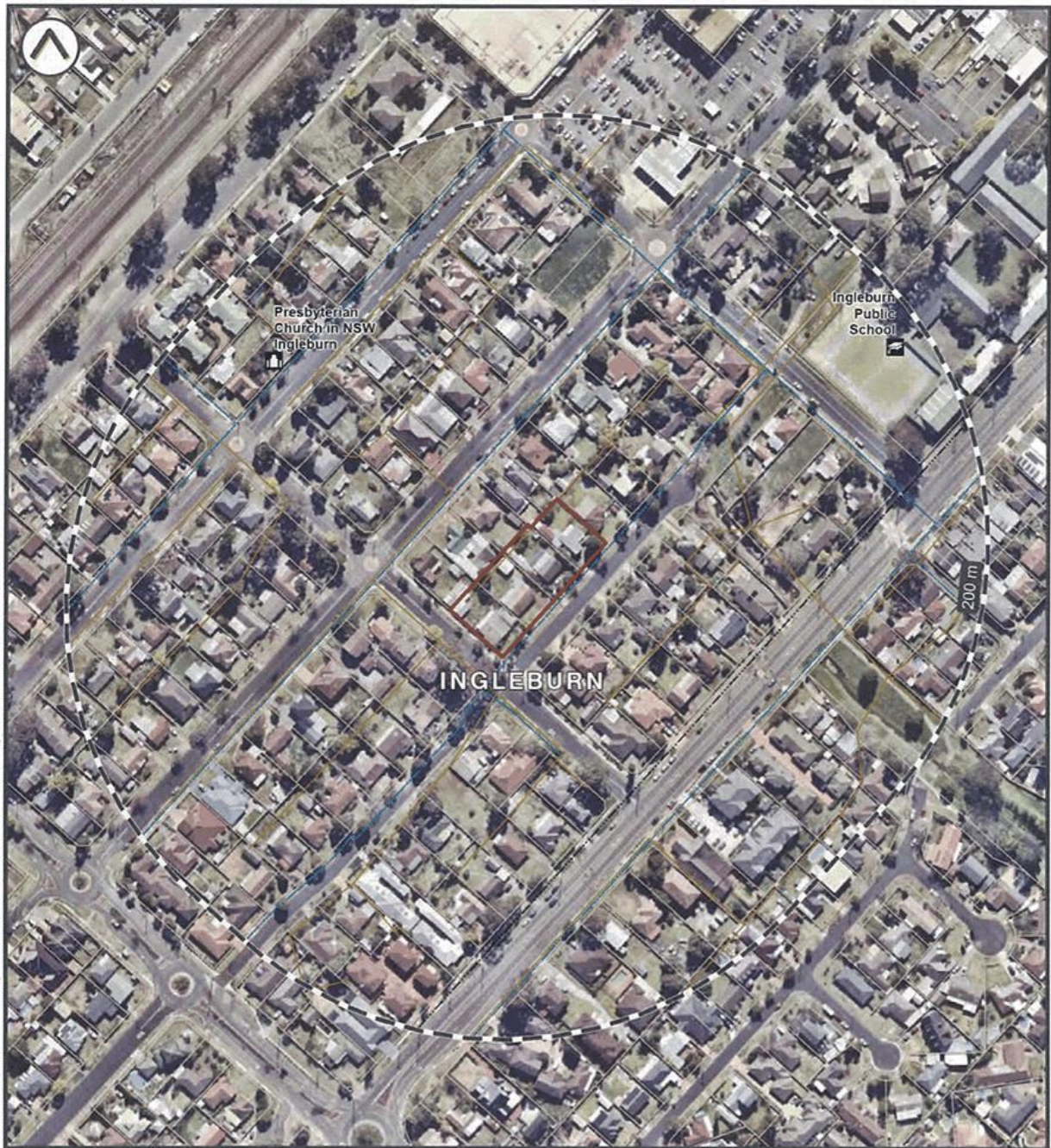
REPORT MAPS



PROPERTY SETTING

MAP 1.1

Subject Area and Sensitive Receptors



- Subject area
- Sensitive receptors**
- Places of Worship & Religious Organisations
- School Education
- Transmission line
- Sewer main
- Water main



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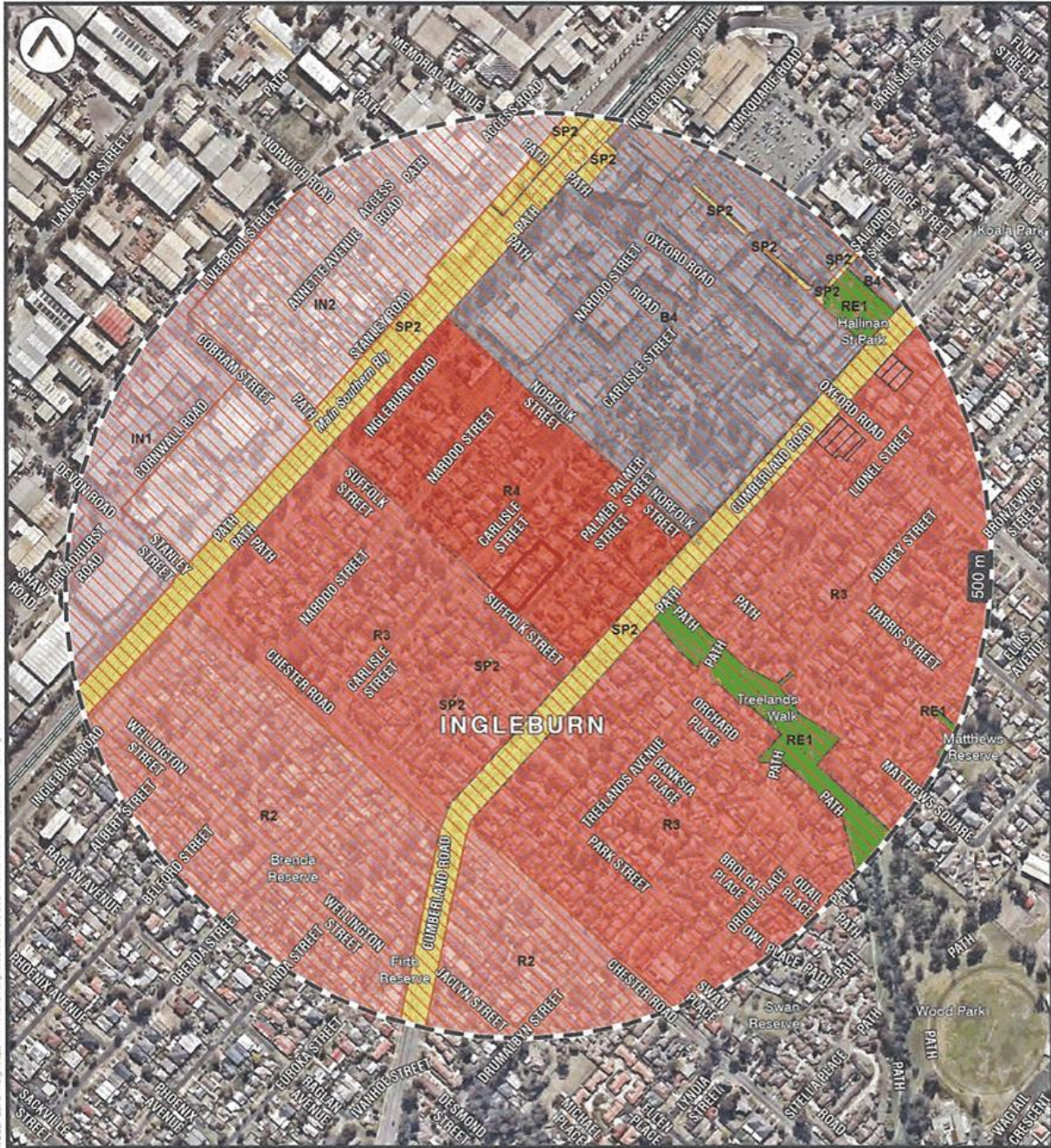




PROPERTY SETTING

Planning Controls

MAP 1.2



Subject area	B4 Mixed Use	R2 Low Density Residential	SP2 Special Purposes Zone - Infrastructure
Additional Permitted Land Uses	IN1 General Industrial	R3 Medium Density Residential	
Local Provisions	IN2 Light Industrial	R4 High Density Residential	
		RE1 Public Recreation	



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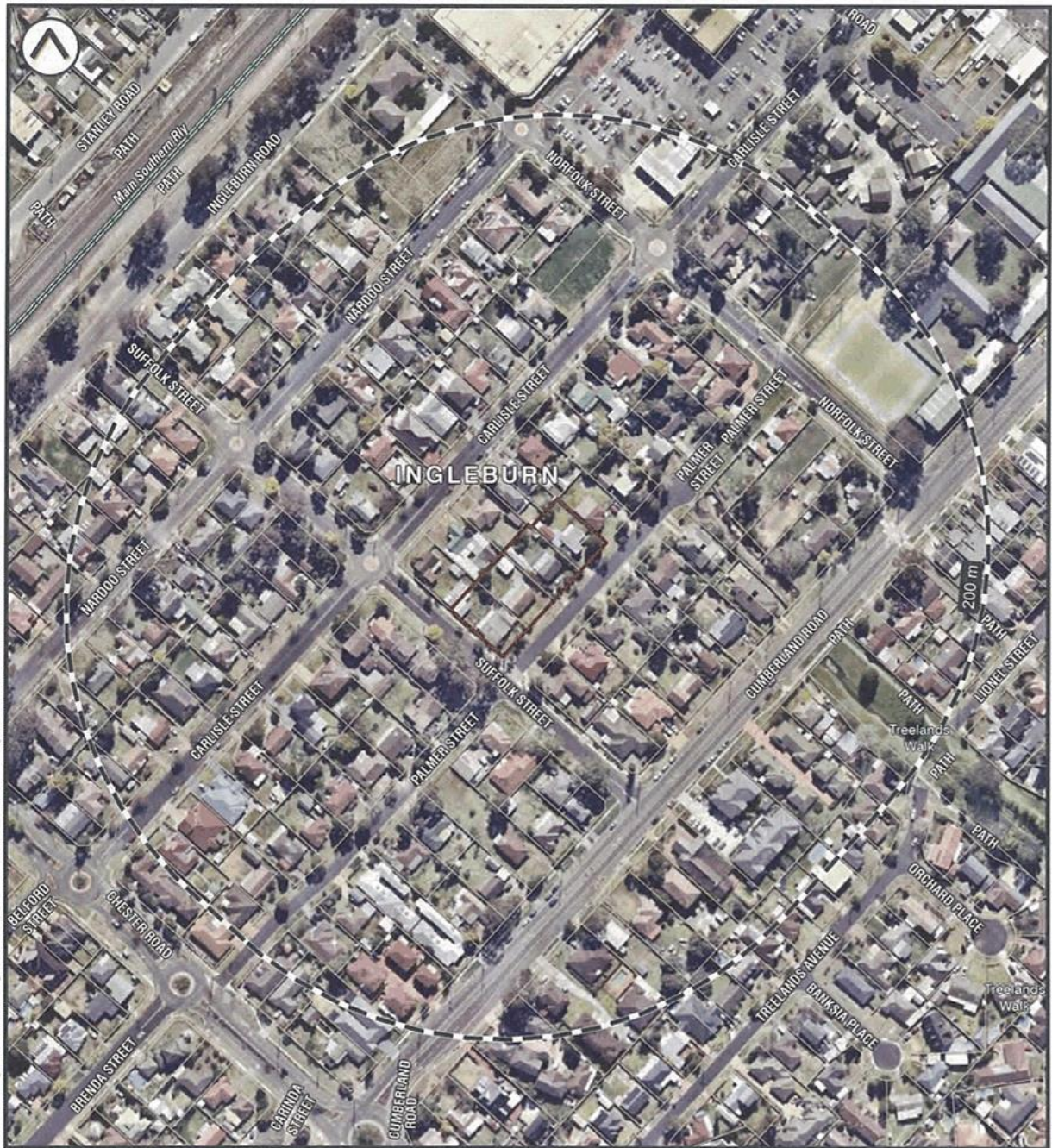




PROPERTY SETTING

MAP 1.3

Heritage



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- Subject area
- Heritage conservation Area (LEP)
- National Heritage List (NHL)
- State Heritage Register
- Commonwealth Heritage List (CHL)
- World Heritage Area (WHA)



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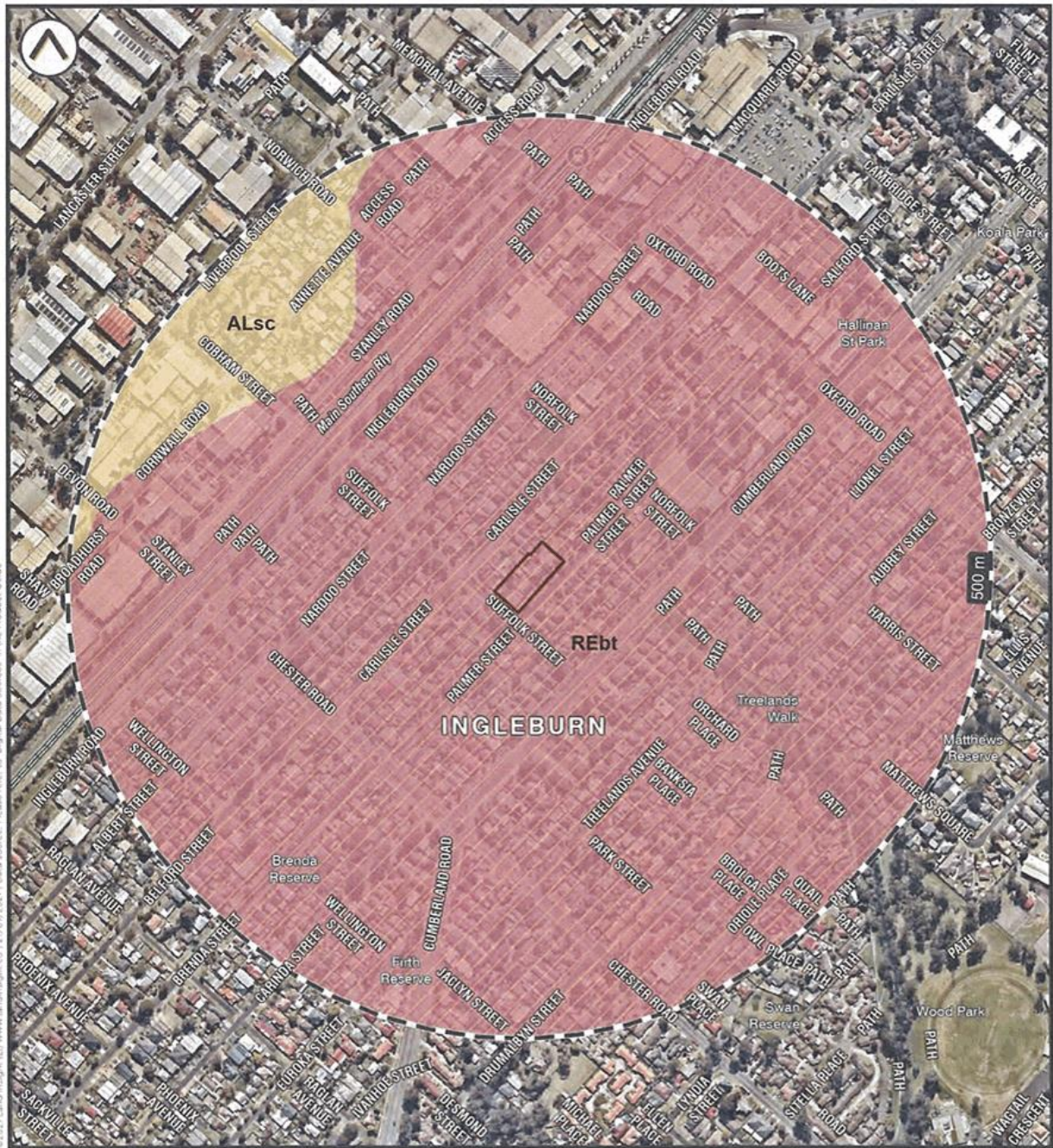




PROPERTY SETTING

MAP 1.4a

Soil Landscape and Salinity



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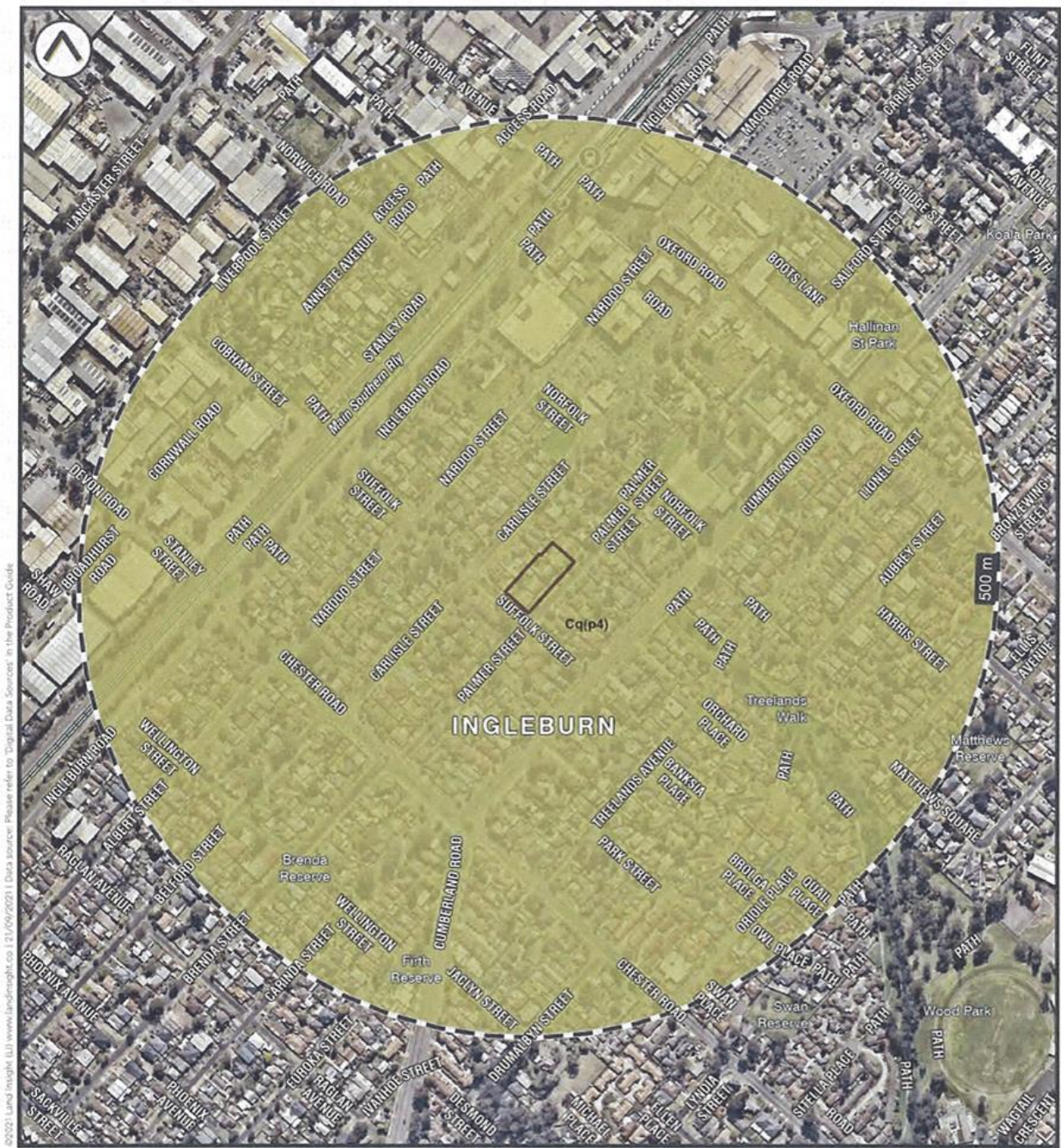




PROPERTY SETTING

MAP 1.4b

Acid Sulfate Soils



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Subject area
 ASRIS Atlas of Australian Sulfate Soils
 Cq(p4) | ASS in inland lakes, waterways, wetlands and riparian zones



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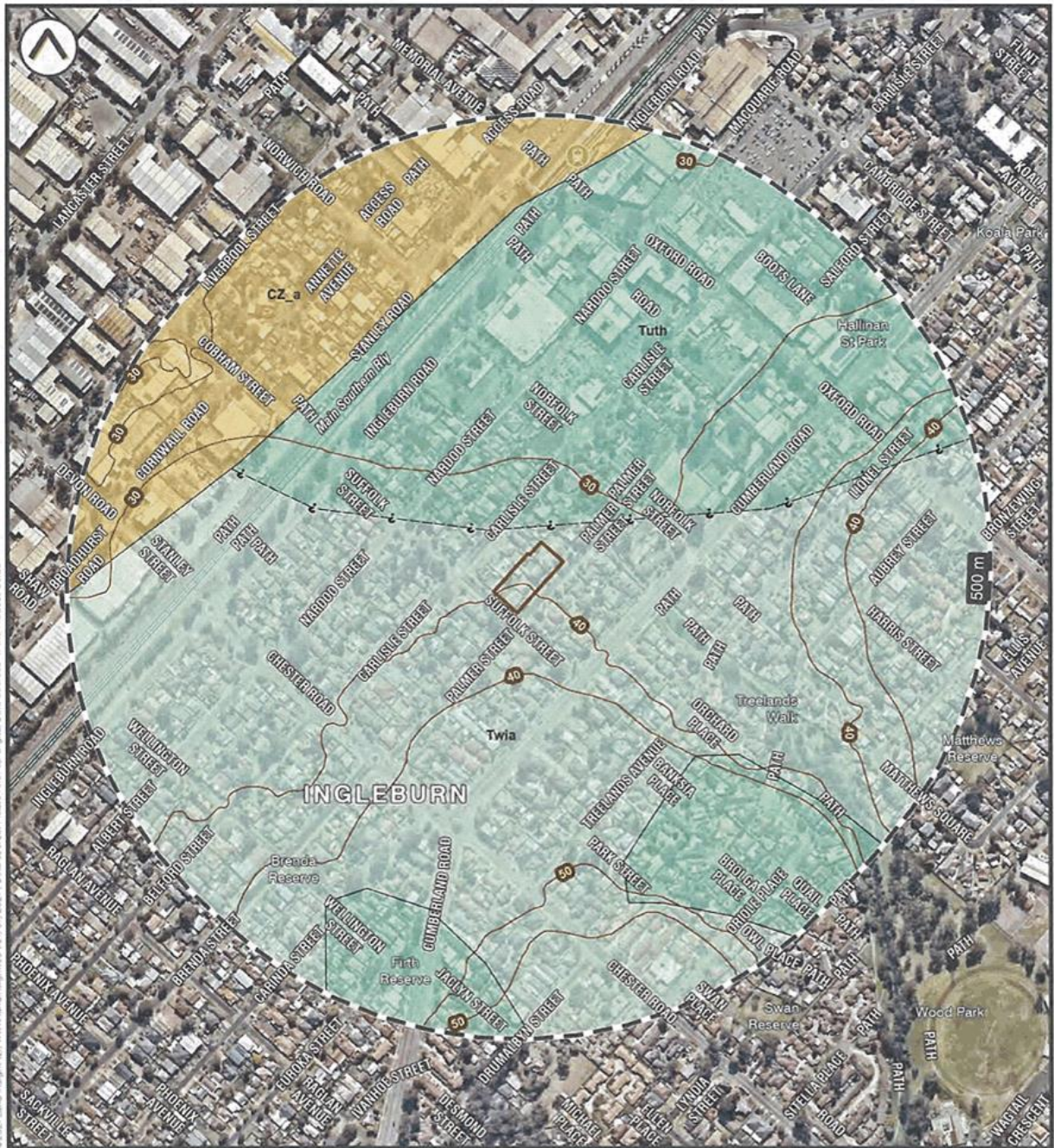




PROPERTY SETTING

MAP 1.5

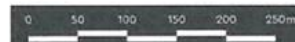
Geology and Topography



Subject area
 Topographic contour (m)

Cenozoic Sedimentary Province
 CZ_a

PERMO-TRIASSIC BASINS
 Tuth
 Twia



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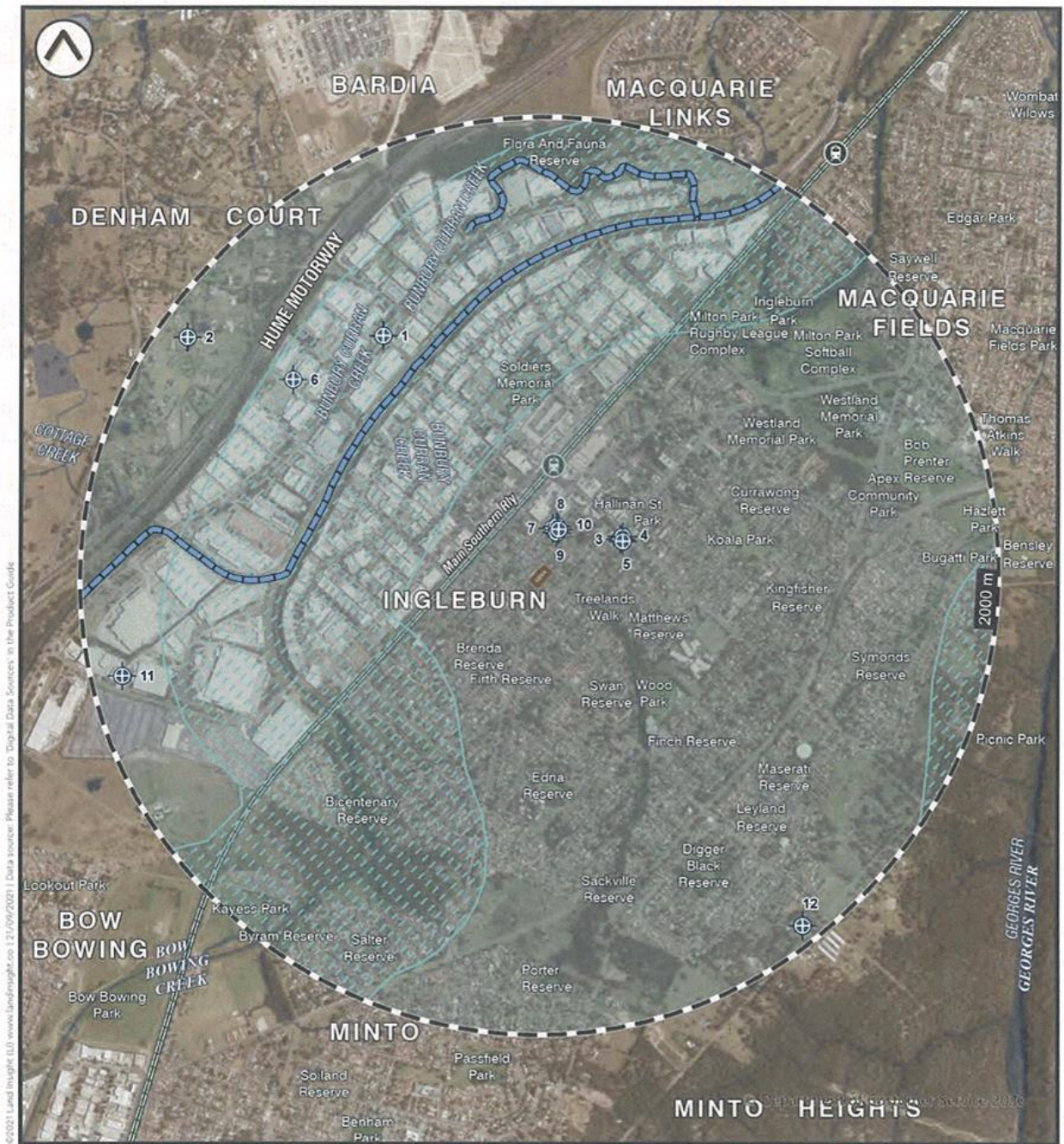




HYDROGEOLOGY

MAP 2.1

Hydrogeology and Groundwater Boreholes



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- Subject area
- Groundwater bores
- Protected Riparian Corridor
- UPSS Environmentally Sensitive Zone
- Aquifer type**
- Porous, extensive aquifers of low to moderate productivity



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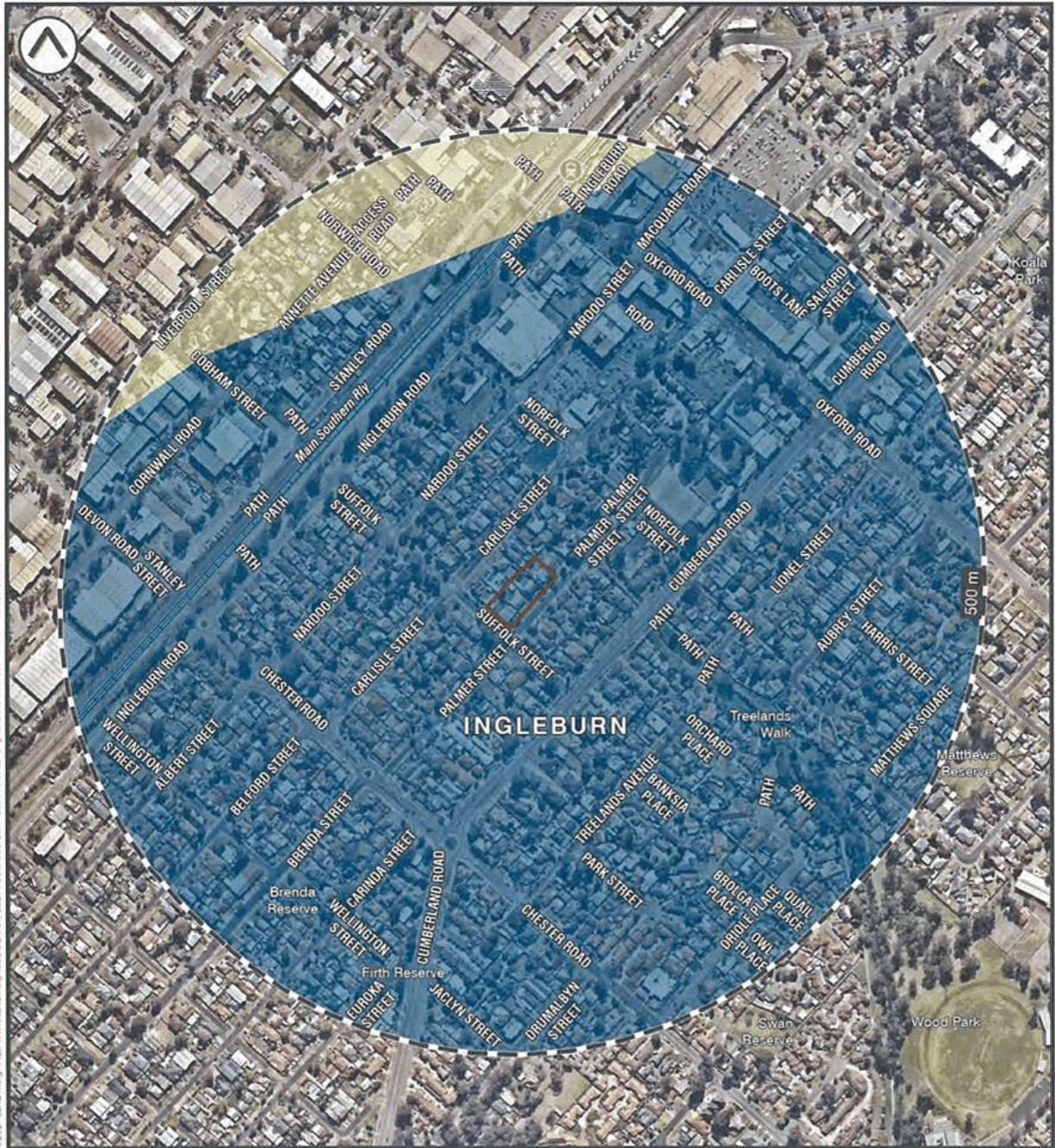




HYDROGEOLOGY

MAP 2.2

Hydrogeology and Other Boreholes



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- Subject area
- Other borehole/monitoring well location
- Hydrogeologic Unit**
- Surficial Sediment Aquifer (porous media - unconsolidated)
- Late Permian/Triassic sediments (porous media - consolidated)



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ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.1

Contaminated Land Public Register



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- Subject area
- Contaminated Land Register (EPA)
- Contaminated Land Record of Notices



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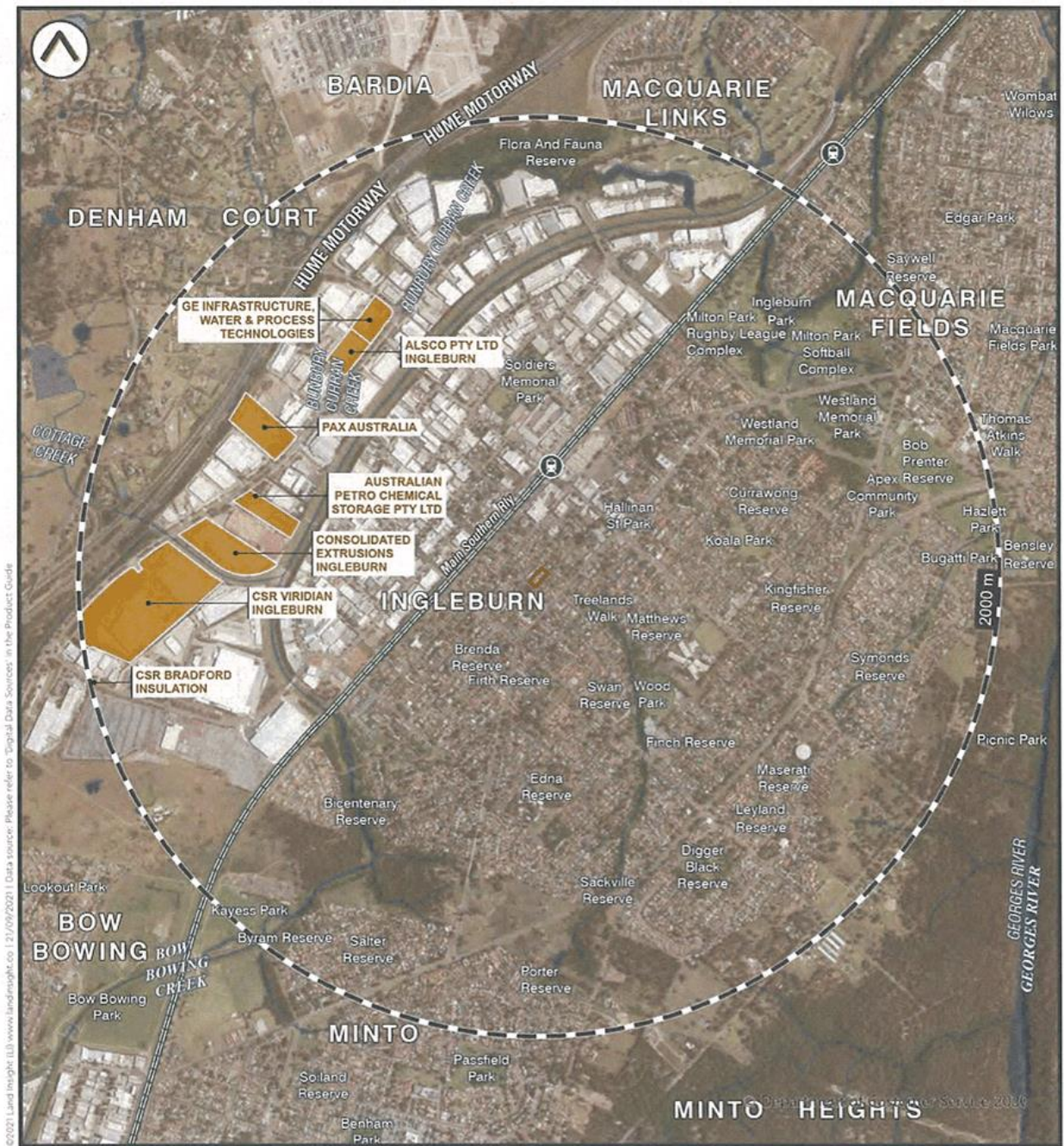




ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.2

Sites Regulated by other Jurisdictional Body



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Subject area NPI Facilities



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ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS

MAP 3.3

Licensing Under the POEO Act



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	Subject area		POEO Licences		Clean Up and Penalty Notices
	Issued		Surrendered / Suspended / Revoked		Delicensed / No longer in force



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POTENTIALLY CONTAMINATED AREAS

MAP 4.1

Former Potentially Contaminated Land



- Subject area
- Contaminated Legacy Areas
- Derelict Mines and Quarries
- James Hardie asbestos
- Historical (Legacy) Landfills



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POTENTIALLY CONTAMINATED AREAS

MAP 4.2

Current Potentially Contaminating Activities (PCAs)



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- | | | | |
|--------------------------|--------------------|-----------------------------|------------------------------|
| Subject area | Fire Rescue | Operating Mines | Substation/switching station |
| Cattle Dip Sites | Gas Terminals | Power Stations | Telephone Exchanges |
| Operational Dry Cleaners | Liquid Fuel Depots | Operational Petrol Stations | Wastewater Treatment Plants |
| Former Dry Cleaners | | Former Petrol Stations | Waste Management Facilities |

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.



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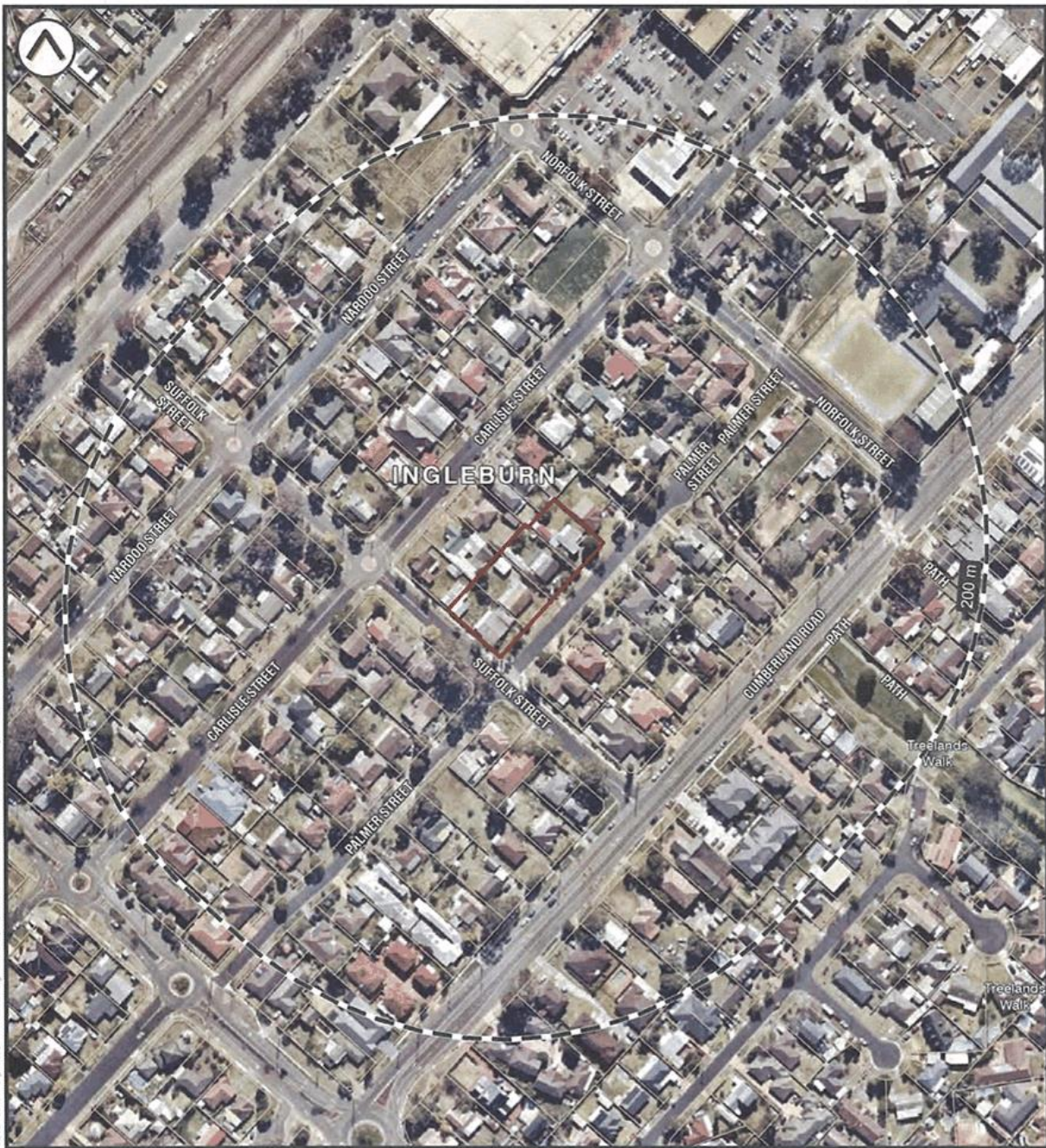




POTENTIALLY CONTAMINATED AREAS

MAP 4.3

Other Potentially Contaminating Activities



©2021 Land Insight (U) www.landinsight.co | 21/09/2021 | Data sources: Please refer to 'Digital Data Sources' in the Product Guide

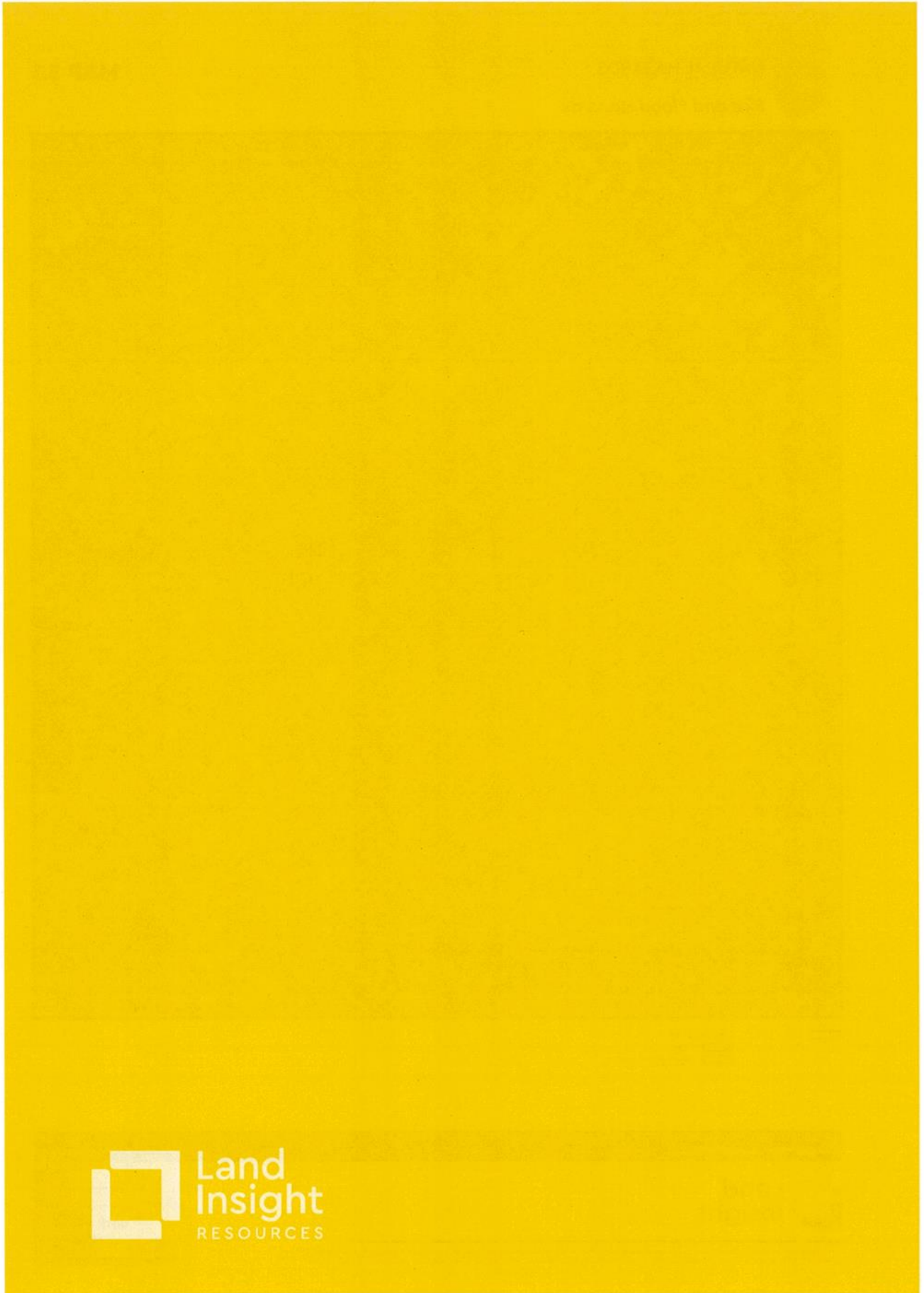
- | | | | |
|---|---|---|------------------------------------|
| Subject area | Commercial & Trade Directory | Tanks* | Underground Storage Tank - Current |
| Other potentially contaminating activities | Aboveground Storage Tank - Current | Underground Storage Tank - Former/Unknown | Unknown |
| Former potentially contaminating activities | Aboveground Storage Tank - Former | | |

*This is not an exhaustive list of all tanks



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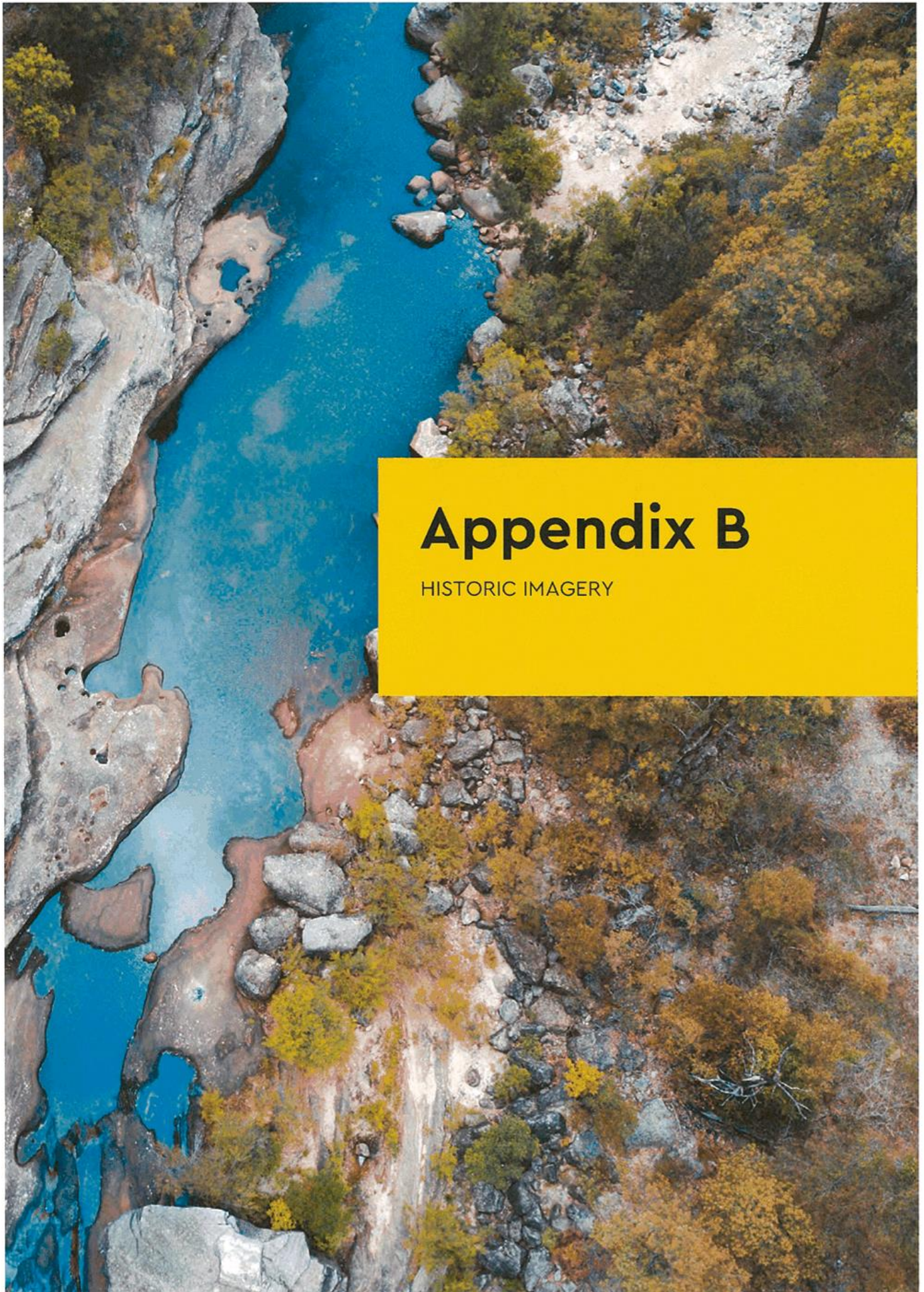






Appendix C Historical Aerial Photographs

21233 PSI



Appendix B

HISTORIC IMAGERY

IMAGERY INSIGHT

MAP B1

Historic Aerial Photograph - 1947



LUR-020815 Aerial Photograph 2021 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area
0 200m



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IMAGERY INSIGHT

MAP B2

Historic Aerial Photograph - 1961



LIR-02085_Aerial Photograph 2021 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area
0 200m



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IMAGERY INSIGHT

MAP B3

Historic Aerial Photograph - 1969



LR-02085 Aerial Photograph 1969 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area
0 200m



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IMAGERY INSIGHT

MAP B4

Historic Aerial Photograph - 1975



LIR-02085, Aerial Photograph 1975, 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m



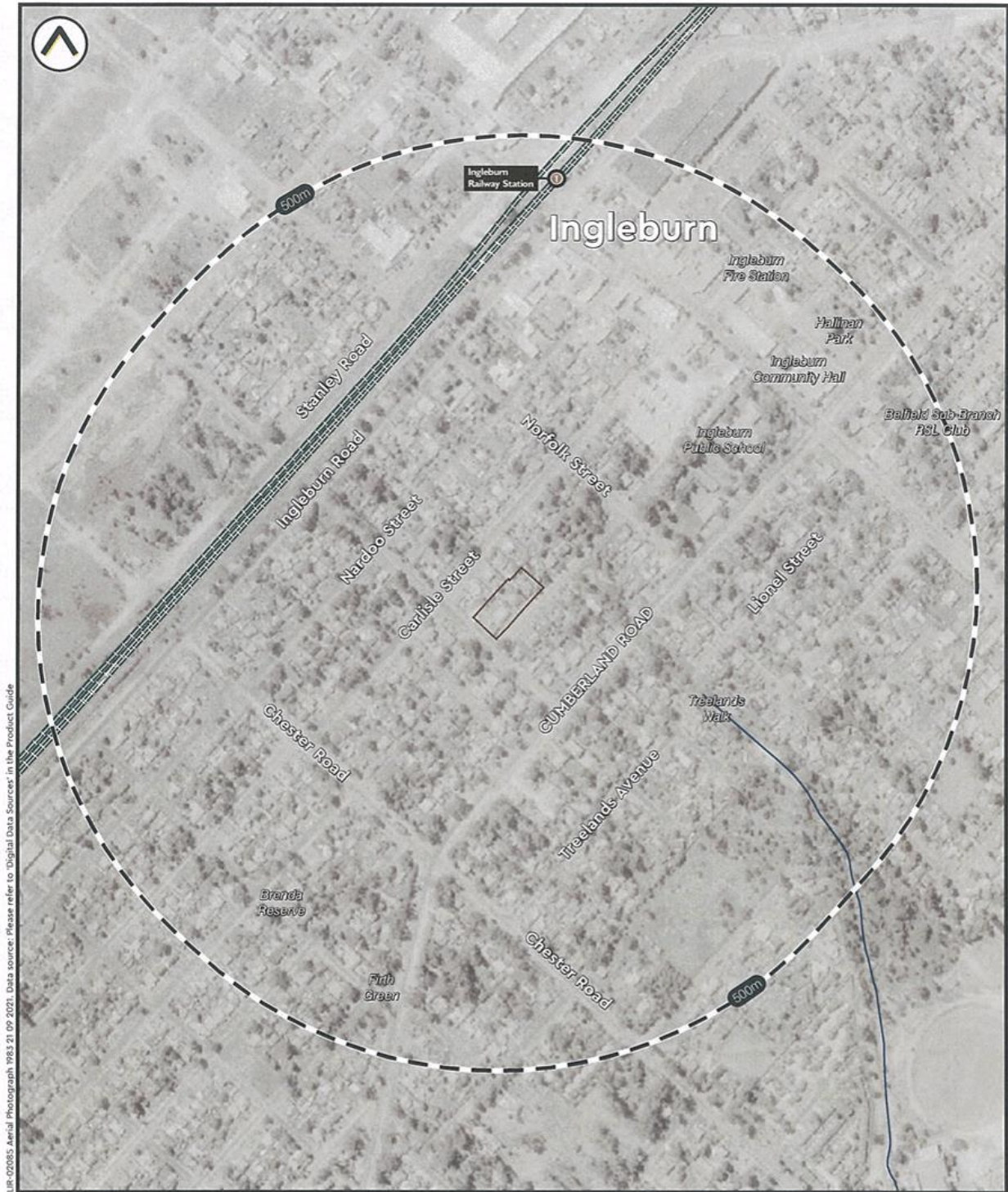
Land Insight & Resources do not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.



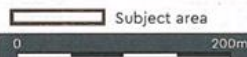
IMAGERY INSIGHT

MAP B5

Historic Aerial Photograph - 1983



LIR-020855 Aerial Photograph 1983 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



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IMAGERY INSIGHT

MAP B6

Historic Aerial Photograph - 1994



LIR-02085 Aerial Photograph 1994, 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area
 0 200m



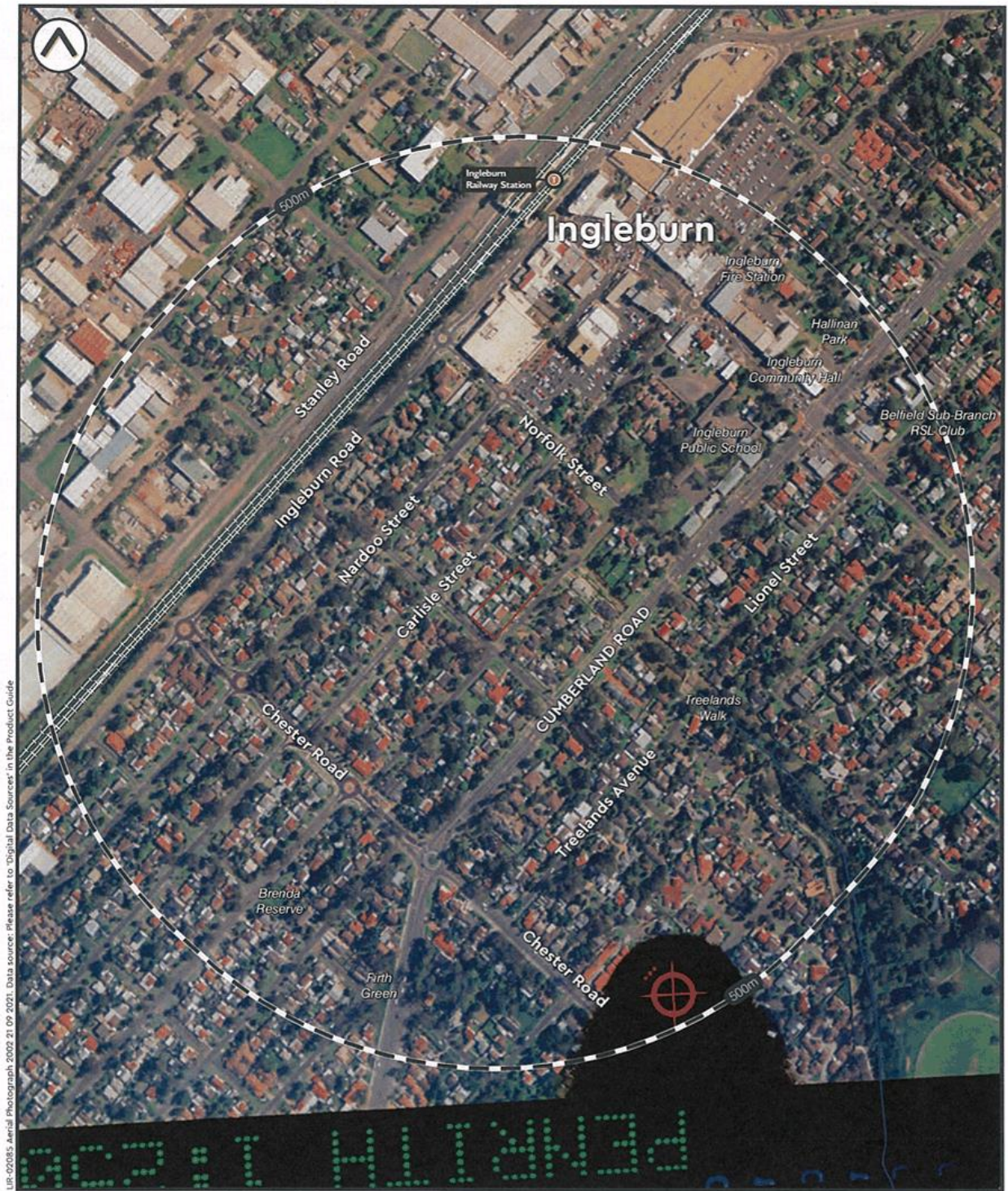
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IMAGERY INSIGHT

MAP B7

Historic Aerial Photograph - 2002



UPI-020815 Aerial Photograph 2002 21 09 2021. Data source: Please refer to "Digital Data Sources" in the Product Guide



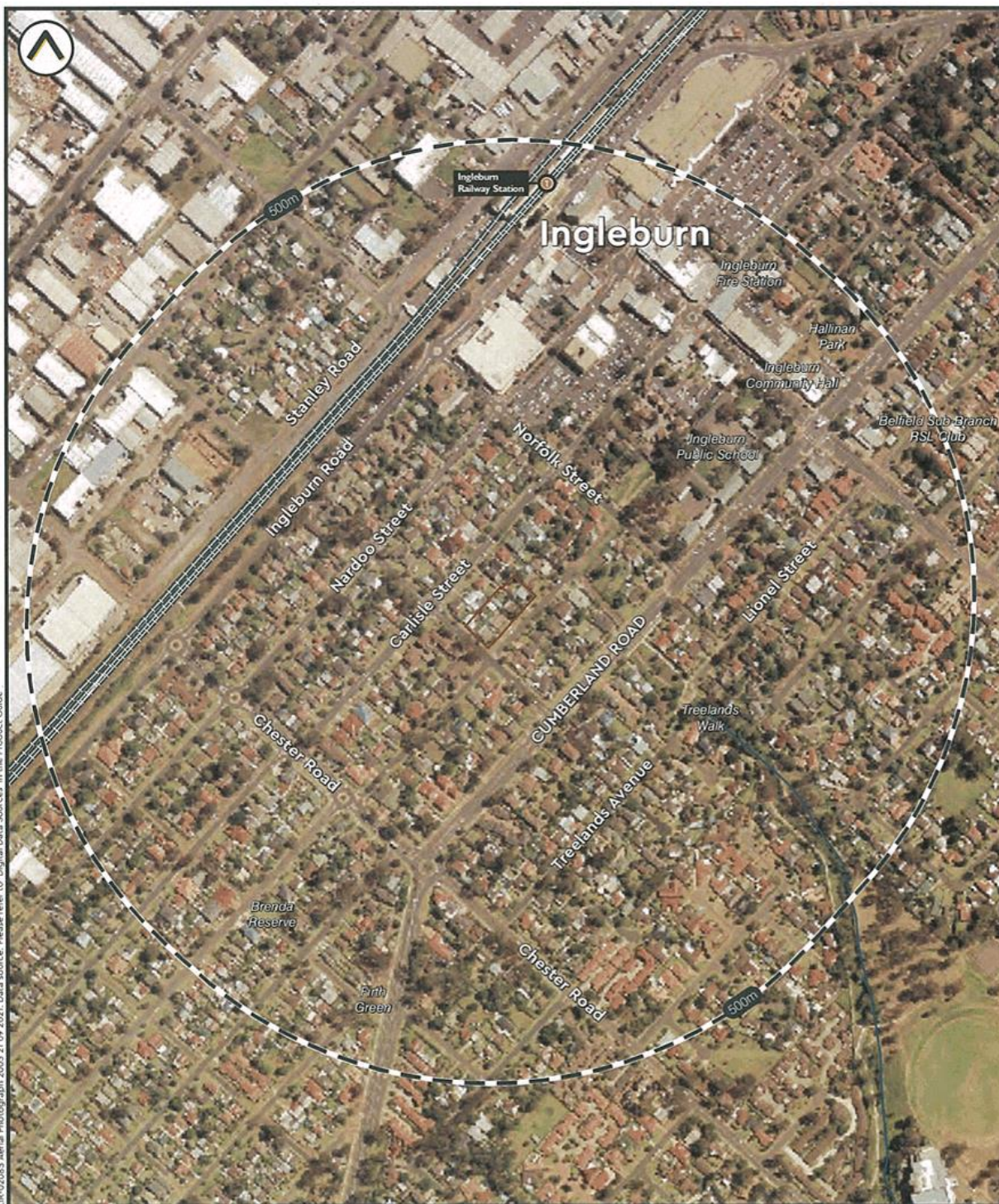
Land Insight & Resources do not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.



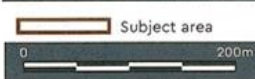
IMAGERY INSIGHT

MAP B8

Historic Aerial Photograph - 2005



LIR-02085 Aerial Photograph 2005 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



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IMAGERY INSIGHT

MAP B9

Historic Aerial Photograph - 2008



LIR-020815_Aerial Photograph 2008 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area
 0 200m



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IMAGERY INSIGHT

MAP B10

Historic Aerial Photograph - 2012



LIR-020855 Aerial Photograph 2008 21 09 2021 Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area
0 200m



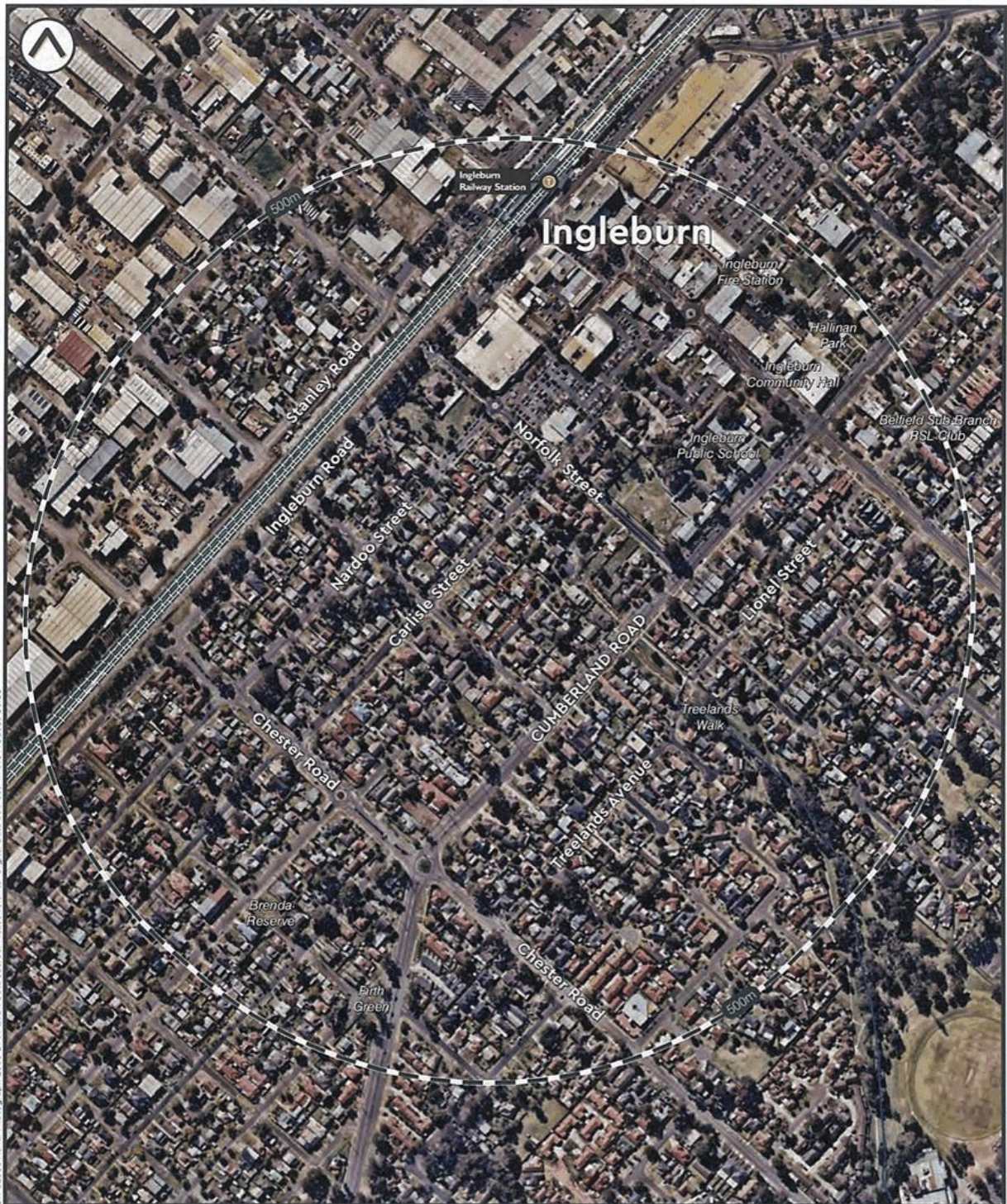
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IMAGERY INSIGHT

MAP B11

Historic Aerial Photograph - 2015



LIR-02085, Aerial Photograph: 2008, 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m



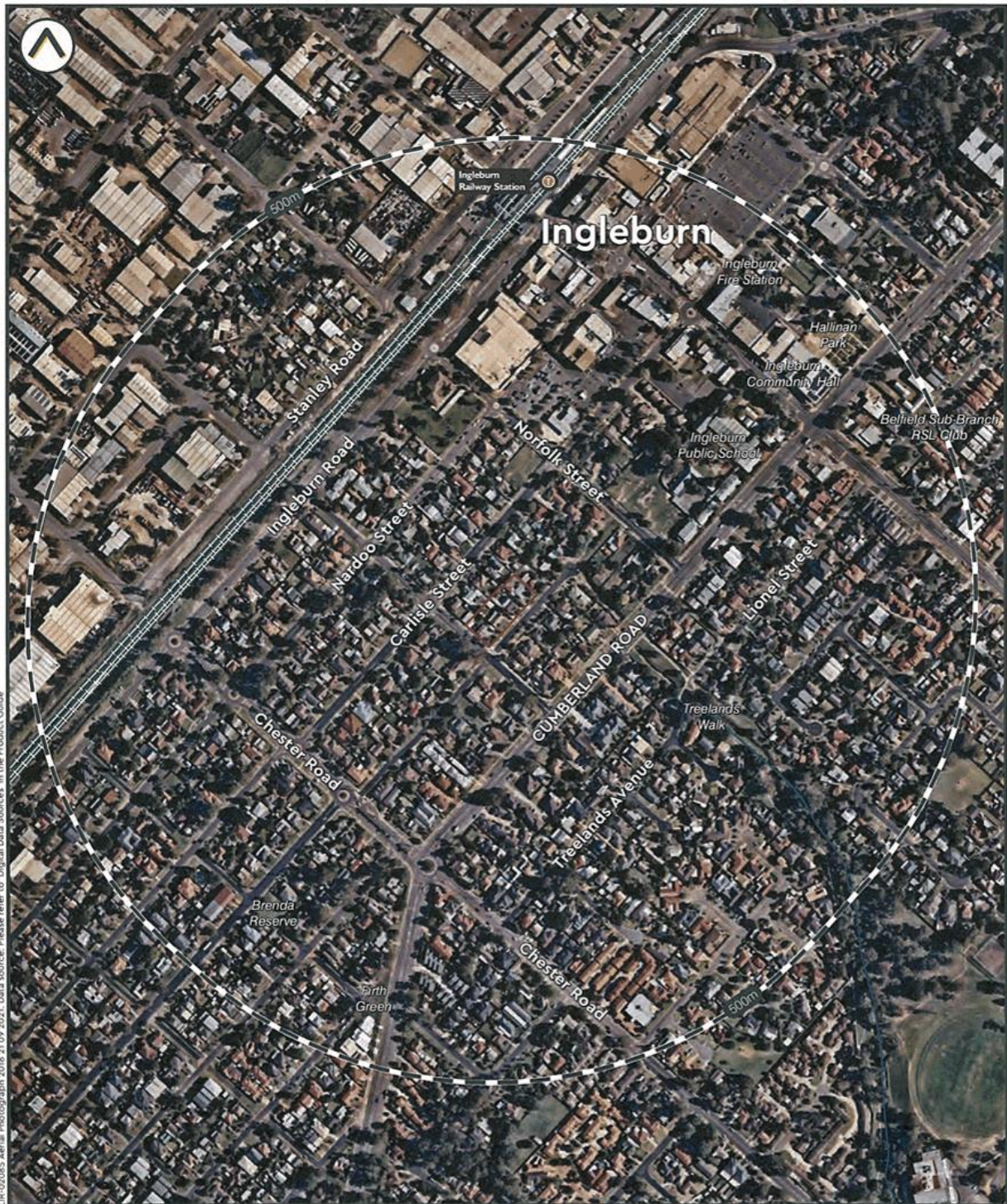
Land Insight & Resources do not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.



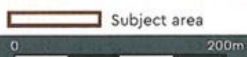
IMAGERY INSIGHT

MAP B12

Historic Aerial Photograph - 2018



LIR-02085 Aerial Photograph 2018 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



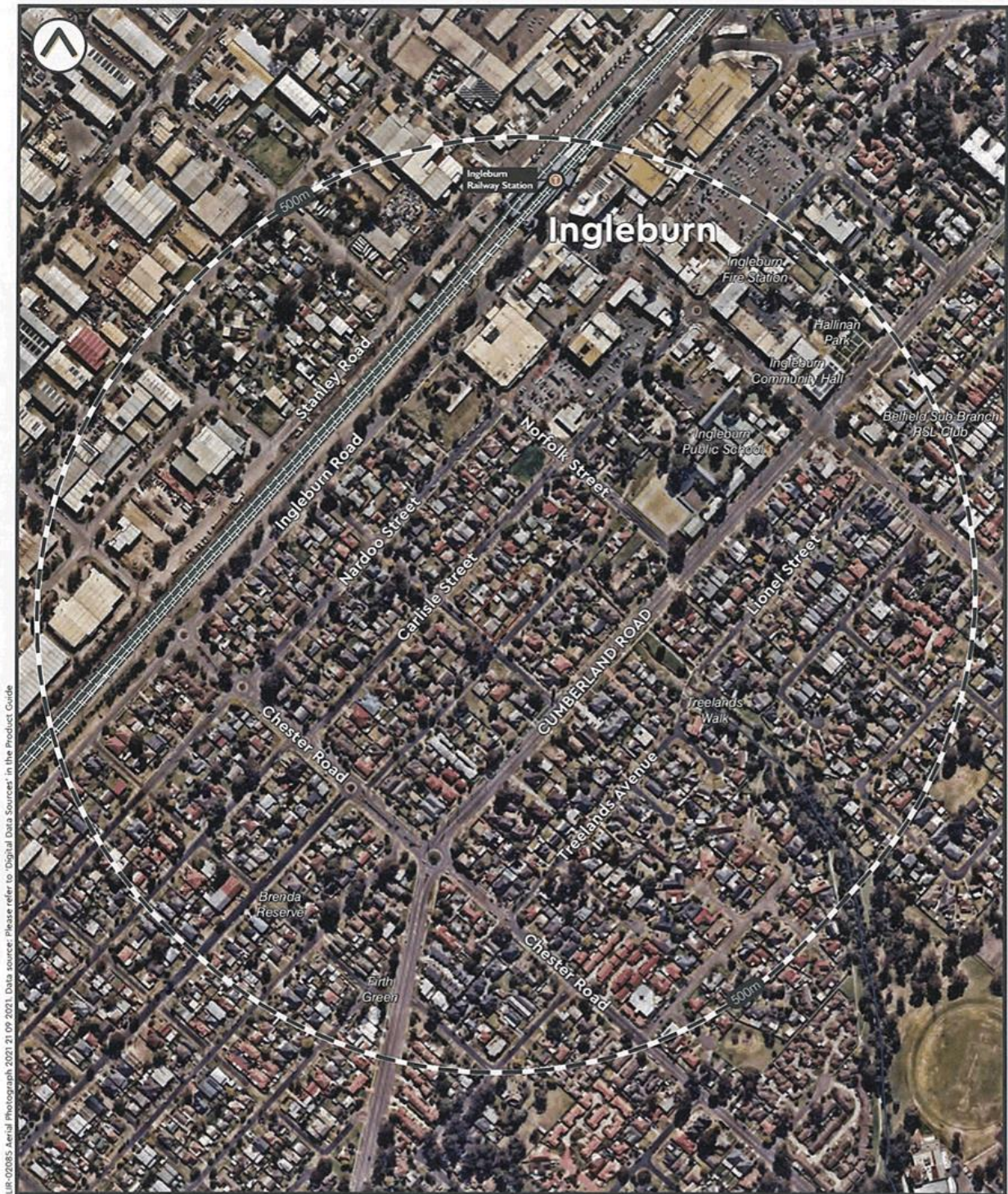
Land Insight & Resources do not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.



IMAGERY INSIGHT

MAP B13

Historic Aerial Photograph - 2021



LR-02085 Aerial Photograph 2021 21 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area
0 200m



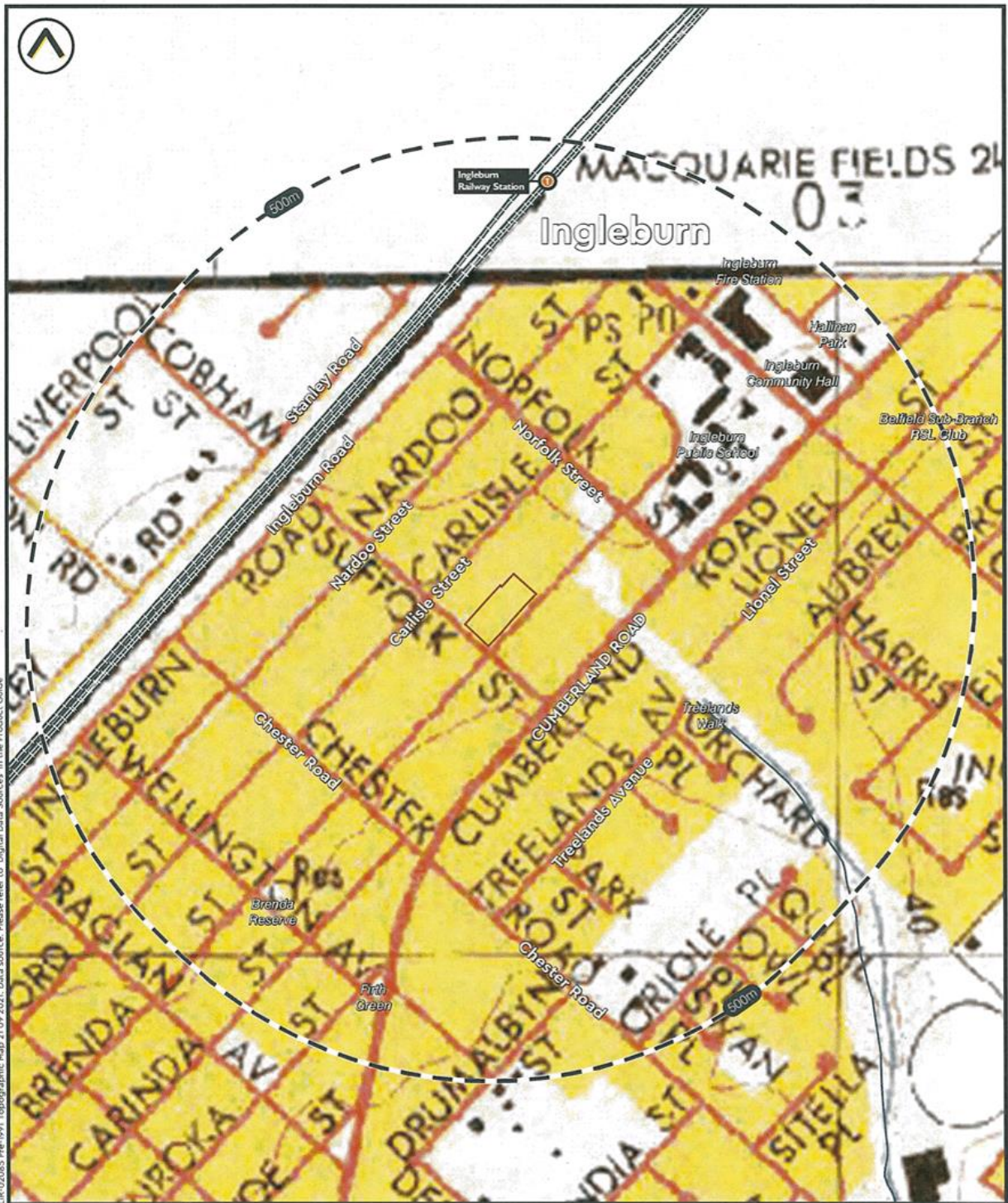
Land Insight & Resources do not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.



IMAGERY INSIGHT

MAP B14

1969-1991 1:25,000 Topographic Map (Campbelltown 9029-1N)

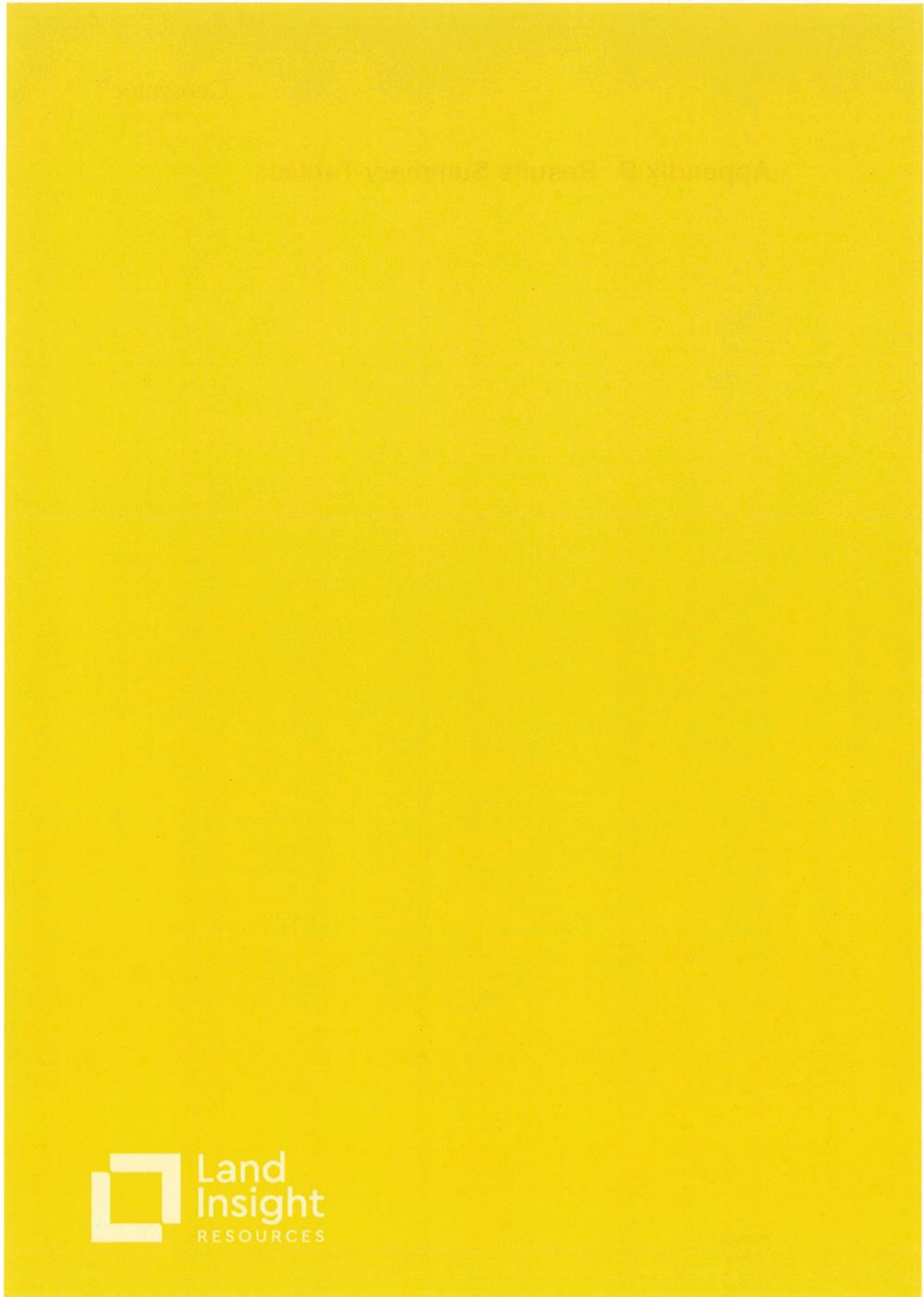


LIR-02085 Pre-1991 Topographic Map 21 09 2021. Data source: 'Digital Data Sources' in the Product Guide



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Appendix D Results Summary Tables

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Results Summary - BTEX, TRH / TPH

Field ID	Date	BTEX				TRH							TPH					
		Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene (m & p) mg/kg	Xylene (o) mg/kg	Xylene Total mg/kg	C6-C10 Fraction (F1) mg/kg	C6-C10 F1 minus BTEX) mg/kg	C10-C16 Fraction (F2) mg/kg	C10-C16 Fraction (F2) minus Naphthalene) mg/kg	C16-C34 Fraction (F3) mg/kg	>C34-C40 Fraction (F4) mg/kg	>C10-C40 Fraction (Sum) mg/kg	C6-C9 Fraction mg/kg	C10-C14 Fraction mg/kg	C15-C28 Fraction mg/kg	C29-C36 Fraction mg/kg
ECOL		0.1	0.1	0.1	0.2	0.1	0.3	700	20	50	50	100	100	20	20	50	50	50
NEPM 2013 Table 18(7) Management Limits in Res / Parkland, Coarse Soil		10	268	600		1,000	1,000	1,000	50	50	50	100	100	20	20	50	50	10,000
NSW 2014 General Solid Waste CT1 (No Leaching)		40	1,153	2,565		4,000	4,000	4,000	50	50	50	100	100	20	20	50	50	10,000
NSW 2014 Urban Residential Soil Management Limits (No Leaching)		0.5	160	55		40	45	45	110	110	110	300	300	20	20	50	50	2,000
NEPM 2013 Table 14(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0m to <1m		50	85	70		105	180	120	120	120	300	2,900	2,900	20	20	50	50	2,900
NEPM 2013 Table 18(6) ESUs for Urban Res, Coarse Soil, 0m to <2m																		
NEPM 2013 Table 14(1) HILs Res A Soil																		
BH1 0.5-07	22/09/2021	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	<100	<100	<20	<20	<50	<50	<50
BH2 0.5-07	22/09/2021	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	<100	<100	<20	<20	<50	<50	<50
BH3 0.5-07	22/09/2021	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	<100	<100	<20	<20	<50	<50	<50
BH4 0.5-07	22/09/2021	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	<100	<100	<20	<20	<50	<50	<50
BH5 0.5-07	22/09/2021	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	<100	<100	<20	<20	<50	<50	<50
BH6 0.5-07	22/09/2021	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	<100	<100	<20	<20	<50	<50	<50
BH7 0.5-07	22/09/2021	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	<100	<100	<20	<20	<50	<50	<50

21233

Results Summary - Metals, Asbestos

EOL	Asbestos in Soils Y / N	Metals							
		Arsenic mg/kg	Cadmium mg/kg	Chromium (III+VI) mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Nickel mg/kg	Zinc mg/kg
NEPM 2013 Table 18(7) Management Limits in Res./ Parkland, Coarse Soil		2	0.4	5	5	5	0.1	5	5
NSW 2014 General Solid Waste CT1 (No Leaching)		100	20			100	4	40	
NSW 2014 Restricted Solid Waste CT2 (No Leaching)		400	80			400	16	160	
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand		100							
NEPM 2013 Table 18(5) Generic EL - Urban Res & Public Open Space									
NEPM 2013 Table 18(6) ESLs for Urban Res, Coarse Soil		100	20		6,000	300	40	400	7,400
NEPM 2013 Table 1A(1) Hills Res A Soil									

Field ID	Date	N	13	<0.4	33	7.1	16	<0.1	<5	9.6
BH1_0.5-07	22/09/2021	N	14	<0.4	41	5.5	14	<0.1	6.3	8.0
BH2_0.5-07	22/09/2021	N	13	<0.4	32	5.9	13	<0.1	5.6	7.9
BH3_0.5-07	22/09/2021	N	15	<0.4	37	6.6	16	<0.1	6.0	12
BH4_0.5-07	22/09/2021	N	16	<0.4	40	7.5	18	<0.1	6.6	14
BH6_0.5-07	22/09/2021	N	19	<0.4	46	7.4	24	<0.1	7.3	18
BH7_0.5-07	22/09/2021	N	18	<0.4	50	6.8	18	<0.1	8.9	49

Results Summary - Pesticides

21233

Field ID	Date	Organochlorine Pesticides																									
		Halogenated Benzenes	organochlorine pesticides EPAVC	Other organochlorine pesticides EPAVC	4-DOE	BHC	Mdrin	Mdrin + Dieldrin	BHC	Chlordane	BHC	DDD	DDE	DDE+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Xyrene	
CDL		0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
NEPM 2013 Table 1(B7) Management Limits in Res/ Flyland, Course Soil	22/09/2021	<0.05	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SSW 2014 Genex® Solid Waste CTT (No Leach)	22/09/2021	<0.05	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SSW 2014 Estimation of Soil Concentrations (No Leach)	22/09/2021	<0.05	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
NEPM 2013 Table 1(A3) Res A/B Soil HX for Vapour Intrusion, Sand	22/09/2021	<0.05	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
NEPM 2013 Table 1(B0) ESAs for Urban Res. Course Soil	22/09/2021	<0.05	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
NEPM 2013 Table 1(A1) HXs Rev A Soil	22/09/2021	<0.05	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05



Appendix E Photographic Log

21233 PSI

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233



Photo Number:	Date:	
1	22.9.2021	
Description:		
20 Palmer Street – View of front yard.		

Photo Number:	Date:	
2	22.9.2021	
Description:		
20 Palmer Street – View of front yard and front of dwelling.		

21233 | A&M Group 1 Pty Ltd

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233

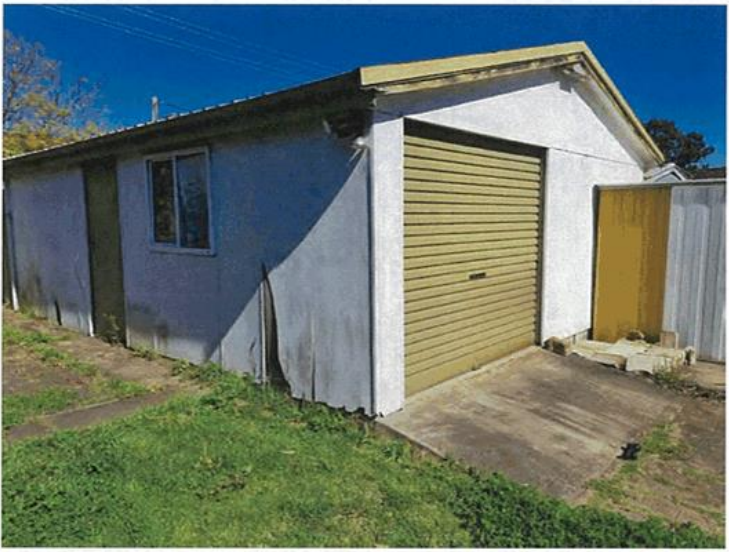

Photo Number:	Date:	
3	22.9.2021	
Description:		
<p>20 Palmer Street – Fibre cement board shed in back yard.</p>		

Photo Number:	Date:	
4	22.9.2021	
Description:		
<p>20 Palmer Street – View across back yard and garden bed.</p>		

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233



Photo Number:	Date:	
5	22.9.2021	
Description:		
20 Palmer Street – Garage and contents.		

Photo Number:	Date:	
6	22.9.2021	
Description:		
20 Palmer Street – Example of topsoil fill soils in BH2.		

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233

Photo Number: 7	Date: 22.9.2021	
Description: 20 Palmer Street - Example of natural clay soils in BH2.		

Photo Number: 8	Date: 22.9.2021	
Description: 18 Palmer Street - View of front yard.		

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233


Photo Number:	Date:	
9	22.9.2021	
Description:		
18 Palmer Street – Example of topsoil fill soils in BH3.		

Photo Number:	Date:	
10	22.9.2021	
Description:		
18 Palmer Street – Example of natural clay soils in BH3.		

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233



Photo Number:	Date:	
11	22.9.2021	
Description:		
16 Palmer Street - View of front yard.		

Photo Number:	Date:	
12	22.9.2021	
Description:		
16 Palmer Street – View of front yard and front of dwelling.		

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233



Photo Number:	Date:	
13	22.9.2021	
Description:		
16 Palmer Street – View of back yard.		

Photo Number:	Date:	
14	22.9.2021	
Description:		
16 Palmer Street – back yard and steel shed.		

21233 | A&M Group 1 Pty Ltd

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233

Photo Number: 15	Date: 22.9.2021	
Description: 14 Palmer Street - View of front yard.		

Photo Number: 16	Date: 22.9.2021	
Description: 14 Palmer Street – View of front yard and front of dwelling.		

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233

Photo Number:	Date:	
17	22.9.2021	
Description:		
14 Palmer Street – View across front yard to the east.		

Photo Number:	Date:	
18	22.9.2021	
Description:		
14 Palmer Street – View of back yard to the north.		

Photograph Log



Client Name:

A&M Group 1 Pty Ltd

Site Location:

14 - 20 Palmer Street, Ingleburn,
NSW 2565

Project Number:

21233

Photo Number: 19	Date: 22.9.2021	
Description: 14 Palmer Street – View of back yard to the south beside the dwelling.		

Photo Number: 20	Date: 22.9.2021	
Description: 14 Palmer Street – Example of topsoil fill soils in BH5.		



Appendix F Borehole Logs

21233 PSI



BH1

PROJECT NUMBER 21233 PROJECT NAME Ingleburn PSI CLIENT A&M Group 1 Pty Ltd ADDRESS 14 - 20 Palmer Street, Ingleburn, NSW	DRILLING COMPANY N/A DRILLING METHOD Hand Auger TOTAL DEPTH 0.9m DRILLING DATE 22/09/2021	COORDINATES - COORD SYS - SURFACE ELEVATION - LOGGED BY HD CHECKED BY EM
---	--	---

COMMENTS NO = No Odour, NS = No Staining, NFC = No Potential Asbestos Containing Fibre Cement Fragments, NI = No Observed Inclusions

Depth (m)	PID (ppm)	Samples	Water	Graphic Log	Material Description	Moisture	Additional Observations
0.1		BH1_0.1-0.3			FILL (Topsoil): Silty sandy clay, brown, low plasticity, loose	D	NO, NS, NFC, NI
0.2							
0.3					NATURAL: Clay, light brown with orange mottling, medium plasticity, crumbly		NO, NS, NFC, NI
0.4							
0.5		BH1_0.5-0.7					
0.6							
0.7							
0.8							
0.9					End of Borehole at 0.9m at target depth		
1							
1.1							
1.2							
1.3							
1.4							
1.5							
1.6							
1.7							
1.8							
1.9							

Disclaimer This bore log is intended for environmental not geotechnical purposes.

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BH2

PROJECT NUMBER 21233 PROJECT NAME Ingleburn PSI CLIENT A&M Group 1 Pty Ltd ADDRESS 14 - 20 Palmer Street, Ingleburn, NSW	DRILLING COMPANY N/A DRILLING METHOD Hand Auger TOTAL DEPTH 0.9m DRILLING DATE 22/09/2021	COORDINATES - COORD SYS - SURFACE ELEVATION - LOGGED BY HD CHECKED BY EM
---	--	---

COMMENTS NO = No Odour, NS = No Staining, NFC = No Potential Asbestos Containing Fibre Cement Fragments, NI = No Observed Inclusions

Depth (m)	PID (ppm)	Samples	Water	Graphic Log	Material Description	Moisture	Additional Observations
0.1		BH1_0.1-0.3			FILL (Topsoil): Silty sandy clay, brown, low plasticity, loose	D	NO, NS, NFC, NI
0.2							
0.3					NATURAL: Clay, light brown with orange mottling, medium plasticity, crumbly		NO, NS, NFC, NI
0.4							
0.5		BH1_0.5-0.7					
0.6							
0.7							
0.8							
0.9					End of Borehole at 0.9m at target depth		
1							
1.1							
1.2							
1.3							
1.4							
1.5							
1.6							
1.7							
1.8							
1.9							

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BH3

PROJECT NUMBER 21233	DRILLING COMPANY N/A	COORDINATES -
PROJECT NAME Ingleburn PSI	DRILLING METHOD Hand Auger	COORD SYS -
CLIENT A&M Group 1 Pty Ltd	TOTAL DEPTH 0.8m	SURFACE ELEVATION -
ADDRESS 14 - 20 Palmer Street, Ingleburn, NSW	DRILLING DATE 22/09/2021	LOGGED BY HD
		CHECKED BY EM

COMMENTS NO = No Odour, NS = No Staining, NFC = No Potential Asbestos Containing Fibre Cement Fragments, NI = No Observed Inclusions

Depth (m)	PID (ppm)	Samples	Water	Graphic Log	Material Description	Moisture	Additional Observations
0.1		BH1_0.1-0.3			FILL (Topsoil): Silty sandy clay, brown, low plasticity, loose	D	NO, NS, NFC, NI
0.2							
0.3					NATURAL: Clay, light brown with orange mottling, medium plasticity, crumbly		NO, NS, NFC, NI
0.4							
0.5		BH1_0.5-0.7					
0.6							
0.7							
0.8					End of Borehole at 0.8m at target depth		
0.9							
1							
1.1							
1.2							
1.3							
1.4							
1.5							
1.6							
1.7							
1.8							
1.9							

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BH4

PROJECT NUMBER 21233	DRILLING COMPANY N/A	COORDINATES -
PROJECT NAME Ingleburn PSI	DRILLING METHOD Hand Auger	COORD SYS -
CLIENT A&M Group 1 Pty Ltd	TOTAL DEPTH 0.9m	SURFACE ELEVATION -
ADDRESS 14 - 20 Palmer Street, Ingleburn, NSW	DRILLING DATE 22/09/2021	LOGGED BY HD
		CHECKED BY EM

COMMENTS NO = No Odour, NS = No Staining, NFC = No Potential Asbestos Containing Fibre Cement Fragments, NI = No Observed Inclusions

Depth (m)	PID (ppm)	Samples	Water	Graphic Log	Material Description	Moisture	Additional Observations
0.1		BH1_0.1-0.3			FILL (Topsoil): Silty sandy clay, brown, low plasticity, loose	D	NO, NS, NFC, NI
0.2							
0.3					NATURAL: Clay, light brown with orange mottling, medium plasticity, crumbly		NO, NS, NFC, NI
0.4							
0.5		BH1_0.5-0.7					
0.6							
0.7							
0.8							
0.9					End of Borehole at 0.9m at target depth		
1							
1.1							
1.2							
1.3							
1.4							
1.5							
1.6							
1.7							
1.8							
1.9							

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BH5

PROJECT NUMBER 21233 PROJECT NAME Ingleburn PSI CLIENT A&M Group 1 Pty Ltd ADDRESS 14 - 20 Palmer Street, Ingleburn, NSW	DRILLING COMPANY N/A DRILLING METHOD Hand Auger TOTAL DEPTH 0.9m DRILLING DATE 22/09/2021	COORDINATES - COORD SYS - SURFACE ELEVATION - LOGGED BY HD CHECKED BY EM
---	--	---

COMMENTS NO = No Odour, NS = No Staining, NFC = No Potential Asbestos Containing Fibre Cement Fragments, NI = No Observed Inclusions

Depth (m)	PID (ppm)	Samples	Water	Graphic Log	Material Description	Moisture	Additional Observations
0.1		BH1_0.1-0.3			FILL (Topsoil): Silty sandy clay, brown, low plasticity, loose	D	NO, NS, NFC, NI
0.2							
0.3					NATURAL: Clay, light brown with orange mottling, medium plasticity, crumbly		NO, NS, NFC, NI
0.4							
0.5		BH1_0.5-0.7					
0.6							
0.7							
0.8							
0.9					End of Borehole at 0.9m at target depth		
1							
1.1							
1.2							
1.3							
1.4							
1.5							
1.6							
1.7							
1.8							
1.9							

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BH6

PROJECT NUMBER 21233 PROJECT NAME Ingleburn PSI CLIENT A&M Group 1 Pty Ltd ADDRESS 14 - 20 Palmer Street, Ingleburn, NSW	DRILLING COMPANY N/A DRILLING METHOD Hand Auger TOTAL DEPTH 0.7m DRILLING DATE 22/09/2021	COORDINATES - COORD SYS - SURFACE ELEVATION - LOGGED BY HD CHECKED BY EM
---	--	---

COMMENTS NO = No Odour, NS = No Staining, NFC = No Potential Asbestos Containing Fibre Cement Fragments, NI = No Observed Inclusions

Depth (m)	PID (ppm)	Samples	Water	Graphic Log	Material Description	Moisture	Additional Observations
0.1		BH1_0.1-0.3			FILL (Topsoil): Silty sandy clay, brown, low plasticity, loose	D	NO, NS, NFC, NI
0.2							
0.3					NATURAL: Clay, light brown with orange mottling, medium plasticity, crumbly		NO, NS, NFC, NI
0.4							
0.5		BH1_0.5-0.7					
0.6							
0.7					End of Borehole at 0.7m at target depth		
0.8							
0.9							
1							
1.1							
1.2							
1.3							
1.4							
1.5							
1.6							
1.7							
1.8							
1.9							

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BH7

PROJECT NUMBER 21233 PROJECT NAME Ingleburn PSI CLIENT A&M Group 1 Pty Ltd ADDRESS 14 - 20 Palmer Street, Ingleburn, NSW	DRILLING COMPANY N/A DRILLING METHOD Hand Auger TOTAL DEPTH 0.7m DRILLING DATE 22/09/2021	COORDINATES - COORD SYS - SURFACE ELEVATION - LOGGED BY HD CHECKED BY EM
---	--	---

COMMENTS NO = No Odour, NS = No Staining, NFC = No Potential Asbestos Containing Fibre Cement Fragments, NI = No Observed Inclusions

Depth (m)	PID (ppm)	Samples	Water	Graphic Log	Material Description	Moisture	Additional Observations
0.1		BH1_0.1-0.3			FILL (Topsoil): Silty sandy clay, brown, low plasticity, loose	D	NO, NS, NFC, NI
0.2							
0.3					NATURAL: Clay, light brown with orange mottling, medium plasticity, crumbly		NO, NS, NFC, NI
0.4							
0.5		BH1_0.5-0.7					
0.6							
0.7					End of Borehole at 0.7m at target depth		
0.8							
0.9							
1							
1.1							
1.2							
1.3							
1.4							
1.5							
1.6							
1.7							
1.8							
1.9							

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Appendix G Data Quality Objectives (DQO) and Data Quality indicators (DQI)

21233 PSI

Step 1 – Defining the Problem**Concise Description of the Problem**

A PSI and limited assessment of contamination conditions in accessible areas of the site was conducted to support a development application for a proposed five-storey residential apartment building including two levels of basement car parking and a childcare centre on the ground floor of the building.

Planning Team Members and Decision Maker

The project was commissioned by Australex Group Pty Ltd on behalf of A&M Group 1 Pty Ltd. The Geosyntec project team included:

Geosyntec Project Director: Peter Moore

Geosyntec Project Manager / Field Scientist: Hayden Davies

Summary of Available Resources, Constraints and Relevant Deadlines

The project team was assigned to conduct the PSI and limited soil testing based on them having considerable relevant experience in projects of this nature. Fieldwork was conducted on 22 September 2021.

Step 2 – Identify the Decision**Decision Statement Linking the Principal Study Question to Possible Actions that will Solve the Problem**

Based on the decision-making process for assessing urban redevelopment sites detailed in Appendix A of EPA (2017) guidelines for the NSW Site Auditor Scheme and modified to relate to the specific redevelopment requirements for this DSI, the following decision was required to be made:

- Do the soils at the site exceed the adopted site criteria detailed in Step 3 below? If this is the case, then additional assessment, management or remediation will be required.

Step 3 – Identification of Inputs into the Decision**List of Informational Inputs Needed to Resolve the Decision Statement**

Inputs needed to resolve the decision statement include:

- Desktop investigation findings;
- Observations made during the field works; and
- Results of field and laboratory testing.

Identification of the Media to be Assessed

The media that required investigation was soil.

List of Environmental Variables or Characteristics that were Measured

Seven (7) samples were selectively analysed for priority heavy metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, and xylene (BTEX compounds), polycyclic aromatic hydrocarbons (PAH), organochlorine pesticides (OCP) and asbestos (absence/presence).

Identification of Site Criteria for Each Medium of Concern

The soil site criteria to be adopted for this study are as follows:



- NEPM (2013) Health Investigation Levels (HIL) and Health Screening Levels (HSL) for Residential land uses with garden/accessible soil, also including children’s day care centres, preschools and primary schools (HIL-A). Coarse soil criteria (0 to <1m) has been adopted for both the silty sandy clay topsoil fill and natural clay soils as a conservative measure.
- NEPM (2013) Ecological Investigation Levels (EIL) and Ecological Screening Levels (ESL) for Urban Residential and Public Open Space land use.
- NEPM (2013) Management Limits for Total Recoverable Hydrocarbons for Residential, Parkland and Public Open Space land use for coarse soils as a conservative measure.

Identification of Analytical Methods that are Required for Chemicals of Potential Concern so that Assessment can be made Relative to the Site Criteria

The tables below outline the analytical methods of the NATA accredited primary laboratory Eurofins.

Table D1: Soil Analytical Methods

Analyte	Analytical Method
TPH/BTEX	P&T GC/MS GC/FID (USEPA 8260/8000)
PAH	Capillary GC/MS in SIM (USEPA SW 846 - 8270B)
Mercury	Cold Vapour AAS (USEPA 7471A)
Metals	ICP-AES (USEPA 200.7)
OCP	GC/ECD/MS (USEPA 8081)
Asbestos	PLM Dispersion Staining (AS4964-2004)

Step 4 – Defining the Study Boundaries

Detailed Description of the Spatial and Temporal Boundaries of the Problem

The lateral study area is the site boundary as presented in Figure 2, Appendix A. The vertical extent of the investigation was between 0m and 0.9m bgl depending on the location and if natural soils were encountered.

Any Practical Constraints that May Interfere with the Study

No practical constraints were identified.

Step 5 – Developing Decision Rules

The decision rules adopted to answer the decisions outlined in Step 2 are summarised in the following table:

Table D3 Summary of Decision Rules

No.	Decision to be Made	Decision Rule
1	Are the soils at the site chemically suitable for the proposed development?	YES, if: <ul style="list-style-type: none"> • Analytical results are below the adopted site criteria. Otherwise NO.

Step 6 – Specify Limits on Decision Errors

Decision-maker's Tolerable Decision Error Rates Based on a Consideration of the Consequences of Making an Incorrect Decision

NSW EPA (1995) states that "Unless a site investigator can demonstrate otherwise, the EPA maintains that all statistical interpretation should be carried out at a confidence level of no lower than 95%". To ensure compliance with this guideline, an overall acceptable error rate of $\leq 5\%$ was adopted for this Project.

The pre-determined data quality indicators (DQIs) established for the Project are discussed below in relation to precision, accuracy, representativeness, comparability and completeness (PARCC parameters) as required by Step 6 of the DQO process.

Table D4 Data Quality Objectives and Indicators for Soil Samples

Data Quality Objectives	Frequency Conducted	Data Quality Indicator
Precision		
Intra-Laboratory Field Duplicates	1/20 samples	>5xLOR: 50% RPD as primary sample for asbestos
Inter-Laboratory Field Duplicates	1/20 samples	>5xLOR: 50% RPD as primary sample for asbestos
Laboratory duplicates (Eurofins)	1/20 samples	<10xLOR: No Limit >10xLOR: 50% RPD >10xLOR: 20%RPD Not required for asbestos
Laboratory method blanks	1/20 samples	< LOR Not required for asbestos
Accuracy		
Matrix spikes	1/20 samples	Acceptable recoveries: 70 to 130% for metals and inorganics 60-140% for organics 10-140% for sVOC and speciated phenols Not required for asbestos
Laboratory control spike	1/20 samples	As Matrix spikes Not required for asbestos
Surrogate spike	1/20 samples	As Matrix spikes Not required for asbestos
Representativeness		
Sampling handling storage and transport - appropriate for media and analytes		Yes
Rinsate blanks	-	No rinsate samples were collected during sampling works: For soil, new nitrile gloves were used for each sample.
Trip Spike and Trip Blank	1 per event	No trip spike or blank samples were analysed during soil sampling program. Given volatile compounds were detected at concentrations below their respective laboratory limits of reporting it is considered that potential loss of volatile and cross contamination is unlikely.
Samples extracted and analysed within holding times.	-	Hold Times: 7 days - organics

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Data Quality Objectives	Frequency Conducted	Data Quality Indicator
		6 months – inorganics
Comparability		
Standard operating procedures used for sample collection and handling (including decontamination)	All Samples	Yes
Standard analytical methods used for all analyses	All Samples	Yes
Consistent field conditions, sampling staff and laboratory analysis	All Samples	Yes
Limits of reporting appropriate and consistent	All Samples	Yes
Completeness		
Soil description and COCs completed and appropriate	All Samples	Yes
Appropriate documentation for testing	All Samples	Yes
Data set to be 95% complete after validation	All Samples	Yes

¹ - If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

Step 7 – Optimise Design

The Optimum Manner in which to Collect the Data Required to meet the Objectives for the Assessment and which will meet the Project DQOs

With consideration to the objectives of the Project; the review of existing environmental data; and, the evaluation of operational decision rules, a resource-effective sampling and analysis plan is presented in Section 6 of the report.



Appendix H QA/QC Assessment

21233 PSI

Table G-1 QA/QC Assessment

Data Quality Objective	Sampling Frequency	Frequency Achieved?	DQI	DQI Met?
Precision				
Intra-Laboratory Field Duplicates	1/20 samples	NA – no intra-laboratory duplicates collected as sampling was for screening purposes	>5xLOR: 30% RPD	N/A
Inter-Laboratory Field Duplicates	1/20 samples	NA – no inter-laboratory duplicates collected as sampling was for screening purposes	>5xLOR: 30% RPD	N/A
Laboratory duplicates	1/20 samples	Yes	>5xLOR: 50% RPD	Yes
Laboratory method blanks	1/10 samples	Yes	< LOR Not required for asbestos	Yes
Accuracy				
Matrix spikes	1/10 samples	Yes	Acceptable recoveries: 70 to 130% for metals and inorganics 60-140% for organics 10-140% for sVOC Not required for asbestos	Yes.
Laboratory control spike	1/10 samples	Yes	As Matrix spikes Not required for asbestos	Yes.
Surrogate spike	1/10 samples	Yes	As Matrix spikes Not required for asbestos	Yes.
Representativeness				
Sampling handling storage and transport appropriate for media and analytes	All	Yes	Received by laboratory cooled and with container in good condition	Yes
Rinsate blanks	NA	NA	<LOR	NA
Trip Spike and Trip Blank	1 per media	NA	<LOR/as specified by NA laboratory	
Samples extracted and analysed within holding times.	All	Yes	Hold Times: 7 days - organics 6 months – inorganics	Yes
Comparability				
Standard operating procedures used for sample collection and handling (including decontamination)	All Samples	Yes	Yes	Yes
Standard analytical methods used for all analyses	All Samples	Yes	Yes	Yes

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Data Quality Objective	Sampling Frequency	Frequency Achieved?	DQI	DQI Met?
Consistent field conditions, sampling staff and laboratory analysis	All Samples	Yes	Yes	Yes
Limits of reporting appropriate and consistent	All Samples	Yes	Yes	Yes
Completeness				
Soil description and COCs completed and appropriate	All Samples	Yes	Yes	Yes, bore hole logs and laboratory certificates are presented in Appendices F and I, respectively.
Appropriate documentation for testing	All Samples	Yes	Yes	Yes
Data set to be 95% complete after validation	All Samples	Yes	Yes	Yes



Appendix I Laboratory Certificates

21233 PSI



Environment Testing

www.eurofins.com.au

EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name: Geosyntec Consultants Pty Ltd
Contact name: Hayden Davies
Project name: PSI INGLEBURN
Project ID: 21233
Turnaround time: 5 Day
Date/Time received: Sep 22, 2021 5:29 PM
Eurofins reference: 826928

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✗ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:
Asim Khan on phone : or by email: AsimKhan@eurofins.com
Results will be delivered electronically via email to Hayden Davies - hayden.davies@geosyntec.com.





Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne

6 Monterey Road
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Phone: +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney

Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone: +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane

1/21 Smallwood Place
Murarie QLD 4172
Phone: +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle

4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2393
Phone: +61 2 4968 8448
NATA # 1261 Site # 25079

Perth

46-48 Banksia Road
Welshpool WA 6106
Phone: +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Auckland

35 O'Rourke Road
Penrose, Auckland 1061
Phone: +64 9 526 45 51
IANZ # 1327

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

Christchurch

43 Detroit Drive
Rolleston, Christchurch 7675
Phone: 0800 856 450
IANZ # 1290

Company Name: Geosyntec Consultants Pty Ltd
Address: Suite 1, Level 9, 189 Kent Street
Sydney
NSW 2000
Project Name: PSJ INGLEBURN
Project ID: 21233

Order No.:
Report #:
Phone:
Fax:

826928
02 9251 8070

Received: Sep 22, 2021 5:29 PM
Due: Sep 29, 2021
Priority: 5 Day
Contact Name: Hayden Davies

Eurofins Analytical Services Manager : Asim Khan

Sample Detail						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	BH1_0.1-03	Sep 22, 2021		Soil	S21-Se47772	
2	BH1_0.5-07	Sep 22, 2021		Soil	S21-Se47773	X
3	BH2_0.1-03	Sep 22, 2021		Soil	S21-Se47774	X
4	BH2_0.5-07	Sep 22, 2021		Soil	S21-Se47775	X
5	BH3_0.1-03	Sep 22, 2021		Soil	S21-Se47776	X
6	BH3_0.5-07	Sep 22, 2021		Soil	S21-Se47777	X
7	BH4_0.1-03	Sep 22, 2021		Soil	S21-Se47778	X
8	BH4_0.5-07	Sep 22, 2021		Soil	S21-Se47779	X
9	BH5_0.1-03	Sep 22, 2021		Soil	S21-Se47780	X
Eurofins Suite B9						
Moisture Set						
HOLD						
Asbestos - AS4964						

Eurofins ARL Pty Ltd
 ABN: 91 05 0159 888
 Perth
 46-48 Banksia Road
 Welshpool WA 6106
 Phone : +61 8 6253 4444
 NATA # 2377 Site # 2370

Eurofins Environment Testing Australia Pty Ltd
 ABN: 50 005 085 521
 Melbourne
 6 Monterey Road
 Dandenong South VIC 3175
 Phone : +61 3 8564 5000
 NATA # 1261 Site # 1254

Eurofins Environment Testing NZ Limited
 NZBN: 9429046024954
 Auckland
 35 O'Rourke Road
 Penrose, Auckland 1061
 Phone : +64 9 525 45 51
 IANZ # 1327

eurofins
 Environment Testing
 web: www.eurofins.com.au
 email: EnviroSales@eurofins.com

Company Name: Geosyntec Consultants Pty Ltd
Address: Suite 1, Level 9, 189 Kent Street
 Sydney
 NSW 2000
Project Name: PSI INGLEBURN
Project ID: 21233

Received: Sep 22, 2021 5:29 PM
Due: Sep 29, 2021
Priority: 5 Day
Contact Name: Hayden Davies

Eurofins Analytical Services Manager : Asim Khan

Order No.: 826928
Report #: 02 9251 8070
Phone:
Fax:

Sample Detail		Eurofins Suite B9		Moisture Set		HOLD		Asbestos - AS4964	
Melbourne Laboratory - NATA # 1261 Site # 1254			X		X				
Sydney Laboratory - NATA # 1261 Site # 18217			X		X				
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
10	BH5_0.5-07	Soil	S21-Se47781	X	X				
11	BH6_0.1-03	Soil	S21-Se47782		X				
12	BH6_0.5-07	Soil	S21-Se47783	X	X				
13	BH7_0.1-03	Soil	S21-Se47784		X				
14	BH7_0.5-07	Soil	S21-Se47785	X	X				
Test Counts									
									7
									7
									7
									7



Environment Testing

Certificate of Analysis

Geosyntec Consultants Pty Ltd
Suite 1, Level 9, 189 Kent Street
Sydney
NSW 2000



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025-Testing
NATA is a signatory to the ILAC Mutual Recognition
Arrangement for the mutual recognition of the
equivalence of testing, medical testing, calibration,
inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: Hayden Davies
Report 826928-AID
Project Name PSI INGLEBURN
Project ID 21233
Received Date Sep 22, 2021
Date Reported Sep 30, 2021

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. <i>NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.</i>
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. <i>NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.</i>
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. <i>NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.</i>
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 4964 - 2004. <i>NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.</i>
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). <i>NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 %" and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.</i>



Environment Testing

Accredited for compliance with ISO/IEC 17025-Testing
 NATA and NATA-MRA Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.



Project Name PSI INGLEBURN
Project ID 21233
Date Sampled Sep 22, 2021
Report 826928-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH1_0.5-07	21-Se47773	Sep 22, 2021	Approximate Sample 49g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH2_0.5-07	21-Se47775	Sep 22, 2021	Approximate Sample 94g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH3_0.5-07	21-Se47777	Sep 22, 2021	Approximate Sample 42g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH4_0.5-07	21-Se47779	Sep 22, 2021	Approximate Sample 42g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH5_0.5-07	21-Se47781	Sep 22, 2021	Approximate Sample 41g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH6_0.5-07	21-Se47783	Sep 22, 2021	Approximate Sample 38g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7_0.5-07	21-Se47785	Sep 22, 2021	Approximate Sample 42g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.



Environment Testing

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Sep 23, 2021	Indefinite

Eurofins ARL Pty Ltd Eurofins Environment Testing NZ Limited
 ABN: 91 05 0159 898 NZBN: 9429046024954

Perth
 46-48 Banksia Road
 Welshpool WA 6106
 Phone : +61 8 6253 4444
 NATA # 2377 Site # 2370

Christchurch
 43 Detroit Drive
 Rolleston, Christchurch 7675
 Phone : 0800 856 450
 IANZ # 1290

Eurofins Environment Testing Australia Pty Ltd
 ABN: 50 005 085 521

Melbourne
 6 Monterey Road
 Dandenong South VIC 3175
 Phone : +61 3 8564 5000
 NATA # 1261 Site # 1254

Sydney
 Unit F3, Building F
 16 Mars Road
 Lane Cove West NSW 2066
 Phone : +61 2 9900 8400
 NATA # 1261 Site # 18217

Brisbane
 1/21 Smallwood Place
 Murarie QLD 4172
 Phone : +61 7 3902 4600
 NATA # 1261 Site # 20794

Newcastle
 4/52 Industrial Drive
 Mayfield East NSW 2304
 PO Box 60 Wickham 2293
 Phone : +61 2 4968 8448
 NATA # 1261 Site # 25079

Environment Testing



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 email: EnviroSales@eurofins.com

Company Name: Geosyntec Consultants Pty Ltd
Address: Suite 1, Level 9, 189 Kent Street
 Sydney
 NSW 2000

Project Name: PSI INGLEBURN
Project ID: 21233

Order No.: 826928
Report #: 02 9251 8070
Phone:
Fax:

Received: Sep 22, 2021 5:29 PM
Due: Sep 29, 2021
Priority: 5 Day
Contact Name: Hayden Davies

Eurofins Analytical Services Manager : Asim Khan

Sample Detail						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	BH1_0.1-03	Sep 22, 2021		Soil	S21-Se47772	
2	BH1_0.5-07	Sep 22, 2021		Soil	S21-Se47773	X
3	BH2_0.1-03	Sep 22, 2021		Soil	S21-Se47774	X
4	BH2_0.5-07	Sep 22, 2021		Soil	S21-Se47775	X
5	BH3_0.1-03	Sep 22, 2021		Soil	S21-Se47776	X
6	BH3_0.5-07	Sep 22, 2021		Soil	S21-Se47777	X
7	BH4_0.1-03	Sep 22, 2021		Soil	S21-Se47778	X
8	BH4_0.5-07	Sep 22, 2021		Soil	S21-Se47779	X
9	BH5_0.1-03	Sep 22, 2021		Soil	S21-Se47780	X
Eurofins Suite B9						
Moisture Set						
HOLD						
Asbestos - AS4964						
Melbourne Laboratory - NATA # 1261 Site # 1254						
Sydney Laboratory - NATA # 1261 Site # 18217						
Brisbane Laboratory - NATA # 1261 Site # 20794						
Mayfield Laboratory - NATA # 1261 Site # 25079						
Perth Laboratory - NATA # 2377 Site # 2370						
External Laboratory						

Date Reported: Sep 30, 2021

Eurofins Environment Testing Unit F3, Building F, 16 Mars Road, Lane Cove West, NSW, Australia, 2066
 ABN : 50 005 085 521 Telephone: +61 2 9900 8400

Page 4 of 7
 Report Number: 826928-AID



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Environment Testing

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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NATA # 1261 Site # 25079

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Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Company Name: Geosyntec Consultants Pty Ltd
Address: Suite 1, Level 9, 189 Kent Street
Sydney
NSW 2000

Project Name: PSJ INGLEBURN
Project ID: 21233

Order No.: 826928
Report #: 02 9251 8070
Phone:
Fax:

Received: Sep 22, 2021 5:29 PM
Due: Sep 29, 2021
Priority: 5 Day
Contact Name: Hayden Davies

Eurofins Analytical Services Manager : Asim Khan

Sample Detail		Eurofins Suite B9						
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217								
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
10 BH5 0.5-07	Soil	S21-Se47781	X				X	
11 BH6 0.1-03	Soil	S21-Se47782		X				
12 BH6 0.5-07	Soil	S21-Se47783	X				X	
13 BH7 0.1-03	Soil	S21-Se47784			X			
14 BH7 0.5-07	Soil	S21-Se47785	X				X	
Test Counts								
			7		7		7	7

Date Reported: Sep 30, 2021

Eurofins Environment Testing Unit F3, Building F, 16 Mars Road, Lane Cove West, NSW, Australia, 2066
ABN : 50 005 085 521 Telephone: +61 2 9900 8400

Page 5 of 7
Report Number: 826928-AID



Environment Testing

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to "non-bonded / friable".
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.



Environment Testing

Comments

The samples received were not collected in an approved asbestos bag and was therefore sub-sampled from the 250mL glass jar. Valid sub-sampling procedures were applied so as to ensure that the sub-samples to be analysed accurately represented the samples received.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	No
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Chamath JHM Annakkage Senior Analyst-Asbestos (NSW)

Authorised by:

Laxman Dias Senior Analyst-Asbestos (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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Environment Testing

Certificate of Analysis

Geosyntec Consultants Pty Ltd
Suite 1, Level 9, 189 Kent Street
Sydney
NSW 2000



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition
Arrangement for the mutual recognition of the
equivalence of testing, medical testing, calibration,
inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: Hayden Davies

Report: 826928-S
Project name: PSI INGLEBURN
Project ID: 21233
Received Date: Sep 22, 2021

Client Sample ID			BH1_0.5-07	BH2_0.5-07	BH3_0.5-07	BH4_0.5-07
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Se47773	S21-Se47775	S21-Se47777	S21-Se47779
Date Sampled			Sep 22, 2021	Sep 22, 2021	Sep 22, 2021	Sep 22, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	85	119	112	103
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5



Environment Testing

Client Sample ID			BH1_0.5-07 Soil	BH2_0.5-07 Soil	BH3_0.5-07 Soil	BH4_0.5-07 Soil
Sample Matrix			S21-Se47773	S21-Se47775	S21-Se47777	S21-Se47779
Eurofins Sample No.			Sep 22, 2021	Sep 22, 2021	Sep 22, 2021	Sep 22, 2021
Date Sampled	LOR	Unit				
Test/Reference						
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	51	94	78	67
p-Terphenyl-d14 (surr.)	1	%	55	97	81	73
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	INT	90	67	62
Tetrachloro-m-xylene (surr.)	1	%	51	89	76	70
Heavy Metals						
Arsenic	2	mg/kg	13	14	13	15
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	33	41	32	37
Copper	5	mg/kg	7.1	5.5	5.9	6.6
Lead	5	mg/kg	16	14	13	16
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	6.3	5.6	6.0
Zinc	5	mg/kg	9.6	8.0	7.9	12
% Moisture	1	%	23	23	23	20



Environment Testing

Client Sample ID			BH5_0.5-07 Soil	BH6_0.5-07 Soil	BH7_0.5-07 Soil
Sample Matrix			S21-Se47781	S21-Se47783	S21-Se47785
Eurofins Sample No.			Sep 22, 2021	Sep 22, 2021	Sep 22, 2021
Date Sampled					
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	84	124	110
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	67	67	53
p-Terphenyl-d14 (surr.)	1	%	70	69	58
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05



Environment Testing

Client Sample ID			BH5_0.5-07 Soil	BH6_0.5-07 Soil	BH7_0.5-07 Soil
Sample Matrix			S21-Se47781	S21-Se47783	S21-Se47785
Eurofins Sample No.			Sep 22, 2021	Sep 22, 2021	Sep 22, 2021
Date Sampled	LOR	Unit			
Test/Reference					
Organochlorine Pesticides					
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorodate (surr.)	1	%	61	56	50
Tetrachloro-m-xylene (surr.)	1	%	66	66	55
Heavy Metals					
Arsenic	2	mg/kg	16	19	18
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	40	46	50
Copper	5	mg/kg	7.5	7.4	6.8
Lead	5	mg/kg	18	24	18
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.6	7.3	8.9
Zinc	5	mg/kg	14	18	49
% Moisture	1	%	25	23	22



Environment Testing

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B9			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Sep 28, 2021	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Sep 28, 2021	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Sep 28, 2021	14 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Sep 28, 2021	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Sep 28, 2021	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Sep 28, 2021	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Sep 28, 2021	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Sep 23, 2021	14 Days



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Company Name: Geosyntec Consultants Pty Ltd
Address: Suite 1, Level 9, 189 Kent Street
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NSW 2000

Project Name: PSI INGLEBURN
Project ID: 21233

Order No.:
Report #: 826928
Phone: 02 9251 8070
Fax:

Received: Sep 22, 2021 5:29 PM
Due: Sep 29, 2021
Priority: 5 Day
Contact Name: Hayden Davies

Eurofins Analytical Services Manager : Asim Khan

Sample Detail						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	BH1_0.1-03	Sep 22, 2021		Soil	S21-Se47772	X
2	BH1_0.5-07	Sep 22, 2021		Soil	S21-Se47773	X
3	BH2_0.1-03	Sep 22, 2021		Soil	S21-Se47774	X
4	BH2_0.5-07	Sep 22, 2021		Soil	S21-Se47775	X
5	BH3_0.1-03	Sep 22, 2021		Soil	S21-Se47776	X
6	BH3_0.5-07	Sep 22, 2021		Soil	S21-Se47777	X
7	BH4_0.1-03	Sep 22, 2021		Soil	S21-Se47778	X
8	BH4_0.5-07	Sep 22, 2021		Soil	S21-Se47779	X
9	BH5_0.1-03	Sep 22, 2021		Soil	S21-Se47780	X
External Laboratory						
Eurofins Suite B9						
Moisture Set						
HOLD						
Asbestos - AS4964						
Melbourne Laboratory - NATA # 1261 Site # 1254						
Sydney Laboratory - NATA # 1261 Site # 18217						
Brisbane Laboratory - NATA # 1261 Site # 20794						
Mayfield Laboratory - NATA # 1261 Site # 25079						
Perth Laboratory - NATA # 2377 Site # 2370						



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Sample Detail		Eurofins Suite B9						
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217								
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
10	BH5_0.5-07	Soil	S21-Se47781	X	X	X	X	X
11	BH6_0.1-03	Soil	S21-Se47782		X	X	X	X
12	BH6_0.5-07	Soil	S21-Se47783	X	X	X	X	X
13	BH7_0.1-03	Soil	S21-Se47784		X	X	X	X
14	BH7_0.5-07	Soil	S21-Se47785	X	X	X	X	X
Test Counts								

Internal Quality Control Review and Glossary

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA. If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report. QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

- Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.



Environment Testing

Quality Control Results

Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank					
Total Recoverable Hydrocarbons					
TRH C6-C9	mg/kg	< 20	20	Pass	
TRH C10-C14	mg/kg	< 20	20	Pass	
TRH C15-C28	mg/kg	< 50	50	Pass	
TRH C29-C36	mg/kg	< 50	50	Pass	
Naphthalene	mg/kg	< 0.5	0.5	Pass	
TRH C6-C10	mg/kg	< 20	20	Pass	
TRH >C10-C16	mg/kg	< 50	50	Pass	
TRH >C16-C34	mg/kg	< 100	100	Pass	
TRH >C34-C40	mg/kg	< 100	100	Pass	
Method Blank					
BTEX					
Benzene	mg/kg	< 0.1	0.1	Pass	
Toluene	mg/kg	< 0.1	0.1	Pass	
Ethylbenzene	mg/kg	< 0.1	0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2	0.2	Pass	
o-Xylene	mg/kg	< 0.1	0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3	0.3	Pass	
Method Blank					
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	mg/kg	< 0.5	0.5	Pass	
Acenaphthylene	mg/kg	< 0.5	0.5	Pass	
Anthracene	mg/kg	< 0.5	0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5	0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5	0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5	0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5	0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5	0.5	Pass	
Chrysene	mg/kg	< 0.5	0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5	0.5	Pass	
Fluoranthene	mg/kg	< 0.5	0.5	Pass	
Fluorene	mg/kg	< 0.5	0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5	0.5	Pass	
Naphthalene	mg/kg	< 0.5	0.5	Pass	
Phenanthrene	mg/kg	< 0.5	0.5	Pass	
Pyrene	mg/kg	< 0.5	0.5	Pass	
Method Blank					
Organochlorine Pesticides					
Chlordanes - Total	mg/kg	< 0.1	0.1	Pass	
4,4'-DDD	mg/kg	< 0.05	0.05	Pass	
4,4'-DDE	mg/kg	< 0.05	0.05	Pass	
4,4'-DDT	mg/kg	< 0.05	0.05	Pass	
a-HCH	mg/kg	< 0.05	0.05	Pass	
Aldrin	mg/kg	< 0.05	0.05	Pass	
b-HCH	mg/kg	< 0.05	0.05	Pass	
d-HCH	mg/kg	< 0.05	0.05	Pass	
Dieldrin	mg/kg	< 0.05	0.05	Pass	
Endosulfan I	mg/kg	< 0.05	0.05	Pass	
Endosulfan II	mg/kg	< 0.05	0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05	0.05	Pass	
Endrin	mg/kg	< 0.05	0.05	Pass	



Environment Testing

Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	mg/kg	< 0.05	0.05	Pass	
Endrin ketone	mg/kg	< 0.05	0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05	0.05	Pass	
Heptachlor	mg/kg	< 0.05	0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05	0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05	0.05	Pass	
Methoxychlor	mg/kg	< 0.05	0.05	Pass	
Toxaphene	mg/kg	< 0.5	0.5	Pass	
Method Blank					
Heavy Metals					
Arsenic	mg/kg	< 2	2	Pass	
Cadmium	mg/kg	< 0.4	0.4	Pass	
Chromium	mg/kg	< 5	5	Pass	
Copper	mg/kg	< 5	5	Pass	
Lead	mg/kg	< 5	5	Pass	
Mercury	mg/kg	< 0.1	0.1	Pass	
Nickel	mg/kg	< 5	5	Pass	
Zinc	mg/kg	< 5	5	Pass	
LCS - % Recovery					
Total Recoverable Hydrocarbons					
TRH C6-C9	%	96	70-130	Pass	
TRH C10-C14	%	118	70-130	Pass	
Naphthalene	%	118	70-130	Pass	
TRH C6-C10	%	96	70-130	Pass	
TRH >C10-C16	%	119	70-130	Pass	
LCS - % Recovery					
BTEX					
Benzene	%	113	70-130	Pass	
Toluene	%	99	70-130	Pass	
Ethylbenzene	%	108	70-130	Pass	
m&p-Xylenes	%	114	70-130	Pass	
o-Xylene	%	112	70-130	Pass	
Xylenes - Total*	%	113	70-130	Pass	
LCS - % Recovery					
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	%	73	70-130	Pass	
Acenaphthylene	%	76	70-130	Pass	
Anthracene	%	75	70-130	Pass	
Benz(a)anthracene	%	75	70-130	Pass	
Benzo(a)pyrene	%	77	70-130	Pass	
Benzo(b&j)fluoranthene	%	73	70-130	Pass	
Benzo(g,h,i)perylene	%	79	70-130	Pass	
Benzo(k)fluoranthene	%	85	70-130	Pass	
Chrysene	%	75	70-130	Pass	
Dibenz(a,h)anthracene	%	75	70-130	Pass	
Fluoranthene	%	75	70-130	Pass	
Fluorene	%	76	70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	77	70-130	Pass	
Naphthalene	%	72	70-130	Pass	
Phenanthrene	%	72	70-130	Pass	
Pyrene	%	76	70-130	Pass	
LCS - % Recovery					
Organochlorine Pesticides					
Chlordanes - Total	%	74	70-130	Pass	



Environment Testing

Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code		
4.4'-DDD	%	77	70-130	Pass			
4.4'-DDE	%	76	70-130	Pass			
4.4'-DDT	%	77	70-130	Pass			
a-HCH	%	79	70-130	Pass			
Aldrin	%	74	70-130	Pass			
b-HCH	%	77	70-130	Pass			
d-HCH	%	70	70-130	Pass			
Dieldrin	%	70	70-130	Pass			
Endosulfan I	%	73	70-130	Pass			
Endosulfan II	%	76	70-130	Pass			
Endosulfan sulphate	%	76	70-130	Pass			
Endrin	%	90	70-130	Pass			
Endrin aldehyde	%	72	70-130	Pass			
Endrin ketone	%	72	70-130	Pass			
g-HCH (Lindane)	%	73	70-130	Pass			
Heptachlor	%	79	70-130	Pass			
Heptachlor epoxide	%	73	70-130	Pass			
Hexachlorobenzene	%	73	70-130	Pass			
Methoxychlor	%	71	70-130	Pass			
LCS - % Recovery							
Heavy Metals							
Arsenic	%	102	80-120	Pass			
Cadmium	%	101	80-120	Pass			
Chromium	%	90	80-120	Pass			
Copper	%	87	80-120	Pass			
Lead	%	91	80-120	Pass			
Mercury	%	102	80-120	Pass			
Nickel	%	89	80-120	Pass			
Zinc	%	83	80-120	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery							
Total Recoverable Hydrocarbons				Result 1			
TRH C6-C9	S21-Se56583	NCP	%	95	70-130	Pass	
Naphthalene	S21-Se56583	NCP	%	105	70-130	Pass	
TRH C6-C10	S21-Se56583	NCP	%	97	70-130	Pass	
Spike - % Recovery							
BTEX				Result 1			
Benzene	S21-Se56583	NCP	%	100	70-130	Pass	
Toluene	S21-Se56583	NCP	%	91	70-130	Pass	
Ethylbenzene	S21-Se56583	NCP	%	106	70-130	Pass	
m&p-Xylenes	S21-Se56583	NCP	%	112	70-130	Pass	
o-Xylene	S21-Se56583	NCP	%	109	70-130	Pass	
Xylenes - Total*	S21-Se56583	NCP	%	111	70-130	Pass	
Spike - % Recovery							
Polycyclic Aromatic Hydrocarbons				Result 1			
Acenaphthene	S21-Se59161	NCP	%	79	70-130	Pass	
Acenaphthylene	S21-Se59161	NCP	%	84	70-130	Pass	
Anthracene	S21-Se59161	NCP	%	83	70-130	Pass	
Benz(a)anthracene	S21-Se59161	NCP	%	84	70-130	Pass	
Benzo(a)pyrene	S21-Se59161	NCP	%	86	70-130	Pass	
Benzo(b&j)fluoranthene	S21-Se59161	NCP	%	80	70-130	Pass	
Benzo(g,h,i)perylene	S21-Se59161	NCP	%	79	70-130	Pass	
Benzo(k)fluoranthene	S21-Se59161	NCP	%	93	70-130	Pass	
Chrysene	S21-Se59161	NCP	%	86	70-130	Pass	



Environment Testing

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Dibenz(a,h)anthracene	S21-Se59161	NCP	%	76		70-130	Pass	
Fluoranthene	S21-Se59161	NCP	%	82		70-130	Pass	
Fluorene	S21-Se59161	NCP	%	82		70-130	Pass	
Indeno(1,2,3-cd)pyrene	S21-Se59161	NCP	%	77		70-130	Pass	
Naphthalene	S21-Se59161	NCP	%	78		70-130	Pass	
Phenanthrene	S21-Se59161	NCP	%	82		70-130	Pass	
Pyrene	S21-Se59161	NCP	%	83		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	S21-Se59161	NCP	%	77		70-130	Pass	
4,4'-DDD	S21-Se59161	NCP	%	80		70-130	Pass	
4,4'-DDE	S21-Se59161	NCP	%	79		70-130	Pass	
4,4'-DDT	S21-Se59161	NCP	%	86		70-130	Pass	
a-HCH	S21-Se59161	NCP	%	82		70-130	Pass	
Aldrin	S21-Se59161	NCP	%	77		70-130	Pass	
b-HCH	S21-Se59161	NCP	%	82		70-130	Pass	
d-HCH	S21-Se59161	NCP	%	74		70-130	Pass	
Dieldrin	S21-Se59161	NCP	%	72		70-130	Pass	
Endosulfan I	S21-Se59161	NCP	%	84		70-130	Pass	
Endosulfan II	S21-Se59161	NCP	%	77		70-130	Pass	
Endosulfan sulphate	S21-Se59161	NCP	%	79		70-130	Pass	
Endrin	S21-Se59161	NCP	%	94		70-130	Pass	
Endrin aldehyde	S21-Se46487	NCP	%	78		70-130	Pass	
Endrin ketone	S21-Se59161	NCP	%	76		70-130	Pass	
g-HCH (Lindane)	S21-Se59161	NCP	%	79		70-130	Pass	
Heptachlor	S21-Se59161	NCP	%	90		70-130	Pass	
Heptachlor epoxide	S21-Se59161	NCP	%	76		70-130	Pass	
Hexachlorobenzene	S21-Se59161	NCP	%	77		70-130	Pass	
Methoxychlor	S21-Se59161	NCP	%	81		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	S21-Se49530	NCP	%	98		75-125	Pass	
Cadmium	S21-Se49530	NCP	%	95		75-125	Pass	
Chromium	S21-Se49530	NCP	%	84		75-125	Pass	
Copper	S21-Se49530	NCP	%	103		75-125	Pass	
Lead	S21-Se49530	NCP	%	85		75-125	Pass	
Mercury	S21-Se49530	NCP	%	88		75-125	Pass	
Nickel	S21-Se49530	NCP	%	81		75-125	Pass	
Zinc	S21-Se57484	NCP	%	115		75-125	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C10-C14	S21-Se47785	CP	%	92		70-130	Pass	
TRH >C10-C16	S21-Se47785	CP	%	93		70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	S21-Se50902	NCP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S21-Se50902	NCP	mg/kg	< 50	56	12	30%	Pass
TRH C29-C36	S21-Se50902	NCP	mg/kg	< 50	52	13	30%	Pass
TRH >C10-C16	S21-Se50902	NCP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S21-Se50902	NCP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S21-Se50902	NCP	mg/kg	< 100	< 100	<1	30%	Pass



Environment Testing

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)anthracene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S21-Se47024	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S21-Se47024	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	S21-Se47024	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S21-Se49529	NCP	mg/kg	14	12	22	30%	Pass
Cadmium	S21-Se49529	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S21-Se49529	NCP	mg/kg	6.8	5.5	21	30%	Pass
Copper	S21-Se49529	NCP	mg/kg	33	27	18	30%	Pass
Lead	S21-Se49529	NCP	mg/kg	12	12	7.0	30%	Pass
Mercury	S21-Se49529	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S21-Se49529	NCP	mg/kg	8.9	7.3	20	30%	Pass
Zinc	S21-Se49529	NCP	mg/kg	77	61	23	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S21-Se47773	CP	%	23	24	2.0	30%	Pass



Environment Testing

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	S21-Se47779	CP	mg/kg	< 20	< 20	<1	30%	Pass
Naphthalene	S21-Se47779	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S21-Se47779	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S21-Se47779	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S21-Se47779	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S21-Se47779	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S21-Se47779	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S21-Se47779	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total*	S21-Se47779	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass



Environment Testing

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	No
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

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Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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engineers, scientists
and innovators**

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5. CONFIDENTIAL ITEMS

5.1 Planning Proposal - Campbelltown

Reason for Confidentiality

This report is **CONFIDENTIAL** in accordance with Section 10A(2)(f) of the *Local Government Act 1993*, which permits the meeting to be closed to the public for business relating to the following:

-

details of systems and/or arrangements that have been implemented to protect council, councillors, staff and Council property.

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