

ATTACHMENT BOOKLET

LOCAL PLANNING PANEL MEETING
28 APRIL 2025

CONTENTS

PAGE

ITEM 01	DA-586/2024 - 1720 CAMDEN VALLEY WAY LEPPINGTON NSW 2179	
Attachment 1	Draft Conditions DA-586_2024 (Applicant Approved).....	3
Attachment 2	Applicant Approval of Conditions.....	20
Attachment 3	Architectural Plans	21
Attachment 4	Heritage NSW - Referral Response.....	23
Attachment 5	APA Gas - Referral Response.....	26
Attachment 6	Heritage impact statement.....	29
Attachment 7	Fire Event Asbestos Contamination Assessment	47
Attachment 8	Hazardous Building Materials Survey Report	72
ITEM 02	DA-583/2024 - 28 RIVERSIDE ROAD, CHIPPING NORTON NSW 2170	
Attachment 1	Draft Unstamped Determination Documents	141
Attachment 2	Draft Conditions of Consent	165
Attachment 3	Liverpool Development Control Plan 2008 Assessment Table.....	183
ITEM 03	DA-550/2024 - 25 SIMONE CRESCENT CASULA NSW 2170	
Attachment 1	Assessment against Liverpool DCP Part 1	193
Attachment 2	Architectural Plans	199
Attachment 3	DEP 13th February 2025 - Minutes of Meeting.....	234
Attachment 4	Clause 4.6 variation request.....	242
Attachment 5	Refusal Reasons.....	250
Attachment 6	SOFAC Filed 6 March 2025 (CONFIDENTIAL).....	252
ITEM 04	DA-439/2024 -77 GOVERNOR MACQUARIE DRIVE, CHIPPING NORTON NSW 2170	
Attachment 1	Draft Notice of Determination	270
Attachment 2	LDGP Table.....	299
Attachment 3	Plans and Documents	307
Attachment 4	Response to Clause 7.41 LLEP.....	377

Without prejudice draft conditions

General Conditions

1. (A002) Approved plans and supporting documentation

Development must be carried out in accordance with the following approved plans and documents, except where the conditions of this consent expressly require otherwise.

Approved plans				
Plan number	Revision number	Plan title	Drawn by	Date of plan
DA001	1	SITE DEMOLITION PLAN	JPA&D	17/01/23
DA002	1	HOUSE DEMOLITION PLAN	JPA&D	17/01/23

Approved documents			
Document title	Version number	Prepared by	Date of document
Demolition Waste Management Plan	-	Department of Planning and Environment	14 November 2024
Fire Event Asbestos Contamination Assessment	Job No: 131702S	Prensa	September 2024
Hazardous Building Materials Survey Report	v1.0	SLR	August 2022

In the event of any inconsistency between the approved plans and documents, the approved **Plans** prevail.

In the event of any inconsistency with the approved plans and a condition of this consent, the condition prevails.

Condition reason: To ensure all parties are aware of the approved plans and supporting documentation that applies to the development.

2. (A015) External Agency Requirements

All requirements issued by external agencies, shall be complied with prior, during, and at the completion of construction, as specified in accordance with the requirements as follows:

- Attachment 1: APA Gas, 9 January 2025.

A copy of these requirements is attached to this decision notice.

Condition reason: To ensure General Terms of Approvals are fulfilled in accordance with the relevant agency requirements.

3. (A025) Comply with EP&A Act

The requirements and provisions of the Environmental Planning & Assessment Act 1979 and Environmental Planning & Assessment Regulation 2021, must be fully complied with at all times.

Failure to comply with these legislative requirements is an offence and may result in the commencement of legal proceedings, issuing of 'on-the-spot' penalty infringements or service of a notice and order by Council.

Condition reason: This condition is imposed to ensure compliance with legislative requirements.

4. (A040) Compliance with the Building Code of Australia

1. It is a condition of a development consent for development that involves building work that the work must be carried out in accordance with the requirements of the *Building Code of Australia*.

2. It is a condition of a development consent for development that involves residential building work for which a contract of insurance is required under the *Home Building Act 1989*, Part 6 that a contract of insurance is in force before building work authorised to be carried out by the consent commences.

3. It is a condition of a development consent for a temporary structure used as an entertainment venue that the temporary structure must comply with Part B1 and NSW Part H102 in Volume 1 of the *Building Code of Australia*.

4. In subsection (1), a reference to the *Building Code of Australia* is a reference to the Building Code

Without prejudice draft conditions	
	of Australia as in force on the day on which the application for the construction certificate was made.
5.	In subsection (3), a reference to the <i>Building Code of Australia</i> is a reference to the Building Code of Australia as in force on the day on which the application for development consent was made.
6.	This section does not apply—
1.	to the extent to which an exemption from a provision of the <i>Building Code of Australia</i> or a fire safety standard is in force under the <i>Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021</i> , or
2.	to the erection of a temporary building, other than a temporary structure to which subsection (3) applies.
Condition reason: Prescribed condition under section 69 of the Environmental Planning and Assessment Regulation 2021.	
5.	(A050) Works at no cost to Council
	All roadworks, drainage works and dedications, required to effect the consented development shall be undertaken at no cost to Liverpool City Council.
Condition reason: To ensure fairness, transparency and probity.	
6.	(A060) Erection of signs
1.	This section applies to a development consent for development involving building work, subdivision work or demolition work.
2.	It is a condition of the development consent that a sign must be erected in a prominent position on a site on which building work, subdivision work or demolition work is being carried out—
1.	showing the name, address and telephone number of the principal certifier for the work, and
2.	showing the name of the principal contractor, if any, for the building work and a telephone number on which the principal contractor may be contacted outside working hours, and
3.	stating that unauthorised entry to the work site is prohibited.
3.	The sign must be—
1.	maintained while the building work, subdivision work or demolition work is being carried out, and
2.	removed when the work has been completed.
4.	This section does not apply in relation to—
1.	building work, subdivision work or demolition work carried out inside an existing building, if the work does not affect the external walls of the building, or
2.	Crown building work certified to comply with the Building Code of Australia under the Act, Part 6.
Condition reason: Prescribed condition under section 70 of the Environmental Planning and Assessment Regulation 2021.	
7.	(A951) Heritage
	Any future development application on the lot which proposes ground excavation is to be supported by a Historical Archaeological Assessment and an Aboriginal Archaeological Assessment, unless this is not deemed necessary by the consent authority at the time.
Condition reason: To ensure fairness, transparency and probity.	
8.	(A952) Contamination
	No further development of the lot burdened is to take place unless appropriate investigations into contamination are undertaken satisfying the provisions of <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> (as it pertains to contamination), or otherwise the most current environmental planning policy pertaining to contamination applying at that time.
Condition reason: To ensure fairness, transparency and probity.	

Demolition Work Before Demolition Work Commences

9.	(C002) Payment of fees
	Before any site work commences, the following must be paid to Council and written evidence of these

Without prejudice draft conditions	
	payments provided to the certifier or Council (where a certifier is not required): 1. Damage Inspection Fee – relevant where the cost of building work is \$20,000 or more, or a swimming pool is to be excavated by machinery. 2. Fee associated with Application for Permit to Carry Out Work Within a Road, Park and Drainage Reserve. 3. Long Service Levy – based on 0.25% of the cost of building work where the costing of the CC is \$250,000 or more. These fees are reviewed annually and will be calculated accordingly. Condition reason: To ensure fees are paid for inspections carried out by council in connection with the completion of public work such as footway construction or stormwater drainage required in connection with the consent or the making good of any damage to council property
10.	(C004) Asbestos removal signage Before demolition work commences involving the removal of asbestos, a standard commercially manufactured sign containing the words 'DANGER: Asbestos removal in progress' (measuring not less than 400mm x 300mm) must be erected in a prominent position at the entry point/s of the site and maintained for the entire duration of the removal of the asbestos. Condition reason: To alert the public to any danger arising from the removal of asbestos
11.	(C040) 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 the 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 SafeWork NSW 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 SafeWork NSW requirements. Condition reason: To ensure that the demolition of buildings is carried out without impacting on public and environmental safety.
12.	(C042) Disconnection of services before demolition work Before demolition work commences, all services, such as water, telecommunications, gas, electricity and sewerage, must be disconnected in accordance with the relevant authority's requirements. Condition reason: To protect life, infrastructure and services
13.	(C046) Notice of commencement for demolition At least one week before demolition work commences, written notice must be provided to council and the occupiers of neighbouring premises of the work commencing. The notice must include: 1. name 2. address, 3. contact telephone number, 4. licence type and license number of any demolition waste removal contractor and, if applicable, asbestos removal contractor, and 5. the contact telephone number of council and 6. the contact telephone number of SafeWork NSW (4921 2900). Condition reason: To advise neighbours about the commencement of demolition work and provide contact details for enquiries
14.	(C049) Demolition management plan Before demolition work commences, a demolition management plan must be prepared by a suitably

Without prejudice draft conditions

qualified person.

The demolition management plan must be prepared in accordance with Australian Standard 2601 – The Demolition of Structures, the Code of Practice – Demolition Work, Liverpool Development Control Plan 2008 and must include the following matters:

1. The proposed demolition methods
2. The materials for and location of protective fencing and any hoardings to the perimeter of the site
3. Details on the provision of safe access to and from the site during demolition work, including pedestrian and vehicular site access points and construction activity zones
4. Details of demolition traffic management, including proposed truck movements to and from the site, estimated frequency of those movements, and compliance with AS 1742.3 Traffic Control for Works on Roads and parking for vehicles
5. Protective measures for on-site tree preservation and trees in adjoining public domain (if applicable (including in accordance with AS 4970-2009 Protection of trees on development sites and Liverpool Development Control Plan 2008)
6. Erosion and sediment control measures which are to be implemented during demolition and methods to prevent material being tracked off the site onto surrounding roadways
7. Noise and vibration control measures, in accordance with any Noise and Vibration Control Plan approved under this consent
8. Details of the equipment that is to be used to carry out demolition work and the method of loading and unloading excavation and other machines
9. Details of any bulk earthworks to be carried out
10. Details of re-use and disposal of demolition waste material in accordance with Liverpool Development Control Plan 2008
11. Location of any reusable demolition waste materials to be stored on-site (pending future use)
12. Location and type of temporary toilets onsite
13. A garbage container with a tight-fitting lid.

Condition reason: To provide details of measures for the safe and appropriate disposal of demolition waste and the protection of the public and surrounding environment during the carrying out of demolition works on the site

15. **(C055) Site Facilities**

Adequate refuse disposal methods and builders storage facilities shall be installed on the site. Builders' wastes, materials or sheds are not to be placed on any property other than that which this approval relates to.

Condition reason: To ensure the required site management measures are implemented before the commencement of building work.

16. **(C101) Vegetation - Existing Vegetation**

All existing trees and areas of native vegetation not identified for removal on approved plans of the proposed development shall be protected from damage during site works. This protection shall consist of 1800mm high protective fencing, securely installed beneath the outer canopy of any tree to be retained. Trees may be fenced off in clusters where it is not practical to fence off individual trees. There shall be no storing materials, washing machinery or changes to existing soil levels within the fenced areas.

Condition reason: To minimise impacts to adjacent vegetation and habitat.

17. **(C117) Erosion and sediment controls in place**

Before any site work commences, the certifier or Council (where a principal certifier is not required), must be satisfied the erosion and sediment controls in the erosion and sediment control plan are in place. These controls must remain in place until any bare earth has been restabilised in accordance with 'Managing Urban Stormwater: Soils and Construction' prepared by Landcom (the Blue Book) (as amended from time to time).

Condition reason: To ensure sediment laden runoff and site debris do not impact local stormwater systems and waterways.

18. **(C125) Erosion and sediment control plan**

Before site work commences, an erosion and sediment control plan must be prepared by a suitably qualified person in accordance with the following documents and provided to the certifier or Council

Without prejudice draft conditions

	(where a certifier is not required): 1. Council's relevant development control plan, 2. the guidelines set out in 'Managing Urban Stormwater: Soils and Construction' prepared by Landcom (the Blue Book) (as amended from time to time), and 3. the 'Do it Right On-Site, Soil and Water Management for the Construction Industry' (Southern Sydney Regional Organisation of Councils and the Natural Heritage Trust) (as amended from time to time). Condition reason: To ensure no substance other than rainwater enters the stormwater system and waterways.
19.	(C126) Environmental Management Adequate soil and sediment control measures shall be installed and maintained. Furthermore, suitable site practices shall be adopted to ensure that only clean and unpolluted waters are permitted to enter Council's stormwater drainage system during construction/demolition. Measures must include, as a minimum: 1. Siltation fencing; 2. Protection of the public stormwater system; and 3. Site entry construction to prevent vehicles that enter and leave the site from tracking loose material onto the adjoining public place. Condition reason: To ensure fairness, transparency and probity.
20.	(C466) Dilapidation report Prior to the Commencement of Works a dilapidation report of all infrastructure fronting the development in 1720 CAMDEN VALLEY WAY, LEPPINGTON is to be submitted to Liverpool City Council. The report is to include, but not limited to, the road pavement, kerb and gutter, footpath, services and street trees and is to extend 10m either side of the development. Condition reason: To establish and document the structural condition of adjoining properties and public land for comparison as site work progresses and is completed and ensure neighbours and council are provided with the dilapidation report.
21.	(C501) Return of existing bins Prior to commencing demolition or site clearing works, any existing domestic waste bins that have been issued to 1720 CAMDEN VALLEY WAY LEPPINGTON, must be returned to Liverpool City Council. Please ring Council on 1300 36 2170 to advise that the bins are empty and ready to be removed, so their removal can be noted on Council's rates system. Condition reason: To protect against Council-issued residential waste bins being used and potentially damaged by builders using them as site waste bins for waste building materials.
22.	(C502) Remove and destroy refrigerants Prior to any works commencing, any air-conditioning or refrigeration systems fitted to the buildings or outbuildings to be demolished, must have the refrigerants present in those systems extracted into a durable, air-tight container by a licensed air-conditioning technician. This container and its contents must be sent intact, for secure destruction, to a facility licensed to destroy such refrigerants. Documentary evidence that this has been completed, if these systems are present, must be sighted by the Principal Certifying Authority and included as part of the Occupation Certificate documentation. Condition reason: To ensure that development activities do not result in the liberation of CFC or HFC refrigerants that contribute to global warming and damage the environment, and requires any refrigerants to be captured and destroyed at a facility licensed to do that.
23.	(C531) Waste management plan - an approved document of this consent Before work commences, a waste management plan for the development must be prepared and provided to the certifier or Council (where a certifier is not required). The plan must be prepared in accordance with: 1. the Environment Protection Authority's Waste Classification Guidelines as in force from time to time; and 2. a development control plan that provides for waste management that applies to the land on which the work or the clearing of vegetation is carried out; and 3. include the following information -

Without prejudice draft conditions

- a) the contact details of the person removing waste;
- b) an estimate of the type and quantity of waste;
- c) whether waste is expected to be reused, recycled or sent to landfill;
- d) the address of the disposal location for waste.

A copy of the waste management plan and the approved waste management plan; prepared by The Department of Planning, Housing and Infrastructure; dated 14th Nov 2024; must be kept on-site at all times while work approved under the development consent is being carried out.

Condition reason: To ensure resource recovery is promoted and local amenity protected during construction.

24. **(C950) Recommendations - Hazardous Building Materials Survey Report**

Before demolition work commences the site-specific recommendations made for the disposal of hazardous materials on site must be carried out in accordance with the Hazardous Building Materials Survey Report; v1.0; prepared by SLR; dated August 2022.

Condition reason: To ensure fairness, transparency and probity.

25. **(C952) Special Infrastructure Contribution (SIC)**

The applicant is to make a special infrastructure contribution in accordance with any determination made by the Minister administering the Environmental Planning and Assessment Act 1979 under Section 7.23 of that Act and is in force on the date of this consent, and must obtain a certificate to that effect from the Department of Planning (Growth Centres Commission) before the commencement of works in relation to any part of the development to which this consent relates.

Condition reason: To ensure fairness, transparency and probity.

26. **(C953) Construction Environmental Management Plan (CEMP)**

Before demolition work commences, a Construction Environmental Management Plan (CEMP) for the development must be provided to the Principal Certifying Authority for approval. The environmental site management measures must remain in place and be maintained throughout the period of the development. The CEMP must address all environmental aspects of the development's construction and demolition phases, and include (where relevant), but not be limited to, the following:

1. Asbestos Management Plan;
2. Project Contact Information;
3. Site Security Details;
4. Timing and Sequencing Information;
5. Site Soil and Water Management Plan;
6. Noise and Vibration Control Plan; Dust Control Plan;
7. Air Monitoring;
8. Odour Control Plan;
9. Health and Safety Plan;
10. Waste Management Plan;
11. Incident management Contingency; and
12. Unexpected Finds Protocol.

The CEMP must be kept on site for the duration of the works and must be made available to Council Officers upon request

Condition reason: To ensure fairness, transparency and probity.

27. **(C955) Photographic Archival Recording**

Prior to work commencing, a digital photographic archival recording is to be submitted and approved by Liverpool City Councils Heritage Officer. The photographic archival recording is to be PDF report with title page, summary significance of the site, measured drawings, inventory of archival documents, location plan, annotated base plans and images of the building/place/item.

All images in the report are to be annotated as to their direction and position on the base plans and all meta data, including photographic equipment used and settings are to be included for each image.

Without prejudice draft conditions

A separate folder is also to be provided with all images in TIFF format in Colour and Black and White

The photographic archival recording should be provided to Council on an Archival Quality DVD or delivered via digital file transfer on agreement with Councils Heritage Officer.

Condition reason: To ensure fairness, transparency and probity.**During Demolition Work**

28.	(D950) Flooding - Conditions
	Appropriate controls shall be implemented to prevent any adverse impact on water quality from the proposed demolition works.
	Condition reason: To ensure fairness, transparency and probity.
29.	(D028) Responsibility for changes to public infrastructure
	While site work is being carried out, any costs incurred as a result of the approved removal, relocation or reconstruction of infrastructure (including ramps, footpaths, kerb and gutter, light poles, kerb inlet pits, service provider pits, street trees or any other infrastructure in the street footpath area) must be paid as directed by the consent authority.
	Condition reason: To ensure payment of approved changes to public infrastructure.
30.	(D045) Hours of work
	Site work must only be carried out between the following times – From 7am to 5pm on Monday to Friday From 8am to 5pm on Saturday Site work is not to be carried out outside of these times or on public holidays except where there is an emergency, or for urgent work directed by a police officer or a public authority.
	Condition reason: To protect the amenity of the surrounding area.
31.	(D049) Security Fence
	A temporary security fence to WorkCover Authority requirements is to be provided to the property during the course of construction.
	Note: Fencing is not to be located on Council's reserve area.
	Condition reason: To ensure the required site management measures are implemented during construction.
32.	(D055) Refuse Disposal
	Adequate refuse disposal methods and builders storage facilities shall be installed on the site. Builders' wastes, materials or sheds are not to be placed on any property other than that which this approval relates to.
	Condition reason: To ensure the required site management measures are implemented during construction.
33.	(D070) Notification of Damage
	The applicant/ builder shall be responsible to report to the Council of any damage to Council's footpath and road carriageway as a consequence of demolition or excavation or building activities or delivery/ departure of materials associated with this site and maintained the area until completion of the construction activities. Arrangements to the satisfaction of Council are to be made for making safe by temporary repairs to Council's footpath and road carriageway until permanent restoration and repair can be organised with Council at the applicant's cost.
	Condition reason: To ensure any damage to public infrastructure is rectified.
34.	(D075) Demolition Inspections
	The following inspections are required to be undertaken by Council in relation to approved demolition works:
	(a) immediately prior to the commencement of the demolition work, or handling of any building or

Without prejudice draft conditions	
	structure that contains asbestos. The applicant shall also notify the occupants of the adjoining premises and Workcover NSW prior to the commencement of any works, Please note that demolition works are not permitted to commence on site until such time as a satisfactory inspection result is obtained from Council, and (b) immediately following completion of the demolition. Please note that proof of appropriate disposal of demolition materials (including asbestos) may be required at this time in accordance with the approved Waste Management Plan. To book an inspection with Council, please call 1300 362 170. Condition reason: To require approval to proceed with demolition work following each stage inspection.
35.	(D076) Handling of asbestos during demolition While demolition work is being carried out, any work involving the removal of asbestos must comply with the following requirements: 1. Only an asbestos removal contractor who holds the required class of Asbestos Licence issued by SafeWork NSW must carry out the removal, handling and disposal of any asbestos material; 2. Asbestos waste in any form must be disposed of at a waste facility licensed by the NSW Environment Protection Authority to accept asbestos waste; and 3. Any asbestos waste load over 100kg (including asbestos contaminated soil) or 10m² or more of asbestos sheeting must be registered with the EPA on-line reporting tool WasteLocate. Condition reason: To ensure that the removal of asbestos is undertaken safely and professionally
36.	(D130) Removal of dangerous and/or hazardous waste All dangerous and/or hazardous material must be removed by a suitably qualified and experienced contractor licensed by SafeWork NSW. The removal of such material must be carried out in accordance with the requirements of SafeWork NSW and the material must be transported and disposed of in accordance with NSW Environment Protection Authority requirements. Condition reason: To ensure safe removal and disposal of dangerous and/or hazardous material.
37.	(D180) Waste management While site work is being carried out: 1. all waste management must be undertaken in accordance with the waste management plan; and 2. upon disposal of waste, records of the disposal must be compiled and provided to the certifier or Council (where a certifier is not required), detailing the following: • The contact details of the person(s) who removed the waste; • The waste carrier vehicle registration; • The date and time of waste collection; • A description of the waste (type of waste and estimated quantity) and whether the waste is to be reused, recycled or go to landfill; • The address of the disposal location(s) where the waste was taken; • The corresponding tip docket/receipt from the site(s) to which the waste is transferred, noting date and time of delivery, description (type and quantity) of waste. If waste has been removed from the site under an EPA Resource Recovery Order or Exemption, records in relation to that Order or Exemption must be maintained and provided to the certifier and Council (where a certifier is not required). Condition reason: To require records to be provided, during site work, documenting the lawful disposal of waste.
38.	(D190) Discovery of relics and Aboriginal objects While site work is being carried out, if a person reasonably suspects a relic of Aboriginal object is discovered: (a) the work in the area of the discovery must cease immediately; (b) the following must be notified i. for a relic – the Heritage Council; or ii. for an Aboriginal object – the person who is the authority for the protection of Aboriginal

	Without prejudice draft conditions objects and Aboriginal places in New South Wales under the National Parks and Wildlife Act 1974, section 85. Site work may recommence at a time confirmed in writing by: (a) for a relic – the Heritage Council; or (b) for an Aboriginal object – the person who is the authority for the protection of Aboriginal objects and Aboriginal places in New South Wales under the National Parks and Wildlife Act 1974, section 85. Condition reason: To ensure the protection of objects of potential significance during works.
39.	(D200) Vegetation - Tree Removal No trees are to be removed without the prior approval of Council. Condition reason: To help promote the retention of healthy established trees.
40.	(D205) Vegetation - Existing Vegetation All existing trees and areas of native vegetation not identified for removal on approved plans of the proposed development shall be protected from damage during site works. This protection shall consist of 1800mm high protective fencing, securely installed beneath the outer canopy of any tree to be retained. Trees may be fenced off in clusters where it is not practical to fence off individual trees. There shall be no storing materials, washing machinery or changes to existing soil levels within the fenced areas. Condition reason: To minimise impacts to adjacent vegetation and habitat.
41.	(D426) Soil management While site work is being carried out, the certifier or Council (where a certifier is not required) must be satisfied all soil removed from or imported to the site is managed in accordance with the following requirements: 1. All excavated material removed from the site must be classified in accordance with the EPA's Waste Classification Guidelines before it is disposed of at an approved waste management facility and the classification and the volume of material removed must be reported to the certifier or Council (where a certifier is not required). 2. All fill material imported to the site must be: 1. Virgin Excavated Natural Material as defined in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i>; or 2. a material identified as being subject to a resource recovery exemption by the NSW EPA; or 3. a combination of Virgin Excavated Natural Material as defined in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> and a material identified as being subject to a resource recovery exemption by the NSW EPA. Condition reason: To ensure soil removed from the site is appropriately disposed of and soil imported to the site is not contaminated and is safe for future occupants.
42.	(D430) Unidentified Contamination Any new information which arises during remediation, demolition or construction works that has the potential to alter previous conclusions about site contamination and remediation must be immediately notified in writing to the certifier and Liverpool City Council. A section 4.55 Application under the Environmental Planning and Assessment Act 1979 must be made for any proposed works outside the scope of the approved development consent. Condition reason: To ensure the suitability of land for the development.
43.	(D450) Air Quality During construction where operations involve excavation, filling or grading of land, or removal of vegetation, including ground cover, the consent holder is to ensure dust is suppressed by regular

Without prejudice draft conditions

watering until such time as the soil is stabilised to prevent airborne dust transport. Where wind velocity exceeds five knots the Principal Certifier may direct that work is not to proceed.

Dust screens shall be erected and maintained in good repair around the perimeter of the subject land during land clearing, demolition, and construction works.

Where operations involve excavation, filling or grading of land, or removal of vegetation, including ground cover, dust is to be suppressed by regular watering until such time as the soil is stabilised to prevent airborne dust transport. Where wind velocity exceeds five knots the Principal Certifying Authority may direct that such work is not to proceed.

All vehicles involved in the delivery, demolition or construction process departing from the property shall have their loads fully covered before entering the public roadway.

Condition reason: To ensure site works are managed appropriately and do not result in air pollution.

44. **(D555) Erosion Control - Maintenance**

Sediment and erosion control measures are to be adequately maintained during the works until the establishment of grass.

Condition reason: To ensure the required site management measures are implemented during construction.

45. **(D560) Erosion Control**

Vehicular access to the site shall be controlled through the installation of wash down bays or shaker ramps to prevent tracking of sediment or dirt onto adjoining roadways. Where any sediment is deposited on adjoining roadways is shall be removed by means other than washing. All material is to be removed as soon as possible and the collected material is to be disposed of in a manner which will prevent its mobilisation.

Condition reason: To ensure the required site management measures are implemented during construction.

46. **(D565) Water Quality**

During construction the consent holder is to ensure all topsoil, sand, aggregate, spoil or any other material that can be moved by water is stored clear of any drainage line, easement, water body, stormwater drain, footpath, kerb or road surface.

Condition reason: To ensure site works are managed appropriately and do not result in water pollution.

47. **(D574) Pollution Control - Site Operations and Truck Movements**

During demolition, building operations including but not limited to brick cutting, mixing mortar and the washing of tools, paint brushes, form-work, concrete trucks and the like must not be performed on the public footway or any other locations which may lead to the discharge of materials into Council's stormwater drainage system

The loading and unloading of all vehicles associated with the development must be undertaken within the property boundary of the premises subject to this consent.

Measures must be implemented to prevent tracking of sediment by vehicles onto roads.

Vehicle loads must be covered when entering and exiting the site with material.

Condition reason: To mitigate potential risks to the environment during construction and facilitate compliance with legislative requirements.

48. **(D584) Skeletal Remains**

In the event that skeletal remains are uncovered, work must cease immediately in that area and the area secured. NSW Police must be contacted and no further action taken until written advice has been provided by the NSW Police. If the remains are determined to be of Aboriginal origin, the Office of Environment and Heritage must be notified by ringing the Enviroline 131 555 and a management plan

Without prejudice draft conditions	
	prior to works re-commencing must be developed in consultation with relevant Aboriginal stakeholders.
	Condition reason: To ensure fairness, transparency and probity.
49.	(D600) Correct waste separation and removal
	All demolition, excavation and construction wastes must be separated as they are generated and kept in separate spoil piles, bays, builder's skips and/or site bins. No wastes other than those noted on the approved waste management plan as being re-used on site, are to be left on site after the completion of the works.
	Condition reason: To ensure that separation of waste by type is undertaken in an ongoing basis throughout the building process, and that the wastes are kept separate and not mixed, to facilitate waste management and recycling.
50.	(D605) Containment of site wastes during building
	All demolition, excavation or construction wastes, e.g. wrapping, packaging materials, bags, insulation, sand, soil etc., must be kept fully enclosed at all times to prevent them from becoming displaced in strong wind conditions or from washing into sewers, storm drains or creeks, or onto adjacent properties or public land during wet weather.
	Condition reason: To ensure that waste materials from the demolition, excavation or construction are kept appropriately contained on site, irrespective of weather conditions, and do not make their way into the environment as pollutants.
51.	(D660) Demolition Noise and Vibration
	Noise and vibration associated with excavation, demolition and construction activities shall comply with the management levels detailed within the 'Interim Construction Noise Guideline' published by the Department of Environment and Climate Change NSW (DECC 2009/265) dated July 2009 and acceptable vibration values prescribed within the Environmental Noise Management Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006).
	All feasible and reasonable noise and vibration mitigation measures shall be implemented and any activities which may exceed the construction noise management levels and vibration criteria shall be identified and managed in accordance with the approved Construction Environmental Management Plan (CEMP).
	Condition reason: To protect the amenity of the neighbourhood during construction.
52.	(D951) Environmental Health - Conditions
	Should the demolition works carried out under this consent involved the decommissioning of the on-site sewage management system (OSMS), a certificate must be submitted to Liverpool City Council following the decommissioning of the OSMS certifying that the system was decommissioned in accordance with NSW Health Advisory Note 3 – Destruction, Removal or Reuse of Septic Tanks, Collection Wells and Aerated Wastewater Treatment Systems (AWTS) and other Sewage Management Facilities (SMF). A template decommissioning certificate can be found on Councils website www.liverpool.nsw.gov.au
	Condition reason: To ensure fairness, transparency and probity.
53.	(D954) Traffic Management
	Construction activities affecting adjoining road reserves require submission of a road occupancy application to Council along with traffic control plan/s and public liability insurance. The traffic control plan/s must be prepared by a qualified professional and to be in accordance with the RMS Traffic Control at Worksites Manual, the Austroads Guide to Traffic Management, the RMS Supplements for Austroads Guide to Traffic Management and Australian Standard 1742.
	Condition reason: To ensure fairness, transparency and probity.
54.	(D955) Contamination
	The development, including all civil works and demolition, must comply with the requirements of the Contaminated Land Management Act, 1997, State Environmental Planning Policy (Resilience and Hazards) 2021, and Managing Land Contamination – Planning Guidelines (Planning NSW/EPA 1998).
	Condition reason: To ensure fairness, transparency and probity.

Without prejudice draft conditions

55.	(D956) Historic Archaeology
	Should any relics be unexpectedly discovered on the site during excavation, all excavation or disturbance to the area is to stop immediately and the Heritage Council of NSW should be informed in accordance with section 146 of the Heritage Act 1977.
	Condition reason: To ensure fairness, transparency and probity.
56.	(D952) Recommendations – Hazardous Building Materials Survey Report
	Demolition works are to be carried out in accordance with the site specific recommendations of the Hazardous Building Materials Survey Report; v1.0; prepared by SLR; dated August 2022.
	Condition reason: To ensure fairness, transparency and probity.
57.	(D953) General Site Works
	Alterations to the natural surface contours must not impede or divert natural surface water runoff, so as to cause a nuisance to adjoining property owners.
	Existing hydrological regimes shall be maintained so as not to negatively impact vegetation to be retained on site and downslope/downstream of the site.
	Any runoff entering the areas of vegetation to be retained shall be of an equivalent or better quality, and of a similar rate of flow to present levels.
	Condition reason: To ensure fairness, transparency and probity.
58.	(D957) Aboriginal Cultural Heritage Staff and Contractors
	All relevant onsite staff and contractors should be made aware of their statutory obligations for heritage under NSW National Parks and Wildlife Act 1974 and the NSW Heritage Act 1977. They are to be informed of what the potential heritage on the site will be and its significance. The site supervisor is to maintain a record of who has completed the heritage induction and this is to be provided to Council upon the completion of works.
	Condition reason: To ensure fairness, transparency and probity.
59.	(D958) Aboriginal Cultural Heritage Unexpected Finds
	The National Parks and Wildlife Act 1974 protects all Aboriginal Cultural Heritage in New South Wales. Where a proposal has the potential to impact on Aboriginal Cultural Heritage objects and places, whether the presence is known or not, a permit is to be sought from Heritage NSW.
	In the event that Aboriginal Cultural Heritage objects or places are encountered/discovered, works must cease immediately and Council and Heritage NSW notified.
	The finds are to be investigated by an experienced archaeologist and no works are to recommence onsite until approved by Heritage NSW and Liverpool City Council.
	Condition reason: To ensure fairness, transparency and probity.

On Completion of Demolition work

60.	(H022) Post-construction dilapidation report
	After completion of all site work a post-construction dilapidation report must be prepared by a suitably qualified engineer, to the satisfaction of the certifier or Council (where a principal certifier is not required), detailing whether:
	1. after comparing the pre-construction dilapidation report to the post-construction dilapidation report required under this condition, there has been any structural damage to any adjoining buildings; and
	2. where there has been structural damage to any adjoining buildings, that it is a result of the work approved under this development consent; and
	3. a copy of the post-construction dilapidation report must be provided to Council (where Council is not the principal certifier or a principal certifier is not required) and to the relevant adjoining

Without prejudice draft conditions

	property owner(s).
	Condition reason: To identify any damage to adjoining properties resulting from site work on the development site.
61.	(H026) Removal of waste upon completion
	After completion of all site work:
	1. all refuse, spoil and material unsuitable for use on-site must be removed from the site and disposed of in accordance with the approved waste management plan; and
	2. written evidence of the waste removal must be provided to the satisfaction of the certifier or Council (where a certifier is not required).
	Condition reason: To ensure waste material is appropriately disposed or satisfactorily stored.
62.	(H407) Repair of infrastructure
	After completion of all site work:
	1. any public infrastructure damaged as a result of the carrying out of work approved under this consent (including damage caused by, but not limited to, delivery vehicles, waste collection, contractors, sub-contractors, concreting vehicles) must be fully repaired to the written satisfaction of Council, and at no cost to Council; or
	2. if the works in (a) are not carried out to Council's satisfaction, Council may carry out the works required and the costs of any such works must be paid as directed by Council and in the first instance will be paid using the security deposit required to be paid under this consent.
	Condition reason: To ensure any damage to public infrastructure is rectified.

Remediation Work During Remediation Work

63.	(D045) Hours of work
	Site work must only be carried out between the following times – From 7am to 5pm on Monday to Friday From 8am to 5pm on Saturday Site work is not to be carried out outside of these times or on public holidays except where there is an emergency, or for urgent work directed by a police officer or a public authority.
	Condition reason: To protect the amenity of the surrounding area.
64.	(D049) Security Fence
	A temporary security fence to WorkCover Authority requirements is to be provided to the property during the course of construction.
	Note: Fencing is not to be located on Council's reserve area.
	Condition reason: To ensure the required site management measures are implemented during construction.
65.	(D055) Refuse Disposal
	Adequate refuse disposal methods and builders storage facilities shall be installed on the site. Builders' wastes, materials or sheds are not to be placed on any property other than that which this approval relates to.
	Condition reason: To ensure the required site management measures are implemented during construction.
66.	(D070) Notification of Damage
	The applicant/ builder shall be responsible to report to the Council of any damage to Council's footpath and road carriageway as a consequence of demolition or excavation or building activities or delivery/ departure of materials associated with this site and maintained the area until completion of the construction activities. Arrangements to the satisfaction of Council are to be made for making safe by temporary repairs to Council's footpath and road carriageway until permanent restoration and repair can be organised with Council at the applicant's cost.

Without prejudice draft conditions

	Condition reason: To ensure any damage to public infrastructure is rectified.
67. (D130) Removal of dangerous and/or hazardous waste	
	All dangerous and/or hazardous material must be removed by a suitably qualified and experienced contractor licensed by SafeWork NSW. The removal of such material must be carried out in accordance with the requirements of SafeWork NSW and the material must be transported and disposed of in accordance with NSW Environment Protection Authority requirements.
	Condition reason: To ensure safe removal and disposal of dangerous and/or hazardous material.
68. (D425) Site Remediation Works	
	The site must be remediated in accordance with:
	(a) The Fire Event Asbestos Contamination Assessment - 1720 Camden Valley Way, Edmondson Park NSW 2179 - Department of Planning, Housing and Infrastructure - September 2024, prepared by Presna (Ref No.: 131702S), dated September 2024 ;
	(b) State Environmental Planning Policy (Resilience and Hazards) 2021;
	(c) National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM, 1999 as amended 2013);
	(d) The guidelines in force under the Contaminated Land Management Act 1997; and
	(e) NSW Code of Practice: How to safely remove asbestos (2022)
	A suitably qualified environmental consultant must be engaged to supervise all aspects of site remediation and validation works in accordance with the approved Remediation Action Plan.
	Liverpool City Council must be informed in writing of any proposed variation to the remediation works. Liverpool City Council must approve these variations in writing prior to commencement/ recommencement of works.
	Condition reason: To ensure the suitability of land for the proposed development.
69. (D426) Soil management	
	While site work is being carried out, the certifier or Council (where a certifier is not required) must be satisfied all soil removed from or imported to the site is managed in accordance with the following requirements:
	1. All excavated material removed from the site must be classified in accordance with the EPA's Waste Classification Guidelines before it is disposed of at an approved waste management facility and the classification and the volume of material removed must be reported to the certifier or Council (where a certifier is not required).
	2. All fill material imported to the site must be:
	1. Virgin Excavated Natural Material as defined in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> ; or
	2. a material identified as being subject to a resource recovery exemption by the NSW EPA; or
	3. a combination of Virgin Excavated Natural Material as defined in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> and a material identified as being subject to a resource recovery exemption by the NSW EPA.
	Condition reason: To ensure soil removed from the site is appropriately disposed of and soil imported to the site is not contaminated and is safe for future occupants.
70. (D430) Unidentified Contamination	
	Any new information which arises during remediation, demolition or construction works that has the potential to alter previous conclusions about site contamination and remediation must be immediately notified in writing to the certifier and Liverpool City Council.
	A section 4.55 Application under the Environmental Planning and Assessment Act 1979 must be made for any proposed works outside the scope of the approved development consent.

Without prejudice draft conditions

Condition reason: To ensure the suitability of land for the development.	
71. (D450) Air Quality	During construction where operations involve excavation, filling or grading of land, or removal of vegetation, including ground cover, the consent holder is to ensure dust is suppressed by regular watering until such time as the soil is stabilised to prevent airborne dust transport. Where wind velocity exceeds five knots the Principal Certifier may direct that work is not to proceed. Condition reason: To ensure site works are managed appropriately and do not result in air pollution.
72. (D475) Imported Fill Material	During construction the consent holder is to ensure fill imported on to the site is be compatible with the existing soil characteristic for site drainage purposes. Condition reason: To ensure soils introduced onsite do not result in drainage issues.
73. (D555) Erosion Control - Maintenance	Sediment and erosion control measures are to be adequately maintained during the works until the establishment of grass. Condition reason: To ensure the required site management measures are implemented during construction.
74. (D560) Erosion Control	Vehicular access to the site shall be controlled through the installation of wash down bays or shaker ramps to prevent tracking of sediment or dirt onto adjoining roadways. Where any sediment is deposited on adjoining roadways is shall be removed by means other than washing. All material is to be removed as soon as possible and the collected material is to be disposed of in a manner which will prevent its mobilisation. Condition reason: To ensure the required site management measures are implemented during construction.
75. (D565) Water Quality	During construction the consent holder is to ensure all topsoil, sand, aggregate, spoil or any other material that can be moved by water is stored clear of any drainage line, easement, water body, stormwater drain, footpath, kerb or road surface. Condition reason: To ensure site works are managed appropriately and do not result in water pollution.
76. (D584) Skeletal Remains	In the event that skeletal remains are uncovered, work must cease immediately in that area and the area secured. NSW Police must be contacted and no further action taken until written advice has been provided by the NSW Police. If the remains are determined to be of Aboriginal origin, the Office of Environment and Heritage must be notified by ringing the Enviroline 131 555 and a management plan prior to works re-commencing must be developed in consultation with relevant Aboriginal stakeholders. Condition reason: To ensure fairness, transparency and probity.

On Completion of Remediation work

77. (H026) Removal of waste upon completion	After completion of all site work: 1. all refuse, spoil and material unsuitable for use on-site must be removed from the site and disposed of in accordance with the approved waste management plan; and 2. written evidence of the waste removal must be provided to the satisfaction of the certifier or Council (where a certifier is not required). Condition reason: To ensure waste material is appropriately disposed or satisfactorily stored.
---	--

Without prejudice draft conditions

General advisory notes

This consent contains the conditions imposed by the consent authority which are to be complied with when carrying out the approved development. However, this consent is not an exhaustive list of all obligations which may relate to the carrying out of the development under the EP&A Act, EP&A Regulation and other legislation. Some of these additional obligations are set out in the [Conditions of development consent: advisory notes](#). The consent should be read together with the Conditions of development consent: advisory notes to ensure the development is carried out lawfully.

The approved development must be carried out in accordance with the conditions of this consent. It is an offence under the EP&A Act to carry out development that is not in accordance with this consent.

A document referred to in this consent is taken to be a reference to the version of that document which applies at the date the consent is issued, unless otherwise stated in the conditions of this consent.

Without prejudice draft conditions

Dictionary

The following terms have the following meanings for the purpose of this determination (except where the context clearly indicates otherwise):

Approved plans and documents means the plans and documents endorsed by the consent authority, a copy of which is included in this notice of determination.

AS means Australian Standard published by Standards Australia International Limited and means the current standard which applies at the time the consent is issued.

Building work means any physical activity involved in the erection of a building.

Certifier means a council or a person that is registered to carry out certification work under the Building and Development Certifiers Act 2018.

Construction certificate means a certificate to the effect that building work completed in accordance with specified plans and specifications or standards will comply with the requirements of the EP&A Regulation and Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.

Council means LIVERPOOL CITY COUNCIL.

Court means the Land and Environment Court of NSW.

EPA means the NSW Environment Protection Authority.

EP&A Act means the *Environmental Planning and Assessment Act 1979*.

EP&A Regulation means the *Environmental Planning and Assessment Regulation 2021*.

Independent Planning Commission means Independent Planning Commission of New South Wales constituted by section 2.7 of the EP&A Act.

Local planning panel means LIVERPOOL LOCAL PLANNING PANEL.

Occupation certificate means a certificate that authorises the occupation and use of a new building or a change of building use for an existing building in accordance with this consent.

Principal certifier means the certifier appointed as the principal certifier for building work or subdivision work under section 6.6(1) or 6.12(1) of the EP&A Act respectively.

Site work means any work that is physically carried out on the land to which the development the subject of this development consent is to be carried out, including but not limited to building work, subdivision work, demolition work, clearing of vegetation or remediation work.

Stormwater drainage system means all works and facilities relating to:
the collection of stormwater,

the reuse of stormwater,

the detention of stormwater,

the controlled release of stormwater, and

connections to easements and public stormwater systems.

Strata certificate means a certificate in the approved form issued under Part 4 of the *Strata Schemes Development Act 2015* that authorises the registration of a strata plan, strata plan of subdivision or notice of conversion.

Subdivision certificate means a certificate that authorises the registration of a plan of subdivision under Part 23 of the *Conveyancing Act 1919*.

Subdivision works certificate means a certificate to the effect that subdivision work completed in accordance with specified plans and specifications will comply with the requirements of the EP&A Regulation.

Sydney district or regional planning panel means SYDNEY WESTERN CITY PLANNING PANEL.

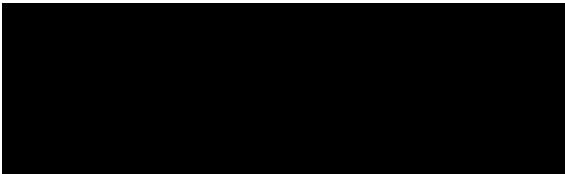
Ben Paterson

[REDACTED]

Hi Ben,

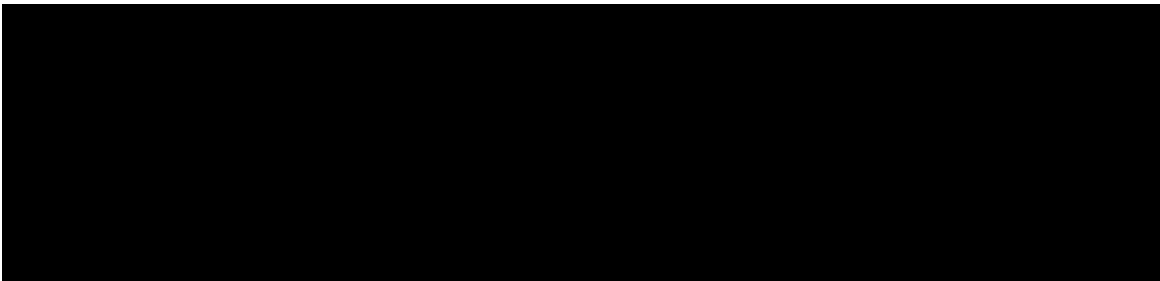
Apologies for the delay. Confirming the client's acceptance of these conditions.

Regards



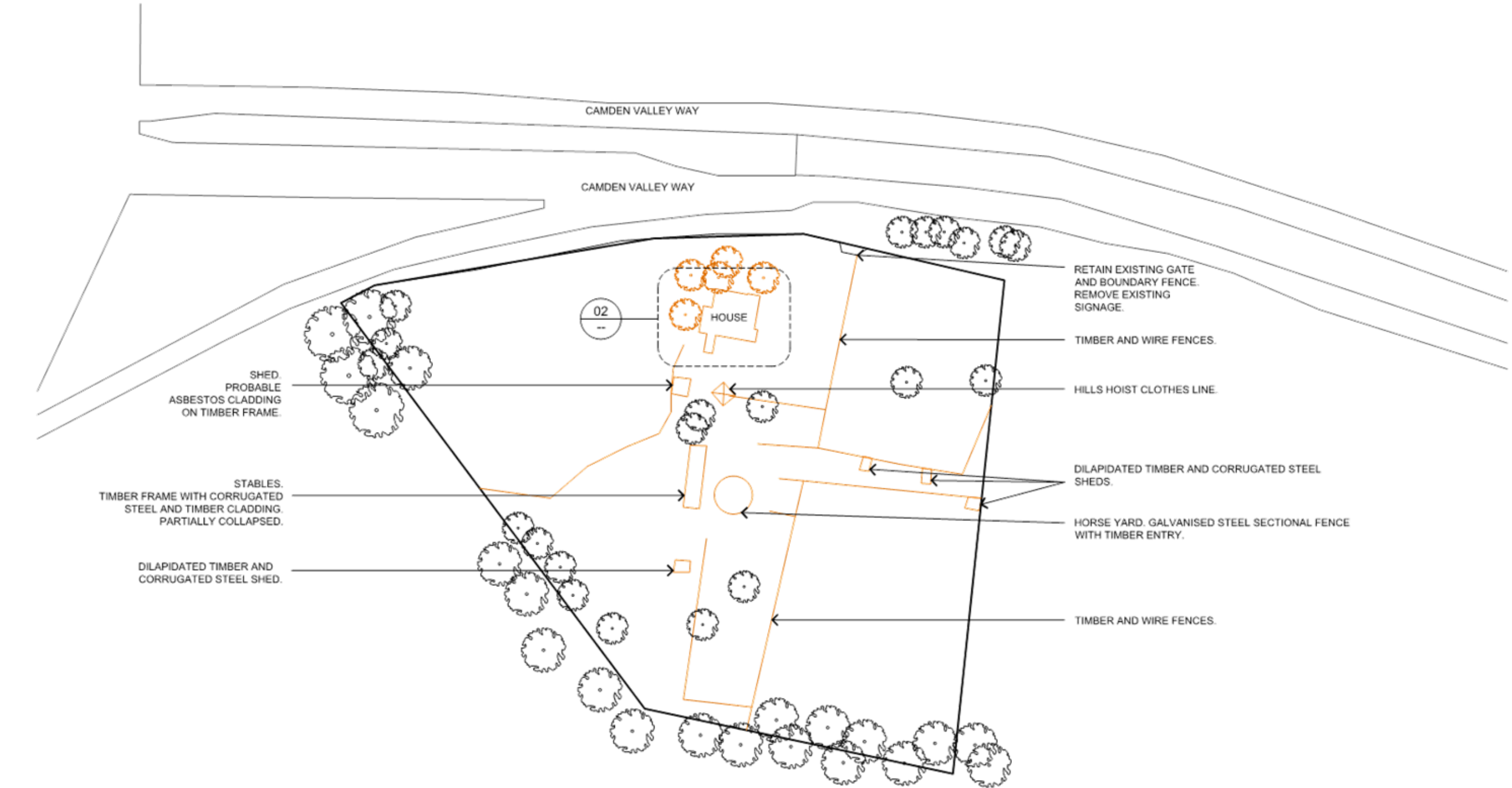
Good morning Joe,

Apologies, but could I please also include the below condition in [blue](#) as previously suggested:



Kind Regards,

Ben Paterson



01 SITE PLAN
DEMOLITION
SCALE: 1:1000

GENERAL NOTES

All building work to comply with relevant Australian Standards.
No dimensions to be scaled or scanned from drawings.
All dimensions to be checked on site prior to manufacture and construction. Figured dimensions to be used at all times.
Contractor is responsible for correct setting out with particular reference to boundaries, building lines, etc. Contractor to verify all levels, heights and dimensions on site. Contractor is to locate and identify existing services on the site and to protect those from damage throughout the duration of the works. Any errors, discrepancies or omissions to be reported to architect immediately. Any queries arising from the above must be reported and clarified before works commence.

COPYRIGHT

JPA&D Australia Pty Ltd is the proprietor of all rights including copyright in this material. No reproductions are permitted without written consent. The client accepts the responsibility of material's content and statement.
The elements shown on this drawing are preliminary design only. They may not be utilized, altered, the specification changed, or implemented in part, or in whole, or any sections without notification and written approval being issued by JPA&D Australia Pty Ltd.

REVISION

1 17/01/23 CLIENT REVIEW MS

A3



USE FIGURED DIMENSIONS IN PREFERENCE TO SCALING.
CHECK ALL DIMENSIONS ON SITE.

200MM

300MM ON ORIGINAL



SUITE C2/09
22-36 MOUNTAIN STREET
ULTIMO NSW 2007
TEL: (02) 9211 2212
WWW.JPAD.COM.AU

Jennifer Preston (Nominated Architect)
Registration Number 0096

CLIENT
OFFICE OF STRATEGIC LANDS
DPIE

PROJECT TITLE
PINEWOOD
HERITAGE REVIEW

PROJECT ADDRESS
1720 CAMDEN VALLEY WAY,
EDMONDSON PARK, 2174

DRAWING TITLE
SITE
DEMOLITION PLAN

SCALE
1:1000

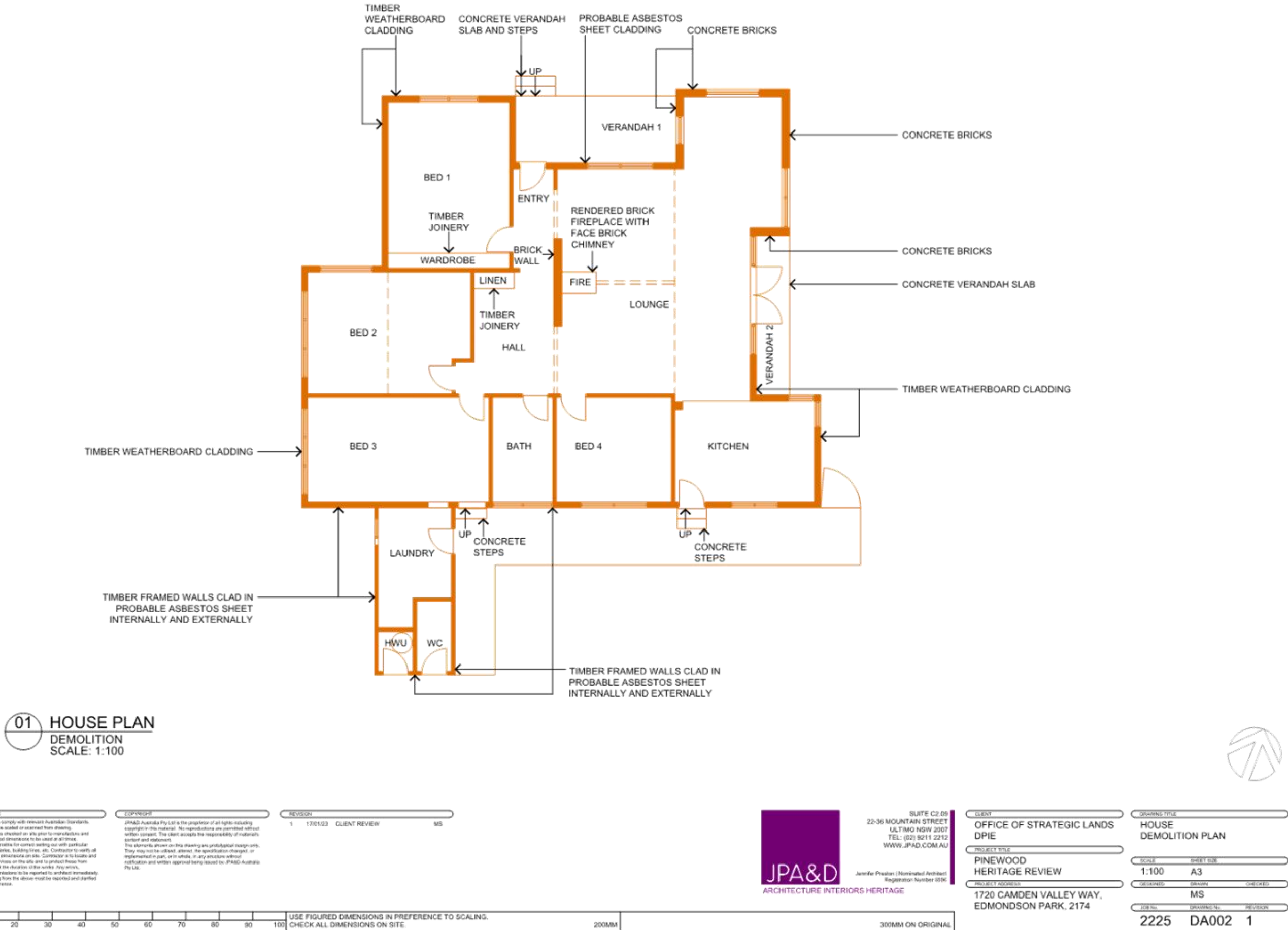
SHEET SIZE
A3

DESIGNED
MS

DRAWING NO.
2225

DA001

REVISION
1



**Department of Climate Change, Energy, the Environment and
Water**

HMS Application ID: 8829

Mr Ben Paterson
Development Assessment Planner
Liverpool City Council
Locked Bag 7064
LIVERPOOL NSW 1871

Letter uploaded to the NSW Planning Portal

Address: 1720 Camden Valley Way, Edmondson Park

Proposal: The proposal seeks approval to demolish the existing fire damaged dwelling and remove any remaining structures or debris on the site.

Development Application no: DA-586/2024, CNR-76983, A-95784. Received: 22 January 2025.

Subject: Development Application Referral - Heritage NSW comment

Dear Mr Paterson

I refer to your submission received by Heritage NSW referring the above-named development application (DA) for comment.

The proposed development:

- Seeks approval to demolish the existing fire damaged dwelling and remove any remaining structures or debris on the site.

The following key documents provided in the application were subject to review:

- Statement of Heritage Impact In support of the Development Application for Demolition of 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174 (JPA&D, 8 January 2025).
- Statement of Environmental Effects Crown Development Application 1720 Camden Valley Way, Edmondson Park (Patch Planning and Development, 20 January 2025).
- Site Demolition Plan, Pinewood 1720 Camden Valley Way, Edmondson Park 2174 (JPA&D, 17 January 2023).

Aboriginal cultural heritage

The following comments are provided in relation to the proposal:

- Heritage NSW advises that it is the responsibility of the proponent to ensure that they comply with Part 6 of the *National Parks and Wildlife Act 1974*.
- If Aboriginal objects are present, or likely to be present, and the proposed activity will harm those objects, an Aboriginal Cultural Heritage assessment must be undertaken. This assessment should inform appropriate management and mitigation measures, which may include the requirement for an Aboriginal Heritage Impact Permit.
- Heritage NSW recommends that the Aboriginal Cultural Heritage assessment is guided by the following documents:
 - *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales*.
 - consultation with the Aboriginal community undertaken in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents*.
 - satisfy the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*.

Environmental heritage

The following comments are provided under delegation from the Heritage Council of NSW in relation to the proposal:

- The subject site is not listed on the State Heritage Register (SHR) under the *Heritage Act 1977*.
- The works propose to demolish local heritage item 41 'Edmondson Cottage and rural lot, including interiors' listed on the Liverpool Local Environmental Plan (LEP), 2008.
- The property is not a listed archaeological site on the Liverpool Local Environmental Plan 2008.
- A stand-alone archaeological assessment has not been provided with the application.
- The Statement of Heritage Impact (SOHI) indicates Joseph Edmondson purchased the property in 1906 and it is probable that he had built the original weatherboard house on the land and called it 'Forest Home'. "It was a timber framed weatherboard cottage with a corrugated iron hipped roof and a front facing gable with a bull nose verandah roof and federation detailing consistent with the early decades of the twentieth century" (JPA&D, 8 January 2025:6).
- The SOHI states the house was purchased by Jean Maude Cummings in 1960 and underwent extensive renovations. It states in August 2024 the house's kitchen and bathroom were damaged by fire and outbuildings were destroyed.
- The SOHI notes whilst the property may have the potential to yield archaeological information relating to the Edmondson Family and their use of what was then 'Forest Home', the potential for archaeological information of significance is unlikely, being used primarily for pastoral purposes.
- Forest Home, also known as Pinewood was identified as an archaeological site in the report 'Austral and Leppington North Precinct – Historic Heritage Project' (AMBS 2012). The site was identified as an archaeological site of local significance relating to the Edmondson family period in the early twentieth century.

- Heritage NSW supports the SOHI and AMBS 2012 study findings that State significant historical archaeology is unlikely to be present on the site.
- The AMBS 2012 study however notes that, “although the former dwelling has lost its architectural and historic integrity, the property has undergone little substantial change and as such is likely to have archaeological integrity associated with its occupation by the Edmondson family and as an example of a rural property within the wider Austral and Leppington area. There is potential for intact archaeological relics and deposits with good integrity to be present in the site, and as such the listing of the Dwelling and rural lot, 1720 Camden Valley Way, Leppington, should be updated to reflect the heritage value of the site as the home of the WWII hero and as an archaeological site” (AMBS, 2012:33). The property has an association with Victoria Cross recipient John Hurst Edmondson.

Recommendations

It is recommended that prior to determination of this Development Application, a historical archaeological assessment be prepared for review by Heritage NSW.

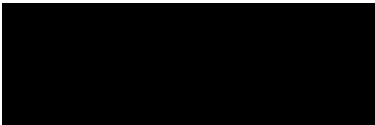
A historical archaeological assessment must be prepared by a suitably qualified archaeologist in accordance with the guidelines Archaeological Assessment (1996) and Assessing Significance for Historical Archaeological Sites and Relics (2009).

This assessment should identify what relics, if any, are likely to be present, assess their significance and consider the impacts from the proposal on this potential archaeological resource. Where harm is likely to occur, it is recommended that the significance of the relics be considered in determining an appropriate mitigation strategy.

If works will have an impact on relics of local heritage significance or if works will disturb or excavate land that is likely to contain archaeological relics of State heritage significance, a s140 permit under the *Heritage Act 1977* may be required, prior to commencement of works. As part of a permit application, a Research Design and Excavation Methodology would also need to be prepared to guide any proposed excavations or salvage program.

If you have any questions about this correspondence, please contact Lyndon Patterson, Senior Assessments Officer at Heritage NSW on (02) 9873 8500 or heritagemailbox@environment.nsw.gov.au

Yours sincerely



Tim Smith OAM
Director Assessments
Heritage NSW
Department of Climate Change, Energy, the Environment and Water
Environmental heritage comments made as delegate of the Heritage Council of NSW
11 February 2024



APA Group
 APT Petroleum Pipelines Pty Ltd
 ACN 009 737 393
 Level 12, 80 Ann Street, Brisbane, Qld, 4000
 GPO Box 1390 QLD 4001

P: +61 7 3323 6100
 F: +61 7 3323 6010
apa.com.au

9th January 2025

APA Reference: 506107

Council Reference: DA-586/2024

Ben Paterson
 Liverpool City Council
 Locked Bag 7064
 Liverpool BC NSW 1871

Dear Nabil,

RE: Proposal to demolish existing fire damaged dwelling and remove any remaining structures or debris on the site - 1720 Camden Valley Way, Edmonson Park

Thank you for your referral request received on 16 December 2024 in relation to the above development.

APA Group (APA) is a leading Australian owned and operated energy infrastructure business with a \$22 billion portfolio of assets, delivering essential energy services across all of Australia. Our focus is on providing safe, reliable, affordable, and low emissions energy to Australian communities. Our investments are also critical to supporting Australian jobs, manufacturing and industry. APA is a trusted owner and operator of a range of energy infrastructure – from renewable energy, to electricity interconnectors and transmission, through to gas generation plants and transmission pipelines.

Gorodok Pty Ltd (APA) is the Pipeline Licensee for the Moomba to Sydney Ethane pipeline, (see table 1 for details):

Table 1: Transmission gas pipelines in the area of consideration

Pipeline	Pipeline Licence	Easement Width (m)	Diameter (mm)	Measurement Length m)
Moomba to Sydney Ethane	15	6	200	600
Note: Measurement Length is applied to either side of the pipeline.				

APA's Role

As a Licensee under the Pipelines Act 1967, APA is required to operate High Pressure Gas Transmission Pipelines (**HPGTP**) in a manner that minimises environmental impacts and protects the public and property from health and safety risks. Once a HPGTP is in place, APA is required to constantly monitor both the pipeline easement and also a broader area within which we are required to consider land use changes and development and to assess what such changes means to the risk profile of the HPGTP.

APA has a number of responsibilities and duties to perform under a complex framework of legislation, standards and controls across Federal, State and Local Government. In particular, our HPGTPs are required to be operated in accordance with Australian Standard 2885 (Pipelines – Gas and Liquid



APA Group
 APT Petroleum Pipelines Pty Ltd
 ACN 009 737 393
 Level 12, 80 Ann Street, Brisbane, Qld, 4000
 GPO Box 1390 QLD 4001

P: +61 7 3323 6100
 F: +61 7 3323 6010
apa.com.au

Petroleum) (AS2885). In discharging our regulatory responsibilities, APA is required to monitor what is happening around its assets including land use change and development. This allows APA to ensure it remains in a position to comply with applicable operational and safety standards and legislation whilst meeting community expectations on energy supply.

Pipeline Risk Profile and the Measurement Length

In managing HPGTP's and considering land use changes, APA must focus on that area geographically defined by AS2885 as the Measurement Length (**ML**). The ML area is the heat radiation zone associated with a full-bore pipeline rupture. APA is mandated to consider community safety in the ML due to the high consequences of pipeline rupture to life, property and the economy.

The ML is determined by taking account of a number of factors including the design criteria of the pipe (driven by the environment within which it was designed for at the time of construction) and the Maximum Allowable Operating Pressure (MAOP) of the pipe. APA must consider any changes of land uses within the ML area to determine the effect of a new use on the risk profile of the pipeline.

For reference, the ML of the Moomba to Sydney Ethane pipeline is 600 metres. Note that the ML is a radial dimension, and therefore applies to both sides of the pipe.

Pipeline Corridor Management

To ensure compliance with the safety requirements of AS2885, APA needs to ensure its assets are managed to an appropriate standard. This includes:

- Ensuring the pipeline is maintained free of inappropriate vegetation and structures.
- Place warning signs at various mandated points along the pipeline route, including any change in property description/boundaries.
- Maintain a constant line of sight between warning signs.
- Undertake physical patrols and inspections of the easement.

APA will not accept outcomes that do not enable us to achieve our safety responsibilities to the surrounding community.

Proposed Development

APA's advice has been provided following review of the Statement of Environmental Effects prepared by the Planning Ministerial Corporation, dated November 2024.

The proposal seeks approval to demolish the existing fire damaged dwelling and remove any remaining structures or debris on the site. The proposed demolition on site is located approximately 22m to the south of the Moomba to Sydney Ethane pipeline and existing driveway access is directly across the pipeline easement



APA Group
APT Petroleum Pipelines Pty Ltd
ACN 009 737 393
Level 12, 80 Ann Street, Brisbane, Qld, 4000
GPO Box 1390 QLD 4001

P: +61 7 3323 6100
F: +61 7 3323 6010
apa.com.au

Comments

On the basis of the information provided, APA does not object to the proposal subject to the following conditions being included within any approval issued for the proposal:

1. Works within the road reserve

Any works required as a consequence of this development including pavement, road improvements, pipelines, cables, or any other improvement on or under the land, must not be constructed without prior consent in writing from APA. No stockpiles or storage of material is to be stored on the ethane pipeline easement at anytime.

2. Easement Delineation On Site

During works, the boundary of the easement must be clearly delineated on site by temporary fencing (or other means as agreed by APA), and clearly marked as a hazardous work zone/ restricted area.

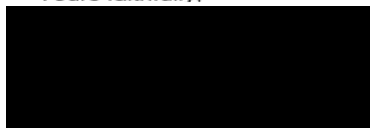
3. Pipeline Delineation On Plans

All plans which include the area of the gas pipeline must have the pipeline clearly identified with hatching 3m either side of the pipeline. The area must also be clearly labelled as 'high pressure gas pipeline right of way – no works to occur without the prior authorisation of the pipeline operator'.

Please note this advice does not extend to any gas network pipelines that are in the area, that are owned by APA or other utility provider.

For any further enquiries relating to this correspondence, please feel free to contact myself on 07 3223 3385 or the Infrastructure Planning & Approvals team at planningnsw@apa.com.au.

Yours faithfully,



John Lawson
Senior Urban Planner
Infrastructure Planning and Approvals
APA Group



ARCHITECTURE
INTERIORS
HERITAGE

Suite C2.09
22-36 Mountain Street
Ultimo NSW 2007

TEL: (02) 9211 2212
FAX: (02) 9211 6616
www.jpadi.com.au

STATEMENT OF HERITAGE IMPACT



Figure 1: North facade of the 'Pinewood' building. Source: Ross Thornton 2023.

In support of the Development Application for Demolition
of 'Pinewood' at 1720 Camden Valley Way,
Edmondson Park 2174

Revision	Date	Revision
1	11/01/2023	Initial draft
2	23/01/2023	Client feedback incorporated
3	08/01/2025	Updated for client reissue to council

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

Contents

Background	3
Acknowledgement	3
Authors	3
Site Identification	3
Methodology	4
Heritage Listings	4
Heritage Items in the Vicinity	5
The Proposal	5
Historical Context	5
Assessment of Heritage Significance	13
Heritage Impact of Proposal	14
Alternatives Explored	14
Conclusion	15
References	15
Appendix	16

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

Background

This statement of heritage impact has been prepared for the Office of Strategic Lands within the Department of Planning and Environment to support a development application that proposes to demolish the existing building and structures on the site at 1720 Camden Valley Way, Edmondson Park. The purpose of this statement of heritage impact is to explain the impact the proposed works will have on the site's heritage significance.

Acknowledgement

JPA&D Australia Pty Ltd acknowledge the Gandangara people, the Traditional Custodians of the land that is the subject of this statement of heritage significance.

This project was undertaken on behalf of Tara McDonald of the Office of Strategic Lands within the Department of Planning and Environment. Assistance was also provided by Kellie Tattersall also of the Office of Strategic Lands.

Authors

This Statement of Heritage Impact has been prepared by Monika Sakal, Architectural and Heritage Technician and reviewed by Dr. Jennifer Preston, Director and Heritage Architect, of JPA&D Australia Pty Ltd. Photographs were taken by Ross Thornton unless noted otherwise.

Site Identification

The subject site is currently known as 'Pinewood' and is located at 1720 Camden Valley Way, Edmondson Park, within the Liverpool local government area, see Figure 2. The site comprises Lot 6 of D.P205472, see Figure 3. The site area totals approximately 24280m². The North side of the site fronts onto Camden Valley Way, the other sides are bounded by neighbouring properties. The site was acquired by the State Planning Authority in 1974 and remains under the ownership of Department of Planning and Environment.



Figure 2: Aerial Image of the locality of Pinewood. The boundary is highlighted in red and the building in yellow.
Source: Sixmaps 2022.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

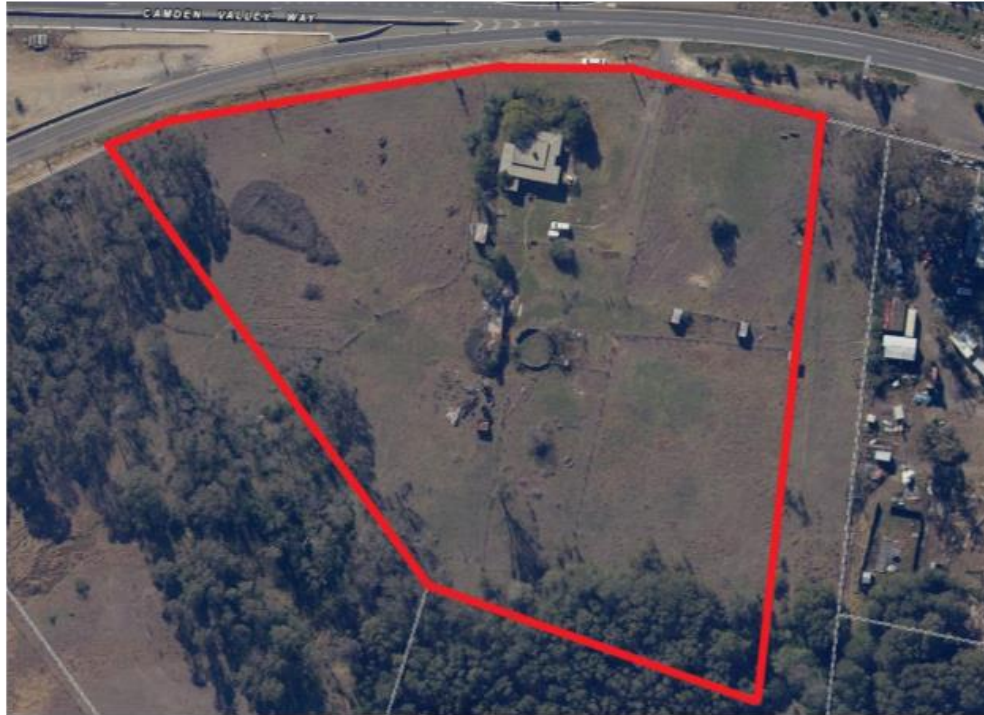


Figure 3: Pinewood with the lot boundary shown in red. Source: Sixmaps, 2022.

Methodology

The development of this statement of heritage significance is based on visual inspections, photographs and documentary research. A measured survey of the main house was undertaken in 2017 and this information was combined with satellite imagery to develop the site plan. The site visits were undertaken on 02/05/2017 and 11/01/2023. Photographs were taken on both occasions. No invasive investigation was carried out on the site. A review of the Section 170 listing document as well as other secondary texts listed in the references at the end of this document, were used as the basis for this statement. This statement follows the general guidelines in *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*, 2013. The format for this statement follows the format set out in *Statements of Heritage Impact* published by Department of Planning and Environment, 2022.

Heritage Listings

'Pinewood' was previously known as 'Forest Home' and is a locally listed item under the Liverpool Local Environmental Plan 2008 (Liverpool LEP 2008). It was listed in 2004 during a public consultation for the Liverpool Heritage Study Review. The site was identified as having heritage value to the local community due to its association with Corporal John Hurst Edmondson VC, the first recipient of the Australian Victoria Cross in World War Two. The site is not within the boundaries of a heritage conservation area.

	<i>Heritage Listing</i>	<i>Listing Title</i>	<i>Listing Number</i>
Statutory	Liverpool Local Environmental Plan 2008	Dwelling and Rural Lot - Pinewood	41
Non-Statutory	Austral and Leppington North precincts – Historic Heritage Project Volume 1	Forest Home - Archaeological Site (Dwelling and rural lot)	100791
Non-Statutory	Liverpool Heritage Study Review	Pinewood	1970123

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

Heritage Items in the Vicinity

There is one state listed heritage item in the vicinity of 'Pinewood', namely 'Horningsea Park Drive' state heritage item #35 under the Liverpool LEP 2008, see Figure 4. 'Horningsea Park Drive' comprises of Lots 1 and 2, DP 1018964 and is located approximately 400 metres North East of 'Pinewood'. There are no locally listed heritage items within the vicinity nor any heritage conservation areas.



Figure 4: 'Horningsea Park Drive' heritage item is highlighted in yellow. It is located northeast of the subject site marked with a flag. Source: Sixmaps, 2022.

The Proposal

It is proposed to demolish the house, outbuilding, internal fences, the horse yard and several trees located near the existing structures. It is proposed to erect a memorial to Corporal John Hurst Edmondson VC at the site that relates the story of his actions and the awarding of the Victoria Cross. The memorial plaque will be placed on a portion of land where the house currently sits, which will be turned into a small park within the future development. The memorial and interpretation strategy will be designed in detail as part of the future development stage.

Historical Context

Prior to European settlement the area was home to the Gandangara people whose homelands covered an estimated 11,000 square kilometres in the south-east region of New South Wales.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

Their lands encompassed what are today the towns of Goulburn and Berrima and extended down the Nepean River (Wollondilly) until the vicinity of Camden.

In 1802 the explorer Francis Barrallier met the Gandangara people as his party moved through the Cowpastures, southwest of Sydney. Barrallier noted in his journal that the Gundungara "themselves build huts for the strangers they wish to receive as friends" (Barrallier, 1802). Most of the Gandangara lands did not initially appeal to early settlers because of the poor quality of the Nepean sandstone soils. This meant encroachment was slower than in other areas. Further, in a bid to stop settlers encroaching on their land, the Gandangara are said to have successfully petitioned Governor King to secure protected access to their riverine yam beds. This promise was maintained until King's departure in 1807 (Goodall, 2008).

The property originally comprised approximately 564 acres to the south of the Great Southern Road, between Cowpasture Road and Cabramatta Creek. The land included John Drummond's original crown grant of 410 acres in 1816 (see Figure 5) and part of the adjoining grants issued to Robert Bostock in 1819 and Henry Kitchen (AMBS, 2012).



Figure 5: A detail of the 1894 Cumberland County Map showing the John Drummond 410 acre Crown Land. Source: NSW Land Registry services, Historical Land Records Viewer.

The property was purchased in 1906 by Joseph Edmondson, a hotel proprietor from Campbelltown (AMBS, 2012). It is probable that Joseph Edmondson built the original weatherboard house on the land, and called it 'Forest Home' (AMBS, 2012). It was a timber framed weatherboard cottage with a corrugated iron hipped roof and a front facing gable with a bull nose verandah roof and federation detailing consistent with the early decades of the twentieth century, see Figure 6.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

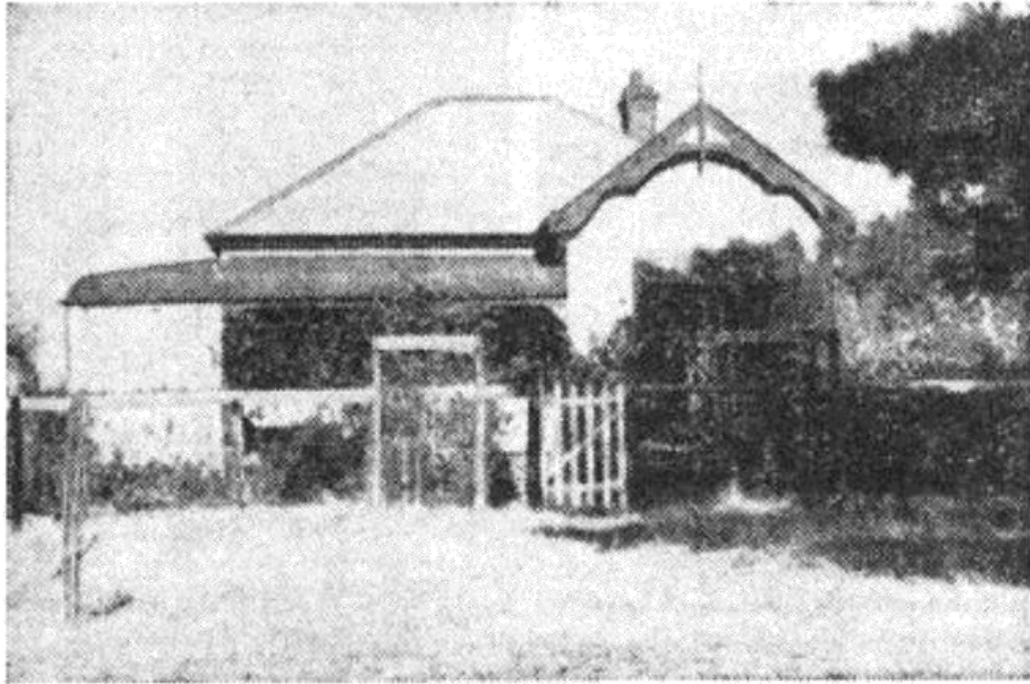


Figure 6: The original façade of Forest Home. Source: Beckingsale, 1941.

In 1918, the estate was subdivided into three lots, which were transferred to three of Edmondson's sons (see Figure 7). All three lots were probably used as farmland. 'Forest Home' was located on the middle lot, which was owned by Edmondson's eldest child, Joseph William Edmondson. (AMBS, 2012) Joseph William Edmondson Junior, his wife Maude Elizabeth Hurst and their only son John Hurst Edmondson moved from Wagga Wagga to Forest Home in 1916.

John Hurst Edmondson grew up in 'Forest Home', he attended Austral Public School and Hurlstone Agricultural High School. He worked for his father on the family farm after finishing high school. He became a champion rifle shooter, a cattle judge and council member of the Liverpool Agricultural Society. The Section 170 describes his military career as follows:

Edmondson trained at Ingleburn Army Camp and served as a reserve in the 4th Battalion (The Australian Rifles) Citizen Military Forces. He enlisted in the Australian Imperial Forces on 20th May 1940. He was promoted to Corporal in the 2nd 17th Battalion (Infantry) and was sent to the Middle East in 1940. John Edmondson was killed in action at the Battle of Tobruk on 14th April 1941 at the age of 26. He had saved the life of a superior officer during a German machine-gun attack.

The night of the 14th of April 1941 is described in detail in the excerpt from The London Gazette below in Figure 8.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

The image displays three historical land title certificates from 1918, each showing a transfer of land from Joseph Edmondson to different recipients. Each certificate is signed by the Registrar General and includes a circular seal.

Certificate 1 (Top):
No. A 388221 TRANSFER dated 21st May 1918
from the said Joseph Edmondson To Joseph William Edmondson of Part
Produced and entered 12th June 1918 of the land within described.
at 11 o'clock in the fore noon.
Cancelled & Certificate of Title issued
Vol. 2858 Fol. 106
REGISTRAR GENERAL

Certificate 2 (Middle):
No. A 388222 TRANSFER dated 21st May 1918
from the said Joseph Edmondson To Alexander Keith Edmondson of Part
Produced and entered 12th June 1918 of the land within described.
at 11 o'clock in the fore noon.
Cancelled & Certificate of Title issued
Vol. 2858 Fol. 120
REGISTRAR GENERAL

Certificate 3 (Bottom):
No. A 388220 TRANSFER dated 21st May 1918
from the said Joseph Edmondson To John Gordon Edmondson of the residue
Produced and entered 12th June 1918 of the land within described.
at 10 o'clock in the fore noon.
Cancelled & Certificate of Title issued
Vol. 2863 Fol. 141
REGISTRAR GENERAL

Figure 7: Certificate of title showing the transfer of the subject site from Joseph Edmondson to Joseph William Edmondson, Alexander Keith Edmondson and John Gordon Edmondson in 1918. Source: Liverpool Council 2016.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

No. NX 15705 Corporal John Hurst
Edmondson, Australian Military Forces.

On the night of the 13-14th April, 1941, a party of German infantry broke through the wire defences at Tobruk and established themselves with at least six machine guns, mortars and two small field pieces. It was decided to attack them with bayonets, and a party consisting of one officer, Corporal Edmondson and five privates, took part in the charge. During the counter-attack Corporal Edmondson was wounded in the neck and stomach but continued to advance under heavy fire and killed one enemy with his bayonet. Later, his officer had his bayonet in one of the enemy and was grasped about the legs by him, when another attacked him from behind. He called for help, and Corporal Edmondson, who was some yards away, immediately came to his assistance and in spite of his wounds, killed both of the enemy. This action undoubtedly saved his officer's life.

Shortly after returning from this successful counter-attack, Corporal Edmondson died of his wounds. His actions throughout the opera-

tions were outstanding for resolution, leadership and conspicuous bravery.

*War Office,
4th July, 1941.*

Figure 8. Excerpt from the Supplement to the London Gazette, Tuesday, 1st of July, 1941, p.3807.
Source: War Office, 1941.

Edmondson was posthumously awarded the first Australian Victorian Cross of World War Two, for his actions. The Victorian Cross was presented to and received by his mother Maude Elizabeth Edmondson (née Hurst) by the Governor General on the 27th of September 1941, see Figure 9, depicting Maude and Joseph, Edmondson's parents. In 1969 Edmondson's VC and some of his personal belongings were presented to the Australian War Memorial.

Following his VC award several places that had some association with Edmondson VC were named after him, including the suburb of Edmondson Park, Edmondson Road in Austral, Edmondson Estate, John Edmondson VC Memorial RSL Club in Liverpool, John Edmondson High School in Horningsea Park, and the school hall at his former high school, Hurlstone Agricultural High School.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1



Figure 9: Image from 'First V. C. Winner of the War'. Source: Daily Advertiser, 1945, p3.

In 1930, a strip of land through the centre of the 'Forest Home' property was resumed as a road reserve for the Hume Highway deviation around Carne's Hill which was later renamed Camden Valley Way. The farm to the south of Camden Valley Way remained substantially intact until the 1940s, when it was subdivided and various parts sold off between 1944 and 1957.

A 1955 aerial image of the original 'Forest Home' building shows a hipped roof (see Figure 10). The house and approximately 70 acres of attached farm land were retained by the Edmondson family until the death of Maude Edmondson in 1961 (AMBS, 2012). John's father Joseph had died in 1958.

It is believed that the site was renamed 'Pinewood' sometime between the late 1950s and early 1960s. Jean Maude Cummings bought the house in 1960, extensively renovated it, later it was sold to the Bray Family. A 1961 aerial image of the subject site shows the extensively renovated 'Pinewood' building with a flat roof. Several of the earlier outbuildings have now been demolished and new outbuildings and yards built (see Figure 11).

The major renovations in the 1960s resulted in a flat metal deck roof and the building clad in cement sheet with some coloured concrete bricks. The interior of the house was extensively modified. Over time further changes have occurred.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1



Figure 10: A 1955 Aerial image of the subject site on the left compared to a 1961 image on the right. Source: NSW Government Historical Imagery 1955 and 1961.



Figure 11: An aerial image of the subject site prior to the fire of August 2024. Source: Apple Maps, 2022.

The State Planning Authority compulsorily acquired the property in 1974, it remains under the ownership of the Department of Planning and Environment.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

In August 2024 a fire that had been deliberately lit, spread from the neighbouring property through grass and bushland and caused damage to the house's kitchen and bathroom as well as destroying the outbuildings. The site was unoccupied at the time.

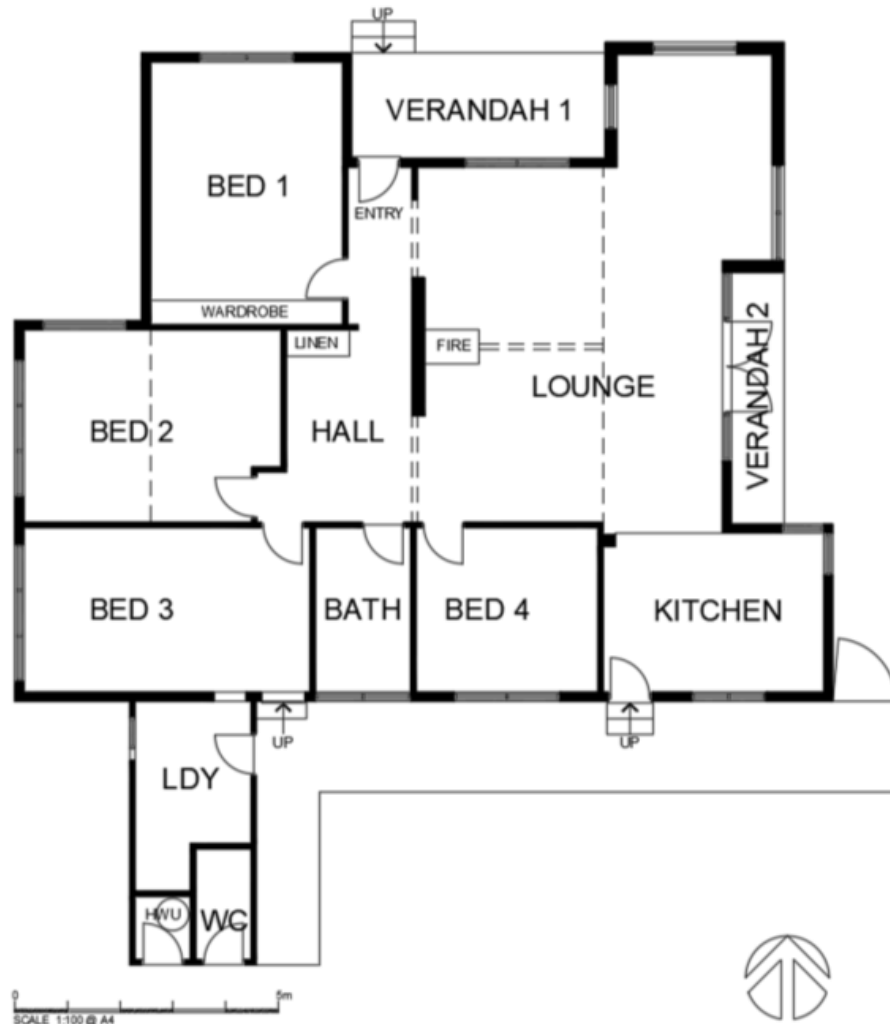


Figure 12: Floor Plan of 'Pinewood'. Source: JPA&D, 2016.

The historic themes associated with 'Pinewood' are set out in the Table below:

<i>Australian Theme</i>	<i>New South Wales Theme</i>	<i>Local Theme</i>
3. Developing local, regional and national economies.	Pastoralism.	Pastoral expansion, pastoral diversification.
4. Settlement.	Accommodation (Housing). Towns, Suburbs and Villages.	A place to live. Foundation, growth and changing role of country towns.

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

9. Marking the phases of life.	Persons.	Association with Corporal John Hurst Edmondson VC.
--------------------------------	----------	--

Archaeological Potential

A desktop investigation was conducted to determine the archaeological potential of the site. No exploratory digging was undertaken.

A basic search of the AHIMS (Aboriginal Heritage Information Management System) database was undertaken and no Aboriginal sites are recorded in or near the subject site. No Aboriginal places have been declared in or near the subject site. The AHIMS report is attached at Appendix A.

A search of various historical archaeology databases was undertaken including the University of Sydney NSW Archaeology online database endeavouring to locate any previous archaeological reports that have been done in relation to this site. None were found. Whilst the property may have the potential to yield archaeological information relating to the Edmondson Family and their use of what was then 'Forest Home', the potential for archaeological information of significance is unlikely.

Since the land was occupied by European's, it has been used largely for pastoral purposes. It is therefore unlikely that any significant historical archaeology exists on the site.

Assessment of Heritage Significance

In 2004 the site 'Pinewood' was identified as having heritage value to the local community during the public consultation for the Liverpool Heritage Study Review. The heritage significance of the site and property has been assessed using the NSW heritage assessment criteria.

Criterion (a): An item is important in the course, or pattern, of NSW's **cultural or natural history** (or the cultural or natural history of the local area).

'Pinewood' is important in the course of the cultural history of the local area. Corporal John Hurst Edmondson VC received the first Australian Victorian Cross for World War Two. Through Edmondson VC the site is associated with the significant historical phase of World War Two.

Criterion (b): An item has strong or special **association** with the life or works of a **person**, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).

The principal criteria of heritage significance for the 'Pinewood' site is a strong associative one with Corporal John Hurst Edmondson VC, as the first recipient of the Australian Victorian Cross in World War Two. It was on this property that Edmondson VC grew up and learned how to shoot a rifle. The site holds cultural and intangible value of the history of the local area. Maude, Edmondson's mother, received the VC award on her son's behalf and it was kept at 'Pinewood' with his family until they donated it to the Australian War Memorial in 1969.

Criterion (c): An item is important in demonstrating **aesthetic** characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).

The building in its current state does not reflect 'Forest Home' as it was when Edmondson VC. resided there, nor does it demonstrate any aesthetic characteristics that are of note in and of itself, it does not meet the guidelines to be of aesthetic significance.

Criterion (d): An item has strong or special **association** with a particular **community** or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.

The site is important to the agricultural community and military community for the intangible social and cultural value it holds through its association with Corporal John Hurst Edmondson VC. Corporal John Hurst Edmondson VC attended the Ingleburn Army Camp, which contained

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

the State's first training camp for battalions serving in the Second World War. The community connected to this military history has cultural and social association with the subject site as it informs their shared military history. The John Edmondson VC Memorial RSL Club in Liverpool showcases the strong cultural association that the military community has to Edmondson VC, which similarly applies to the 'Pinewood' site.

Criterion (e): An item has the potential to **yield information** that will contribute to an understanding of the cultural or natural history of NSW (or the cultural or natural history of the local area).

A basic search was conducted on the Aboriginal Heritage Information Management System, which resulted in zero Aboriginal sites recorded and zero Aboriginal places declared. The property may have the potential to yield archaeological information relating to the Edmondson Family, as it is one of the few sites associated with the early life of Corporal John Hurst Edmondson VC, before he was awarded his posthumous VC. The potential knowledge that could be gained would be relevant to research on the Edmondson Family, but the likelihood of significant information being revealed is extremely low.

Criterion (f): An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).

The 'Pinewood' site is rare as it is one of the few sites associated with the early life of Edmondson. It embodies rare aspects of the cultural history of the State and local area associated with the early life of Corporal John Hurst Edmondson VC. The 'Pinewood' site holds cultural and intangible historical value of the local area that contributes to the history of World War Two.

Criterion (g): An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or environments (or the local area's).

The site is a representative example of rural settlement and land-use in south-western Sydney during the first half of the twentieth century.

Heritage Impact of Proposal

The heritage significance of the 'Pinewood' site is through its association with the early life of Edmondson, and the cultural and intangible historical value that results from the association. The house in its current state no longer reflects 'Forest Home' as it was when Edmondson resided there, thus it does not add to the understanding of the life of Edmondson prior to his VC medal being awarded. It is now in extremely poor condition, with fire damage to the house and the destruction of the outbuildings by the fire of 2024. The proposed demolition of the remaining parts of the house and outbuildings will not negatively impact the heritage significance of the site. The poor current state of the house and buildings substantially compromise the site's heritage significance and the house's 1960s design distorts the understanding of the site in relation to Edmondson VC. In contrast, a proposed memorial has the potential to convey much more clearly the history and significance of the site's association with Corporal John Hurst Edmondson VC.

Alternatives Explored

Alternative 1: Do nothing

The site is currently unoccupied and it will continue to fall further into disrepair. The house in its current form does not reflect the house where Edmondson grew up and therefore detracts from a true representation of his early life.

Alternative 2: Restore the building

The current 'Pinewood' house no longer bears any resemblance to the original 'Forest home'. There are no known architectural plans or sketches nor enough photographic evidence to ascertain the original footprint and design of 'Forest Home'. Therefore, it is not possible to restore the building to the former 'Forest Home' with any degree of accuracy. Even if sufficient

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

documentary evidence were located any recreation of the original 'Forest Home' would be inauthentic.

Conclusion

In our view the demolition of the remains of the house and outbuildings at 1720 Camden Valley Way now known as 'Pinewood' would have no negative impact on the heritage significance of the property. Indeed, it could be argued that the demolition of the house will contribute to a clearer understanding of the life of Edmondson by removing a building that bears no resemblance to the house in which the Edmondson family lived. The heritage significance of the site and its association with the Edmondson's would be greatly improved by the erection of an accessible memorial to Corporal John Hurst Edmondson VC, and the relating of his story through appropriate heritage interpretation on the site.

References

Year	Type	Author	Title	Internet links
1802	Written	Francis Barrallier	Journal of the expedition into the interior of New South Wales	https://catalogue.nla.gov.au/Record/2609130
1894	Cartographic material	NSW Land Registry Services, Historical Land Records Viewer	Cumberland County Map	blob:https://hlrv.nswlrs.com.au/922325e4-0550-4b1d-8ff4-2a27c574889c
1940	Written	Unknown	A Mother Grieves for Death of VC winner	https://anzacportal.dva.gov.au/stories/australians-wartime/mother-grieves-death-vc-winner#:~:text=Corporal%20John%20Hurst%20Edmondson%2C%20who,Ba%20talion%20on%2020%20May%201940.
1941	Photograph	Marjorie Beckingsale	His Home: White house with lovely name of Forest Home was the boyhood home of Corporal Edmondson, V. C. It is the homestead of a 600-acre property	https://trove.nla.gov.au/newspaper/article/47493531
1941	Written	War Office	Supplement to the London Gazette (p.3807)	https://www.thegazette.co.uk/London/issue/35207/supplement/3818/data.htm
1945	Written	Daily Advertiser	FIRST V.C WINNER OF THE WAR	http://nla.gov.au/nla.news-page15783492
1955	Photograph	NSW Government Historical Imagery	228_26_150	https://portal.spatial.nsw.gov.au/download/historic/228/228_26_150.jp2.jpeg
1961	Photograph	NSW Government Historical Imagery	1046_40_120	https://portal.spatial.nsw.gov.au/download/historic/1046/1046_40_120.jp2.jpeg
1996	Written	Ian Grant	Edmondson, John Hurst (1914-1941)	http://adb.anu.edu.au/biography/edmondson-john-hurst-10099
2002	Written	Commonwealth of Australia	World War Two Nominal Roll	https://nominal-rolls.dva.gov.au/veteran?id=134606&c=WW2#R

Statement Of Heritage Impact - 'Pinewood' at 1720 Camden Valley Way, Edmondson Park 2174
Revision: 1

2004	Written	FORM Architects Pty Ltd	Liverpool Heritage Study Review	http://heritagewsw.intersearch.com.au/heritagewswjsui/handle/1/4994
2008	Written	NSW Government Legislation	Liverpool Local Environmental Plan 2008	https://legislation.nsw.gov.au/view/html/inforce/current/epi-2008-0403
2008	Written	Heather Goodall	Invasion to Embassy: Land in Aboriginal politics in New South Wales 1770-1972	https://catalogue.nla.gov.au/Record/4499229
2012	Written	Australian Museum Business Services (AMBS)	Austral and Leppington North precincts – Historic Heritage Project Volume 1	https://heritagewsw.intersearch.com.au/heritagewswjsui/handle/1/5781
2012	Written	Liverpool City Council	Dwelling and Rural Lot - Pinewood	https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=1970123
2013	Written	Australia ICOMOS	The Burra Charter	http://australia.icomos.org/publications/burra-charter-practice-notes/#bc
2016	Written	JPA&D Pty Ltd	Section 170 Listing – Pinewood, 1720 Camden Valley Way	
2016	Written	Liverpool City Council	Certificate of title showing the transfer of the subject site from Joseph Edmondson, to Joseph William Edmondson, Alexander Keith Edmondson and John Gordon Edmondson in 1918.	
2022	Written	Department of Planning and Environment	Statements of Heritage Impact	https://www.environment.nsw.gov.au/research-and-publications/publications-search/statements-of-heritage-impact
2022	Written	Department of Planning, Industry and Environment	New South Wales Historical Themes	https://www.environment.nsw.gov.au/research-and-publications/publications-search/new-south-wales-historical-themes
2022	Internet	Apple Inc	Apple Maps Satellite	https://duckduckgo.com/?q=1720+camden+valley+lane+sydney&va=b&t=hc&ia=web&iaxm=maps
2022	Internet	NSW Government Spatial Services	Six Maps	https://maps.six.nsw.gov.au/

Appendix

Appendix A – AHIMS Search Result Report December 2024.



AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : 2435

Client Service ID : 961514

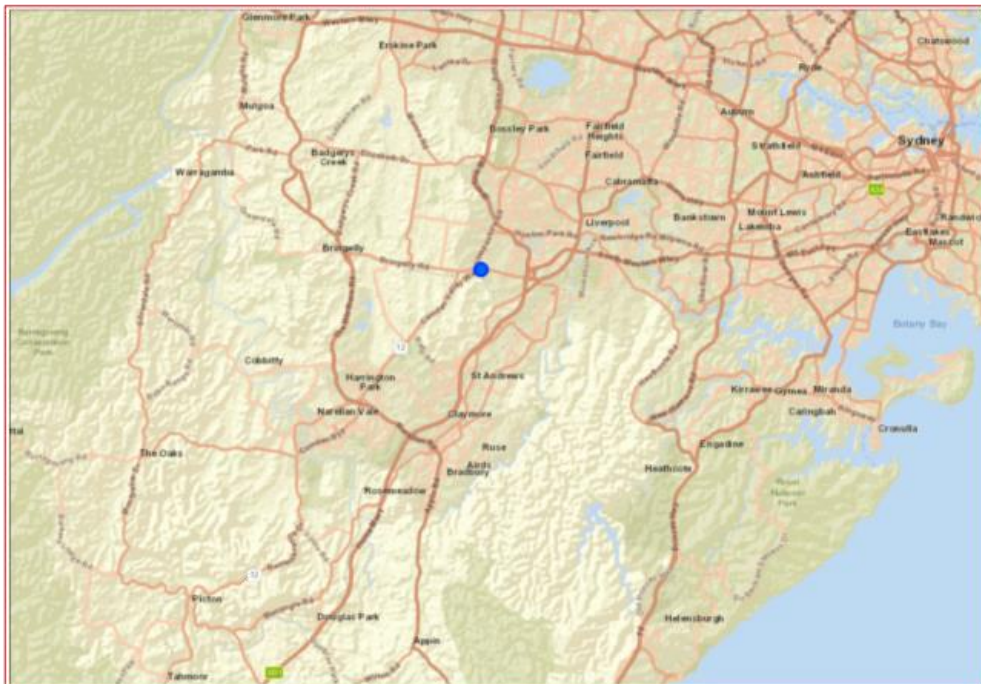
Date: 18 December 2024



Dear Sir or Madam:

AHIMS Web Service search for the following area at Address : 1720 CAMDEN VALLEY WAY EDMONDSON PARK 2174 with a Buffer of 50 meters, conducted by Jennifer Preston on 18 December 2024.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](https://www.legislation.nsw.gov.au/gazette) (<https://www.legislation.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.



Fire Event Asbestos Contamination Assessment

**1720 Camden Valley Way,
Edmondson Park NSW 2179**

**Department of Planning, Housing and Infrastructure
September 2024**

Client No: D0158

Job No: 131702S

Statement of Limitations

This document has been prepared in response to specific instructions from Department of Planning, Housing and Infrastructure to whom the report has been addressed. The work has been undertaken with the usual care and thoroughness of the consulting profession. The work is based on generally accepted standards, practices of the time the work was undertaken. No other warranty, expressed or implied, is made as to the professional advice included in this report.

The report has been prepared for the use by Department of Planning, Housing and Infrastructure and the use of this report by other parties may lead to misinterpretation of the issues contained in this report. To avoid misuse of this report, Prensa advises that the report should only be relied upon by Department of Planning, Housing and Infrastructure and those parties expressly referred to in the introduction of the report. The report should not be separated or reproduced in part and Prensa should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way.

Prensa is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are indicative estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

Reliance on Information Provided by Others

Prensa notes that where information has been provided by other parties in order for the works to be undertaken, Prensa cannot guarantee the accuracy or completeness of this information. Department of Planning, Housing and Infrastructure therefore waives any claim against the company and agrees to indemnify Prensa for any loss, claim or liability arising from inaccuracies or omissions in information provided to Prensa by third parties. No indications were found during our investigations that information contained in this report, as provided to Prensa, is false.

Recommendations for Further Study

The industry recognised methods used in undertaking the works may dictate a staged approach to specific investigations. The findings therefore of this report may represent preliminary findings in accordance with these industry recognised methodologies. In accordance with these methodologies, recommendations contained in this report may include a need for further investigation or analytical analysis. The decision to accept these recommendations and incur additional costs in doing so will be at the sole discretion of Department of Planning, Housing and Infrastructure and Prensa recognises that Department of Planning, Housing and Infrastructure will consider their specific needs and the business risks involved. Prensa does not accept any liability for losses incurred as a result of Department of Planning, Housing and Infrastructure not accepting the recommendations made within this report.



Table of Contents

1 Introduction 1

2 Background 1

3 Objective 1

4 Scope of Works 1

5 Methodology..... 2

5.1 Visual inspections..... 2

5.2 Bulk Sample Collection..... 2

6 Findings 2

6.1 Desktop review 2

6.2 Sample Analysis Results 3

6.3 Visual Observations..... 3

7 Discussion..... 4

7.1 Event Related Zone of Contamination 4

7.1.1 Friable Contamination 4

7.1.2 Non-Friable Contamination 4

7.2 Non-Event Related Contamination 4

7.3 Refurbishment/Demolition works 4

8 Conclusion..... 5

9 Fire Event Related Remediation Recommendations 5

9.1 Event Related Zone of Contamination 5

9.1.1 Friable contamination..... 5

9.1.2 Non-friable contamination..... 5

9.2 General Asbestos Remediation Recommendations 5

9.3 Further Investigation..... 6

10 Limitations..... 6

List of Appendices

- Appendix A: Photographs
- Appendix B: Site Plan
- Appendix C: Laboratory Analytical Certificates
- Appendix D: Existing Hazardous Building Material Register

1 Introduction

Prensa Pty Ltd ('Prensa') was engaged by the Department of Planning, Housing and Infrastructure ('DPHI') to undertake an investigation of the property located at 1720 Camden Valley Way, Edmondson Park NSW 2179 (the Site), to assess for potential asbestos contamination (the 'Investigation') following a fire event at the property. Prensa attended the Site on the 19th September 2024 to undertake the Investigation.

2 Background

Prensa understands that the Site was impacted by a grassfire event on the 28th August 2024. The event swept across the Site and impacted a number of structures, including the house and multiple sheds. These structures were known to contain asbestos-containing materials (Reference hazardous building materials report *DOC24 597429 Hazmat 1720 Camden Valley Way*, dated August 2022).

As such, Prensa was requested by DPHI to conduct an Investigation of the accessible areas of the Site and attempt to delineate the presence and extent of potential asbestos contamination of the property.

3 Objective

The objective of the Investigation was to determine the presence and extent of ACM and fire damage related asbestos contamination at the Site as a result of the fire event and firefighting works, in order to provide remediation options to DPHI.

4 Scope of Works

The scope of the Investigation was limited to the immediate ground surface of the building footprints and safely accessible internal areas of the house. As informed by an engineer on Site, the kitchen and living room within the house, and the attached laundry structure, were not safe to access.

To complete the Investigation, Prensa undertook the following scope of works:

- Undertake a desktop document review of available previous asbestos / hazardous building materials reports and asbestos / hazardous building materials abatement records relating to the Site, if available;
- Conduct a visual inspection of fire-impacted and non-impacted locations to understand sampling requirements, and to identify materials of potential concern which may be disturbed by building remediation works;
- Collect bulk samples of assumed ACM for analysis by Prensa internal National Association of Testing Authorities (NATA), Australia accredited laboratory; and
- Deliver to DPHI a report that includes a summary of identified ACM and associated contamination, a NATA endorsed asbestos bulk sample analysis report and a Remediation Scope of Works (SOW) where appropriate.

Prensa undertook the Investigation with reference to the following State Government and Regulator guidance documents:

- NSW *Work, Health and Safety Regulation*, 2017;
- NSW *SafeWork Code of Practice: How to Manage and Control Asbestos in the Workplace*, 2022;

- NSW SafeWork *Code of Practice: How to Safely Remove Asbestos*, 2022;
- WHS Queensland Guidance Note: *Containment and disposal of asbestos contaminated dust and debris arising from fire damaged buildings*, 2014; and
- WADOH *Guidance Note on the management of fire damaged asbestos*.

5 Methodology

To satisfy DPHI's objectives the following methodologies were utilised:

5.1 Visual inspections

Prensa conducted a visual inspection of the immediate ground surface of the building footprints and safely accessible internal areas of the house,, taking care not to disturb any ACM in order to prevent the generation of airborne fibres and potentially distribute contamination throughout the Work Area.

5.2 Bulk Sample Collection

This component of the Investigation was undertaken in accordance with the NSW *Work Health and Safety Regulation*, 2017, the NSW *Code of Practice: How to Manage and Control Asbestos in the Workplace*, 2019 and the WADOH *Guidance Note on the management of fire-damaged asbestos*. When safe to do so, building materials that were suspected of containing asbestos were sampled at the discretion of the Prensa consultant. Samples of suspected ACM were analysed in Prensa's internal laboratory, which is NATA accredited to conduct asbestos bulk sample analysis. The analysis was conducted using polarised light microscopy including dispersion staining techniques.

Samples suspected of containing asbestos were analysed in accordance with AS 4964 – 2004 *Method for the qualitative identification of asbestos in bulk samples*.

6 Findings

6.1 Desktop review

A hazardous building material survey had previously been undertaken at the Site by SLR Consulting in August 2022 (reference: *DOC24 597429 Hazmat 1720 Camden Valley Way*). The register, included in **Appendix D: Existing Hazardous Building Material Register**, identified asbestos-containing materials to a number of structures, as well as various stockpiles at the Site.

6.2 Sample Analysis Results

Table 1: Asbestos Containing Material Results				
Sample No.	Location	Friability	Result	Photograph
131702S-001-001	External, south east shed 3, redundant panels to rear of shed - fibre cement sheet	Non-Friable	<i>Chrysotile (white asbestos)</i> <i>Amosite (brown asbestos)</i>	1
131702S-001-002	Internal, south east shed 3, debris to floor - vinyl	Non-Friable	No asbestos detected	-
131702S-001-003	External, south of house, east of hills hoist, spalling debris - fibre cement sheet	Friable	<i>Chrysotile (white asbestos)</i> <i>Amosite (brown asbestos)</i> <i>Crocidolite (blue asbestos)</i>	2
131702S-001-004	External, east of horse yard, spalling debris - fibre cement sheet	Friable	<i>Chrysotile (white asbestos)</i>	3
131702S-001-005	External, south of south shed 1, spalling debris - fibre cement sheet	Friable	<i>Chrysotile (white asbestos)</i> <i>Amosite (brown asbestos)</i> <i>Crocidolite (blue asbestos)</i>	-
131702S-001-006	External, west of south shed 2, spalling debris - moulded fibre cement	Friable	<i>Chrysotile (white asbestos)</i>	-
131702S-001-007	External, west of west shed 1, spalling debris - fibre cement sheet	Friable	<i>Chrysotile (white asbestos)</i> <i>Amosite (brown asbestos)</i>	-
131702S-001-008	External, south of house, debris below damaged eaves - fibre cement sheet	Non-Friable	<i>Chrysotile (white asbestos)</i> <i>Amosite (brown asbestos)</i>	4
131702S-001-009	External, house, south wall - fibre cement sheet	Non-Friable	<i>Chrysotile (white asbestos)</i> <i>Amosite (brown asbestos)</i>	-
131702S-001-010	Internal, house, bathroom, wall lining behind tile - fibre cement sheet	Non-Friable	<i>Chrysotile (white asbestos)</i> <i>Amosite (brown asbestos)</i>	-
131702S-001-011	Internal, house, kitchen, beige floor covering - vinyl floor tiles	Non-Friable	No asbestos detected	-

The above table does not include all known asbestos-containing materials at the Site. Reference should be made to the register in **Appendix D** for further details.

6.3 Visual Observations

The following visual observations were made during Prensa's investigation of the Site, conducted by a Prensa Licenced Asbestos Assessor (LAA)¹, on the 18th August 2024. Relevant photographs have been included in **Appendix A: Photographs**:

- Fencing with asbestos warning labels had been set up to the north, east and west boundaries of the Site;
- The Site appears to have been left vacant for a significant period of time, with overgrown plants and grasses throughout the Site;

¹Michael Faga of Prensa is a current NSW SafeWork Licenced Asbestos Assessor (licence no. LAA001535).

- Significant damage had occurred to the Site prior to event in form of vandalism, with asbestos-containing wall linings throughout the perimeter of the house having been damaged (**Photograph 5**);
- The fire event resulted in significant damage to structures to south of the house and to the east perimeter of the house. Extensive asbestos-containing debris and stockpiles are present in these locations (**Photographs 6 – 9**);
- Structures to the southeast of the property were largely unaffected;
- The fire event had resulted in spalling from asbestos-containing materials to the structures south of the house (**Photographs 10 & 11**);
- The spalling was noted to extend between 5 – 16m from the nearest source. The suspected extent of friable spalling contamination is highlighted in **Appendix B: Site Plan**;
- Fire damage to the house did not appear to result in spalling; and
- Minor asbestos contamination was observed within the bathroom of the house via a pre-existing penetration in the wall (**Photograph 12**); and
- It is likely that the kitchen and living room had been impacted with asbestos-containing debris due to significant penetrations to the walls as a result of the fire event.

7 Discussion

7.1 Event Related Zone of Contamination

7.1.1 Friable Contamination

Friable asbestos spalling was observed to extend up to 16m from the nearest potential source. This contamination was localised to the south of the house and has been highlighted in **Appendix B: Site Plan**. Please note that this is an estimation of the minimum area requiring remediation due to the presence of visible contamination and may increase following further investigation outlined in **Section 9.3**.

7.1.2 Non-Friable Contamination

Additional event related asbestos contamination was present to the east and south east perimeter of the house, where fire damaged fibre cement eaves and wall lining had fallen and become damaged. No spalling or significant fire damage that would degrade the structural integrity of the material was noted, which is deemed to be non-friable. It is likely that debris from this area had also impacted the kitchen and living room, however these could not be safely accessed at the time of the Investigation.

7.2 Non-Event Related Contamination

Non-event related asbestos contamination was observed throughout the perimeter of the house, extending up to 5m from the structure. The contamination was non-friable in nature where penetrations had been made to fibre cement wall linings.

7.3 Refurbishment/Demolition works

If any ACM (undamaged by the fire) are likely to be disturbed during refurbishment/demolition works then this should be undertaken by a suitably Licensed Asbestos Removal Contractor (LARC) (either Class A for Friable and Non-Friable or Class B for Non-friable only).

8 Conclusion

Prensa concludes that non-friable ACM has become damaged by fire, causing the material to show signs of degradation and as a result become friable. In addition, various other asbestos-containing materials are present at the Site. As such, the removal of fire-damaged ACM must be conducted by a Class A LARC under friable asbestos work conditions.

9 Remediation Recommendations

Remediation works related to potential contamination caused by the fire event should be undertaken under friable conditions as detailed within the NSW *Code of Practice: How to Safely Remove Asbestos*, 2022, by a Class A LARC and should include the following:

9.1 Event Related Zone of Contamination

9.1.1 Friable contamination

- Install a wet decontamination unit at the boundary of the work area;
- Undertake boundary air monitoring throughout the duration of the works;
- Remove structural debris. Debris may either be disposed as asbestos waste or surface decontaminated via wet wiping and HEPA vacuuming and visually cleared;
- Once debris has been removed, a scrape of the soil surface should be undertaken to a depth of 100mm or until all visible contamination has been removed. Suitable water suppression should be used throughout this stage;
- Structures that remain within the work area, e.g. the water tanks, should undergo a surface decontamination via wet wiping and HEPA vacuuming; and
- A visual clearance inspection, in combination with soil validation sampling, should be undertaken following the works to confirm that the area has been suitably remediated.

9.1.2 Non-friable contamination

- Debris throughout the boundary of the house and other structures at the Site should be removed via an Emu-pick by the LARC under non-friable asbestos removal conditions, once friable contamination has been removed from the site; and
- A visual clearance inspection should be undertaken following the works to confirm that the area has been suitably remediated.

9.2 General Asbestos Remediation Recommendations

- The property should remain isolated from unprotected personnel until remediation works are able to be undertaken;
- Due to the friable nature of the fire damaged ACM, a Class A LARC must be engaged to undertake the asbestos remediation works. The nominated LARC will be required to prepare an Asbestos Removal Control Plan (ARCP) and submit a 5-day Safework NSW asbestos removal notification;
- NATA accredited airborne asbestos fibre monitoring must be undertaken by a LAA prior to, during and following the completion of the remediation works;
- A clearance certificate detailing the visual clearance inspection and clearance air monitoring must be undertaken by a LAA following the completion of remediation works, prior to re-occupation of unprotected personnel;

- The LARC must ensure that access to the Work Area is limited to suitably trained personnel. This at a minimum is to include barrier tape and adequate warning signage warning of asbestos risk;
- Suitable personal protective equipment (PPE) in the form of face fitted particulate masks should be utilized during asbestos remediation works;
- Removal works are to be undertaken with due care to reduce the risk of causing further contamination;
- H Class HEPA filtered vacuums must be utilised to remove surface contamination. Controls should be implemented to minimise dust generation as far as reasonably practicable, e.g. light water misting;
- Asbestos-containing fibre cement sheeting which is deemed to be structurally sound and salvageable may be decontaminated via a combination of HEPA vacuuming and encapsulation with a suitable encapsulant;
- All asbestos waste must be either suitably wrapped within 200 µm polythene sheeting or placed and sealed within 200 µm polythene bags suitably labelled with asbestos warning signs;
- All asbestos waste must be disposed of at a waste facility licensed to accept asbestos waste;
- Following or during remediation works, if any materials that are not referenced in this report and are assumed to contain asbestos are encountered, and it is foreseen that remediation of these materials may vary from the scope of works, then works should cease and an asbestos hygienist should be notified to undertake a risk assessment and revise the remediation scope of works;
- Any ACM which may be disturbed by building remediation works should be removed prior to the commencement of the remediation works; and
- Following the completion of asbestos remediation works, the presence, location and condition of remaining ACM should be communicated to all parties involved in the remediation of the building.

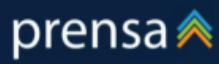
9.3 Further Investigation

- Further investigation should be undertaken within the kitchen and living room of the house once the house is made structurally stable;
- It may be prudent to undertake a further asbestos in soils investigation outside of the perimeter of the estimated friable contaminated area to determine if asbestos debris is present outside of this boundary.

10 Limitations

Prensa notes the following limitations:

- The investigation was limited to the immediate ground surface of the buildings footprints and safely accessible internal areas of the house. As directed by the engineer on-site, non-structurally sound areas were excluded; and
- Vegetation coverage (shrubs and long grass) limited visible access to the ground surface.



Appendix A: Photographs

D0158:MXF:131702S 1720 Camden Valley Way Edmondson Park

A large, dark blue decorative graphic in the bottom right corner of the page, consisting of several overlapping, nested chevron shapes pointing upwards and to the right.



1. External, south east shed 3, redundant panels to rear of shed - fibre cement sheet



2. External, south of house, east of hills holst, spalling debris - fibre cement sheet



3. External, east of horse yard, spalling debris - fibre cement sheet



4. External, south of house, debris below damaged eaves - fibre cement sheet



5. Significant damage to fibre cement wall linings by vandals.



6. Fire damage to structures south of the house.



7. Fire damage to structures south of the house. Extensive asbestos debris present.



8. Fire damage to structures south of the house. Extensive asbestos debris present.



9. Fire damage to east side of house.



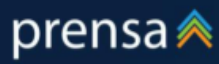
10. Spalling debris.



11. Spalling debris.

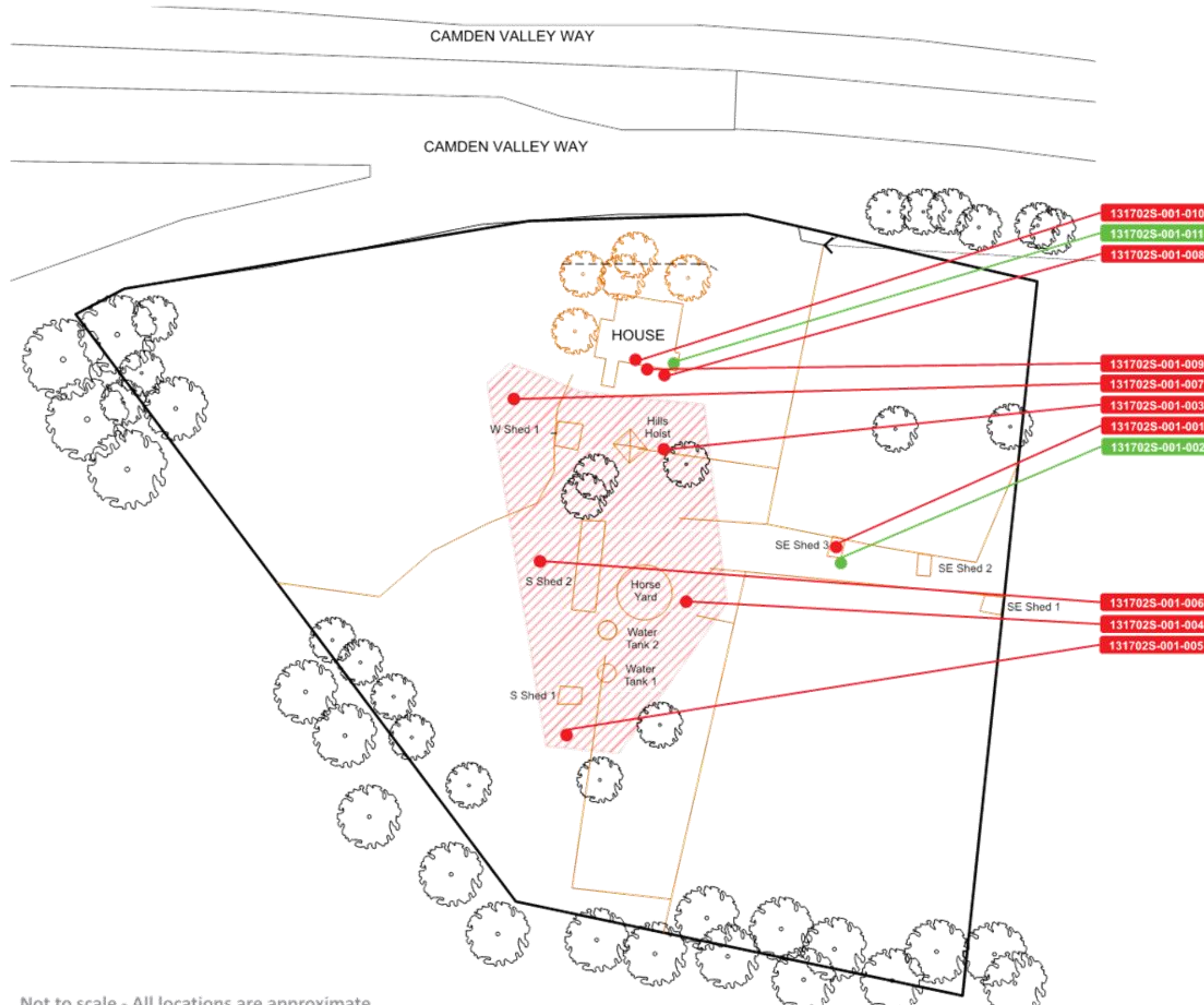


12. Minor asbestos contamination within the bathroom of the house via a pre-existing penetration in the wall.



Appendix B: Site Plan

1720 Camden Valley Way, Edmonson Park NSW 2174



prensa

Level 1,
71 Longueville Rd,
Lane Cove NSW 2066

prensa.com.au
P: (02) 8968 2500
F: (02) 8968 2599

Client No: D0158

Job No: 131702S

Client: Department of Planning, Housing and Infrastructure

Project: 1720 Camden Valley Way Fire Damage Assessment

Address: 1720 Camden Valley Way, Edmondson Park NSW 2174

Legend:

131702S-001-001

Asbestos-Containing Material

131702S-001-002

Non Asbestos-Containing Material

Friable Asbestos Containing Material

File Name:
131702S-001 - 1720 Camden Valley Way

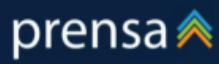
Version:
1

Drawn By:
ARP

Checked By:
MXF

Date:
24/9/2024

Figure number:
1



Appendix C: Laboratory Analytical Certificates



24 September 2024

Killie Tattersall

Department of Planning, Housing and Infrastructure

4 Parramatta Square - 12 Darcey Street

Parramatta NSW 2150

Dear Killie ,

Asbestos Bulk Sample Analysis Report

1720 Camden Valley Way, Edmondson Park NSW 2174

Please find attached the asbestos bulk sample analysis results of the 11 samples collected by Michael Faga and Amelia-Rose Pezzano of Prensa Pty Ltd for 1720 Camden Valley Way, Edmondson Park NSW 2174 on 19 September 2024 and received at the Prensa Pty Ltd laboratory (Suite 102, Level 1, 71 Longueville Road, Lane Cove NSW 2066) on 20 September 2024. The samples were analysed on 20 September 2024 and the results are presented on the following page(s).

Prensa qualitatively analyses bulk samples for asbestos using polarising light microscopy and dispersion staining techniques in accordance with Prensa Test Method PRLAB2002 Asbestos Identification, and in accordance with Australian Standard (AS) 4964 – 2004, *Method for the qualitative identification of asbestos in bulk samples*.

If you require further information please contact the Prensa office on (02) 8968 2500.

Regards,



Amelia-Rose Pezzano

Approved Asbestos Identifier and Signatory



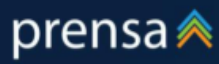
Suite 102, Level 1, 71 Longueville Road, Lane Cove NSW 2066 ABN: 12 142 106 581

Accredited for compliance with ISO/IEC 17025 - Testing. Corporate Site Number 21837. This document shall not be reproduced except in full. Sampling is not covered by the scope of the NATA accreditation.

Asbestos Bulk Sample Analysis Report**1720 Camden Valley Way, Edmondson Park NSW 2174**

Sample No	Sample Location / Description / Size	Result
131702 - 001 - 001	External, south east shed 3, redundant panels to rear of shed - fibre cement sheet	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	<i>Amosite (brown asbestos) detected</i>
	25 x 15 x 4 mm	
131702 - 001 - 002	Internal, south east shed 3, debris to floor - vinyl	No asbestos fibres detected
	Light blue flexible vinyl material	
	60 x 45 x 5 mm	
131702 - 001 - 003	External, south of house, east of hills hoist, spalling debris - fibre cement sheet	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	<i>Amosite (brown asbestos) detected</i>
	70 x 50 x 3 mm	<i>Crocidolite (blue asbestos) detected</i>
131702 - 001 - 004	External, east of horse yard, spalling debris - fibre cement sheet	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	
	15 x 10 x 1 mm	
131702 - 001 - 005	External, south of south shed 1, spalling debris - fibre cement sheet	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	<i>Amosite (brown asbestos) detected</i>
	30 x 10 x 2 mm	<i>Crocidolite (blue asbestos) detected</i>
131702 - 001 - 006	External, west of south shed 2, spalling debris - moulded fibre cement	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	
	120 x 30 x 2 mm	
131702 - 001 - 007	External, west of west shed 1, spalling debris - fibre cement sheet	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	<i>Amosite (brown asbestos) detected</i>
	35 x 25 x 4 mm	
131702 - 001 - 008	External, south of house, debris below damaged eaves - fibre cement sheet	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	<i>Amosite (brown asbestos) detected</i>
	50 x 30 x 6 mm	
131702 - 001 - 009	External, house, south wall - fibre cement sheet	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	<i>Amosite (brown asbestos) detected</i>
	15 x 10 x 2 mm	
131702 - 001 - 010	Internal, house, bathroom, wall lining behind tile - fibre cement sheet	<i>Chrysotile (white asbestos) detected</i>
	Grey fibrous cement material	<i>Amosite (brown asbestos) detected</i>
	25 x 10 x 1 mm	
131702 - 001 - 011	Internal, house, kitchen, beige floor covering - vinyl floor tiles	No asbestos fibres detected
	Beige brittle vinyl material	Organic fibres detected
	90 x 60 x 2 mm	Synthetic Mineral Fibres detected

Only the samples submitted for analysis have been considered in presenting these results.



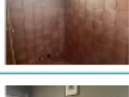
Appendix D: Existing Hazardous Building Material Register

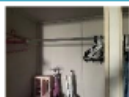
6 Hazardous Materials Registers

The following tables are a register of all identified hazardous materials at the Site, confirmed through analysis or assumed materials deemed to be homogenous or consistent in appearance and manufacture to similar samples collected/analysed. This Summary of hazardous materials should be read in conjunction with all sections of this report.

6.1 Asbestos Containing Materials Register

Sample No./ Visual Observation	Photo	Location	Internal / External Floor Specific Location	Material Application	Extent	Analysis Result	Risk Assessment						Additional information		
							Risk of Disturbance	Overall Condition	Friability	Sealed/ Surface Treatment	Risk Ranking	Control Actions	Labels	Additional Comments	Next Inspection due date
AS12		1720 Camden Valley Way	External Laundry	Joining strips (vertical), Fibrous Cement	8lin m	Amosite, Chrysotile, Crocidolite	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027
AS10		1720 Camden Valley Way	External Southern Aspect	Wall linings and associated debris, Fibrous Cement	80m ²	Amosite, Chrysotile	Low	Fair	Non Friable	Partially Unsealed	Low	Remove prior to demolition	No		20/07/2027
Similar to AS11		1720 Camden Valley Way	External Southern Aspect - Hot water heater cupboard and adjacent toilet	Wall/ceiling linings and associated debris, Fibrous Cement	16m ²	Amosite, Chrysotile	Medium	Poor	Non Friable	Partially Unsealed	Medium	Remove	No		20/07/2027
AS13		1720 Camden Valley Way	External Southern Green Shed	Wall linings and associated debris, Fibrous Cement	30m ²	Amosite, Chrysotile, Crocidolite	Medium	Poor	Non Friable	Partially Unsealed	Medium	Remove	No		20/07/2027

Sample No./ Visual Observation	Photo	Location	Internal / External Floor Specific Location	Material Application	Extent	Analysis Result	Risk Assessment						Additional information		
							Risk of Disturbance	Overall Condition	Friability	Sealed/ Surface Treatment	Risk Ranking	Control Actions	Labels	Additional Comments	Next Inspection due date
AS16		1720 Camden Valley Way	External Southernmost Metal Shed	Corrugated roof sheeting, Fibrous Cement	20m²	Chrysotile	Low	Fair	Non Friable	Unsealed	Low	Remove prior to demolition	No		20/07/2027
AS15		1720 Camden Valley Way	External Stockpile adjacent Southernmost Metal Shed	Debris, Fibrous Cement	30m²	Amosite, Chrysotile	Medium	Poor	Non Friable	Unsealed	Medium	Remove	No		20/07/2027
AS09		1720 Camden Valley Way	External Throughout	Eave linings, Fibrous Cement	35m²	Amosite, Chrysotile	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027
Assumed		1720 Camden Valley Way	External Western Aspect	Bituminous Electrical Backing Board (BEBB)	1m²	Assumed Asbestos	Low	Fair	Non Friable	Partially Unsealed	Medium	Remove prior to demolition	No		20/07/2027
AS07		1720 Camden Valley Way	Internal Ground Floor Bathroom	Wall lining behind tiling, Fibrous Cement	15m²	Chrysotile, Crocidolite	Low	Fair	Non Friable	Partially Unsealed	Medium	Remove prior to demolition	No		20/07/2027
AS01		1720 Camden Valley Way	Internal Ground Floor Kitchen	Lower wall lining (blue splash back), Fibrous Cement	12m²	Amosite, Chrysotile	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027

Sample No./ Visual Observation	Photo	Location	Internal / External Floor Specific Location	Material Application	Extent	Analysis Result	Risk Assessment						Additional information		
							Risk of Disturbance	Overall Condition	Friability	Sealed/ Surface Treatment	Risk Ranking	Control Actions	Labels	Additional Comments	Next Inspection due date
AS11		1720 Camden Valley Way	Internal Ground Floor Laundry	Wall/ceiling linings, Fibrous Cement	20m²	Amosite, Chrysotile	Low	Fair	Non Friable	Partially Unsealed	Low	Remove prior to demolition	No		20/07/2027
AS05		1720 Camden Valley Way	Internal Ground Floor Northern Bedroom (blue walls)	Cupboards wall linings, Fibrous Cement	12m²	Amosite, Chrysotile	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027
AS14		1720 Camden Valley Way	Internal Ground Floor Southern Green Shed	Wall/ceiling linings, Fibrous Cement	45m²	Amosite, Chrysotile, Crocidolite	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027

6.2 Lead in Paint / Lead in Settled Dust and Polychlorinated Biphenyls Register

Lead in Paint / Lead in Settled Dust Register

Sample No./ Assumed	Photo	Material Type and Location	Paint Colour if applicable	Material Status/result	Approx. Extent	Condition	Potential for Disturbance	Relative Risk of Exposure	Comments
FA03		1720 Camden Valley Way External Throughout - Wall linings	Green	Contains 1.0% Lead	250 m²	Flaking	Medium	Low	Remove prior to demolition

Within the Scope and Limitations of this report, no PCB's were identified.

6.3 Synthetic Mineral Fibre (SMF) Register

Sample No./ Assumed	Photo	Material Type and Location	Material Status	Approx. Extent	Condition	Comments
Sampled AS02		1720 Camden Valley Way Ground Floor Kitchen - Vinyl tiling (cream)	SMF	10m²	Fair	

The following table is a register of all other materials either visually or analytically confirmed as non-hazardous materials at the Site.

6.4 Non-Asbestos Containing Materials Register

Sample No./ Visual Observation	Photo	Location	Interior / Exterior Floor Specific Location	Material Application	Analysis Result	Additional Comments
AS08		1720 Camden Valley Way	External Northern Entrance Foyer	Wall linings, Fibrous Cement	NAD, Organic	No action required
AS02		1720 Camden Valley Way	Internal Ground Floor Kitchen	Vinyl tiling (cream), Vinyl Products	NAD, SMF	No action required
AS03		1720 Camden Valley Way	Internal Ground Floor Kitchen	Gasket below sink, Gaskets (Compressed)	NAD, Organic	No action required

SLR Ref No:610.30947.00000 -R01
610.30947.00000-R01-v1.0-HMR
01 August 2022

Sample No./ Visual Observation	Photo	Location	Interior / Exterior Floor Specific Location	Material Application	Analysis Result	Additional Comments
AS04		1720 Camden Valley Way	Internal Ground Floor Living Room - North-eastern corner	Infill panel over wall lining, Fibrous Cement	NAD, Organic	No action required
AS06		1720 Camden Valley Way	Internal Ground Floor Main Bedroom	Infill panel behind door, Fibrous Cement	NAD, Organic	No action required

6.5 Non Lead in Paint / Lead in Settled Dust Register

Sample No./ Assumed	Photo	Material Type and Location	Paint Colour if applicable	Material Status	Approx. Extent	Condition	Comments
FA01		1720 Camden Valley Way Ground Floor Living Room - Walls	Grey	Contains <0.01% Lead	100m ²	Average	No action required
LD01		1720 Camden Valley Way Ground Floor Living Room on top of Cabinet - Dust	N/A	Contains 0.83mg/m ² Lead	Unknown	Average	No action required
FA02		1720 Camden Valley Way Ground Floor Throughout - Ceiling linings	White	Contains <0.01% Lead	150m ²	Flaking	No action required

Notes:

- AC = Asbestos Cement; FCS = Fibre Cement Sheeting; BEBB Black Electrical Backing Board; NAD = No Asbestos Detected; PCBs = Polychlorinated Biphenyls; LM = Linear Metres; N/A = Not Applicable.
- This Summary of Hazardous Materials should be read in conjunction with all sections of this report.
- All other similar occurrences of the ACM identified in the summary table above should be assumed to contain asbestos, and treated accordingly, unless sampling and analysis confirms otherwise.
- All other similar occurrences of the lead listed in the above summary table should be assumed to contain corresponding levels of lead.
- All other similar occurrences of lead in dust or lead paint listed in the above summary table should be assumed to contain corresponding levels of lead.

HAZARDOUS BUILDING MATERIALS

SURVEY REPORT

1720 Camden Valley Way
Leppington NSW 2179

Prepared for:
Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2154



SLR Ref No: 610.30947.00000
Version No: -v1.0
August 2022

SLR 

SLR Ref No:610.30947.00000-R01
610.30947.00000-R01-v1.0-HMR
01 August 2022

PREPARED BY

SLR Consulting Australia Pty Ltd
ABN 29 001 584 612
SLR Consulting Australia Pty Ltd
ABN 29 001 584 612
Tenancy 202, Submarine School
Sub-Base Platypus, 120 High Street
North Sydney NSW 2060
+61 2 9427 8100
sydney@slrconsulting.com www.slrconsulting.com

BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with the Client. Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Department of Planning, Industry and Environment. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
610.30947.00000-R01-v1.0-HMR	1 August 2022			

1	EXECUTIVE SUMMARY	5
2	BACKGROUND AND SCOPE	8
2.1	Site Description	8
2.2	Survey Strategy	9
3	METHODOLOGIES	9
3.1	Asbestos Containing Materials (ACM)	9
3.2	Lead	10
3.2.1	Lead in Paint	10
3.2.2	Lead in Settled Dust	10
3.3	Polychlorinated Biphenyls (PCBs)	10
4	EXCLUSION	11
5	SURVEY RESULTS	11
6	HAZARDOUS MATERIALS REGISTERS	14
6.1	Asbestos Containing Materials Register	14
6.2	Lead in Paint / Lead in Settled Dust and Polychlorinated Biphenyls Register	16
6.3	Synthetic Mineral Fibre (SMF) Register	17
6.4	Non-Asbestos Containing Materials Register	18
6.5	Non Lead in Paint / Lead in Settled Dust Register	20
7	DISCUSSION AND RECOMMENDATIONS	21
	Site Specific Recommendations	21
7.1	Asbestos	21
7.1.1	Asbestos Roofing	22
7.1.2	AC Roofs - Background Information	22
7.1.3	Weathering	22
7.1.4	Asbestos Roofs in Hailstorms	22
7.1.5	Stormwater Plumbing	23
7.1.6	Encapsulation of the AC Roof Weathered Surface	23
7.2	Lead	23
7.2.1	Lead in Paint	23
7.2.1.1	Removal of lead paint.....	24
7.2.2	Lead in Settled Dust	24

SLR Ref No:610.30947.00000 -R01
610.30947.00000-R01-v1.0-HMR
01 August 2022

7.3	Polychlorinated Biphenyls (PCBs)	25
8	LEGISLATION, GUIDELINES AND REGULATIONS	26
DOCUMENT REFERENCES		
TABLES		
Table 1	Inaccessible Areas and/or Materials	11
FIGURES		
Figure 1	Site Location (accessed via Google Maps 1 August 2022)	8
APPENDICES		
Appendix A Asbestos Control Log		
Appendix B Certificate of Analysis		
Appendix C Limitations		
Appendix D Photographs		
Appendix E General Information		

1 Executive Summary

SLR Consulting Australia Pty Ltd (SLR) was engaged by [REDACTED] of Department of Planning, Industry and Environment to undertake an inspection of 1720 Camden Valley Way, Leppington NSW 2179 (herein referred to as the Site). The survey was conducted by Andrew Parker from SLR on 20 July 2022.

The following hazardous building materials were identified.

Asbestos Containing Materials (ACM)

- External - Laundry - Joining strips (vertical), Fibrous Cement
- External - Southern Aspect - Wall linings and associated debris, Fibrous Cement
- External - Southern Aspect - Hot water heater cupboard and adjacent toilet - Wall/ceiling linings and associated debris, Fibrous Cement
- External - Southern Green Shed - Wall linings and associated debris, Fibrous Cement
- External - Southernmost Metal Shed - Corrugated roof sheeting, Fibrous Cement
- External - Stockpile adjacent Southernmost Metal Shed - Debris, Fibrous Cement
- External - Throughout - Eave linings, Fibrous Cement
- External - Western Aspect - BEBB, Bituminous Electrical Backing Board
- Internal - Ground Floor, Bathroom - Wall lining behind tiling, Fibrous Cement
- Internal - Ground Floor, Kitchen - Lower wall lining (blue splash back), Fibrous Cement
- Internal - Ground Floor, Laundry - Wall/ceiling linings, Fibrous Cement
- Internal - Ground Floor, Northern Bedroom (blue walls) - Cupboards wall linings, Fibrous Cement
- Internal - Ground Floor, Southern Green Shed - Wall/ceiling linings, Fibrous Cement

Lead in Paint

- External - Throughout - Green coloured paint to Wall linings

Lead in Dust

No lead in dust found

Polychlorinated Biphenyls (PCBs) in older style florescent light fittings

No PCBs observed

Synthetic Mineral Fibres (SMF)

- Internal - Ground Floor, Kitchen - Vinyl tiling (cream)

The recommendations arising out of this Hazardous Management Survey are:

1. Corrugated Asbestos Roof Lining was identified to the southernmost metal shed at the rear of the property. It was noted that the stormwater system to the shed is not plumbed into stormwater, allowing runoff from the roof sheeting to impact the surrounding ground surfaces.

- This runoff is likely to contain detritus from the roof sheeting and should be considered to be impacted by **friable asbestos**. Demolition of the southernmost metal shed should be undertaken by a Class A Licensed Asbestos Removal Contractor, and a Licensed Asbestos Assessor is required to undertake airborne fibre monitoring and undertake the clearance inspection.
- 2. Asbestos containing fibre cement debris was identified to the stockpile adjacent the southernmost Metal Shed, throughout the exterior of the green shed, and to the southern aspect of the main property. This debris was found to be in a poor and unsealed condition and should be removed as soon as practicable.
- 3. All identified hazardous materials should be removed prior to demolition in accordance with the current Regulations and Australian Standards.
- 4. All non-friable asbestos containing materials should be removed by a Class B Licenced Asbestos Removal Contractor. A Clearance Certificate/Inspection should be undertaken by a qualified and experienced consultant, prior to demolition of the remaining structure.
- 5. As required by the *Work Health and Safety Regulations 2017*, the building owner is obliged to comply with the requirements outlined in the Regulation
 - a. All ACM at the workplace is identified and maintained in a register of asbestos containing materials;
 - b. All in situ ACM is clearly indicated and labelled;
 - c. Implementation of an Asbestos Management Plan; and
 - d. Ongoing review of the Asbestos Containing Materials Register and Asbestos Management Plan.
- 6. PCB work is to be conducted in accordance with the *Environmental Protection & Heritage Council's Polychlorinated Biphenyls Management Plan, Revised Edition April 2003*. This includes:
 - Prior to demolition when the power is disconnected, inspect the light fittings;
 - Metal PCB containing capacitors are to be removed, placed in plastic lined 200 litre drums and disposed of as PCB Scheduled Waste. Any light fittings that show signs of oil staining from capacitors are to be disposed of as PCB contaminated;
 - Protective clothing including eye protection, PCB resistant gloves and overalls are to be worn;
 - Contaminated gloves and disposable coveralls are to be disposed of as PCB contaminated waste; and
 - Contractors licensed to transport and handle PCBs must be used for transport and disposal. PCB is a scheduled waste with strict guidelines regarding transport and handling.

The list above is a summary/overview only and should not be relied on to accurately identify hazardous materials. The locations and details of all items of known hazardous materials at the property are documented in the Hazardous Materials Registers in **Section 6** of this report.

In order to comply with the *Work Health and Safety Regulations 2017* any action taken to control ACM in the place of work, or in plant at the place of work, is to be recorded in the Asbestos Control Log attached in **Appendix A**.

SLR Ref No:610.30947.00000 -R01
610.30947.00000-R01-v1.0-HMR
01 August 2022

Copies of NATA Laboratory Certificates for asbestos identification analysis are provided in **Appendix B**. Refer to **Appendix C** for Limitations of this survey. Relevant photographs taken during the inspection are provided in **Appendix D**. Refer to the General Information provided in **Appendix E** of this report for further information pertaining to hazardous materials.

The information provided in this report should not be relied on to accurately identify all hazardous materials at the Site. Hazardous materials may have been concealed i.e. behind new walls, flooring, ceilings, etc. that may have been inaccessible at the time of the inspection. If any hazardous materials are reasonably suspected at the Site, which are not identified within this report, further investigation is recommended by a competent person/s to undertake additional confirmatory inspections and/or sampling and analysis as required.

This report should be read in full including all attachments.

2 Background and Scope

The Scope of Work is to undertake a Hazardous Management Survey for the identification of all in situ hazardous materials at the Site. The extent of the inspection and samples collected for subsequent analysis (where applicable) was completed in order to confirm, as far as reasonably practicable, the location, condition and risk presented by in situ hazardous materials (based on the level of access available at the time of the assessment).

2.1 Site Description

The site is located on the south side of Camden Valley Way. A Locality Map is presented in **Figure 1**. For the purpose of this report, Camden Valley Way is taken to run in an east-west direction, directly adjacent to the site.

The following information is known about the building:

- The building was a single storey house.
- The building was unoccupied at the time of the survey.

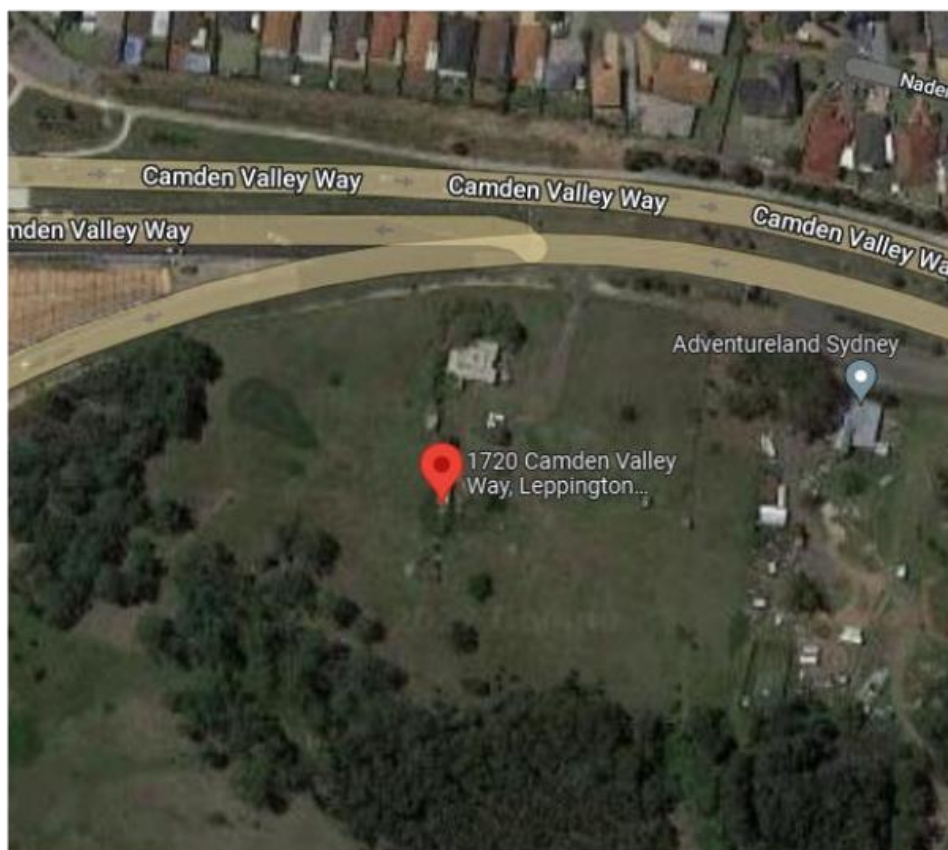


Figure 1 Site Location (accessed via Google Maps 1 August 2022)

2.2 Survey Strategy

The purpose of this survey is to locate, as far as reasonably practicable, the presence, type and extent of any suspect hazardous materials in the building(s), to assess their condition, provide a suitable risk assessment/rating and recommended control actions based on the condition of the materials at the time of the survey. As this is not an intrusive, demolition or refurbishment style survey, findings must not be deemed absolute. A demolition/refurbishment style survey is to be conducted prior to such works commencing as described in AS2601 (2001) The Demolition of Structures and outlined in state WHS Code of Practice: Demolition Work (2015).

3 Methodologies

Hazardous material surveys are undertaken considering a risk management approach, in accordance with best practice, State Legislation and Safe Work Australia NOHSC Guidance. The survey was conducted in a manner which conforms with the *Work Health and Safety Regulations 2017*.

3.1 Asbestos Containing Materials (ACM)

Asbestos containing materials presumed or identified through visual and/or analytical characterisation were performed and reported in this report and documented in the Asbestos Containing Materials Register (ACMR) in accordance with the Code of Practice How to Manage and Control Asbestos in the Workplace (2019).

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas may contain asbestos materials may also be made and stated within the register.

The survey consisted of a visual inspection with limited sampling/analysis of materials undertaken by a trained and experienced surveyor. Materials are assumed to contain asbestos where:

- Laboratory analysis has confirmed the presence of asbestos in a visually similar material; or
- Materials visually appear to be asbestos containing but no sample was collected, for example due to access restraints.

Samples are typically collected using a hand tool or core borer. Hand drills and other tools are used where required. Power tools were not used during the survey.

Small representative samples were collected from materials assumed to contain asbestos (where not previously identified). Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with Guidelines, relevant Statutory Regulations, Codes of Practice and SLR in-house Work Instructions and procedures. Samples were submitted to a NATA certified laboratory for confirmation analysis by stereo microscope and polarised light microscopy (PLM) with dispersion staining techniques.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible, to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials. Some materials, such as vinyl tiles, may require further analysis via X-ray diffraction or Scanning Electron Microscopy.

The ACMR consists of relevant information gathered on site, assessment of risk and recommendations for ongoing management of in situ asbestos materials. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from preceding assessments may be referenced in the ACMR (refer to previous survey reports for analytical test results where reference is made to previous sample data).

3.2 Lead

3.2.1 Lead in Paint

Lead paint was identified through analytical characterisation. Small representative samples were collected from paint presumed to contain lead. Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with the Australian Standard AS 4361.2: *Guide to lead paint management Part 2: Residential, Public and Commercial Buildings* (2017) and SLR in-house Work Instructions and procedures.

Paint samples were submitted to a NATA certified laboratory for confirmation analysis by Inductively Coupled Plasma Emission Spectroscopy (ICP-OES). A paint film that contains greater than 0.1% lead by mass in the dry film is considered lead paint and is sometimes referred to as lead-based paint, lead-containing paint, leaded paint and/or paint containing lead.

Paint samples were collected for laboratory analysis for lead content. Flakes of paint were removed from non-intrusive areas to minimise disturbance. Paint flake samples included all layers of paint on a particular surface and are considered representative of paints in the location sampled. Samples were analysed in a laboratory for lead content by ICP - AES (Inductively Coupled Plasma - Atomic Emission Spectroscopy).

3.2.2 Lead in Settled Dust

Settled dust was sampled and analysed for lead. Sampling and analysis was conducted in accordance with AS 4361.2. Briefly, this involved the collection of settled dust from a known surface area by wet wipe methods. The collected dust is then submitted to a NATA certified laboratory for confirmation analysis by ICP-AES for total lead content. The total lead content and area sampled is then used to calculate a lead in dust loading value in mg/m².

3.3 Polychlorinated Biphenyls (PCBs)

Capacitors in older style fluorescent light fittings are assumed to contain PCBs unless a more detailed inspection and/or laboratory analysis confirms otherwise. A more detailed inspection and/or laboratory analysis would require a qualified electrician to isolate and de-energise the light fittings to enable inspection and sampling.

4 Exclusion

Certain areas of the building(s) were inaccessible at the time of the inspection. This includes areas/materials that were inaccessible due to being “live electrical” or “moving parts” equipment. **Table 1** lists those areas/materials that were inaccessible.

Table 1 Inaccessible Areas and/or Materials

Location	Explanation
All areas accessed during the survey.	

Additionally, and unless specifically noted, the survey did not cover:

- Wall/ceiling panelling behind laminations/coverings.
- Concealed floor coverings beneath carpet or superficial floor coverings.
- Fuses within “live” electrical panelling. Fuses of a certain age may contain asbestos containing flashguards.
- Hidden and/or inaccessible locations such as in or under concrete slabs, in or under vinyl/linoleum/carpet, wall cavities, hidden storage areas and the like. If the vinyl or linoleum is tested, this does not necessarily mean that the resin/glue is included in the analysis.
- Air conditioning, heating, mechanical, electrical or other equipment.
- General exterior ground surfaces and subsurface areas eg asbestos in fill/soil.
- Materials dumped, hidden, or otherwise placed in locations which one could not reasonably anticipate.
- Materials other than normal building fabric, materials in laboratories or special purpose facilities and building materials that cannot be reasonably and safely assessed without assistance.

Materials other than asbestos, lead and PCBs are generally outside the scope of this investigation as identification can require specialised analysis/inspection techniques.

Settled dust is generally not sampled or commented on unless specified. Settled dust may contain hazardous materials, particularly if it is/was once in the vicinity of hazardous materials (such as asbestos containing materials or lead paint). It may also contain hazards originating from outside the building (such as lead from petrol combustion).

5 Survey Results

The results of the asbestos survey are presented in a tabular format. **Section 6.1** details all of the ACM identified. **Section 6.4** shows all of the non-asbestos containing materials as determined during laboratory analysis.

To assist with the interpretation of the results the following legend provides detailed meaning of abbreviations and terms that may appear in the tables.

Legend

Internal/ External	Refers to the location of the material in relation to the structure. Eg Eaves would be External of the building; Kitchen would be internal of the building.
Floor	Refers to the floor level on which the material is located.
Specific location	Refers to the precise location of the material within a room eg Room 1 - infill panel below window on southern wall.
Material	Refers to the type of material identified e.g. vinyl tile, fibre cement sheeting, fibrous insulation, etc. Material does not refer to the use or application of the material. This is covered in 'Application'.
Application	Refers to the use or application of the material e.g. floor covering, soffit lining, pipe lagging, etc.
Photograph	Refers to the photograph reference number located in the appendices.
Approximate Extent	Usually refers to the surface area or length of the material expressed as either square metres (m ²) or linear metres (Lin m). The dimension is an estimate only and should not be relied upon as an exact measure.
Results of Analysis	Refers to the type of asbestos identified during laboratory analysis. There are three main commercial asbestos types: chrysotile (CH-white), amosite (A-brown or grey), and crocidolite (C-blue). The term NAD which appears only in the non-asbestos register; means no asbestos was detected during laboratory analysis. Materials shown as 'Similar to.....' have not been sampled but appear the same as other materials previously sampled. 'Suspect' refers to those materials not sampled (perhaps for safety reasons) and which are not similar to previously sampled materials. 'Assumed' refers to those materials not sampled (perhaps for safety/access reasons) and which exhibit similar properties to other materials identified/sampled.
Risk of Disturbance	Refers to frequency of disturbance High: The material is located in frequently accessible areas with potential for disturbance Medium: The material is prone to mechanical disturbance due to routine building activity and/or maintenance Low: Routine accessibility is unlikely to cause significant deterioration, the material is located in areas with minimal or no disturbance potential or the material is adequately sealed NA: Not Applicable where Analysis indicates No Asbestos Detected
Overall Condition / Deterioration	Refers to the physical state or condition of the material. Good - material shows no, or very minor, sign of damage and/or deterioration Fair - material shows signs of minor damage and/or deterioration Poor - material shows sign of significant damaged and/or deterioration or the material is partly or wholly unserviceable for its intended use.
Friability of Asbestos	Friable or Non Friable
Sealed / Surface Treatments	Refers to whether or not the material is encapsulated with a sealant such as paint, wall paper, etc. concealing its exposed surfaces.

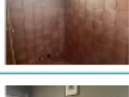
Outcome of Risk or exposure risk assessment	Below is the general risk matrix that is followed however the consultant will take into account the specifics with each individual situation which may vary the outcome from risk assessment, such variations would be explained in the comments. Refers to the level of risk posed by the material based on its condition, friability, accessibility and other factors such as exposure to disturbance. The Material Assessment score is calculated by adding the parameters above. The potential for releasing fibres is detailed below. <table border="1"> <thead> <tr> <th>Material Assessment Score</th><th>Fibre Release Potential</th></tr> </thead> <tbody> <tr> <td>10 or higher</td><td>High</td></tr> <tr> <td>7 – 9</td><td>Medium</td></tr> <tr> <td>5 – 6</td><td>Low</td></tr> <tr> <td>4 or lower</td><td>Very Low</td></tr> </tbody> </table> The material assessment looks at the type and condition of the ACM and the ease with which it will release fibres if disturbed. It does not take into account occupancy or activities within the area, including periodic maintenance works. Removal Recommended: Engage appropriately qualified persons (i.e. licensed asbestos removal contractor) to remove and dispose of the ACM under controlled conditions in accordance with relevant state specific Removal Code of Practice. Repair / encapsulation Recommended: Repair or encapsulate (e.g. paint) or enclose the ACM to minimise deterioration until such time that the ACM is removed Suitable for Continual Use: ACM may remain in situ provided appropriate management controls are adopted, the material is appropriately labelled and re-assessed every 5 years or earlier, where a risk assessment indicates the need for reassessment or the ACM has been disturbed or removed. NA: Not Applicable where Analysis indicates No Asbestos Detected	Material Assessment Score	Fibre Release Potential	10 or higher	High	7 – 9	Medium	5 – 6	Low	4 or lower	Very Low
Material Assessment Score	Fibre Release Potential										
10 or higher	High										
7 – 9	Medium										
5 – 6	Low										
4 or lower	Very Low										
Recommended control Actions	Refers to the recommended controls / actions required to ensure the identified asbestos materials are managed as per the legislative requirements.										
Labels Affixed	Yes/No or NA - Not Applicable where Analysis indicates No Asbestos Detected										
Additional Comments	Refers to any other relevant comments that may assist with the future management of the material.										
Next Inspection Date	Due 5 yearly from the last Inspection Date or as determined by the Risk Assessment.										

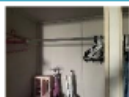
6 Hazardous Materials Registers

The following tables are a register of all identified hazardous materials at the Site, confirmed through analysis or assumed materials deemed to be homogenous or consistent in appearance and manufacture to similar samples collected/analysed. This Summary of hazardous materials should be read in conjunction with all sections of this report.

6.1 Asbestos Containing Materials Register

Sample No./ Visual Observation	Photo	Location	Internal / External Floor Specific Location	Material Application	Extent	Analysis Result	Risk Assessment						Additional information		
							Risk of Disturbance	Overall Condition	Friability	Sealed/ Surface Treatment	Risk Ranking	Control Actions	Labels	Additional Comments	Next Inspection due date
AS12		1720 Camden Valley Way	External Laundry	Joining strips (vertical), Fibrous Cement	8lin m	Amosite, Chrysotile, Crocidolite	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027
AS10		1720 Camden Valley Way	External Southern Aspect	Wall linings and associated debris, Fibrous Cement	80m ²	Amosite, Chrysotile	Low	Fair	Non Friable	Partially Unsealed	Low	Remove prior to demolition	No		20/07/2027
Similar to AS11		1720 Camden Valley Way	External Southern Aspect - Hot water heater cupboard and adjacent toilet	Wall/ceiling linings and associated debris, Fibrous Cement	16m ²	Amosite, Chrysotile	Medium	Poor	Non Friable	Partially Unsealed	Medium	Remove	No		20/07/2027
AS13		1720 Camden Valley Way	External Southern Green Shed	Wall linings and associated debris, Fibrous Cement	30m ²	Amosite, Chrysotile, Crocidolite	Medium	Poor	Non Friable	Partially Unsealed	Medium	Remove	No		20/07/2027

Sample No./ Visual Observation	Photo	Location	Internal / External Floor Specific Location	Material Application	Extent	Analysis Result	Risk Assessment						Additional information		
							Risk of Disturbance	Overall Condition	Friability	Sealed/ Surface Treatment	Risk Ranking	Control Actions	Labels	Additional Comments	Next Inspection due date
AS16		1720 Camden Valley Way	External Southernmost Metal Shed	Corrugated roof sheeting, Fibrous Cement	20m²	Chrysotile	Low	Fair	Non Friable	Unsealed	Low	Remove prior to demolition	No		20/07/2027
AS15		1720 Camden Valley Way	External Stockpile adjacent Southernmost Metal Shed	Debris, Fibrous Cement	30m²	Amosite, Chrysotile	Medium	Poor	Non Friable	Unsealed	Medium	Remove	No		20/07/2027
AS09		1720 Camden Valley Way	External Throughout	Eave linings, Fibrous Cement	35m²	Amosite, Chrysotile	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027
Assumed		1720 Camden Valley Way	External Western Aspect	Bituminous Electrical Backing Board (BEBB)	1m²	Assumed Asbestos	Low	Fair	Non Friable	Partially Unsealed	Medium	Remove prior to demolition	No		20/07/2027
AS07		1720 Camden Valley Way	Internal Ground Floor Bathroom	Wall lining behind tiling, Fibrous Cement	15m²	Chrysotile, Crocidolite	Low	Fair	Non Friable	Partially Unsealed	Medium	Remove prior to demolition	No		20/07/2027
AS01		1720 Camden Valley Way	Internal Ground Floor Kitchen	Lower wall lining (blue splash back), Fibrous Cement	12m²	Amosite, Chrysotile	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027

Sample No./ Visual Observation	Photo	Location	Internal / External Floor Specific Location	Material Application	Extent	Analysis Result	Risk Assessment						Additional information		
							Risk of Disturbance	Overall Condition	Friability	Sealed/ Surface Treatment	Risk Ranking	Control Actions	Labels	Additional Comments	Next Inspection due date
AS11		1720 Camden Valley Way	Internal Ground Floor Laundry	Wall/ceiling linings, Fibrous Cement	20m²	Amosite, Chrysotile	Low	Fair	Non Friable	Partially Unsealed	Low	Remove prior to demolition	No		20/07/2027
AS05		1720 Camden Valley Way	Internal Ground Floor Northern Bedroom (blue walls)	Cupboards wall linings, Fibrous Cement	12m²	Amosite, Chrysotile	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027
AS14		1720 Camden Valley Way	Internal Ground Floor Southern Green Shed	Wall/ceiling linings, Fibrous Cement	45m²	Amosite, Chrysotile, Crocidolite	Low	Fair	Non Friable	Sealed	Low	Remove prior to demolition	No		20/07/2027

6.2 Lead in Paint / Lead in Settled Dust and Polychlorinated Biphenyls Register

Lead in Paint / Lead in Settled Dust Register									
Sample No./ Assumed	Photo	Material Type and Location	Paint Colour if applicable	Material Status/result	Approx. Extent	Condition	Potential for Disturbance	Relative Risk of Exposure	Comments
FA03		1720 Camden Valley Way External Throughout - Wall linings	Green	Contains 1.0% Lead	250 m²	Flaking	Medium	Low	Remove prior to demolition

Within the Scope and Limitations of this report, no PCB's were identified.

6.3 Synthetic Mineral Fibre (SMF) Register

Sample No./ Assumed	Photo	Material Type and Location	Material Status	Approx. Extent	Condition	Comments
Sampled AS02		1720 Camden Valley Way Ground Floor Kitchen - Vinyl tiling (cream)	SMF	10m²	Fair	

The following table is a register of all other materials either visually or analytically confirmed as non-hazardous materials at the Site.

6.4 Non-Asbestos Containing Materials Register

Sample No./ Visual Observation	Photo	Location	Interior / Exterior Floor Specific Location	Material Application	Analysis Result	Additional Comments
AS08		1720 Camden Valley Way	External Northern Entrance Foyer	Wall linings, Fibrous Cement	NAD, Organic	No action required
AS02		1720 Camden Valley Way	Internal Ground Floor Kitchen	Vinyl tiling (cream), Vinyl Products	NAD, SMF	No action required
AS03		1720 Camden Valley Way	Internal Ground Floor Kitchen	Gasket below sink, Gaskets (Compressed)	NAD, Organic	No action required

SLR Ref No:610.30947.00000 -R01
610.30947.00000-R01-v1.0-HMR
01 August 2022

Sample No./ Visual Observation	Photo	Location	Interior / Exterior Floor Specific Location	Material Application	Analysis Result	Additional Comments
AS04		1720 Camden Valley Way	Internal Ground Floor Living Room - North-eastern corner	Infill panel over wall lining, Fibrous Cement	NAD, Organic	No action required
AS06		1720 Camden Valley Way	Internal Ground Floor Main Bedroom	Infill panel behind door, Fibrous Cement	NAD, Organic	No action required

6.5 Non Lead in Paint / Lead in Settled Dust Register

Sample No./ Assumed	Photo	Material Type and Location	Paint Colour if applicable	Material Status	Approx. Extent	Condition	Comments
FA01		1720 Camden Valley Way Ground Floor Living Room - Walls	Grey	Contains <0.01% Lead	100m ²	Average	No action required
LD01		1720 Camden Valley Way Ground Floor Living Room on top of Cabinet - Dust	N/A	Contains 0.83mg/m ² Lead	Unknown	Average	No action required
FA02		1720 Camden Valley Way Ground Floor Throughout - Ceiling linings	White	Contains <0.01% Lead	150m ²	Flaking	No action required

Notes:

- AC = Asbestos Cement; FCS = Fibre Cement Sheeting; BEBB Black Electrical Backing Board; NAD = No Asbestos Detected; PCBs = Polychlorinated Biphenyls; LM = Linear Metres; N/A = Not Applicable.
- This Summary of Hazardous Materials should be read in conjunction with all sections of this report.
- All other similar occurrences of the ACM identified in the summary table above should be assumed to contain asbestos, and treated accordingly, unless sampling and analysis confirms otherwise.
- All other similar occurrences of the lead listed in the above summary table should be assumed to contain corresponding levels of lead.
- All other similar occurrences of lead in dust or lead paint listed in the above summary table should be assumed to contain corresponding levels of lead.

7 Discussion and Recommendations

SLR was appointed to complete a survey and assessment of the Site with regards to the identification of hazardous materials as detailed in **Section 2**, Background and Scope. The extent of the inspection and samples collected for subsequent analysis was completed in order to confirm, as far as reasonably practicable, the location, condition and risk presented by hazardous materials remaining in-situ (and was based on the level of access available).

Further to the completion of the on-site investigation and collection/analysis of samples, there are detailed site/work-specific requirements and precautions that must be taken in the management, control and removal of hazardous materials. In addition to those listed on the Hazardous Materials Registers, the following are some general recommendations and precautions that should be considered. Detailed documents, which may include Scope of Works, Safe Work Method Statements and Risk Assessments, should be prepared to appropriately address health and safety issues associated with specific work and site conditions.

Site Specific Recommendations

7.1 Asbestos

- Corrugated Asbestos Roof Lining was identified to the southernmost metal shed at the rear of the property. It was noted that the stormwater system to the shed is not plumbed into stormwater, allowing runoff from the roof sheeting to impact the surrounding ground surfaces.
 - This runoff is likely to contain detritus from the roof sheeting and should be considered to be impacted by **friable asbestos**. Demolition of the southernmost metal shed should be undertaken by a Class A Licensed Asbestos Removal Contractor, and a Licensed Asbestos Assessor is required to undertake airborne fibre monitoring and undertake the clearance inspection.
- Asbestos containing fibre cement debris was identified to the stockpile adjacent the southernmost Metal Shed, throughout the exterior of the green shed, and to the southern aspect of the main property. This debris was found to be in a poor and unsealed condition and should be removed as soon as practicable.
- All non-friable asbestos containing materials should be removed prior to demolition by a Class B Licenced Asbestos Removal Contractor. A Clearance Certificate/Inspection should be undertaken by a qualified and experienced consultant, prior to demolition of the remaining structure.
- As a precautionary measure, any minor damaged, exposed/damaged edges of ACM remaining in-situ may be sealed with an appropriate sealant, such as Emerclad paint, to minimise the risk of generating airborne asbestos fibres if/when these materials are disturbed.
- Any areas of the workplace that contain ACM including plant, equipment and components should be signposted with appropriate warning signs to ensure that asbestos is not unknowingly disturbed without the correct precautions being taken. These signs should be placed at all the main entrances to the work areas where asbestos is present and should conform with Australian Standard 1319-1994 Safety Signs for the Occupational Environment.
- This document should be held as an Asbestos Register of the areas inspected and updated every 5 years or earlier where ACM have been disturbed or a risk assessment indicates the need for re-assessment. All occupiers of the workplace are to be provided with a copy of this register and all updates to it.

- If any material that may contain asbestos is found on site that is not included within the register, the material should be sent for identification and expert advice sought. The material should be assumed to contain asbestos in the interim.
- As a precautionary measure, all materials, which may contain asbestos, should be assumed to contain asbestos and treated appropriately until sampling and analysis confirms otherwise.
- In order to comply with the Work Health and Safety Regulations 2017, any action taken to control asbestos and ACM in the place of work, or in plant at the place of work, is to be recorded in the Asbestos Control Log.

7.1.1 Asbestos Roofing

The Asbestos Cement (AC) roof and roof edging was found to be in a weathered condition with mould and green algae growing along it. The nails attaching the edging were very loose and some nails had completely dislodged and fallen into the box gutter below. Due to the instability of the roof edging, it may be possible for asbestos fibres to dislodge and become airborne in extreme weather conditions.

Gutters should be periodically inspected to ensure there are no blockages that cause the accumulation of detritus. If the gutters are to be cleaned, detritus inside the gutters will be contaminated with asbestos fibres eroded from the surface of the roof sheets. The clean out and repair works should be conducted by a Class A (or friable) licensed asbestos contractor.

On no account may high pressure water be used to clean AC roofs. This is forbidden under the asbestos Code of Practice as it can result in widespread contamination.

7.1.2 AC Roofs - Background Information

The health effects associated with asbestos exposure are due to the inhalation of airborne respirable fibres. AC sheeting is comprised of Portland cement, sand binders and various combinations of both asbestos and non-asbestos fibres. The asbestos is tightly bound or encapsulated within the cement matrix products. In general, the asbestos fibres cannot be released to become airborne in significant quantities unless the cement matrix is disturbed or disrupted as in the case of cutting AC products with power saws etc.

7.1.3 Weathering

The situation is complicated by the weathering that occurs in these products when they are exposed to the elements. The surface of the AC products exposed to the weather will be degraded over time. This occurs very slowly and is usually associated with the growth of lichen on the surface of the products.

The lichen growth is most common on the external surface of AC sheet roofs. The lichen, together with environmental factors, erodes the cement matrix on the surface of the sheet, partially exposing the underlying asbestos fibres. Consequently, the weathered surface of the sheet has a thin friable layer of asbestos and lichen. Slough/erosion of fibre from the weathered surface of the roof sheets results in the accumulation of asbestos laden dust under the lap joints (of the sheets) and in the gutters, sumps, drains, etc.

7.1.4 Asbestos Roofs in Hailstorms

AC roofs can be damaged during hailstorms. If the hailstones are sufficiently large and have sufficient momentum, they can punch holes straight through the AC sheeting causing significant contamination to the building interior.

Smaller hail peppers the exposed surface of the AC roof and chips off the soft weathered outer surface. If exposed to sufficient heavy hail, the entire surface of the AC cladding can be eroded. The resultant fragments are rich in 'free' asbestos fibres and are washed off by the rain. If there is sufficient rain and hail to overload the stormwater system, the loose asbestos debris can be washed into the building.

7.1.5 Stormwater Plumbing

Stormwater runoff from the roof is collected in box and fascia gutters which are adequately plumbed into the municipal storm water system. However, inspection/maintenance works should be conducted to ensure:

- Any roof leaks are repaired and the building is generally weatherproof; and
- Stormwater run-off from the AC roofs is captured and conveyed to the municipal stormwater system.

Regular inspections and ongoing maintenance of the AC roofs and storm water system will be required for the life of the buildings to ensure the integrity of the roof and storm water system so that potentially contaminated storm water run-off does not drain into the buildings or onto the surrounding site.

7.1.6 Encapsulation of the AC Roof Weathered Surface

A short term treatment systems for AC roof sheeting are products such as "fibroseal" which applies a paint system that both encapsulates the roof sheeting and protects the surface of the roof from continued weathering. This may extend the roof life from general wear but not from aberrant weather conditions, especially hail storms.

7.2 Lead

7.2.1 Lead in Paint

Paint containing lead levels greater than 0.1% lead w/w were identified during the survey.

The identified lead containing paint should be removed prior to demolition.

Paint containing more than 0.1% lead w/w content are generally considered to be lead containing; dry sanding of paints with lead can result in the release of unacceptable levels of lead containing dust.

As a precautionary health measure and to prevent contamination to surrounding areas, flaking/deteriorated lead paint should be treated as soon as practicable. Treatment may include the removal of flaking/deteriorated paint (using the appropriate procedures and precautions) before surfaces are repainted.

Dust on surfaces adjacent to flaking paint should be assumed to contain elevated levels of lead. Such dust should be appropriately removed as soon as practicable.

Procedures and precautions detailed in Australian Standard AS 4361.2-2017 *Guide to lead paint management Part 2: Residential, Public and Commercial Buildings*, National Standard for the Control of Inorganic Lead at Work [NOHSC: 1012 (1994)] and the National Code of Practice for the Control and Safe Use of Inorganic Lead at Work [NOHSC: 2015 (1994)] should be followed in the treatment and management of paint containing lead.

Lead paint should be managed to prevent deterioration and becoming a health hazard. Options for the management of lead paint may include the following:

- Do nothing (mange in situ);
- Paint stabilisation;
- Paint abatement; or
- a combination of these options.

7.2.1.1 Removal of lead paint

The removal of lead paint has the greatest potential to generate hazardous dust. Therefore, consideration should be given to removal under appropriate containment and ventilation control measures, and safe work practices. Lead waste management and disposal must also be considered.

As a precautionary health measure and to prevent contamination to surrounding areas, flaking/deteriorated lead containing paint should be treated as soon as practicable. Treatment may include the removal of flaking/deteriorated paint (using the appropriate procedures and precautions) before surfaces are repainted.

Dust on surfaces adjacent to flaking paint should be assumed to contain elevated levels of lead. Such dust should be appropriately removed as soon as practicable.

7.2.2 Lead in Settled Dust

Within the scope and limitations of the investigation undertaken, no dust containing greater than (>) 8 mg/m² lead was identified during the survey.

There are currently no recognised Australian regulatory standards with which to compare contaminant concentrations on surface wipes. Therefore although the Australian Standard AS 4361.2-1998 *Guide to lead paint management Part 2: Residential and Commercial Buildings* has been superseded, the referenced surface dust loading limits stated in AS 4361.2 have been adopted as a general guidance on lead in dust acceptance levels after lead paint management activities. The acceptance levels for surface dust are:

- Interior floors 1 mg/m² (as lead)
- Interior window sills 5 mg/m² (as lead)
- Exterior surfaces 8 mg/m² (as lead)

SLR uses the Australian Standard levels above as a guide in assessing lead dust risks. These figures can also be used to assess the risk of exposure from other lead sources.

The acceptance level of lead in dust for exterior surfaces is considered the most appropriate guideline for comparison for lead in ceiling dust.

If any lead contaminated/potentially contaminated dust is encountered on site then access to the material should be appropriately restricted and advice sought from a suitably qualified and experienced consultant, such as SLR.

7.2.3 Contractor Competency

Contractor workers should be competent in relation to the scope of work involved in a lead project. Where a project involves lead paint disturbance, a competent lead abatement contractor, employing a Responsible Person and competent hazardous coating workers should be engaged. In addition, all lead work should be supervised by a suitably experienced and competent consultant, such as SLR, who can provide supervision, advice, sampling, testing and documentation for the project.

Airborne lead monitoring is recommended during all lead paint disturbance work.

7.3 Polychlorinated Biphenyls (PCBs)

Within the scope and limitations of the investigation undertaken, no old fluorescent light fittings were identified during the survey.

PCBs are assumed to be present in older fluorescent light fittings unless a more detailed inspection and/or sample analysis indicates otherwise. Sampling or a more detailed inspection would require the presence of a qualified electrician to electrically isolate and de-energise the light fittings.

PCBs are a scheduled waste with strict guidelines regarding transport and handling. PCB work is to be conducted in accordance with the *Environmental Protection & Heritage Council's Polychlorinated Biphenyls Management Plan, Revised Edition April 2003*. This includes:

- Prior to demolition when the power is disconnected, inspect the light fittings;
- Metal PCB containing capacitors are to be removed, placed in plastic lined 200 litre drums and disposed of as PCB Scheduled Waste. Any light fittings that show signs of oil staining from capacitors are to be disposed of as PCB contaminated;
- Protective clothing including eye protection, PCB resistant gloves and overalls are to be worn;
- Contaminated gloves and disposable coveralls are to be disposed of as PCB contaminated waste; and
- Contractors licensed to transport and handle PCBs must be used for transport and disposal. PCB is a scheduled waste with strict guidelines regarding transport and handling.

8 Legislation, Guidelines and Regulations

- Work Health and Safety Act 2011
- Work Health and Safety Regulations 2018
- Code of Practice How to Safely Remove Asbestos (2019)
- Code of Practice How to Manage and Control Asbestos in the Workplace (2019)
- Code of Practice Demolition Work (2019)
- Australia and New Zealand Environment and Conservation Council (ANZECC), Polychlorinated Biphenyls Management Plan - 1999
- Australia and New Zealand Environment and Conservation Council (ANZECC), Identification of PCB – Containing Capacitors - 1997
- Australian Standards AS 4361.1: Guide to hazardous paint management Part 1: Lead and other hazardous metallic pigments in industrial applications -2017
- Australian Standard AS4361.2: Guide to lead paint management Part 2: Residential, Public and Commercial Buildings -2017
- Australian Standard AS4874: Guide to the investigation of potentially contaminated soil and deposited dust as a source of lead available to humans - 2000
- Department of Commerce Safe Handling of PCB in Fluorescent Light Capacitors - 1993
- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [National Occupational Health and Safety Commission: 3003 (2005)]
- AS/NZS 1716-2012 - Respiratory Protective Devices
- AS/NZS 1715-2009 - Selection, Use and Maintenance of Respiratory Protective Devices
- AS 2601-2001 - The Demolition of Structures
- AS 1319-1994 Safety Signs for the Occupational Environment

APPENDIX A

ASBESTOS CONTROL LOG

To comply with the Code of Practice How to Manage and Control Asbestos in the Workplace (2019) all actions taken to control asbestos and ACM are to be recorded in the table below. It is recommended that similar details also be recorded for any other asbestos materials identified.

NAME	COMPANY	DATE	ASBESTOS MATERIAL RELATED WORK UNDERTAKEN (Include any assessment concerning asbestos that took place before the work was carried out)	REFERENCE NUMBER (Include sample numbers, report numbers, quote number and/or purchase order number etc)
	SLR Consulting Australia Pty Ltd	20/07/2022	Hazardous Building Materials Survey	Report No 610.30947.00000-R01-v1.0-HMR

APPENDIX B

Certificate of Analysis



ASBESTOS ANALYTICAL REPORT

Report Number 610.30947.00000-R01-v1-ANA

Client: Department of Planning, Industry and Environment
Client Contact: [REDACTED]
Client Address: Locked Bag 5022, Parramatta NSW 2154
Sampled By: [REDACTED]
Date Sampled: 20 July 2022
Report Date: 25 July 2022
Site Address/Location: 1720 Camden Valley Way, Leppington NSW 2179
Test Methods: Sample(s) examined under a stereo Microscope and selected fibres under a Polarised Light Microscope with dispersion staining techniques, in accordance with AS4964 and method AIP.01.03.
Laboratory Address: Tenancy 202 Submarine School, Sub Base Platypus, 120 High Street, North Sydney NSW 2060 Australia (NATA Accreditation No. 3130)



Accredited for compliance with ISO/IEC 17025- Testing. This report cannot be reproduced except in full.

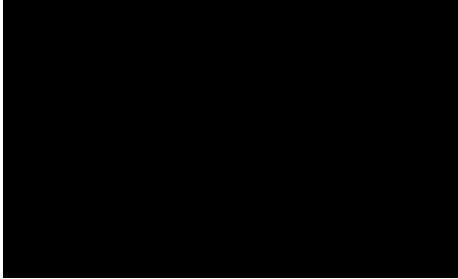


Results

Sample No.	Sample Location	Sample Description (including Weight/Size)	Analysis Results
AS01	Ground Floor, Kitchen, Lower wall lining (blue splash back)	Fibre Cement 15 x 15 x 4mm	Amosite Asbestos Detected Chrysotile Asbestos Detected
AS02	Ground Floor, Kitchen, Vinyl tiling (cream)	Vinyl Product 70 x 40 x 3mm	No Asbestos Detected Synthetic Mineral Fibres Detected
AS03	Ground Floor, Kitchen, Gasket below sink	Bituminous Product 5 x 5 x 4mm	No Asbestos Detected Organic Fibres Detected
AS04	Ground Floor, Living Room - North-eastern corner, Infill panel over wall lining	Fibre Cement 10 x 5 x 4mm	No Asbestos Detected Organic Fibres Detected
AS05	Ground Floor, Northern Bedroom (blue walls), Cupboards wall linings	Fibre Cement 15 x 10 x 5mm	Amosite Asbestos Detected Chrysotile Asbestos Detected
AS06	Ground Floor, Main Bedroom, Infill panel behind door	Fibre Cement 10 x 5 x 4mm	No Asbestos Detected Organic Fibres Detected
AS07	Ground Floor, Bathroom, Wall lining behind tiling	Fibre Cement 25 x 10 x 7mm	Chrysotile Asbestos Detected Crocidolite Asbestos Detected
AS08	External, Northern Entrance Foyer, Wall linings	Fibre Cement 25 x 15 x 7mm	No Asbestos Detected Organic Fibres Detected
AS09	External, Throughout, Eave linings	Fibre Cement 5 x 5 x 4mm	Amosite Asbestos Detected Chrysotile Asbestos Detected
AS10	External, Southern Aspect, Wall linings and associated debris	Fibre Cement 25 x 20 x 7mm	Amosite Asbestos Detected Chrysotile Asbestos Detected
AS11	Ground Floor, Laundry, Wall/ceiling linings	Fibre Cement 30 x 10 x 4mm	Amosite Asbestos Detected Chrysotile Asbestos Detected
AS12	External, Laundry, Joining strips (vertical)	Fibre Cement 5 x 5 x 4mm	Amosite Asbestos Detected Chrysotile Asbestos Detected Crocidolite Asbestos Detected
AS13	External, Southern Green Shed, Wall linings and associated debris	Fibre Cement 50 x 45 x 7mm	Amosite Asbestos Detected Chrysotile Asbestos Detected Crocidolite Asbestos Detected
AS14	Ground Floor, Southern Green Shed, Wall/ceiling linings	Fibre Cement 10 x 5 x 6mm	Amosite Asbestos Detected Chrysotile Asbestos Detected Crocidolite Asbestos Detected
AS15	External, Stockpile adjacent Southernmost Metal Shed, Debris	Fibre Cement 15 x 10 x 7mm	Amosite Asbestos Detected Chrysotile Asbestos Detected
AS16	External, Southernmost Metal Shed, Corrugated roof sheeting	Fibre Cement 10 x 7 x 5mm	Chrysotile Asbestos Detected

**Notes:**

- The results contained within this report relate only to the samples submitted for testing.
- The report(s) and/or information produced by SLR Consulting Australia Pty Ltd should not be reproduced and/or presented/reviewed except in full.
- Even after disintegration of some bulk samples (eg bituminous materials and vinyl tiles/sheeting) detection of fibres may be difficult when using polarized light microscopy and dispersion staining techniques. This may be due to the matrix of the samples (uneven distribution) or fine fibres that are difficult to detect and positively identify.
- Asbestos in non-homogenous samples is reported to the detection limit unless otherwise stated - 0.1 g/kg (AS 4964).
- An Independent Analytical Technique is Recommended for Vinyl Samples (i.e. Vinyl Floor Tiles).
- Laboratory is not accredited to perform sampling





LIMITATIONS

Thus, while we carry out the work to the best of our ability, we totally exclude any loss or damages which may arise from services we have provided to Department of Planning, Industry and Environment and/or associated parties.

The analysis was undertaken by SLR Consulting, Tenancy 202 Submarine School, Sub Base Platypus, 120 High Street, North Sydney NSW 2060 Australia (NATA Accreditation No. 3130).

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).

All work conducted and reports produced by SLR Consulting Australia Pty Ltd (SLR) are prepared for a particular Client's objective and are based on a specific scope, conditions and limitations, as agreed upon between SLR and the Client. Information and/or report(s) prepared by SLR may therefore not be suitable for any use other than the intended objective. No parties other than the Client should use any information and/or report(s) without first conferring with SLR.

Before passing on to a third party any information and/or report(s) prepared by SLR, the Client is to inform fully the third party of the objective and scope, and all limitations and conditions, including any other relevant information which applies to the information and/or report(s) prepared by SLR.

It is the responsibility of third parties to investigate fully to their satisfaction if any information and/or report(s) prepared by SLR are suitable for a specific objective.

The report(s) and/or information produced by SLR should not be reproduced and/or presented/reviewed except in full.



Environment Testing

Certificate of Analysis

SLR Consulting

Tenancy 202, Submarine School, Sub Base Platypus,
North Sydney
NSW 2060



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 producer's reports and certificates.

Attention:

Report

908439-A

Project name

1720 CAMDEN VALLEY WAY

Project ID

610.30947.00000

Received Date

Jul 25, 2022

Client Sample ID			LD01
Sample Matrix			Wipes
Eurofins Sample No.			S22-JI0049731
Date Sampled			Jul 20, 2022
Test/Reference	LOR	Unit	
Heavy Metals			
Lead	1	Total ug	8.3

**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

Heavy Metals

Testing Site

Sydney

Extracted

Jul 25, 2022

Holding Time

28 Days

- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS



web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne 61 Monterey Road Dandenong South VIC 3175
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Geelong 19/8 Lewalan Street Grovedale VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Sydney 179 Magowar Road Girraween NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra Unit 1,2 Dacre Street Mitchell ACT 2911
Tel: +61 2 6113 8091

Brisbane 1/21 Smallwood Place Murarie QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

Newcastle 4/52 Industrial Drive Mayfield East NSW 2304
PO Box 80 Wickham 2293
Tel: +61 2 4968 8448
NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0158 898

Perth 46-48 Banksia Road Welshpool WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland 35 O'Rourke Road Penrose Auckland 1061
Tel: +64 9 526 45 51
IANZ# 1327

Christchurch 43 Detroit Drive Rolleston Christchurch 7675
Tel: 0800 856 450
IANZ# 1290

Company Name: SLR Consulting (Sydney)
Address: Tenancy 202, Submarine School, Sub Base Platypus, North Sydney NSW 2060

Project Name: 1720 CAMDEN VALLEY WAY
Project ID: 610.30947.00000

Order No.:
Report #: 908439
Phone: 02 9428 8100
Fax:

Received: Jul 25, 2022 4:04 PM
Due: Aug 1, 2022
Priority: 5 Day
Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						Lead	Lead (% w/w)
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	FA01	Jul 20, 2022		Paint	S22-JI0049728		X
2	FA02	Jul 20, 2022		Paint	S22-JI0049729		X
3	FA03	Jul 20, 2022		Paint	S22-JI0049730		X
4	LD01	Jul 20, 2022		Wipes	S22-JI0049731	X	
Test Counts						1	3



Internal Quality Control Review and Glossary

General

1. 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.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. 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

µg/L: micrograms per litre

ppm: parts per million

ppb: parts per billion

%: Percentage

org/100 mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (bis-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
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% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. 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.
2. 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.
3. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.



Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Lead	Total ug	< 1			1	Pass	
LCS - % Recovery							
Heavy Metals							
Lead	%	99			80-120	Pass	

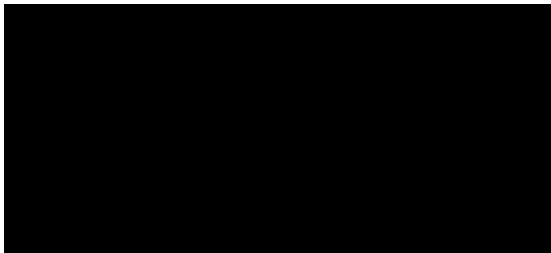


Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
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

Authorised by:



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](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.



Environment Testing

Certificate of Analysis

SLR Consulting

Tenancy 202, Submarine School, Sub Base Platypus,

North Sydney

NSW 2060



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 producer's reports and certificates.

Attention:

Report

908439-S

Project name

1720 CAMDEN VALLEY WAY

Project ID

610.30947.00000

Received Date

Jul 25, 2022

Client Sample ID			FA01	FA02	FA03
Sample Matrix			Paint	Paint	Paint
Eurofins Sample No.			S22-JI0049728	S22-JI0049729	S22-JI0049730
Date Sampled			Jul 20, 2022	Jul 20, 2022	Jul 20, 2022
Test/Reference	LOR	Unit			
Lead (% w/w)	0.01	%	< 0.01	< 0.01	1.0

**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

Lead (% w/w)

Testing Site

Sydney

Extracted

Jul 25, 2022

Holding Time

6 Months

- Method: LTM-MET-3040 Metals in Waters Soils & Sediments by ICP-MS



web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne 6 Monterey Road Dandenong South VIC 3175
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Geelong 19/8 Lewalan Street Grovedale VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Sydney 179 Magowar Road Girraween NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra Unit 1,2 Dacre Street Mitchell ACT 2911
Tel: +61 2 6113 8091

Brisbane 1/21 Smallwood Place Murarie QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

Newcastle 4/52 Industrial Drive Mayfield East NSW 2304
PO Box 80 Wickham 2293
Tel: +61 2 4968 8448
NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0158 898

Perth 46-48 Banksia Road Welshpool WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland 35 O'Rourke Road Penrose Auckland 1061
Tel: +64 9 526 45 51
IANZ# 1327

Christchurch 43 Detroit Drive Rolleston Christchurch 7675
Tel: 0800 856 450
IANZ# 1290

Company Name: SLR Consulting (Sydney)
Address: Tenancy 202, Submarine School, Sub Base Platypus, North Sydney NSW 2060
Project Name: 1720 CAMDEN VALLEY WAY
Project ID: 610.30947.00000

Order No.:
Report #: 908439
Phone: 02 9428 8100
Fax:

Received: Jul 25, 2022 4:04 PM
Due: Aug 1, 2022
Priority: 5 Day
Contact Name: [REDACTED]

Eurofins Analytical Services Manager [REDACTED]

Sample Detail						Lead	Lead (% w/w)
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	FA01	Jul 20, 2022		Paint	S22-JI0049728		X
2	FA02	Jul 20, 2022		Paint	S22-JI0049729		X
3	FA03	Jul 20, 2022		Paint	S22-JI0049730		X
4	LD01	Jul 20, 2022		Wipes	S22-JI0049731	X	
Test Counts						1	3



Internal Quality Control Review and Glossary

General

1. 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.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. 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

µg/L: micrograms per litre

ppm: parts per million

ppb: parts per billion

%: Percentage

org/100 mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (bis-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
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% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. 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.
2. 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.
3. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

**Quality Control Results**

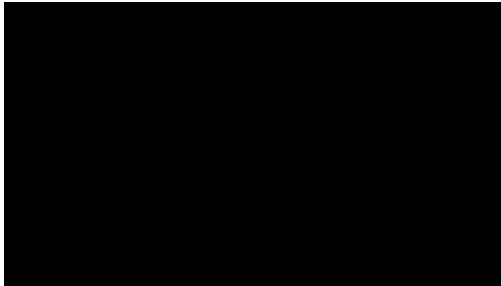
Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Lead (% w/w)	%	< 0.01			0.01	Pass	



Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
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



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](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

APPENDIX C

Limitations

Surveys are conducted in a conscientious and professional manner. The nature of the task and the likely disproportion between any damage or loss which might arise from the work or reports prepared, and the cost of our services, is such that SLR cannot guarantee that all asbestos building materials have been identified and/or addressed.

Due to the possibility of renovations and additions to the building(s) over time, ACMs may have been concealed (for example behind new walls, flooring, ceilings, within boxing, etc.); such areas were inaccessible during the inspection. It is recommended that prior to any refurbishment/demolition works at the site that a full destructive asbestos building materials refurbishment/demolition survey is undertaken by a suitably qualified and experienced consultancy, such as SLR. An intrusive survey is required under AS 2601 (2001) The Demolition of Structures. If any materials reasonably suspected of containing asbestos are found on site, which are not identified within this report, the client's independent consultant, SLR, should be contacted to complete additional confirmatory sampling and analysis as required.

A change in building use/nature of activities could affect the control actions recommended within this report and a re-survey may be required.

Thus, while we carry out the work to the best of our ability, we totally exclude any loss or damages which may arise from services we have provided to Department of Planning, Industry and Environment and/or associated parties.

Where potentially ACMs are identified these are normally reported on to the best of the consultant's ability. Analysis is not normally included and there is no guarantee that all such materials have been identified and/or addressed.

All work conducted and reports produced by SLR are prepared for a particular Client's objective and are based on a specific scope, conditions and limitations, as agreed upon between SLR and the Client. Information and/or report(s) prepared by SLR may therefore not be suitable for any use other than the intended objective. No parties other than the Client should use any information and/or report(s) without first conferring with SLR.

Before passing on to a third party any information and/or report(s) prepared by SLR, the Client is to inform fully the third party of the objective and scope, and all limitations and conditions, including any other relevant information which applies to the information and/or report(s) prepared by SLR.

It is the responsibility of third parties to investigate fully to their satisfaction if any information and/or report(s) prepared by SLR are suitable for a specific objective.

The report(s) and/or information produced by SLR should not be reproduced and/or presented/reviewed except in full.

Materials other than asbestos are generally outside the scope as identification can require specialised analysis/inspection techniques.

Settled dust is generally not sampled or commented on. Settled dust may contain asbestos, particularly if it is in the vicinity of ACM or areas where ACM have been removed.

APPENDIX D

Photographs

Location:	1720 Camden Valley Way, External Laundry		Material Application	Joining strips (vertical), Fibrous Cement	Extent:	8 lin m	Sample Number	AS12
Main Photo		Close Up Photo		Product Type	Asbestos reinforced composites etc. (1)		Material Score	
				Condition	Fair (1)		6	
				Surface Treatment	Sealed (1)		Risk	
				Asbestos Type	Amosite, Chrysotile, Crocidolite (3)		Low	
				Recommendation:	Remove			

Location:	1720 Camden Valley Way, External Southern Aspect		Material Application	Wall linings and associated debris, Fibrous Cement	Extent:	80 m²	Sample Number	AS10
Main Photo		Close Up Photo		Product Type	Asbestos reinforced composites etc. (1)		Material Score	
				Condition	Fair (1)		6	
				Surface Treatment	Partially Unsealed (2)		Risk	
				Asbestos Type	Amosite, Chrysotile (2)		Low	
				Recommendation:	Remove			

Location:	1720 Camden Valley Way, External Southern Aspect - Hot water heater cupboard and adjacent toilet	Material Application	Wall/ceiling linings and associated debris, Fibrous Cement	Extent:	16 m ²	Sample Number	Similar to AS11
Main Photo	Close Up Photo	Product Type	Asbestos reinforced composites etc. (1)			Material Score	
		Condition	Poor (2)			7	
		Surface Treatment	Partially Unsealed (2)			Risk	
		Asbestos Type	Amosite, Chrysotile (2)			Medium	
		Recommendation:	Remove				
Location:	1720 Camden Valley Way, External Southern Green Shed	Material Application	Wall linings and associated debris, Fibrous Cement	Extent:	30 m ²	Sample Number	AS13
Main Photo	Close Up Photo	Product Type	Asbestos reinforced composites etc. (1)			Material Score	
		Condition	Poor (2)			8	
		Surface Treatment	Partially Unsealed (2)			Risk	
		Asbestos Type	Amosite, Chrysotile, Crocidolite (3)			Medium	
		Recommendation:	Remove				

Location:	1720 Camden Valley Way, External Southernmost Metal Shed		Material Application	Corrugated roof sheeting, Fibrous Cement	Extent:	20 m ²	Sample Number	AS16
Main Photo	Close Up Photo		Product Type	Asbestos reinforced composites etc. (1)		Material Score		
			Condition	Fair (1)		6		
			Surface Treatment	Unsealed (3)		Risk		
			Asbestos Type	Chrysotile (1)		Low		
			Recommendation:	Remove				
Location:	1720 Camden Valley Way, External Stockpile adjacent Southernmost Metal Shed		Material Application	Debris, Fibrous Cement	Extent:	30 m ²	Sample Number	AS15
Main Photo	Close Up Photo		Product Type	Asbestos reinforced composites etc. (1)		Material Score		
			Condition	Poor (2)		8		
			Surface Treatment	Unsealed (3)		Risk		
			Asbestos Type	Amosite, Chrysotile (2)		Medium		
			Recommendation:	Remove				

Location:	1720 Camden Valley Way, External Throughout	Material Application	Eave linings, Fibrous Cement	Extent:	35 m ²	Sample Number	AS09
Main Photo	Close Up Photo	Product Type	Asbestos reinforced composites etc. (1)	Condition	Fair (1)	Material Score	5
		Surface Treatment	Sealed (1)	Asbestos Type	Amosite, Chrysotile (2)	Risk	Low
		Recommendation:	Remove				
Location:	1720 Camden Valley Way, External Western Aspect	Material Application	BEBB, Bituminous Electrical Backing Board	Extent:	1 m ²	Sample Number	Assumed
Main Photo	Close Up Photo	Product Type	Asbestos reinforced composites etc. (1)	Condition	Fair (1)	Material Score	7
		Surface Treatment	Partially Unsealed (2)	Asbestos Type	Assumed Asbestos (3)	Risk	Medium
		Recommendation:	Remove				

Location:	1720 Camden Valley Way, Ground Floor Bathroom	Material Application	Wall lining behind tiling, Fibrous Cement	Extent:	15 m ²	Sample Number	AS07
Main Photo	Close Up Photo	Product Type	Asbestos reinforced composites etc. (1)	Condition	Fair (1)	Material Score	7
		Surface Treatment	Partially Unsealed (2)	Asbestos Type	Chrysotile, Crocidolite (3)	Risk	Medium
		Recommendation:	Remove				
Location:	1720 Camden Valley Way, Ground Floor Kitchen	Material Application	Lower wall lining (blue splash back), Fibrous Cement	Extent:	12 m ²	Sample Number	AS01
Main Photo	Close Up Photo	Product Type	Asbestos reinforced composites etc. (1)	Condition	Fair (1)	Material Score	5
		Surface Treatment	Sealed (1)	Asbestos Type	Amosite, Chrysotile (2)	Risk	Low
		Recommendation:	Remove				

Location:	1720 Camden Valley Way, Ground Floor Laundry	Material Application	Wall/ceiling linings, Fibrous Cement	Extent:	m ²	Sample Number	AS11
Main Photo	Close Up Photo	Product Type	Asbestos reinforced composites etc. (1)	Condition	Fair (1)	Material Score	6
		Surface Treatment	Partially Unsealed (2)	Asbestos Type	Amosite, Chrysotile (2)	Risk	Low
		Recommendation:	Remove				
Location:	1720 Camden Valley Way, Ground Floor Northern Bedroom (blue walls)	Material Application	Cupboards wall linings, Fibrous Cement	Extent:	12 m ²	Sample Number	AS05
Main Photo	Close Up Photo	Product Type	Asbestos reinforced composites etc. (1)	Condition	Fair (1)	Material Score	5
		Surface Treatment	Sealed (1)	Asbestos Type	Amosite, Chrysotile (2)	Risk	Low
		Recommendation:	Remove				

Location:	1720 Camden Valley Way, Ground Floor Southern Green Shed		Material Application	Wall/ceiling linings, Fibrous Cement	Extent:	45 m²	Sample Number	AS14
	Main Photo	Close Up Photo		Product Type	Asbestos reinforced composites etc. (1)		Material Score	
				Condition	Fair (1)		6	
				Surface Treatment	Sealed (1)		Risk	
				Asbestos Type	Amosite, Chrysotile, Crocidolite (3)		Low	
				Recommendation:	Remove			

APPENDIX E

General Information

ASBESTOS

Asbestos: Description, Properties and Uses

Asbestos is the generic term given to a group of naturally occurring fibrous minerals, based on hydrated silicates, which are found in various rock formations. Differing ratios of oxygen, hydrogen, sodium, iron, magnesium and calcium elements account for several different types of asbestos minerals, the most common varieties being Amosite (brown asbestos), Chrysotile (white asbestos), Crocidolite (blue asbestos). Other types include Anthophyllite, Actinolite and Tremolite.

The immense popularity of asbestos as a building material is attributed to its near unique properties of fire resistance, high abrasion resistance and superb acoustical characteristics coupled with its relatively low cost. Prior to 1973, asbestos was the material of choice for fire proofing, thermal insulation, sound insulation and abrasion resistance. It was used as a spray-on insulation of ceilings and steel girders; as a thermal insulation of boilers, pipes, ducts, air conditioning units, etc; as an abrasion resistant filler in floor tiles, vinyl sheet floor coverings, roofing and siding shingles; as a flexible, though resistant joining compound and filler of textured paints and gaskets; as the bulking material with the best wear characteristics for automobile brake shoes and in countless domestic appliances such as toasters, grills, dishwashers, refrigerators, ovens, clothes dryers, electric blankets, hair dryers, etc.

Asbestos: Health Effects

Many asbestos bearing materials or products are of no significant health risk whatsoever when used in the normal course of events. A health risk exists when asbestos fibres are released into the air and when that air is inhaled into the lungs. Even then, it appears that most people exposed to relatively small amounts of asbestos do not develop any related health problems. There is however no "safe" level of asbestos exposure since the risk is dependent on numerous factors including the time since exposure, exposure duration and concentration, asbestos type, the attributes of the particular individual and environmental factors such as exposure to cigarette smoke and other airborne pollutants.

There are three main diseases associated with airborne asbestos fibres:

Asbestosis - A fibrosis (or scarring) of the lung associated with relatively massive exposure to asbestos.

Lung Cancer - Indistinguishable from that caused by smoking and a common cause of death. The risk of lung cancer is much higher when there is exposure to both cigarette smoking and to airborne asbestos.

Mesothelioma - A cancer of the chest and abdominal lining, it is specific to asbestos exposure.

A feature of these diseases is that symptoms take a long time to appear, generally 5 to 40 years. Once symptoms are evident the disease progresses rapidly.

There is some evidence that Chrysotile asbestos is less carcinogenic than Amosite, and that Amosite is less carcinogenic than Crocidolite in causing mesothelioma, but the evidence is less clear for lung cancer.

Measurement of Airborne Asbestos Fibres

The Work Health and Safety Regulations 2017 and the Safe Work Australia Asbestos Codes of Practice & Guidance Note set the maximum allowable time weighted average for all forms of asbestos at 0.1 fibre/mL of air.

Air monitoring is used to determine airborne fibre levels. SLR is NATA certified for Asbestos Fibre Counting and Volume Measurement to carry out such monitoring.

The Safe Work Australia Code of Practice How to Safely Remove Asbestos 2011 states that air monitoring should be performed whenever Asbestos Containing Materials (ACM) are being removed, to ensure the control measures are effective.

The onus to provide a safe environment rests with persons in control of a business or undertaking, persons with management or control and persons carrying out demolition or refurbishment work. To meet these obligations it is recommended that SLR be engaged by the site controller, or their representative, and not an asbestos removal contractor as there could be a conflict of interest in the latter arrangement.

Asbestos Survey

Asbestos surveys are undertaken to identify any asbestos materials/hazards and assess the risk associated with the material/hazard.

Surveys are conducted through visual inspection by experienced personnel. During the inspection material samples are taken as appropriate for analysis.

Limitations

Due to the nature of the task all asbestos surveys are limited. Since asbestos can occur in so many forms and in so many locations, and as there is no instrument to detect asbestos, it is never possible to guarantee all asbestos has been identified. Access is usually restricted, and there may be asbestos hidden behind walls or other structures. Building plans are of great assistance to consultants undertaking surveys.

Asbestos Register

An asbestos register is a record of the location, type and condition of all asbestos containing products identified in a building. Under the Safe Work Australia Codes of Practice and the legislation, any place of work constructed prior to 31 December 2003 must have an Asbestos Register. A SLR Asbestos Survey Report includes an asbestos register.

Registers must be maintained and changes in the condition or extent of any asbestos present should be recorded. Registers should also detail the next review date, at present annually since the condition of asbestos materials, legislation, guidelines and standards change.

Management Plan

An asbestos management plan is required where asbestos materials have been identified and are to remain on site. The plan would normally be a component in the overall Hazard Management Plan for the site.

Control Options

Asbestos judged to constitute a health risk should be removed, enclosed or encapsulated by an approved asbestos contractor.

Enclosure

This involves the installation of a permanent, solid, non-porous, impervious barrier between the asbestos material and the surrounding environment. Examples include building boxes around steam pipes etc. A suspended ceiling is not permanent and, since occasional access is necessary above a suspended ceiling, enclosure is negated. Furthermore, many suspended ceilings act as return air plenums so enclosure is impossible.

Encapsulation

Encapsulation involves coating the material with a sealant. Good sealants penetrate through the asbestos material to the substrate. The encapsulating substance then hardens and binds all the asbestos fibres into a solid matrix. This is usually a short to medium term management option.

Removal

Removal is not without hazards to the occupants of the building. If not strictly controlled, the removal process can result in increased fibre counts in other areas. Technical competence, experience and integrity are of prime importance in evaluating asbestos removal plans.

We advise clients to work within the usual practised time frames of the experienced asbestos removal companies under strict supervision by a qualified person. Pressing for quicker turnaround times may result in low quality workmanship and unnecessary asbestos risk. Building owners may be in part responsible for risks created by the removal Contractor due to carelessness or negligence.

An independent consultant such as SLR, experienced in the supervision of asbestos removal, should be retained to act on the client's behalf.

Clearance Inspection

A clearance inspection must be conducted at the completion of asbestos removal works. The clearance inspection may include airborne asbestos monitoring and/or sampling/analysis of materials and should be completed by a suitably qualified and experienced consultant, such as SLR.

ASBESTOS CEMENT SHEETING

A large number of building products used in the building and construction industry have been made with asbestos and cement. Products include:

- Flat or corrugated, compressed sheeting
- Pipes for water, drainage, flues
- Roof shingles
- Building boards eg Villaboard, Hardiflex, Wundaboard, Flexiboard
- Cable trays for electrical wiring
- Numerous preformed items such as cisterns, protective housings, etc

Provided these products are maintained in good condition, they present no health risk, however precautions must be observed during demolition, refurbishment etc.

Licensing Requirements

Asbestos-containing products are classified as **non-friable** or **friable**. **Asbestos cement** (AC) is classified as **non-friable asbestos** however once it is significantly broken, crushed or otherwise damaged WorkCover NSW may consider it to be friable asbestos. The rules governing friable asbestos are far more stringent.

A WorkCover NSW asbestos licence is required to remove 10 square metres or more of non-friable asbestos and there must be WorkCover NSW notification.

Anyone wishing to carry out friable asbestos removal must obtain a friable asbestos removal licence from WorkCover NSW. A friable asbestos removal permit must be obtained for all friable asbestos jobs.

Removal Procedures

The following procedures are recommended for demolition work involving non-friable asbestos cement sheeting in order to reduce the potential health risk to workers and to building occupants.

All asbestos removal and/or decontamination should be undertaken by a competent person working in accordance with the requirements specified in the Safe Work Australia Asbestos Codes of Practice and the *Work Health and Safety Regulations 2017*. A licensed, experienced asbestos removal contractor is required to remove friable asbestos and >10m² of non-friable asbestos.

1. Prior to commencement of asbestos removal works, suitable warning signs must be erected. All windows and doors etc in the occupied areas of these buildings should be closed so as to prevent the spread of contamination.
2. All asbestos removal operatives to wear half-face particulate filter (cartridge) respirators and approved disposable coveralls.

3. The bolts fixing the asbestos cement sheets to the main frame must be cut out and removed. Abrasive cutting or sanding discs shall not be used on asbestos cement products. Only approved power tools may be used.
4. The asbestos cement sheets should be wetted or PVA coated (polyvinyl acetate). **High water pressures should not be used.**
5. All asbestos cement sheets should be removed with minimal breakage and be **lowered** to ground level, not dropped.
 6. All asbestos cement dust and residues should be cleaned from the work area using an approved vacuum cleaner.
 7. All asbestos containing waste must be removed from the site as soon as possible. The bins should be plastic lined, covered and taped secure prior to removal.
 8. The asbestos waste shall be disposed of in accordance with the existing regulations.
9. Prior to engagement in the work, all asbestos operatives must be trained in safe working practices. These training aspects include:
 - Health hazards of asbestos
 - Safe working procedures
 - Wearing and maintenance of protective clothing and equipment

ASBESTOS CONTAINING VINYL TILES

Vinyl tiles which contain asbestos are considered to be of minimal risk whilst undisturbed and in good condition. The asbestos contained within vinyl tiles is well bound in the parent matrix and fibre release is virtually impossible provided the tiles are not ground, drilled, or otherwise abraded. Normal floor cleaning operations will not release asbestos fibres.

If the tiles are intact and not abraded or drilled etc it is safe to leave them *in-situ*. However, prior to demolition and/or refurbishment all asbestos containing vinyl tiles in the work area must be removed in accordance with the *Work Health and Safety Regulations 2017* and the Safe Work Australia Asbestos Codes of Practice.

Removal Procedures

The following procedures are recommended for the removal of asbestos containing vinyl tiles in order to avoid potential asbestos health risks to workers and building occupants.

If 10 m² or more of vinyl tiles are to be removed the work should be completed by a licensed, experienced asbestos removal contractor with notification to Work Health and Safety Regulations 2017.

1. Prior to commencement of removal works, suitable warning signs must be erected. All windows, doors and vents etc in the occupied areas of the buildings should be closed to reduce the potential for cross-contamination/exposure.
2. All vinyl tile removal operatives are to wear appropriate personal protective equipment (PPE) including respiratory protection, safety glasses/goggles, disposable coveralls, hearing protection and gloves. Steel capped boots, hi-visibility vests and hard hats should also be worn as per the normal requirements for work on construction sites.
3. The tiles can be removed by heating the surface to loosen them or by use of a mechanical chisel to wedge them up. Care should be taken when heating tiles and the glues holding them in place to avoid the generation of toxic fumes. Do not grind, drill or otherwise abrade the tiles in any fashion that generates unnecessary dust/debris.
4. All waste is to be double bagged or placed in lined bins, sealed, and disposed of as asbestos waste in accordance with the Asbestos Codes of Practice and existing guidelines and regulations.
5. The removal area should be detailed clean using an approved vacuum cleaner fitted with a High Energy Particulate (HEPA) filter, and by wet wiping. A detergent should be used when wet wiping as this improves cleaning efficiency.

6. Obtain a clearance inspection and report from an independent, suitably qualified and experienced consultant such as SLR.
7. Upon satisfactory clearance inspection spray the area with a dilute PVA emulsion at low pressure. Multiple applications may be required to provide adequate coverage.
8. Prior to engagement in the work, all asbestos operatives must be trained in safe working practices. These training aspects include:
 - Health hazards of asbestos
 - Safe working procedures
 - Wearing and maintenance of protective clothing and equipment

Air Monitoring

The Safe Work Australia Code of Practice How to Safely Remove Asbestos 2011 states that air monitoring should be performed whenever Asbestos Containing Materials (ACM) are being removed, to ensure the control measures are effective.

All air monitoring must be completed by a NATA accredited organisation as specified in the *Work Health and Safety Regulations 2017*.

Asbestos fibres are generally well bound in the vinyl matrix and fibre release is unlikely provided the tiles are not ground, drilled or similarly disturbed.

Note:

These are general recommendations. In all cases the asbestos removalist should be familiar with, and comply with, the relevant Codes of Practice and the *Work Health and Safety Regulations 2017*. There may also be site specific requirements which should be complied with.

CORRUGATED ASBESTOS CEMENT (AC) ROOFING

Deterioration Mechanisms

Asbestos cement (AC) roofs deteriorate slowly over time. The upper surface exposed to the elements slowly loses cement binder and asbestos fibres become increasingly exposed. This may result in excessive fibre loss and a general weakening of the roof materials which will eventually become porous.

The process of natural weathering may be compounded by exposure to steam, acid fumes and other agents from industrial processes, resulting in accelerated deterioration of the roof.

Hail, heavy rain and other storm activity can cause also significant problems including:

- Cracks and/or penetrations in asbestos cement panels, and resultant generation of asbestos cement dust/debris.
- Shedding of asbestos fibres which may contaminate runoff and enter gutters and drains etc.
- Blocking of gutters with hail and other debris resulting in overflow and asbestos contamination of surrounding areas.

In most situations the underside of AC roofs exhibit very little deterioration however asbestos containing dust can accumulate on the roof support structure and other exposed locations below/around the roof.

If an asbestos cement roof becomes significantly damaged, weathered and or produces visible dust or significant debris it is likely that health and safety management works will be required. A suitably qualified and experienced consultant, such as SLR, can advise and assist in carrying out such works.

Life Expectancy and Maintenance

AC roofs in good condition may remain in place indefinitely providing certain precautions are taken.

- On no account may high pressure water be used to clean AC roofs. This is forbidden under the Safe Work Australia asbestos codes of practice as it can result in widespread contamination.

- AC roofs may not be drilled, ground, cut or otherwise damaged as this may result in the release of airborne asbestos fibres.
- In general, roofs are best left undisturbed if in good condition. There are however several sealing compounds which may be used on AC roofs. The underside of AC roofs may be encapsulated, shielded with sarking or enclosed with a fixed ceiling or other materials. Enclosures are fixed, permanent, non-porous barriers that prevent fibre penetration. All barriers need to be maintained.
- The roof including internal support structure should be inspected regularly (eg at least once a year) by a suitably qualified and experienced consultant such as SLR to assess the condition and extent of the asbestos materials present.
- Gutters and down pipes should be kept clean and in good condition. Some gutters may accumulate a build up of debris which contains asbestos; this is best removed by an experienced licensed asbestos removal contractor.
- Down pipes etc should be protected from damage by forklifts and other vehicles via the installation of appropriate barriers.
- Damaged sections of asbestos containing material should be removed as soon as possible by an experienced licensed asbestos removal contractor. It is illegal to re-use asbestos containing materials.
- As a precautionary measure any exposed broken edges of asbestos material temporarily remaining in place should be sealed with an appropriate sealant such as Emerclad paint.

Demolition

Demolition of AC roofs should only be undertaken by an experienced licensed Asbestos Removal Contractor.

It is recommended that asbestos removal supervision, air-monitoring and clearance inspections be undertaken by an independent, suitably qualified and experienced asbestos consultant such as SLR.

ASBESTOS CONTAINING FIRE DOORS

The cores of older fire doors frequently contain asbestos materials. Such doors may remain in place provided certain precautions are taken. These include:

- Labelling the doors with appropriate warning signs that advise of the asbestos risk.
- Not drilling or otherwise disturbing the doors so as to release airborne asbestos fibres.
- Recording the location, extent and condition of the doors in the site Asbestos Register and addressing them in the site Asbestos Management Plan. A copy of the Asbestos Register and Management Plan should be held by the Building Manager who is to ensure that no work is carried out on the doors without their prior knowledge and the implementation of adequate health and safety precautions.
- Regular inspection and reporting of the condition of the doors.

If the fire doors are damaged then access to the area is to be appropriately restricted and advice sought from a suitably qualified and experienced consultant such as SLR.

Any asbestos removal and/or remediation/decontamination work should be undertaken by a licensed Asbestos Removal Contractor.

LEAD

Lead contamination comes from numerous different sources. Common sources include lead-containing paint, putties, leaded petrol and lead flashing.

Lead is absorbed by ingestion, inhalation and directly through the skin. The finer the particle size the more readily it is absorbed. As a result, some lead compounds are more readily absorbed than others. High lead exposure can cause death, however far lower exposures can also cause a number of adverse consequences, including a reduction in IQ, particularly in children.

Lead containing materials should be managed in accordance with the *Work Health and Safety Regulations 2017* the *National Standard for the Control of Inorganic Lead at Work* [NOHSC:1012(1994)], the *National Code of Practice for the Control and Safe Use of Inorganic Lead at Work* [NOHSC:2015(1994)] and other relevant standards and guidelines as outlined below.

Acceptable Levels

There are numerous standards but application to particular situations is not always clear.

Paint

In 1969 the National Health and Medical Research Council (NH&MRC) introduced the Uniform Paint Standard which banned the use of white lead for domestic buildings and placed a limit on other forms of lead (usually in the form of dryers) in such paints of 1% (by weight on the dry weight). In March 1992 this limit was lowered to 0.25% and has more recently been reduced even further in domestic paints as outlined in Appendix I (the letter not the number) of Standard for the Uniform Scheduling of Drugs and Poisons No 20, 2005 published by Australian Therapeutic Goods Administration under the Therapeutic Goods Act 1989. It is therefore common to find up to 1% lead in paint especially in glossy paints. There is no limit on the lead content of old paint finishes.

Moderate lead levels (less than 4%) are generally not considered an immediate health risk if the paint is in good condition and not likely to be damaged or accessible to children who might chew the paint etc. Removal of such paint however poses a health risk if it is not adequately controlled.

Paints of 1% or more lead content are generally considered to be lead containing; however the dry sanding of paints with even 0.25% lead can result in the release of unacceptable levels of lead containing dust.

Australian Standards AS 4361.1-1995 Guide to lead paint management Part 1: Industrial Applications and AS 4361.2-1998 Guide to lead paint management Part 2: Residential and Commercial Buildings provide guidance for the management of lead paint, information on lead paint testing and selection of an appropriate management strategy.

There is a duty of care to ensure that workers and building occupants are not exposed to excessive lead levels. Young children are particularly at risk.

Dust

Lead in dust is of particular concern because it is easily disturbed and frequently in the form of very fine particles which are more readily absorbed by the human body.

The NH&MRC (National Health & Medical Research Council) has not set guidance concentration levels for lead in dust. Australian Standard AS 4361.2-1998 Guide to lead paint management Part 2: Residential and Commercial Buildings, does not offer any general guidance on lead levels in dust but it does provide acceptable surface-dust lead concentrations after lead paint management activities. The acceptance levels for surface dust are:

- Interior floors 1 mg/m² (as lead)
- Interior window sills 5 mg/m² (as lead)
- Exterior surfaces 8 mg/m² (as lead)

The National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 Guideline on the Investigation Levels for Soil and Groundwater sets a limit of 300 ppm lead in soils for “standard” residential land-use. This limit is based on both Human Health and Environmental considerations.

Air

The NOHSC (National Occupational Health & Safety Commission) maximum allowable TWA (Time Weighted Average) concentration for airborne lead (inorganic dusts and fumes) is 0.15 mg/m³, however some lead compounds have lower levels. The ACGIH (American Conference of Governmental Industrial Hygienists) have adopted a Threshold Limit Value (Time Weighted Average) of 0.05 mg/m³ for lead and inorganic lead compounds as lead.

Control Measures

When high lead levels are encountered control measures should be put in place which are appropriate to the particular situation, in many cases this may consist of a few simple low cost precautions, in some cases removal by experienced contractors working to detailed procedures with air monitoring and independent supervision is required.

The disposal of lead contaminated material should be in accordance with current legislation and guidance.

SLR can provide expert advice, air monitoring, sampling and project management on lead related issues.

PCBs (POLYCHLORINATED BIPHENYLS)

Description, Properties and Uses

PCBs is an abbreviation for Polychlorinated Biphenyls, a group of synthetic chlorinated organic compounds commonly used as non-flammable oils in electrical equipment.

PCBs were commonly used as insulators in electrical capacitors and transformers but were also used in a wide range of other products that took advantage of their stability. Normally the PCBs are held in a metal container carrying no label signifying PCB content.

Small PCB filled capacitors were fitted to electric motors, welders, and fluorescent lights. Typically they are small metal containers holding about 50 millilitres of PCB. Large oil cooled transformers may contain many litres of PCBs.

Health Hazard of PCBs

PCBs are suspected human carcinogens and are a serious health problem due to their persistence in the environment, their potential for chronic or delayed toxicity and their accumulation in human and animal tissues. They can enter the body in three ways; by absorption through the skin, by inhalation of the vapour of heated PCBs (not a problem at room temperature), and by swallowing contaminated food or drink. Once PCBs are in the body they tend to lodge in the body fat and stay there for a considerable time.

Exposure to PCBs can cause a range of health problems whose effects increase with the duration of exposure and concentration levels.

PCBs are proven animal carcinogens and suspected human carcinogens. The results of exposure may include liver damage, respiratory disorders, chloracne (a severe skin rash), eczema and skin discolouration. PCBs have also been associated with thyroid gland disorders, muscle and joint pain, headaches, nausea, loss of appetite, abdominal pain, and are potentially related to reproductive problems in humans. Pregnant women should avoid PCB polluted areas.

PCB liquid and vapour is moderately irritating to the eyes.

Synthetic Mineral Fibres (SMF) - Description, Properties and Uses

Synthetic Mineral Fibre is a general term used to describe amorphous (non-crystalline) silicate fibres which are manufactured from minerals such as glass, rock, alumina and silica. The manufacturing methods determine the fibre diameters. SMF do not break lengthwise into finer fibres (an important characteristic of asbestos), but break transversely into shorter fibres. Fibre diameter affects both the performance characteristics and the health effects.

The two basic forms of SMF insulation are bonded and unbonded. The bonded form is where adhesives or cements have been applied to the SMF and the product has a specific shape. The unbonded form has no adhesive or cements and the SMF is loose material. The unbonded form can be packed loose or mixed with adhesives or cements before, or during, installation.

Continuous Glass Filaments are used in textiles and in reinforced plastics and concretes. Typical applications are swimming pools, boats, surfboards and plumbing materials. Very few respirable SMF are present in such materials which have a diameter range of 10-30 microns.

Glasswool is generally manufactured to a nominal fibre diameter of between 5-8mm (micrometres), but a percentage of respirable size fibres (less than 3 micron diameter) is present in such materials. Glasswool is mainly used as bonded materials which include preformed insulation batts in ceiling and wall applications, insulation blankets or batts around air conditioning ducts and preformed sectional pipe insulation around hot or chilled water pipes.

Rockwool fibre diameter range is similar to glassfibre but with a higher percentage of respirable fibres present. Rockwool is manufactured in both bonded and unbonded materials as preformed insulation batts in ceilings and cavity walls, insulation blankets or batts around air conditioning ducts, lagging around pipes in preformed pipe sections (bonded materials), mixed with cement as sprayed fire production in multi-storey buildings and as loose-fill material or sprayed into ceiling and cavity spaces of buildings (unbonded materials).

Ceramic Fibres typical diameter range is 0.2-8.0mm with a large proportion of respirable fibres. Ceramic fibres are often used in a variety of high temperature applications as the refractory lining of furnaces, kilns and other industrial heaters and in some specialised applications as blankets, woven textiles rope, braid, boards, mastics, preformed shapes and other specialised materials.

Common trade names are Kaowool and Fibrefrax.

Health Effects of SMF

Irritation: Synthetic Mineral Fibres cause irritation to the skin and upper respiratory tract. This effect is mainly associated with the larger diameter fibres (greater than 4 microns). Eye irritation may also occur.

Long Term Effects: Glassfibre, Rockwool, Slagwool and Ceramic Fibre are regarded as possible human carcinogens as classified by the International Agency for Research on Cancer (IARC), even though evidence is not conclusive. Continuous glass filaments are not included in this classification as no risk of lung cancer has been found in this sector of the industry.

In the present day, with the very low exposures in the usage of SMF, the health risk is minimal provided SMF work is carried out in accordance with the National Code of Practice and compliance is maintained with the exposure standards.

Fibre Characteristics: The important factors which determine whether SMF can cause lung cancer include the fibre diameter and the durability of the SMF in the body. Only fibres less than 3 microns in diameter are respirable and able to penetrate into the lungs where disease could be initiated.

Chemical composition and fibre size determine durability in the lungs: SMF are much less durable in lung fluids than asbestos. Finer fibres of the same material are less durable than larger fibres. Ceramic fibres are more durable than rockwool and glassfibre. SMF may dissolve in the lung fluid within 1 to 6 years compared with about 100 years for asbestos.

Exposure Standard SMF

The National Occupational Health and Safety Commission (NOHSC), National Standard and National Code of Practice for the Safe Use of Synthetic Mineral Fibres sets a time-weighted average (TWA) exposure standard of 0.5 respirable fibres per millimetre of air (f/mL) to all forms of Synthetic Mineral Fibres (Glasswool, Rockwool and Ceramic Fibres).

In addition, an exposure standard of 2mg/m³ (TWA) of inspirable dust shall be applied to minimise upper respiratory tract irritations from largely non-respirable fibre. This inspirable standard is not to take precedence over the respirable fibre standard.

SLR Consulting can carry out the air monitoring to determine the airborne concentration of respirable fibres in accordance with the NOHSC 'Guidance Note on the Membrane Filter Method for the Estimation of Airborne Synthetic Mineral Fibres'.

Personal Protection and Work Procedures for SMF

- Appropriate protective clothing and respiratory protection is required when working with SMF.
- Handling procedures should minimise airborne fibre levels. The procedures will vary somewhat depending on the application.

Sensitive Equipment: The dust and fibres from SMF lined air conditioning ducts may cause problems in areas when sensitive equipment is housed, for example, computer rooms. Dust and fibre levels should be checked regularly.

Collection, Transport and Disposal

PCBs must be handled with care. They are very penetrating and will pass through some types of plastic gloves. When collecting PCBs appropriate personal protective equipment (PPE) must be worn.

PCBs are assumed to be present in fluorescent light fittings unless inspection indicates otherwise. Removal requires the following:

- Prior to demolition when the power is disconnected inspect the light fittings.
- Metal PCB containing capacitors are to be removed, placed in plastic lined 200 Litre drums, sealed and disposed of as PCB Scheduled Waste. Any light fittings that show signs of oil staining from capacitors are to be disposed of as PCB contaminated waste.
- Protective clothing including PCB resistant gloves to be worn.
- Contaminated gloves and disposable coveralls to be disposed of as PCB contaminated waste.
- PCBs are covered by a Chemical Control Order under the Environmentally Hazardous Chemicals Act 1985. The labelling, storage, transport and disposal of PCBs is highly regulated, and professional advice should be sought on how to deal with these materials.
- Contractors licensed to transport and handle PCBs must be used for transport and disposal.

Register and Management Plan

The Environment Protection & Heritage Council's *Polychlorinated Biphenyls Management Plan, Revised Edition April 2003* requires that a risk-based strategy for equipment containing PCBs be adopted. The elements of this strategy are surveying, testing and removal of identified high risk equipment. **There is a timetable by which surveys are to be completed.**

Property owners and managers should have a PCB register. This could form part of their Hazardous Materials Register for the site. Where PCBs are identified a PCB Hazard Management Plan should be in place. This could be a part of the Hazardous Materials Management Plan for the site.

ASIA PACIFIC OFFICES

BRISBANE

Level 2, 15 Astor Terrace
Spring Hill QLD 4000
Australia
T: +61 7 3858 4800
F: +61 7 3858 4801

MACKAY

21 River Street
Mackay QLD 4740
Australia
T: +61 7 3181 3300

SYDNEY

2 Lincoln Street
Lane Cove NSW 2066
Australia
T: +61 2 9427 8100
F: +61 2 9427 8200

AUCKLAND

68 Beach Road
Auckland 1010
New Zealand
T: +64 27 441 7849

CANBERRA

GPO 410
Canberra ACT 2600
Australia
T: +61 2 6287 0800
F: +61 2 9427 8200

MELBOURNE

Suite 2, 2 Domville Avenue
Hawthorn VIC 3122
Australia
T: +61 3 9249 9400
F: +61 3 9249 9499

TOWNSVILLE

Level 1, 514 Sturt Street
Townsville QLD 4810
Australia
T: +61 7 4722 8000
F: +61 7 4722 8001

NELSON

6/A Cambridge Street
Richmond, Nelson 7020
New Zealand
T: +64 274 898 628

DARWIN

Unit 5, 21 Parap Road
Parap NT 0820
Australia
T: +61 8 8998 0100
F: +61 8 9370 0101

NEWCASTLE

10 Kings Road
New Lambton NSW 2305
Australia
T: +61 2 4037 3200
F: +61 2 4037 3201

TOWNSVILLE SOUTH

12 Cannan Street
Townsville South QLD 4810
Australia
T: +61 7 4772 6500

GOLD COAST

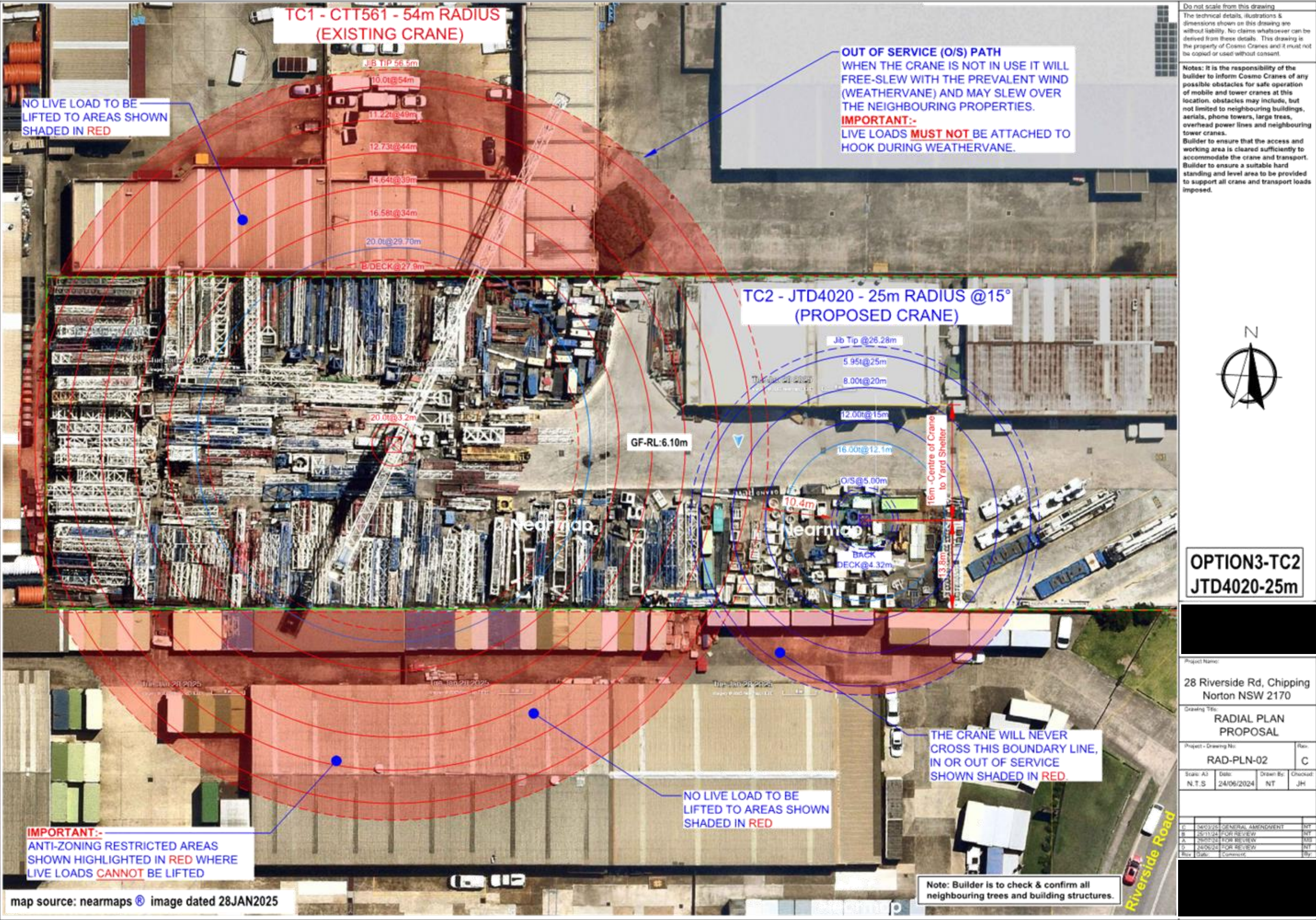
Level 2, 194 Varsity Parade
Varsity Lakes QLD 4227
Australia
M: +61 438 763 516

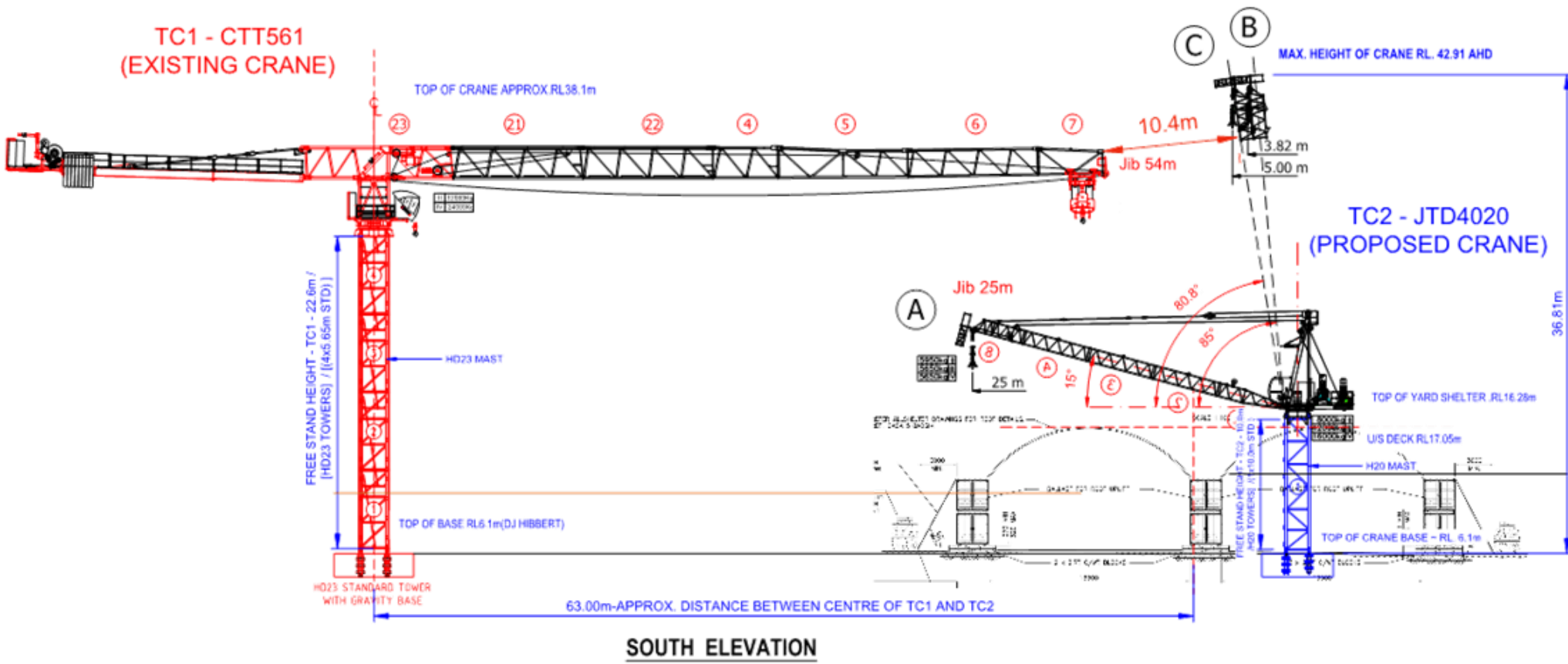
PERTH

Ground Floor, 503 Murray Street
Perth WA 6000
Australia
T: +61 8 9422 5900
F: +61 8 9422 5901

WOLLONGONG

Level 1, The Central Building
UoW Innovation Campus
North Wollongong NSW 2500
Australia
T: +61 404 939 922



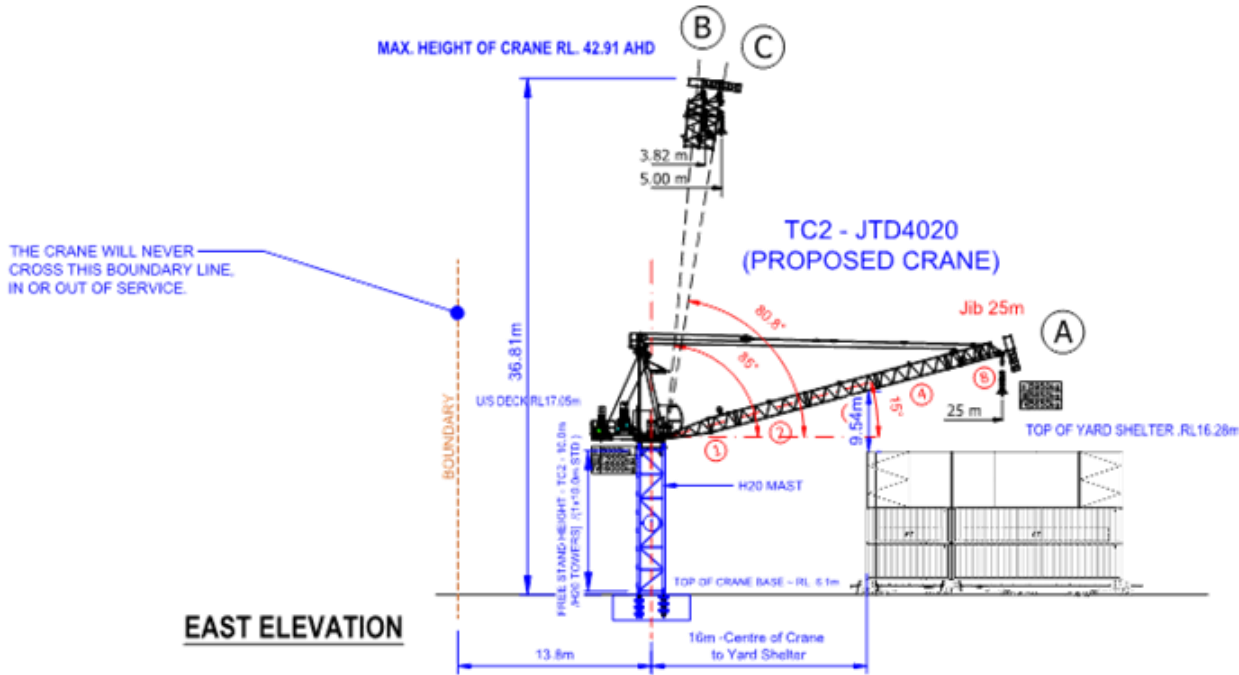


Do not scale from this drawing.
The technical details, illustrations & dimensions shown on this drawing are without liability. No claims whatsoever can be derived from these details. This drawing is the property of Cosmo Cranes and it must not be copied or used without consent.

Notes: It is the responsibility of the builder to inform Cosmo Cranes of any possible obstacles for safe operation of mobile and tower cranes at this location. obstacles may include, but not limited to neighbouring buildings, aerials, phone towers, large trees, overhead power lines and neighbouring tower cranes.
Builder to ensure that the access and working area is cleared sufficiently to accommodate the crane and transport.
Builder to ensure a suitable hard standing and level area to be provided to support all crane and transport loads imposed.

Maximum Crane Operating Wind Speed
The maximum operating wind speed during this lifting operation will be: **9.8M/S**
based on the crane configuration and loads detailed in this drawing.

**OPTION3-TC2
JTD4020-25m**



Project Name:
28 Riverside Rd, Chipping Norton NSW 2170

Drawing Title:
ELEVATION PROPOSAL

Project - Drawing No:
ELEVATION-03

Rev:
C

Scale	Date	Drawn By	Checked
N.T.S	24/06/2024	NT	JH

C	04/01/20	GENERAL AMENDMENT	NT
B	25/11/24	FOR REVIEW	NT
A	25/07/24	FOR REVIEW	MS
D	24/06/24	FOR REVIEW	NT

RODNEY STEVENS
ACOUSTICS



REPORT R250142R1

Revision 0

Noise Impact Assessment
Proposed Additions and Extension
28 Riverside Road, Chipping Norton



7 March 2025



ABN 78 149 311 455



+61 7 3804 1217

+61 2 9943 5057

info@rodneystevensacoustics.com.au



Noise Impact Assessment

Proposed Additions and Extension

28 Riverside Road, Chipping Norton

PREPARED BY:
Rodney Stevens Acoustics Pty Ltd

Telephone: 61 2 9943 5057 Facsimile 61 2 9475 1019
Email: info@rodneystevensacoustics.com.au
Web: www.rodneystevensacoustics.com.au

DISCLAIMER

Reports produced by Rodney Stevens Acoustics Pty Ltd are prepared for a particular Client's objective and are based on a specific scope, conditions and limitations, as agreed between Rodney Stevens Acoustics and the Client. Information and/or report(s) prepared by Rodney Stevens Acoustics may not be suitable for uses other than the original intended objective. No parties other than the Client should use any information and/or report(s) without first conferring with Rodney Stevens Acoustics.

The information and/or report(s) prepared by Rodney Stevens Acoustics should not be reproduced, presented or reviewed except in full. Before passing on to a third party any information and/or report(s) prepared by Rodney Stevens Acoustics, the Client is to fully inform the third party of the objective and scope and any limitations and conditions, including any other relevant information which applies to the material prepared by Rodney Stevens Acoustics. It is the responsibility of any third party to confirm whether information and/or report(s) prepared for others by Rodney Stevens Acoustics are suitable for their specific objectives.

DOCUMENT CONTROL

Reference	Status	Date	Prepared	Checked	Authorised
R250142R1	Revision 0	7 March 2025			



TABLE OF CONTENTS

1	INTRODUCTION	3
2	PROPOSED DEVELOPMENT	3
2.1	Development Site	3
3	BASELINE NOISE SURVEY	4
3.1	Unattended Noise Monitoring	4
3.2	Data Processing	5
4	NOISE GUIDELINES AND CRITERIA	5
4.1	Operational Noise Project Trigger Noise Levels	5
4.1.1	Intrusiveness Noise Levels	5
4.1.2	Amenity Noise Levels	5
4.1.3	Area Classification	6
4.1.4	Project Specific Trigger Noise Levels	6
4.2	Sleep Disturbance	7
5	CRANE NOISE IMPACT	8
5.1	Crane Type Schedule	8
5.2	Crane Noise Emission	8
5.3	Predicted Noise Levels	10
6	CONCLUSION	12
	APPENDIX A – ACOUSTIC TERMINOLOGY	13
	APPENDIX B – LOGGER GRAPHS	16
	APPENDIX C – CALIBRATION CERTIFICATE	20
	APPENDIX D – CRANE LOCATIONS	21
Table 3-1	Measured Baseline Noise Levels Corresponding to Defined NPfl Periods	5
Table 4-1	Operational Project Trigger Noise Levels	6
Table 5-1	Mechanical Plant Schedules	8
Table 5-2	Sensitive Receivers	9
Table 5-3	Predicted Noise Levels At Sensitive Receivers.	10
Table 5-4	Sleep Disturbance Compliance	11
Figure 2-1	Site Location	4
Figure 5-1	Sensitive Receiver Location	9



1 INTRODUCTION

Rodney Stevens Acoustics Pty Ltd (RSA) has been engaged by [REDACTED] to prepare a noise assessment for the proposed mechanical plant at 28 Riverside Road, Chipping Norton.

This report details the results of an ambient noise survey and establishes the noise criteria for the use of an additional crane as well as the proposed extension of hours.

This assessment is to form part of the supporting documentation for the DA submission to Liverpool City Council. Specific acoustic terminology is used in this report. An explanation of common acoustic terms is provided in Appendix A.

2 PROPOSED DEVELOPMENT

2.1 Development Site

The proposal is to install a new crane as well as extending hours of operation to 24 hours a day, 7 days a week at the existing site located at 28 Riverside Road, Chipping Norton. The site within an industrial district and it is bounded by adjoining industrial premises with residential receivers to the east (approx. 550m), south-east (Approx. 400m) and west (Approx. 570m).

Figure 2-1 shows an aerial image of the site area and the surrounding environment

Figure 2-1 Site Location



Aerial image courtesy of Google Maps © 2025

3 BASELINE NOISE SURVEY

3.1 Unattended Noise Monitoring

In order to characterise the existing acoustical environment of the area, unattended noise monitoring was conducted between Wednesday 26th February and Wednesday 5th March 2025 at the logging location shown in Figure 2-1. The noise logger was located on the back yard of the site. The noise monitoring at this location is representative of the ambient noise of the area.

Logger locations were selected with consideration to other noise sources which may influence readings, security issues for noise monitoring equipment and gaining permission for access from other landowners.

Instrumentation for the survey comprised of A RION NL-42EX environmental noise logger (serial number 810779) fitted with microphone windshields. Calibration of the loggers was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dB(A). All equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

The logger determines L_{A1} , L_{A10} , L_{A90} and L_{Aeq} levels of the ambient noise. L_{A1} , L_{A10} , L_{A90} are the levels exceeded for 1%, 10% and 90% of the sample time respectively (see Glossary for definitions in Appendix A). Detailed results at the monitoring location are presented in graphical format in Appendix B. The graphs show measured values of L_{A1} , L_{A10} , L_{A90} and L_{Aeq} for each 15-minute monitoring period.

3.2 Data Processing

In order to assess noise emission from the proposed crane addition and extension of hours, the data obtained from the noise logger has been processed in accordance with the procedures contained in the NSW Environmental Protection Authority's (EPA) *Noise Policy for Industry* (NPfI, 2017) to establish representative noise levels that can be expected in the residential vicinity of the site. The monitored baseline noise levels are detailed in Table 3-1.

Table 3-1 Measured Baseline Noise Levels Corresponding to Defined NPfI Periods

Location	Measurement Descriptor	Measured Noise Level – dB(A) re 20 µPa		
		Daytime 7 am - 6 pm	Evening 6 pm – 10 pm	Night-time 10 pm – 7 am
Logger on Arthur Street	L _{Aeq}	54	52	49
	RBL (Background)	47	46	41

Notes: All values expressed as dB(A) and rounded to nearest 1 dB(A);

L_{Aeq} Equivalent continuous (energy average) A-weighted sound pressure level. It is defined as the steady sound level that contains the same amount of acoustic energy as the corresponding time-varying sound.

L_{A90} Noise level present for 90% of time (background level). The average minimum background sound level (in the absence of the source under consideration).

4 NOISE GUIDELINES AND CRITERIA

4.1 Operational Noise Project Trigger Noise Levels

Responsibility for the control of noise emissions in New South Wales is vested in Local Government and the EPA. The EPA oversees the Noise Policy for Industry (NPfI) October 2017 which provides a framework and process for deriving project trigger noise level. The NPfI project noise levels for industrial noise sources have two (2) components:

- Controlling the intrusive noise impacts for residents and other sensitive receivers in the short term; and
- Maintaining noise level amenity for particular land uses for residents and sensitive receivers in other land uses.

4.1.1 Intrusiveness Noise Levels

For assessing intrusiveness, the background noise generally needs to be measured. The intrusiveness noise level essentially means that the equivalent continuous noise level (L_{Aeq}) of the source should not be more than 5 dB(A) above the measured Rated Background Level (RBL), over any 15 minute period.

4.1.2 Amenity Noise Levels

The amenity noise level is based on land use and associated activities (and their sensitivity to noise emission). The cumulative effect of noise from industrial sources needs to be considered in assessing the impact. The noise levels relate only to other industrial-type noise sources and do not include road, rail or community noise. The existing noise level from industry is measured.

If it approaches the project trigger noise level value, then noise levels from new industrial-type noise sources, (including air-conditioning mechanical plant) need to be designed so that the cumulative effect does not produce total noise levels that would significantly exceed the project trigger noise level.

4.1.3 Area Classification

The NPfI characterises the "Urban" noise environment as an area with an acoustical environment that:

- is dominated by 'urban hum' or industrial source noise,
- where urban hum means the aggregate sound of many unidentifiable, mostly traffic and/or industrial related sound sources
- has through-traffic with characteristically heavy and continuous traffic flows during peak periods
- is near commercial districts or industrial districts
- has any combination of the above.

The area surrounding the proposed development falls under the "Urban" area classification.

4.1.4 Project Specific Trigger Noise Levels

Having defined the area type, the processed results of the unattended noise monitoring have been used to determine project specific project trigger noise levels. The intrusive and amenity project trigger noise levels for nearby residential premises are presented in Table 4-1. These project trigger noise levels are nominated for the purpose of assessing potential noise impacts from the proposed development.

In this case, the ambient noise environment is controlled by industrial noise sources and therefore the project amenity noise levels are assigned as per Table 2.2 of the NPfI (Recommended Amenity Noise Levels) and standardised as per Section 2.2 of the NPfI. For each assessment period, the lower (i.e. the more stringent) of the amenity or intrusive project trigger noise levels are adopted. These are shown in bold text in Table 4-1.

Table 4-1 Operational Project Trigger Noise Levels

Receiver	Time of Day	ANL ¹ L _{Aeq}	Measured		Project Trigger Noise Levels	
			RBL ² L _{A90(15min)}	Existing L _{Aeq(Period)}	Intrusive L _{Aeq(15min)}	Amenity L _{Aeq(15min)}
Residential	Day	60	47	54	52	63
	Evening	50	46	52	51	53
	Night	45	41	49	46	48

Note 1: ANL = "Amenity Noise Level" for residences in Urban Areas.

Note 2: RBL = "Rating Background Level".

The specific amenity noise criteria for industrial premises is 70 dB(A)



4.2 Sleep Disturbance

The NSW EPA Noise Policy for Industry (NPfI) provides a guidance for sleep disturbance or sleep arousal assessment. The NPfI states the following:

The potential for sleep disturbance from maximum noise level events from premises during the night-time period needs to be considered. Sleep disturbance is considered to be both awakenings and disturbance to sleep stages.

Where the subject development/premises night-time noise levels at a residential location exceed:

- *LAeq,15min 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or*
- *LAFmax 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater,*

a detailed maximum noise level event assessment should be undertaken. The detailed assessment should cover the maximum noise level, the extent to which the maximum noise level exceeds the rating background noise level, and the number of times this happens during the night-time period. Some guidance on possible impact is contained in the review of research results in the NSW Road Noise Policy

Other factors that may be important in assessing the extent of impacts on sleep include:

- *how often high noise events will occur*
- *the distribution of likely events across the night-time period and the existing ambient maximum events in the absence of the subject development*
- *whether there are times of day when there is a clear change in the noise environment (such as during early-morning shoulder periods)*
- *current scientific literature available at the time of the assessment regarding the impact of maximum noise level events at night.*

Maximum noise level event assessments should be based on the LAFmax descriptor on an event basis under 'fast' time response.

The detailed assessment should consider all feasible and reasonable noise mitigation measures with a goal of achieving the above trigger levels



5 CRANE NOISE IMPACT

5.1 Crane Type Schedule

Cosmo Cranes has provided the following information about the existing and proposed crane. The proposed cranes operate remotely and do not have an AC condenser.

Table 5-1 Mechanical Plant Schedules

Designation	Model	Sound Power Level dB(A)
TC1 (Existing)	Comedil CTT 561	115
TC2 (Proposed)	JALWAY JDT 4020	114

The sound power levels presented above are based on manufacturer's specifications. The location of the cranes in relation to the site is presented in Appendix D.

5.2 Crane Noise Emission

Calculations of the noise levels from the operation of the existing and proposed cranes have been carried out using the data in Table 5-1. We have used the worst case scenario where both cranes are running at the same time during the day and evening periods and only TC2 runs during the night time period. Calculations take into account factors such as distance, shielding from buildings and barriers.

The following figure presents the proposed development and all sensitive receivers. Table 5-2 shows the address of each affected receiver

Figure 5-1 Sensitive Receiver Location

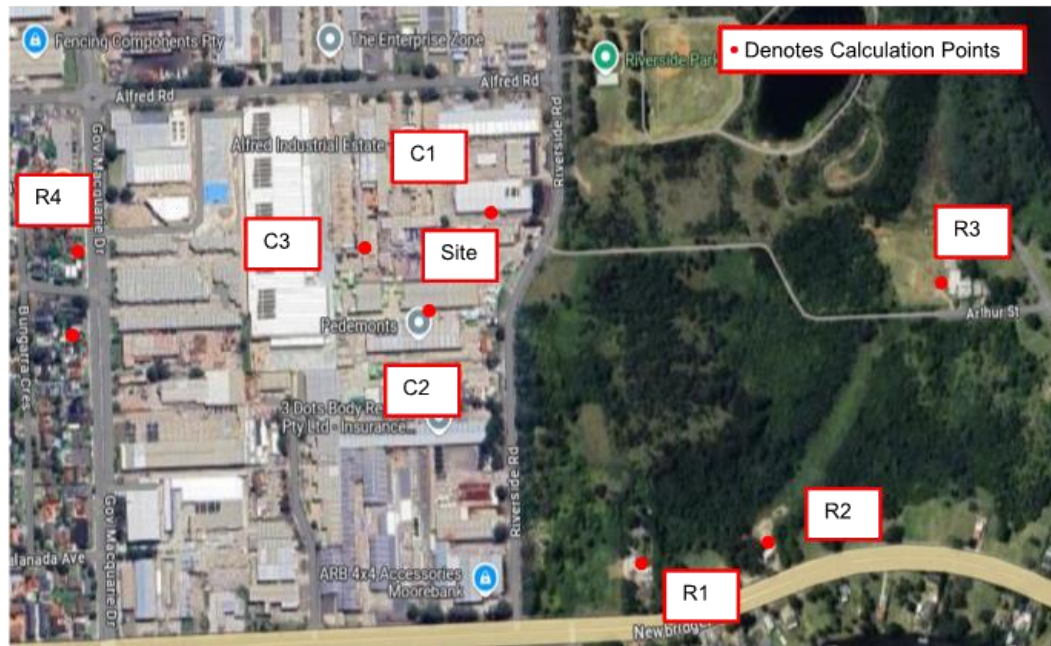


Table 5-2 Sensitive Receivers

Receiver	Number of Levels	Sensitive Receiver's Address
R1	2	85 Newbridge Road
R2	1	69 Newbridge Road
R3	2	1 – 5 Arthur Street
R4	2	30 – 38 Gov Macquarie Drive
C1	3	Australian Consolidated Plumbing
C2	5	24 Riverside Road
C3	1	Trabajo

5.3 Predicted Noise Levels

Predictive resultant noise levels have been calculated for all mechanical plant items. Noise emissions at the nearest residential receivers are presented in the table below. The predicted noise calculations take into account the following:

- Heights of receivers are assumed to be 1.5 meters above respective level.
- Both cranes are operational during the day and evening time periods (worst case scenario)
- Only crane TC2 operates during the night time period
- Resulting noise levels have been calculated to the calculation point (as per Figure 5-1)

Table 5-3 Predicted Noise Levels At Sensitive Receivers.

Receiver	Period	Calculated Noise Level $L_{Aeq} - dB(A)$	Criteria	Compliance
R1	Day	52	52	Yes
	Evening	52	51	Yes*
	Night	47	46	Yes*
R1 Lv 1 Window	Day	52	52	Yes
	Evening	52	51	Yes*
	Night	46	46	Yes
R2	Day	50	52	Yes
	Evening	50	51	Yes
	Night	46	46	Yes
R3	Day	48	52	Yes
	Evening	48	51	Yes
	Night	46	46	Yes
R3 Lv 1 Window	Day	48	52	Yes
	Evening	48	51	Yes
	Night	46	46	Yes

R4	Day	51	52	Yes
	Evening	51	51	Yes
	Night	46	46	Yes
R4 Lv 1 Window	Day	51	52	Yes
	Evening	51	51	Yes
	Night	46	46	Yes
C1	69	When in Use	70	Yes
C2	69		70	Yes
C3	57		70	Yes

* We note that an exceedance of 1 dB(A) is generally regarded as being acoustically insignificant

Table 5-4 Sleep Disturbance Compliance

Receiver	Site Noise Emissions		Criteria		Compliance
	L _{eq} dB(A)	L _{max} dB(A)	L _{eq} dB(A)	L _{max} dB(A)	
R1	47	52	46	56	Yes*
R1 Lv 1 Window	46	51	46	56	Yes
R2	46	51	46	56	Yes
R3	46	51	46	56	Yes
R3 Lv 1 Window	46	51	46	56	Yes
R4	46	51	46	56	Yes
R4 Lv 1 Window	46	51	46	56	Yes

* We note that an exceedance of 1 dB(A) is generally regarded as being acoustically insignificant

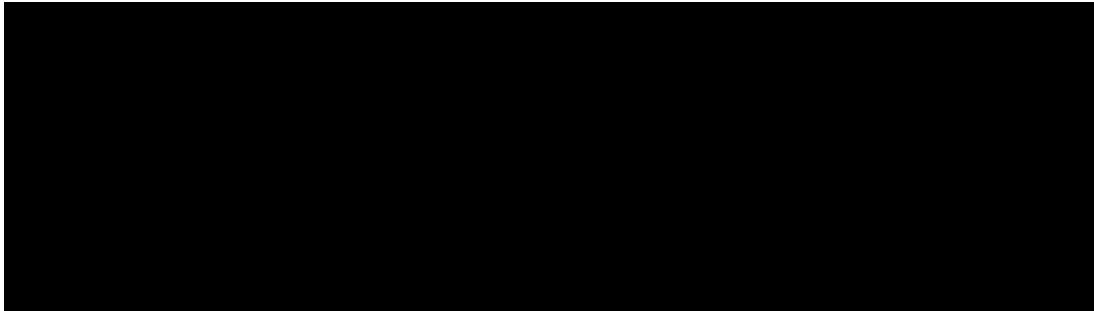


6 CONCLUSION

A noise impact assessment has been conducted in relation to the operation of the proposed crane addition and extension of operational hours at the existing site at 28 Riverside Road, Chipping Norton.

This assessment has been conducted and appropriate noise emission criteria have been established in accordance with Liverpool City Council's requirements.

This report shows that under the most conservative operating scenarios, operational noise emission from the proposed mechanical plant will achieve the established criteria at neighbouring residences.



Appendix A – Acoustic Terminology

A-weighted sound pressure	The human ear is not equally sensitive to sound at different frequencies. People are more sensitive to sound in the range of 1 to 4 kHz (1000 – 4000 vibrations per second) and less sensitive to lower and higher frequency sound. During noise measurement an electronic ' <i>A-weighting</i> ' frequency filter is applied to the measured sound level <i>dB(A)</i> to account for these sensitivities. Other frequency weightings (B, C and D) are less commonly used. Sound measured without a filter is denoted as linear weighted <i>dB(linear)</i> .
Ambient noise	The total noise in a given situation, inclusive of all noise source contributions in the near and far field.
Community annoyance	Includes noise annoyance due to: character of the noise (e.g. sound pressure level, tonality, impulsiveness, low-frequency content) character of the environment (e.g. very quiet suburban, suburban, urban, near industry) miscellaneous circumstances (e.g. noise avoidance possibilities, cognitive noise, unpleasant associations) human activity being interrupted (e.g. sleep, communicating, reading, working, listening to radio/TV, recreation).
Compliance	The process of checking that source noise levels meet with the noise limits in a statutory context.
Cumulative noise level	The total level of noise from all sources.
Extraneous noise	Noise resulting from activities that are not typical to the area. Atypical activities may include construction, and traffic generated by holiday periods and by special events such as concerts or sporting events. Normal daily traffic is not considered to be extraneous.
Feasible and reasonable measures	Feasibility relates to engineering considerations and what is practical to build; reasonableness relates to the application of judgement in arriving at a decision, taking into account the following factors: Noise mitigation benefits (amount of noise reduction provided, number of people protected). Cost of mitigation (cost of mitigation versus benefit provided). Community views (aesthetic impacts and community wishes). Noise levels for affected land uses (existing and future levels, and changes in noise levels).
Impulsiveness	Impulsive noise is noise with a high peak of short duration or a sequence of these peaks. Impulsive noise is also considered annoying.

Low frequency	Noise containing major components in the low-frequency range (20 to 250 Hz) of the frequency spectrum.
Noise criteria	The general set of non-mandatory noise levels for protecting against intrusive noise (for example, background noise plus 5 dB) and loss of amenity (e.g. noise levels for various land use).
Noise level (goal)	A noise level that should be adopted for planning purposes as the highest acceptable noise level for the specific area, land use and time of day.
Noise limits	Enforceable noise levels that appear in conditions on consents and licences. The noise limits are based on achievable noise levels, which the proponent has predicted can be met during the environmental assessment. Exceedance of the noise limits can result in the requirement for either the development of noise management plans or legal action.
Performance-based goals	Goals specified in terms of the outcomes/performance to be achieved, but not in terms of the means of achieving them.
Rating Background Level (RBL)	The rating background level is the overall single figure background level representing each day, evening and night time period. The rating background level is the median value of the lowest 10 th percentile L _{A90} noise level measured over all day, evening and night time monitoring periods.
Receptor	The noise-sensitive land use at which noise from a development can be heard.
Sleep disturbance	Awakenings and disturbance of sleep stages.
Sound and decibels (dB)	Sound (or noise) is caused by minute changes in atmospheric pressure that are detected by the human ear. The ratio between the quietest noise audible and that which should cause permanent hearing damage is a million times the change in sound pressure. To simplify this range the sound pressures are logarithmically converted to decibels from a reference level of 2×10^{-5} Pa. The picture below indicates typical noise levels from common noise sources.



dB is the abbreviation for decibel – a unit of sound measurement. It is equivalent to 10 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure.

**Sound power
Level (SWL)**

The sound power level of a noise source is the sound energy emitted by the source. Notated as SWL, sound power levels are typically presented in $dB(A)$.

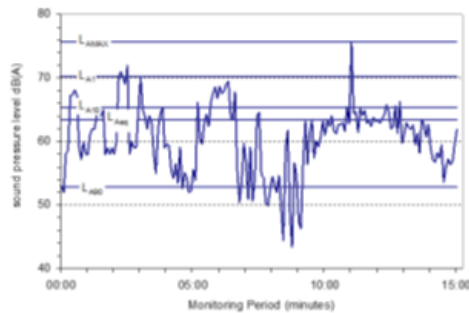
**Sound Pressure
Level (SPL)**

The level of noise, usually expressed as SPL in $dB(A)$, as measured by a standard sound level meter with a pressure microphone. The sound pressure level in $dB(A)$ gives a close indication of the subjective loudness of the noise.

**Statistic noise
levels**

Noise levels varying over time (e.g. community noise, traffic noise, construction noise) are described in terms of the statistical exceedance level.

A hypothetical example of A weighted noise levels over a 15 minute measurement period is indicated in the following figure:



Key descriptors:

L_{Amax} Maximum recorded noise level.

L_{A1} The noise level exceeded for 1% of the 15 minute interval.

L_{A10} Noise level present for 10% of the 15 minute interval. Commonly referred to the average maximum noise level.

L_{Aeq} Equivalent continuous (energy average) A-weighted sound pressure level. It is defined as the steady sound level that contains the same amount of acoustic energy as the corresponding time-varying sound.

L_{A90} Noise level exceeded for 90% of time (background level). The average minimum background sound level (in the absence of the source under consideration).

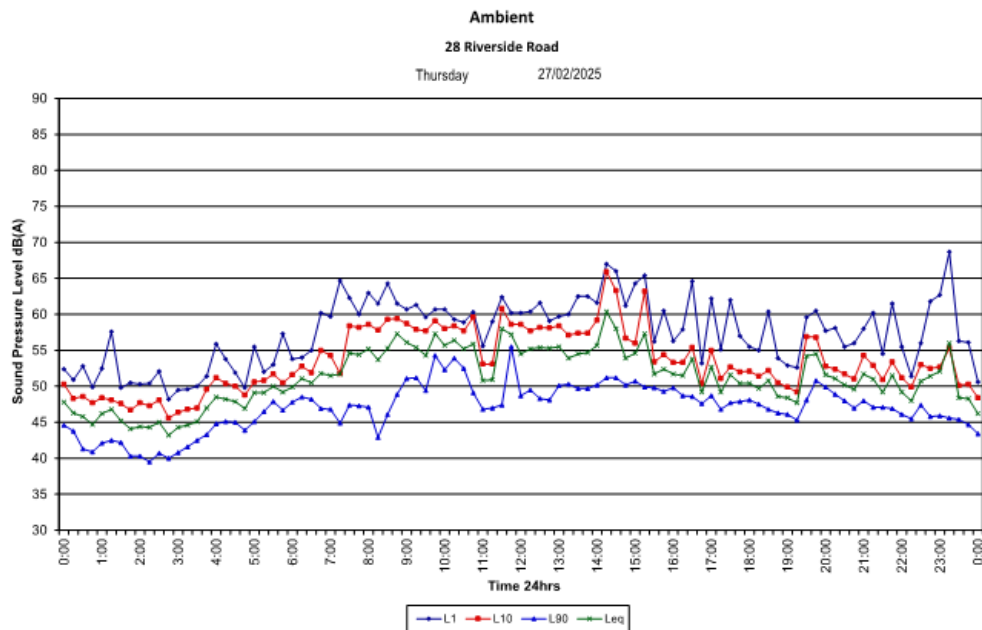
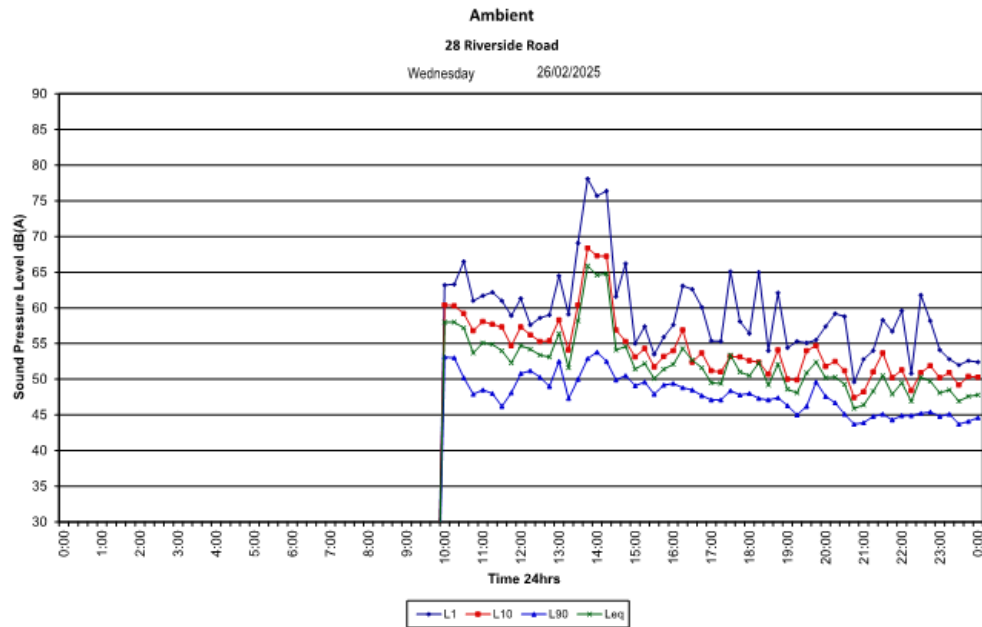
Threshold

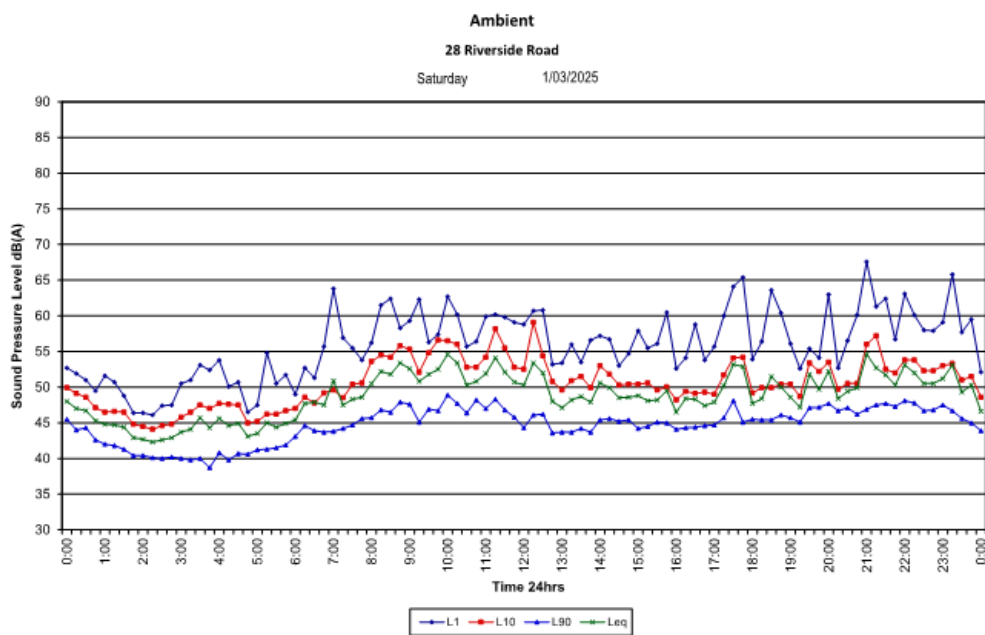
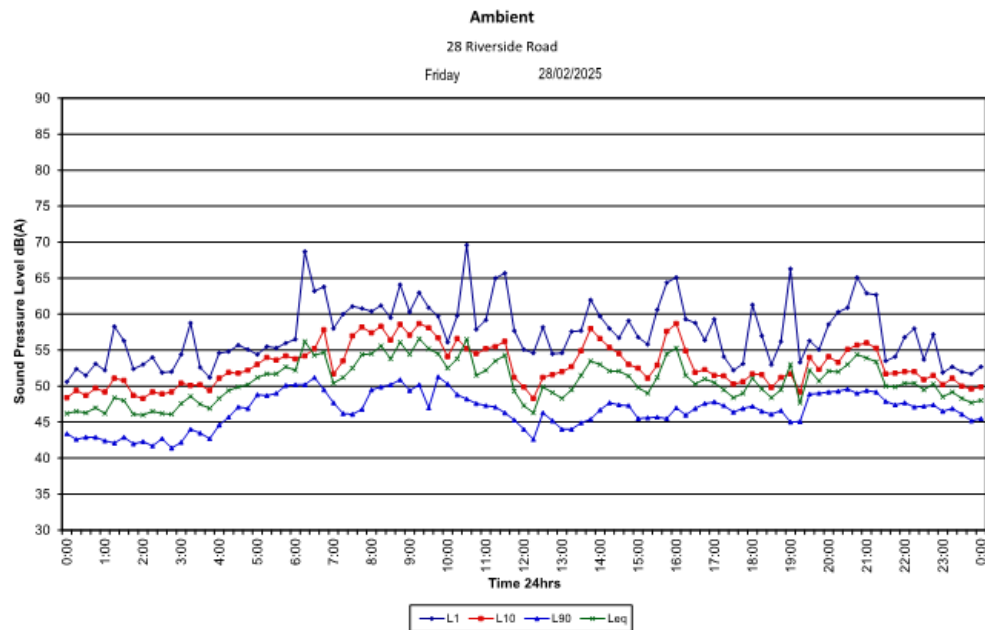
The lowest sound pressure level that produces a detectable response (in an instrument/person).

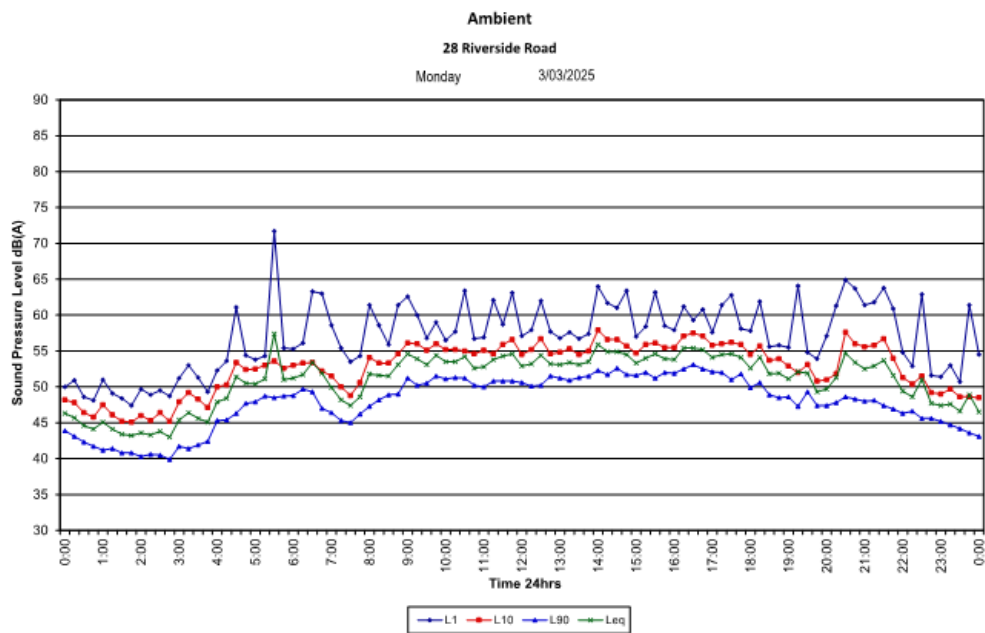
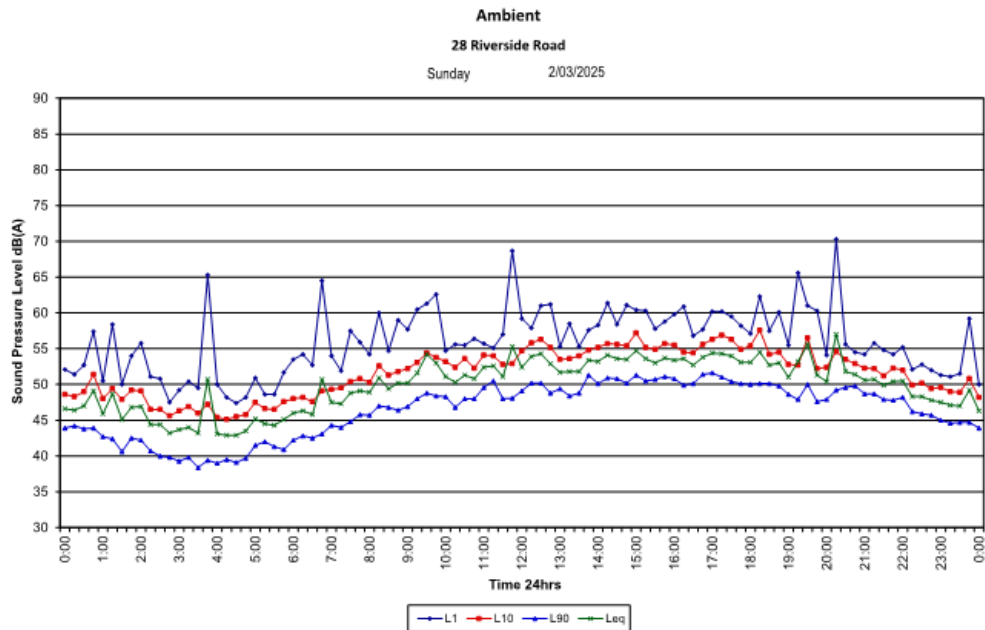
Tonality

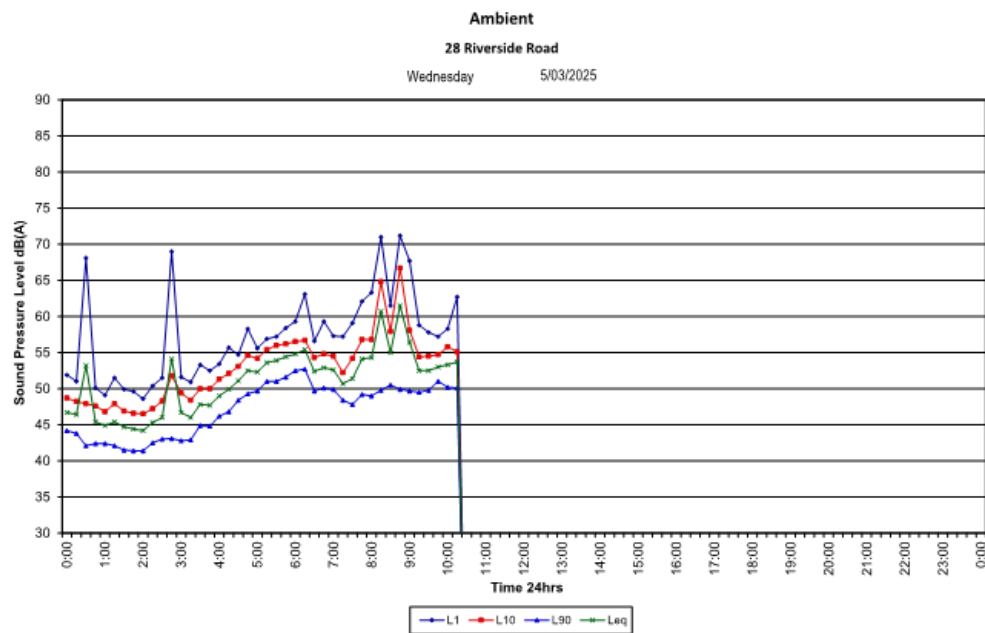
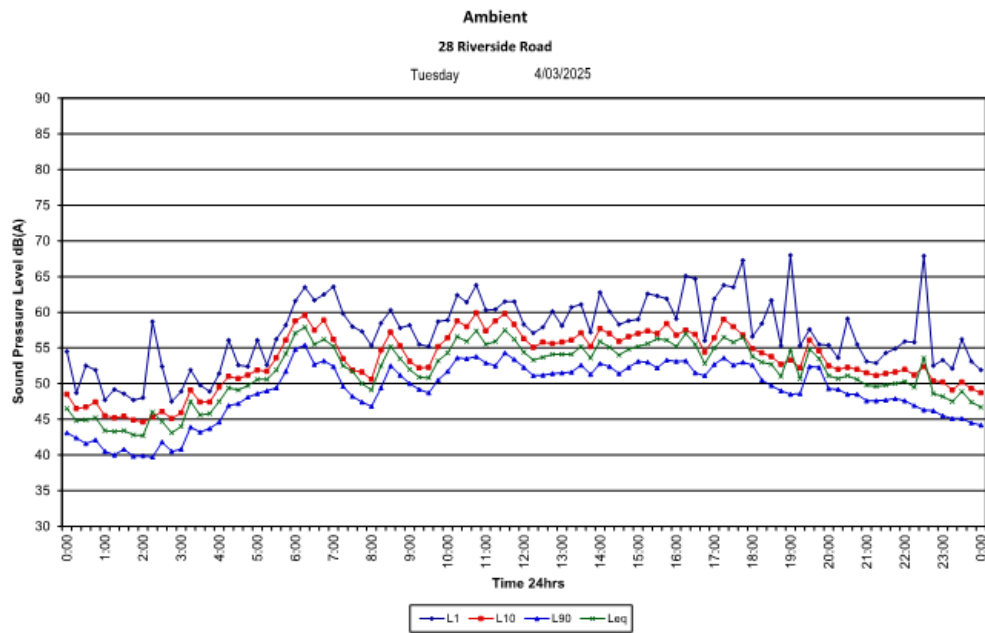
Tonal noise contains one or more prominent tones (and characterised by a distinct frequency components) and is considered more annoying. A 2 to 5 $dB(A)$ penalty is typically applied to noise sources with tonal characteristics

Appendix B – Logger Graphs











Appendix C – Calibration Certificate



**Acoustic
Research
Labs Pty Ltd**

Unit 36/14 Loyalty Rd
North Rocks NSW AUSTRALIA 2151
Ph: +61 2 9484 0800 A.B.N. 65 160 399 119
www.acousticresearch.com.au

Sound Level Meter

IEC 61672-3:2013

Calibration Certificate

Calibration Number C23753

Client Details	Rodney Stevens Acoustics Pty Ltd PO Box 522 Wahroonga NSW 2076
Equipment Tested/ Model Number :	NL-42EX
Instrument Serial Number :	00810779
Microphone Serial Number :	170393
Pre-amplifier Serial Number :	72896
Firmware Version :	2.0
Pre-Test Atmospheric Conditions	Post-Test Atmospheric Conditions
Ambient Temperature : 23 °C	Ambient Temperature : 23.5 °C
Relative Humidity : 41.6 %	Relative Humidity : 42 %
Barometric Pressure : 101.7 kPa	Barometric Pressure : 101.71 kPa
Calibration Technician : Max Moore	Secondary Check: Megan Williams
Calibration Date : 17 Oct 2023	Report Issue Date : 17 Oct 2023

Clause and Characteristic Tested	Result	Clause and Characteristic Tested	Result
12: Acoustical Sig. tests of a frequency weighting	Pass	17: Level linearity incl. the level range control	N/A
13: Electrical Sig. tests of frequency weightings	Pass	18: Toneburst response	Pass
14: Frequency and time weightings at 1 kHz	Pass	19: C Weighted Peak Sound Level	Pass
15: Long Term Stability	Pass	20: Overload Indication	Pass
16: Level linearity on the reference level range	Pass	21: High Level Stability	Pass

The sound level meter submitted for testing has successfully completed the class 2 periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed.

However, no general statement or conclusion can be made about conformance of the sound level meter to the full requirements of IEC 61672-1:2013 because evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1:2013 and because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Uncertainties of Measurement - Environmental Conditions			
Acoustic Tests		Temperature	±0.1 °C
125Hz	±0.13 dB	Relative Humidity	±1.9 %
1kHz	±0.13 dB	Barometric Pressure	±0.014 kPa
8kHz	±0.14 dB		
Electrical Tests	±0.13 dB		

All uncertainties are derived at the 95% confidence level with a coverage factor of 2.



This calibration certificate is to be read in conjunction with the calibration test report.

Acoustic Research Labs Pty Ltd is NATA Accredited Laboratory Number 14172.
Accredited for compliance with ISO/IEC 17025 - Calibration.

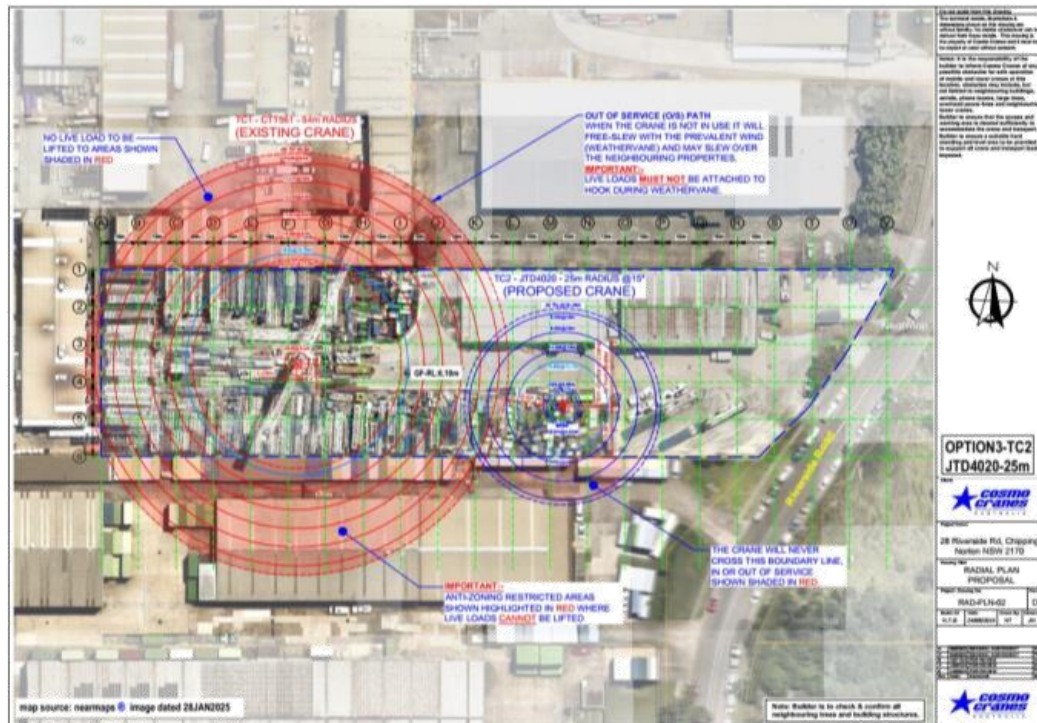
The results of the tests, calibrations and/or measurements included in this document are traceable to SI units.

NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration and inspection reports.

PAGE 1 OF 1



Appendix D – Crane Locations



Without prejudice draft conditions

General Conditions

1. (A950) General Condition

No consent is expressed or implied under Development Consent DA-583/2024 for the existing crane marked TC1 on the approved plans.

Condition reason: To ensure fairness, transparency and probity.

2. (A002) Approved plans and supporting documentation

Development must be carried out in accordance with the following approved plans and documents, except where the conditions of this consent expressly require otherwise.

Approved plans			
Plan Title	Revision	Prepared by	Date of plan
Radial Plan Proposal	C	Cosmo Cranes Australia	04/03/2025
Elevation Proposal	C	Cosmo Cranes Australia	04/03/2025

Approved documents			
Document title	Revision	Prepared by	Date of document
Noise Impact Assessment	Revision 0	Rodney Stevens Acoustics	7/3/2025

In the event of any inconsistency with the approved plans and a condition of this consent, the condition prevails.

Condition reason: To ensure all parties are aware of the approved plans and supporting documentation that applies to the development.

3. (A025) Comply with EP&A Act

The requirements and provisions of the Environmental Planning & Assessment Act 1979 and Environmental Planning & Assessment Regulation 2021, must be fully complied with at all times.

Failure to comply with these legislative requirements is an offence and may result in the commencement of legal proceedings, issuing of 'on-the-spot' penalty infringements or service of a notice and order by Council.

Condition reason: This condition is imposed to ensure compliance with legislative requirements.

4. (A032) Shoring and adequacy of adjoining property

1. This section applies to a development consent for development that involves excavation that extends below the level of the base of the footings of a building, structure or work on adjoining land, including a structure or work in a road or rail corridor.

2. It is a condition of the development consent that the person having the benefit of the development consent must, at the person's own expense—

1. protect and support the building, structure or work on adjoining land from possible damage from the excavation, and

2. if necessary, underpin the building, structure or work on adjoining land to prevent damage from the excavation.

3. This section does not apply if—

1. the person having the benefit of the development consent owns the adjoining land, or

2. the owner of the adjoining land gives written consent to the condition not applying.

Condition reason: Prescribed condition under section 74 of the Environmental Planning and Assessment Regulation 2021.

5. (A040) Compliance with the Building Code of Australia

1. It is a condition of a development consent for development that involves building work that the work must be carried out in accordance with the requirements of the Building Code of Australia.

2. It is a condition of a development consent for development that involves residential building work for which a contract of insurance is required under the Home Building Act 1989, Part 6 that a contract of insurance is in force before building work authorised to be carried out by the consent commences.

3. It is a condition of a development consent for a temporary structure used as an entertainment

Without prejudice draft conditions

	venue that the temporary structure must comply with Part B1 and NSW Part H102 in Volume 1 of the <i>Building Code of Australia</i> .
4.	In subsection (1), a reference to the <i>Building Code of Australia</i> is a reference to the Building Code of Australia as in force on the day on which the application for the construction certificate was made.
5.	In subsection (3), a reference to the <i>Building Code of Australia</i> is a reference to the Building Code of Australia as in force on the day on which the application for development consent was made.
6.	This section does not apply— - to the extent to which an exemption from a provision of the <i>Building Code of Australia</i> or a fire safety standard is in force under the <i>Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021</i>, or - to the erection of a temporary building, other than a temporary structure to which subsection (3) applies.
	Condition reason: Prescribed condition under section 69 of the Environmental Planning and Assessment Regulation 2021.
6.	(A050) Works at no cost to Council
	All roadworks, drainage works and dedications, required to effect the consented development shall be undertaken at no cost to Liverpool City Council.
	Condition reason: To ensure fairness, transparency and probity.
7.	(A060) Erection of signs
1.	This section applies to a development consent for development involving building work, subdivision work or demolition work.
2.	It is a condition of the development consent that a sign must be erected in a prominent position on a site on which building work, subdivision work or demolition work is being carried out— - showing the name, address and telephone number of the principal certifier for the work, and - showing the name of the principal contractor, if any, for the building work and a telephone number on which the principal contractor may be contacted outside working hours, and - stating that unauthorised entry to the work site is prohibited.
3.	The sign must be— - maintained while the building work, subdivision work or demolition work is being carried out, and - removed when the work has been completed.
4.	This section does not apply in relation to— - building work, subdivision work or demolition work carried out inside an existing building, if the work does not affect the external walls of the building, or - Crown building work certified to comply with the Building Code of Australia under the Act, Part 6.
	Condition reason: Prescribed condition under section 70 of the Environmental Planning and Assessment Regulation 2021.

Building Work Before Issue of a Construction Certificate

8.	(B008) Housing and Productivity Contribution
	Before the issue of a relevant construction certificate, the applicant is to make a Housing and Productivity Contribution payment through the NSW Planning Portal.
	Condition reason: To ensure fairness, transparency and probity.
9.	(B075) Fee Payments
	Unless otherwise prescribed by this consent, all relevant fees or charges must be paid. Where Council does not collect these payments, copies of receipts must be provided. The following fees are applicable and payable:
(a)	Damage Inspection Fee – relevant where the cost of building work is \$20,000 or more, or a swimming pool is to be excavated by machinery.
(b)	Fee associated with Application for Permit to Carry Out Work Within a Road, Park and Drainage

Without prejudice draft conditions	
	Reserve.
	These fees are reviewed annually and will be calculated accordingly.
	Condition reason: To ensure statutory or associated fees are paid prior to construction commencing.
10.	(B081) Site Development Work
	Site development work in the form of excavation, underpinning or shoring works must not take place, until such time as a CC has been issued.
	Condition reason: To prevent unauthorised commencement of building works.
11.	(B112) Notification
	In the event that Council is not the Principal Certifier (PC), the PC must advise Council, in writing of:
	(a) The name and contractor licence number of the licensee who has contracted to do or intends to do the work, or
	(b) The name and permit of the owner-builder who intends to do the work.
	If these arrangements are changed, or if a contract is entered into for the work to be done by a different licensee, Council must be immediately informed.
	Condition reason: To advise Council of the details of licensed contractors or owner-builder for the approved development.
12.	(B125) Erosion and sediment control plan
	Before the issue of a Construction Certificate, an erosion and sediment control plan must be prepared by a suitably qualified person in accordance with the following documents and provided to the satisfaction of the PCA. The plan shall conform to:
	1. Council's relevant development control plan,
	2. the guidelines set out in 'Managing Urban Stormwater: Soils and Construction' prepared by Landcom (the Blue Book) (as amended from time to time), and
	3. the 'Do it Right On-Site, Soil and Water Management for the Construction Industry' (Southern Sydney Regional Organisation of Councils and the Natural Heritage Trust) (as amended from time to time).
	Condition reason: To ensure no substance other than rainwater enters the stormwater system and waterways.
13.	(B149) S138 Roads Act - Minor Works in the public road
	Prior to the issue of a Construction Certificate, a Section 138 Roads Act application/s, including payment of fees, shall be lodged with Liverpool City Council, as the Roads Authority for any works required in a public road. These works may include but are not limited to:
	(a) Vehicular crossings (including kerb reinstatement of redundant vehicular crossings),
	(b) Road opening for utilities and stormwater (including stormwater connection to Council infrastructure), or
	(c) Road occupancy or road closures.
	All works shall be carried out in accordance with the Roads Act approval, the development consent including the stamped approved plans, and Liverpool City Council's specifications.
	Note: Approvals may also be required from the Transport for NSW for classified roads.
	Condition reason: To ensure fairness, transparency and probity.
14.	(B360) Construction Environmental Management Plan (CEMP)
	Prior to issue of a construction certificate, a Construction Environmental Management Plan (CEMP) for the development must be provided to the Principal Certifying Authority for approval. The environmental site management measures must remain in place and be maintained throughout the period of the development. The CEMP must address all environmental aspects of the development's construction phases, and include (where relevant), but not be limited to, the following:

Without prejudice draft conditions

1. Asbestos Management Plan;
2. Project Contact Information;
3. Site Security Details;
4. Timing and Sequencing Information;
5. Site Soil and Water Management Plan;
6. Noise and Vibration Control Plan;
7. Dust Control Plan;
8. Air Monitoring;
9. Odour Control Plan;
10. Health and Safety Plan;
11. Waste Management Plan;
12. Incident management Contingency; and
13. Unexpected Finds Protocol.

The CEMP must be kept on site for the duration of the works and must be made available to Council Officers upon request

Condition reason: To require details of measures that will protect the public, and the surrounding environment, during site works and construction.

15. (B361) Construction Site Management Plan

Before the issue of a construction certificate, a construction site management plan must be prepared, and provided to the principal certifier. The plan must include the following matters:

1. The location and materials for protective fencing and hoardings on the perimeter of the site;
2. Provisions for public safety;
3. Pedestrian and vehicular site access points and construction activity zones;
4. Details of construction traffic management including:
 - Proposed truck movements to and from the site;
 - Estimated frequency of truck movements; and
 - Measures to ensure pedestrian safety near the site;
5. Details of bulk earthworks to be carried out;
6. The location of site storage areas and sheds;
7. The equipment used to carry out works;
8. The location of a garbage container with a tight-fitting lid;
9. Dust, noise and vibration control measures;
10. The location of temporary toilets;
11. The protective measures for the preservation of trees on-site and in adjoining public areas including measures in accordance with:
 - AS 4970 – Protection of trees on development sites;
 - An applicable Development Control Plan;
 - An arborist's report approved as part of this consent

A copy of the construction site management plan must be kept on-site at all times while work is being carried out.

Condition reason: To require details of measures that will protect the public, and the surrounding environment, during site works and construction.

16. (B450) Stormwater Discharge - Minor Development

Stormwater drainage from the site shall be discharged to the:

- (a) Street drainage system,
- (b) Common drainage line,
- (c) Liverpool City Council's trunk drainage system within the property,
- (d) Existing site drainage system,
- (e) Level spreader system, or
- (f) Other

The proposed development and stormwater drainage system shall be designed to ensure no adverse impact on adjoining properties by the diversion, damming or concentration of stormwater flows.

Without prejudice draft conditions

	The proposed method of stormwater discharge shall be detailed in the Construction Certificate issued by the Certifying Authority.
	Condition reason: To ensure fairness, transparency and probity.
17.	(B532) Waste Management Plan requirements
	Before the issue of a Construction Certificate, a waste management plan for the development must be prepared and provided to the principal certifier. The plan must be prepared in accordance with 1. the Environment Protection Authority's Waste Classification Guidelines as in force from time to time; and 2. a development control plan that provides for waste management that applies to the land on which the work or the clearing of vegetation is carried out; and 3. include the following information - • the contact details of the person removing waste; • an estimate of the type and quantity of waste; • whether waste is expected to be reused, recycled or sent to landfill; • the address of the disposal location for waste. A copy of the waste management plan must be kept on-site at all times while work approved under the development consent is being carried out.
	Condition reason: To ensure resource recovery is promoted and local amenity protected during construction.

Before Building Work Commences

18.	(C005) Construction Certificates
	Prior to the commencement of any building works, the following requirements must be complied with: (a) Construction Certificate must be obtained from the Council or an Accredited Certifier, in accordance with the provisions of the Environmental Planning & Assessment Act 1979, (b) Where a Construction Certificate is obtained from an Accredited Certifier, the applicant shall advise Council of the name, address and contact number of the Accredited Certifier, in accordance with Section 4.19, 6.6, 6.7, 6.12, 6.13, 6.14 of the Act, (c) A copy of the Construction Certificate, the approved development consent plans and consent conditions must be kept on the site at all times and be made available to the Council officers and all building contractors for assessment, (d) A Principal Certifier (PC) must be appointed to carry out the necessary building inspections and to issue an occupation certificate, and (e) The PC must advise Council of the intended date to commence work which is the subject of this consent by completing a notice of commencement of building works or subdivision works form, available from Council's Customer Service Centre. A minimum period of two (2) working days' notice must be given.
	Condition reason: To require approval to proceed with building work.
19.	(C010) Construction Certificates
	Any Construction Certificate that may be issued in association with this development consent must ensure that any certified plans and designs are generally consistent (in terms of site layout, site levels, building location, size, external configuration and appearance) with the approved Development Application plans.
	Condition reason: To ensure details and plans for CC are consistent with the approved DA.
20.	(C012) Commencement of building works
	Building work shall not commence prior to the issue of a Construction Certificate. Building work as defined under Section 1.4 of the Environmental Planning and Assessment Act, 1979 means any physical activity involved in the erection of a building and includes but is not limited to, the placement of any site shed/s or builders facilities, site grading, retaining walls, excavation, cutting trenches, installing formwork and steel reinforcement or, placing of plumbing lines.
	Condition reason: To require approval to proceed with building work.

Without prejudice draft conditions

21. (C055) Site Facilities	Adequate refuse disposal methods and builders storage facilities shall be installed on the site. Builders' wastes, materials or sheds are not to be placed on any property other than that which this approval relates to. Condition reason: To ensure the required site management measures are implemented before the commencement of building work.
22. (C065) Sydney Water	Development plans must be processed and approved by Sydney Water. Condition reason: To require Sydney Water approval to proceed with building work.
23. (C070) "DIAL BEFORE YOU DIG"	Underground assets may exist in the area that is subject to your application. In the interest 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 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 contact 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. Condition reason: To ensure building works do not impact local underground assets.
24. (C117) Erosion and sediment controls in place	Before any site work commences, the principal certifier must be satisfied the erosion and sediment controls in the erosion and sediment control plan are in place. These controls must remain in place until any bare earth has been restabilised in accordance with 'Managing Urban Stormwater: Soils and Construction' prepared by Landcom (the Blue Book) (as amended from time to time). Condition reason: To ensure sediment laden runoff and site debris do not impact local stormwater systems and waterways.
25. (C155) Work Zone	A Works Zone application is required if on-street parking is affected with commuter parking and there is insufficient off-street parking space. A Works Zone Application Form is available on Council website and can be lodged online by attaching all required documents indicated on the application form. Condition reason: To ensure that road occupancy is approved by council to minimise traffic impacts on the road.
26. (C466) Dilapidation report	Before any site work commences, a dilapidation report of all infrastructure fronting the development in Riverside Road is to be submitted to Liverpool City Council. The report is to include, but not limited to, the road pavement, kerb and gutter, footpath, services and street trees and is to extend 20m either side of the development and public land for comparison as site work progresses and is completed and ensure neighbours and Council are provided with the dilapidation report. Condition reason: To establish and document the structural condition of adjoining properties and public land for comparison as site work progresses and is completed and ensure neighbours and council are provided with the dilapidation report.

During Building Work

27. (D005) Building Work	The building works must be inspected by the Principal Certifier (PC), in accordance with Sections 6.5 of the Environmental Planning & Assessment Act 1979, to monitor compliance with the relevant standards of construction, Council's development consent and the construction certificate.
--------------------------	--

Without prejudice draft conditions

	Condition reason: To require stage inspection and approval by the PC in accordance with EP & A Regulation clause 162A.
28.	(D028) Responsibility for changes to public infrastructure
	While site work is being carried out, any costs incurred as a result of the approved removal, relocation or reconstruction of infrastructure (including ramps, footpaths, kerb and gutter, light poles, kerb inlet pits, service provider pits, street trees or any other infrastructure in the street footpath area) must be paid as directed by the consent authority.
	Condition reason: To ensure payment of approved changes to public infrastructure.
29.	(D038) Toilet Facilities
	Toilet facilities must be available or provided at the work site and must be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site. Each toilet must:
	(a) be a standard flushing toilet connected to a public sewer, or
	(b) have an on-site effluent disposal system approved under the Local Government Act 1993, or
	(c) be a temporary chemical closet approved under the Local Government Act 1993.
	Condition reason: To ensure the required site management measures are implemented during construction.
30.	(D045) Hours of work
	Site work must only be carried out between the following times –
	From 7am to 6pm on Monday to Friday
	From 8am to 1pm on Saturday
	Site work is not to be carried out outside of these times or on public holidays except where there is an emergency, or for urgent work directed by a police officer or a public authority.
	Condition reason: To protect the amenity of the surrounding area.
31.	(D049) Security Fence
	A temporary security fence to WorkCover Authority requirements is to be provided to the property during the course of construction.
	Note: Fencing is not to be located on Council's reserve area.
	Condition reason: To ensure the required site management measures are implemented during construction.
32.	(D055) Refuse Disposal
	Adequate refuse disposal methods and builders storage facilities shall be installed on the site. Builders' wastes, materials or sheds are not to be placed on any property other than that which this approval relates to.
	Condition reason: To ensure the required site management measures are implemented during construction.
33.	(D061) Craning and Hoardings
	Lifting or craning materials over a public footway or roadway is not permitted unless a "B" class construction hoarding has been installed in compliance with work cover authority requirements.
	Condition reason: To require details of measures that will protect the public, and the surrounding environment, during site works and construction.
34.	(D063) Craning and Hoardings
	If the work is likely to cause pedestrian or vehicular traffic in a public area to be obstructed or rendered inconvenient; or if craning of materials is to occur across a public or road reserve area, a separate Road Occupancy Certificate and/or Hoarding approval must be obtained from Liverpool City Council prior to undertaking the works.
	Condition reason: To ensure the required traffic management measures are implemented during construction.

Without prejudice draft conditions

35. (D070) Notification of Damage	The applicant/ builder shall be responsible to report to the Council of any damage to Council's footpath and road carriageway as a consequence of demolition or excavation or building activities or delivery/ departure of materials associated with this site and maintained the area until completion of the construction activities. Arrangements to the satisfaction of Council are to be made for making safe by temporary repairs to Council's footpath and road carriageway until permanent restoration and repair can be organised with Council at the applicant's cost. Condition reason: To ensure any damage to public infrastructure is rectified.
36. (D100) General Site Works - Surface Contours	Alterations to the natural surface contours must not impede or divert natural surface water runoff, so as to cause a nuisance to adjoining property owners. Condition reason: To protect the amenity of the neighbourhood.
37. (D105) General Site Works	All roofwater is to be connected to an approved stormwater system. Condition reason: To ensure environmental impacts and impacts to neighbouring properties are minimised.
38. (D110) General Site Works	Stormwater pipeline connections to the street kerb shall be constructed in the following manner: (a) the kerb shall be sawcut on both sides of the proposed pipe outlet. (b) an approved rectangular kerb adaptor shall be installed with the base matching the invert level of the gutter. (c) the kerb shall be reinstated to its original profile using a cement mortar containing an epoxy additive for adherence to the existing kerb. Condition reason: To ensure any alteration to Council infrastructure is to a suitable standard.
39. (D115) General Site Works - Existing Hydrology	Existing hydrological regimes shall be maintained so as not to negatively impact vegetation to be retained on site and downslope/downstream of the site. Condition reason: To minimise impacts to adjacent vegetation and habitat.
40. (D120) General Site Works - Runoff	Any runoff entering the areas of vegetation to be retained shall be of an equivalent or better quality, and of a similar rate of flow to present levels. Condition reason: To minimise impacts to adjacent vegetation and habitat.
41. (D125) General Site Works - Sediment	The development, including construction, shall not result in any increase in sediment deposition into any water body, wetland, bushland or environmentally significant land. Condition reason: To minimise impacts to adjacent vegetation and habitat.
42. (D130) Removal of dangerous and/or hazardous waste	All dangerous and/or hazardous material must be removed by a suitably qualified and experienced contractor licensed by SafeWork NSW. The removal of such material must be carried out in accordance with the requirements of SafeWork NSW and the material must be transported and disposed of in accordance with NSW Environment Protection Authority requirements. Condition reason: To ensure safe removal and disposal of dangerous and/or hazardous material.
43. (D170) Council On Street Assets	Council's on-street assets and local road network are to be protected and kept in a serviceable state at all times. At the direction of Council, the applicant/project manager shall undertake remediation works, at no cost to Council and to Council's satisfaction. Condition reason: To ensure that the development covers all required costs associated with the development.

Without prejudice draft conditions

44.	(D180) Waste management While site work is being carried out: - all waste management must be undertaken in accordance with the waste management plan; and - upon disposal of waste, records of the disposal must be compiled and provided to principal certifier, detailing the following: - The contact details of the person(s) who removed the waste; - The waste carrier vehicle registration; - The date and time of waste collection; - A description of the waste (type of waste and estimated quantity) and whether the waste is to be reused, recycled or go to landfill; - The address of the disposal location(s) where the waste was taken; - The corresponding tip docket/receipt from the site(s) to which the waste is transferred, noting date and time of delivery, description (type and quantity) of waste. If waste has been removed from the site under an EPA Resource Recovery Order or Exemption, records in relation to that Order or Exemption must be maintained and provided to the principal certifier and Council. Condition reason: To require records to be provided, during site work, documenting the lawful disposal of waste.
45.	(D190) Discovery of relics and Aboriginal objects While site work is being carried out, if a person reasonably suspects a relic of Aboriginal object is discovered: - the work in the area of the discovery must cease immediately; - the following must be notified - for a relic – the Heritage Council; or - for an Aboriginal object – the person who is the authority for the protection of Aboriginal objects and Aboriginal places in New South Wales under the National Parks and Wildlife Act 1974, section 85. Site work may recommence at a time confirmed in writing by: - for a relic – the Heritage Council; or - for an Aboriginal object – the person who is the authority for the protection of Aboriginal objects and Aboriginal places in New South Wales under the National Parks and Wildlife Act 1974, section 85. Condition reason: To ensure the protection of objects of potential significance during works.
46.	(D205) Vegetation - Existing Vegetation All existing trees and areas of native vegetation not identified for removal on approved plans of the proposed development shall be protected from damage during site works. This protection shall consist of 1800mm high protective fencing, securely installed beneath the outer canopy of any tree to be retained. Trees may be fenced off in clusters where it is not practical to fence off individual trees. There shall be no storing materials, washing machinery or changes to existing soil levels within the fenced areas. Condition reason: To minimise impacts to adjacent vegetation and habitat.
47.	(D240) Vegetation - Weeds No known environmental weeds or known invasive plant species shall be included in the landscaping or revegetation. Hygiene practices shall be employed to avoid the spread of invasive plants. Condition reason: To limit the spread of weeds.
48.	(D250) Vegetation - Mulch Mulch generated from exotic trees or other weed species cleared shall not be used on site. It shall be removed from the site and disposed of appropriately and in accordance with legislative requirements. Condition reason: To limit the spread of weeds.
49.	(D275) Hygiene and contamination

Without prejudice draft conditions

	Imported mulch and soils will be certified and free of any disease and pathogens and tested to ensure they meet the standards of drainage, particle size, purity, and consistency.
	Condition reason: To minimise the spread of disease and pathogens.
50.	(D335) External Lighting
	Any external lighting is to incorporate full cut-off shielding and is to be mounted so as to not cause any glare or spill over light nuisance within the development, neighbouring properties or road users.
	Condition reason: To protect the amenity of the neighbourhood.
51.	(D426) Soil management
	While site work is being carried out, the principal certifier must be satisfied all soil removed from or imported to the site is managed in accordance with the following requirements:
	1. All excavated material removed from the site must be classified in accordance with the EPA's Waste Classification Guidelines before it is disposed of at an approved waste management facility and the classification and the volume of material removed must be reported to the principal certifier. 2. All fill material imported to the site must be: • Virgin Excavated Natural Material as defined in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i>; or • a material identified as being subject to a resource recovery exemption by the NSW EPA; or • a combination of Virgin Excavated Natural Material as defined in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> and a material identified as being subject to a resource recovery exemption by the NSW EPA.
	Condition reason: To ensure soil removed from the site is appropriately disposed of and soil imported to the site is not contaminated and is safe for future occupants.
52.	(D430) Unidentified Contamination
	Any new information which arises during remediation, demolition or construction works that has the potential to alter previous conclusions about site contamination and remediation must be immediately notified in writing to the certifier and Liverpool City Council.
	A section 4.55 Application under the Environmental Planning and Assessment Act 1979 must be made for any proposed works outside the scope of the approved development consent.
	Condition reason: To ensure the suitability of land for the development.
53.	(D445) Air Quality
	Dust screens shall be erected and maintained in good repair around the perimeter of the subject land during land clearing, demolition, and construction works.
	Condition reason: To ensure fairness, transparency and probity.
54.	(D450) Air Quality
	During construction where operations involve excavation, filling or grading of land, or removal of vegetation, including ground cover, the consent holder is to ensure dust is suppressed by regular watering until such time as the soil is stabilised to prevent airborne dust transport. Where wind velocity exceeds five knots the Principal Certifier may direct that work is not to proceed.
	Condition reason: To ensure site works are managed appropriately and do not result in air pollution.
55.	(D460) Salinity
	The development shall be carried out in accordance with 'Appendix B' of the Liverpool Growth Precincts Development Control Plan 2013.
	The development shall be carried out in accordance with Part 1, Section 11 'Salinity Risk' of the Liverpool Development Control Plan 2008.
	Condition reason: To ensure that all construction work is undertaken to an approved standard.
56.	(D475) Imported Fill Material

Without prejudice draft conditions

	During construction the consent holder is to ensure fill imported on to the site is be compatible with the existing soil characteristic for site drainage purposes.
	Condition reason: To ensure soils introduced onsite do not result in drainage issues.
57.	(D552) Implementation of the site management plans
	While site work is being carried out:
	1. the measures required by the construction site management plan and the erosion and sediment control plan (plans) must be implemented at all times; and
	2. a copy of these plans must be kept on site at all times and made available to Council officers upon request.
	Condition reason: To ensure site management measures are implemented during the carrying out of site work.
58.	(D553) Erosion & Sediment Control
	Erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised. All disturbed areas shall be progressively stabilised and/or revegetated so that no areas remain exposed to potential erosion damage for a period of greater than 14 days.
	Condition reason: To ensure fairness, transparency and probity.
59.	(D554) Erosion & Sediment Control
	The developer is to maintain all adjoining public roads to the site in a clean and tidy state, free of excavated "spoil" material.
	Condition reason: To ensure fairness, transparency and probity.
60.	(D560) Erosion Control
	Vehicular access to the site shall be controlled through the installation of wash down bays or shaker ramps to prevent tracking of sediment or dirt onto adjoining roadways. Where any sediment is deposited on adjoining roadways is shall be removed by means other than washing. All material is to be removed as soon as possible and the collected material is to be disposed of in a manner which will prevent its mobilisation.
	Condition reason: To ensure the required site management measures are implemented during construction.
61.	(D565) Water Quality
	During construction the consent holder is to ensure all topsoil, sand, aggregate, spoil or any other material that can be moved by water is stored clear of any drainage line, easement, water body, stormwater drain, footpath, kerb or road surface.
	Condition reason: To ensure site works are managed appropriately and do not result in water pollution.
62.	(D570) Pollution Control - Site Operations
	During construction, building operations including but not limited to brick cutting, mixing mortar and the washing of tools, paint brushes, form-work, concrete trucks and the like must not be performed on the public footway or any other locations which may lead to the discharge of materials into Council's stormwater drainage system.
	Condition reason: To mitigate potential risks to the environment during construction and facilitate compliance with legislative requirements.
63.	(D574) Pollution Control - Truck Movements
	The loading and unloading of all vehicles associated with the development must be undertaken within the property boundary of the premises subject to this consent.
	Measures must be implemented to prevent tracking of sediment by vehicles onto roads.
	Vehicle loads must be covered when entering and exiting the site with material.
	Condition reason: To mitigate potential risks to the environment during construction and facilitate compliance with legislative requirements.

Without prejudice draft conditions

64.	(D584) Skeletal Remains
	In the event that skeletal remains are uncovered, work must cease immediately in that area and the area secured. NSW Police must be contacted and no further action taken until written advice has been provided by the NSW Police. If the remains are determined to be of Aboriginal origin, the Office of Environment and Heritage must be notified by ringing the Enviroline 131 555 and a management plan prior to works re-commencing must be developed in consultation with relevant Aboriginal stakeholders.
	Condition reason: To ensure fairness, transparency and probity.
65.	(D600) Correct waste separation and removal
	All demolition, excavation and construction wastes must be separated as they are generated and kept in separate spoil piles, bays, builder's skips and/or site bins. No wastes other than those noted on the approved waste management plan as being re-used on site, are to be left on site after the completion of the works.
	Condition reason: To ensure that separation of waste by type is undertaken in an ongoing basis throughout the building process, and that the wastes are kept separate and not mixed, to facilitate waste management and recycling.
66.	(D605) Containment of site wastes during building
	All demolition, excavation or construction wastes, e.g. wrapping, packaging materials, bags, insulation, sand, soil etc., must be kept fully enclosed at all times to prevent them from becoming displaced in strong wind conditions or from washing into sewers, storm drains or creeks, or onto adjacent properties or public land during wet weather.
	Condition reason: To ensure that waste materials from the demolition, excavation or construction are kept appropriately contained on site, irrespective of weather conditions, and do not make their way into the environment as pollutants.
67.	(D650) Noise and vibration - an approved document of this consent
	While site work is being carried out, noise generated from the site must be controlled in accordance with the requirements of the approved noise and vibration management plan.
	Condition reason: To protect the amenity of the neighbourhood during construction.

Before Issue of an Occupation Certificate

68.	(E005) Certificates
	The premises must not be occupied until an Occupation Certificate (OC) is issued by the certifier. Copies of all documents relied upon for the issue of the OC must be attached to the OC and registered with Council.
	Condition reason: To ensure the development is in accordance with the approval and the use meets health, safety and amenity provisions.
69.	(E010) Certificates
	All required documentary evidence for the critical stage inspections carried out prior, during and at the completion of construction, must be submitted to Council together with the required registration fee payment.
	Condition reason: To ensure the use meets health, safety and amenity provisions.
70.	(E026) Removal of Waste Upon Completion
	Before the issue of an Occupation Certificate:
	1. all refuse, spoil and material unsuitable for use on-site must be removed from the site and disposed of in accordance with the approved waste management plan; and
	2. written evidence of the waste removal must be provided to the satisfaction of the principal certifier.
	Condition reason: To ensure waste material is appropriately disposed or satisfactorily stored.
71.	(E037) Liverpool City Council clearance - Roads Act/ Local Government Act

Without prejudice draft conditions

	Prior to the issue of an Occupation Certificate, the Principal Certifying Authority shall ensure that all works associated with a S138 Roads Act approval or S68 Local Government Act approval have been inspected and signed off by Liverpool City Council. Condition reason: To ensure fairness, transparency and probity.
72. (E250) Mechanical Ventilation Certification	Upon completion of works and before the issue of any occupation certificate, a Mechanical Ventilation Certificate of Completion and Performance prepared by a professional engineer or other suitably qualified person must be submitted to certifier for their review and approval. The certification must be accompanied by details of the tests carried out in relation to ventilation and acoustics and confirm that the systems comply with the approved plans, specifications, Building Code of Australia and Australian Standard AS 1668 Parts 1 and 2. Condition reason: To facilitate compliance with legislative requirements.
73. (E408) Rectification of Damage	Prior to the issue of an Occupation Certificate, any damage to Council infrastructure not identified in the dilapidation report, as a result of the development shall be rectified at no cost to Liverpool City Council. Any rectification works within Riverside Road, Chipping Norton will require a Roads Act application. The application is to be submitted and approved by Liverpool City Council prior to such works commencing. Condition reason: To ensure fairness, transparency and probity.
74. (E436) Dilapidation Report	Any rectification works required by Council regarding the condition of Council infrastructure shall be undertaken, at full cost to the developer. Condition reason: To ensure fairness, transparency and probity.

Occupation and Ongoing use

75. (G065) Unreasonable Noise and Vibration	The use of the premises and/or machinery equipment installed must not give rise to offensive noise so as to interfere with the amenity of the neighbouring properties. Should an offensive noise complaint be received by Liverpool City Council, an acoustic assessment must be undertaken by a suitably qualified acoustic consultant and a report must be submitted to Liverpool City Council for review upon request. Any noise attenuation recommendations approved by Liverpool City Council must be fully implemented and verified in writing by a suitably qualified acoustic consultant. Note: The 'suitably qualified acoustic consultant' must be a member of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm. Condition reason: To mitigate potential offensive noise and amenity impacts.
76. (G250) Operating hours	The premises is able to operate 24 hours a day, 7 days a week. Condition reason: To protect the amenity of the local area
77. (G260) Deliveries and waste collection times for food and drink and mixed use developments	During ongoing use, all deliveries, waste and recycling collection carried out by heavy vehicles/vehicles: - are undertaken only from 9am - 5pm Monday - Friday. - only occur in designated loading and unloading areas on the property; - do not occur on the street; - do not obstruct other operations; - minimise disruption to public spaces;

Without prejudice draft conditions

	6. maintain a clear service vehicle dock, car parking spaces and access driveways at all times; and 7. all vehicles must enter and leave in a forward direction.
	Condition reason: To ensure deliveries to the premises are carried out safely and protect the amenity of the local area
78.	(G263) Additional requirements during operating hours
	During ongoing use of the premises:
	1. Both cranes (TC1 and TC2) may be operational during the day and evening time periods (7am - 6pm Monday to Saturday and 8am - 6pm Sundays and Public Holidays and 6pm - 10pm Monday - Sunday). 2. Only crane TC2 is to operate during the night time period (10pm - 7am Monday - Saturday and 10pm - 8am Sundays and Public Holidays).
	Condition reason: To protect the amenity of the local area
79.	(G340) Noise Complaints register
	The operator must keep a legible record of all complaints received in an up-to date Complaints Register. The Complaints Register must record, but not necessarily be limited to:
	(a) the date and time, where relevant, of the complaint; (b) the means by which the complaint was made (telephone, mail or email); (c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect; (d) the nature of the complaint; (e) any action(s) taken by the Applicant in relation to the complaint, including any follow-up contact with the complainant; and if no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken. (f) allocate an individual "complaint number" to each complaint received.
	The Complaints Register must be made available for inspection when requested by Liverpool City Council.
	The industry must be operated in accordance with the approved Noise Management Plan and Complaints Handling Procedure at all times.
	Condition reason: To mitigate potential impacts associated with the development and establish a procedure for responding to enquiries.
80.	(G345) Lighting
	Illumination of the site must be arranged in accordance with the requirements and specifications of AS 4282:2019 - Control of obtrusive effects of outdoor lighting so as not to impact upon the amenity of the occupants of adjoining and nearby premises.
	Condition reason: To mitigate potential lighting impacts and protect the amenity of the surrounding area.
81.	(G390) Noise - General
	Noise associated with the use of the premises, including mechanical plant and equipment, must not give rise to any one or more of the following:
	(a) The use of the premises including the cumulative operation of any mechanical plant, equipment, public address system or other amplified sound equipment must not give rise to the emission of 'offensive noise' as defined by the Protection of the Environment Operations Act 1997. (b) The operation of any mechanical plant, equipment, public address system or other amplified sound equipment installed on the premises must not cause: i. The emission of noise as measured over a 15 minute period (LAeq (15 minute)) that exceeds the LA90 (15 minute) background noise level by more than 5 dB(A) when measured at the most affected residential boundary. Modifying factor corrections must be applied for tonal, impulsive, low frequency or intermittent noise in accordance with the NSW Environment Protection Authority's 'Noise Policy for Industry' (2017);

Without prejudice draft conditions

- ii. An internal noise level in any adjoining occupancy that exceeds the recommended design sound levels specified in Australian/New Zealand Standard AS/NZS 2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors;
- iii. 'offensive noise' as defined by the Protection of the Environment Operations Act 1997; and
- iv. Transmission of vibration to any place of different occupancy greater than specified in AS 2670.

Condition reason: To mitigate potential intrusive noise and amenity impacts.

82. (G393) Acoustic Report

An acoustic report prepared by a suitably qualified acoustic consultant must be submitted to Liverpool City Council for its assessment and approval within three (3) months of occupation/completion of the development. The report must include but not be limited to the following information:

- (a) Noise measurements taken during a time of peak occupation at the most affected noise sensitive locations as indicated in the approved acoustic report titled "Noise Impact Assessment Proposed Additions and Extension 28 Riverside Road, Chipping Norton" (Ref: R250142R1 Rev: 0) prepared by Camilo Castillo and reviewed by Desmond Raymond for Rodney Stevens Acoustics Pty Ltd dated 7th March 2025;
- (b) Verification that noise levels at the most affected receivers comply with all relevant assessment criteria detailed in the abovementioned report;
- (c) All complaints received from local residents in relation to the operation of the premises/development; and
- (d) Where noise measurements required under point a) above indicate that the relevant assessment criteria are exceeded, recommendations must be provided in relation to how noise emissions can be satisfactorily reduced to comply with the assessment criteria.

Following written approval from Liverpool City Council, recommendations provided under point d) above must be implemented fully.

Note: The 'suitably qualified acoustic consultant' must be a member of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm.

Condition reason: To mitigate potential acoustic impacts and protect the amenity of the surrounding area.

83. (G394) Forklifts and Delivery Vehicles

To minimise potential noise impacts, all forklifts and delivery vehicles associated with the use must be equipped with smart (self-adjusting) reverse alarms, broadband reverse alarms, combination alarms or other suitable noise reduction technologies instead of tonal reversing alarms.

Condition reason: To mitigate potential acoustic impacts and protect the amenity of the surrounding area.

84. (G395) Managing noise

During ongoing use of the premises, the premises must be operated in accordance with the acoustic report approved under this consent.

Condition reason: To protect the amenity of the local area

85. (G468) Smoke-free Requirements

The requirements of the Smoke-free Environment Act 2000 and Smoke-free Environment Regulation 2016 must be complied with at all times.

Condition reason: To mitigate potential risks to human health and facilitate compliance with legislative requirements and relevant standards.

86. (G566) No Amplified Sound Equipment or Music Outside

Without prejudice draft conditions

Music and other amplified sound played on the premises must not give rise to 'offensive noise' as defined by the Protection of the Environment Operations Act 1997. The sound pressure level as measured over a 15 minute period (LAeq (15 minute)) must not exceed 5 dB(A) above the ambient background noise level (LA90 (15 minute)) at the boundary of the premises.

Sound amplification equipment and music are not permitted in any of the outdoor areas associated with the premises including the public domain. Speakers located within the premises must not be placed so as to direct the playing of music towards the outdoor areas associated with the premises.

Condition reason: To mitigate potential acoustic impacts associated with the development.

87. **(G950) Use of Crane**

The crane subject to this approval shall not encroach over adjoining allotments at any time as indicated on the approved plans.

Condition reason: To ensure fairness, transparency and probity.

Without prejudice draft conditions

General advisory notes

This consent contains the conditions imposed by the consent authority which are to be complied with when carrying out the approved development. However, this consent is not an exhaustive list of all obligations which may relate to the carrying out of the development under the EP&A Act, EP&A Regulation and other legislation. Some of these additional obligations are set out in the [Conditions of development consent: advisory notes](#). The consent should be read together with the Conditions of development consent: advisory notes to ensure the development is carried out lawfully.

The approved development must be carried out in accordance with the conditions of this consent. It is an offence under the EP&A Act to carry out development that is not in accordance with this consent.

A document referred to in this consent is taken to be a reference to the version of that document which applies at the date the consent is issued, unless otherwise stated in the conditions of this consent.

Without prejudice draft conditions

Dictionary

The following terms have the following meanings for the purpose of this determination (except where the context clearly indicates otherwise):

Approved plans and documents means the plans and documents endorsed by the consent authority, a copy of which is included in this notice of determination.

AS means Australian Standard published by Standards Australia International Limited and means the current standard which applies at the time the consent is issued.

Building work means any physical activity involved in the erection of a building.

Certifier means a council or a person that is registered to carry out certification work under the Building and Development Certifiers Act 2018.

Construction certificate means a certificate to the effect that building work completed in accordance with specified plans and specifications or standards will comply with the requirements of the EP&A Regulation and Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.

Council means LIVERPOOL CITY COUNCIL.

Court means the Land and Environment Court of NSW.

EPA means the NSW Environment Protection Authority.

EP&A Act means the *Environmental Planning and Assessment Act 1979*.

EP&A Regulation means the *Environmental Planning and Assessment Regulation 2021*.

Independent Planning Commission means Independent Planning Commission of New South Wales constituted by section 2.7 of the EP&A Act.

Local planning panel means LIVERPOOL LOCAL PLANNING PANEL.

Occupation certificate means a certificate that authorises the occupation and use of a new building or a change of building use for an existing building in accordance with this consent.

Principal certifier means the certifier appointed as the principal certifier for building work or subdivision work under section 6.6(1) or 6.12(1) of the EP&A Act respectively.

Site work means any work that is physically carried out on the land to which the development the subject of this development consent is to be carried out, including but not limited to building work, subdivision work, demolition work, clearing of vegetation or remediation work.

Stormwater drainage system means all works and facilities relating to:
the collection of stormwater,

the reuse of stormwater,

the detention of stormwater,

the controlled release of stormwater, and

connections to easements and public stormwater systems.

Strata certificate means a certificate in the approved form issued under Part 4 of the *Strata Schemes Development Act 2015* that authorises the registration of a strata plan, strata plan of subdivision or notice of conversion.

Subdivision certificate means a certificate that authorises the registration of a plan of subdivision under Part 23 of the *Conveyancing Act 1919*.

Subdivision works certificate means a certificate to the effect that subdivision work completed in accordance with specified plans and specifications will comply with the requirements of the EP&A Regulation.

Sydney district or regional planning panel means SYDNEY WESTERN CITY PLANNING PANEL.

ATTACHMENT ■ - LIVERPOOL DEVELOPMENT CONTROL PLAN 2008

The proposed development is subject to the Liverpool Development Control Plan 2008 (LDCP 2008) in particular:

Part 1: General Controls for all Development

Part 7: Development in Industrial Zones

The assessment has identified that the proposal generally demonstrates compliance with the relevant code requirements. The key controls are discussed in the following table

Part 1.1 General Controls for all Development			
Control	Requirement	Proposed	Comment
Section 2 – Tree Preservation	Consider impact of development on existing vegetation	Application does not propose removal of trees. Location of crane proposed on existing hardstand area on site.	N/A
Section 3 – Landscaping and Incorporation of Existing Trees	Incorporation of existing trees into development where appropriate	Landscaping unchanged. Application does not hinder the existing landscaping scheme on the site.	Complies
Section 4 – Bushland and Habitat Preservation	Consider impact of development on bushland and habitats	No such impacts identified.	N/A
Section 5 – Bushfire Risk	Land on or adjacent to bushfire prone land to comply with RFS requirements	Land partially mapped bushfire prone, however, no works are proposed within this area. This would not warrant the requirement to provide a bushfire assessment report.	Complies
Section 6 – Water Cycle Management	Consideration of stormwater and drainage	Proposal does not warrant a change in the existing stormwater scheme on the site.	N/A
Section 7 – Development Near a Watercourse	Consideration of impact to riparian corridors	The site is not in the immediate vicinity of a watercourse	N/A
Section 8 – Erosion and Sediment Control	Sediment Control Plan or Soil and Water Management Plan required	Requirement of erosion and sediment control plan is conditioned to be provided to the satisfaction of the PCA prior to CC.	Complies by condition
Section 9 – Flooding Risk	Flood affection of property to considered	The proposed development is identified as being flood affected. The development application was referred to Council's Floodplain Engineers who raised no objections to the proposal.	Complies

Section 10 – Contaminated Land Risk	Previous use to be considered in assessing risk	No change of use to sensitive development with regards to contamination.	Complies
Section 11 – Salinity Risk	Salinity Management response required for affected properties	Standard conditions of consent imposed to manage salinity .	Complies by condition
Section 12 – Acid Sulfate Soils Risk	Affected properties to consider impact of development on soils	Minor excavation is required for the installation of the base of the crane. Notwithstanding, no works are proposed within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.	Complies
Section 13 – Weeds	Noxious weeds to be removed as part of development where applicable	Noxious weeds not identified.	N/A
Section 14 – Demolition of Existing Development	Appropriate measures proposed	No proposal for demolition	N/A
Section 15 – Onsite Sewage Disposal	S68 Application required where connection to sewer not available	Connection to sewer is available.	N/A
Section 16 – Aboriginal Archaeology	AHIA required where items of aboriginal archaeology exist	Conditions of consent imposed to deal with unexpected finds of heritage significance.	Complies by condition
Section 20 – Car parking and access	Applies to development, which generates the need to provide car parking and loading facilities Industry requires: 1 space per 35sqm of office LFA 1 space per 75sqm factory/warehouse LFA or 1 space per 2 employees, whichever is the greater	Proposal does not hinder car parking or access. Crane is located on existing hardstand area not used for parking or access.	N/A
Section 21 – Subdivision of land and buildings	This section applies to development, which involves subdivision of land or buildings.	No subdivision proposed.	Complies
Section 22 – Energy Conservations	All Class 5 to 9 non-residential developments are to comply with the Building Code of	Conditions of consent will be imposed ensuring compliance with BCA/NCC.	Complies by condition

	Australia energy efficiency provisions.		
Section 23 – Reflectivity	To restrict the reflection of sunlight from buildings to surrounding areas and buildings.	Crane is not considered to be reflective.	Complies
Section 24 - Landfill	This section applies to development which involves cutting and or filling of land.	Conditions of consent to manage cut and fill are provided in the consent.	Complies by condition
Section 25 – Waste Disposal and Re-use Facilities	A waste management plan shall be submitted with a development application.	Condition imposed regarding the requirement of a Waste Management Plan to the satisfaction of the PCA prior to a CC.	Complies by condition
Section 26 – Outdoor Advertising and Signage	Applies to Outdoor Advertising and Signage.	No signage is proposed.	N/A
Part 7 Development in Industrial Zones			
Control	Requirement	Proposed	Comment
Site Area	Minimum site area of an allotment: 2,000 m ²	No subdivision proposed	N/A
Site Planning	Retention of significant trees and vegetation, particularly near the street frontage;	Trees and vegetation are retained onsite, no proposal for removal of trees and/or vegetation.	N/A
	Development must be designed around site attributes such as slope and existing vegetation.	The subject allotment is generally level. The proposed crane is suitably located on the site.	Complies
Setbacks	Primary setback (Ground Floor) – minimum 10m.	Proposed crane setback further than 10m from the front setback.	Complies
	Primary setback (first floor) – minimum 7.5m	As above	Complies
	Secondary setback – minimum 5m	N/A	N/A
Landscape Area	Minimum of 10% of the site is to be landscaped.	Proposal does not hinder landscaped area. Crane is proposed on existing hardstand area approved under DA-899/2017.	N/A
	Greater than 4,000sqm – Minimum Landscape Width (primary setback) – minimum 10m	As above	N/A
Building Design, Streetscape and Layout;	Façade to a development must adopt a contemporary	Proposal is for a crane and extensions of operating hours only.	N/A

	architectural appearance;		
	Development must use architectural elements to articulate facades, and minimise large expanses of blank walls.	As Above	N/A
	Where a development proposes a portal frame or similar construction, Council does not permit the 'stepping' of the parapet to follow the line of the portal frame.	As Above	N/A
	The street façade of a development on a corner allotment must incorporate architectural corner features to add visual interest to the streetscape.	Development not located on corner allotment	N/A
	<u>Materials and Colours:</u> Glazing shall not exceed reflectivity of 20%;	No change to existing façade.	N/A
	A development must use: Quality materials such as brick, glass and steel to construct the facades to a development;	As Above	N/A
	Masonry materials to construct a factory unit within a building, and all internal dividing walls separating the factory units.	Proposal is for a crane and extension of operating hours only.	N/A
	<u>Building Design:</u> The front door to a building should face the street;	As Above	N/A
	The administration office or showroom must be located at the front of the building;	As Above	N/A
	Windows on the upper floors of a building must, where possible, over the street;	As Above	N/A
	The street number of a building must be visible from the street and made of a reflective material to allow visitors and emergency vehicles	Street numbering on site is existing.	Complies

	to easily identify the location of the building;		
	Open style or transparent materials are encouraged on doors and/or walls of lifts and stairwells, where fire safety requirements allow;	No change to existing building on site.	N/A
	Waiting areas and entries to lifts and stairwells should be close to areas of active use and be visible from building entrances;	Proposal is for a crane and extension of operating hours only. No changes sought to existing building.	N/A
	Driveways must provide adequate sight distance for the safety of pedestrians using the footpath area;	Driveway arrangement is not proposed to be altered. Crane is proposed on hardstand area not used for vehicular maneuvering.	N/A
	Pathways should provide direct access and any edgework should be low in height or not reduce visibility of the pathway.	Pedestrian pathways are unaffected by proposed.	N/A
	Entry to basement parking areas should be through security access via the main building. This access should be fitted with a one way door (allowing for fire safety provisions) and allow only authorised access from the foyer into the basement;	No existing or proposed basement.	N/A
	Blank walls in general that address street frontages or public open spaces are discouraged. Where they are unavoidable building elements or landscaping must be used to break up large expanses of walls. In some cases an anti-graffiti coating will need to be applied to the wall to a height of 2metres.	No walls proposed.	N/A
	<u>Lighting:</u> Lighting must be provided to the external entry path, common lobby, driveway, and car park to a building using vandal resistant, height mounted light fixtures;	Proposal is not considered to warrant the need for additional external lighting. Condition were imposed in approved DA-899/2017 to adequately provide lighting.	N/A

	The lighting in a car park must conform to AS 1158.1, 1680 and 2890.1	No carpark proposed	N/A
	External lighting to an industrial development must give consideration to the impact of glare on the amenity of adjoining residents.	No lighting required.	N/A
	<u>Facilities:</u> The siting of a telecommunication facility, aerial, satellite dish, plant room, lift motor room, mechanical ventilation stack, exhaust stack, and the like must integrate with the architectural features of the building to which it is attached; or be sufficiently screened when viewed from the street and neighbouring residential zoned land.	No such elements are proposed.	N/A
	<u>Service Areas:</u> Service areas including waste, recycling areas and external storage areas are to be located away from principal street frontages and screened from view.	No service areas proposed.	N/A
Landscaping and Fencing	<u>Landscape treatment in Industrial Areas:</u> Landscaping within industrial areas shall generally involve the provision of trees and shrubs in mulched garden beds.	Proposal does not hinder landscaped area. Crane is proposed on existing hardstand area approved under DA-899/2017.	N/A
	<u>Trees</u> Trees must be planted in the landscape area at a minimum rate of 1 tree per 30sqm of the landscape area;	As above	N/A
	The trees must be capable of achieving a mature height greater than 8m	As above	N/A

	Where trees are planted around high use facilities such as car parking areas and walkways, they should have clean trunks to height of 1.8m	N/A	N/A
	Large trees and shrubs should not be located so they can be used to access buildings on the site or adjoining properties.	As above	N/A
	<u>Fences at Front boundary</u> Solid front fences must have a maximum height of 1.2m	Fencing not proposed.	N/A
	Front fences higher than 1.2m shall be consistent with the following: Maximum height of 2m; Transparent; Dark colour;	As above.	N/A
	Chain wire, metal sheeting, brushwood and electric fences are not permitted;	As above	N/A
	Fences should not prevent surveillance by the buildings occupants of the main open or communal areas within the property or the street frontage;	As above	N/A
	Where noise insulation is required, consider the installation of double glazing or other noise attenuation measures at the front of the building rather than construction of a high solid form fence.	As above	N/A
	<u>Screen Fencing</u> Where fencing is considered necessary to screen areas such as outside storage it shall consist of the following: Maximum height of 2m; May be solid construction; Shall be located behind the landscaped area;	As above.	N/A

	<u>Detailed Landscape plan</u> A detailed landscape plan shall accompany a development application.	Detailed landscape plan is not considered to be required regarding the proposal.	N/A
Car Parking and Access	The layout of the driveways to loading docks must enable heavy vehicles to: Enter and exit the site in a forward direction; Park within designated loading areas; When possible, loading docks are to be located in areas that: Are not exposed to public streets; Are generally separate from and do not interfere with car parking areas;	Proposal does not hinder existing driveway and/or parking layout.	N/A
	Car parking areas to be landscaped to provide shade and reduce the visual impact of parked cars.	As Above	N/A
	Provide a 2.5m wide landscape bay between every 6-8 car spaces.	As Above	N/A
Amenity and Environmental Impact	<u>External Industrial Activities</u> External processes in an industrial area and storage of materials will not be permitted along a Classified Road frontage or a road frontage opposite a residential area;	The premises is not located adjacent to a classified road or a road frontage opposite a residential area	N/A
	Storage and processing of motor vehicles, concrete, soil, glass and other similar components or materials shall be totally screened by fencing and dense landscaping;	Not proposed.	N/A
	The maximum height of a stockpile for the recycling of motor vehicles, concrete, soil, glass and other similar components or materials shall be 6m;	No activities or uses proposed which would warrant a stockpile.	N/A
	Noise	A noise impact assessment was provided with the application in regard to the	Complies by condition

		proposed crane addition and extension of operating hours to 24 hours 7 days a week. The assessment concluded appropriate noise emission criteria have been established in accordance with Liverpool City Council's requirements. The noise impact assessment was Reviewed by Councils Environmental Health Officer who had no objections to the proposal subject to conditions of consent.	
	Hazardous Materials and Hazardous Operations	No hazardous materials or hazardous operations proposed	N/A
	Hours of Operation	Approved hours of existing consent is Monday to Sunday: 7:00am to 5:00pm. The subject application proposes 24 hour and 7 days a week operations. A noise impact assessment was provided with the application in regard to the operating hours proposed. The assessment concluded appropriate noise emission criteria have been established in accordance with Liverpool City Council's requirements. The noise impact assessment was Reviewed by Council Environmental Health officer who had no objections to the proposal subject to conditions.	Complies by condition
	Business where trolleys are required	N/A	N/A
	Contamination	No change of use. Previous use was industrial.	N/A
Site services	Letterboxes and House numbering;	Existing site services available onsite	N/A

	Waste Management;	Waste services not proposed. Existing waste services provided on site.	N/A
	Frontage works and damage to Council infrastructure;	A condition is imposed ensuring compliance with this control.	Complies by condition
	Electricity substation	Works proposed would not require an electricity substation. An electricity substation is not proposed.	N/A

Having regard to the above, the proposal is considered to be consistent with a number of key controls the Liverpool Development Control Plan 2008.

Attachment 1 – Assessment against Part 1 of Liverpool DCP

Part 1: General Controls for all Development		
Development Control Section	Provision	Comment
2. Tree Preservation	Controls relating to the preservation of trees	Complies on merit The subject site only contains a single tree, this is proposed to be removed and replaced by 16 trees as per the landscape plan provided.
3. Landscaping and Incorporation of Existing Trees	Controls relating to landscaping and the incorporation of existing trees.	Complies with Condition A comprehensive landscape plan has been provided indicating the presence of a variety of trees, shrubs and other groundcover planting.
4. Bushland and Fauna Habitat Preservation	Controls relating to bushland and fauna habitat preservation	Not Applicable The development site is not identified as containing any native flora and fauna in a bushland environment.
5. Bush Fire Risk	Controls relating to development on bushfire prone land	Not Applicable The development site is not identified as being bushfire prone land.
6. Water Cycle Management	Stormwater runoff shall be connected to Council's drainage system by gravity means. A stormwater drainage concept plan is to be submitted.	Does not comply This aspect has been reviewed by Council's land development engineers who have assessed the stormwater management and drainage plans and have objections to the proposal. The proposal does not meet Council's OSD policy and specs.
7. Development Near Watercourse	This section Development within 40m of a <u>watercourse</u>, creek or river except where separated from the <u>watercourse</u>, creek or river by land in an • RE1 – Public Recreation zone , • C2 – Environmental <u>Conservation</u> zone, • C3 – Environmental Management zone or	Not Applicable Site is not in proximity to any watercourses.

Part 1: General Controls for all Development		
Development Control Section	Provision	Comment
	W1 – Natural Waterways zone. If any works are proposed near a water course, the Water Management Act 2000 may apply, and you may be required to seek controlled activity approval from the NSW Office of Water.	
8. Erosion and Sediment Control	Erosion and sediment control plan to be submitted.	Complies with condition An erosion and sediment control plan is submitted with the application. Conditions could be imposed to ensure that erosion and sediment control measures are implemented during the works at the site if the application was supported.
9. Flooding Risk	Provisions relating to development on flood prone land.	Not Applicable The proposed development is not located on flood prone land.
10. Contaminated Land Risk	Provisions relating to development on contaminated land.	Complies The proposed development remains consistent with the existing use of site being for residential purpose. There is no historical evidence indicating that any other use other than residential has occurred at the subject site, or that any contaminating activities have occurred on the site.
11. Salinity Risk	Provisions relating to development on saline land.	Complies with Condition The site is identified as moderate to High salinity risk. Conditions of consent could be imposed to ensure a salinity management response is provided.
12. Acid Sulphate Soils Risk	Provisions relating to development on acid sulphate soils	Not Applicable The development site is not identified as containing acid sulfate soils.
13. Weeds	Provisions relating to sites containing noxious weeds.	Not Applicable The site is not identified as containing noxious weeds.
14. Demolition of Existing Developments	Provisions relating to demolition works.	Complies with condition Demolition of existing structures is proposed, and standard conditions could apply to any consent.
15.	Provisions relating to OSMS.	Not Applicable

Part 1: General Controls for all Development		
Development Control Section	Provision	Comment
On Site Sewage Management Systems		On site sewage management systems are not proposed for the development.
16. Aboriginal Archaeology	An initial investigation must be carried out to determine if the proposed development or activity occurs on land potentially containing an item of aboriginal archaeology.	Complies with condition The subject site is not considered to be in an area of archaeological sensitivity. Standard unexpected finds conditions could be imposed should the application be supported.
17. Heritage and Archaeological Sites	Provisions relating to heritage sites.	Not Applicable The development site is not a heritage item and is not in the visual catchment or nearby any heritage items or items of heritage significance.
19. Used Clothing Bins	Provisions relating to used clothing bins.	Not Applicable The DA does not propose used clothing bins.
20. Car Parking and Access	Boarding Houses: 1 spaces per 2 bedrooms or 1 space per 3 beds whichever the greater	Not Applicable The DCP does not stipulate controls specific to 'Co-living housing'. The proposal most similarly resembles the use of a Boarding house, however, the above mentioned SEPP (Housing) 2021 Cl. 68 (1)(e) parking controls take precedence. Total bedrooms = 45 Total beds = 45 <u>Required (DCP) Part 1</u> 1 spaces per 2 bedrooms = 22.5 spaces 1 space per 3 beds = 15 spaces The development provides for 45 rooms and 45 beds. Total required (DCP) = 22.5 spaces

Part 1: General Controls for all Development		
Development Control Section	Provision	Comment
		<u>Proposed</u> 9 spaces proposed. This is considered acceptable as the SEPP (Housing) 2021 takes precedence.
21. Subdivision of Land and Buildings	21.4 Minimum Lot Width	Complies A lot frontage of 25.1m is provided.
	21.7 Strata subdivision Applications for strata subdivision of buildings, space or land will need to ensure that the strata plan is consistent with the development consent particularly the allocation of private and common property. In particular visitor or customer car parking identified in a development consent shall remain as common property. There must be a minimum requirement of three buildings, spaces, or land parcels for strata subdivision.	N/A Strata subdivision not proposed. Furthermore, subdivision is prohibited via Clause 70 of the Housing SEPP 2021.
22. Energy Conservation	Class 5 to 9 non-residential development are to comply with the BCA and Australia energy efficiency provisions.	N/A Pursuant to the <i>EP&A Regulation 2021</i> , co-living housing is exempt from standard BASIX buildings and residential controls do not apply.
23. Reflectivity	Provisions relating to restriction of reflection of sunlight from buildings to surrounding areas and buildings.	Complies The proposed works provide a schedule of colours and finishes indicating construction materials which would not cause glare and reflection of sunlight to cause undue impact.
24. Landfill	Provisions relating to cut and fill.	N/A Not applicable.

Part 1: General Controls for all Development		
Development Control Section	Provision	Comment
25. Waste Disposal and Re-use Facilities	Provisions relating to waste management during construction and on-going waste.	Complies with Condition A waste management plan has been submitted.
26. Outdoor Advertising and Signage	Provisions relating to signage	N/A No signage proposed
27. Social Impact Assessment	A social impact assessment shall be submitted with a development application for all types of development listed in Table 21.	Does not comply A Social Impact Assessment (SIA) was not submitted. The application was referred to Council's Community Planning Officer who raised the following objections: a) The proposed development currently lacks information about the social impacts of the development and fails to identify and manage the potential positive and negative consequences of development to optimise social outcomes, consistent with Council's objectives for the community. b) Council's Social Impact Assessment Policy requires the submission of a social impact comment or comprehensive social impact assessment for certain forms of residential developments. As per table 1, the proposed form of development is considered as Housing, within the SEPP (Housing) 2021 including Affordable Housing (e.g., boarding houses) and Diverse Housing (e.g. Housing for seniors or people with a disability), – excluding secondary dwellings;. The form of development being Co-Living Housing' is considered diverse housing.
29.	Provisions relating to CPTED principles and pedestrian and public safety.	Does not comply As a Social Impact Assessment was not considered by the applicant, the

Part 1: General Controls for all Development		
Development Control Section	Provision	Comment
Safety and Security		consideration of CPTED principles and safety has not been adequately considered. In accordance with Liverpool Council's Social Impact Assessment Policy March 2023, Social Impact Comment Initial Assessment Form, the development may have potential to decrease public safety via increased traffic generation. Additionally, no surveillance technologies or lighting has been commented on or shown on the provided plans. Due to the absence of such information and the appeal to LEC of the application, a referral to NSW Police was not made.



Subset ID and Name	DRAWING No.	DESCRIPTION
A0 GENERAL	A000	COVER PAGE
A0 GENERAL	A001	SECTION J COMMITMENTS
A0 GENERAL	A002	SURVEY
A0 GENERAL	A003	DEMOLITION PLAN
A0 GENERAL	A004	SITE PLAN
A0 GENERAL	A005	SITE ANALYSIS
A0 GENERAL	A006	STREETSCAPE ANALYSIS
A0 GENERAL	A007	GFA CALCULATION
A0 GENERAL	A008	UNIT SCHEDULE
A0 GENERAL	A009	COMMUNAL LIVING AREA
A0 GENERAL	A010	COMMUNAL OPEN SPACE
A0 GENERAL	A011	LANDSCAPE & DEEP SOIL CALCULATION
A0 GENERAL	A012	SUN EYE DIAGRAM - 21ST JUNE
A0 GENERAL	A013	SHADOW DIAGRAM - 21ST JUNE
A0 GENERAL	A014	EVACUATION DIAGRAM
A0 GENERAL	A015	HEIGHT LIMIT DIAGRAM
A1 PLANS	A101	GROUND FLOOR PLAN
A1 PLANS	A102	LEVEL 1 PLAN
A1 PLANS	A103	LEVEL 2 PLAN
A1 PLANS	A104	LEVEL 3 PLAN
A1 PLANS	A105	LEVEL 4 PLAN
A1 PLANS	A106	LEVEL 5 PLAN
A1 PLANS	A107	ROOF PLAN
A2 ELEVATION	A201	NORTH ELEVATION
A2 ELEVATION	A202	SOUTH ELEVATION
A2 ELEVATION	A203	WEST ELEVATION
A2 ELEVATION	A204	EAST ELEVATION
A3 SECTION	A301	SECTION A
A3 SECTION	A302	SECTION B
A4 SCHEDULE	A401	MATERIAL SCHEDULE
A4 SCHEDULE	A402	DOORS SCHEDULE
A4 SCHEDULE	A403	WINDOWS SCHEDULE

Subset ID and Name	DRAWING No.	DESCRIPTION
A4 SCHEDULE	A404	TYPICAL KITCHEN DETAILS
A5 NOTIFICATION	A501	NEIGHBOUR NOTIFICATION PLAN
A5 NOTIFICATION	A502	NEIGHBOUR NOTIFICATION ELEVATIONS



**25 SIMONE CRESCENT CASULA
CO-LIVING HOUSING
DEVELOPMENT APPLICATION**

ROOM MIX:
45 PRIVATE ROOMS
2 COMMON ROOMS

SITE AREA: 947.7m²
PROPOSED FSR: 1.319: 1
PROPOSED GFA: 1250.83m²

3 DOCUMENTATION & REQUIREMENTS

The following NCC 2022 Section J summary must be incorporated into the Construction Certificate documentation. Refer to the relevant section of the report for more detail.

- Summary of J4
 - Roof System Type: For all concrete roof surfaces add insulation with minimum insulation rating of R3.33. NOTE: In climate zones 1, 2, 3, 4, 5, 6 and 7, the solar absorptance of the upper surface must not be more than 0.45 – you must ensure that the colour chosen meets this requirement.
 - For all 75mm Hebel Veneer external walls R2.00 insulation is to be installed. For all 190-200mm Concrete external walls R1.00 insulation is to be installed.
 - For glazing specifications refer to the Façade report at average U-value and SHGC tables for each orientation. Note that Method 2 was used to calculate. U-value to be installed shall be 2.65 or lower and the SHGC to be 0.30 or lower; (see relevant façade report).
 - For concrete slab on ground, above carpark and exposed subfloors that are located below conditioned spaces add insulation with minimum rating of R1.60.
- Summary of J5
Refer to relevant section for required information
- Summary of J6
Refer to relevant section for required information
- Summary of J7
 - Design illumination power load for basement level is 9340 Watts. Maximum system illumination power load allowance is 9809 Watts.
- Summary of J8
Refer to relevant section for required information
- Summary of J9
Refer to relevant section for required information

WHEN CONSTRUCTION IS COMPLETED

The section above provides the documentation of Section J requirements which apply to the proposal development. Attention is drawn to the need to provide documentation during construction that each requirement has been assessed and attained.

This should include when applicable:

- Certificates from specific suppliers and contractors such as insulation ratings installed, U-Value and SHGC of glazed components installed, etc
 - Site inspections records if required by PCA.
- It is imperative that the information in this report to be forwarded to the person in charge of this project, to ensure that all work is carried out in accordance with each and every item that has been documented in this report.

Australian Energy Efficiency Consulting
W: www.aeec.com.au
P: 02 9994 8906
E: info@aeec.com.au



Glazing System Summary							
Glazing Reference	System Type	Glass Type	Frame Type	Glass U-value (W/m².K)	Glass SHGC	Total System U-value (W/m².K)	Total System SHGC
1	Fixed	6mm Clear	Aluminum	1.1	0.85	1.1	0.85
2	Fixed	6mm Clear	Aluminum	1.1	0.85	1.1	0.85
3	Fixed	6mm Clear	Aluminum	1.1	0.85	1.1	0.85
4	Fixed	6mm Clear	Aluminum	1.1	0.85	1.1	0.85



Non-residential Lighting											
Room	Room No.	Room Name	Room Type	Room Area (m²)	Room Volume (m³)	Room Height (m)	Room Orientation	Room Description	Room Notes	Room Status	Room Comments
1	101	Reception	Reception	100	1000	10	North	Reception area		Completed	
2	102	Office	Office	200	2000	10	North	Office area		Completed	
3	103	Office	Office	200	2000	10	North	Office area		Completed	
4	104	Office	Office	200	2000	10	North	Office area		Completed	
5	105	Office	Office	200	2000	10	North	Office area		Completed	
6	106	Office	Office	200	2000	10	North	Office area		Completed	
7	107	Office	Office	200	2000	10	North	Office area		Completed	
8	108	Office	Office	200	2000	10	North	Office area		Completed	
9	109	Office	Office	200	2000	10	North	Office area		Completed	
10	110	Office	Office	200	2000	10	North	Office area		Completed	
11	111	Office	Office	200	2000	10	North	Office area		Completed	
12	112	Office	Office	200	2000	10	North	Office area		Completed	
13	113	Office	Office	200	2000	10	North	Office area		Completed	
14	114	Office	Office	200	2000	10	North	Office area		Completed	
15	115	Office	Office	200	2000	10	North	Office area		Completed	
16	116	Office	Office	200	2000	10	North	Office area		Completed	
17	117	Office	Office	200	2000	10	North	Office area		Completed	
18	118	Office	Office	200	2000	10	North	Office area		Completed	
19	119	Office	Office	200	2000	10	North	Office area		Completed	
20	120	Office	Office	200	2000	10	North	Office area		Completed	
21	121	Office	Office	200	2000	10	North	Office area		Completed	
22	122	Office	Office	200	2000	10	North	Office area		Completed	
23	123	Office	Office	200	2000	10	North	Office area		Completed	
24	124	Office	Office	200	2000	10	North	Office area		Completed	
25	125	Office	Office	200	2000	10	North	Office area		Completed	
26	126	Office	Office	200	2000	10	North	Office area		Completed	
27	127	Office	Office	200	2000	10	North	Office area		Completed	
28	128	Office	Office	200	2000	10	North	Office area		Completed	
29	129	Office	Office	200	2000	10	North	Office area		Completed	
30	130	Office	Office	200	2000	10	North	Office area		Completed	
31	131	Office	Office	200	2000	10	North	Office area		Completed	
32	132	Office	Office	200	2000	10	North	Office area		Completed	
33	133	Office	Office	200	2000	10	North	Office area		Completed	
34	134	Office	Office	200	2000	10	North	Office area		Completed	
35	135	Office	Office	200	2000	10	North	Office area		Completed	
36	136	Office	Office	200	2000	10	North	Office area		Completed	
37	137	Office	Office	200	2000	10	North	Office area		Completed	
38	138	Office	Office	200	2000	10	North	Office area		Completed	
39	139	Office	Office	200	2000	10	North	Office area		Completed	
40	140	Office	Office	200	2000	10	North	Office area		Completed	
41	141	Office	Office	200	2000	10	North	Office area		Completed	
42	142	Office	Office	200	2000	10	North	Office area		Completed	
43	143	Office	Office	200	2000	10	North	Office area		Completed	
44	144	Office	Office	200	2000	10	North	Office area		Completed	
45	145	Office	Office	200	2000	10	North	Office area		Completed	
46	146	Office	Office	200	2000	10	North	Office area		Completed	
47	147	Office	Office	200	2000	10	North	Office area		Completed	
48	148	Office	Office	200	2000	10	North	Office area		Completed	
49	149	Office	Office	200	2000	10	North	Office area		Completed	
50	150	Office	Office	200	2000	10	North	Office area		Completed	
51	151	Office	Office	200	2000	10	North	Office area		Completed	
52	152	Office	Office	200	2000	10	North	Office area		Completed	
53	153	Office	Office	200	2000	10	North	Office area		Completed	
54	154	Office	Office	200	2000	10	North	Office area		Completed	
55	155	Office	Office	200	2000	10	North	Office area		Completed	
56	156	Office	Office	200	2000	10	North	Office area		Completed	
57	157	Office	Office	200	2000	10	North	Office area		Completed	
58	158	Office	Office	200	2000	10	North	Office area		Completed	
59	159	Office	Office	200	2000	10	North	Office area		Completed	
60	160	Office	Office	200	2000	10	North	Office area		Completed	
61	161	Office	Office	200	2000	10	North	Office area		Completed	
62	162	Office	Office	200	2000	10	North	Office area		Completed	
63	163	Office	Office	200	2000	10	North	Office area		Completed	
64	164	Office	Office	200	2000	10	North	Office area		Completed	
65	165	Office	Office	200	2000	10	North	Office area		Completed	
66	166	Office	Office	200	2000	10	North	Office area		Completed	
67	167	Office	Office	200	2000	10	North	Office area		Completed	
68	168	Office	Office	200	2000	10	North	Office area		Completed	
69	169	Office	Office	200	2000	10	North	Office area		Completed	
70	170	Office	Office	200	2000	10	North	Office area		Completed	
71	171	Office	Office	200	2000	10	North	Office area		Completed	
72	172	Office	Office	200	2000	10	North	Office area		Completed	
73	173	Office	Office	200	2000	10	North	Office area		Completed	
74	174	Office	Office	200	2000	10	North	Office area		Completed	
75	175	Office	Office	200	2000	10	North	Office area		Completed	
76	176	Office	Office	200	2000	10	North	Office area		Completed	
77	177	Office	Office	200	2000	10	North	Office area		Completed	
78	178	Office	Office	200	2000	10	North	Office area		Completed	
79	179	Office	Office	200	2000	10	North	Office area		Completed	
80	180	Office	Office	200	2000	10	North	Office area		Completed	
81	181	Office	Office	200	2000	10	North	Office area		Completed	
82	182	Office	Office	200	2000	10	North	Office area		Completed	
83	183	Office	Office	200	2000	10	North	Office area		Completed	
84	184	Office	Office	200	2000	10	North	Office area		Completed	
85	185	Office	Office	200	2000	10	North	Office area		Completed	
86	186	Office	Office	200	2000	10	North	Office area		Completed	
87	187	Office	Office	200	2000	10	North	Office area		Completed	
88	188	Office	Office	200	2000	10	North	Office area		Completed	
89	189	Office	Office	200	2000	10	North	Office area		Completed	
90	190	Office	Office	200	2000	10	North	Office area		Completed	
91	191	Office	Office	200	2000	10	North	Office area		Completed	
92	192	Office	Office	200	2000	10	North	Office area		Completed	
93	193	Office	Office	200	2000	10	North	Office area		Completed	
94	194	Office	Office	200	2000	10	North	Office area		Completed	
95	195	Office	Office	200	2000	10	North	Office area		Completed	
96	196	Office	Office	200	2000	10	North	Office area		Completed	
97	197	Office	Office	200	2000	10	North	Office area		Completed	
98	198	Office	Office	200	2000	10	North	Office area		Completed	
99	199	Office	Office	200	2000	10	North	Office area		Completed	
100	200	Office	Office	200	2000	10	North	Office area		Completed	

Non-residential Lighting

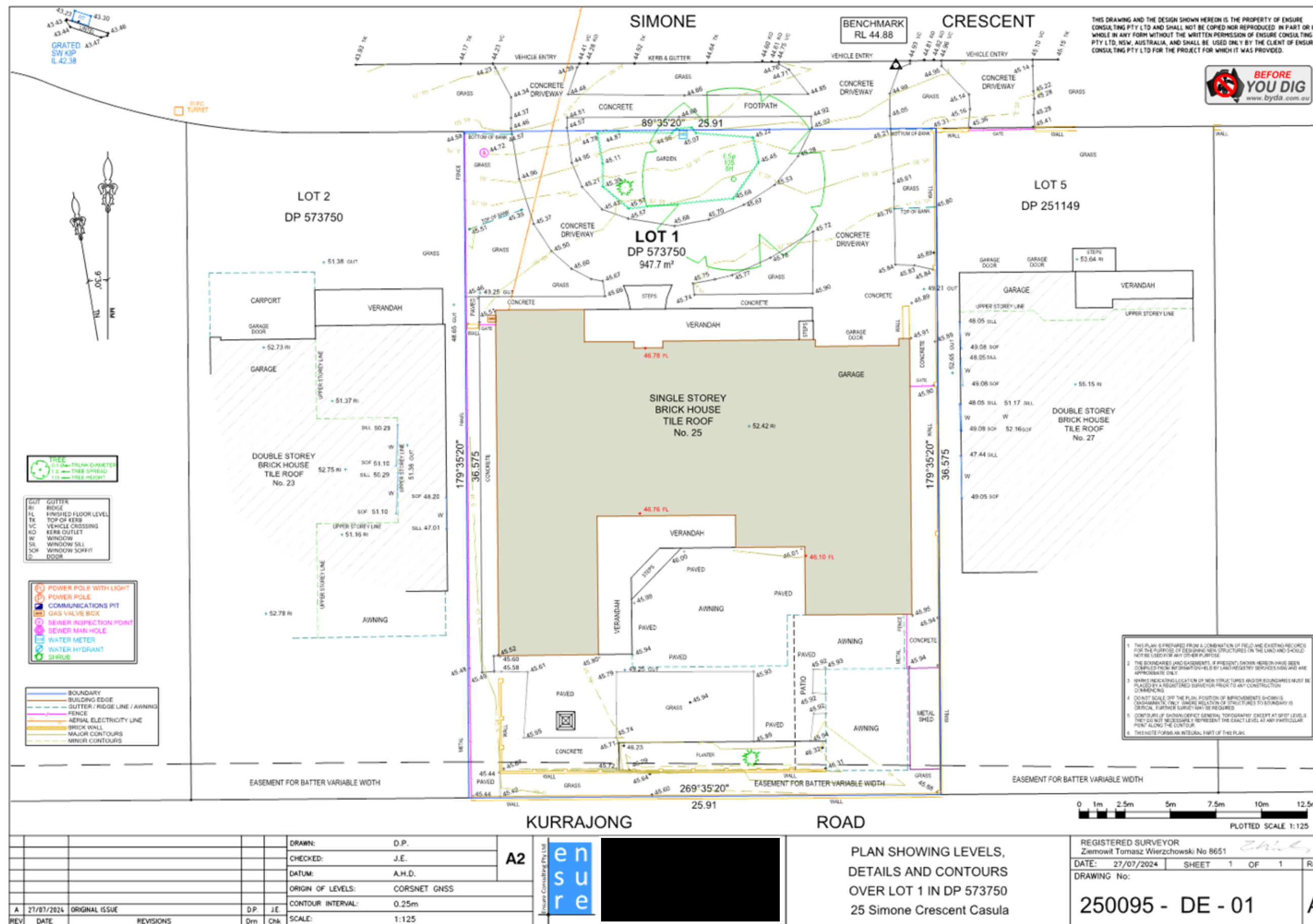
Building Information										Classification	
Number of stories above ground level: 10										Building Type: Office	
Room Number	Room Name	Room Area (m²)	Room Volume (m³)	Room Height (m)	Room Orientation	Room Description	Adjustment Factor 1	Adjustment Factor 2	Lighting Power Density (LPD) (W/m²)	Lighting Power Density (LPD) (W/m²)	Lighting Power Density (LPD) (W/m²)
1	Reception	100	1000	10	North	Reception area	1.0	1.0	10.0	10.0	10.0
2	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
3	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
4	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
5	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
6	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
7	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
8	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
9	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
10	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
11	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
12	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
13	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
14	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
15	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
16	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
17	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
18	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
19	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
20	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
21	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
22	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
23	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
24	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
25	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
26	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
27	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
28	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
29	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
30	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
31	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
32	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
33	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
34	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
35	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
36	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
37	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
38	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
39	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
40	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
41	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
42	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
43	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
44	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
45	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
46	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
47	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
48	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
49	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
50	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
51	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
52	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
53	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
54	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
55	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
56	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
57	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
58	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
59	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
60	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
61	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
62	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
63	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
64	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
65	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
66	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
67	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
68	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
69	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
70	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
71	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
72	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
73	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
74	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
75	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
76	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
77	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
78	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
79	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
80	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
81	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
82	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
83	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
84	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
85	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
86	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
87	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
88	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
89	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
90	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
91	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
92	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
93	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
94	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
95	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
96	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
97	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
98	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
99	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0
100	Office	200	2000	10	North	Office area	1.0	1.0	10.0	10.0	10.0

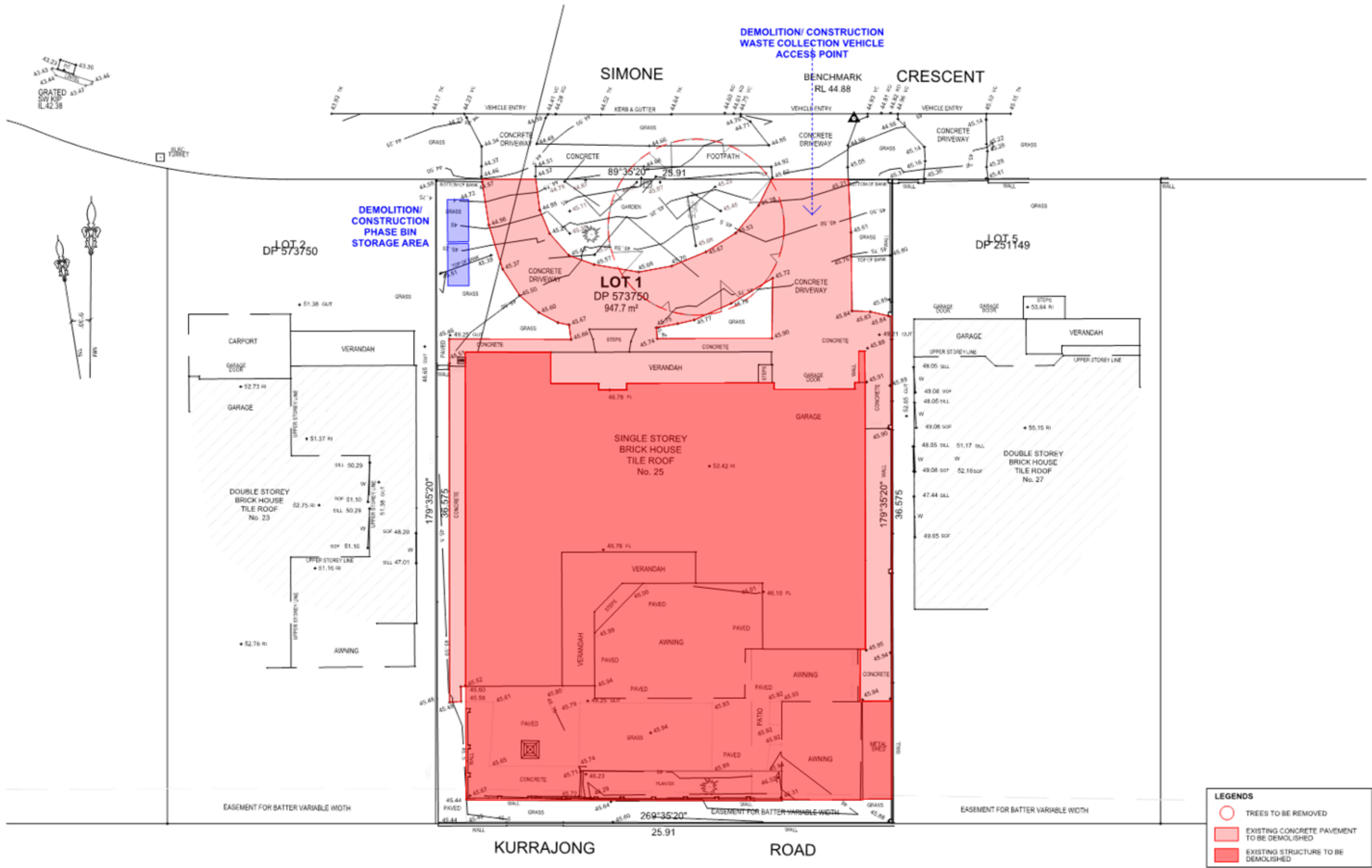
Page 1 of 1

Page 1 of 1

Print

Y





NOTE

This plan shall be used for construction and not for construction. It is the responsibility of the client to ensure that the plan is used for construction and not for construction. It is the responsibility of the client to ensure that the plan is used for construction and not for construction.

Project Partners

Refer to consultant documentation when directed

Principal Contractor	Architect
Structural Engineer	Mechanical Engineer
Electrical Engineer	Plumbing Engineer
Landscaper	Surveyor

Project Designer

Project No. 1011522024

Project Status: Approved

Client: 25 SIMONE CRESCENT CASULA

Climate Zone: Wind Region

TEXCO DESIGN

1011522024

1011522024

1011522024

LEGENDS

- Trees to be removed
- Existing concrete pavement to be demolished
- Existing structure to be demolished

PAPER

A3

1:200

DRAWING TITLE

GENERAL DEMOLITION PLAN

PROJECT NAME

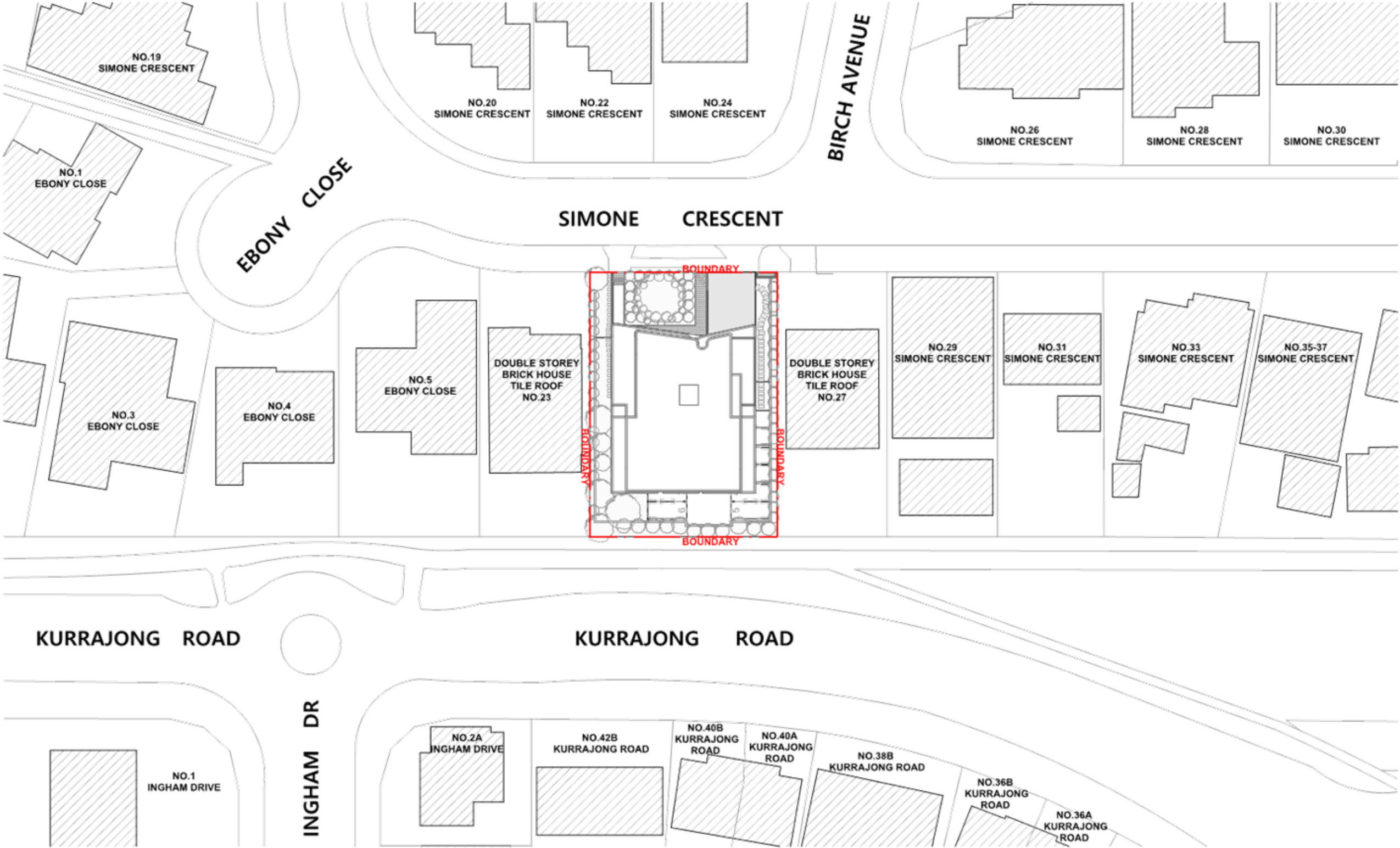
25 SIMONE CRESCENT CASULA

REVISION NO.

05

DRAWING NO.

A003



NOTE

This drawing is for information only and does not constitute a contract. It is the responsibility of the client to ensure that the drawing is used for the intended purpose. The drawing is not to be used for any other purpose without the written consent of the architect.

All boundaries and contents are subject to survey. All levels to Australian Height Data (AHD) are indicated. The drawing is not to be used for any other purpose without the written consent of the architect.

All documents and drawings are subject to Australian Copyright Laws.

Project Partners

Refer to consultant documentation when directed

Principal Contractor	#Builder
Planning Consultant	#Planning Consultant
Structural Engineer	#Structural Engineer
Mechanical Engineer	#Mechanical Engineer
Electrical Engineer	#Electrical Engineer
Fire Engineer	#Fire Engineer
Transport Engineer	#Transport Engineer
Land Surveyor	#Land Surveyor

Project Designer

Rev	Transmitted for Date	Approved by	Plan Name
01	19/11/2024		
02	19/11/2024		
03	19/11/2024		
04	19/11/2024		
05	19/11/2024		
06	19/11/2024		
07	19/11/2024		
08	19/11/2024		
09	19/11/2024		
10	19/11/2024		
11	19/11/2024		
12	19/11/2024		
13	19/11/2024		
14	19/11/2024		
15	19/11/2024		
16	19/11/2024		
17	19/11/2024		
18	19/11/2024		
19	19/11/2024		
20	19/11/2024		
21	19/11/2024		
22	19/11/2024		
23	19/11/2024		
24	19/11/2024		
25	19/11/2024		
26	19/11/2024		
27	19/11/2024		
28	19/11/2024		
29	19/11/2024		
30	19/11/2024		
31	19/11/2024		
32	19/11/2024		
33	19/11/2024		
34	19/11/2024		
35	19/11/2024		
36	19/11/2024		
37	19/11/2024		
38	19/11/2024		
39	19/11/2024		
40	19/11/2024		
41	19/11/2024		
42	19/11/2024		
43	19/11/2024		
44	19/11/2024		
45	19/11/2024		
46	19/11/2024		
47	19/11/2024		
48	19/11/2024		
49	19/11/2024		
50	19/11/2024		
51	19/11/2024		
52	19/11/2024		
53	19/11/2024		
54	19/11/2024		
55	19/11/2024		
56	19/11/2024		
57	19/11/2024		
58	19/11/2024		
59	19/11/2024		
60	19/11/2024		
61	19/11/2024		
62	19/11/2024		
63	19/11/2024		
64	19/11/2024		
65	19/11/2024		
66	19/11/2024		
67	19/11/2024		
68	19/11/2024		
69	19/11/2024		
70	19/11/2024		
71	19/11/2024		
72	19/11/2024		
73	19/11/2024		
74	19/11/2024		
75	19/11/2024		
76	19/11/2024		
77	19/11/2024		
78	19/11/2024		
79	19/11/2024		
80	19/11/2024		
81	19/11/2024		
82	19/11/2024		
83	19/11/2024		
84	19/11/2024		
85	19/11/2024		
86	19/11/2024		
87	19/11/2024		
88	19/11/2024		
89	19/11/2024		
90	19/11/2024		
91	19/11/2024		
92	19/11/2024		
93	19/11/2024		
94	19/11/2024		
95	19/11/2024		
96	19/11/2024		
97	19/11/2024		
98	19/11/2024		
99	19/11/2024		
100	19/11/2024		

Project Designer

TEXCO DESIGN

100 Arch. NSW APR 11/2018
PO BOX 449 2008 2009

E: office@texcodesign.com.au
P: +61 449 584 2009

Client

25 Simone Crescent Casula

Climate Zone
Wind Region

Drawn / Checked

Revision Date: 19/11/2024

Project No. #Project ID

Project Status

Drawn By

25 Simone Crescent Casula

REFER TO FACADE REPORT

PAPER

A3

1:500

DRAWING TITLE :

GENERAL SITE PLAN

PROJECT NAME :

25 SIMONE CRESCENT CASULA

REVISION NO.

07

DRAWING NO.

A004



NOTE

This drawing shall show all dimensions and levels as per the construction, including any errors, discrepancies or omissions to the architect, shall be within dimensions, shall be used for construction, this drawing reflects a design by Texco Design Pty Ltd and is to be used only for such when authorized in writing by Texco Design Pty Ltd.

All boundaries and contents are subject to survey drawing. All levels to Australian Height Data, or to the customer's responsibility to verify all dimensions and all site conditions of any services prior to construction.

All documents and drawings are subject to Australian Copyright Laws.

Project Partners

Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Structural Engineer
Structural Engineer	Mechanical Engineer
Mechanical Engineer	Electrical Engineer
Electrical Engineer	Fire Engineer
Fire Engineer	Water Services
Water Services	Electrical Engineer
Electrical Engineer	Transportation Consultant
Transportation Consultant	Traffic Engineer
Traffic Engineer	Land Services
Land Services	

Project Designer

Drawn By	Checked By	Project No.	Project Status
13115/2024	13115/2024	13115/2024	13115/2024
13115/2024	13115/2024	13115/2024	13115/2024
13115/2024	13115/2024	13115/2024	13115/2024
13115/2024	13115/2024	13115/2024	13115/2024

TEXCO DESIGN

100m Arch. NSW APR 11 2024
E: office@texcodesign.com.au
P: +61 469 464 469

Project Designer

Drawn By | Checked By | Project No. | Project Status

Client: 25 Simone Crescent Casula
Climate Zone: Wind Region

#Client Full Name: 25 SIMONE CRESCENT CASULA
REFER TO FACADE REPORT
REFER TO FACADE REPORT

PAPER

A3
1:140

DRAWING TITLE :

GENERAL
SITE ANALYSIS

PROJECT NAME :

25 SIMONE CRESCENT
CASULA

REVISION NO.

05

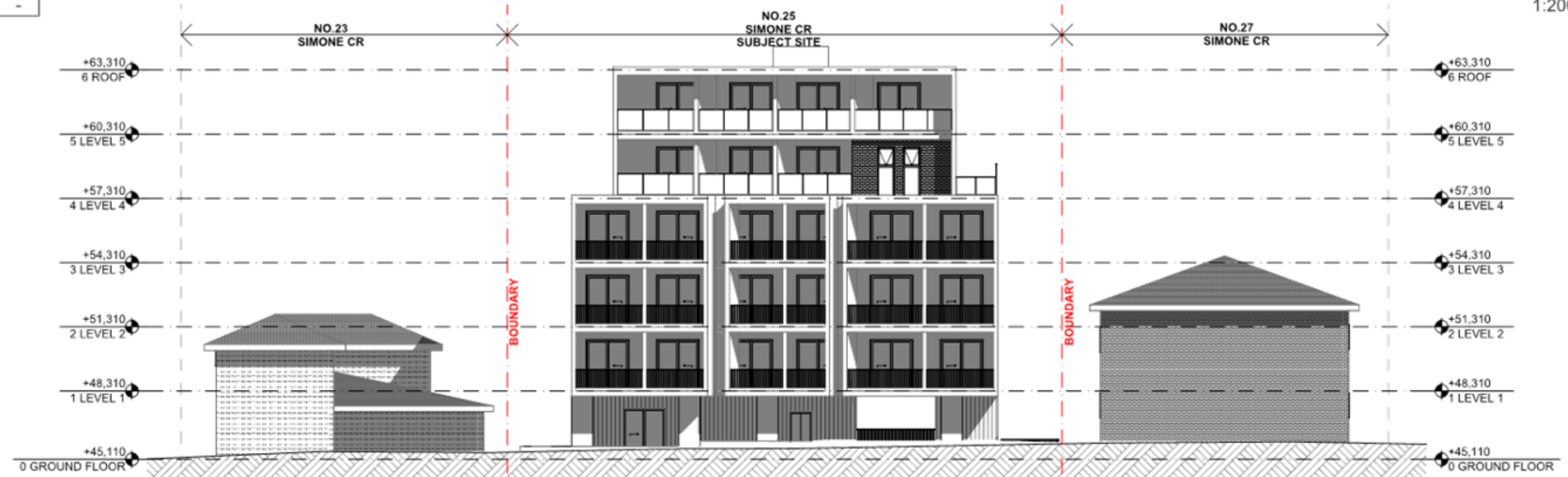
DRAWING NO.

A005



E-05
-

SIMONE CRESCENT ELEVATION
1:200



E-06
-

KURRAJONG ROAD ELEVATION
1:200

NOTE
The Designer shall check all dimensions and levels on site prior to construction. Refer to the architect's drawings for all dimensions and levels. Do not construct dimensions and levels on site without the approval of the architect. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for the purposes authorized by the Council of Design Professionals.
All boundaries and contents are subject to survey/revision. All levels to Australian Height Data (AHD) or the common reference to the datum of the site and/or the datum of any services prior to construction.
All documents herein are subject to Australian Copyright Laws.

Project Partners
Refer to construction documentation when directed

Principal Contractor	Architect
Planning Consultant	Structural Engineer
Structural Engineer	Mechanical Engineer
Mechanical Engineer	Electrical Engineer
Electrical Engineer	Fire Engineer
Fire Engineer	Water Services
Water Services	Technical Engineer
Technical Engineer	Landscaper/Design
Landscaper/Design	Traffic Engineer
Traffic Engineer	Surveyor

RevID	Transmitted for Date	Approved by	Plan Name
01	2024/05/24		01
02	2024/05/24		02
03	2024/05/24		03
04	2024/05/24		04
05	2024/05/24		05
06	2024/05/24		06
07	2024/05/24		07
08	2024/05/24		08
09	2024/05/24		09
10	2024/05/24		10
11	2024/05/24		11
12	2024/05/24		12
13	2024/05/24		13
14	2024/05/24		14
15	2024/05/24		15
16	2024/05/24		16
17	2024/05/24		17
18	2024/05/24		18
19	2024/05/24		19
20	2024/05/24		20
21	2024/05/24		21
22	2024/05/24		22
23	2024/05/24		23
24	2024/05/24		24
25	2024/05/24		25
26	2024/05/24		26
27	2024/05/24		27
28	2024/05/24		28
29	2024/05/24		29
30	2024/05/24		30
31	2024/05/24		31
32	2024/05/24		32
33	2024/05/24		33
34	2024/05/24		34
35	2024/05/24		35
36	2024/05/24		36
37	2024/05/24		37
38	2024/05/24		38
39	2024/05/24		39
40	2024/05/24		40
41	2024/05/24		41
42	2024/05/24		42
43	2024/05/24		43
44	2024/05/24		44
45	2024/05/24		45
46	2024/05/24		46
47	2024/05/24		47
48	2024/05/24		48
49	2024/05/24		49
50	2024/05/24		50
51	2024/05/24		51
52	2024/05/24		52
53	2024/05/24		53
54	2024/05/24		54
55	2024/05/24		55
56	2024/05/24		56
57	2024/05/24		57
58	2024/05/24		58
59	2024/05/24		59
60	2024/05/24		60
61	2024/05/24		61
62	2024/05/24		62
63	2024/05/24		63
64	2024/05/24		64
65	2024/05/24		65
66	2024/05/24		66
67	2024/05/24		67
68	2024/05/24		68
69	2024/05/24		69
70	2024/05/24		70
71	2024/05/24		71
72	2024/05/24		72
73	2024/05/24		73
74	2024/05/24		74
75	2024/05/24		75
76	2024/05/24		76
77	2024/05/24		77
78	2024/05/24		78
79	2024/05/24		79
80	2024/05/24		80
81	2024/05/24		81
82	2024/05/24		82
83	2024/05/24		83
84	2024/05/24		84
85	2024/05/24		85
86	2024/05/24		86
87	2024/05/24		87
88	2024/05/24		88
89	2024/05/24		89
90	2024/05/24		90
91	2024/05/24		91
92	2024/05/24		92
93	2024/05/24		93
94	2024/05/24		94
95	2024/05/24		95
96	2024/05/24		96
97	2024/05/24		97
98	2024/05/24		98
99	2024/05/24		99
100	2024/05/24		100

Project Designer

TEXCO DESIGN
Nem Arch. NSW AFB 11348
PO BOX 449 504 509
E: office@texcodesign.com.au



Drawn / Checked
Revision Date
Project No.
Project Status

10/1/2024
25
25
25

Client
Site
Climate Zone
Wind Region

#Client Full Name
25 SIMONE CRESCENT CASULA
REFER TO FACADE REPORT

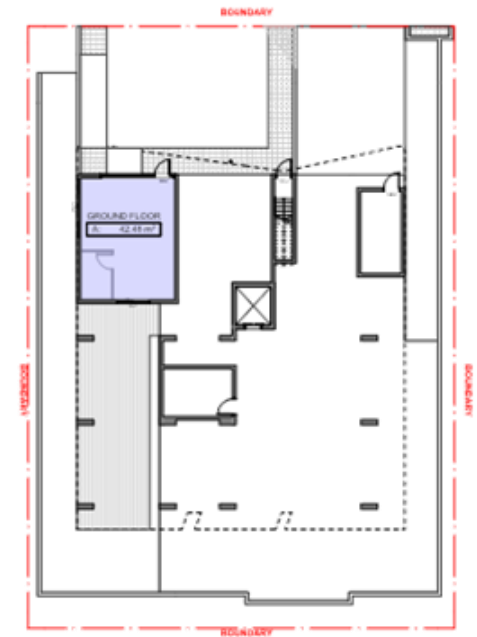
PAPER
A3
1:200

DRAWING TITLE:
GENERAL
STREETSCAPE ANALYSIS

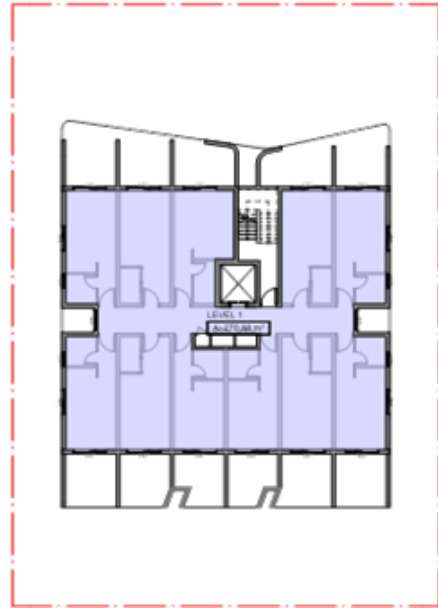
PROJECT NAME:
**25 SIMONE CRESCENT
CASULA**

REVISION NO.
06

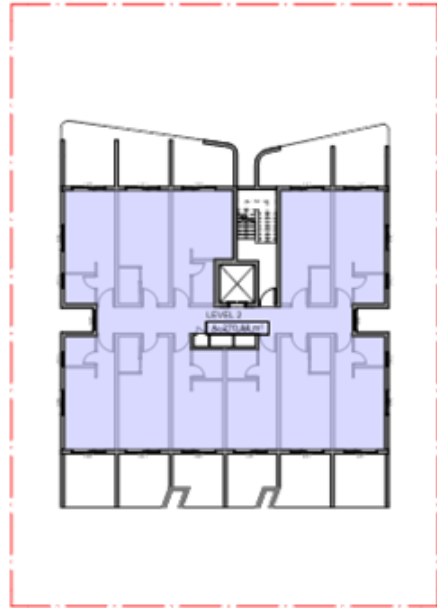
DRAWING NO.
A006



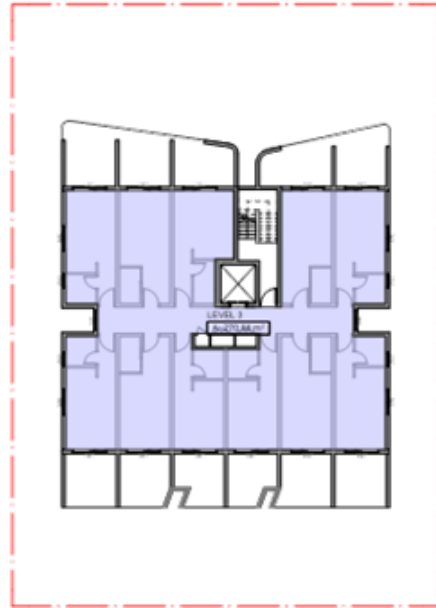
0. GROUND FLOOR
- 1:400



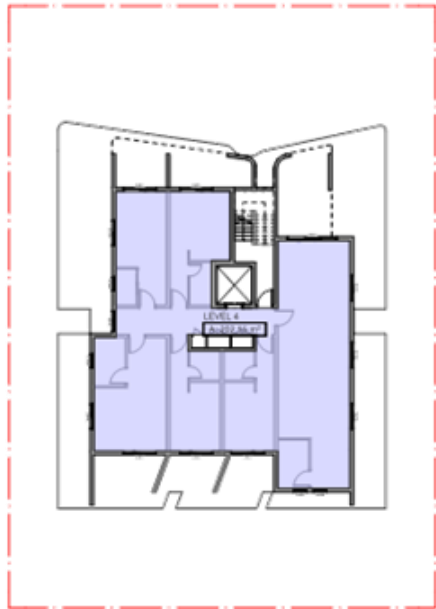
1. LEVEL 1
- 1:400



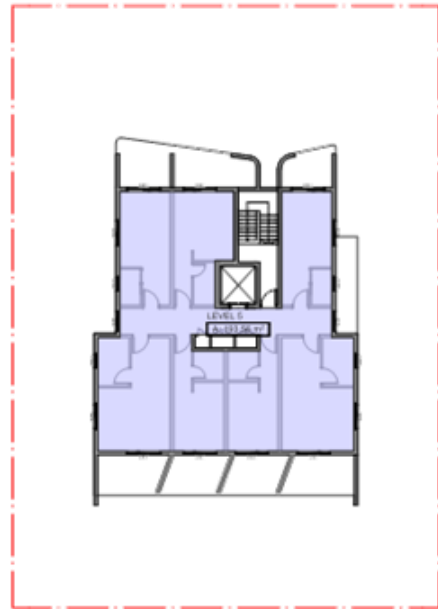
2. LEVEL 2
- 1:400



3. LEVEL 3
- 1:400



4. LEVEL 4
- 1:400



5. LEVEL 5
- 1:400

GFA CALCULATION	
STOREY	MEASURED AREA
GROUND FLOOR	42.48
LEVEL 1	270.88
LEVEL 2	270.88
LEVEL 3	270.88
LEVEL 4	202.15
LEVEL 5	193.56
	1,250.83 m²

SITE AREA: 947.7 SQM
BASE FSR 1.2:1 + BONUS 10%
PERMISSIBLE FSR 1.32 : 1
TOTAL GFA PERMISSIBLE = 1,250.964m²
PROPOSED PRIVATE ROOM: 47
INCLUDING CLA: 2
PROPOSED FSR: 1.319
PROPOSED GFA: 1,250.83 m²
GFA CALCULATION

NOTE
The Designer shall check all dimensions and levels on site prior to construction. Refer to any notes, discrepancies or omissions to the architect. Refer to the architect for any dimensions. Do not scale drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for the site when authorized in writing by Texco Design Pty Ltd.
All boundaries and contents are subject to survey/strata. All levels to Australian Height Data (AHD) or to the common reference to the Australian Height Data (AHD) and notations of any services prior to construction.
All documents herein are subject to Australian Copyright Laws.

Project Partners
Refer to consultant documentation when directed
Principal Contractor: #Builder
Planning Consultant: #Planning Consultant
Structural Engineer: #Structural Engineer
Mechanical Engineer: #Mechanical Engineer
Electrical Engineer: #Electrical Engineer
Fire Engineer: #Fire Engineer
Traffic Engineer: #Traffic Engineer
Land Surveyor: #Surveyor

RevID	Transmitted for Date	Approved by	Plan Name
01	19/11/2024		
02	19/11/2024		
03	19/11/2024		
04	19/11/2024		
05	19/11/2024		
06	19/11/2024		
07	19/11/2024		
08	19/11/2024		
09	19/11/2024		

Project Designer
#Texco Design
E: office@texcodesign.com.au
N: 02 449 404 009

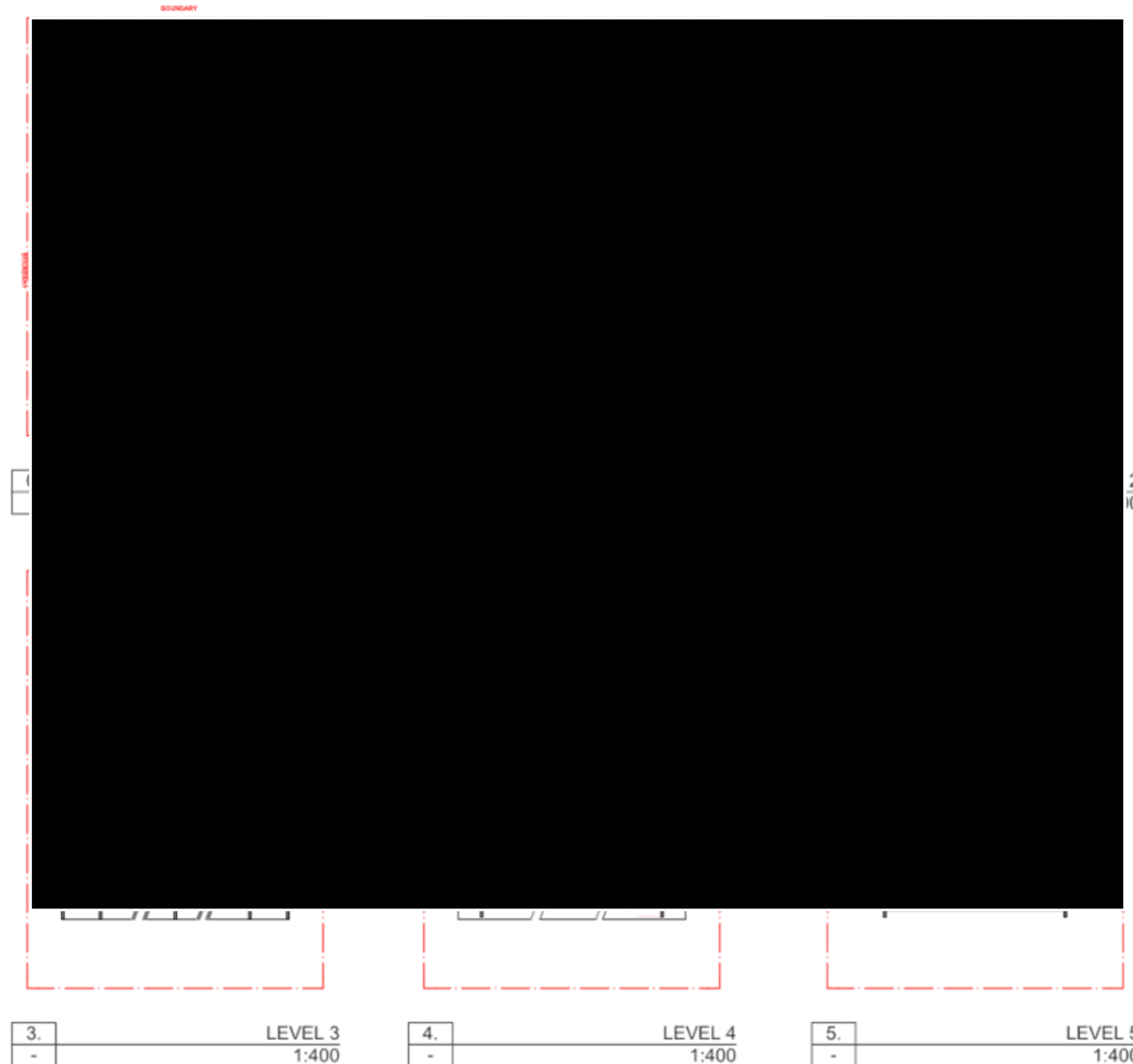


Drawn / Checked: #Drawn By / #Checked By
Revision Date: 19/11/2024
Project NO: #Project ID
Project Status: #Project Status
Client: #Client Full Name
Site: 25 SIMONE CRESCENT CASULA
Wind Region: REFER TO FACADE REPORT

PAPER: A3
1:1, 1:400

DRAWING TITLE: GENERAL GFA CALCULATION
PROJECT NAME: 25 SIMONE CRESCENT CASULA

REVISION NO: 09
DRAWING NO: A007



GROUND FLOOR CO-LIVING

UNIT NO.	LIVING AREA (m2)	WET AREA (m2)	GROSS AREA (m2)	ROOM TYPE
C01	31.15	10.84	41.99	COMMUNAL LIVING AREA

LEVEL 1 - LEVEL 3 CO-LIVING

UNIT NO.	LIVING AREA (m2)	WET AREA (m2)	GROSS AREA (m2)	ROOM TYPE
101/105/106/111/201/205/206/ 211/301/305/306/311	15.04	5.56	20.60	SINGLE OCCUPANCY ROOM
102/104/107/110/202/204/207/ 210/302/304/307/310	15.17	5.51	20.68	SINGLE OCCUPANCY ROOM
103/203/303	15.32	6.43	21.75	SINGLE OCCUPANCY ROOM
108/109/208/209/308/309	13.49	5.56	19.05	SINGLE OCCUPANCY ROOM

LEVEL 4 CO-LIVING

UNIT NO.	LIVING AREA (m ²)	WET AREA (m ²)	GROSS AREA (m ²)	ROOM TYPE
401	15.17	5.51	20.68	SINGLE OCCUPANCY ROOM
402	15.32	6.43	21.75	SINGLE OCCUPANCY ROOM
403	21.34	8.36	29.70	ACCESSIBLE ROOM
404/405	13.49	5.56	19.05	SINGLE OCCUPANCY ROOM
C02	56.11	9.72	65.83	COMMUNAL LIVING AREA

LEVEL 5 CO-LIVING

UNIT NO.	LIVING AREA (m2)	WET AREA (m2)	GROSS AREA (m2)	ROOM TYPE
501/503	15.17	5.51	20.68	SINGLE OCCUPANCY ROOM
502	15.32	6.43	21.75	SINGLE OCCUPANCY ROOM
504/507	21.34	8.36	29.70	ACCESSIBLE ROOM
505/506	13.49	5.56	19.05	SINGLE OCCUPANCY ROOM

 LIVING AREA

 WET AREA

NOTE
The Designer shall check all dimensions and levels on site prior to construction. Inadequately sized, disconnected, or damaged to be avoided. Refer to within dimensions only. Do not scale drawings. Drawings shall not be used for construction purposes and issued for construction. This drawing reflects a design by: Fozco Design Pty Ltd and it is to be used only for work after authorized in writing by Fozco Design Pty Ltd.

All documents herein within are subject to Australian Copyright Laws.

Project Partners

Refer to consultant or demonstration when directed

-Principal Contractor	-Rider
-Planning Consultant	-Structural Consultant
-Structural Engineer	-Structural Engineer
-Mechanical Engineer	-Mechanical Engineer
-Electrical Engineer	-Hydraulic Engineer
-Fire Engineer	-HVAC Engineer
-Firm Supplier	-GIS Services
-Electrical Engineer	-Electrical Engineer
-Architectural Designer	-Acoustics Consultant
-Traffic Engineer	-Traffic Engineer
-Land Surveyor	-Surveyor

ItemID	Transacted On Date	Approved by	Plan Note
26	05/15/2014		
27	05/16/2014		
28	05/16/2014		
29	05/25/2014		

Project Designer

TEXCO DESIGN
 Hom Arch, NSW 1534
 P: +61 449 884 202
 E: artina@texcodesign.com.au



Drawn Checked	#Drawn By
Revision Date :	10/17/2024
Project No.	#Project ID
Project Status	#Project Status

Client	#Client Full Name
Site	25 SIMONE CRESCENT CASULA
Climate Zone	REFER TO FACADE REPORT
Wind Region	REFER TO FACADE REPORT

PAPER

A3
1:400,
1:1

R | DRAWING TITLE :

GENERAL UNIT SCHEDULE

PROJECT NAME : **25 SIMONE CRESCENT
CASULA**

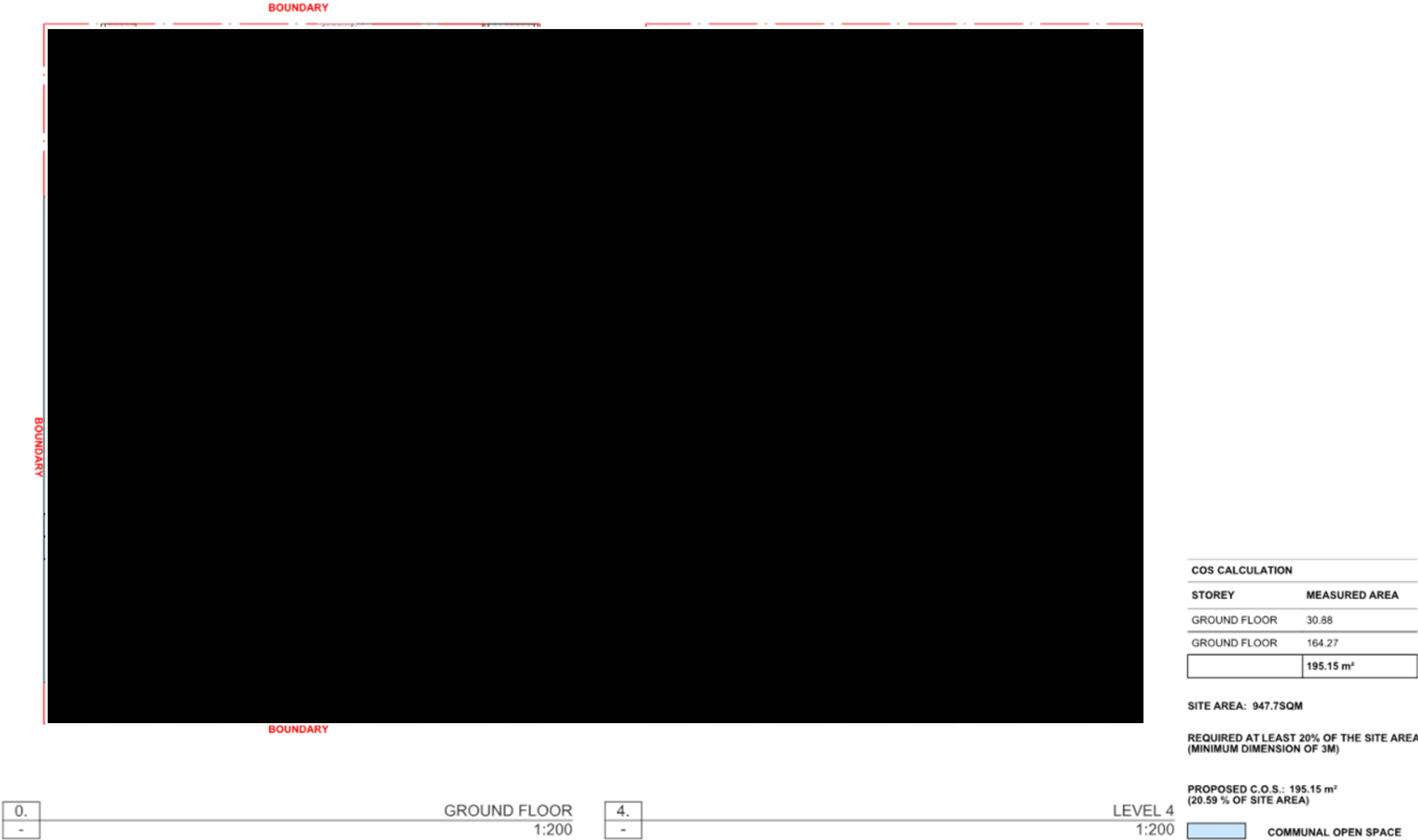
REVISION NO.

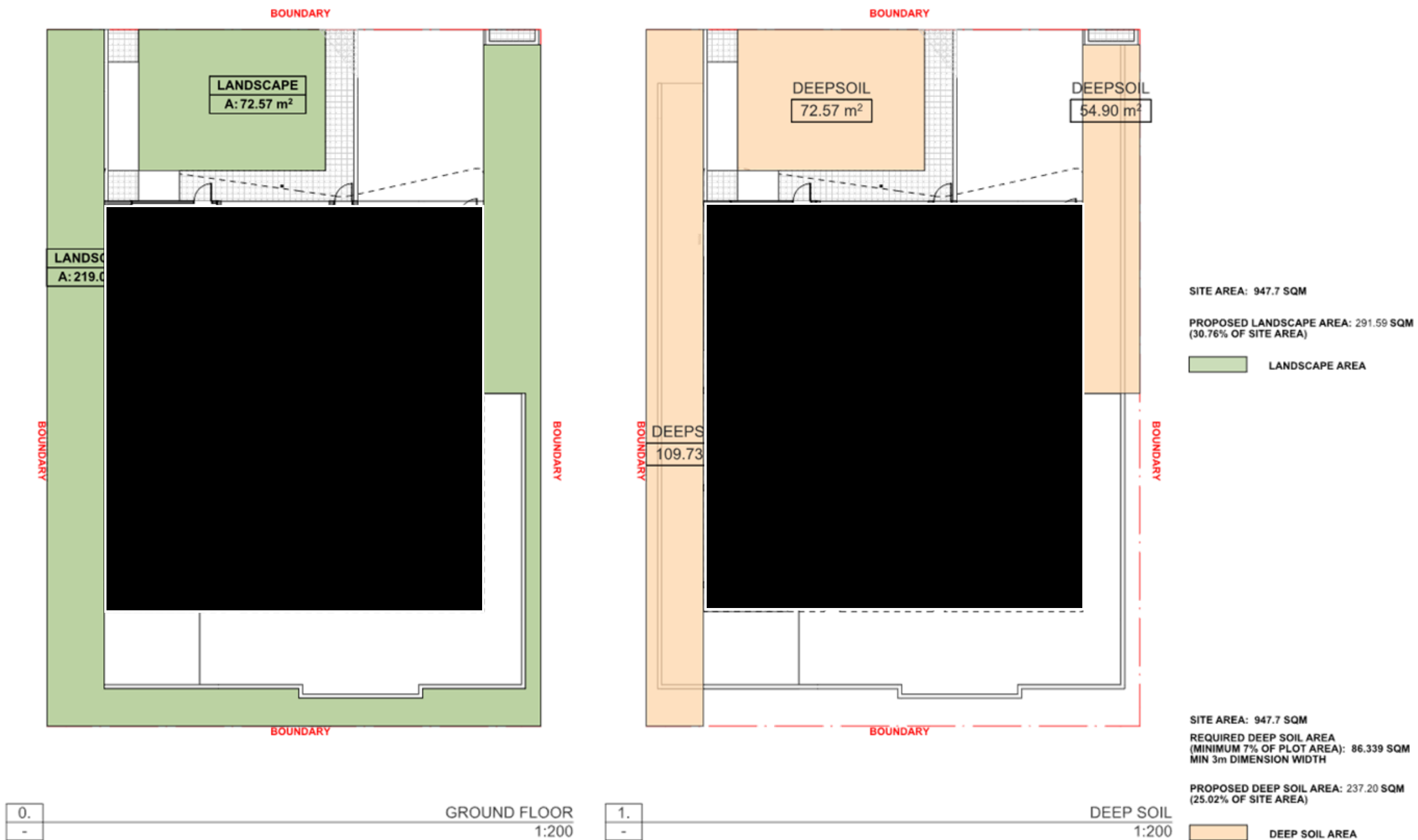
04

DRAWING NO.

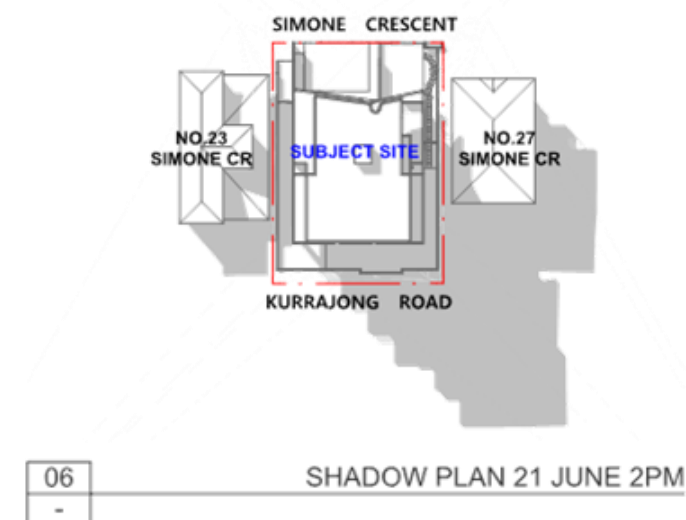
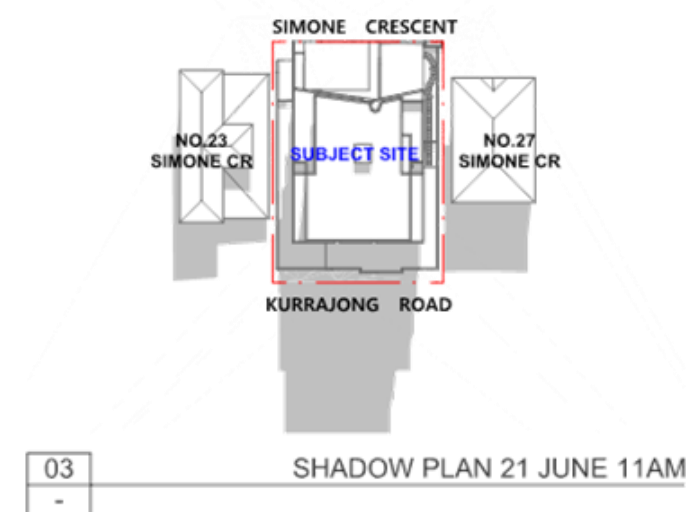
A008







NOTES The Builder shall check all dimensions and levels on site prior to construction. The Engineer shall be responsible for the accuracy of the dimensions and levels to be written dimensions only. Do not make drawings. Drawings shall not be used for construction purposes. The Engineer shall be responsible for the accuracy of the dimensions and levels to be written dimensions only. Do not make drawings. Drawings shall not be used for construction purposes. The Engineer shall be responsible for the accuracy of the dimensions and levels to be written dimensions only. Do not make drawings. Drawings shall not be used for construction purposes.		Project Partners Refer to consultant documentation when directed <table><tr><th>Rev'd</th><th>Transmittal Set Date</th><th>Approved</th><th>Rev Note</th></tr><tr><td>01</td><td>10/03/2022</td><td></td><td></td></tr><tr><td>02</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>03</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>04</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>05</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>06</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>07</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>08</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>09</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>10</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>11</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>12</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>13</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>14</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>15</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>16</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>17</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>18</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>19</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>20</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>21</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>22</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>23</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>24</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>25</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>26</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>27</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>28</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>29</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>30</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>31</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>32</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>33</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>34</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>35</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>36</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>37</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>38</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>39</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>40</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>41</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>42</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>43</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>44</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>45</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>46</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>47</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>48</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>49</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>50</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>51</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>52</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>53</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>54</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>55</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>56</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>57</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>58</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>59</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>60</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>61</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>62</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>63</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>64</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>65</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>66</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>67</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>68</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>69</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>70</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>71</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>72</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>73</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>74</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>75</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>76</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>77</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>78</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>79</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>80</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>81</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>82</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>83</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>84</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>85</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>86</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>87</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>88</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>89</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>90</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>91</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>92</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>93</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>94</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>95</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>96</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>97</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>98</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>99</td><td>10/10/2022</td><td></td><td></td></tr><tr><td>100</td><td>10/10/2022</td><td></td><td></td></tr></table>		Rev'd	Transmittal Set Date	Approved	Rev Note	01	10/03/2022			02	10/10/2022			03	10/10/2022			04	10/10/2022			05	10/10/2022			06	10/10/2022			07	10/10/2022			08	10/10/2022			09	10/10/2022			10	10/10/2022			11	10/10/2022			12	10/10/2022			13	10/10/2022			14	10/10/2022			15	10/10/2022			16	10/10/2022			17	10/10/2022			18	10/10/2022			19	10/10/2022			20	10/10/2022			21	10/10/2022			22	10/10/2022			23	10/10/2022			24	10/10/2022			25	10/10/2022			26	10/10/2022			27	10/10/2022			28	10/10/2022			29	10/10/2022			30	10/10/2022			31	10/10/2022			32	10/10/2022			33	10/10/2022			34	10/10/2022			35	10/10/2022			36	10/10/2022			37	10/10/2022			38	10/10/2022			39	10/10/2022			40	10/10/2022			41	10/10/2022			42	10/10/2022			43	10/10/2022			44	10/10/2022			45	10/10/2022			46	10/10/2022			47	10/10/2022			48	10/10/2022			49	10/10/2022			50	10/10/2022			51	10/10/2022			52	10/10/2022			53	10/10/2022			54	10/10/2022			55	10/10/2022			56	10/10/2022			57	10/10/2022			58	10/10/2022			59	10/10/2022			60	10/10/2022			61	10/10/2022			62	10/10/2022			63	10/10/2022			64	10/10/2022			65	10/10/2022			66	10/10/2022			67	10/10/2022			68	10/10/2022			69	10/10/2022			70	10/10/2022			71	10/10/2022			72	10/10/2022			73	10/10/2022			74	10/10/2022			75	10/10/2022			76	10/10/2022			77	10/10/2022			78	10/10/2022			79	10/10/2022			80	10/10/2022			81	10/10/2022			82	10/10/2022			83	10/10/2022			84	10/10/2022			85	10/10/2022			86	10/10/2022			87	10/10/2022			88	10/10/2022			89	10/10/2022			90	10/10/2022			91	10/10/2022			92	10/10/2022			93	10/10/2022			94	10/10/2022			95	10/10/2022			96	10/10/2022			97	10/10/2022			98	10/10/2022			99	10/10/2022			100	10/10/2022			Project Designer  TEXCO DESIGN 100m Arch, NEWARK 13148 P: +61 8 949 354 889 E: office@texcodesign.com.au  TRUE NORTH		Drawn Checked Reviewed Date: Project No: Project Status Client: Site: Climate Zone: Wind Region: #Drawn By 10/10/2022 #Project ID #Project Status #Client Full Name 25 SIMONE CRESCENT CASULA REFER TO FACADE REPORT REFER TO FACADE REPORT	PAPER A3 1:200, 1:1	DRAWING TITLE : GENERAL LANDSCAPE & DEEP SOIL CALCULATION PROJECT NAME : 25 SIMONE CRESCENT CASULA	REVISION NO. 10 DRAWING NO. A011
Rev'd	Transmittal Set Date	Approved	Rev Note																																																																																																																																																																																																																																																																																																																																																																																																																										
01	10/03/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
02	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
03	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
04	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
05	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
06	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
07	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
08	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
09	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
10	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
11	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
12	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
13	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
14	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
15	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
16	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
17	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
18	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
19	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
20	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
21	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
22	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
23	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
24	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
25	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
26	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
27	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
28	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
29	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
30	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
31	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
32	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
33	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
34	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
35	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
36	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
37	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
38	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
39	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
40	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
41	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
42	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
43	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
44	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
45	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
46	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
47	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
48	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
49	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
50	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
51	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
52	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
53	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
54	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
55	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
56	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
57	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
58	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
59	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
60	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
61	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
62	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
63	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
64	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
65	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
66	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
67	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
68	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
69	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
70	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
71	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
72	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
73	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
74	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
75	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
76	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
77	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
78	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
79	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
80	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
81	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
82	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
83	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
84	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
85	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
86	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
87	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
88	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
89	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
90	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
91	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
92	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
93	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
94	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
95	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
96	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
97	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
98	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
99	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												
100	10/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																												



All boundaries and contents are subject to surveying. All levels to Australian Height Data, it is the contractor's responsibility to confirm all measurements on site and locations of any services prior to work on site.

All documents hereafter are subject to Australian Copyright Laws.

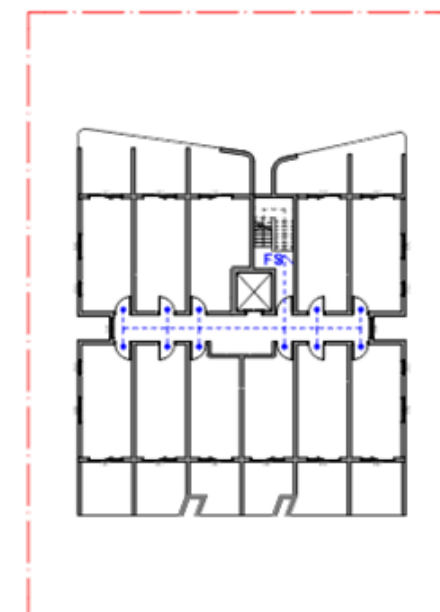
[illegible]

T
E: office@tkcodesign.com

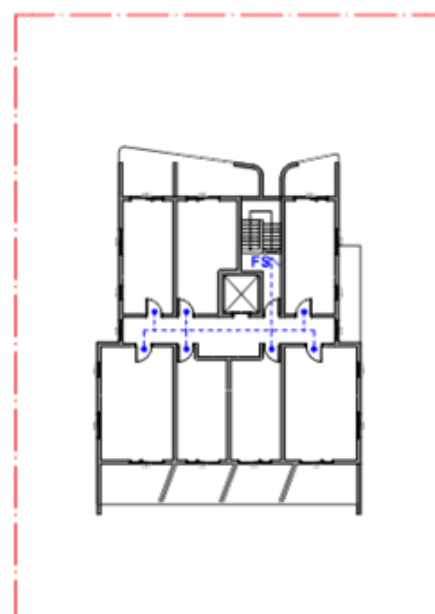
TRUE NORTH

PAPER
A3
1:1000

REVISION NO.
05
DRAWING NO.
A013



3.	LEVEL 3
-	1:400

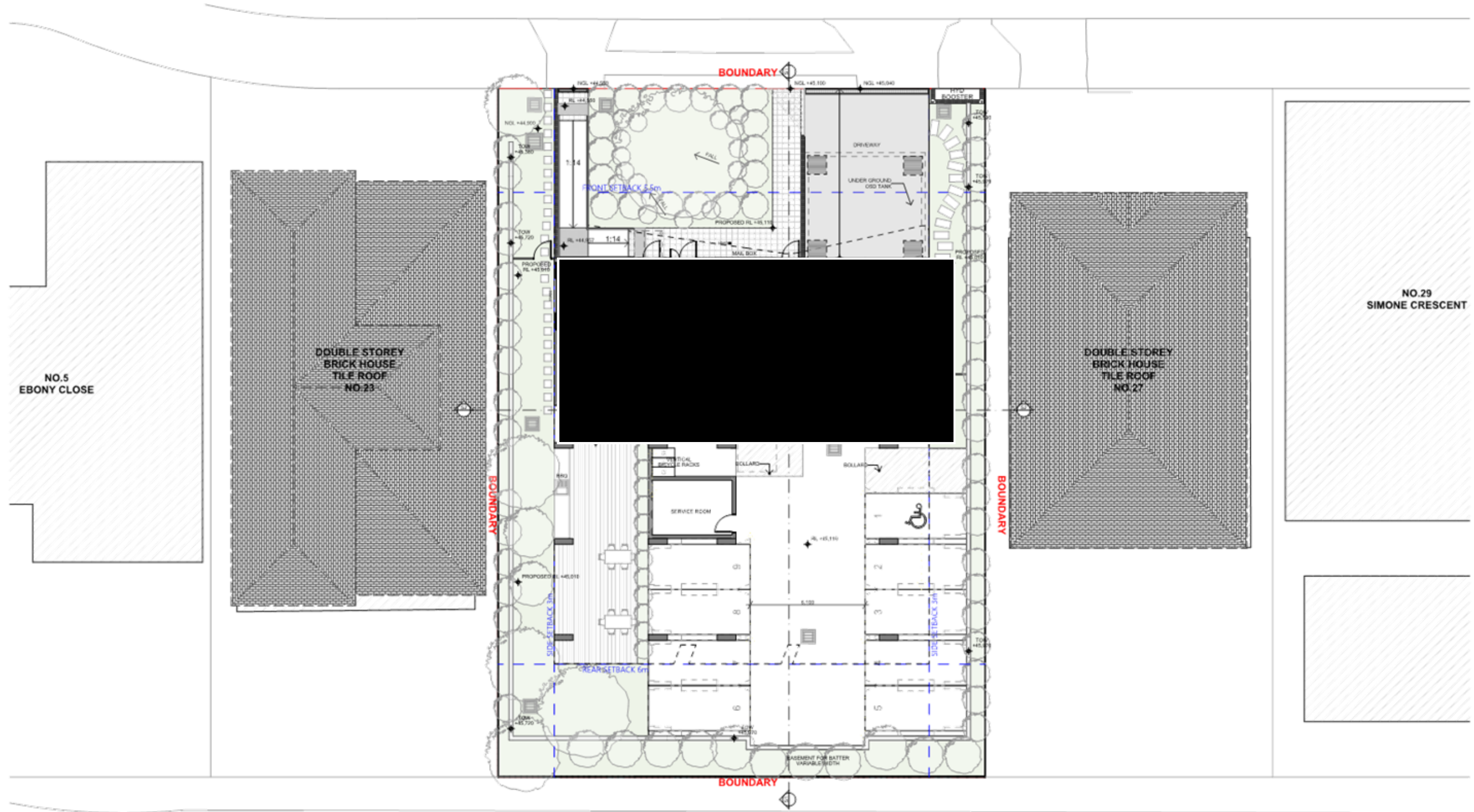


5.	LEVEL 5
-	1:400

 - - - - STARTING POINT OF EGRESS PATH
 - - -  DIRECTION OF EGRESS PATH

REVISION NO.
04
DRAWING NO.
A014





0.
-

GROUND FLOOR
1:200

NOTE
The Designer shall check all dimensions and levels on site prior to construction. Refer to any notes, discrepancies or omissions to the architect. Refer to within dimensions only. Do not create drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for work when authorised in writing by Texco Design Pty Ltd.

All boundaries and content are subject to survey/drawing. All levels to Australian Height Data. It is the contractor's responsibility to confirm all measurements on site and variations of any services prior to work on site.

All documents herein are subject to Australian Copyright Laws.

Project Partners
Refer to consultant documentation when directed

- Principal Contractor: **ABR**
- Planning Consultant: **ABR**
- Structural Engineer: **ABR**
- Mechanical Engineer: **ABR**
- Electrical Engineer: **ABR**
- Fire Engineer: **ABR**
- Fire Services: **ABR**
- Structural Engineer: **ABR**
- Architectural Consultant: **ABR**
- Land Surveyor: **ABR**

RevID	Transmitted for Date	Approved by	Plan Name
1	19/11/2024		
2	19/11/2024		
3	19/11/2024		
4	19/11/2024		
5	19/11/2024		
6	19/11/2024		
7	19/11/2024		
8	19/11/2024		
9	19/11/2024		
10	19/11/2024		

Project Designer

TEXCO DESIGN

10m Arch. NSW APR 11/2018
E: office@texcodesign.com.au P: +61 449 584 889



Drawn | Checked
Revision Date: 19/11/2024
Project No. #Project ID
Project Status #Project Status

Client: 25 SIMONE CRESCENT CASULA
Site: REFER TO FACADE REPORT
Wind Region: REFER TO FACADE REPORT

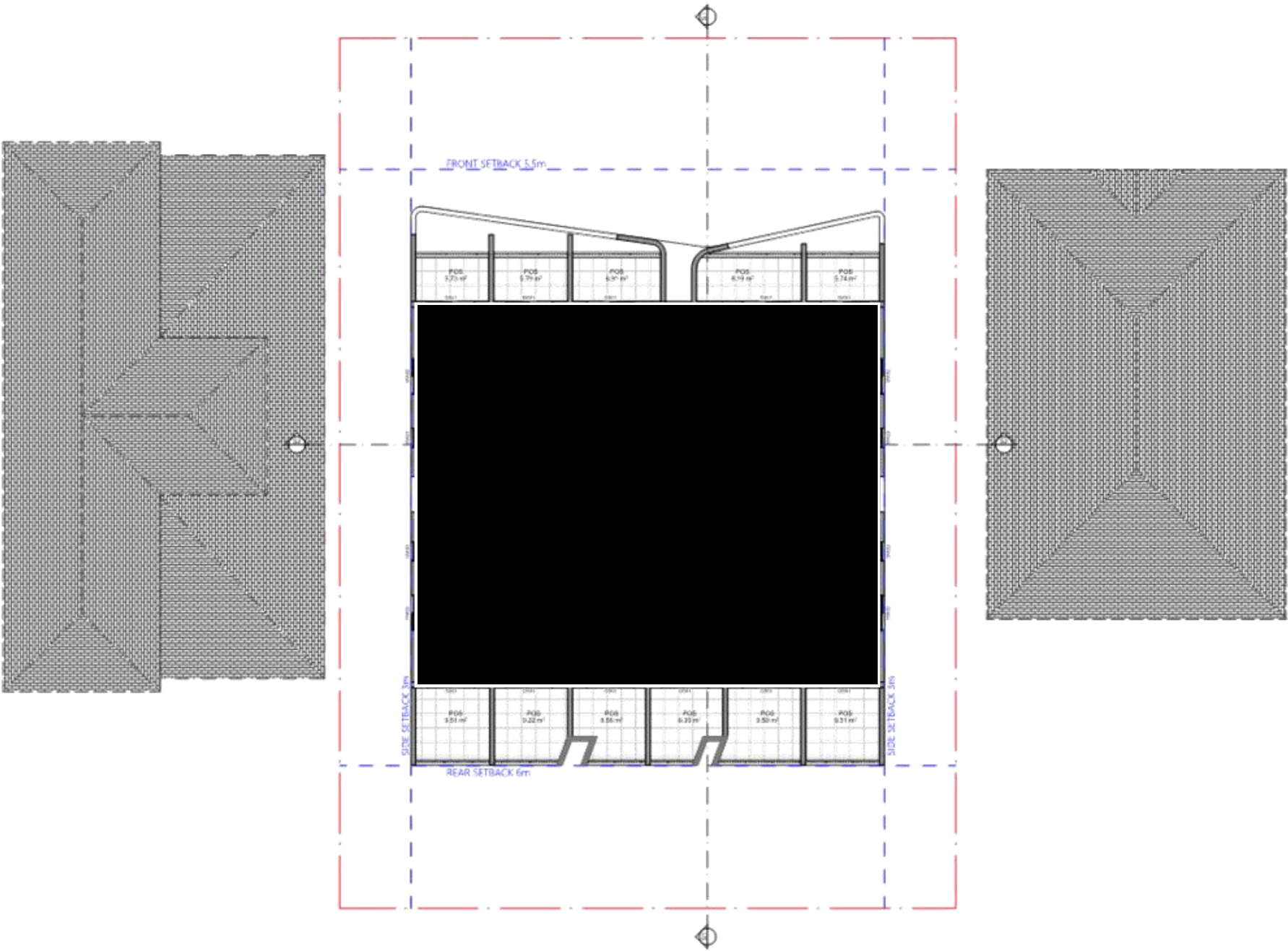
PAPER
A3
1:200

DRAWING TITLE:
PLANS
GROUND FLOOR PLAN

PROJECT NAME:
25 SIMONE CRESCENT CASULA

REVISION NO.
13

DRAWING NO.
A101



1.
-

LEVEL 1
1:200

NOTE

This drawing shall show all dimensions and levels as per the construction. It is the responsibility of the architect to ensure that the drawing is accurate and that the construction is in accordance with the drawing. The architect shall be responsible for the accuracy of the drawing and shall be liable for any errors or omissions. The architect shall be responsible for the accuracy of the drawing and shall be liable for any errors or omissions. The architect shall be responsible for the accuracy of the drawing and shall be liable for any errors or omissions.

Project Partners

Refer to consultation documentation when directed

- Principal Contractor: **Texco Design**
- Planning Consultant: **Texco Design**
- Structural Engineer: **Texco Design**
- Mechanical Engineer: **Texco Design**
- Electrical Engineer: **Texco Design**
- Fire Engineer: **Texco Design**
- Transport Engineer: **Texco Design**
- Landscaper: **Texco Design**

Rev	Revised Date	Revised By	Revised For
1	10/10/2024		
2	10/10/2024		
3	10/10/2024		
4	10/10/2024		
5	10/10/2024		
6	10/10/2024		
7	10/10/2024		
8	10/10/2024		
9	10/10/2024		
10	10/10/2024		

Project Designer

TEXCO DESIGN
10m Arch, NSW APR 11/2018
E: office@texcodesign.com.au P: +61 469 984 889



Drawn / Checked

Revision Date:
Project No:
Project Status:

#Drawn By |

#Project ID
#Project Status

PAPER

A3
1:200

DRAWING TITLE :

PLANS
LEVEL 1 PLAN

PROJECT NAME :

25 SIMONE CRESCENT
CASULA

REVISION NO.

11

DRAWING NO.

A102



LEVEL 2
1:200

NOTE
The Batten shall shock or dismantle and level on site prior to construction. It may be used, however, as a guide to the position of the wall. It shall not be used as a structural member. Do not use as a structural member. Drawings shall not be used to construct a permanent wall without the approval of the engineer. The drawings are for construction purposes only and shall not be used for any other purpose. The drawings are for construction purposes only and shall not be used for any other purpose. The drawings are for construction purposes only and shall not be used for any other purpose.

All inventories and contents are subject to inspection. All goods to Auctioneer Insight Ltd. or its two corporate subsidiaries to confirm a measurement of site conditions of any services prior to work starts.

All inventories and contents are subject to Auctioneer Insight Ltd.

Project Partners

Refer to consultant documents when directed	
- Principal Contractor - Planning Consultant - Structural Engineer - Architect or Architectural Engineer - Electrical Engineer - Fire Engineer - Fire Section - Electrical Engineer - Health and Safety Officer - Traffic Engineer - Level Surveyor	- Monitor - Planning Consultant - Structural Engineer - Mechanical Engineer - Hydraulic Engineer - Gas Engineer - Fire Service - Electrical Engineer - Building Control Consultant - Traffic Engineer - Surveyor

SlackID	Transcript Set Name	Approved by	File Name
64	12-17-2014		
70	12-17-2014		
80	12-16-2014		
88	12-17-2014		
90	12-17-2014		
95	12-17-2014		
96	12-17-2014		
97	12-17-2014		
98	12-17-2014		
99	12-17-2014		

Project Designer

TE
E: info@tearofdesigns.com

TEXCO DESIGN

Non Arch. NSWARS 11348
P: +61 469 584 800



TRUE NORTH+

Drawn | Checked
Revision Date:
Project No:
Project Status

Client:
 Site:
 Climate Zone:
 Wind Region:

#Drawn By |
 1/3/21/2024
 #Project ID
 #Project Status

#Client Full Name
25 SMONG CRESCENT CASULA
REFER TO FACADE REPORT
REFER TO FACADE REPORT

PAPER

1

1

A3

22

1:200

DRAWING TITLE :

PLANS
LEVEL 2 PLAN

PROJECT NAME :

25 SIMONE CRESCENT
CASULA

REVISION NO.

11

11

DRAFTING NO.

A103

A103



LEVEL 3
1:200

NOTE
The Batten shall shock or dismantle and level on site prior to construction. It may be used, however, as a guide to the position of the wall. It shall not be used as a structural member. Do not use as a structural member. Drawings shall not be used to construct a permanent wall without the approval of the engineer. The drawings are for construction purposes only and shall not be used for any other purpose. The drawings are for construction purposes only and shall not be used for any other purpose. The drawings are for construction purposes only and shall not be used for any other purpose.

All inventories and contents are subject to inspection. All goods to Auctioneer Insight Ltd. or its two corporate subsidiaries to confirm a measurement of site conditions of any services prior to work starts.

All inventories and contents are subject to Auctioneer Insight Ltd.

Project Partners

Refer to contact box on backmatter when directed

• Principal Contractor	• Quality
• Planning Consultant	• Planning Consultant
• Structural Engineer	• Structural Engineer
• Architect/Engineer	• Architectural Engineer
• Structural Engineer	• Systems Engineer
• Fire Engineer	• Systems Engineer
• Fire Section	• Waste Service
• Electrical Engineer	• Electrical Engineer
• Lighting Consultant	• Lighting Consultant
• Traffic Engineer	• Traffic Engineer
• Land Surveyor	• Surveyor

SlackID	Transcript Set Name	Approved by	Doc. Name
64	12-17-2014		
70	12-17-2014		
80	12-16-2014		
88	12-17-2014		
90	12-17-2014		
95	12-17-2014		
96	12-17-2014		
97	12-17-2014		
98	12-17-2014		
99	12-17-2014		

Project Designer

TEXCO DESIGN
 Home Arch, NSW 1534
 P: +61 469 504 800
 E: info@texcodesign.com.au



TEXCO DESIGN

E: info@ultraaudio.com.au P: +61 460 584 800



TRUE NORTH+

Drawn | Checked
Revision Date:
Project No:
Project Status

Client:
 Site:
 Climate Zone:
 Wind Region:

Lead #Drawn By |
6. 10/21/2024
#Project ID
#Project Status

#Client Full Name
25 SAKINE CRESCENT CADULA
REFER TO FACADE REPORT
REFER TO FACADE REPORT

PAPER

1

A3

1:290

DRAWING TITLE :

PLANS
LEVEL 3 PLAN

1

1

PROJECT NAME :

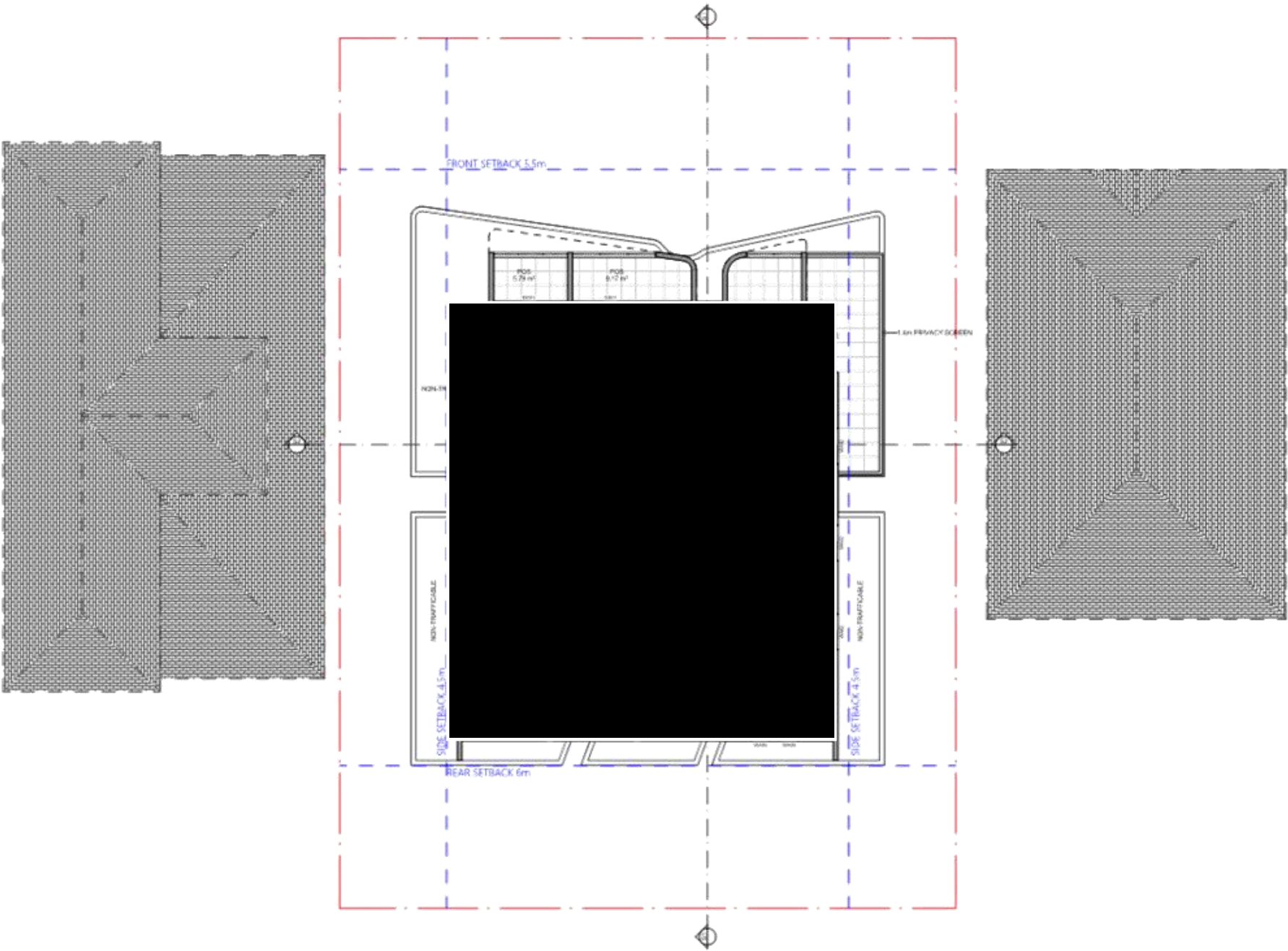
25 SIMONE CRESCENT
CASULA

REVISION NO.

11

DRAFTING NO.

A104



4.
-

LEVEL 4
1:200

NOTE
This drawing shall show all dimensions and levels as per the construction, including any errors, discrepancies or omissions to the architect. Refer to the architect for any errors, discrepancies or omissions. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for such when authorized in writing by Texco Design Pty Ltd.

All coordinates and contours are subject to surveying. All levels to Australian Height Data (AHD) is the contractor's responsibility to confirm and acknowledge all site conditions of any services prior to construction.

All documents and drawings are subject to Australian Copyright Laws.

Project Partners
Refer to consultation documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Transport Engineer	Transport Engineer
Land Surveyor	Land Surveyor

Project Designer

Rev	Revised Date	Revised By	Revised For
01	10/10/2024		
02	10/10/2024		
03	10/10/2024		
04	10/10/2024		
05	10/10/2024		
06	10/10/2024		
07	10/10/2024		
08	10/10/2024		
09	10/10/2024		
10	10/10/2024		
11	10/10/2024		
12	10/10/2024		
13	10/10/2024		
14	10/10/2024		
15	10/10/2024		
16	10/10/2024		
17	10/10/2024		
18	10/10/2024		
19	10/10/2024		
20	10/10/2024		
21	10/10/2024		
22	10/10/2024		
23	10/10/2024		
24	10/10/2024		
25	10/10/2024		
26	10/10/2024		
27	10/10/2024		
28	10/10/2024		
29	10/10/2024		
30	10/10/2024		
31	10/10/2024		
32	10/10/2024		
33	10/10/2024		
34	10/10/2024		
35	10/10/2024		
36	10/10/2024		
37	10/10/2024		
38	10/10/2024		
39	10/10/2024		
40	10/10/2024		
41	10/10/2024		
42	10/10/2024		
43	10/10/2024		
44	10/10/2024		
45	10/10/2024		
46	10/10/2024		
47	10/10/2024		
48	10/10/2024		
49	10/10/2024		
50	10/10/2024		
51	10/10/2024		
52	10/10/2024		
53	10/10/2024		
54	10/10/2024		
55	10/10/2024		
56	10/10/2024		
57	10/10/2024		
58	10/10/2024		
59	10/10/2024		
60	10/10/2024		
61	10/10/2024		
62	10/10/2024		
63	10/10/2024		
64	10/10/2024		
65	10/10/2024		
66	10/10/2024		
67	10/10/2024		
68	10/10/2024		
69	10/10/2024		
70	10/10/2024		
71	10/10/2024		
72	10/10/2024		
73	10/10/2024		
74	10/10/2024		
75	10/10/2024		
76	10/10/2024		
77	10/10/2024		
78	10/10/2024		
79	10/10/2024		
80	10/10/2024		
81	10/10/2024		
82	10/10/2024		
83	10/10/2024		
84	10/10/2024		
85	10/10/2024		
86	10/10/2024		
87	10/10/2024		
88	10/10/2024		
89	10/10/2024		
90	10/10/2024		
91	10/10/2024		
92	10/10/2024		
93	10/10/2024		
94	10/10/2024		
95	10/10/2024		
96	10/10/2024		
97	10/10/2024		
98	10/10/2024		
99	10/10/2024		
100	10/10/2024		

Project Designer: **TEXCO DESIGN**
 100m Arch, NSW APR 1000
 E: office@texcodesign.com.au P: +61 469 904 909

Drawn | Checked
 Revision Code: 10/10/2024
 Project No. 10/10/2024
 Project Status: 10/10/2024

Client: 25 SIMONE CRESCENT CASULA
 Site: 25 SIMONE CRESCENT CASULA
 Climate Zone: REFER TO FACADE REPORT
 Wind Region: REFER TO FACADE REPORT

#Drawn By: 10/10/2024
 #Project ID: 10/10/2024
 #Client Full Name: 25 SIMONE CRESCENT CASULA
 #Project Status: REFER TO FACADE REPORT

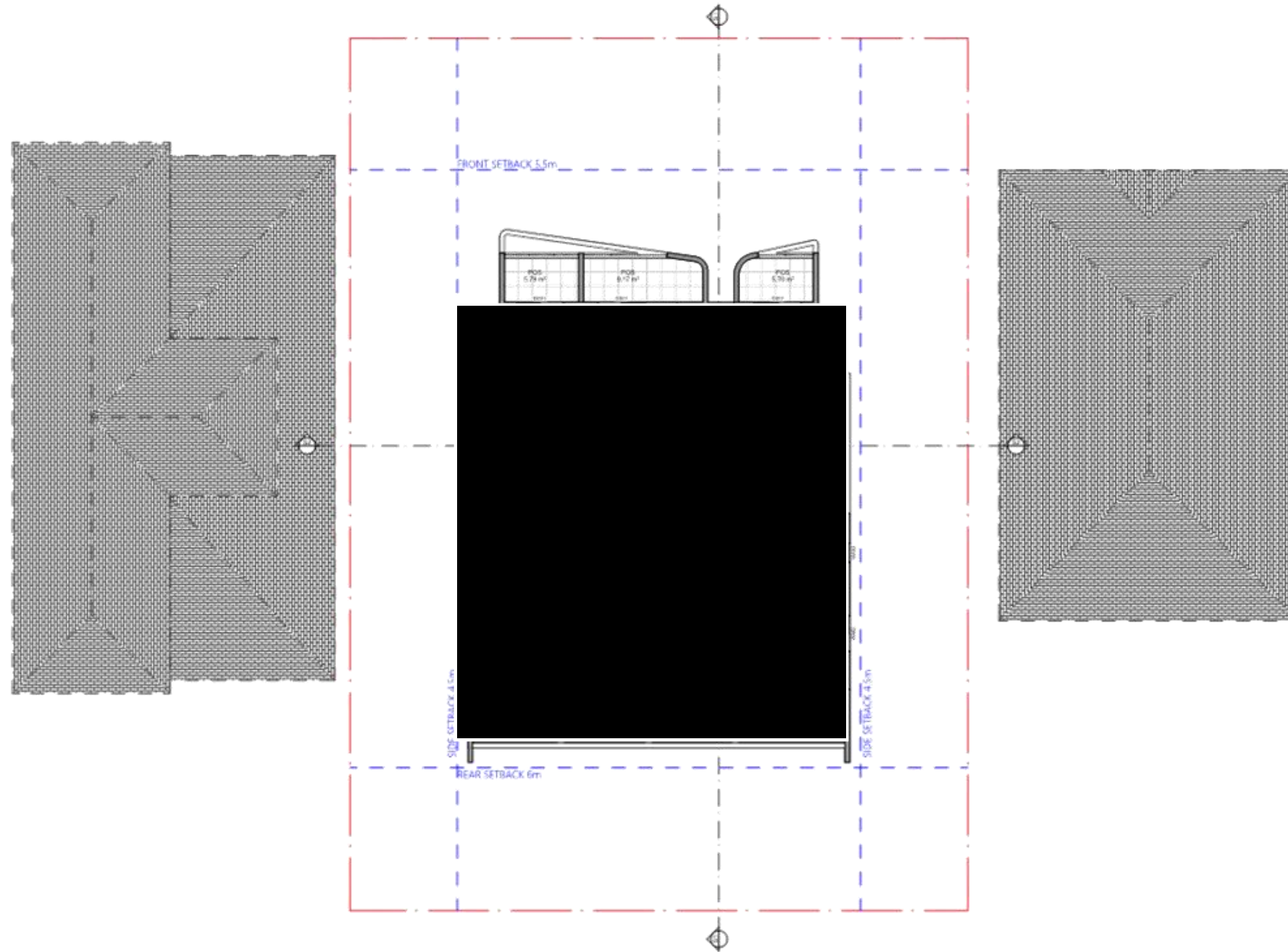
PAPER
A3
 1:200

DRAWING TITLE:
PLANS
LEVEL 4 PLAN

PROJECT NAME:
25 SIMONE CRESCENT CASULA

REVISION NO.
11

DRAWING NO.
A105



5.
-

LEVEL 5
1:200

NOTE

This drawing shall show all dimensions and levels as per the construction. No other dimensions or details shall be shown. Refer to the construction drawings for all details. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for such when authorized in writing by Texco Design Pty Ltd.

All coordinates and contours are subject to surveying. All levels to Australian Height Data (AHD) is the customer's responsibility to confirm in the construction. All site and construction details are subject to the customer's approval.

Project Partners

Refer to construction documentation when directed

Principal Contractor: **Texco Design**
Planning Consultant: **Texco Design**
Structural Engineer: **Texco Design**
Mechanical Engineer: **Texco Design**
Electrical Engineer: **Texco Design**
Civil Engineer: **Texco Design**
Fire Engineer: **Texco Design**
Traffic Engineer: **Texco Design**
Landscape Architect: **Texco Design**
Surveyor: **Texco Design**

Rev	Revised By	Revised Date	Revised Description
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10

Project Designer



100m Arch, NSW APR 11/2018
E: office@texcodesign.com.au
P: +61 469 984 889



Drawn | Checked
Revision Code:
Project No.
Project Status

Client:
Site:
Climate Zone:
Wind Region:

#Drawn By |
#Project ID
#Project Status

#Client Full Name
25 SIMONE CRESCENT CASULA
REFER TO FACADE REPORT
REFER TO FACADE REPORT

PAPER

A3

1:200

DRAWING TITLE :

PLANS
LEVEL 5 PLAN

PROJECT NAME :

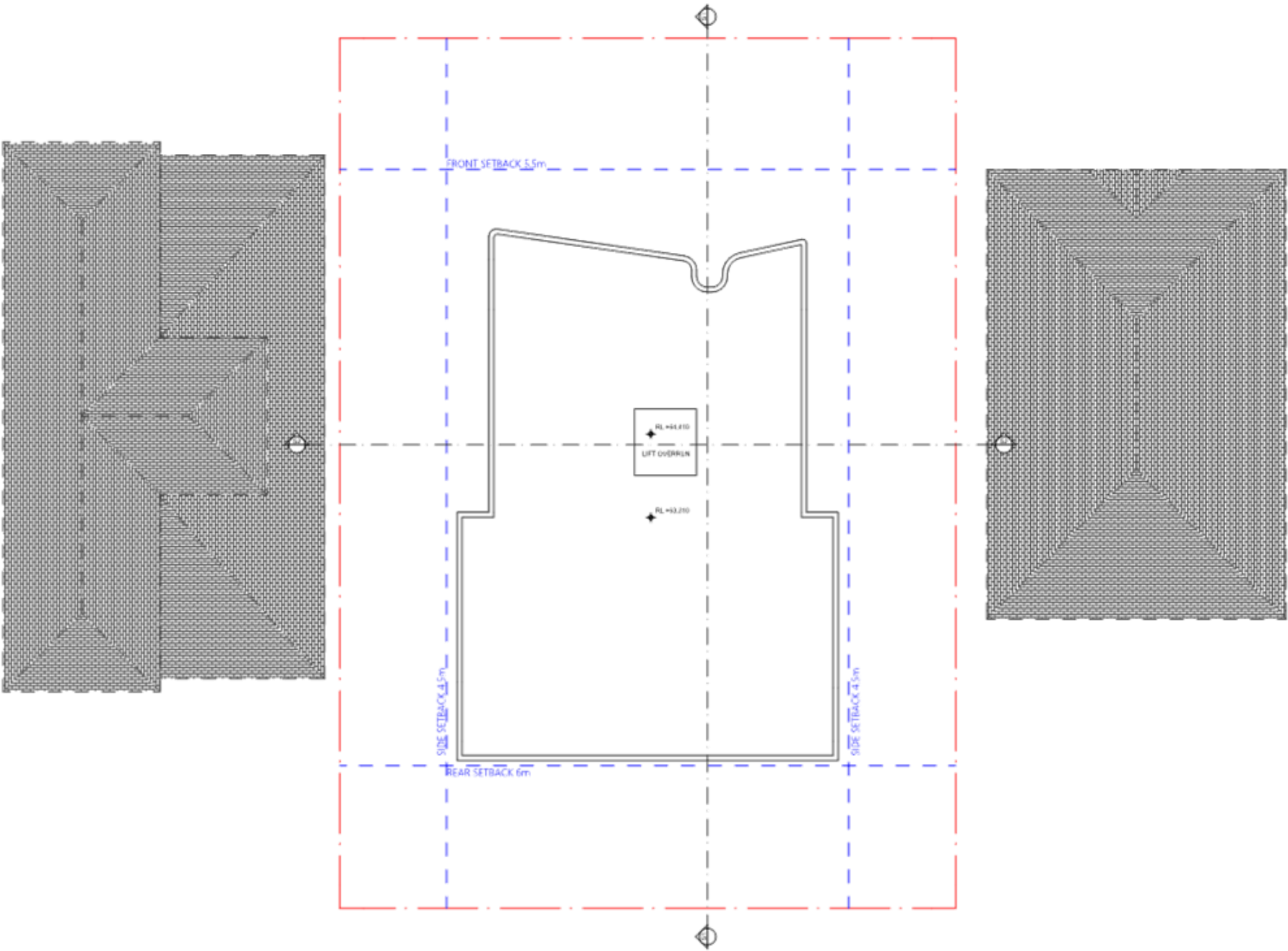
25 SIMONE CRESCENT
CASULA

REVISION NO.

11

DRAWING NO.

A106



6.
-

ROOF
1:200

NOTE
The Designer shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the architect. Refer to within dimensions only. Do not create drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for work when authorised in writing by Texco Design Pty Ltd.
All boundaries and content are subject to survey/drawing. All levels to Australian Height Data. It is the contractor's responsibility to confirm all measurements on site and variations of any services prior to work on site.
All documents herein are subject to Australian Copyright Laws.

Project Partners
Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Site Services	Site Services
Technical Engineer	Technical Engineer
Landscaper/Design	Landscaper/Design
Traffic Engineer	Traffic Engineer
Surveyor	Surveyor

RevID	Transmitted for Date	Approved by	Plan Name
01	19/11/2024		
02	19/11/2024		
03	19/11/2024		
04	19/11/2024		
05	19/11/2024		
06	19/11/2024		
07	19/11/2024		
08	19/11/2024		
09	19/11/2024		
10	19/11/2024		
11	19/11/2024		
12	19/11/2024		
13	19/11/2024		
14	19/11/2024		
15	19/11/2024		
16	19/11/2024		
17	19/11/2024		
18	19/11/2024		
19	19/11/2024		
20	19/11/2024		
21	19/11/2024		
22	19/11/2024		
23	19/11/2024		
24	19/11/2024		
25	19/11/2024		
26	19/11/2024		
27	19/11/2024		
28	19/11/2024		
29	19/11/2024		
30	19/11/2024		
31	19/11/2024		
32	19/11/2024		
33	19/11/2024		
34	19/11/2024		
35	19/11/2024		
36	19/11/2024		
37	19/11/2024		
38	19/11/2024		
39	19/11/2024		
40	19/11/2024		
41	19/11/2024		
42	19/11/2024		
43	19/11/2024		
44	19/11/2024		
45	19/11/2024		
46	19/11/2024		
47	19/11/2024		
48	19/11/2024		
49	19/11/2024		
50	19/11/2024		
51	19/11/2024		
52	19/11/2024		
53	19/11/2024		
54	19/11/2024		
55	19/11/2024		
56	19/11/2024		
57	19/11/2024		
58	19/11/2024		
59	19/11/2024		
60	19/11/2024		
61	19/11/2024		
62	19/11/2024		
63	19/11/2024		
64	19/11/2024		
65	19/11/2024		
66	19/11/2024		
67	19/11/2024		
68	19/11/2024		
69	19/11/2024		
70	19/11/2024		
71	19/11/2024		
72	19/11/2024		
73	19/11/2024		
74	19/11/2024		
75	19/11/2024		
76	19/11/2024		
77	19/11/2024		
78	19/11/2024		
79	19/11/2024		
80	19/11/2024		
81	19/11/2024		
82	19/11/2024		
83	19/11/2024		
84	19/11/2024		
85	19/11/2024		
86	19/11/2024		
87	19/11/2024		
88	19/11/2024		
89	19/11/2024		
90	19/11/2024		
91	19/11/2024		
92	19/11/2024		
93	19/11/2024		
94	19/11/2024		
95	19/11/2024		
96	19/11/2024		
97	19/11/2024		
98	19/11/2024		
99	19/11/2024		
100	19/11/2024		

Project Designer

TEXCO DESIGN

18m Arch. NSW APR 11/24B
PO: +61 449 984 889

E: office@texcodesign.com.au



Drawn | Checked
Revision Date:
Project NO.
Project Status

#Drawn By |
19/11/2024
#Project ID
#Project Status

Client:
Site:
Climate Zone:
Wind Region:

#Client Full Name
25 SIMONE CRESCENT CASULA
REFER TO FACADE REPORT
REFER TO FACADE REPORT

PAPER
A3
1:200

DRAWING TITLE:
**PLANS
ROOF PLAN**

PROJECT NAME:
**25 SIMONE CRESCENT
CASULA**

REVISION NO.
10

DRAWING NO.
A107



NOTE
The Designer shall check all dimensions and levels on site prior to construction. No site, boundaries or elevations to the architect. Refer to relevant dimensions only. Do not scale drawings. Drawings shall not be used for construction purposes and issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for such when authorised in writing by Texco Design Pty Ltd.

All boundaries and contours are subject to survey. All levels to Australian Height Data. It is the customer's responsibility to confirm all measurements on site and conditions of any services prior to work on site.

All documents herein shall be subject to Australian Copyright Laws.

Project Partners
Refer to consultation documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Plumbing Engineer	Plumbing Engineer
Transport Engineer	Transport Engineer
Land Surveyor	Land Surveyor

RevID	Transferred Date	Approved by	Rev. Note
01	11/02/2024		
02	11/02/2024		
03	11/02/2024		
04	11/02/2024		
05	11/02/2024		
06	11/02/2024		
07	11/02/2024		
08	11/02/2024		
09	11/02/2024		
10	11/02/2024		

Project Designer

TEXCO DESIGN

100m Arch. NSW APR 11 2024
E: office@texcodesign.com.au P: +61 469 884 889



Drawn | Checked
Revision Date: 11/02/2024
Project No. #Project ID
Project Status #Project Status

Client: 25 SIMONE CRESCENT CASULA
Site: REFER TO FACADE REPORT
Climate Zone: REFER TO FACADE REPORT
Wind Region: REFER TO FACADE REPORT

PAPER
A3
1:200

DRAWING TITLE:
**ELEVATION
NORTH ELEVATION**

PROJECT NAME:
**25 SIMONE CRESCENT
CASULA**

REVISION NO.
11

DRAWING NO.
A201



NOTE
The Designer shall check all dimensions and levels on site prior to construction. Verify any errors, discrepancies or omissions to the architect. Refer to relevant dimensions only. Do not make drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for such when authorized in writing by Texco Design Pty Ltd.

All coordinates and contours are subject to surveying. All levels to Australian Height Data. It is the contractor's responsibility to verify all measurements on site and conditions of any services prior to work on site.

All documents herein shall be subject to Australian Copyright Laws.

Project Partners
Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Plumbing Engineer	Plumbing Engineer
Land Surveyor	Land Surveyor

RevID	Transferred Date	Approved by	Rev Note
01	11/02/2024		
02	11/02/2024		
03	11/02/2024		
04	11/02/2024		
05	11/02/2024		
06	11/02/2024		
07	11/02/2024		
08	11/02/2024		
09	11/02/2024		
10	11/02/2024		
11	11/02/2024		
12	11/02/2024		
13	11/02/2024		
14	11/02/2024		
15	11/02/2024		
16	11/02/2024		
17	11/02/2024		
18	11/02/2024		
19	11/02/2024		
20	11/02/2024		
21	11/02/2024		
22	11/02/2024		
23	11/02/2024		
24	11/02/2024		
25	11/02/2024		
26	11/02/2024		
27	11/02/2024		
28	11/02/2024		
29	11/02/2024		
30	11/02/2024		
31	11/02/2024		
32	11/02/2024		
33	11/02/2024		
34	11/02/2024		
35	11/02/2024		
36	11/02/2024		
37	11/02/2024		
38	11/02/2024		
39	11/02/2024		
40	11/02/2024		
41	11/02/2024		
42	11/02/2024		
43	11/02/2024		
44	11/02/2024		
45	11/02/2024		
46	11/02/2024		
47	11/02/2024		
48	11/02/2024		
49	11/02/2024		
50	11/02/2024		
51	11/02/2024		
52	11/02/2024		
53	11/02/2024		
54	11/02/2024		
55	11/02/2024		
56	11/02/2024		
57	11/02/2024		
58	11/02/2024		
59	11/02/2024		
60	11/02/2024		
61	11/02/2024		
62	11/02/2024		
63	11/02/2024		
64	11/02/2024		
65	11/02/2024		
66	11/02/2024		
67	11/02/2024		
68	11/02/2024		
69	11/02/2024		
70	11/02/2024		
71	11/02/2024		
72	11/02/2024		
73	11/02/2024		
74	11/02/2024		
75	11/02/2024		
76	11/02/2024		
77	11/02/2024		
78	11/02/2024		
79	11/02/2024		
80	11/02/2024		
81	11/02/2024		
82	11/02/2024		
83	11/02/2024		
84	11/02/2024		
85	11/02/2024		
86	11/02/2024		
87	11/02/2024		
88	11/02/2024		
89	11/02/2024		
90	11/02/2024		
91	11/02/2024		
92	11/02/2024		
93	11/02/2024		
94	11/02/2024		
95	11/02/2024		
96	11/02/2024		
97	11/02/2024		
98	11/02/2024		
99	11/02/2024		
100	11/02/2024		

Project Designer

TEXCO DESIGN

100m Arch, NSW APR 11 2024
E: office@texcodesign.com.au P: +61 469 884 889



Drawn | Checked
Revision Date: 11/02/2024
Project No. #Project ID
Project Status #Project Status

Client: 25 SIMONE CRESCENT CASULA
Site: REFER TO FACADE REPORT
Climate Zone: REFER TO FACADE REPORT
Wind Region: REFER TO FACADE REPORT

PAPER
A3
1:200

DRAWING TITLE:
**ELEVATION
SOUTH ELEVATION**

PROJECT NAME:
**25 SIMONE CRESCENT
CASULA**

REVISION NO.
11

DRAWING NO.
A202



NOTE
The Designer shall check all dimensions and levels on site prior to construction. Verify any errors, discrepancies or omissions to the architect. Refer to relevant dimensions only. Do not create drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for such when authorised in writing by Texco Design Pty Ltd.

All boundaries and contours are subject to survey/grading. All levels to Australian Height Data. It is the customer's responsibility to confirm all measurements on site and conditions of any services prior to work on site.

All documents/notes when used are subject to Australian Copyright Laws.

Project Partners
Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Wind Engineer	Wind Engineer
Transportation Engineer	Transportation Engineer
Land Surveyor	Land Surveyor

RevID	Transferred Date	Approved by	Rev Note
01	11/02/2024		
02	11/02/2024		
03	11/02/2024		
04	11/02/2024		
05	11/02/2024		
06	11/02/2024		
07	11/02/2024		
08	11/02/2024		
09	11/02/2024		
10	11/02/2024		
11	11/02/2024		
12	11/02/2024		
13	11/02/2024		
14	11/02/2024		
15	11/02/2024		
16	11/02/2024		
17	11/02/2024		
18	11/02/2024		
19	11/02/2024		
20	11/02/2024		
21	11/02/2024		
22	11/02/2024		
23	11/02/2024		
24	11/02/2024		
25	11/02/2024		
26	11/02/2024		
27	11/02/2024		
28	11/02/2024		
29	11/02/2024		
30	11/02/2024		
31	11/02/2024		
32	11/02/2024		
33	11/02/2024		
34	11/02/2024		
35	11/02/2024		
36	11/02/2024		
37	11/02/2024		
38	11/02/2024		
39	11/02/2024		
40	11/02/2024		
41	11/02/2024		
42	11/02/2024		
43	11/02/2024		
44	11/02/2024		
45	11/02/2024		
46	11/02/2024		
47	11/02/2024		
48	11/02/2024		
49	11/02/2024		
50	11/02/2024		
51	11/02/2024		
52	11/02/2024		
53	11/02/2024		
54	11/02/2024		
55	11/02/2024		
56	11/02/2024		
57	11/02/2024		
58	11/02/2024		
59	11/02/2024		
60	11/02/2024		
61	11/02/2024		
62	11/02/2024		
63	11/02/2024		
64	11/02/2024		
65	11/02/2024		
66	11/02/2024		
67	11/02/2024		
68	11/02/2024		
69	11/02/2024		
70	11/02/2024		
71	11/02/2024		
72	11/02/2024		
73	11/02/2024		
74	11/02/2024		
75	11/02/2024		
76	11/02/2024		
77	11/02/2024		
78	11/02/2024		
79	11/02/2024		
80	11/02/2024		
81	11/02/2024		
82	11/02/2024		
83	11/02/2024		
84	11/02/2024		
85	11/02/2024		
86	11/02/2024		
87	11/02/2024		
88	11/02/2024		
89	11/02/2024		
90	11/02/2024		
91	11/02/2024		
92	11/02/2024		
93	11/02/2024		
94	11/02/2024		
95	11/02/2024		
96	11/02/2024		
97	11/02/2024		
98	11/02/2024		
99	11/02/2024		
100	11/02/2024		

Project Designer

TEXCO DESIGN

10m Arch, NSW APR 11 2024
E: office@texcodesign.com.au P: +61 469 884 889



Drawn | Checked
Revision Date: 11/02/2024
Project No. #Project ID
Project Status #Project Status

Client: 25 SIMONE CRESCENT CASULA
Site: REFER TO FACADE REPORT
Wind Region: REFER TO FACADE REPORT

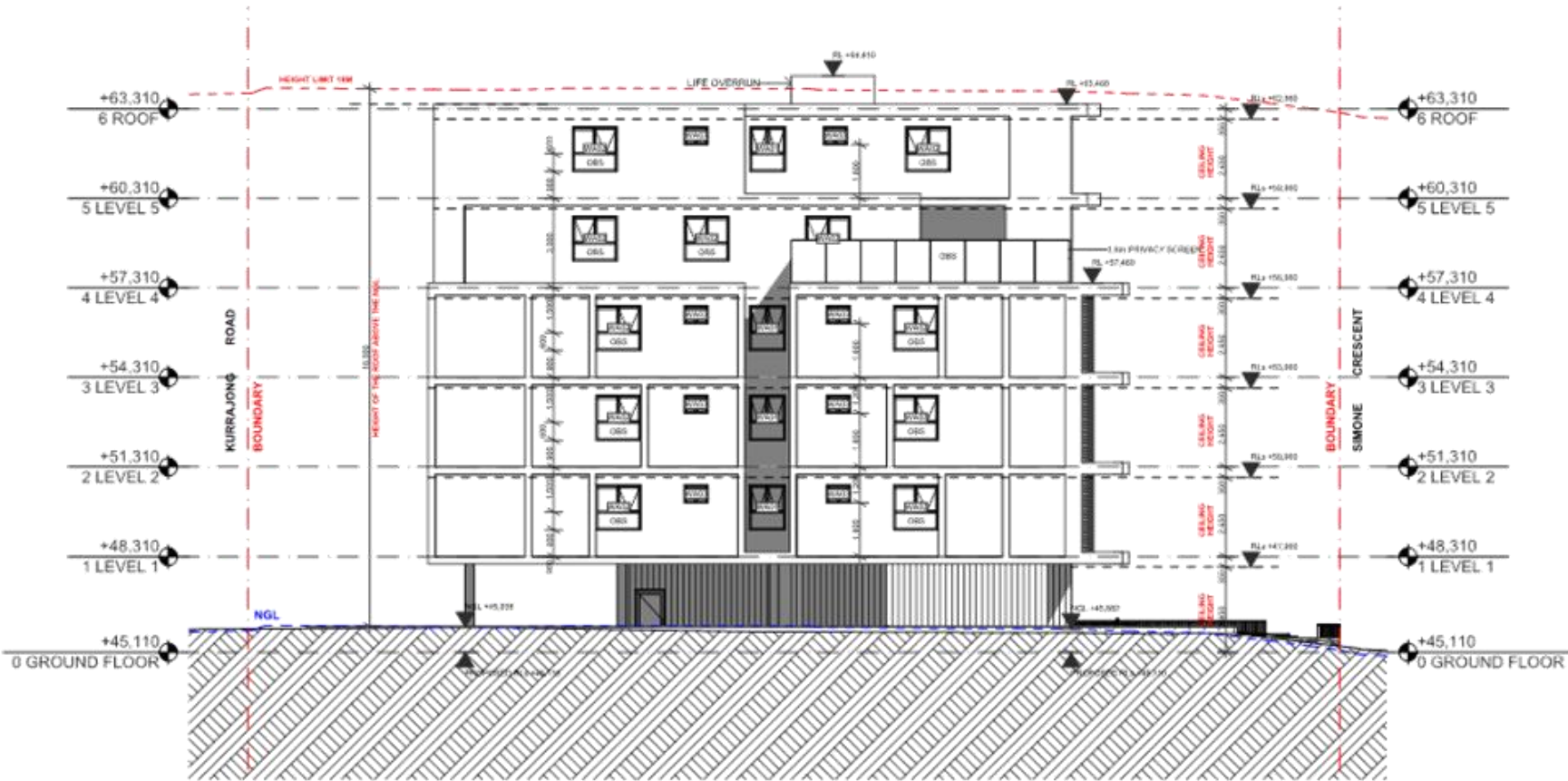
PAPER
A3
1:200

DRAWING TITLE :
ELEVATION
WEST ELEVATION

PROJECT NAME :
25 SIMONE CRESCENT
CASULA

REVISION NO.
10

DRAWING NO.
A203



E-04
-

EAST ELEVATION
1:200

NOTE

This drawing shall show all dimensions and levels as per the construction. Refer to the architect's drawings for all dimensions and levels. Do not make any changes to the drawing without the architect's approval. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for the purpose of obtaining a building permit. It is not to be used for any other purpose without the architect's approval.

Project Partners

Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Structural Engineer
Structural Engineer	Mechanical Engineer
Mechanical Engineer	Electrical Engineer
Electrical Engineer	Plumbing Engineer
Plumbing Engineer	Fire Engineer
Fire Engineer	Energy Services
Energy Services	Technical Engineer
Technical Engineer	Package Consultant
Package Consultant	Traffic Engineer
Traffic Engineer	Surveyor
Surveyor	

RevID	Transferred Date	Approved by	Rev Note
01	11/02/2024		
02	11/02/2024		
03	11/02/2024		
04	11/02/2024		
05	11/02/2024		
06	11/02/2024		
07	11/02/2024		
08	11/02/2024		
09	11/02/2024		
10	11/02/2024		
11	11/02/2024		
12	11/02/2024		
13	11/02/2024		
14	11/02/2024		
15	11/02/2024		
16	11/02/2024		
17	11/02/2024		
18	11/02/2024		
19	11/02/2024		
20	11/02/2024		
21	11/02/2024		
22	11/02/2024		
23	11/02/2024		
24	11/02/2024		
25	11/02/2024		
26	11/02/2024		
27	11/02/2024		
28	11/02/2024		
29	11/02/2024		
30	11/02/2024		
31	11/02/2024		
32	11/02/2024		
33	11/02/2024		
34	11/02/2024		
35	11/02/2024		
36	11/02/2024		
37	11/02/2024		
38	11/02/2024		
39	11/02/2024		
40	11/02/2024		
41	11/02/2024		
42	11/02/2024		
43	11/02/2024		
44	11/02/2024		
45	11/02/2024		
46	11/02/2024		
47	11/02/2024		
48	11/02/2024		
49	11/02/2024		
50	11/02/2024		
51	11/02/2024		
52	11/02/2024		
53	11/02/2024		
54	11/02/2024		
55	11/02/2024		
56	11/02/2024		
57	11/02/2024		
58	11/02/2024		
59	11/02/2024		
60	11/02/2024		
61	11/02/2024		
62	11/02/2024		
63	11/02/2024		
64	11/02/2024		
65	11/02/2024		
66	11/02/2024		
67	11/02/2024		
68	11/02/2024		
69	11/02/2024		
70	11/02/2024		
71	11/02/2024		
72	11/02/2024		
73	11/02/2024		
74	11/02/2024		
75	11/02/2024		
76	11/02/2024		
77	11/02/2024		
78	11/02/2024		
79	11/02/2024		
80	11/02/2024		
81	11/02/2024		
82	11/02/2024		
83	11/02/2024		
84	11/02/2024		
85	11/02/2024		
86	11/02/2024		
87	11/02/2024		
88	11/02/2024		
89	11/02/2024		
90	11/02/2024		
91	11/02/2024		
92	11/02/2024		
93	11/02/2024		
94	11/02/2024		
95	11/02/2024		
96	11/02/2024		
97	11/02/2024		
98	11/02/2024		
99	11/02/2024		
100	11/02/2024		

Project Designer



Texco Design
100m Arch, NSW, 2170
E: office@texcodesign.com.au
P: +61 469 884 889



Drawn | Checked
Revision Date
Project NO.
Project Status

#Drawn By |
11/02/2024
#Project ID
#Project Status

PAPER

A3
1:200

DRAWING TITLE :

ELEVATION
EAST ELEVATION

PROJECT NAME :

25 SIMONE CRESCENT
CASULA

REVISION NO.

10

DRAWING NO.

A204



SECTION A
1:200

The Datasheet shall not be used for construction and layout on site prior to construction. It is to be used for design, discussion, or reference to the architect. It is to be used for design only. Do not make changes. Drawings shall not be used for construction purposes and shall be used for construction. This drawing reflects a design by Tesco Design Pty Ltd and is to be used only for work when authorized in writing by Tesco Design Pty Ltd.

All materials and contents are subject to copyright laws. All rights to Australian Insight Data, its logo, corporate responsibility to confirm all trademarks, or any other incidents of any services prior to such events.

All materials/news within are subject to Australian Copyright Laws.

Refer to consultant documents dated when directed

- Principal Contractor	- Welder
- Planning Coordinator	- Planning Consultant
- Structural Engineer	- Structural Engineer
- Architectural Designer	- Mechanical Engineer
- Hydraulic Engineer	- Hydraulic Engineer
- Electrical Engineer	- Civil Engineer
- Fire Services	- Air Conditioning Service
- District Engineer	- Electrical Engineer
- Environmental Consultant	- Environmental Consultant
- Traffic Engineer	- Traffic Engineer
- Land Surveyor	- Surveyor

Project Designer

TE
E: office@trapcodeign.com.au

TEXCO DESIGN
 Room Arch NSWARB 11348
 P: +61 469 384 800
 www.tdx.com.au



Drawn | Checked
Revision Date:
Project No:
Project Status

Client:
Site:
Climate Zone:
Voting Region:

Created By: 11/20/2024
Project ID: #Project ID
Project Start: #Project Start

#Client Full Name
25 SMOKE CRESCENT CADULA
REFER TO FACADE REPORT
REFER TO FACADE REPORT

1

1

42

A3

1:290

R | DRAWING TITLE :

SECTION
SECTION A

PROJECT NAME :

25 SIMONE CRESCENT
CASULA

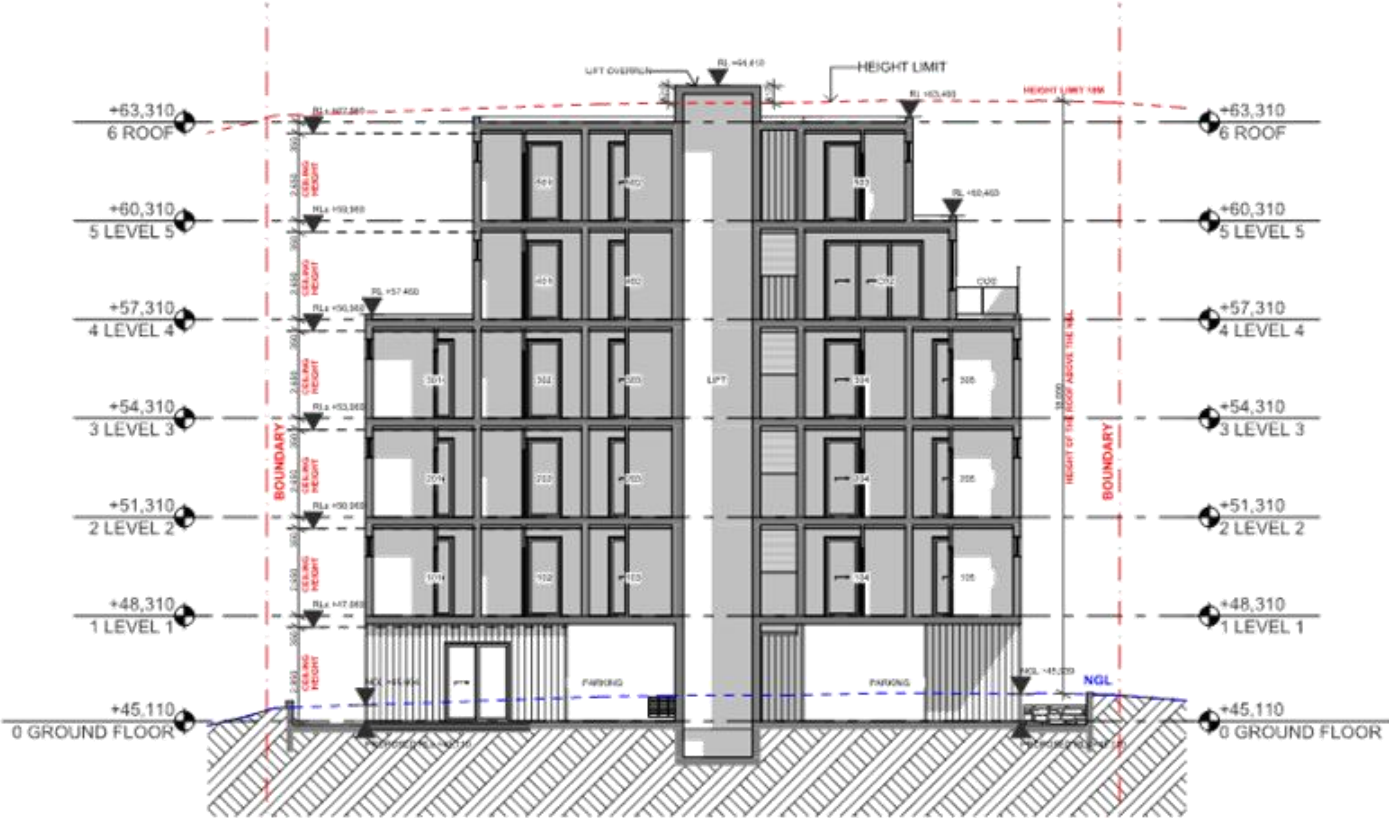
REVISION NO.

11

DRAWING NO.

A301

S2
-



SECTION B
1:200

NOTE

This drawing shall show all dimensions and levels as per the construction. It is the responsibility of the architect to ensure that the drawing is accurate and that all dimensions and levels are as per the construction. It is the responsibility of the architect to ensure that the drawing is accurate and that all dimensions and levels are as per the construction. It is the responsibility of the architect to ensure that the drawing is accurate and that all dimensions and levels are as per the construction.

Project Partners

Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Transport Engineer	Transport Engineer
Land Surveyor	Land Surveyor

RevID	Transferred for Date	Approved by	Rev. Note
01	11/02/2024		
02	11/02/2024		
03	11/02/2024		
04	11/02/2024		
05	11/02/2024		
06	11/02/2024		
07	11/02/2024		
08	11/02/2024		
09	11/02/2024		
10	11/02/2024		
11	11/02/2024		
12	11/02/2024		
13	11/02/2024		
14	11/02/2024		
15	11/02/2024		
16	11/02/2024		
17	11/02/2024		
18	11/02/2024		
19	11/02/2024		
20	11/02/2024		
21	11/02/2024		
22	11/02/2024		
23	11/02/2024		
24	11/02/2024		
25	11/02/2024		
26	11/02/2024		
27	11/02/2024		
28	11/02/2024		
29	11/02/2024		
30	11/02/2024		
31	11/02/2024		
32	11/02/2024		
33	11/02/2024		
34	11/02/2024		
35	11/02/2024		
36	11/02/2024		
37	11/02/2024		
38	11/02/2024		
39	11/02/2024		
40	11/02/2024		
41	11/02/2024		
42	11/02/2024		
43	11/02/2024		
44	11/02/2024		
45	11/02/2024		
46	11/02/2024		
47	11/02/2024		
48	11/02/2024		
49	11/02/2024		
50	11/02/2024		
51	11/02/2024		
52	11/02/2024		
53	11/02/2024		
54	11/02/2024		
55	11/02/2024		
56	11/02/2024		
57	11/02/2024		
58	11/02/2024		
59	11/02/2024		
60	11/02/2024		
61	11/02/2024		
62	11/02/2024		
63	11/02/2024		
64	11/02/2024		
65	11/02/2024		
66	11/02/2024		
67	11/02/2024		
68	11/02/2024		
69	11/02/2024		
70	11/02/2024		
71	11/02/2024		
72	11/02/2024		
73	11/02/2024		
74	11/02/2024		
75	11/02/2024		
76	11/02/2024		
77	11/02/2024		
78	11/02/2024		
79	11/02/2024		
80	11/02/2024		
81	11/02/2024		
82	11/02/2024		
83	11/02/2024		
84	11/02/2024		
85	11/02/2024		
86	11/02/2024		
87	11/02/2024		
88	11/02/2024		
89	11/02/2024		
90	11/02/2024		
91	11/02/2024		
92	11/02/2024		
93	11/02/2024		
94	11/02/2024		
95	11/02/2024		
96	11/02/2024		
97	11/02/2024		
98	11/02/2024		
99	11/02/2024		
100	11/02/2024		

Project Designer



TEXCO DESIGN

100m Arch, NSW APR 11/08
P: +61 469 884 889



TRUE NORTH

Drawn / Checked

Revision Date:

Project No.

Project Status

Client

Site

Climate Zone

Wind Region

#Drawn By |

11/02/2024

#Project ID

#Project Status

#Client Full Name

25 SIMONE CRESCENT CASULA

REFER TO FACADE REPORT

REFER TO FACADE REPORT

PAPER

A3

1:200

DRAWING TITLE :

SECTION B

SECTION B

PROJECT NAME :

25 SIMONE CRESCENT
CASULA

REVISION NO.

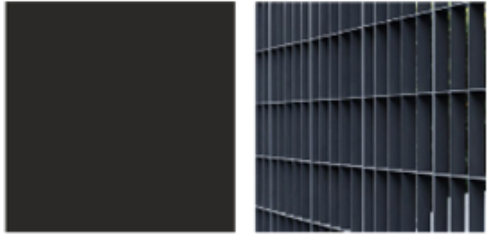
11

DRAWING NO.

A302



1. RENDER & PAINT: DULUX VIVID WHITE OR SIMILAR
2. RENDER & PAINT: DULUX TIMELESS GREY OR SIMILAR



3. RENDER & PAINT: DULUX MONUMENT OR SIMILAR
4. NON-COMBUSTIBLE ALUMINIUM LOUVRES (FIXED FOR PRIVACY SCREENS) OR EQUIVALENT



5. ALUMINIUM FRAMED WINDOWS AND DOORS: POWDERCOATED BLACK OR SIMILAR
6. GLASS BLUSTRADE WITH SIMILAR LOOK



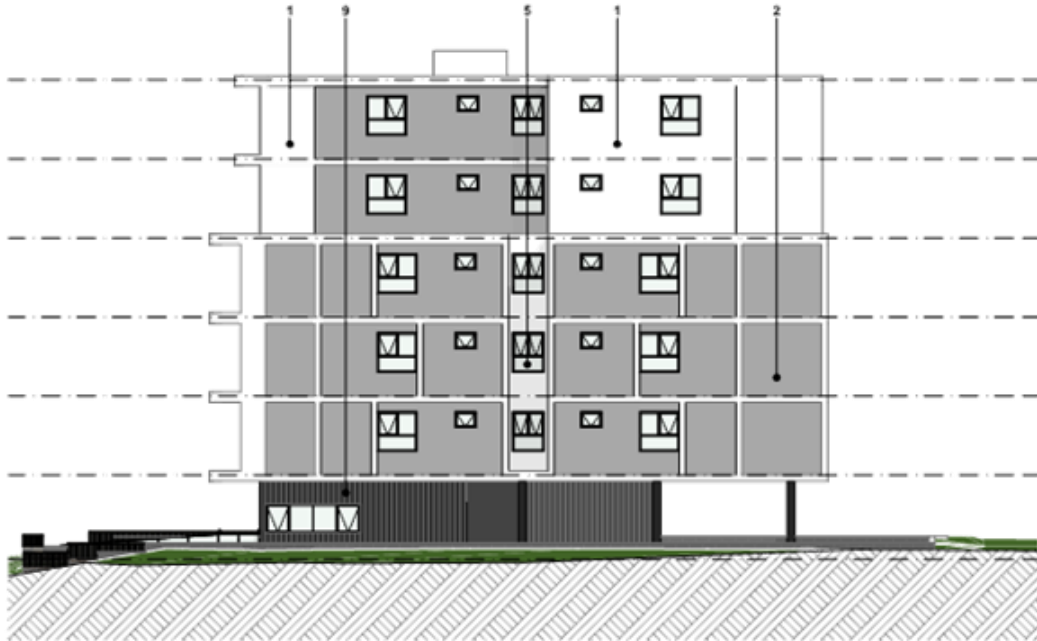
7. BRICK TEXTURE WITH SIMILAR LOOK
8. STAINLESS STEEL RAILING WITH SIMILAR LOOK



9. METAL CLADDING BLACK OR SIMILAR



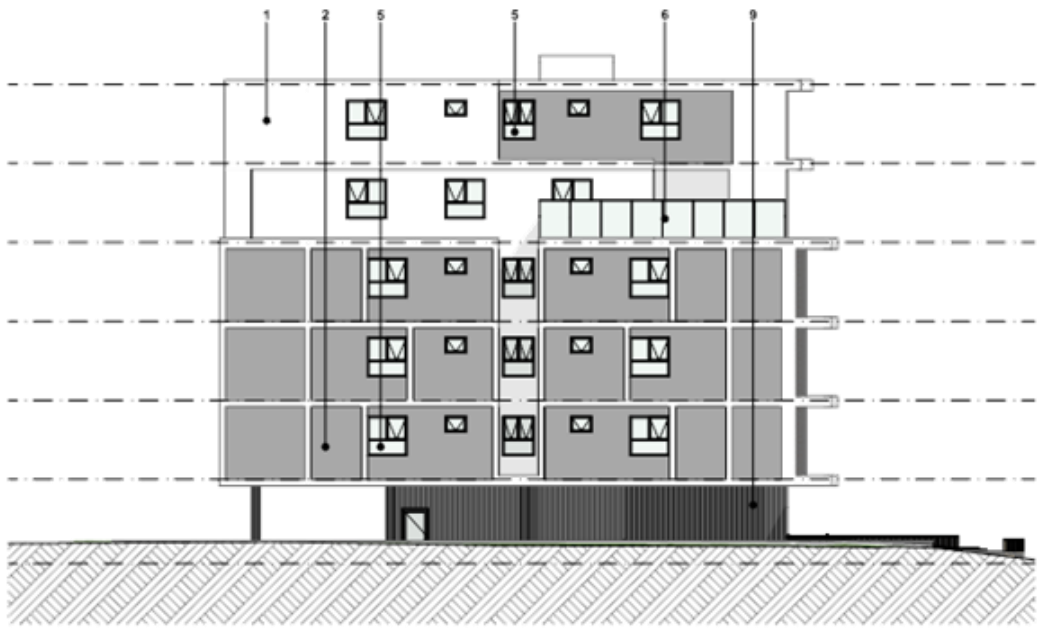
MS01 NORTH ELEVATION
1:250



MS03 WEST ELEVATION
1:250



MS02 SOUTH ELEVATION
1:250



MS04 EAST ELEVATION
1:250

NOTE
The Designer shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the architect. Refer to within dimensions only. Do not create drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for work when authorised in writing by Texco Design Pty Ltd.
All boundaries and contours are subject to survey. All levels to Australian Height Data. It is the contractor's responsibility to confirm all measurements on site and conditions of any services prior to work on site.
All documents herein are subject to Australian Copyright Laws.

Project Partners
Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Hydraulic Engineer	Hydraulic Engineer
Wind Engineer	Wind Engineer
Transport Engineer	Transport Engineer
Land Surveyor	Land Surveyor

RevID	Transmitted for Date	Approved by	Plan Name
01	10/11/2024		
02	10/11/2024		
03	10/11/2024		
04	10/11/2024		
05	10/11/2024		

Project Designer

TEXCO DESIGN

10m Arch. NSW APR 11348
PO +61 449 884 889

E: office@texcodesign.com.au



Drawn | Checked
Revision Date: 10/11/2024
Project NO. #Project ID
Project Status #Project Status

Client: 25 SIMONE CRESCENT CASULA
Climate Zone: REFER TO FACADE REPORT
Wind Region: REFER TO FACADE REPORT

PAPER
A3
1:1.59
1:8.81
1:250

DRAWING TITLE:
SCHEDULE
MATERIAL SCHEDULE

PROJECT NAME:
25 SIMONE CRESCENT
CASULA

REVISION NO.
05

DRAWING NO.
A401

DOOR LIST				
ID	DE01	DE02	DS01	DS02
TYPE	FRONT ENTRY GLAZED DOOR WITH SIDELIGHT	ENTRY DOOR AND BALCONY DOOR	SLIDING DOOR	SLIDING DOOR
NOMINAL W x H	4,500x2,950	920x2,040	2,000x2,400	3,000x2,400
PLAN				
ELEVATION				
QUANTITY	1	2	46	1
FRAME COLOUR/MATERIAL	ALUMINIUM. POWDERCOATED BLACK OR SIMILAR	ALUMINIUM. POWDERCOATED BLACK OR SIMILAR	ALUMINIUM. POWDERCOATED BLACK OR SIMILAR	ALUMINIUM. POWDERCOATED BLACK OR SIMILAR

NOTE

This drawing shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the architect. Refer to within dimensions only. Do not create drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for such when authorised in writing by Texco Design Pty Ltd.

All documents and content are subject to survey/drawing. All levels to Australian Height Data or a site certificate responsibility to comply in accordance with all site and conditions of any services prior to work on site.
All documents herein are subject to Australian Copyright Laws.

Project Partners

Refer to consultation documentation when directed

- Principal Contractor: #Builder
- Planning Consultant: #Planning Consultant
- Structural Engineer: #Structural Engineer
- Mechanical Engineer: #Mechanical Engineer
- Electrical Engineer: #Electrical Engineer
- Fire Engineer: #Fire Engineer
- Fire Services: #Fire Services
- Structural Engineer: #Structural Engineer
- Landscaper/Design: #Landscaper/Design
- Traffic Engineer: #Traffic Engineer
- Land Surveyor: #Surveyor

RevID	Transmitted for Date	Approved by	Plan Name
01	19/11/2024		
02	19/11/2024		
03	19/11/2024		
04	19/11/2024		

Project Designer

Project Designer
E: office@texcodesign.com.au
Nem Arch. NSW ARB 11348
PO: +61 449 984 889



Drawn | Checked
Revision Date:
Project NO.
Project Status

#Drawn By |
#Project ID
#Project Status

PAPER

A3

1:1

DRAWING TITLE :

SCHEDULE
DOORS SCHEDULE

PROJECT NAME :

25 SIMONE CRESCENT
CASULA

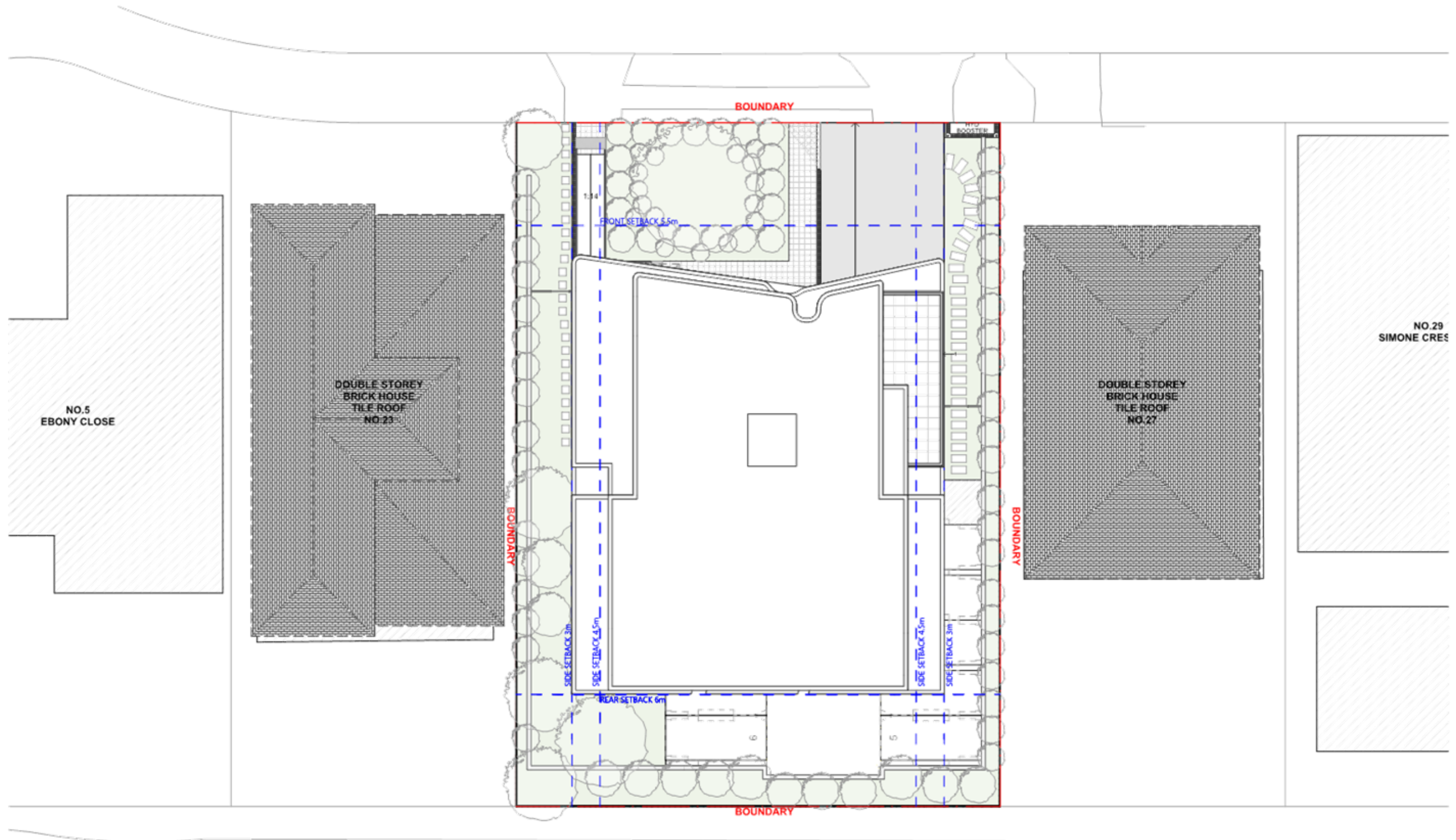
REVISION NO.

04

DRAWING NO.

A402

[illegible]



0.
-

GROUND FLOOR
1:200

NOTE
The Designer shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the architect. Refer to within dimensions only. Do not create drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for such when authorised in writing by Texco Design Pty Ltd.

All boundaries and content are subject to survey/drawing. All levels to Australian Height Data. It is the customer's responsibility to confirm all measurements on site and conditions of any services prior to work on site.

All documents herein are subject to Australian Copyright Laws.

Project Partners
Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Hydrology Engineer	Hydrology Engineer
Land Surveyor	Land Surveyor

RevID	Transmitted for Date	Approved by	Plan Name
01	12/12/2024		
02	12/12/2024		
03	12/12/2024		
04	12/12/2024		
05	12/12/2024		
06	12/12/2024		

Project Designer

TEXCO DESIGN

10m Arch. NSW ARB 11348
PO BOX 449 504 509

E: office@texcodesign.com.au



Drawn / Checked	Revision Date
Project No.	Project ID
Project Status	Project Status
Client	Client Full Name
Climate Zone	25 SIMONE CRESCENT CASULA
Wind Region	REFER TO FACADE REPORT

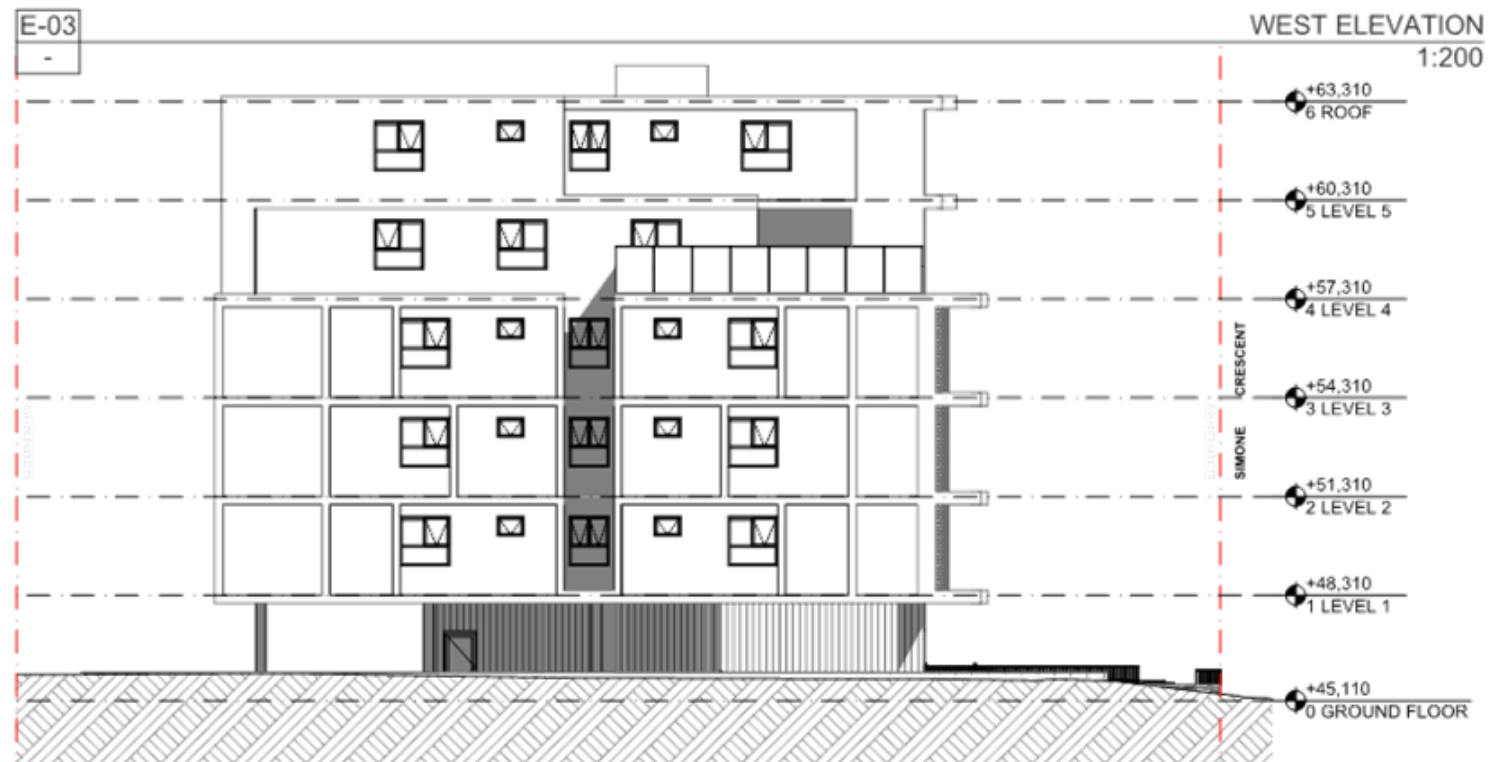
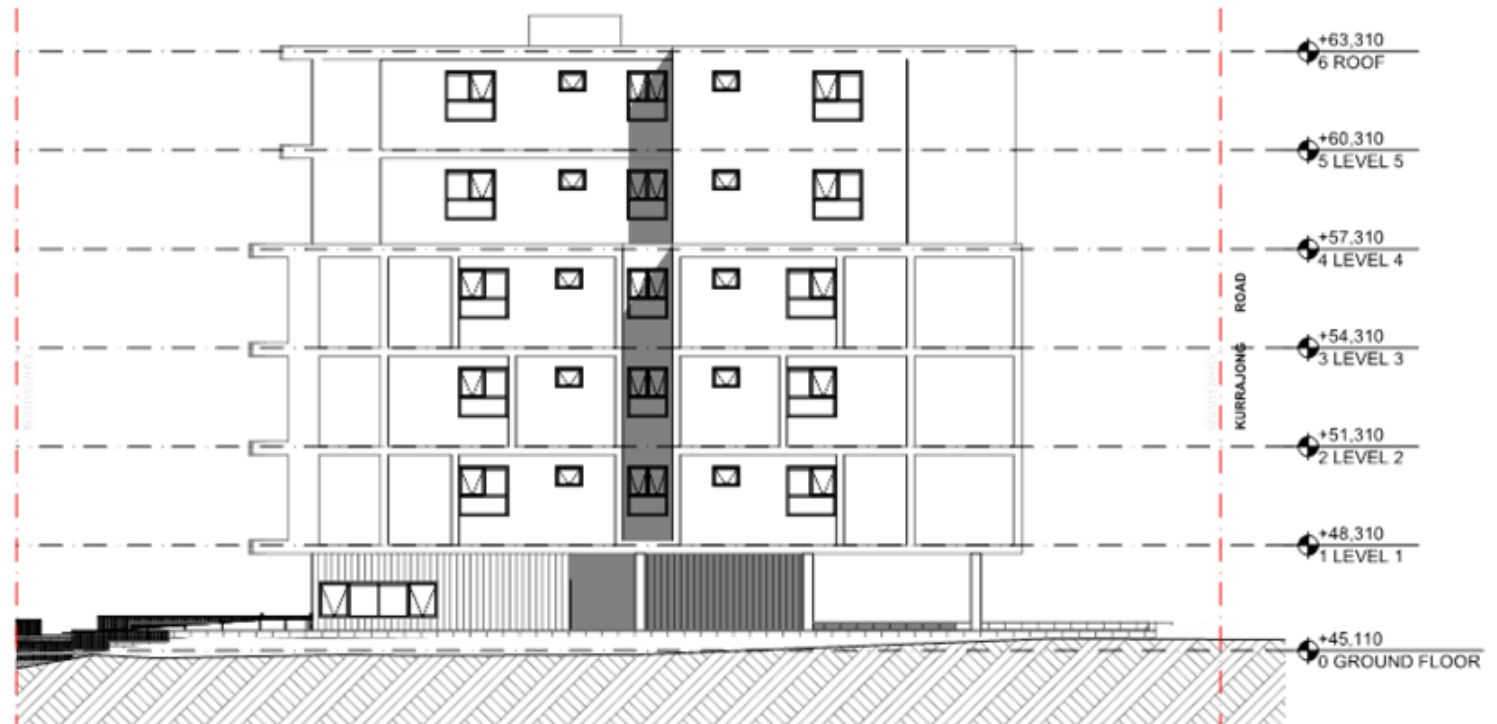
PAPER
A3
1:200

DRAWING TITLE :
NOTIFICATION
NEIGHBOUR NOTIFICATION PLAN

PROJECT NAME :
25 SIMONE CRESCENT
CASULA

REVISION NO.
06

DRAWING NO.
A501



NOTE
The Designer shall check all dimensions and levels on site prior to construction. Refer to any notes, discrepancies or omissions to the architect. Refer to within dimensions only. Do not create drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for acts when authorized in writing by Texco Design Pty Ltd.
All boundaries and content are subject to survey/drawing. All levels to Australian Height Data. It is the contractor's responsibility to confirm all measurements on site and conditions of any services prior to work on site.
All documents/notes within are subject to Australian Copyright Laws.

Project Partners
Refer to consultant documentation when directed

Principal Contractor	Architect
Planning Consultant	Planning Consultant
Structural Engineer	Structural Engineer
Mechanical Engineer	Mechanical Engineer
Electrical Engineer	Electrical Engineer
Fire Engineer	Fire Engineer
Transport Engineer	Transport Engineer
Land Surveyor	Land Surveyor

Rev	Transmitted for Date	Approved by	Rev Note
01	10/10/2024		
02	10/10/2024		
03	10/10/2024		
04	10/10/2024		

Project Designer

TEXCO DESIGN
Nem Arch. NSW ARB 11348
PO BOX 449 504 509
E: office@texcodesign.com.au



Drawn / Checked	Revision Date	Project No.	Project Status
10/10/2024	10/10/2024		

Client	Client Full Name
Climate Zone	25 SIMONE CRESCENT CASULA
Wind Region	REFER TO FACADE REPORT

PAPER
A3
1:200

DRAWING TITLE :
NOTIFICATION
NEIGHBOUR NOTIFICATION
ELEVATIONS

PROJECT NAME :
**25 SIMONE CRESCENT
CASULA**

REVISION NO.
04

DRAWING NO.
A502

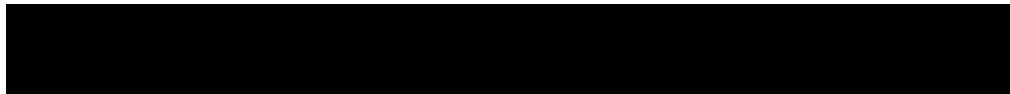


Minutes

MINUTES OF DESIGN EXCELLENCE PANEL MEETING

Thursday, 13th February 2025

DEP PANEL MEMBERS PRESENT:



APPLICANT REPRESENTATIVES:



OBSERVERS:

Amanda Merchant	Panel Support Officer	Liverpool City Council
Di Wu	Convenor / Snr Urban Design Advisor	Liverpool City Council
Tamim Omar	Senior Planner	Liverpool City Council

ITEM DETAILS:

Application Reference Number: DA-550/2024

Property Address: 25 Simone Crescent, Casula NSW 2170

Council's Planning Officer: Tamim Omar



Proposal: Demolition of the site's existing structures followed by the construction of a new co-living housing development. The proposed new co-living housing building is to comprise of six (6) levels and provides for ground floor carparking. The proposal will provide for a total of forty-five (45) co-living rooms (excluding communal areas and other ancillary features) comprising of 42 single rooms and 3 double rooms.

Meeting Venue: Microsoft Teams Meeting

1.0 WELCOME, ATTENDANCE, APOLOGIES AND OPENING

The Chairperson introduced the Panel and Council staff to the Applicant Representatives.

Attendees signed the Attendance Registration Sheet.

The Liverpool Design Excellence Panel's (the Panel), comments are to assist Liverpool City Council in its consideration of the Development Application.



Minutes

The absence of a comment under any of the principles does not necessarily imply that the Panel considers the particular matter has been satisfactorily addressed, as it may be that changes suggested under other principles will generate a desirable change.

All nine design principles must be considered and discussed. Recommendations are to be made for each of the nine principles, unless they do not apply to the project. If repetition of recommendations occur, these may be grouped together but must be acknowledged.

2.0 DECLARATIONS OF INTEREST

NIL.

3.0 PRESENTATION

The applicant presented their proposal for 25 Simone Crescent, Casula NSW 2170.

4.0 DEP PANEL RECOMMENDATIONS

The nine design principles were considered by the panel in discussion of the Development Application. These are 1] **Context**, 2] **Built Form + Scale**, 3] **Density**, 4] **Sustainability**, 5] **Landscape**, 6] **Amenity**, 7] **Safety**, 8] **Housing Diversity + Social Interaction**, 9] **Aesthetics**.

The Panel thanks the applicant for providing a comprehensive set of architectural drawings and 3D views. However, the Panel recognises a missed opportunity for a productive discussion since the project's landscape architect, planner, and client were not present at the DEP meeting. The Panel has several concerns regarding the proposed development, including its urban design fit, overall site planning strategy, non-compliance with both the LDCP and ADG building separation requirements, constrained internal layouts, poor landscape design, and other amenity-related issues. The applicant is required to revisit the overall design to address these fundamental issues and strive for design excellence.

The Design Excellence Panel makes the following recommendations in relation to the project:

4.1. Context

- The Panel notes that the applicant did not consider a Pre DA meeting to allow early discussion for this proposal, and the scheme reviewed by the Panel as part of the DA stage has significantly advanced, creating a number of fundamental urban design and amenity issues.
- The Panel discussed at the meeting that the local area is likely to undergo transformation. However, the current documentation provided by the applicant lacks a broader urban design analysis and context information about any surrounding approved DAs and potential future development scenarios for the surrounding properties.
- The applicant should provide urban design and context analysis to develop an understanding of the site context, emerging built form and landscape design patterns, to demonstrate how the proposed development fits into its desired future context.



Minutes

- The Panel encourages the applicant to consider a precedent study of other successful co-living buildings with a similar scale and context, to allow fundamental improvements.
- The Panel recognises there are fundamental issues with the proposed – site planning, massing, building separation, building configuration, communal space allocation, carparking and ground floor configuration. And as a result, the proposal represents overdevelopment of this site.
- There are key statutory planning issues such as non-compliance with the minimum setbacks and separation distances required by the DCP and the NSW Apartment Design Guide (ADG), which are required under SEPP Housing for a Co-Living proposal in R4 zoned land ref - 69(2)(a)(ii). Furthermore, use of on-grade parking, inadequate active street frontages, problematic building design, and insufficient tree canopy and constrained deep soil zones (DSZ). As a result, the proposal is not supported by the Panel.
- The Panel strongly suggests that the applicant explores alternative site planning and building massing strategies, such as a 'T'-shape building envelope with increased building separation distances to the sides, and a basement carpark to address these concerns and achieve an optimal design outcome.
- The Panel strongly suggest that the applicant consider a pedestrian link for the residents to the southern street (Kurrajong Road) to allow residents a more direct route to the shopping centre across Kurrajong Rd.

4.2. Built Form + Scale

Street Activation

- The walking and entry experience to the building is convoluted and unacceptable, requiring residents to navigate multiple turns, pass through the bin storage areas, and exit the building to the parking area to access the lift. There is currently no direct line of sight from the front door to the lift, and the circuitous route past multiple open garbage storage areas is unsafe and unacceptable. Additionally, two-thirds of the site frontage consists of non-active uses, which is unsuitable for a primary street frontage treatment. The Panel identifies the street active frontage, street address, lobby, and arrival experience along Simone Street as key concerns that require significant improvement to enhance the street presentation and on-site amenity for residents.
- The Panel highlights that the site benefits from two street frontages, with Kurrajong Road linking to key amenities, including bus stops, local shopping centre, shops and parks. The absence of activation along Kurrajong Road represents a missed opportunity. The Panel recommends that the applicant incorporates a residential access point along Kurrajong Road, along with additional activation strategies and landscape design, to improve the street interface and overall pedestrian connectivity and street presentation.

Parking Design

- The on-grade parking is not supported by the Panel, being a major concern as it results in fundamental site planning issues at the ground level. The undercroft parking is likely



Minutes

to negatively impact both the development and the neighbouring properties, with concerns such as air pollution, noise, vehicular light spill, and poor interfaces with communal open spaces (COS).

- Given the limited parking spaces in the proposed development, greater consideration is required be given to pedestrian movement and active transport options suitable for co-living developments, such as bicycles, e-bikes, and motorbikes. The current proposal does not adequately address these needs, and the placement of bicycle parking next to the driveway raises safety concerns as it appears in conflict with vehicular movement.
- The applicant is strongly recommended to explore a basement parking option, as it may solve multiple issues raised in these minutes.

Building Setbacks & Separations

- The Panel does not support the non-compliance with NSW ADG building separation requirements noted at all floor levels. While some obscure windows are proposed for end units, they remain operable, which does not sufficiently mitigate privacy concerns. The inadequate building separation to the side boundaries detrimentally impact key amenity aspects, visual impact on the neighbours, visual privacy, acoustics, mid-winter overshadowing, and insufficient landscape and DSZ for canopy tree plantings.
- Additionally, the COS on Level 4 is considered habitable space in accordance with ADG 2F and 3F. Therefore, the applicant is required to treat both ends as habitable uses and must fully comply with the ADG building separation requirements for habitable spaces. In summary, the applicant should work with the ADG to ensure 6m side setbacks for the first 4 levels, and 9m setbacks for the levels above, since the visual impact of a 6 storey built form will be overbearing to the neighbours unless provided with proper separation and landscape buffers.
- It is noted that LDCP Part 3.7.5 requires a minimum rear setback of 8m for developments adjacent to land zoned R4. The proposed 6m rear setback, which includes the car parking area at ground level within the setback area, does not comply with this requirement. It is recommended to increase the rear setback to 8m and limit ancillary use within this area. This additional rear setback area should be utilised for DSZ and canopy tree plantings, benefiting the south-facing units by enhancing their outlook and providing appropriate screening from the busy road.

Internal Layout Design

- The Panel notes that most rooms are for single occupants and the applicant needs to provide suitable rationale behind this strategy. The applicant explains that it is a commercial decision based on current market demands, however, the Panel is unconvinced. The Panel recommends the applicant should increase the number of larger rooms for double occupants, to create larger, fewer but more amenable amenity for the residents. The Panel recommends that pairing bathrooms either side of a dividing wall could be a good strategy to retain future flexibility for conversion of two single rooms into one larger double room.
- The Panel also raises concerns about the typical kitchen plan, which includes a laundry facility (washing machine and dryer combo). This setup does not suit all rooms,



Minutes

particularly those located at the ends of the building. Additionally, placing laundry facilities in the kitchen area may lead to issues with floor waste. As a solution, the Panel recommends provision of a communal laundry area, along with a clothes drying court, within the development.

- The applicant is also required to provide a dedicated room for the building manager as per the Housing SEPP Chapter 3 – Part 3.
- All bathrooms appear constrained, limiting the amenity and liveability.
- The Panel raises concerns about potential non-compliance with co-living room floor space requirements under Housing SEPP Chapter 3 – Part 3, due to the constrained internal layouts. For example, in room 107, the calculated floor area includes circulation space shared with the entry, kitchen, and bathroom, which does not function as usable living space. In room 108, the placement of the bed and bedside table obstructs access to the balcony. These are just a few examples that highlight poor amenity outcomes and demonstrate the over development of the proposal.
- The Panel recommends addition of windows to the stairwell to allow natural light and ventilation, while also encouraging use of the stairs.
- The Panel notes that the space in front of the lift and the common corridors appear too narrow (potentially 1.6m) and these widths should be further increased to allow safe, comfortable and intuitive movement for the residents, furniture, maintenance, and paramedics in the case of an emergency.

Floor-to-Floor Height

- The Panel recognises that the Design Building & Practitioners Act 2020 applies to the proposal given that it is a NCC Class 3 Building. The Panel believes that the proposed floor-to-floor heights need to be increased to at least 3.15m and preferably to 3.2m to achieve the minimum floor-to-ceiling height within the rooms, while achieving compliance with drainage, waterproofing, acoustic separation, ceiling fans, and insulation requirements arising from the Design & Building Practitioners Act 2020 and the relevant NCC provisions. The Panel has had experience design and documenting instances where Habitable rooms are below outdoor terraces and has found compliance with the issues listed above under the DB&P Act unachievable at the currently proposed floor to floor heights.
- Considering the above, the Panel recommends that the development should be limited to a five-storey built form, with the potential to locate a COS, communal laundry and common facilities on the rooftop.

4.3. Density

- The proposal, in its current form and configuration represents overdevelopment of the subject site, as evidenced by the Panels comments above.



Minutes

4.4. Sustainability

- The Panel recommends incorporation of Environmentally Sustainable Design (ESD) principles and as a minimum the applicant should offer:
 - Ceiling fans to all rooms and common living area;
 - A rooftop photovoltaic system to power common areas;
 - Full building electrification; and
 - Provision of a rainwater tank for storage and reuse to water the landscaped areas.

4.5. Landscape

- The Panel supports the generous amount of DSZ provided within the front setback area and encourages a consistent approach at the rear, addressing Kurrajong Road. The increased DSZ, coupled with substantial canopy tree plantings at the rear, will positively improve the onsite amenity and ensure an attractive building address to Kurrajong Road.
- The legibility of the pedestrian arrival to the Simone Crescent entry needs to be considered in the landscape design and should consider CPTED requirements with clear visibility between the main building entry and the street.
- A connection from the site to the Kurrajong Road address should also be provided. It is important to ensure that this access is also legible and designed with CPTED considerations.
- The Panel does not support the placement of the retaining wall within the DSZ. The applicant must revisit the site cut and fill strategy to ensure the retaining wall is appropriately located and does not adversely affect the DSZ and landscape design.
- The majority of usable COS at the ground level is highly restricted, with only the undercroft decking area being suitable for communal use. The remaining space is primarily designed for circulation and is heavily landscaped, limiting its usability.
- As such, the current design does not appear to fully comply with the SEPP's numerical requirements for COS.
- Solar access to the undercroft COS is a major concern. The shadow diagrams and views from the sun illustrate that a significant portion of the calculated solar access is allocated to the side egress area, rather than usable COS at the ground level.
- The location of the COS at ground and the solar access issues will significantly impact on the developability of the neighbouring site if solar access is to be maintained. The Panel recommend that the COS is better placed on the roof and the building limited to 5 storeys.
- A detailed landscape plan for the upper level COS must be provided in the next submission.
- The panel recommends consideration of Designing with Country principles in the selection of all planting species for the proposal.



Minutes

4.6. Amenity

- As discussed in Section 4.5 above, the ground level COS, which is fully covered with limited solar access and poor edge treatment facing the car parking, is not supported.
- As mentioned in Section 4.2 above, the individual rooms are quite small, making it challenging to fully furnish and use the spaces.
- As discussed in Sections 4.2 and 4.5, the DSZ and plantings are insufficient.
- Since this area (R4) is undergoing transformation, residential flat buildings are expected to be constructed incrementally. Therefore, the solar access diagrams should consider a future scenario, incorporating all ADG standard built forms for surrounding sites, particularly to the east and west.
- It is suggested to increase the ceiling height to at least 2.7m to align with best industry practices, and improving thermal comfort and amenity for the residents. This adjustment will also improve quality of day light and air circulation for deeper units (noted approximately 10m in depth from the external building line to room entry door).

4.7. Safety

- As discussed in Section 4.2, the main entry of the building has poor street presence and appears hidden from the street due to the dense planting, leading to issues with legibility and safety. The Panel recommends reconfiguring the ground floor footprint to provide a more active frontage and a dedicated lobby area along the street frontage.
- The egress path, connecting to the driveway to the east, raises safety concerns. It should be directly connected to the public footpath within public domain.

4.8. Housing Diversity + Social Interaction

- The predominant use of smaller rooms with single occupants in the development may not be ideal and could lead to unnecessary site intensification.
- A communal laundry facility is recommended. It could be located on the rooftop, offering views and fostering social interaction, subject to further site testing.

4.9. Aesthetics

- The Panel recommends more solid or masonry expression for the balustrades for the lower floors to improve privacy, while adding to the materiality for the façade design. The applicant may choose to pick up on a number of contextual cues from the surrounding built form which is predominantly brick two storey houses, and this may choose to be interpreted in the materiality of the façade at the lower levels whilst also increasing privacy and amenity.



Minutes

- The hydrant booster facing the public domain, without adequate setback and screening is unacceptable. The applicant must provide appropriate design solutions to integrate or screen the booster to minimise visual impact.
- Similarly, the applicant must confirm whether a substation is required for a development at this scale. If required, it is recommended that the substation is integrated into the building design to minimise its impact on the streetscape and reduce visual disruption.
- The placement of air conditioning condensers must be provided on the relevant architectural drawings in the next submission. These should not be located within balconies (unless thoughtfully screened) or anywhere visual apparent from surrounding public domain. The provision of mechanical risers for reticulation of Mech. servicing should also be included in the floor plans and sections.

5.0 OUTCOME

The Panel have determined the outcome of the DEP review and have provided final direction to the applicant as follows:

The proposal is not supported by the DEP and must return to the panel, with all feedback incorporated or addressed.



**PROPOSED DEMOLITION OF EXISTING DWELLING AND CONSTRUCTION OF A NEW
CO-LIVING HOUSING DEVELOPMENT PURSUANT TO SEPP (HOUSING) 2021
25 Simone Crescent, Casula**

Clause 4.6 - Exceptions to development standards (Height of Building)

This Clause 4.6 Submission is prepared in support of a Development Application which seeks approval for the demolition of the site's existing structures followed by the construction of a new co-living housing development containing forty-five (45) co-living rooms and a basement carpark upon the subject land.

This variation is to be read in conjunction with the following documentation:

- Survey Plan prepared by Ensure Consulting P/L, Dwg No. 250095-DE-01, Sheet 1 of 1, Revision A and dated 27/07/2024.
- Architectural Plans, Shadow Diagrams, Sun Eye Diagram, Height Blanket Diagram, Streetscape Analysis, Material Schedule & Notification Plans prepared by Texco Design P/L, Drawing No's A000 to A502, Revisions 04, 06, 08-10 dated 17/10/24, Revision 05 dated 15/10/24 and Revisions 07, 11 & 13 and dated 21/10/2024.

A variation is sought in respect of compliance with Clause 4.3 - Height of Buildings of the Liverpool LEP 2008.

The subject site is located within Building Height Zone "P" and which is subject to a maximum building height control of 18m.

Building height is defined under the LEP as meaning:

building height (or height of building) means the vertical distance between ground level (existing) and the highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.

The proposal as detailed on the accompanying plans will result in a maximum building height of 18.537m and which exceeds the maximum 18m requirement.

The maximum non-compliance is 537mm or 2.98%

Minto Planning Services P/L

The proposed non-compliance relates to the lift overrun. The extent of non-compliance is illustrated on the accompanying height limit diagram (Dwg No. A015) contained within the architectural plans. (extract below)



The following Clause 4.6 variation is provided in support of the proposed height of building non-compliance.

This Clause 4.6 variation has been prepared in accordance with the approach adopted by the Land & Environment Court of NSW in its recent Court decisions.

It is submitted that the variation is well founded and is worthy of the support of the Council.

The following is an assessment of the proposed variation against the requirements of Clause 4.6.

1. What are the objectives of Clause 4.6 and is the proposal consistent with them.

The objectives of Clause 4.6(1) of the LEP are:

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

It is my opinion, as is demonstrated by the responses to the questions below, that the proposed variation is consistent with the objectives of this clause.

It is also considered in the circumstances, a flexible approach to the application is warranted.

2. Is the standard to be varied a Development Standard to which Clause 4.6 applies.

A “development standard” is defined in Section 4 of the Environmental Planning & Assessment Act as:

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 area, shape or frontage of any land, the dimensions of any land, buildings or works, or the distance of any land, building or work from any specified point,
- (b) the proportion or percentage of the area of a site which a building or work may occupy,
- (c) the character, location, siting, bulk, scale, shape, size, height, density, design or external appearance of a building or work,
- (d) the cubic content or floor space of a building,
- (e) the intensity or density of the use of any land, building or work,
- (f) the provision of public access, open space, landscaped space, tree planting or other treatment for the conservation, protection or enhancement of the environment,
- (g) the provision of facilities for the standing, movement, parking, servicing, manoeuvring, loading or unloading of vehicles,
- (h) the volume, nature and type of traffic generated by the development,
- (i) road patterns,
- (j) drainage,
- (k) the carrying out of earthworks,
- (l) the effects of development on patterns of wind, sunlight, daylight or shadows,
- (m) the provision of services, facilities and amenities demanded by development,
- (n) the emission of pollution and means for its prevention or control or mitigation, and
- (o) such other matters as may be prescribed.

Clause 4.3 is contained within Part 4 of the Liverpool LEP 2008 and which is titled Principal Development Standards. It is also considered that the wording of the Clause is consistent with previous decisions of the Land & Environment Court of NSW in relation to what matters constitute development standards.

It is also noted that Clause 4.3 does not contain a provision which specifically excludes the application of Clause 4.6 and vice a versa.

On this basis it is considered that Clause 4.3 is a development standard for which Clause 4.6 applies.

3. Is compliance with the development standard unreasonable or unnecessary in the circumstances of this case.

Sub-clause 4.6(3) sets out the matters that must be demonstrated by a written request seeking to justify a contravention of the relevant development standard (that is not expressly excluded from the operation of clause 4.6 under the Liverpool Local Environmental Plan 2008):

- (3) *Development consent must not be granted to development that contravenes a development standard unless the consent authority is satisfied the applicant has demonstrated that—*
- (a) compliance with the development standard is unreasonable or unnecessary in the circumstances, and*
 - (b) there are sufficient environmental planning grounds to justify the contravention of the development standard.*

In *Wehbe v Pittwater Council* [2007] NSWLEC 827, Preston CJ set out five justifications that may be used to demonstrate that compliance with a development standard is unreasonable or unnecessary:

- The objectives of the development standard are achieved notwithstanding non-compliance with the standard.
- The underlying objective or purpose of the standard is not relevant to the development.
- The underlying objective or purpose would be defeated or thwarted if compliance was required.
- The standard has been virtually abandoned or destroyed by the Council's own actions in granting consents departing from the standard and/or
- The zoning of the land was unreasonable or inappropriate such that the standards for that zoning are also unreasonable or unnecessary.

The first justification is applicable in this instance.

The following assessment of the proposal is provided against the objectives of Clause 4.3 of the Liverpool LEP 2008.

- (a) to establish the maximum height limit in which buildings can be designed and floor space can be achieved,*

The majority of the proposed co-living housing is contained within the maximum 18m building height. The proposed non-compliance relates to the lift overrun.

The extent of non-compliance is considered minor being a maximum of 537mm or 2.98%. Reference is made to the height limit diagram (Dwg No. A 015) which demonstrates the extend of non-compliance.

Furthermore, the proposal complies with the maximum FSR requirements of the SEPP (Housing).

It is also noted that there is no FSR associated with the portion of the building which exceeds the height of building control.

The proposal is therefore considered to be compliant with this objective.

Minto Planning Services P/L

(b) to permit building heights that encourage high quality urban form,

The proposal whilst not technically complying with the maximum height of building control in my opinion results in a high quality urban form.

The proposed development provides for a modern high-quality design comprising of significant articulation and modulation and includes a combination of building finishes including painted render, face brick, metal cladding, aluminium louvres, glass balustrade and stainless steel railing. It is considered that these elements in combination will provide for a high-quality visual outcome for the site.

The proposal is therefore considered to be compliant with this objective.

(c) to ensure buildings and public areas continue to receive satisfactory exposure to the sky and sunlight,

Reference is made to the Shadow Diagrams (Dwg No. A013) contained within the Architectural Plans. The proposal will result in some overshadowing of the adjoining properties to the west and east. It is considered that the overshadowing is a direct result of the orientation of the site and is largely unavoidable. Notwithstanding, it is considered that the adjoining properties will continue to receive satisfactory exposure to the sky and sunlight. In addition, it is my opinion that the extent of height non-compliance will result in a negligible amount of additional overshadowing.

The proposal is therefore considered to be compliant with this objective.

(d) to nominate heights that will provide an appropriate transition in built form and land use intensity.

The proposed development is considered to result in a development which is compatible with the height of buildings located within R4 zone.

On this basis it is my opinion that strict compliance with the standard is unreasonable and unnecessary in the circumstances of this case.

4. Are there sufficient environmental planning grounds to justify contravening the development standard.

Consistent with the findings of the Court in *Initial Action P/L v Woollahra Municipal Council (2018) 236 LGERA 256*; [2018] NSWLEC an applicant is required to demonstrate in writing that there are sufficient environmental planning grounds to justify the variation.

In Initial Action at [24], Preston CJ stated, that the

“... focus of cl. 4.6(3)(b) is on the aspect or element of the development that contravenes the development standard, not on the development as a whole, and why that contravention is justified on environmental planning grounds”.

Further he stated,

“... the written request must demonstrate that there are sufficient environmental planning grounds to justify contravening the development standard so as to enable the consent authority to be satisfied under cl. 4.6(4)(i) that the written request has adequately addressed this matter”.

In order to determine environmental planning grounds relevant to the non-compliance it is often accepted to relate the departure to the objects of the Act as set out at Section 1.3 - Objects of the Act.

The following objects of the Act are considered to be relevant to the proposal.

- (a)
- (b)
- (c) *to promote the orderly and economic use and development of land,*
- (d) *to promote the delivery and maintenance of affordable housing,*
- (e)
- (f)
- (g) *to promote good design and amenity of the built environment,*
- (h)
- (i)
- (j)

Relevant to the proposal the following submission is provided in relation to the question as to whether there are sufficient environmental planning grounds to justify the non-compliance.

What is the aspect or element of the development that contravenes the development standard

The subject site is located within Building Height Zone “P” and which is subject to a maximum building height control of 18m.

The proposal as detailed on the accompanying plans will result in a maximum building height of 18.537m and which exceeds the maximum 18m requirement.

The maximum non-compliance is 537mm or 2.98%

The proposed non-compliance relates to the lift overrun. The extent of non-compliance is illustrated on the accompanying height limit diagram (Dwg No. A015) contained within the architectural plans.

What are the environmental grounds associated with the departure

It is my opinion the environmental planning grounds associated with the proposed departure primarily relate to:

1. The subject site is located upon land zoned R4 - High Density Residential and where the maximum permissible height is 18m.
2. The proposal is provided with an overall height of building of 18.537m and which results in a minor non-compliance with this control.
3. The area of the lift overrun which exceeds the height control by 537mm is 7.28m² or 2.3% of the total roof area.
4. The proposal will therefore result in a built form which is generally consistent with the existing and desired future height of development located within the surrounding locality.



A photomontage showing the consistency of the proposal with the existing and desired future height of adjoining development to the east and west

5. The proposed design is such the majority of the proposal is contained within the 18m height control.
6. The non-compliant height is associated with the proposed lift overrun and which is located upon the roof in such a location that it will not be visible.
7. The proposed non-compliant height will allow for the provision of additional affordable housing in the form of 45 co-living rooms in a manner which does not result in any unreasonable impacts.

Minto Planning Services P/L

Are the environmental planning grounds sufficient to justify contravening the development standard

It is my opinion for the reasons as set out within this submission that there are sufficient environmental planning grounds to justify contravening the development standard.

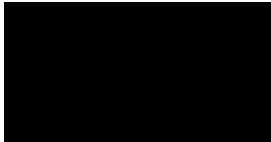
It is my opinion based upon the above that the proposed non-compliance will:

1. *promote the orderly and economic use and development of land,*
2. *promote the delivery and maintenance of affordable housing, and*
3. *promote good design and amenity of the built environment.*

It is therefore my opinion based upon the above that this submission has demonstrated that there are sufficient environmental planning grounds to justify contravening the development standard as required by Clause 4.6(3)(b) of the LEP.

Conclusion

It is therefore my opinion based upon the content of this submission that a variation of the maximum height of building control as required by Clause 4.3 of the Liverpool LEP 2008 is appropriate in this instance.



Graduate Diploma (Urban & Regional Planning), Associate Diploma (Health & Building Surveying). MPIA.
MINTO PLANNING SERVICES PTY LTD
28th October 2024

LIVERPOOL CITY COUNCIL
NOTICE OF DETERMINATION OF A DEVELOPMENT APPLICATION
Attachment A: Reasons for Refusal

Application number	DA-550/2024 PAN-490071
Applicant	THE TRUSTEE FOR VENTURELAND CAPITAL TRUST 49 KANGAROO POINT RD KANGAROO POINT NSW 2224
Description of development	Demolition of existing structures, construction of a 6-storey co-living housing development comprising 45 private rooms, 2 communal rooms and related landscaping.
Property	25 SIMONE CRESCENT CASULA NSW 2170 LOT 1 DP 573750
Determination:	Refused Consent Authority - Local Planning Panel
Date of determination	28/04/2025

Under section 4.18(1) of the EP&A Act, notice is given that the above development application has been determined by refusing consent using the power in section 4.16(1)(b) of the EP&A Act, for the reasons specified below:

Reasons for refusal

This Development Application be **REFUSED** pursuant to Section 4.16(1)(b) of the Environmental Planning and Assessment Act 1979.

1. The proposal in its current format does not satisfactorily demonstrate that the development achieves satisfactory compliance with Clause 68 (2)(d), Clause 69 (1)(f) & (h) and Clause 69 (2)(a),(b),(c) & (f) of the State Environmental Planning Policy (Housing) 2021 pursuant to Sections 4.15(1)(a)(i), 4.15(1)(b), 4.15(1)(c) & 4.15 (e) of the Environmental Planning and Assessment Act 1979.
2. The proposal in its current format does not satisfactorily demonstrate that the development achieves satisfactory compliance with Part 1 of the Liverpool Development Control Plan 2008 in particular Section 6 'Water Cycle Management', Section 27 'Social Impact Assessment' and Section 29 'Safety and Security' pursuant to Sections 4.15(1)(a)(ii), 4.15(1)(b), 4.15 (c) and 4.15(1)(e) of the Environmental Planning and Assessment Act 1979.
3. Inadequate information has been submitted with the proposed development in order to satisfy the provisions of State Environmental Planning Policy – Biodiversity and Conservation 2021, Chapter 6 Water Catchments, pursuant to Sections 4.15(1)(a)(i), 4.15(1)(b) and 4.15(1)(c) of the Environmental Planning and Assessment Act 1979.
4. The proposed development in its current format has failed to demonstrate that the proposed development would not have an adverse impact on the built environment and natural environment, pursuant to Sections 4.15(1) (a)(iv), 4.15(1)(b) and 4.15(1)(c) of the Environmental Planning and Assessment Act 1979.
5. Insufficient information has been submitted to sufficiently demonstrate that the works proposed are satisfactory and will not have detrimental impacts in relation to the suitability of the site, pursuant to Section 4.15(1)(c) of the Environmental Planning and Assessment Act 1979.
6. The proposed development is not considered to be acceptable having regard to the concerns raised from internal referrals within Council, pursuant to the provisions of Section 4.15(1)(d) of the Environmental Planning and Assessment Act 1979.
7. It is considered that in the circumstances of the subject application, approval of the proposed development (in its current form) would not be in the public interest, and it will set an undesirable precedent for inappropriate overdevelopment within the R4 High Density Residential zone and therefore would not satisfy Clause 4.15(1)(e) of the Environmental Planning and Assessment Act 1979.
8. Accordingly, the proposed development is inconsistent with Clause 1.3 (b), (c), (d) and (g) of the Environmental Planning and Assessment Act 1979.

Right of appeal / review of determination

If you are dissatisfied with this determination:

Request a review

You may request a review of the consent authority's decision under section 8.3(1) of the EP&A Act. The application must be made to the consent authority within 6 months from the date that you received the original determination notice provided that an appeal under section 8.7 of the EP&A Act has not been disposed of by the Court.

Rights to appeal

You have a right under section 8.7 of the EP&A Act to appeal to the Court within 6 months after the date on which the determination appealed against is notified or registered on the NSW planning portal.



NOTICE OF DETERMINATION OF A DEVELOPMENT APPLICATION

Application number	DA-439/2024 PAN-471379
Applicant	EVOLUTION MIT SERVICES PTY LTD LEVEL 17, 123 PITT ST SYDNEY NSW 2000
Description of development	Proposed change of use to a depot and minor additional works.
Property	77 GOVERNOR MACQUARIE DRIVE CHIPPING NORTON NSW 2170 LOT 38 DP 17311
Determination:	Consent Authority -
Date of determination	7/04/2025
Date from which the consent operates	7/04/2025
Date on which the consent lapses	7/04/2030

Under section 4.18(1) of the EP&A Act, notice is given that the above development application has been determined by the granting of consent using the power in section 4.16(1)(a) of the EP&A Act, subject to the conditions specified in this notice.

Reasons for approval

Right of appeal / review of determination

If you are dissatisfied with this determination:

Request a review

You may request a review of the consent authority's decision under section 8.3(1) of the EP&A Act. The application must be made to the consent authority within 6 months from the date that you received the original determination notice provided that an appeal under section 8.7 of the EP&A Act has not been disposed of by the Court.

Rights to appeal

You have a right under section 8.7 of the EP&A Act to appeal to the Court within 6 months after the date on which the determination appealed against is notified or registered on the NSW planning portal.

The Dictionary at the end of this consent defines words and expressions for the purposes of this consent.

Peer review (Authorising Officer) sign-off is incomplete

sign-off is incomplete

Person on behalf of the consent authority

For further information, please contact Assessing (Contact Officer) sign-off is incomplete / *sign-off is incomplete*

Terms and Reasons for Conditions

Under section 88(1)(c) of the EP&A Regulation, the consent authority must provide the terms of all conditions and reasons for imposing the conditions other than the conditions prescribed under section 4.17(11) of the EP&A Act. The terms of the conditions and reasons are set out below.

General Conditions**1. (A002) Approved plans and supporting documentation**

Development must be carried out in accordance with the following approved plans and documents, except where the conditions of this consent expressly require otherwise.

Approved plans

Plan number	Revision number	Plan title	Drawn by	Date of plan
22310-259-DA-010	K	Proposed Site Plan	Concept Architects	September 2024
000	D	Landscape Plan	Site Image	undated
101	D	Landscape Plan	Site Image	undated

Approved documents

Document title	Version number	Prepared by	Date of document
Plan of Management - Operational Summary	N/A	N/A	Undated
Waste Management Plan	1	MRA Consultancy	23/07/2024
Light Spill Assessment	A	Clever Engineering	03/06/2024
Acoustic Report	5	Renzo Tonin & Associates	10/01/2025

In the event of any inconsistency between the approved plans and documents, the approved **Plans** prevail.

In the event of any inconsistency with the approved plans and a condition of this consent, the condition prevails.

Condition reason: To ensure all parties are aware of the approved plans and supporting documentation that applies to the development.

2. (A003) Payment of development contributions**Payment of section 7.12 contributions**

Before the issue of a construction certificate, the applicant must pay a total contribution of \$7,304 as calculated at the date of this consent to Council under section 7.12 of the EP&A Act in accordance with Liverpool Contributions Plan Established Areas 2018. The total amount payable may be adjusted at the time the payment is made, in accordance with the provisions of the Liverpool Contributions Plan Established Areas 2018

A copy of the development contributions plan is available for inspection at Council Website.

Condition reason: To ensure development contributions are paid to address increased demand for public amenities and services or to address increased demand for regional infrastructure or to ensure any planning agreement is finalised at the specified time.

3. (A010) Trial Period

The hours of operation of the premises are limited to: Tenancy 1B 7.00 am to 4.30pm, Monday to Friday Tenancy 2 24 hours, 7 days a week Approval was granted for the use of part of the subject premises (Tenancies 1B and 2) for a period of twelve (12) months only starting from the date of determination of this consent. Prior to the end of the twelve (12) month period the applicant shall lodge an application to continue the use of the site as a truck depot. At the end of the twelve (12) month period if a valid consent is not issued for the use of part of the subject premises as a truck depot the subject truck depot shall cease use at the site. Tenancy 1B is not permitted to operate on Saturdays, Sundays and public holidays	Condition reason: This condition limits the period during which the development may be carried out in accordance with the consent granted under section 4.17(1)(d) of EP & A Act.
4. (A025) Comply with EP&A Act The requirements and provisions of the Environmental Planning & Assessment Act 1979 and Environmental Planning & Assessment Regulation 2021, must be fully complied with at all times. Failure to comply with these legislative requirements is an offence and may result in the commencement of legal proceedings, issuing of 'on-the-spot' penalty infringements or service of a notice and order by Council. Condition reason: This condition is imposed to ensure compliance with legislative requirements.	
5. (A032) Shoring and adequacy of adjoining property 1. This section applies to a development consent for development that involves excavation that extends below the level of the base of the footings of a building, structure or work on adjoining land, including a structure or work in a road or rail corridor. 2. It is a condition of the development consent that the person having the benefit of the development consent must, at the person's own expense— 1. protect and support the building, structure or work on adjoining land from possible damage from the excavation, and 2. if necessary, underpin the building, structure or work on adjoining land to prevent damage from the excavation. 3. This section does not apply if— 1. the person having the benefit of the development consent owns the adjoining land, or 2. the owner of the adjoining land gives written consent to the condition not applying. Condition reason: Prescribed condition under section 74 of the Environmental Planning and Assessment Regulation 2021.	
6. (A040) Compliance with the Building Code of Australia	

	1. It is a condition of a development consent for development that involves building work that the work must be carried out in accordance with the requirements of the <i>Building Code of Australia</i>. 2. It is a condition of a development consent for development that involves residential building work for which a contract of insurance is required under the <i>Home Building Act 1989</i>, Part 6 that a contract of insurance is in force before building work authorised to be carried out by the consent commences. 3. It is a condition of a development consent for a temporary structure used as an entertainment venue that the temporary structure must comply with Part B1 and NSW Part H102 in Volume 1 of the <i>Building Code of Australia</i>. 4. In subsection (1), a reference to the <i>Building Code of Australia</i> is a reference to the Building Code of Australia as in force on the day on which the application for the construction certificate was made. 5. In subsection (3), a reference to the <i>Building Code of Australia</i> is a reference to the Building Code of Australia as in force on the day on which the application for development consent was made. 6. This section does not apply— 1. to the extent to which an exemption from a provision of the <i>Building Code of Australia</i> or a fire safety standard is in force under the <i>Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021</i>, or 2. to the erection of a temporary building, other than a temporary structure to which subsection (3) applies.
	Condition reason: Prescribed condition under section 69 of the Environmental Planning and Assessment Regulation 2021.
7.	(A042) Notification of Home Building Act 1989 requirements
	1. This section applies to a development consent for development involving residential building work if the principal certifier is not the council. 2. It is a condition of the development consent that residential building work must not be carried out unless the principal certifier for the development to which the work relates has given the council written notice of the following— 1. for work that requires a principal contractor to be appointed— 1. the name and licence number of the principal contractor, and 2. the name of the insurer of the work under the Home Building Act 1989, Part 6, 2. for work to be carried out by an owner-builder— 1. the name of the owner-builder, and 2. if the owner-builder is required to hold an owner-builder permit under the Home Building Act 1989—the number of the owner-builder permit. 3. If the information notified under subsection (2) is no longer correct, it is a condition of the development consent that further work must not be carried out unless the principal certifier has given the council written notice of the updated information. 4. This section does not apply in relation to Crown building work certified to comply with the Building Code of Australia under the Act, Part 6.
	Condition reason: Prescribed condition under section 71 of the Environmental Planning and Assessment Regulation 2021.
8.	(A060) Erection of signs

1.	This section applies to a development consent for development involving building work, subdivision work or demolition work.
2.	It is a condition of the development consent that a sign must be erected in a prominent position on a site on which building work, subdivision work or demolition work is being carried out— - showing the name, address and telephone number of the principal certifier for the work, and - showing the name of the principal contractor, if any, for the building work and a telephone number on which the principal contractor may be contacted outside working hours, and - stating that unauthorised entry to the work site is prohibited.
3.	The sign must be— - maintained while the building work, subdivision work or demolition work is being carried out, and - removed when the work has been completed.
4.	This section does not apply in relation to— - building work, subdivision work or demolition work carried out inside an existing building, if the work does not affect the external walls of the building, or - Crown building work certified to comply with the Building Code of Australia under the Act, Part 6.
Condition reason: Prescribed condition under section 70 of the Environmental Planning and Assessment Regulation 2021.	

Building Work Before Issue of a Construction Certificate

9.	(B055) S138 Roads Act - roadworks requiring approval of civil drawings The proponent must submit a Section 138 Roads Act application, including the payment of application and inspection fees, for approved by Liverpool City Council (being the Roads Authority under the Roads Act), for the following road where: - The proposed access driveway; and - The proposed raised concrete median island along Governor Macquarie Drive in front of the subject driveway. Condition reason: To ensure fairness, transparency and probity.
10.	(B075) Fee Payments Unless otherwise prescribed by this consent, all relevant fees or charges must be paid. Where Council does not collect these payments, copies of receipts must be provided. The following fees are applicable and payable: - Damage Inspection Fee – relevant where the cost of building work is \$20,000 or more, or a swimming pool is to be excavated by machinery. - Fee associated with Application for Permit to Carry Out Work Within a Road, Park and Drainage Reserve. These fees are reviewed annually and will be calculated accordingly. Condition reason: To ensure statutory or associated fees are paid prior to construction commencing.
11.	(B081) Site Development Work Site development work in the form of excavation, underpinning or shoring works must not take place, until such time as a CC has been issued. Condition reason: To prevent unauthorised commencement of building works.
12.	(B095) Long Service Levy Before the issue of a Construction Certificate, the long service levy as calculated at the date of this consent, must be paid to the Long Service Corporation under the Building and Construction industry Long Service Payments Act 1986, section 34, and evidence of the payment is to be provided to the certifier. Condition reason: To ensure the long service levy is paid.

13.	(B112) Notification In the event that Council is not the Principal Certifier (PC), the PC must advise Council, in writing of: (a) The name and contractor licence number of the licensee who has contracted to do or intends to do the work, or (b) The name and permit of the owner-builder who intends to do the work. If these arrangements are changed, or if a contact is entered into for the work to be done by a different licensee, Council must be immediately informed. Condition reason: To advise Council of the details of licensed contractors or owner-builder for the approved development.
14.	(B149) S138 Roads Act - Minor Works in the public road Prior to the issue of a Construction Certificate, a Section 138 Roads Act application/s, including payment of fees, shall be lodged with Liverpool City Council, as the Roads Authority for any works required in a public road. These works may include but are not limited to: (a) Vehicular crossings (including kerb reinstatement of redundant vehicular crossings), (b) Road opening for utilities and stormwater (including stormwater connection to Council infrastructure), or (c) Road occupancy or road closures. All works shall be carried out in accordance with the Roads Act approval, the development consent including the stamped approved plans, and Liverpool City Council's specifications. Note: Approvals may also be required from the Transport for NSW for classified roads. Condition reason: To ensure fairness, transparency and probity.
15.	(B162) Recommendations of Acoustic Report Before the issue of a construction certificate, the certifier must be satisfied that the recommendations provided in the approved acoustic report are implemented and incorporated into the design and construction of the development, and shown on plans accompanying the construction certificate application. The construction methodology and plans accompanying the construction certificate application must be assessed and certified in writing by a suitably qualified acoustic consultant to verify conformance with the requirements of the aforementioned acoustic report. The written certification from the suitably qualified acoustic consultant must be submitted to and approved by the certifier before issue of the construction certificate. Note: The 'suitably qualified acoustic consultant' must be a member of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm. Condition reason: To mitigate potential intrusive noise and amenity impacts.
16.	(B360) Construction Environmental Management Plan (CEMP)

	Prior to issue of a construction certificate, a Construction Environmental Management Plan (CEMP) for the development must be provided to the Principal Certifying Authority for approval. The environmental site management measures must remain in place and be maintained throughout the period of the development. The CEMP must address all environmental aspects of the development's construction phases, and include (where relevant), but not be limited to, the following: 1. Asbestos Management Plan; 2. Project Contact Information; 3. Site Security Details; 4. Timing and Sequencing Information; 5. Site Soil and Water Management Plan; 6. Noise and Vibration Control Plan; 7. Dust Control Plan; 8. Air Monitoring; 9. Odour Control Plan; 10. Health and Safety Plan; 11. Waste Management Plan; 12. Incident management Contingency; and 13. Unexpected Finds Protocol. The CEMP must be kept on site for the duration of the works and must be made available to Council Officers upon request Condition reason: To require details of measures that will protect the public, and the surrounding environment, during site works and construction.
17.	(B380) Mechanical Plant and Equipment Before the issue of a construction certificate, the certifier must be satisfied that mechanical plant and equipment were selected in consultation with a suitably qualified acoustic consultant. Note: The 'suitably qualified acoustic consultant' must be a member of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm. Condition reason: To mitigate potential intrusive noise and amenity impacts.
18.	(B408) Access, Car Parking and Manoeuvring - General The Certifying Authority shall ensure and certify that vehicular access, circulation, manoeuvring, pedestrian and parking areas associated with the subject development have been designed and are in accordance with AS 2890.1, AS2890.2, AS2890.6 and Council's Development Control Plan. Condition reason: To ensure that the design of the facilities is in accordance with the required specifications.
19.	(B410) Access, Car Parking and Manoeuvring - Detail The Certifying Authority shall ensure and certify that: 1. Off street access and parking complies with AS2890.1, 2. Vehicular access and internal manoeuvring have been designed for the longest (B-Double/ Heavy Rigid/ Medium Rigid) vehicle expected to service the development site, in accordance with AS2890.2, 3. Sight distance at the street frontage has been provided in accordance with AS 2890.1, 4. All vehicles can enter and exit the site in a forward direction, and/or 5. Requirements of the Disability Discrimination Act 2002, Disability Standards for Accessible Public Transport and the Guidelines for assessing compliance of bus stops with the Disability Standards for Accessible Public Transport 2002, DA-439/2024. Condition reason: To ensure that the design of the access arrangement, car parking and maneuvering are in accordance with the required specifications including AS2890.
20.	(B462) Water Quality

	Prior to the issue of a Construction Certificate, the Certifying Authority shall ensure that details of a stormwater pre-treatment system have been provided on the stormwater plans and that the design meets pollutant retention criteria in accordance Council's Development Control Plan. The Construction Certificate must be supported by: - Specification & installation details of the stormwater pre-treatment system - The approval of an operation and maintenance manual/ schedule for the stormwater pre-treatment system A copy of the approved operation and maintenance manual/ schedule shall be submitted to Liverpool City Council with notification of the Construction Certificate issue. Condition reason: To ensure fairness, transparency and probity.
21.	(B532) Waste Management Plan requirements Before the issue of a Construction Certificate, a waste management plan for the development must be prepared and provided to the certifier. The plan must be prepared in accordance with - the Environment Protection Authority's Waste Classification Guidelines as in force from time to time; and - a development control plan that provides for waste management that applies to the land on which the work or the clearing of vegetation is carried out; and include the following information— - the contact details of the person removing waste; - an estimate of the type and quantity of waste; - whether waste is expected to be reused, recycled or sent to landfill; - the address of the disposal location for waste. A copy of the waste management plan must be kept on-site at all times while work approved under the development consent is being carried out. Condition reason: To ensure resource recovery is promoted and local amenity protected during construction.
22.	(B950) Prior to Issue of Construction Certificate Detailed engineering specifications and plans for the hardstand at the transport depot shall be submitted to Liverpool City Council and the Principal Certifying Authority for review and approval prior to the issue of a Construction Certificate. The engineering plans to be submitted with the application for the Construction Certificate shall include design certification by a suitably qualified and experienced Engineer to verify that the entirety of the subject site and all trafficable areas will be hard surfaced using either bitumen, concrete, or other similar robust materials and drained in accordance with appropriate Standards and Council's requirements. Details are to be submitted to and approved by Council prior to construction. Condition reason: To ensure fairness, transparency and probity.
23.	(B951) Non-Standard Condition - Flooding

	- Proposed development shall be in accordance with the flood letter report (12/12/2025, Costing Roe Consulting), Statement of Environmental Effects (19/09/2024, Willowtree Planning) and Architectural Plan No. DA-010 Issue K and Landscape Plans No. 000 & 101, Issue D dated 26/07/2024 by Site Image Landscape Architects. - Proposed change of usage of the site for container storage depot shall not result adverse flooding impact on the site. - No materials that could cause pollution or pose a hazard during flooding be stored below the 1% AEP flood level (6.3m AHD). - Safe and reliable pedestrian or vehicular access to a publicly accessible area above the PMF (Probable Maximum Flood) level must be available during a 1% AEP flood. - The development must align with any relevant flood evacuation strategy or plan for the site and surrounding area.
	Condition reason: To ensure fairness, transparency and probity.
24.	(B952) Construction Site Management Plan
	Before site work commences, a construction site management plan must be prepared, and provided to the principal certifier. The plan must include the following matters: - The location and materials for protective fencing and hoardings on the perimeter of the site; - Provisions for public safety; - Pedestrian and vehicular site access points and construction activity zones; - Details of construction traffic management including: - Proposed truck movements to and from the site; - Estimated frequency of truck movements; and - Measures to ensure pedestrian safety near the site; - Details of bulk earthworks to be carried out; - The location of site storage areas and sheds; - The equipment used to carry out works; - The location of a garbage container with a tight-fitting lid; - Dust, noise and vibration control measures; - The location of temporary toilets; - The protective measures for the preservation of trees on-site and in adjoining public areas including measures in accordance with: - AS 4970 – Protection of trees on development sites; - An applicable Development Control Plan; - An arborist's report approved as part of this consent unexpected find protocol A copy of the construction site management plan must be kept on-site at all times while work is being carried out.
	Condition reason: To ensure fairness, transparency and probity.
25.	(B953) Non-Standard Condition - Traffic and Transport
	Detailed design plan for the access driveway including swept path analysis, line markings and sign posting in accordance with the DCP and AS2890 is to be submitted to Council Traffic and Transport Section for approval. Any structure adjacent to the driveway exit eg letterbox shall not be greater than 1.2 m in height, to allow sight distance for motorists exiting the property. The turning path plan is to show that the longest vehicles can enter and exit the site simultaneously. No vehicle will queue or waiting on Governor Macquarie Drive to/from the subject site.
	Condition reason: To ensure fairness, transparency and probity.
26.	(B954) Non-Standard Condition - Traffic and Transport
	A raised concrete median island must be installed along Governor Macquarie Drive in front of the subject driveway to restrict the access to left in and left out only. Design of the proposed median island is to be submitted to Council for approval prior to the CC.
	Condition reason: To ensure fairness, transparency and probity.
27.	(B955) Non-Standard Condition - Traffic and Transport

	An Operational Traffic Management Plan (OPTM) should be prepared by an accredited practitioner and submitted to Council Traffic and Transport Section for approval. The OPTM is to include measures to manage traffic and parking impacts of the proposed day to day use and ensure safe vehicle movements on the subject site as well as surrounding roads.
	Condition reason: To ensure fairness, transparency and probity.
28.	(B956) Car Parking Along the frontage of site
	Storage of goods is not permitted along the frontage of the site. Therefore, the carparking must be located at the front of Tenancy 1B adjacent to the landscaping strip to allow for an appropriate setback of any storage of goods.
	Condition reason: To ensure fairness, transparency and probity.
29.	(B957) Proposed Signage
	All proposed signage is to in accordance with the State Environmental Planning Policy (Transport and Infrastructure) 2021. Should any proposed signage fail to meet these requirements a formal Development Application will be required to be lodged with council.
	Condition reason: To ensure fairness, transparency and probity.

Before Building Work Commences

30.	(C002) Payment of fees
	Before any site work commences, the following must be paid to Council and written evidence of these payments provided to the principal certifying authority
	1. inspection fees
	Condition reason: To ensure fees are paid for inspections carried out by council in connection with the completion of public work such as footway construction or stormwater drainage required in connection with the consent or the making good of any damage to council property
31.	(C005) Construction Certificates
	Prior to the commencement of any building works, the following requirements must be complied with:
	(a) Construction Certificate must be obtained from the Council or an Accredited Certifier, in accordance with the provisions of the Environmental Planning & Assessment Act 1979,
	(b) Where a Construction Certificate is obtained from an Accredited Certifier, the applicant shall advise Council of the name, address and contact number of the Accredited Certifier, in accordance with Section 4.19, 6.6, 6.7, 6.12, 6.13, 6.14 of the Act,
	(c) A copy of the Construction Certificate, the approved development consent plans and consent conditions must be kept on the site at all times and be made available to the Council officers and all building contractors for assessment,
	(d) A Principal Certifier (PC) must be appointed to carry out the necessary building inspections and to issue an occupation certificate, and
	(e) The PC must advise Council of the intended date to commence work which is the subject of this consent by completing a notice of commencement of building works or subdivision works form, available from Council's Customer Service Centre. A minimum period of two (2) working days' notice must be given.
	Condition reason: To require approval to proceed with building work.
32.	(C010) Construction Certificates
	Any Construction Certificate that may be issued in association with this development consent must ensure that any certified plans and designs are generally consistent (in terms of site layout, site levels, building location, size, external configuration and appearance) with the approved Development Application plans.
	Condition reason: To ensure details and plans for CC are consistent with the approved DA.
33.	(C012) Commencement of building works

	Building work shall not commence prior to the issue of a Construction Certificate. Building work as defined under Section 1.4 of the Environmental Planning and Assessment Act, 1979 means any physical activity involved in the erection of a building and includes but is not limited to, the placement of any site shed/s or builders facilities, site grading, retaining walls, excavation, cutting trenches, installing formwork and steel reinforcement or, placing of plumbing lines. Condition reason: To require approval to proceed with building work.
34.	(C055) Site Facilities Adequate refuse disposal methods and builders storage facilities shall be installed on the site. Builders' wastes, materials or sheds are not to be placed on any property other than that which this approval relates to. Condition reason: To ensure the required site management measures are implemented before the commencement of building work.
35.	(C065) Sydney Water Development plans must be processed and approved by Sydney Water. Condition reason: To require Sydney Water approval to proceed with building work.
36.	(C117) Erosion and sediment controls in place Before any site work commences, the principal certifier, must be satisfied the erosion and sediment controls in the erosion and sediment control plan are in place. These controls must remain in place until any bare earth has been restabilised in accordance with 'Managing Urban Stormwater: Soils and Construction' prepared by Landcom (the Blue Book) (as amended from time to time). Condition reason: To ensure sediment laden runoff and site debris do not impact local stormwater systems and waterways.
37.	(C158) Construction Traffic Management Plan (CTMP) A construction traffic management plan (CTMP) prepared by a suitably qualified person is to be submitted to and endorsed by Council's Transport Management Section. The CTMP is to be submitted using Assessment of Construction Traffic Management Plan application form. The application is available on Council website and can be lodged online. Comments on the CTMP will be provided and the updated CTMP are to be implemented during construction. A copy of the endorsed CTMP and traffic control plans are to be available on the works site for inspection by authorised Council officers. Construction shall not commence until the assessed construction traffic management plan has been endorsed. The endorsed CTMP is to be implemented during construction. Condition reason: To ensure that the impact of construction traffic associated with the development on the surrounding road network is minimized.

During Building Work

38.	(D028) Responsibility for changes to public infrastructure While site work is being carried out, any costs incurred as a result of the approved removal, relocation or reconstruction of infrastructure (including ramps, footpaths, kerb and gutter, light poles, kerb inlet pits, service provider pits, street trees or any other infrastructure in the street footpath area) must be paid as directed by the consent authority. Condition reason: To ensure payment of approved changes to public infrastructure.
39.	(D038) Toilet Facilities

	Toilet facilities must be available or provided at the work site and must be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site. Each toilet must: (a) be a standard flushing toilet connected to a public sewer, or (b) have an on-site effluent disposal system approved under the Local Government Act 1993, or (c) be a temporary chemical closet approved under the Local Government Act 1993. Condition reason: To ensure the required site management measures are implemented during construction.
40.	(D045) Hours of work Construction work/civil work/demolition work, including the delivery of materials, is only permitted on the site between the hours of 7:00am to 6:00pm Monday to Friday and 8:00am to 1:00pm Saturday. No work will be permitted on Sundays or Public Holidays, unless otherwise approved by Council. Condition reason: To protect the amenity of the surrounding area.
41.	(D049) Security Fence A temporary security fence to WorkCover Authority requirements is to be provided to the property during the course of construction. Note: Fencing is not to be located on Council's reserve area. Condition reason: To ensure the required site management measures are implemented during construction.
42.	(D055) Refuse Disposal Adequate refuse disposal methods and builders storage facilities shall be installed on the site. Builders' wastes, materials or sheds are not to be placed on any property other than that which this approval relates to. Condition reason: To ensure the required site management measures are implemented during construction.
43.	(D063) Craning and Hoardings If the work is likely to cause pedestrian or vehicular traffic in a public area to be obstructed or rendered inconvenient; or if craning of materials is to occur across a public or road reserve area, a separate Road Occupancy Certificate and/or Hoarding approval must be obtained from Liverpool City Council prior to undertaking the works. Condition reason: To ensure the required traffic management measures are implemented during construction.
44.	(D070) Notification of Damage The applicant/ builder shall be responsible to report to the Council of any damage to Council's footpath and road carriageway as a consequence of demolition or excavation or building activities or delivery/ departure of materials associated with this site and maintained the area until completion of the construction activities. Arrangements to the satisfaction of Council are to be made for making safe by temporary repairs to Council's footpath and road carriageway until permanent restoration and repair can be organised with Council at the applicant's cost. Condition reason: To ensure any damage to public infrastructure is rectified.
45.	(D100) General Site Works - Surface Contours Alterations to the natural surface contours must not impede or divert natural surface water runoff, so as to cause a nuisance to adjoining property owners. Condition reason: To protect the amenity of the neighbourhood.
46.	(D105) General Site Works All roofwater is to be connected to an approved stormwater system. Condition reason: To ensure environmental impacts and impacts to neighbouring properties are minimised.

47.	(D110) General Site Works
	Stormwater pipeline connections to the street kerb shall be constructed in the following manner:
	(a) the kerb shall be sawcut on both sides of the proposed pipe outlet.
	(b) an approved rectangular kerb adaptor shall be installed with the base matching the invert level of the gutter.
	(c) the kerb shall be reinstated to its original profile using a cement mortar containing an epoxy additive for adherence to the existing kerb.
	Condition reason: To ensure any alteration to Council infrastructure is to a suitable standard.
48.	(D115) General Site Works - Existing Hydrology
	Existing hydrological regimes shall be maintained so as not to negatively impact vegetation to be retained on site and downslope/downstream of the site.
	Condition reason: To minimise impacts to adjacent vegetation and habitat.
49.	(D120) General Site Works - Runoff
	Any runoff entering the areas of vegetation to be retained shall be of an equivalent or better quality, and of a similar rate of flow to present levels.
	Condition reason: To minimise impacts to adjacent vegetation and habitat.
50.	(D125) General Site Works - Sediment
	The development, including construction, shall not result in any increase in sediment deposition into any water body, wetland, bushland or environmentally significant land.
	Condition reason: To minimise impacts to adjacent vegetation and habitat.
51.	(D130) Removal of dangerous and/or hazardous waste
	All dangerous and/or hazardous material must be removed by a suitably qualified and experienced contractor licensed by SafeWork NSW. The removal of such material must be carried out in accordance with the requirements of SafeWork NSW and the material must be transported and disposed of in accordance with NSW Environment Protection Authority requirements.
	Condition reason: To ensure safe removal and disposal of dangerous and/or hazardous material.
52.	(D140) Car Parking Areas
	Car parking spaces and driveways must be constructed of a minimum two coat finish seal or better.
	All parking spaces must be clear of obstructions and columns, permanently line marked and provided with adequate manoeuvring facilities.
	The design of these spaces must comply with Council's DCP 2008, and Australian Standard 2890.1 Parking Facilities – Off-Street Car Parking.
	All car parking areas are to be appropriately line marked and sign posted in accordance with the Council approved stamped plans.
	All customer/visitor/staff parking areas are to be clearly signposted limiting car parking for customers/visitors/staff only. The applicant is to cover the costs of installation and maintenance of the signage.
	The on-site parking spaces shown in the approved plans must be identified in accordance with A.S.2890.1 Parking Facilities – Off-Street Car Parking.
	Condition reason: To ensure the facilities are constructed appropriately to comply with the DCP and AS2890.
53.	(D180) Waste management

While site work is being carried out: 1. all waste management must be undertaken in accordance with the waste management plan; and 2. upon disposal of waste, records of the disposal must be compiled and provided to principal certifier, detailing the following: • The contact details of the person(s) who removed the waste; • The waste carrier vehicle registration; • The date and time of waste collection; • A description of the waste (type of waste and estimated quantity) and whether the waste is to be reused, recycled or go to landfill; • The address of the disposal location(s) where the waste was taken; • The corresponding tip docket/receipt from the site(s) to which the waste is transferred, noting date and time of delivery, description (type and quantity) of waste. If waste has been removed from the site under an EPA Resource Recovery Order or Exemption, records in relation to that Order or Exemption must be maintained and provided to the principal certifier and Council. Condition reason: To require records to be provided, during site work, documenting the lawful disposal of waste.	
54. (D205) Vegetation - Existing Vegetation All existing trees and areas of native vegetation not identified for removal on approved plans of the proposed development shall be protected from damage during site works. This protection shall consist of 1800mm high protective fencing, securely installed beneath the outer canopy of any tree to be retained. Trees may be fenced off in clusters where it is not practical to fence off individual trees. There shall be no storing materials, washing machinery or changes to existing soil levels within the fenced areas. Condition reason: To minimise impacts to adjacent vegetation and habitat.	
55. (D240) Vegetation - Weeds No known environmental weeds or known invasive plant species shall be included in the landscaping or revegetation. Hygiene practices shall be employed to avoid the spread of invasive plants. Condition reason: To limit the spread of weeds.	
56. (D250) Vegetation - Mulch Mulch generated from exotic trees or other weed species cleared shall not be used on site. It shall be removed from the site and disposed of appropriately and in accordance with legislative requirements. Condition reason: To limit the spread of weeds.	
57. (D275) Hygiene and contamination Imported mulch and soils will be certified and free of any disease and pathogens and tested to ensure they meet the standards of drainage, particle size, purity, and consistency. Condition reason: To minimise the spread of disease and pathogens.	
58. (D335) External Lighting Any external lighting is to incorporate full cut-off shielding and is to be mounted so as to not cause any glare or spill over light nuisance within the development, neighbouring properties or road users. Condition reason: To protect the amenity of the neighbourhood.	
59. (D335) External Lighting Any external lighting is to incorporate full cut-off shielding and is to be mounted so as to not cause any glare or spill over light nuisance within the development, neighbouring properties or road users. Condition reason: To protect the amenity of the neighbourhood.	
60. (D426) Soil management	

	While site work is being carried out, the principal certifier must be satisfied all soil removed from or imported to the site is managed in accordance with the following requirements: - All excavated material removed from the site must be classified in accordance with the EPA's Waste Classification Guidelines before it is disposed of at an approved waste management facility and the classification and the volume of material removed must be reported to the principal certifier. - All fill material imported to the site must be: - Virgin Excavated Natural Material as defined in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i>; or - a material identified as being subject to a resource recovery exemption by the NSW EPA; or - a combination of Virgin Excavated Natural Material as defined in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> and a material identified as being subject to a resource recovery exemption by the NSW EPA. Condition reason: To ensure soil removed from the site is appropriately disposed of and soil imported to the site is not contaminated and is safe for future occupants.
61.	(D430) Unidentified Contamination Any new information which arises during remediation, demolition or construction works that has the potential to alter previous conclusions about site contamination and remediation must be immediately notified in writing to the certifier and Liverpool City Council. A section 4.55 Application under the Environmental Planning and Assessment Act 1979 must be made for any proposed works outside the scope of the approved development consent. Condition reason: To ensure the suitability of land for the development.
62.	(D445) Air Quality Dust screens shall be erected and maintained in good repair around the perimeter of the subject land during land clearing, demolition, and construction works. Condition reason: To ensure fairness, transparency and probity.
63.	(D450) Air Quality During construction where operations involve excavation, filling or grading of land, or removal of vegetation, including ground cover, the consent holder is to ensure dust is suppressed by regular watering until such time as the soil is stabilised to prevent airborne dust transport. Where wind velocity exceeds five knots the Principal Certifier may direct that work is not to proceed. Condition reason: To ensure site works are managed appropriately and do not result in air pollution.
64.	(D460) Salinity The development shall be carried out in accordance with 'Appendix B' of the Liverpool Growth Precincts Development Control Plan 2013. The development shall be carried out in accordance with Part 1, Section 11 'Salinity Risk' of the Liverpool Development Control Plan 2008. Condition reason: To ensure that all construction work is undertaken to an approved standard.
65.	(D480) Acoustic Report The construction requirements recommended in the approved acoustic report are to be implemented by the consent holder during the construction of the development. Condition reason: To ensure human health and amenity is maintained by ensuring the development is not impacted by noise.
66.	(D550) Implementation of the Biodiversity Management Plan

	While work is being carried out, the commitments and measures set out in the approved Biodiversity Management Plan must be implemented at all times. Works must not encroach into areas of retained native vegetation and habitat. A copy of the approved plan is kept on site at all times and made available to council officers upon request. Condition reason: To ensure the required biodiversity management measures to avoid and minimise biodiversity impacts are implemented during site works, demolition and construction
67.	(D552) Implementation of the site management plans While site work is being carried out: - the measures required by the construction site management plan and the erosion and sediment control plan (plans) must be implemented at all times; and - a copy of these plans must be kept on site at all times and made available to Council officers upon request. Condition reason: To ensure site management measures are implemented during the carrying out of site work.
68.	(D553) Erosion & Sediment Control Erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised. All disturbed areas shall be progressively stabilised and/or revegetated so that no areas remain exposed to potential erosion damage for a period of greater than 14 days. Condition reason: To ensure fairness, transparency and probity.
69.	(D570) Pollution Control - Site Operations During construction, building operations including but not limited to brick cutting, mixing mortar and the washing of tools, paint brushes, form-work, concrete trucks and the like must not be performed on the public footway or any other locations which may lead to the discharge of materials into Council's stormwater drainage system. Condition reason: To mitigate potential risks to the environment during construction and facilitate compliance with legislative requirements.
70.	(D574) Pollution Control - Truck Movements The loading and unloading of all vehicles associated with the development must be undertaken within the property boundary of the premises subject to this consent. Measures must be implemented to prevent tracking of sediment by vehicles onto roads. Vehicle loads must be covered when entering and exiting the site with material. Condition reason: To mitigate potential risks to the environment during construction and facilitate compliance with legislative requirements.
71.	(D583) Aboriginal Cultural Heritage - Unexpected Finds The National Parks and Wildlife Act 1974 protects all Aboriginal Cultural Heritage in New South Wales. Where a proposal has the potential to impact on Aboriginal Cultural Heritage objects and places, whether the presence is known or not, a permit is to be sought from Heritage NSW. In the event that Aboriginal Cultural Heritage objects or places are encountered/discovered, works must cease immediately and Council and Heritage NSW notified. The finds are to be investigated by an experienced archaeologist and no works are to recommence onsite until approved by Heritage NSW and Liverpool City Council. Condition reason: To ensure fairness, transparency and probity.
72.	(D584) Skeletal Remains

	In the event that skeletal remains are uncovered, work must cease immediately in that area and the area secured. NSW Police must be contacted and no further action taken until written advice has been provided by the NSW Police. If the remains are determined to be of Aboriginal origin, the Office of Environment and Heritage must be notified by ringing the Enviroline 131 555 and a management plan prior to works re-commencing must be developed in consultation with relevant Aboriginal stakeholders. Condition reason: To ensure fairness, transparency and probity.
73.	(D600) Correct waste separation and removal All demolition, excavation and construction wastes must be separated as they are generated and kept in separate spoil piles, bays, builder's skips and/or site bins. No wastes other than those noted on the approved waste management plan as being re-used on site, are to be left on site after the completion of the works. Condition reason: To ensure that separation of waste by type is undertaken in an ongoing basis throughout the building process, and that the wastes are kept separate and not mixed, to facilitate waste management and recycling.
74.	(D605) Containment of site wastes during building All demolition, excavation or construction wastes, e.g. wrapping, packaging materials, bags, insulation, sand, soil etc., must be kept fully enclosed at all times to prevent them from becoming displaced in strong wind conditions or from washing into sewers, storm drains or creeks, or onto adjacent properties or public land during wet weather. Condition reason: To ensure that waste materials from the demolition, excavation or construction are kept appropriately contained on site, irrespective of weather conditions, and do not make their way into the environment as pollutants.
75.	(D664) Contamination The development, including all civil works and demolition, must comply with the requirements of the Contaminated Land Management Act 1997, State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 4, and Managing Land Contamination – Planning Guidelines (Planning NSW/EPA 1998). Condition reason: To ensure fairness, transparency and probity.
76.	(D666) Record Keeping of Imported Fill Records of the following must be submitted to the principal certifying authority monthly and at the completion of earth works: 1. The course (including the address and owner of the source site), nature and quantity of all incoming loads including the date, the name of the carrier, and the vehicle registration; 2. The results of a preliminary contamination assessment carried out on any fill material used in the development. 3. The results of any chemical testing of fill material. Condition reason: To ensure fairness, transparency and probity.
77.	(D950) During Construction Work

A Complaints Handling Register shall be maintained for the duration of construction works at the subject premises. The Complaints Register is to be kept by the Site Manager or other suitable staff members and is to include the following:

- (a) the date and time, where relevant, of the complaint;
- (b) the means by which the complaint was made (telephone, mail or email);
- (c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
- (d) the nature of the complaint;
- (e) any action(s) taken in response to the complaint, including any follow-up contact with the complainant;
- (f) if no action was taken in relation to the complaint, the reason(s) why no action was taken; and
- (g) allocate an individual "complaint number" to each complaint received.

The Complaints Register must be made available for inspection when requested by Liverpool City Council.

Condition reason: To ensure fairness, transparency and probity.

Before Issue of an Occupation Certificate

78.	(E002) Outstanding Development Contributions
	Prior to the issue of any occupation certificate all outstanding section 7.11/7.12 contributions must be paid as required by Condition A003. Evidence is to be provided to the satisfaction of the relevant certifying authority that all outstanding contributions have been paid to Council.
	Condition reason: To ensure development contributions are paid to address the increased demand for public amenities and services resulting from the approved development.
79.	(E005) Occupation Certificates
	The premises must not be occupied until an Occupation Certificate (OC) is issued by the certifier. Copies of all documents relied upon for the issue of the OC must be attached to the OC and registered with Council.
	Condition reason: To ensure the development is in accordance with the approval and the use meets health, safety and amenity provisions.
80.	(E010) Certificates
	All required documentary evidence for the critical stage inspections carried out prior, during and at the completion of construction, must be submitted to Council together with the required registration fee payment.
	Condition reason: To ensure the use meets health, safety and amenity provisions.
81.	(E020) Acoustic Report
	Confirmation in writing that the recommended measures were incorporated as required by the report.
	Condition reason: To ensure the use meets health and amenity provisions to occupants and/or neighbouring properties.
82.	(E026) Removal of Waste Upon Completion

	Before the issue of an Occupation Certificate: 1. all refuse, spoil and material unsuitable for use on-site must be removed from the site and disposed of in accordance with the approved waste management plan; and 1. written evidence of the waste removal must be provided to the satisfaction of the principal certifier. Condition reason: To ensure waste material is appropriately disposed or satisfactorily stored.
83.	(E030) Section 73 Sydney Water Certificate A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained and submitted to the Principal Certifier prior to issue of Occupation Certificate. Condition reason: To ensure relevant utility and service providers requirements are provided to the certifier.
84.	(E032) Pedestrian safety signage Before the issue of an occupation certificate, ensure an appropriate sign(s) is provided and maintained within the site to advise all vehicles to be aware of pedestrians within the shared driveway. Condition reason: To make drivers aware of pedestrians and to ensure the safety of pedestrians using the shared driveway
85.	(E035) Completion of public utility services Before the issue of the relevant occupation certificate, confirmation must be obtained from the relevant authority that any adjustment or augmentation of any public utility services including gas, water, sewer, electricity, street lighting and telecommunications, required as a result of the development, have been completed and this confirmation must be provided to the principal certifier. Condition reason: To ensure required changes to public utility services are completed, in accordance with the relevant agency requirements, before occupation.
86.	(E037) Liverpool City Council clearance - Roads Act/ Local Government Act Prior to the issue of an Occupation Certificate, the Principal Certifying Authority shall ensure that all works associated with a S138 Roads Act approval or S68 Local Government Act approval have been inspected and signed off by Liverpool City Council. Condition reason: To ensure fairness, transparency and probity.
87.	(E064) Completion of landscape and tree works Before the issue of an Occupation Certificate, the principal certifier must be satisfied all landscape and tree-works have been completed in accordance with approved plans and documents and any relevant conditions of this consent. Condition reason: To ensure the approved landscaping works have been completed in accordance with the approved landscaping plan(s).
88.	(E065) Landscaping Upon completion of the approved landscape works associated with the development and prior to the issue of any Occupation Certificate, an Implementation Report is to be submitted to the Principal Certifier attesting to the satisfactory completion of the landscape works in accordance with the approved landscape plan. The report is to be prepared by a suitably qualified person. Condition reason: To help ensure landscaping works have been carried to a high standard and in accordance with the original design plans.
89.	(E110) On-Site Sewage Management System - Approval to Operate Before the issue of any occupation certificate, an Approval to Operate for the installed / constructed / altered on-site sewage management system must be obtained from Liverpool City Council under Section 68 of the Local Government Act 1993. The relevant approval must be submitted to the Principal Certifier before the issue of any Occupation Certificate.

	Condition reason: To ensure on-site sewage management is sustainable and to facilitate compliance with legislative requirements.
90.	(E180) Validation Report Before the issue of any occupation certificate, a detailed Validation report must be submitted to the certifier. The Report must be prepared in accordance with: (a) NSW Contaminated Land Planning Guidelines (1998); (b) Relevant EPA guidelines. In particular the Contaminated Land Guidelines – Consultants Reporting on Contaminated Land (NSW EPA 2020); and (c) National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013). The Validation Report must be prepared or reviewed and approved by a suitably qualified environmental consultant. The report's cover or title page of the document must include a personalised electronic seal for either the CEnvP(SC) or CPSS CSAM scheme. The Validation report must verify that the land is suitable for the purposed use(s), and that the remediation and validation of the site has been undertaken in accordance with the approved Remediation Action Plan. Note: The 'suitably qualified environmental consultant' must be certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) Scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) Scheme. Condition reason: To ensure the suitability of land, mitigate potential risks to human health and the environment and facilitate compliance with legislative requirements.
91.	(E400) Stormwater Compliance Prior to the issue of an Occupation Certificate, the Principal Certifying Authority shall ensure that the: (a) On-site detention system/s, (b) Stormwater pre-treatment system/s, (c) Overland flowpath works, (d) Flood control works, and/or Details of the approved and constructed system/s shall be provided as part of the Works-As-Executed drawings. Condition reason: To ensure fairness, transparency and probity.
92.	(E404) Restriction as to User and Positive Covenant Prior to the issue of an Occupation Certificate a restriction as to user and positive covenant relating to the following shall be registered on the title of the property: (a) On-site detention system/s, (b) Stormwater pre-treatment system/s, (c) Overland flowpath works, (d) Flood control works, and/or The restriction as to user and positive covenant shall be in Liverpool City Council's standard wording as detailed in Liverpool City Council's Design and Construction Guidelines and Construction Specification for Civil Works. Condition reason: To ensure fairness, transparency and probity.
93.	(E407) Repair of infrastructure

Before the issue of an Occupation Certificate:	
- any public infrastructure damaged as a result of the carrying out of work approved under this consent (including damage caused by, but not limited to, delivery vehicles, waste collection, contractors, sub-contractors, concreting vehicles) must be fully repaired to the written satisfaction of Council, and at no cost to Council; or - if the works in (a) are not carried out to Council's satisfaction, Council may carry out the works required and the costs of any such works must be paid as directed by Council and in the first instance will be paid using the security deposit required to be paid under this consent.	
Condition reason: To ensure any damage to public infrastructure is rectified.	
94.	(E408) Rectification of Damage
Prior to the issue of an Occupation Certificate, any damage to Council infrastructure not identified in the dilapidation report, as a result of the development shall be rectified at no cost to Liverpool City Council.	
Any rectification works within Governor Macquarie Drive will require a Roads Act application. The application is to be submitted and approved by Liverpool City Council prior to such works commencing.	
Condition reason: To ensure fairness, transparency and probity.	
95.	(E592) Operational Plan of Management
A plan of management shall be prepared addressing the Site Servicing Arrangements, particularly that service vans are to attend the site outside the peak drop-off/pick-up hours. The plans shall also ensure all drivers use the on-site parking provisions when attending the site. A 3-strike policy for those noted as using on-street parking spaces will need to be in place and enforced.	
A copy of the plan shall be submitted to and endorsed by Council's Transport Management Team prior to the issue of any occupation Certificate.	
Condition reason: To ensure fairness, transparency and probity.	
96.	(E950) Prior to issue of Occupation Certificate
Prior to the issue of any Occupation Certificate, a certificate from a suitably qualified and experienced Engineer shall be submitted to Liverpool City Council and Principal Certifying Authority certifying that the drainage and hard surfaced areas of the subject site comprising all trafficable areas were constructed in compliance with the approved engineering specifications, plans and relevant Australian Standards.	
Condition reason: To ensure fairness, transparency and probity.	

Occupation and Ongoing use

97.	(G065) Unreasonable Noise and Vibration
The use of the premises and/or machinery equipment installed must not give rise to offensive noise so as to interfere with the amenity of the neighbouring properties.	
Should an offensive noise complaint be received and verified by Liverpool City Council, an acoustic assessment must be undertaken by a suitably qualified acoustic consultant and an acoustic report must be submitted to Liverpool City Council for review. Any noise attenuation recommendations approved by Liverpool City Council must be implemented.	
Note: The 'suitably qualified acoustic consultant' must be a member of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm.	
Condition reason: To mitigate potential offensive noise and amenity impacts.	
98.	(G100) Waste Collection and Management
Waste and recyclable material must be managed in a satisfactory manner, covered at all times and not give rise to offensive odour or encourage pest activity. All solid and liquid waste must be removed regularly from the site by a registered waste contractor. Waste must not be permitted to accumulate near the waste storage bins.	
Condition reason: To mitigate potential risks to human health and the environment.	

99.	(G130) Waste Storage Area
	Waste bins must be stored in designated garbage/ trade refuse areas, which must be kept tidy at all times. Bins must not be stored or allowed to overflow in parking or landscaping areas, must not obstruct the exit of the building, and must not leave the site onto neighbouring public or private properties.
	Condition reason: To mitigate potential risks to human health and the environment.
100.	(G160) Storage of goods during ongoing use
	During ongoing use of the premises, all goods must be stored wholly within the premises and must not be stored or displayed outside the premises, including any public place, without council's approval.
	Condition reason: To ensure fairness, transparency and probity.
101.	(G190) Parking Spaces - Assessment Planner
	The following parking spaces should be used solely for the purpose it has been provided.
	1. Visitor car parking
	2. Accessible car parking
	3. Delivery area
	4. Garbage pick-up area
	5. Washing bay
	Condition reason: To ensure that adequate parking and loading are provided.
102.	(G210) Car Parking Management
	All parking areas shown on the approved plans must be used solely for this purpose.
	Condition reason: To ensure that adequate parking and loading are provided.
103.	(G230) Vehicle Access
	Vehicles entering or leaving the development site should be in forward direction, if practicable.
	Condition reason: To ensure safety.
104.	(G250) Operating hours
	The hours of operation of the premises are limited to:
	<u>Tenancy 1B</u>
	7.00 am to 4.30pm, Monday to Friday
	<u>Tenancy 2</u>
	24 hours, 7 days a week
	Approval was granted for the use of part of the subject premises (Tenancies 1B and 2) for a period of twelve (12) months only starting from the date of determination of this consent. Prior to the end of the twelve (12) month period the applicant shall lodge an application to continue the use of the site as a truck depot.
	At the end of the twelve (12) month period if a valid consent is not issued for the use of part of the subject premises as a truck depot the subject truck depot shall cease use at the site.
	Tenancy 1B is not permitted to operate on Saturdays, Sundays and public holidays.
	Condition reason: To protect the amenity of the local area
105.	(G258) Extended operating hours for a prescribed trial period

	The hours of operation of the premises are limited to: Tenancy 1B 7.00 am to 4.30pm, Monday to Friday Tenancy 2 24 hours, 7 days a week Approval was granted for the use of part of the subject premises (Tenancies 1B and 2) for a period of twelve (12) months only starting from the date of determination of this consent. Prior to the end of the twelve (12) month period the applicant shall lodge an application to continue the use of the site as a truck depot. At the end of the twelve (12) month period if a valid consent is not issued for the use of part of the subject premises as a truck depot the subject truck depot shall cease use at the site. Tenancy 1B is not permitted to operate on Saturdays, Sundays and public holidays. Condition reason: To enable a trial period of approved alternative operating hours
106.	(G260) Deliveries and waste collection times Waste collection for the development is limited to: <u>Tenancy 1B</u> 7.00am to 10.00pm, Monday to Friday <u>Tenancy 2</u> 7.00am to 10.00pm, Monday to Saturday Condition reason: To ensure deliveries to the premises are carried out safely and protect the amenity of the local area
107.	(G340) Noise Complaints register The operator must keep a legible record of all complaints received in an up-to date Complaints Register. The Complaints Register must record, but not necessarily be limited to: (a) the date and time, where relevant, of the complaint; (b) the means by which the complaint was made (telephone, mail or email); (c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect; (d) the nature of the complaint; (e) any action(s) taken by the Applicant in relation to the complaint, including any follow-up contact with the complainant; and if no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken. (f) allocate an individual "complaint number" to each complaint received. The Complaints Register must be made available for inspection when requested by Liverpool City Council. The industry must be operated in accordance with the approved Noise Management Plan and Complaints Handling Procedure at all times. Condition reason: To mitigate potential impacts associated with the development and establish a procedure for responding to enquiries.
108.	(G345) Lighting

	Illumination of the site must be arranged in accordance with the requirements and specifications of AS 4282:2019 - Control of obtrusive effects of outdoor lighting so as not to impact upon the amenity of the occupants of adjoining and nearby premises. Condition reason: To mitigate potential lighting impacts and protect the amenity of the surrounding area.
109.	(G347) External lighting during ongoing use During ongoing use of the premises, all lighting must be operated and maintained in accordance with the approved plans and the requirements of this consent. Condition reason: To ensure the safe operation of the premises and protect the amenity of the local area
110.	(G360) Noise - Silent Building Intruder Alarm System Any building intruder alarm installed at the site must be a "silent back to base" type. Condition reason: To mitigate potential acoustic impacts and protect the amenity of the surrounding area.
111.	(G390) Noise - General Noise associated with the use of the premises, including mechanical plant and equipment, must not give rise to any one or more of the following: (a) The use of the premises including the cumulative operation of any mechanical plant, equipment, public address system or other amplified sound equipment must not give rise to the emission of 'offensive noise' as defined by the Protection of the Environment Operations Act 1997. (b) The operation of any mechanical plant, equipment, public address system or other amplified sound equipment installed on the premises must not cause: i. The emission of noise as measured over a 15 minute period (LAeq (15 minute)) that exceeds the LA90 (15 minute) background noise level by more than 5 dB(A) when measured at the most affected residential boundary. Modifying factor corrections must be applied for tonal, impulsive, low frequency or intermittent noise in accordance with the NSW Environment Protection Authority's 'Noise Policy for Industry' (2017); ii. An internal noise level in any adjoining occupancy that exceeds the recommended design sound levels specified in Australian/New Zealand Standard AS/NZS 2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors; iii. 'offensive noise' as defined by the Protection of the Environment Operations Act 1997; and iv. Transmission of vibration to any place of different occupancy greater than specified in AS 2670. Condition reason: To mitigate potential intrusive noise and amenity impacts.
112.	(G393) Acoustic Report

	An acoustic report prepared by a suitably qualified acoustic consultant must be submitted to Liverpool City Council for its assessment and approval within three (3) months of occupation/completion of the development. The report must include but not be limited to the following information: Noise measurements taken during a time of peak occupation at the most affected noise sensitive locations as indicated in the approved acoustic report titled 77 Governor Macquarie Drive, Chipping Norton Noise Assessment for Depot, Doc Reference: TP056-01F02 Report (r5).docx, Issued Revision 5 prepared by Renzo Tonin & Associates dated 10th January 2025; Verification that noise levels at the most affected receivers comply with all relevant assessment criteria detailed in the abovementioned report; All complaints received from local residents in relation to the operation of the premises/development; and Where noise measurements required under point a) above indicate that the relevant assessment criteria are exceeded, recommendations must be provided in relation to how noise emissions can be satisfactorily reduced to comply with the assessment criteria. Following written approval from Liverpool City Council, recommendations provided under point d) above must be implemented fully. Note: The 'suitably qualified acoustic consultant' must be a member of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm. Condition reason: To mitigate potential acoustic impacts and protect the amenity of the surrounding area.
113.	(G394) Forklifts and Delivery Vehicles To minimise potential noise impacts, all forklifts and delivery vehicles associated with the use must be equipped with smart (self-adjusting) reverse alarms, broadband reverse alarms, combination alarms or other suitable noise reduction technologies instead of tonal reversing alarms. Condition reason: To mitigate potential acoustic impacts and protect the amenity of the surrounding area.
114.	(G396) Managing noise with ongoing acoustic treatment During ongoing use of the premises, the premises must be operated in accordance with any approved acoustic report. Where the approved acoustic report recommends ongoing acoustic treatments, an acoustic implementation report from a suitably qualified person must be submitted to council within 3 months of the date of the issue of the occupation certificate. The report must confirm the implementation of acoustic treatment and demonstrate the external and internal noise levels satisfy the criteria nominated in accordance with the approved acoustic report. Condition reason: To ensure operational noise levels comply with the approved acoustic report and do not unreasonably impact on the amenity of adjoining and nearby premises
115.	(G400) Environment The use of the premises must not give rise to the emission into the surrounding environment of gases, vapours, dusts or other impurities that are a nuisance, injurious or prejudicial to health. Condition reason: To mitigate potential risks to human health and the environment.
116.	(G410) Landscaping

	Landscaping shall be maintained in accordance with the approved plan, in a healthy state and in perpetuity by the existing or future owners and occupiers of the development. If any of the vegetation comprising the landscaping dies or is removed, it is to be replaced with vegetation of the same species, and similar maturity as the vegetation which has died or was removed. An annual report shall be submitted to Council, for the 3 years following issue of the OC, certifying that the landscaping works have been satisfactorily maintained. Condition reason: To require records to be provided, after occupation, documenting that landscaping is appropriately maintained.
117.	(G430) Industrial Driveways and car parking spaces must not be used for manufacture, storage or display of goods, materials or equipment. The spaces must be available at all times for all cars associated with the development. Condition reason: To ensure that neighbouring properties are not adversely affected from any operation on site.
118.	(G440) Industrial The premises must not be used for the display or sale of goods to the public (i.e., a shop). Condition reason: To ensure that neighbouring properties are not adversely affected from any operation on site.
119.	(G952) Storage of Shipping Container The storage of the shipping containers must be stored in a safe manner and must be below the maximum height of the existing buildings ridge line on site. Condition reason: To ensure fairness, transparency and probity.

Change of use Before Issue of an Occupation Certificate

120.	(E951) Non-Standard Condition -Traffic and Transport All required roadworks, signage and street lighting are to be completed to Liverpool Council requirements, at no expense to Liverpool Council prior to issue of the OC. Condition reason: To ensure fairness, transparency and probity.
------	--

Ongoing use for Change of use

121.	(G004) Plan of Management The approved Plan of Management must be complied with at all times. A copy of the Plan of Management must be kept on-site at all times and be provided to Council officers on request. Condition reason: To ensure fairness, transparency and probity.
122.	(G950) Additional Conditions

	Additional Conditions • No burning of any materials shall be carried out on site. • Any public address system or sound amplifying equipment shall be installed so as to not emit an offensive noise as defined by the Protection of the Environment Operations Act 1997. • A permanent record of receipts for the removal of both liquid and solid waste from the site shall be kept and maintained up to date at all times. Such record shall be made available to Liverpool City Council's Officers upon request. • Emission of sound from the premises shall be controlled at all times so as not to unreasonably impact upon nearby owners/occupants. • All activities and operations shall not give rise to air pollution (including odour), offensive noise or pollution of land and/or water as defined under the Protection of the Environment Operations Act 1997 • A spill kit shall be provided on-site at all times to clean up any minor liquid spillages. No Storage/Handling of Dangerous Goods and/or Vehicle Refuelling • The subject premises has not been approved for the storage/handling of dangerous goods and/or refuelling of motor vehicles including but not limited to trucks and/or trailers. It is prohibited to undertake such activities without separate written development consent being obtained from Council. No Vehicle Washing • The subject premises has not been approved for the washing of motor vehicles including but not limited to trucks and/or trailers. It is prohibited to undertake such activities without separate written development consent being obtained from Council. No Mechanical Repairs • The subject premises has not been approved for mechanical repairs to motor vehicles including but not limited to trucks and/or trailers. It is prohibited to undertake such activities without separate written development consent being obtained from Council. No Panel Beating/Spray Painting • The subject premise has not been approved for panel beating or spray-painting. It is prohibited to undertake such activities without separate written development consent being obtained from Council. Condition reason: To ensure fairness, transparency and probity.
123.	(G951) Storage of Hazardous Goods It is prohibited for any vehicles to be parked at the site that carry loads containing any dangerous or hazardous goods as this consent does not allow the storage of any such goods at the development site. Condition reason: To ensure fairness, transparency and probity.

General advisory notes

This consent contains the conditions imposed by the consent authority which are to be complied with when carrying out the approved development. However, this consent is not an exhaustive list of all obligations which may relate to the carrying out of the development under the EP&A Act, EP&A Regulation and other legislation. Some of these additional obligations are set out in the [Conditions of development consent: advisory notes](#). The consent should be read together with the Conditions of development consent: advisory notes to ensure the development is carried out lawfully.

The approved development must be carried out in accordance with the conditions of this consent. It is an offence under the EP&A Act to carry out development that is not in accordance with this consent.

A document referred to in this consent is taken to be a reference to the version of that document which applies at the date the consent is issued, unless otherwise stated in the conditions of this consent.

Dictionary

The following terms have the following meanings for the purpose of this determination (except where the context clearly indicates otherwise):

Approved plans and documents means the plans and documents endorsed by the consent authority, a copy of which is included in this notice of determination.

AS means Australian Standard published by Standards Australia International Limited and means the current standard which applies at the time the consent is issued.

Building work means any physical activity involved in the erection of a building.

Certifier means a council or a person that is registered to carry out certification work under the Building and Development Certifiers Act 2018.

Construction certificate means a certificate to the effect that building work completed in accordance with specified plans and specifications or standards will comply with the requirements of the EP&A Regulation and Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.

Council means LIVERPOOL CITY COUNCIL.

Court means the Land and Environment Court of NSW.

EPA means the NSW Environment Protection Authority.

EP&A Act means the *Environmental Planning and Assessment Act 1979*.

EP&A Regulation means the *Environmental Planning and Assessment Regulation 2021*.

Independent Planning Commission means Independent Planning Commission of New South Wales constituted by section 2.7 of the EP&A Act.

Local planning panel means LIVERPOOL LOCAL PLANNING PANEL.

Occupation certificate means a certificate that authorises the occupation and use of a new building or a change of building use for an existing building in accordance with this consent.

Principal certifier means the certifier appointed as the principal certifier for building work or subdivision work under section 6.6(1) or 6.12(1) of the EP&A Act respectively.

Site work means any work that is physically carried out on the land to which the development the subject of this development consent is to be carried out, including but not limited to building work, subdivision work, demolition work, clearing of vegetation or remediation work.

Stormwater drainage system means all works and facilities relating to:

- the collection of stormwater,
- the reuse of stormwater,
- the detention of stormwater,
- the controlled release of stormwater, and
- connections to easements and public stormwater systems.

Strata certificate means a certificate in the approved form issued under Part 4 of the *Strata Schemes Development Act 2015* that authorises the registration of a strata plan, strata plan of subdivision or notice of conversion.

Subdivision certificate means a certificate that authorises the registration of a plan of subdivision under Part 23 of the *Conveyancing Act 1919*.

Subdivision works certificate means a certificate to the effect that subdivision work completed in accordance with specified plans and specifications will comply with the requirements of the EP&A Regulation.

Sydney district or regional planning panel means SYDNEY WESTERN CITY PLANNING PANEL.

Attachment on DA-439/2024: LDCP Table

PART 1 – GENERAL CONTROLS FOR ALL DEVELOPMENT		
CONTROLS	PROVIDED	COMPLIES
2. Tree Preservation	This control does not apply to species, populations or communities listed under the provisions of the Threatened Species Conservation Act (TSC) 1995.	Not applicable
3. Landscaping	Landscape Plan provided as part of the application.	Complies
4. Bushland and Fauna Habitat Preservation	The subject site is not listed as habitat preservation land and does not appear to contain any threatened species vegetation. Accordingly, this section does not apply.	Not applicable
5. Bushfire risk	The subject site is not located within a bushfire prone area.	Not applicable
6. Water Cycle Management	The proposed development does not propose any new buildings. The subject site will use the existing water cycle management.	Not applicable
7. Development near creeks and rivers	The development site is not within close proximity to a water course.	Not applicable
8. Erosion and sediment control	The applicant has not provided sediment control plans.	To be conditioned.
9. Flooding risk	The subject site is identified as being flood affected and the DA has been assessed by Council's Flood Engineers who raised no objection to the proposal.	Complies
10. Contamination land risk	The proposal is for a use that is for industrial purposes and the site has historically been used for industrial purposes. Accordingly, the proposed development is considered acceptable with regards to the contamination.	Complies
11. Salinity risk	The Salinity Map for Western Sydney (2002) identifies the site in an area of 'moderate' salinity.	Complies
12. Acid sulfate soils risk	The development site is identified as containing the potential for acid sulphate soils to occur. Site is classified as Class 2. No works are proposed to occur below	Complies

PART 1 – GENERAL CONTROLS FOR ALL DEVELOPMENT		
	the Natural Ground Level.	
13. Weeds	No weeds identified on the subject site.	Yes
14. Demolition of existing development	No demolition proposed as part of the development application.	Not applicable
15. On-site sewerage disposal	The subject site does not require on-site sewerage disposal as the area has access to sewer.	Not applicable
16. Aboriginal archaeology	No items of Aboriginal Archeological significance identified on the subject site. Standard unexpected finds conditions imposed.	Not applicable
17. Heritage and archaeological sites	The development site is not identified as a heritage item or located within close proximity to a heritage item.	Not applicable
18. Notification of applications	The proposal was notified from 20 October 2024 to 07 November 2024. Thirteen (13) unique submissions were received objecting to the proposal. During the exhibition period twelve submission were received. The issues raised within the submissions are discussed further within the report.	Yes
20. Car Parking & Access Transport depot: means a building or place used for the parking or servicing of motor powered or motor drawn vehicles used in connection with a business, industry, shop or passenger or freight transport undertaking. Traffic Report Required to assess parking demand	The application was accompanied by a traffic report which addresses the car parking and access of the subject site. The proposal was reviewed by Council's internal Traffic and Transport department, who raised no objection.	Complies, subject to condition.
21. Water conservation	The proposed development does not propose any new buildings. The subject site will use the existing water conservation.	Yes

PART 1 – GENERAL CONTROLS FOR ALL DEVELOPMENT		
22. Energy conservation	N/A	Not applicable
25. Waste disposal and re-use facilities	Conditions of consent to be imposed stipulating the provision of appropriate waste disposal facilities during construction and appropriate sediment erosion control measures be implemented during construction.	Complies by condition
26. Outdoor advertising Signage controls in e4 zone; A maximum of one freestanding, pole or pylon sign per building or site applies (including directory board for multiple occupancies). The sign, not exceeding 5sqm in area and 5m in height, is to be located within an area of 5mx3m on either side.	A proposed pylon sign is less than 5sqm in area, with its dimensions being 0.4mx1.5m. However the proposed freestanding pylon sign is 6m in height but will be conditioned to be at a maximum height of 5m.	Complies by condition.

PART 7 – DEVELOPMENT IN INDUSTRIAL AREAS		
CONTROLS	PROVIDED	COMPLIES
1 Site Area • Minimum subdivision lot size is 2,000sqm	No subdivision proposed	N/A
3. Site Planning The controls for the clause are as follows: 1) Where possible, site planning allows for the retention of significant trees and vegetation, particularly near the street frontage. 2) The development must be designed around the site attributes such as slope, existing vegetation and land capability	Existing trees are being retained according to the landscape plan provided. Noted	Complies Complies

PART 7 – DEVELOPMENT IN INDUSTRIAL AREAS		
4. Setbacks Classified Roads and Any street fronting land in a residential zone Primary setback 18m – ground floor Primary setback 15m – first floor	No buildings proposed.	Not applicable
5. Landscaped Area 1) A minimum of 10% of the site is to be landscaped at ground level. 2) A development must provide a landscaped area along the primary frontage of a minimum width of 10m for sites greater than 4,000sqm	The site has existing trees along the site frontage which are proposed to be retained, and further planting has been proposed. The proposed landscape area is 1% of the site area (440s.q.m). Due to the site being extremely large with a size of 41,190s.q.m an assessment against the objectives of the control results in this departure complying on merit. Ultimately, the proposed landscaping areas provided at the front of the site reduces the visual impact of the industrial building and carparking spaces, which ultimately results in an attractive streetscape character along Governor Macquarie Drive's industrial area. The proposed development provides a landscaped area along the primary setback with a width of approximately 41m.	Complies on merit. Complies
6. Building Design Streetscape & Layout The controls of the clause are as follows: Lighting 1) Lighting must be provided to the external entry path,	Proposed lighting as part of the minor additional works. The proposal was referred to	Complies

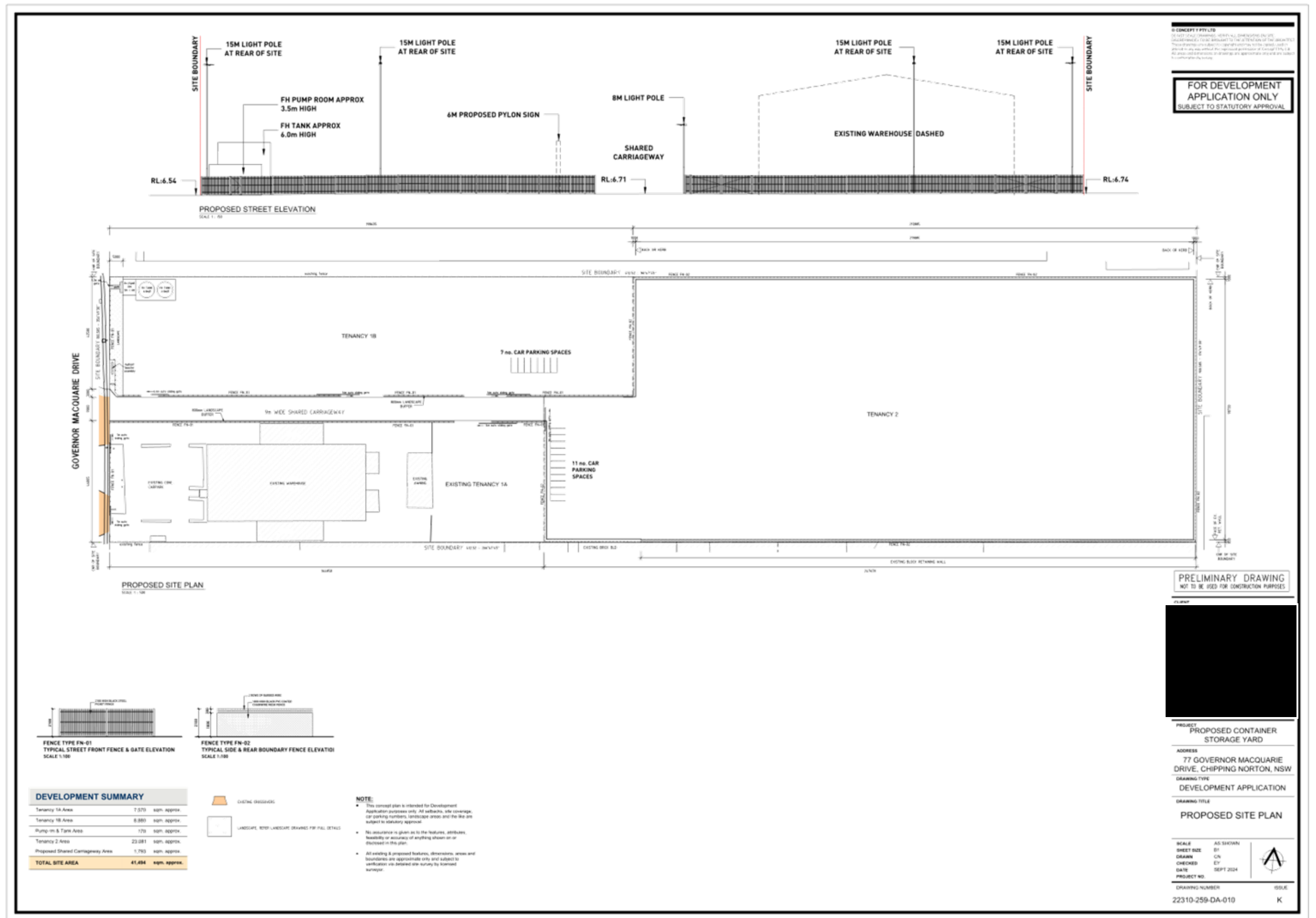
PART 7 – DEVELOPMENT IN INDUSTRIAL AREAS		
common lobby, driveway, and car park to a building using vandal resistant, high mounted light fixtures. 2) The lighting in a car park must conform to AS 1158.1, 1680, and 2890.1. 3) External lighting to an industrial development must give consideration to the impact of glare on the amenity of adjoining residents. Facilities The siting of a telecommunication facility, aerial, satellite dish, plant room, lift motor room, mechanical ventilation stack, exhaust stack, and the like must integrate with the architectural features of the building to which it is attached; or be sufficiently screened when viewed from the street and neighbouring residential zoned land. Service Areas Service areas including waste, recycling areas and external storage areas are to be located away from principal street frontages and screened from view.	Councils internal Environmental Health and Traffic/Transport department who assessed the application and supported it subject to conditions. Noted Noted	Not applicable Complies, subject to conditions.
7. Landscaping and fencing	Fencing with a height of 2m is existing on the subject site. Therefore, no fencing is proposed as part of this subject application.	Complies

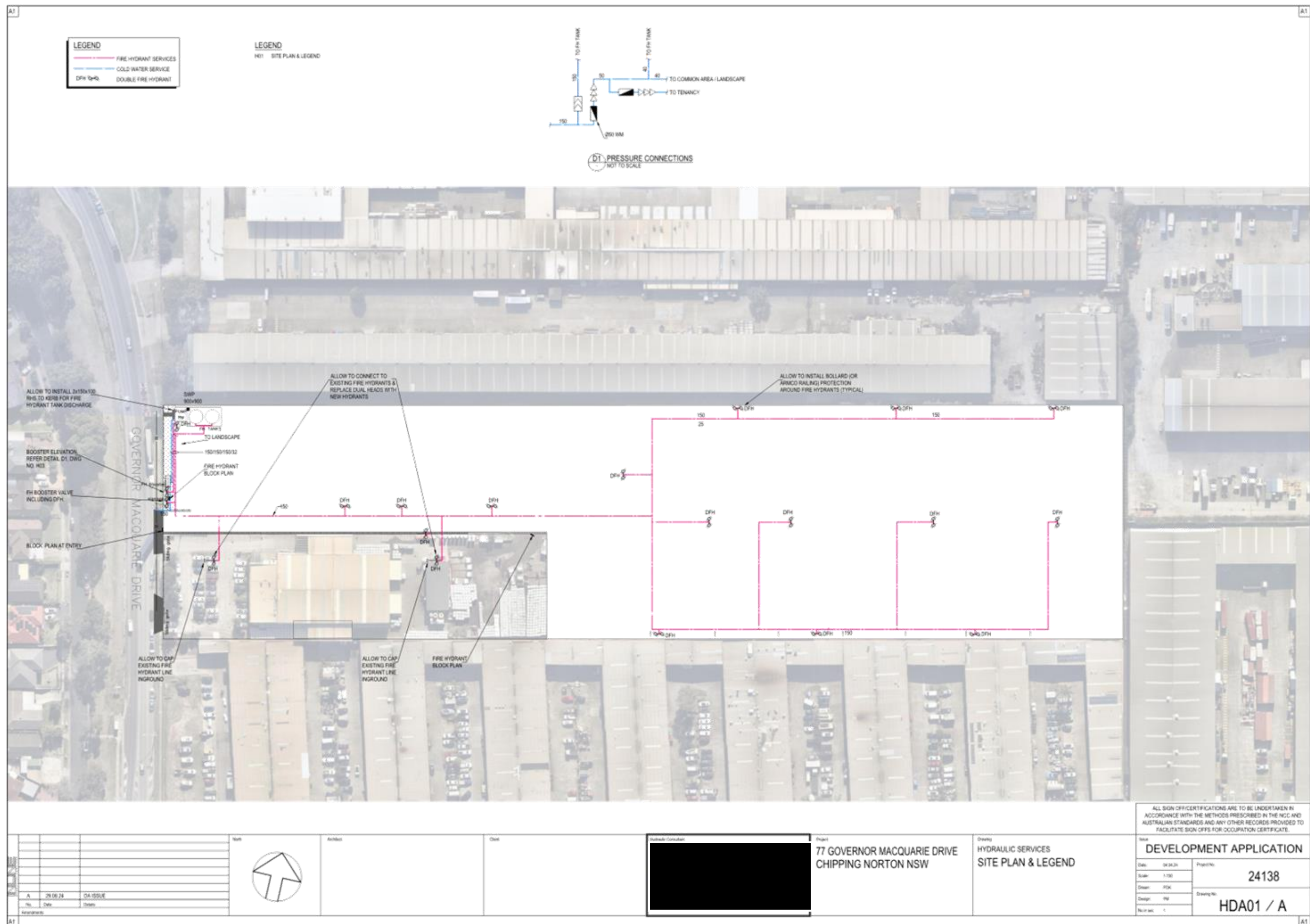
PART 7 – DEVELOPMENT IN INDUSTRIAL AREAS		
8. Car parking and access Controls: 1) The layout of driveways to loading docks must enable heavy vehicles to: -enter and exit in a forward direction, -Park within designated loading areas	The applicant has submitted a traffic and parking study that demonstrates that the largest vehicles servicing the site will be able to manoeuvre onsite to designated areas and enter and exit the site in a forward direction. Council's internal Traffic and Transport department raised no objection to the proposed development.	Complies
9. Amenity and Environmental Impact The Controls of this clause are as follows: External Industrial Activities 1) External processes in an industrial area and storage of materials will not be permitted along a Classified Road frontage or a road frontage opposite a residential area. 2) Storage and processing of motor vehicles, concrete, soil, glass and other similar components or materials shall be totally screened by fencing and dense landscaping (refer to Landscaping and Fencing and Section 4 Landscaping and Existing Trees in Part 1.1).	No storage of goods at frontage only vehicle parking. Not applicable. Not applicable	Complies by condition. Not applicable Not

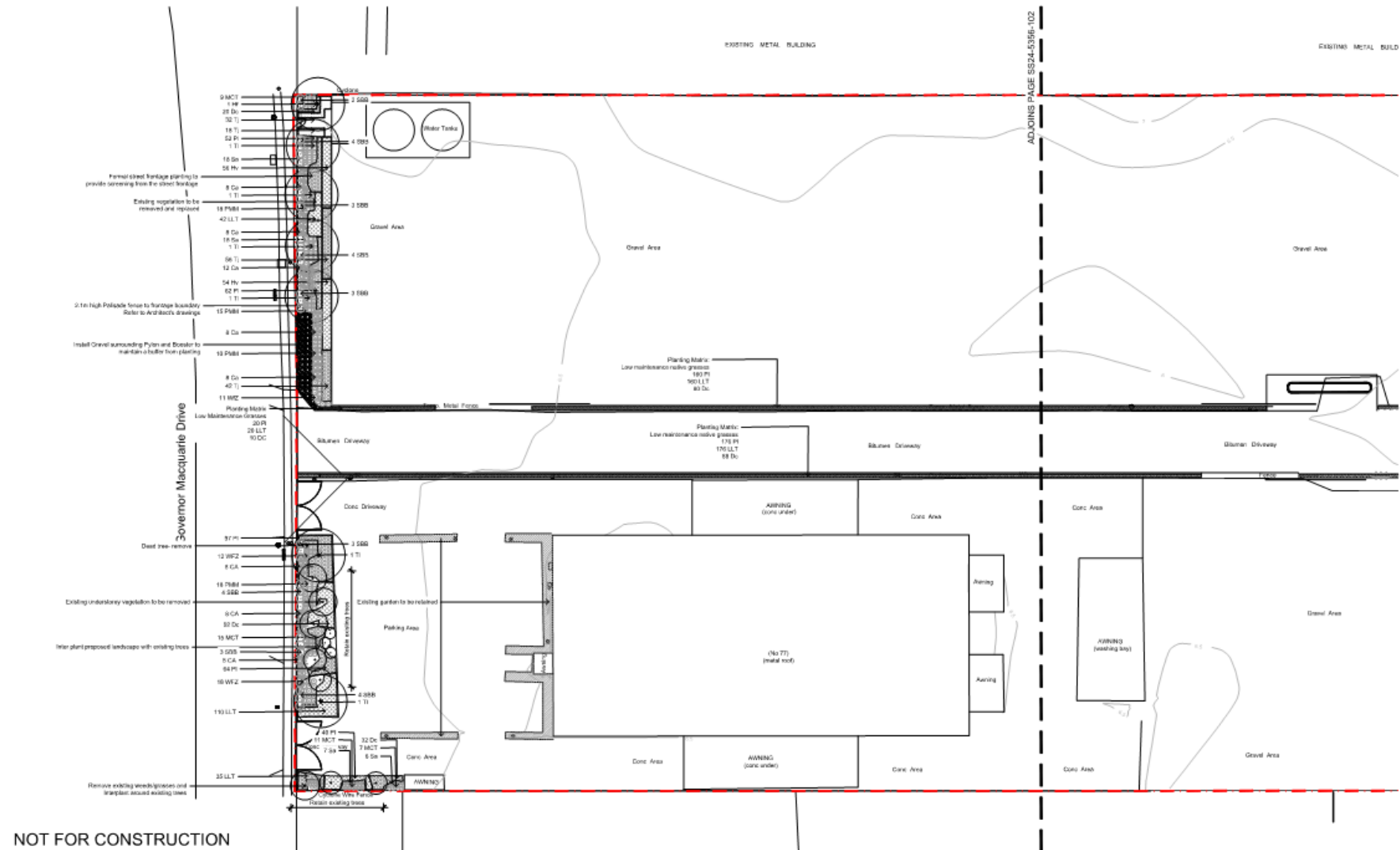
PART 7 – DEVELOPMENT IN INDUSTRIAL AREAS		
3) The maximum height of a stockpile for the recycling of motor vehicles, concrete, soil, glass and other similar components or materials shall be 6m. Noise In order to comply with the Protection of the Environment Operations Act 2008 it may be necessary to construct external works. Mounding, planting and/or noise barriers may be permitted to reduce the impact of noise levels, provided that this does not compromise any other provision in the DCP.. Hazardous materials and hazardous operation Certain industrial processes are identified as Designated Development under the Environmental Planning and Assessment Act 1979. It will be necessary to contact the NSW Department of Planning for their requirements for the preparation of an environmental impact statement. Hours of operation Development which would have an adverse impact on adjoining or nearby residential areas	Acoustic Report lodged with application. Council's Environmental Health department have reviewed the report and accept the findings and recommendations, subject to condition of approval to ensure acoustic practices and noise management are conducted onsite in order to reduce potential acoustic impacts to the adjacent residential area. The proposal does not trigger designated development. The applicant has submitted an Acoustic Report in order to support the 24-hour use of Tenancy 2. These reports have been reviewed by Council's Environmental Management section who have raised no objection to the reports subject to the imposition of	applicable Complies Not Applicable Complies by condition.

PART 7 – DEVELOPMENT IN INDUSTRIAL AREAS		
will be limited to 7 am to 6 pm Monday to Friday and 7 am to 12 pm on Saturday and no work to be undertaken on Sundays.	recommendations by way of conditions of consent. Furthermore, consent will be issued as a 12-month trial in order for the use to be assessed again and re-notified to ensure the impacts of the development have been appropriately mitigate by the applicant. Tenancy 1B will operate from 7am to 4:30pm, Monday to Friday.	
11. Change of use of existing buildings	The current use of the site is for industrial use. The proposed change of use to a depot will also remain an industrial use. The change of use is not for the existing buildings.	Complies
a) Where a change of use is proposed to an existing development that will result in a significant impact on adjoining or nearby properties or on traffic movements may not be permitted.	Council's internal traffic department have assessed the application and supported it subject to conditions of consent.	Complies
b) Where the new use requires more car parking than is currently provided, it shall where possible increase the car parking and loading provisions to meet the requirements of the DCP, subject to compliance with other provisions of the DCP.	Council's internal traffic department have assessed the application and supported it subject to conditions of consent.	Complies

The proposal is considered to be consistent with the key controls outlined in the Liverpool Development Control Plan 2008.







NOT FOR CONSTRUCTION

© 2021 Sky Image-Adipix Pty Ltd ABN # 61 292 360 856 agent for the Image-Adipix Partnership. All rights reserved. This sharing is copyright and shall not be reproduced or copied in any form or by any means (graphic, electronic or mechanical) without prior written permission from the Image-Adipix Pty Ltd Any further, expressed or implied, is also the liability for any persons who all are it included in the terms of the stated agreement between the Image-Adipix Pty Ltd and its marketing party.

The contractor shall check and verify all work on site (including work in adjacent) before commencing live landscape installation. Any discrepancies are to be reported to the Project Manager or Landscapes Administrator as soon as possible. On no account shall any planting, any required dimensions and details shall be referred to the Landscapes Administrator for confirmation.

☐ Development Application
☐ Preliminary
☐ Preliminary
☐ Preliminary

Host: Revision Description

LP	NR	26.07.20
LP	NR	04.07.20
LP	NR	03.07.20
NR	85	11.06.20
Chosen	Chosen	Score

Legend

 Proposed Boundary

 Existing Tree to be retained

 Existing Tree to be removed

 Proposed 2.1m High Palisade fence
 Existing planting
 Gravel



SITE IMAGE



Landscapes Architecture
Level 1, 240 Rapid Rd
Burlington MA 01803
A00036

Tel: (313) 74227040
Fax: (313) 74208287
www.landscapes.com

Realterm

Project
77 Governor Macquarie Drive
Chipping Norton 2170

Landscape Plan

DEVELOPMENT APPLICATION

Scale 1:250 @ A1

Job Number SS24-5356

Grading Number 101

10m

17th June 2024



CLEVER ENGINEERING
CONSULTING ENGINEERS

91 604 554 636

INNOVATE INSPIRE TRUST

Dear Sir,

**Re: PROPOSED HARD STAND DEVELOPMENT -77 MACQUARIE DRAIVE CHIPPING NORTON
CERTIFICATE OF DESIGN – ELECTRICAL SERVICES EXTERNAL LIGHTING**

SUBJECT PREMISES 77 MACQUARIE DRAIVE CHIPPING NORTON

DEVELOPMENT APPLICATION:

Pursuant to the provisions of **Clause A5.2 of the Building Code of Australia**, I hereby certify that the External & Hardstand Lighting design at the abovementioned site is in accordance with normal engineering practice and meets the requirements of the Building Code of Australia, any the Australian Standard AS 4282 -2019 Control of the obtrusive effects of outdoor lighting & Australian Standard AS 1158.3. Refer to attached Lighting design / Plots

I am an appropriately qualified and competent person in this area being a Chartered Member with Engineer Australia (CPENG 163619) & NER 163619, have 35 years local experience in the building Services and as such can certify that the design and performance of the design systems comply with the above and which are detailed on the drawings.

I possess Indemnity Insurance to the satisfaction of the building owner or my principal.

Full Name of Designer: [REDACTED]

Qualifications: BE CPENG 163619(IEA)

Registrations: NSW bdc 3388 – C8 – Accredited Certifier Electrical
NSW DEP0000068 / PRE00000066

Address of Designer: [REDACTED]

Business Telephone No: 0400 479 043

Name of Employer: Clever Engineering Pty Ltd

Signature:

[REDACTED]

PROPOSED TENANCY 2 AREA

Obtrusive Light - Compliance Report

AS/NZS 4282:2019, A4 - High District Brightness, Non-Curfew L2
Filename: 240530 - [B] - Design & Development - AGI
3/06/2024 10:23:37 AM

77 GOVERNOR MACQUARIE DRIVE. CHIPPING NORTON. NSW.

Illuminance

Maximum Allowable Value: 25 Lux

Calculations Tested (5):

Calculation Label	Test Results	Max. Illum.
Obtrusive light_Ill_Seg1	PASS	16.5
Obtrusive light_Ill_Seg2	PASS	8.3
Obtrusive light_Ill_Seg3	PASS	15.2
Obtrusive light_Ill_Seg4	PASS	18.9
Obtrusive light_Ill_Seg5	PASS	7.9

Luminous Intensity (Cd) At Vertical Planes

Maximum Allowable Value: 50000 Cd

Calculations Tested (5):

Calculation Label	Test Results
Obtrusive light_Cd_Seg1	PASS
Obtrusive light_Cd_Seg2	PASS
Obtrusive light_Cd_Seg3	PASS
Obtrusive light_Cd_Seg4	PASS
Obtrusive light_Cd_Seg5	PASS

Upward Waste Light Ratio (UWLR)

Maximum Allowable Value: 3.0 %

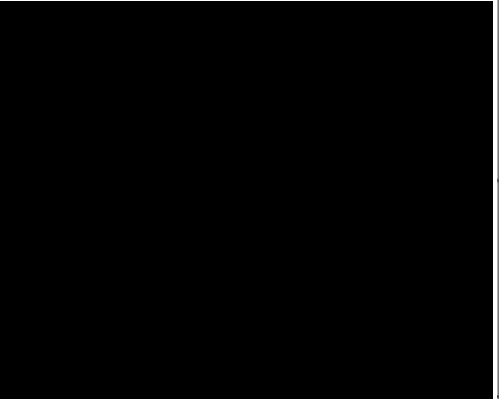
Calculated UWLR: 0.0 %

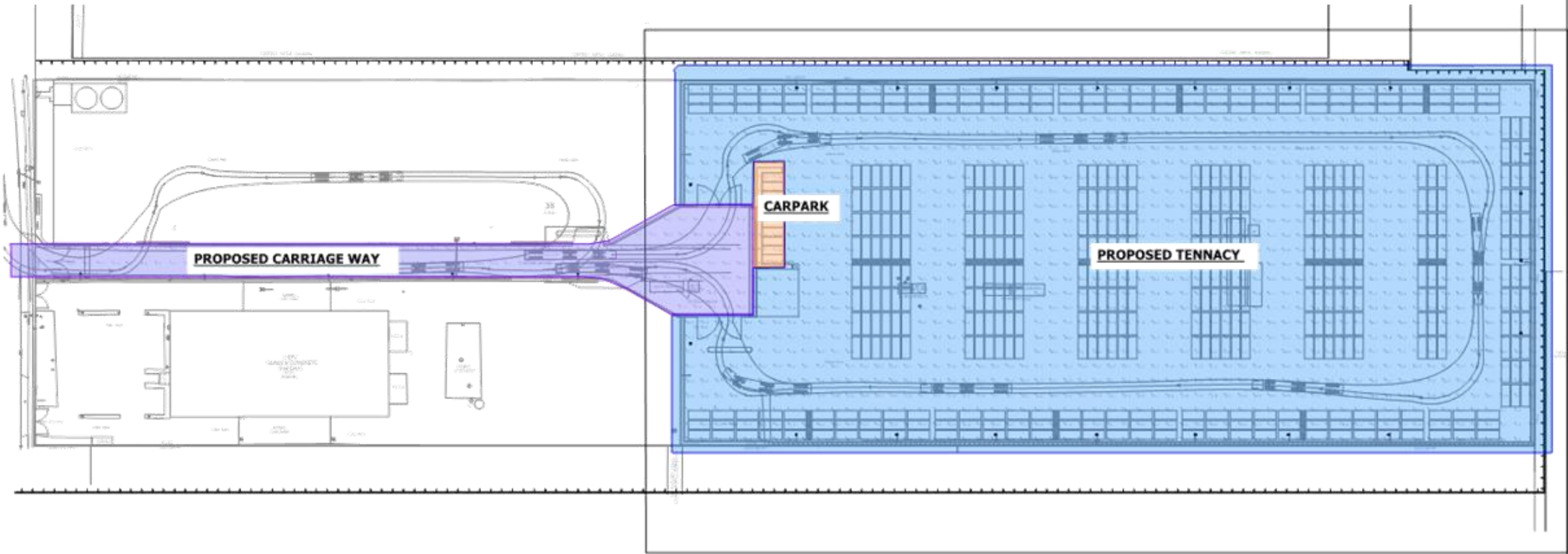
Test Results: PASS

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	38	MX PRO 2 TUNNEL 5P5 AS-65W 70	Single	0.800	32360	225	8550
	5	I-TRON 1 5P5 STU-M 7040 070-4	Single	0.850	8300	50.4	252

Calculation Summary						
Label	CalcType	Avg	Max	Min	Min/Avg	Min/Max
CARPARK - HORIZONTAL	Illuminance	57.27	73.7	44.3	0.77	0.60
Obtrusive light_Cd_Seg1	Obtrusive - Cd	1993	14980	233	0.12	0.02
Obtrusive light_Cd_Seg2	Obtrusive - Cd	1343	1694	951	0.71	0.56
Obtrusive light_Cd_Seg3	Obtrusive - Cd	3006	12135	367	0.12	0.03
Obtrusive light_Cd_Seg4	Obtrusive - Cd	2555	10660	331	0.13	0.03
Obtrusive light_Cd_Seg5	Obtrusive - Cd	1454	11369	221	0.15	0.02
Obtrusive light_Ill_Seg1	Obtrusive - Ill	4.30	16.5	0.0	0.00	0.00
Obtrusive light_Ill_Seg2	Obtrusive - Ill	7.13	8.3	5.8	0.81	0.70
Obtrusive light_Ill_Seg3	Obtrusive - Ill	4.88	15.2	0.4	0.08	0.03
Obtrusive light_Ill_Seg4	Obtrusive - Ill	7.17	18.9	0.2	0.03	0.01
Obtrusive light_Ill_Seg5	Obtrusive - Ill	1.92	7.9	0.0	0.00	0.00
PROPOSED TENANCY - HORIZONTAL	Illuminance	48.74	99.8	1.7	0.03	0.02
SHARED CARRIAGEWAY - HORIZONTAL	Illuminance	17.57	54.8	5.7	0.32	0.10

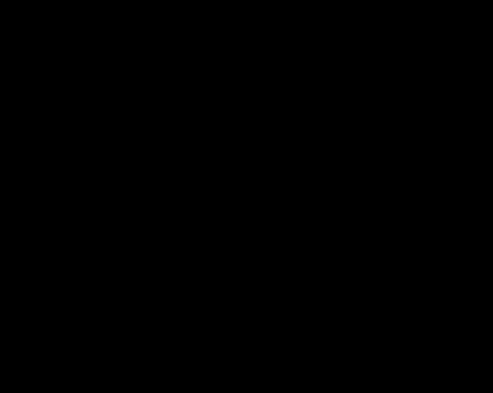
GENERAL NOTES:

B	03/06	DESIGN & DEVELOPMENT
A	26/04	CONCEPT
REV	DATE	DESCRIPTION
		
PROJECT 77 Governor Macquarie Drive, Chipping Norton NSW		
DRAWING TITLE COVER PAGE		
DESIGNED S.J.	CHECKED S.H.	APPROVED S.H.
DWG NO. E0000	SCALE N.T.S	REV A



GENERAL NOTES:

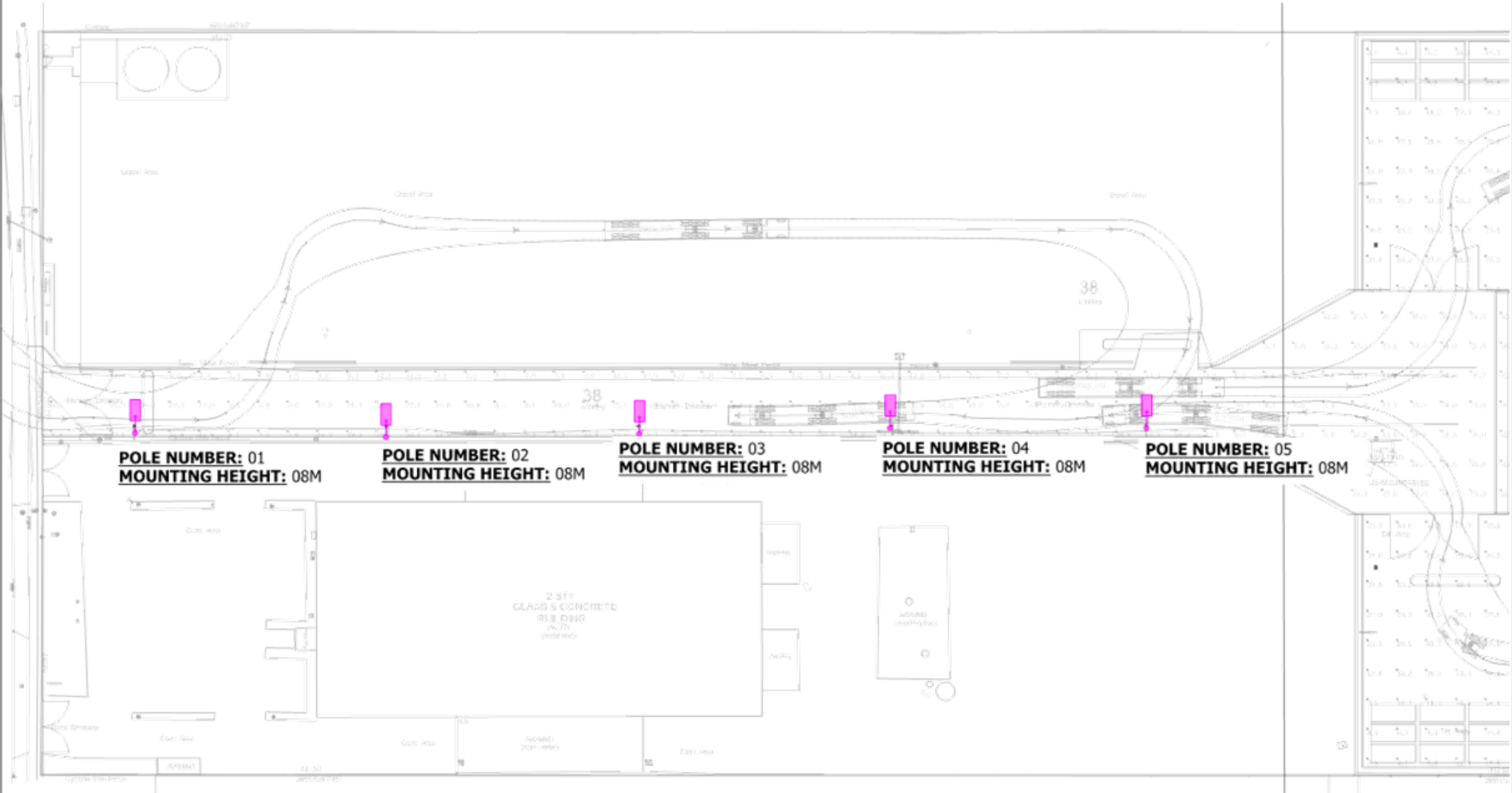
REV	DATE	DESCRIPTION
B	03/06	DESIGN & DEVELOPMENT
A	26/04	CONCEPT



PROJECT 77 Governor Macquarie Drive,
Chipping Norton NSW

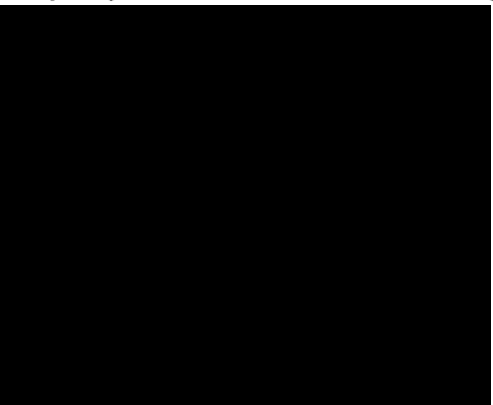
DRAWING TITLE
ZONING NAMES

DESIGNED	S.J.	CHECKED	S.H.	APPROVED	S.H.
DWG NO.	E1000	SCALE	N.T.S	REV	A



GENERAL NOTES:

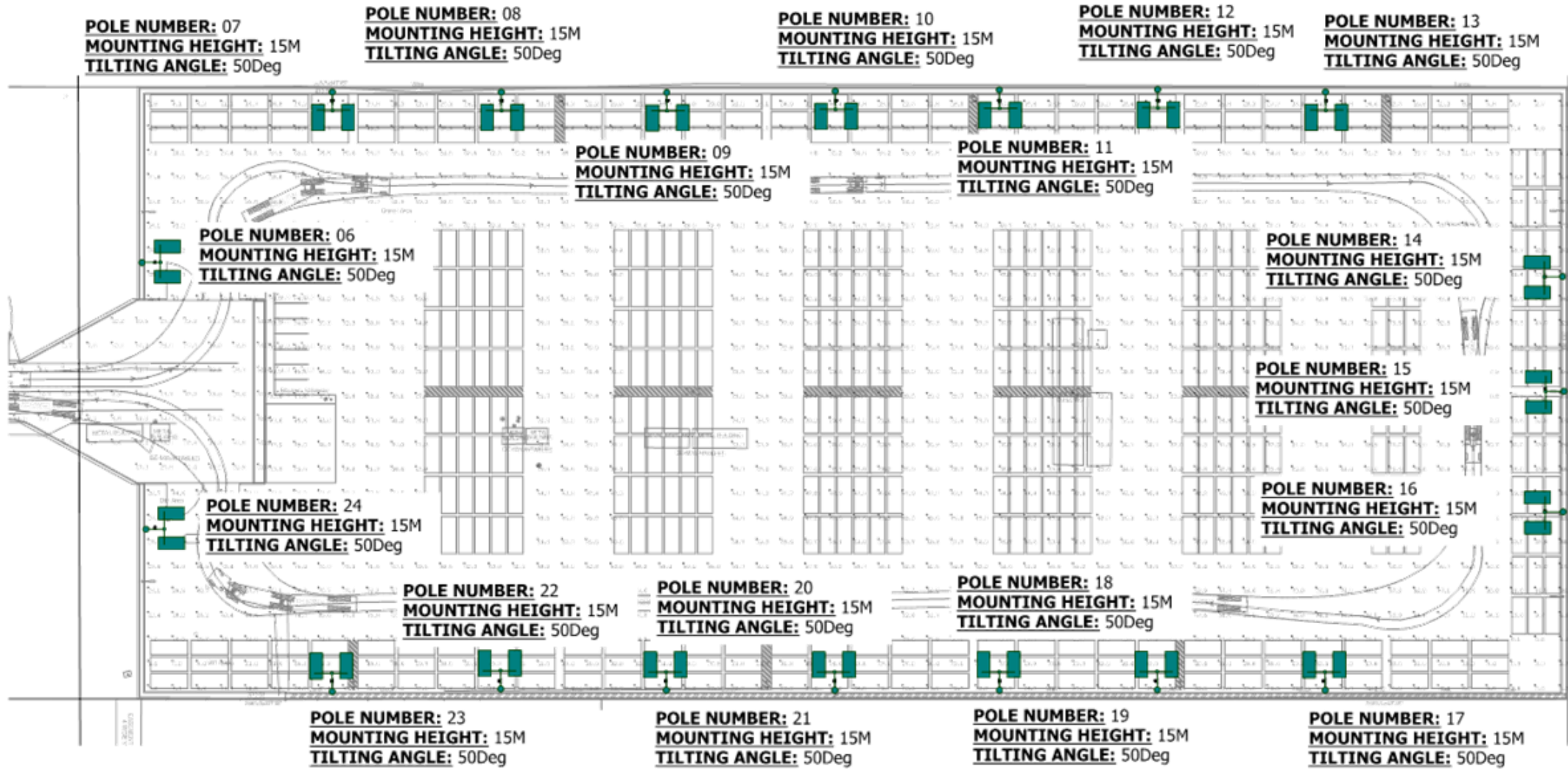
REV	DATE	DESCRIPTION
B	03/06	DESIGN & DEVELOPMENT
A	26/04	CONCEPT



PROJECT 77 Governor Macquarie Drive,
Chipping Norton NSW

DRAWING TITLE
LIGHT LOCATION - CARRIAGEWAY

DESIGNED	S.J.	CHECKED	S.H.	APPROVED	S.H.
DWG NO.	E2000	SCALE	N.T.S	REV	A



GENERAL NOTES:

B 03/06 DESIGN & DEVELOPMENT

A 26/04 CONCEPT

REV DATE DESCRIPTION

PROJECT 77 Governor Macquarie Drive,
Chipping Norton NSW

DRAWING TITLE
LIGHT LOCATION - PROPOSED TENANCY

DESIGNED	S.J.	CHECKED	S.H.	APPROVED	S.H.
DWG NO.	E3000	SCALE	N.T.S	REV	A

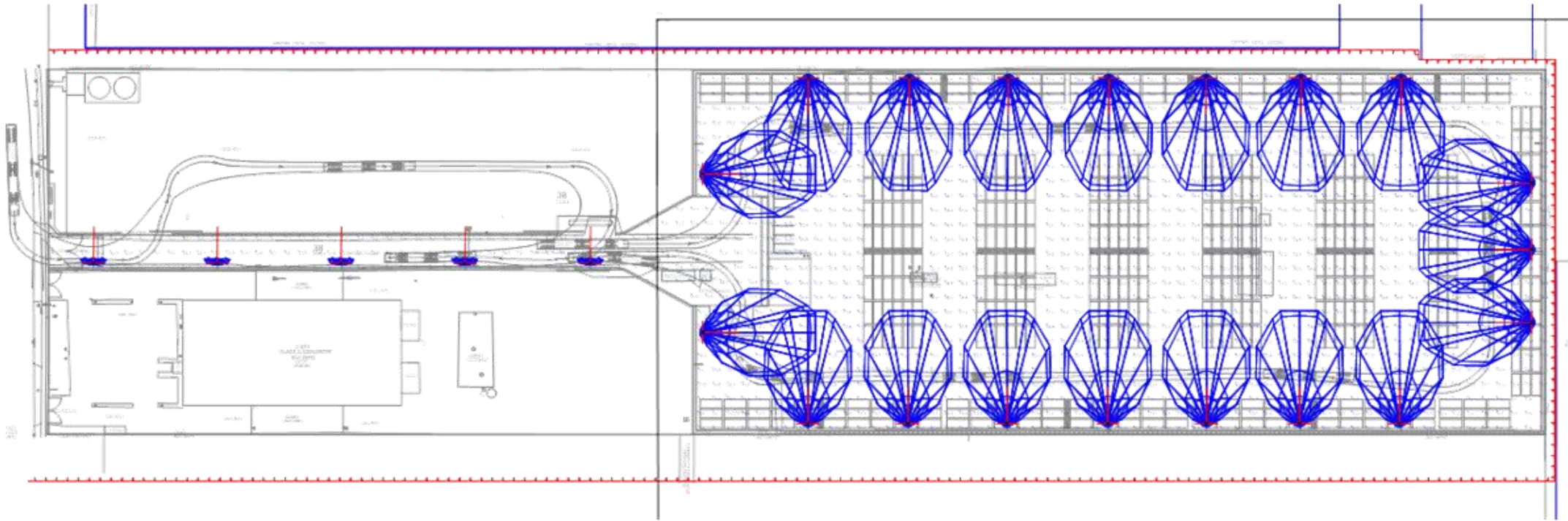
GENERAL NOTES:

REV	DATE	DESCRIPTION
B	03/06	DESIGN & DEVELOPMENT
A	26/04	CONCEPT

PROJECT 77 Governor Macquarie Drive,
Chipping Norton NSW

DRAWING TITLE
PROPOSED TENANCY - HORIZONTAL

DESIGNED	S.J.	CHECKED	S.H.	APPROVED	S.H.
DWG NO.	E4000	SCALE	N.T.S	REV	A



GENERAL NOTES:

REV	DATE	DESCRIPTION
B	03/06	DESIGN & DEVELOPMENT
A	26/04	CONCEPT

PROJECT 77 Governor Macquarie Drive,
Chipping Norton NSW

DRAWING TITLE
PHOTOMETRIC WEB

DESIGNED	S.J.	CHECKED	S.H.	APPROVED	S.H.
DWG NO.	E5000	SCALE	N.T.S	REV	A

GENERAL NOTES:

B	03/06	DESIGN & DEVELOPMENT
A	26/04	CONCEPT
REV	DATE	DESCRIPTION
PROJECT 77 Governor Macquarie Drive, Chipping Norton NSW		
DRAWING TITLE ISOLINES		
DESIGNED	S.J.	CHECKED S.H. APPROVED S.H.
DWG NO.	E6000	SCALE N.T.S. REV A

Obtrusive Light - Compliance Report

AS/NZS 4282:2019, A4 - High District Brightness, Non-Curfew L2
Filename: 240530 - [B] - Design & Development - AGI
3/06/2024 10:23:37 AM

Illuminance

Maximum Allowable Value: 25 Lux

Calculations Tested (5):

Calculation Label	Test Results	Max. Illum.
Obtrusive light_III_Seg1	PASS	16.5
Obtrusive light_III_Seg2	PASS	8.3
Obtrusive light_III_Seg3	PASS	15.2
Obtrusive light_III_Seg4	PASS	18.9
Obtrusive light_III_Seg5	PASS	7.9

Luminous Intensity (Cd) At Vertical Planes

Maximum Allowable Value: 50000 Cd

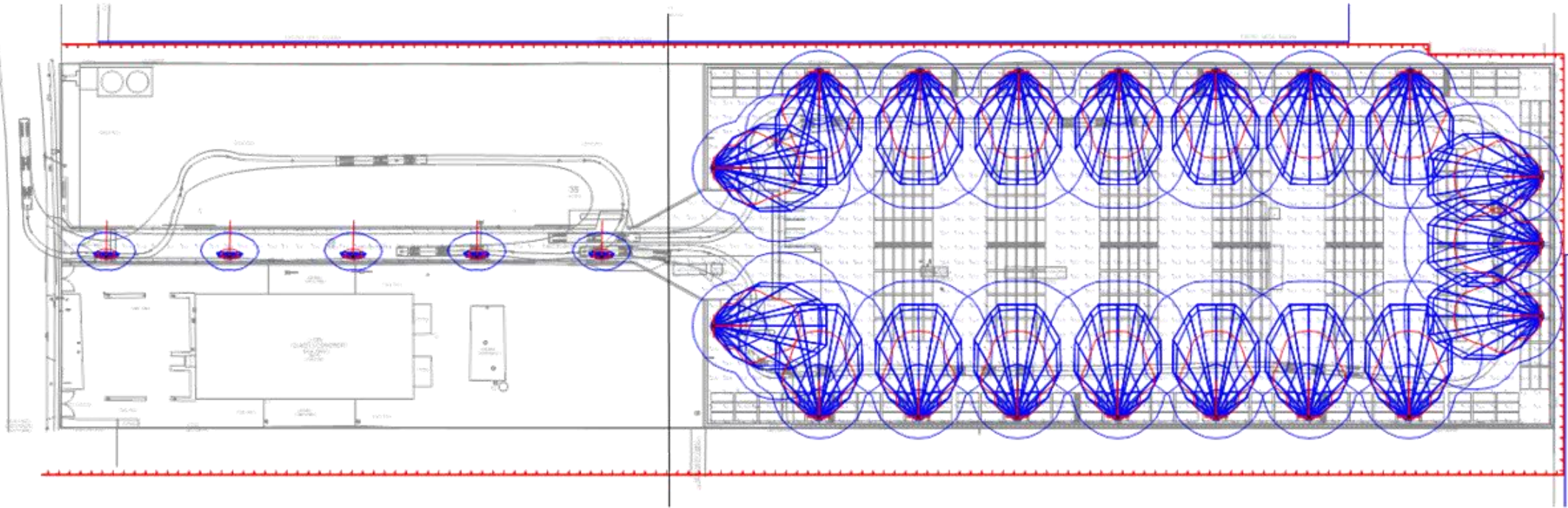
Calculations Tested (5):

Calculation Label	Test Results
Obtrusive light_Cd_Seg1	PASS
Obtrusive light_Cd_Seg2	PASS
Obtrusive light_Cd_Seg3	PASS
Obtrusive light_Cd_Seg4	PASS
Obtrusive light_Cd_Seg5	PASS

Upward Waste Light Ratio (UWLR)

Maximum Allowable Value: 3.0 %

Calculated UWLR: 0.0 %
Test Results: PASS



GENERAL NOTES:

B 03/06 DESIGN & DEVELOPMENT

A 26/04 CONCEPT

REV DATE DESCRIPTION

PROJECT 77 Governor Macquarie Drive,
Chipping Norton NSW

DRAWING TITLE
OBTRUSIVE LIGHTING CALCUATIONS

DESIGNED	S.J.	CHECKED	S.H.	APPROVED	S.H.
DWG NO.	E7000	SCALE	N.T.S	REV	A



Acoustics
Vibration
Structural Dynamics

77 GOVERNOR MACQUARIE DRIVE, CHIPPING NORTON

Noise Assessment for Depot

10 January 2025

Plan Project Management

TP056-01F02 Report (r5).docx



Sydney Melbourne Brisbane Gold Coast Kuwait Singapore

Renzo Tonin & Associates ABN 29 117 462 861

Level 1/418A Elizabeth St SURRY HILLS NSW 2010 | PO Box 877 STRAWBERRY HILLS NSW 2012

P (02) 8218 0500 F (02) 8218 0501 sydney@renzotonin.com.au www.renzotonin.com.au



RENZO TONIN & ASSOCIATES

10 JANUARY 2025

Document details

Detail	Reference
Doc reference:	TP056-01F02 Report (r5).docx
Prepared for:	Plan Project Management
Address:	PO Box 43 Mortdale NSW 2223
Attention:	Mr Fergus Knox

Document control

Date	Revision history	Non-issued revision	Issued revision	Prepared	Instructed	Reviewed / Authorised
12.08.2024	Generate report	0	1	W. Chan	M. Chung	M. Chung
20.08.2024	Final	-	2	W. Chan	M. Chung	M. Chung
17.09.2024	Update for Tenancy 1B	-	3-4	W. Chan	M. Chung	M. Chung
10.01.2025	Update for Warehouse 1A	-	5	W. Chan	M. Chung	M. Chung

File Path: R:\AssocSydProjects\TP051-TP100\TP056 mch 77 Governor Macquarie Dr Chipping Norton\1 Docs\TP056-01F02 Report (r5).docx

Important Disclaimers:

The work presented in this document was carried out in accordance with the Renzo Tonin & Associates Quality Assurance System, which is based on Australian/New Zealand Standard AS/NZS ISO 9001.

This document is issued subject to review and authorisation by the suitably qualified and experienced person named in the last column above. If no name appears, this document shall be considered as preliminary or draft only and no reliance shall be placed upon it other than for information to be verified later.

This document is prepared for the particular requirements of our Client referred to above in the 'Document details' which are based on a specific brief with limitations as agreed to with the Client. It is not intended for and should not be relied upon by a third party and no responsibility is undertaken to any third party without prior consent provided by Renzo Tonin & Associates. The information herein should not be reproduced, presented, or reviewed except in full. Prior to passing on to a third party, the Client is to fully inform the third party of the specific brief and limitations associated with the commission.

In preparing this report, we have relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by the Client and/or from other sources. Except as otherwise stated in the report, we have not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate, or incomplete then it is possible that our observations and conclusions as expressed in this report may change.

We have derived data in this report from information sourced from the Client (if any) and/or available in the public domain at the time or times outlined in this report. The passage of time, manifestation of latent conditions or impacts of future events may require further examination and re-evaluation of the data, findings, observations and conclusions expressed in this report.

We have prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and by reference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

The information contained herein is for the purpose of acoustics only. No claims are made and no liability is accepted in respect of design and construction issues falling outside of the specialist field of acoustics engineering including and not limited to structural integrity, fire rating, architectural buildability and fit-for-purpose, waterproofing and the like. Supplementary professional advice should be sought in respect of these issues.

External cladding: No claims are made and no liability is accepted in respect of any external wall and/or roof systems (eg facade / cladding materials, insulation etc) that are: (a) not compliant with or do not conform to any relevant non-acoustic legislation, regulation, standard, instructions or Building Codes; or (b) installed, applied, specified or utilised in such a manner that is not compliant with or does not conform to any relevant non-acoustic legislation, regulation, standard, instructions or Building Codes.

Contents

1	Introduction	1
2	Project Description	2
2.1	Background Information	2
2.2	Noise Sensitive Receivers	2
2.3	Hours of Operation	4
3	Existing Acoustic Environment	5
3.1	Noise Monitoring Locations	5
3.2	Noise Monitoring Results	5
4	Construction Noise Impacts	7
4.1	Construction Noise Criteria	7
4.2	Construction Noise Sources	10
4.3	Construction Noise Assessment	10
4.4	Construction Noise Mitigation and Management	12
4.4.1	General Engineering Noise Controls	12
4.4.2	General Noise Management Measures	13
5	Operational Noise Impacts	15
5.1	Operational Noise Criteria	15
5.1.1	Project Intrusiveness Noise Levels	15
5.1.2	Amenity Noise Levels	15
5.1.3	Project Noise Trigger Levels	17
5.1.4	Sleep Disturbance	17
	NSW Road Noise Policy	19
	World Health Organisation reports	19
	Sleep disturbance assessment noise levels	20
5.2	Operational Noise Sources	20
5.3	Operational Noise Assessment	21
5.4	Sleep disturbance assessment	23
6	Road Traffic Noise Impacts	25
6.1	Road Traffic Noise Criteria	25
6.2	Road Traffic Noise Assessment	25
7	Conclusion	26
APPENDIX A	Glossary of Terminology	27
APPENDIX B	Noise Complaint Management Procedure	29
APPENDIX C	Long Term Noise Monitoring Results	30

List of tables

Table 2-1 – Noise Sensitive Receiver Locations	2
Table 3-1 – Noise Monitoring Locations	5
Table 3-2 – Long-Term Noise Monitoring Results, dB(A)	6
Table 4-1 – Noise Management Levels at Residential Receivers	8
Table 4-2 – Construction Noise Management Levels at Residential Receivers, dB(A)	8
Table 4-3 – Noise Management Levels at Other Noise Sensitive Land Uses	10
Table 4-4 – Proposed Construction Plant and Equipment and Sound Power Levels, dB(A) re. 1pW	10
Table 4-5 – Predicted $L_{Aeq(15min)}$ Noise Levels for Proposed Construction Plant, dB(A)	11
Table 4-6 – Relative Effectiveness of Various Forms of Noise Control, dB(A)	12
Table 4-7 – Noise Control Measures for Likely Construction Plant	13
Table 5-1 – Recommended Amenity Noise Levels	16
Table 5-2 – Project Amenity Noise Levels	17
Table 5-3 – Project Noise Trigger Levels, dB(A)	17
Table 5-4 – Sleep Disturbance Assessment Levels	18
Table 5-5 – Sleep Disturbance Project Assessment Noise Levels	20
Table 5-6 – Proposed Plant and Equipment Sound Power Levels, dB(A) re.1pW	21
Table 5-7 – Predicted $L_{Aeq, 15min}$ Operational Noise Levels at Surrounding Receiver Locations, dB(A)	23
Table 5-8 – Predicted L_{Amax} Operational Noise Levels at Residential Receivers, dB(A)	23
Table 6-1 – RNP Road Traffic Noise Criteria, dB(A)	25

List of figures

Figure 2-1 – Site, Surrounds And Receiver & Monitoring Locations	0
--	---

1 Introduction

Renzo Tonin & Associates was engaged to prepare an environmental noise assessment as part of the Development Application (DA) submission to Liverpool City Council for proposed change of permitted use to a Depot for part of the site at 77 Governor Macquarie Drive, Chipping Norton. Noise impacts from the construction and operation phases of the project will be addressed in this report in accordance with relevant Council and EPA requirements and guidelines.

Appendix A contains a glossary of acoustic terms used in this report.

2 Project Description

2.1 Background Information

The Development Application (DA) submission to Liverpool City Council seeks development consent for a change of use to a Depot for the part of the Site shown as Tenancy 1B and 2 in Figure 2-1. It is not expected to materially change the operational characteristics of existing operations.

2.2 Noise Sensitive Receivers

The nearest affected sensitive receivers were identified during a site inspection and details are as follows.

Table 2-1 – Noise Sensitive Receiver Locations

Receiver ID	Receiver Type	Address
R1	Residential	12 Derby Crescent Single story residential property approximately 50 m west of the site.
R2	Residential	14 Derby Crescent Single story residential property approximately 50 m west of the site.
R3	Residential	16 Derby Crescent Single story residential property approximately 50 m west of the site.
R4	Residential	18 Derby Crescent Single story residential property approximately 50 m west of the site.
R5	Residential	20 Derby Crescent Double story residential property approximately 50 m west of the site.
R6	Industrial	81 Governor Macquarie Drive Industrial property located to the north of the site, sharing a common boundary
R7	Industrial	45 Riverside Road Industrial property located to the east of the site, sharing a common boundary
R8	Industrial	43 Riverside Road Industrial property located to the east of the site, sharing a common boundary
R9	Industrial	23 Childs Road Industrial property located to the south of the site, sharing a common boundary

Figure 2-1 following provides details of the site and surrounds.

Figure 2-1 – Site, Surrounds And Receiver & Monitoring Locations



2.3 Hours of Operation

The operating hours of the proposed Depot will be as follows:

Tenancy 1B

- 7:00 am to 4:30pm Monday to Friday

Tenancy 2

- Comprise of three shifts over a 24-hour period 7 days a week.
- The on-site ancillary office will generally continue to operate between 7.00am and 6.00pm.
- There is expected to be a maximum of six (6) staff on-site at any given time.

3 Existing Acoustic Environment

Criteria for the assessment of operational and construction noise are usually derived from the existing noise environment of an area, excluding noise from the subject development.

Fact Sheet B of the NSW EPA 'Noise Policy for Industry' (NPfI) outlines two methods for determining the background noise level of an area, being 'B1 – Determining background noise using long term noise measurements' and 'B2 – Determining background noise using short-term noise measurements'. This assessment has used long term noise monitoring.

As the noise environment of an area almost always varies over time, background and ambient noise levels need to be determined for the operational times of the proposed development. For example, in a suburban or urban area the noise environment is typically at its minimum at 3am and at its maximum during the morning and afternoon traffic peak hours. The NPfI outlines the following standard time periods over which the background and ambient noise levels are to be determined.

- **Day:** 7am to 6pm Monday to Saturday and 8am to 6pm Sundays & Public Holidays
- **Evening:** 6pm to 10pm Monday to Sunday & Public Holidays
- **Night:** 10pm to 7am Monday to Saturday and 10pm to 8am Sundays & Public Holidays

3.1 Noise Monitoring Locations

Noise measurements are ideally carried out at the nearest or most potentially affected residential locations surrounding a development. Alternatively, representative locations should be established in the case of access restrictions or a safe and secure location cannot be identified. Furthermore, representative locations may be established in the case of multiple residential receivers as it is usually impractical to carry out measurements at all locations surrounding a site.

The long term unattended noise monitoring location is presented in Table 3-1 and shown in Figure 2-1.

Table 3-1 – Noise Monitoring Locations

ID	Location	Description
L1	56 Rugby Crescent, Chipping Norton	The noise monitor was located in the front yard and in the 'free-field' (i.e. away from any buildings). The noise monitoring location is considered representative of the nearest affected residential receiver locations.

3.2 Noise Monitoring Results

Long term unattended noise monitoring was conducted from Wednesday 17th to Wednesday 24th July 2024. It is noted that the long-term unattended noise monitoring was conducted at a removed location from the subject site and was not influenced by any noise generated by the subject site. The results of the long-term monitoring were analysed and noise level-vs-time graphs of the data were developed and are included in Appendix C.

RENZO TONIN & ASSOCIATES

10 JANUARY 2025

Table 3-2 presents the overall single Rating Background Levels (RBL) and representative ambient L_{eq} noise levels for each assessment period, determined in accordance with the NPfl.

Table 3-2 – Long-Term Noise Monitoring Results, dB(A)

Monitoring Location	L _{A90} Rating Background Noise Level (RBL)			L _{Aeq} Ambient Noise Levels ¹		
	Day	Evening	Night	Day	Evening	Night
L1 – 56 Rugby Crescent	43	41	34	55	51	47

Notes: 1. As required by the NPfl, the external ambient noise levels presented are free-field noise levels. (i.e. no facade reflection)

4 Construction Noise Impacts

4.1 Construction Noise Criteria

The NSW 'Interim Construction Noise Guideline' (ICNG, 2009) provides guidelines for assessing noise generated during the construction phase of developments.

The key components of the guideline that are incorporated into this assessment include:

- *Use of L_{Aeq} as the descriptor for measuring and assessing construction noise.*

NSW noise policies, including the NPfl, RNP and RING have moved to the primary use of L_{Aeq} over any other descriptor. As an energy average, L_{Aeq} provides ease of use when measuring or calculating noise levels since a full statistical analysis is not required as when using, for example, the L_{A10} descriptor.

- *Application of reasonable and feasible noise mitigation measures.*

As stated in the ICNG, a noise mitigation measure is feasible if it is capable of being put into practice and is practical to build given the project constraints.

Selecting reasonable mitigation measures from those that are feasible involves making a judgement to determine whether the overall noise benefit outweighs the overall social, economic and environmental effects.

The ICNG provides two methods for assessment of construction noise, being either a quantitative or a qualitative assessment. A quantitative assessment is recommended for major construction projects of significant duration, and involves the measurement and prediction of noise levels, and assessment against set criteria. A qualitative assessment is recommended for small projects with a duration of less than three weeks and focuses on minimising noise disturbance through the implementation of reasonable and feasible work practices, and community notification.

Given the duration of the proposed construction works for the proposed development is likely to be more than three weeks, a quantitative assessment is carried out herein, consistent with the ICNG requirements.

Table 4-1, reproduced from the ICNG, sets out the noise management levels and how they are to be applied for residential receivers.

Table 4-1 – Noise Management Levels at Residential Receivers

Time of day	Management level $L_{Aeq}(15\text{ min})^*$	How to apply
Recommended standard hours:	Noise affected RBL + 10dB	The noise affected level represents the point above which there may be some community reaction to noise.
Monday to Friday 7 am to 6 pm		Where the predicted or measured $L_{Aeq}(15\text{ min})$ is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level.
Saturday 8 am to 1 pm		The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
No work on Sundays or public holidays		
	Highly noise affected 75dB(A)	The highly noise affected level represents the point above which there may be strong community reaction to noise. Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: - times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences) - if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
Outside recommended standard hours	Noise affected RBL + 5dB	- A strong justification would typically be required for works outside the recommended standard hours. - The proponent should apply all feasible and reasonable work practices to meet the noise affected level. - Where all feasible and reasonable practices have been applied and noise is more than 5 dB(A) above the noise affected level, the proponent should negotiate with the community. - For guidance on negotiating agreements see section 7.2.2 <i>[of the ICNG]</i>.

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

Table 4-2 presents the construction noise management levels established for the nearest noise sensitive residential receivers based upon the noise monitoring outlined in Section 3. It is expected that construction works would only occur during standard daytime hours.

Table 4-2 – Construction Noise Management Levels at Residential Receivers, dB(A)

Receiver	Noise Management Level $L_{Aeq}(15\text{min})$
All residential receiver locations	43 + 10 = 53

RENZO TONIN & ASSOCIATES

10 JANUARY 2025

Table 4.3 sets out the ICNG noise management levels for other noise sensitive receiver locations. As identified for residential receivers, a 'highly affected' noise objective of $L_{Aeq(15min)}$ 75dB(A) is adopted for all noise sensitive receivers, with exceedances addressed as described in Table 4-1.

Table 4-3 – Noise Management Levels at Other Noise Sensitive Land Uses

Land Use	Where Objective Applies	Noise Management Level L_{Aeq} (15 min)
Industrial premises	External noise level	75 dB(A)

Notes: 1. Noise management levels apply when receiver areas are in use only.

4.2 Construction Noise Sources

The construction of the proposed development would typically involve the following activities:

1. Installation of new fencing
2. Landscaping
3. Trenching and installation of hydrant and cold water pipes
4. Installation of tanks and pumps
5. Installation of pump room

The plant and equipment that are likely to be used during the construction of the proposed development are provided in Table 4-4 below.

Table 4-4 – Proposed Construction Plant and Equipment and Sound Power Levels, dB(A) re. 1pW

Plant item	Plant description	L_{Aeq} Sound Power Levels
1.	Crane truck	110
2.	Excavator	107
3.	Concrete truck	106
4.	Dump truck	105
5.	Grinder	104
6.	Concrete pump	102
7.	Hand tools	100

The sound power levels for the majority of activities presented in the above table are based on maximum levels given in Table A1 of Australian Standard 2436 – 2010 'Guide to Noise Control on Construction, Demolition and Maintenance Sites', the ICNG, information from past projects and/or information held in our library files.

4.3 Construction Noise Assessment

Noise levels at any receiver location resulting from construction works would depend on the location of the receiver with respect to the area of construction, shielding from intervening topography and structures and the type and duration of construction being undertaken. Furthermore, noise levels at receivers would vary significantly over the total construction program due to the transient nature and large range of plant and equipment that could be used.

Table 4-5 presents noise levels likely to be experienced at the nearby affected receivers based on the construction activities and plant and equipment associated with the proposed residential apartment development at a range from the furthest to the closest proximity to each receiver location. Noise levels were calculated taking into consideration attenuation due to the distance between the construction works and the receiver locations and any intervening structures (e.g. building, boundary fences, etc).

Table 4-5 – Predicted $L_{Aeq(15min)}$ Noise Levels for Proposed Construction Plant, dB(A)

Plant	Predicted $L_{Aeq(15min)}$ Construction Noise Levels, dB(A)								
	Receiver R1	Receiver R2	Receiver R3	Receiver R4	Receiver R5	Receiver R6	Receiver R7	Receiver R8	Receiver R9
Noise Management Levels	53	53	53	53	53	53	53	53	53
Installation of new fencing									
Grinder	44-68	44-68	45-68	49-67	49-68	37-83	43-86	33-52	35-57
Hand tools	40-64	40-64	41-64	45-63	45-64	33-79	39-82	29-48	31-53
Landscaping									
Dump Truck	62-65	63-67	65-69	66-68	67-69	45-48	51-52	38-39	37-39
Hand tools	57-60	58-62	60-64	61-63	62-64	40-43	46-47	33-34	32-34
Trenching and installation of hydrant and cold water pipes									
Excavator	64-67	65-69	66-70	66-70	67-71	47-50	54-55	39-41	39-42
Dump truck	62-65	63-67	64-68	64-68	65-69	45-48	52-53	37-39	37-40
Hand tools	57-60	58-62	59-63	59-63	60-64	40-43	47-48	32-34	32-35
Installation of tanks and pumps									
Crane truck	67-68	68-69	69-70	69-71	70-72	50-51	57-58	43-44	44-45
Concrete truck	63-64	64-65	65-66	65-67	66-68	46-47	53-54	39-40	40-41
Concrete pump	59-60	60-61	61-62	61-63	62-64	42-43	49-50	35-36	36-37
Hand tools	57-58	58-59	59-60	59-61	60-62	40-41	47-48	33-34	34-35
Installation of pump room									
Crane truck	66-67	68-69	69-71	70-72	71-73	50-51	57-57	43-44	44-45
Concrete truck	62-63	64-65	65-67	66-68	67-69	46-47	53-53	39-40	40-41
Concrete pump	58-59	60-61	61-63	62-64	63-65	42-43	49-49	35-36	36-37
Hand tools	56-57	58-59	59-61	60-62	61-63	40-41	47-47	33-34	34-35

Based on the results presented in Table 4-5 above, construction noise levels are predicted to generally exceed the applicable construction noise management levels at all receiver locations, especially when the plant item is being used at a location closest to the corresponding receiver.

Construction noise levels are predicted be within the highly noise affected level of 75 dB(A) at all receiver locations.

Considering the predicted noise levels above, it is recommended that a feasible and reasonable approach towards noise management measures be applied to reduce noise levels as much as possible to manage the noise impacts from construction activities.

4.4 Construction Noise Mitigation and Management

The following recommendations provide in-principle feasible and reasonable noise control solutions to reduce noise impacts to sensitive receivers. Where actual construction activities differ from those assessed in this management plan, more detailed design of noise control measures may be required once specific items of plant and construction methods have been finalised.

The advice provided here is in respect of acoustics only. Supplementary professional advice may need to be sought in respect of fire ratings, structural design, buildability, fitness for purpose and the like.

4.4.1 General Engineering Noise Controls

Implementation of noise control measures, such as those suggested in Australian Standard 2436-2010 "Guide to Noise Control on Construction, Demolition and Maintenance Sites", are expected to reduce predicted construction noise levels. Reference to Australian Standard 2436-2010, Appendix C, Table C1 suggests possible remedies and alternatives to reduce noise emission levels from typical construction equipment. Table C2 in Appendix C presents typical examples of noise reductions achievable after treatment of various noise sources. Table C3 in Appendix C presents the relative effectiveness of various forms of noise control treatment.

Table 4-6 below presents noise control methods, practical examples and expected noise reductions according to AS2436 and according to Renzo Tonin & Associates' opinion based on experience with past projects.

Table 4-6 – Relative Effectiveness of Various Forms of Noise Control, dB(A)

Noise control method	Practical examples	Typical noise reduction possible in practice		Maximum noise reduction possible in practice	
		AS 2436	Renzo Tonin & Associates	AS 2436	Renzo Tonin & Associates
Distance	Doubling of distance between source and receiver	6	6	6	6
Screening	Acoustic barriers such as earth mounds, temporary or permanent noise barriers	5 to 10	5 to 10	15	15
Acoustic Enclosures	Engine casing lagged with acoustic insulation and plywood	15 to 25	10 to 20	50	30
Engine Silencing	Residential class mufflers	5 to 10	5 to 10	20	20
Substitution by alternative process	Use electric motors in preference to diesel or petrol	-	15 to 25	-	40

The Renzo Tonin & Associates' listed noise reductions are conservatively low and should be referred to in preference to those of AS2436.

Table 4-7 below identifies possible noise control measures, which are applicable for the construction plant likely to be used on site.

Table 4-7 – Noise Control Measures for Likely Construction Plant

Plant description	Screening	Acoustic enclosures	Silencing	Alternative process
Crane truck	✓	x	✓	x
Excavator	✓	x	✓	x
Concrete truck	✓	x	✓	x
Dump truck	✓	x	✓	x
Concrete pump	✓	x	✓	x
Grinder	✓	x	x	x
Hand tools	✓	x	x	x

4.4.2 General Noise Management Measures

The following general noise management measures should be followed:

- Use less noisy plant and equipment, where feasible and reasonable.
- Plant and equipment should be properly maintained.
- Provide special attention to the use and maintenance of 'noise control' or 'silencing' kits fitted to machines to ensure they perform as intended.
- Avoid any unnecessary noise when carrying out manual operations and when operating plant.
- Any equipment not in use for extended periods during construction work should be switched off.
- Trucks should not be left idling when possible.
- In addition to the noise mitigation measures outlined above, a management procedure would need to be put in place to deal with noise complaints that may arise from construction activities. Each complaint would need to be investigated and appropriate noise amelioration measures put in place to mitigate future occurrences, where the noise in question is in excess of allowable limits. See Appendix B for an example of a complaint handling procedure and form.

Where noise level exceedances cannot be avoided, then consideration may be given to providing periods of repose for residents, where feasible and reasonable.

Some items of plant may exceed noise limits even after noise treatment is applied. To reduce the overall noise impact, the use of noisy plant may be restricted to within certain time periods, where feasible and reasonable and to be negotiated with the residents. For example, between 10am and 3pm (with one-hour break for lunch between 12pm and 1pm), noisy activities could occur with no noise level restrictions over a limited time period. Residents would be notified of the potential noise impact during this time period so that they can organise their day around the noisy period. Allowing the construction

RENZO TONIN & ASSOCIATES

10 JANUARY 2025

activities to proceed, despite the noise exceedance may be the preferred method in order to complete the works expeditiously.

5 Operational Noise Impacts

5.1 Operational Noise Criteria

Operational noise impact is assessed in accordance with the NSW 'Noise Policy for Industry' (NPfI, 2017). The assessment procedure in the NPfI has two components:

- Controlling intrusive noise impacts in the short-term for residences.
- Maintaining noise level amenity for residences and other land uses.

In accordance with the NPfI, noise impact should be assessed against the project noise trigger level which is the lower value of the project intrusiveness noise levels and project amenity noise levels.

5.1.1 Project Intrusiveness Noise Levels

According to the NPfI, the intrusiveness of a noise source may generally be considered acceptable if the equivalent continuous (energy-average) A-weighted level of noise from the source (represented by the $L_{Aeq,15min}$ descriptor) does not exceed the background noise level measured in the absence of the source by more than 5dB(A). The project intrusiveness noise level, which is only applicable to residential receivers, is determined as follows:

$$L_{Aeq,15min} \text{ Intrusiveness noise level} = \text{Rating Background Level ('RBL')} \text{ plus } 5 \text{ dB(A)}$$

5.1.2 Amenity Noise Levels

The project amenity noise levels for different time periods of the day are determined in accordance with Section 2.4 of the NPfI. The NPfI recommends amenity noise levels ($L_{Aq,period}$) for various receivers including residential, commercial and industrial receivers and sensitive receivers such as schools, hotels, hospitals, churches and parks. These "recommended amenity noise levels" represent the objective for total industrial noise experienced at a receiver location. However, when assessing a single industrial development and its impact on an area, "project amenity noise levels" apply.

The recommended amenity noise levels applicable for the subject area are reproduced in Table 4.1 below. It is noted that some residential receivers are located on the edge of the residential zone interfacing the industrial zone, corresponding to the industrial interface receiver type.

Table 5-1 – Recommended Amenity Noise Levels

Type of Receiver	Noise Amenity Area	Time of Day	Recommended amenity noise level, L_{Aeq} dB(A)
Residential	Suburban	Day	55
		Evening	45
		Night	40
Industrial interface (applicable only to residential noise amenity areas)	All	All	Add 5 dB(A) to recommended noise amenity area
Industrial premises	All	When in use	70

- Notes:
1. The L_{Aeq} index corresponds to the level of noise equivalent to the energy average of noise levels occurring over a measurement period
 2. The recommended amenity noise levels refer only to noise from industrial sources. However, they refer to noise from all such sources at the receiver location, and not only noise due to a specific project under consideration.

To ensure that the total industrial noise level (existing plus new) remain within the recommended amenity noise levels for an area, the project amenity noise level that applies for each new industrial noise source is determined as follows.

$$L_{Aeq,period} \text{ Project amenity noise level} = L_{Aeq,period} \text{ Recommended amenity noise level} - 5 \text{ dB(A)}$$

Furthermore, given that the intrusiveness noise level is based on a 15 minute assessment period and the project amenity noise level is based on day, evening and night assessment periods, the NPfI provides the following guidance on adjusting the $L_{Aeq,period}$ level to a representative $L_{Aeq,15minute}$ level in order to standardise the time periods.

$$L_{Aeq,15min} = L_{Aeq,period} + 3 \text{ dB(A)}$$

The project amenity noise levels ($L_{Aeq,15min}$) for the residential and industrial type receivers applied for this project are reproduced in Table 5-2 below.

It is noted that Receivers R1 to R5 are located on the edge of the residential zone interfacing the industrial zone. Therefore, for these receivers the amenity levels for an industrial interface area would be applicable.

Table 5-2 – Project Amenity Noise Levels

Type of Receiver	Noise Amenity Area	Time of Day	Recommended Noise Level, dB(A)	
			$L_{Aeq, period}^1$	$L_{Aeq, 15min}$
Residence	Suburban	Day	$55 - 5 = 50$	$50 + 3 = 53$
		Evening	$45 - 5 = 40$	$40 + 3 = 43$
		Night	$40 - 5 = 35$	$35 + 3 = 38$
Industrial interface (applicable only to residential noise amenity areas) ²	Suburban	Day	$55 + 5 - 5 = 65$	$55 + 3 = 58$
		Evening	$45 + 5 - 5 = 45$	$45 + 3 = 58$
		Night	$40 + 5 - 5 = 40$	$40 + 3 = 43$
Industrial premises	All	When in use	$70 - 5 = 65$	$65 + 3 = 68$

- Notes:
1. The L_{Aeq} index corresponds to the level of noise equivalent to the energy average of noise levels occurring over a measurement period.
 2. Residential receivers assessed under the industrial interface based on recommended amenity criteria for residential urban area plus 5dB

5.1.3 Project Noise Trigger Levels

In accordance with the NPfI the project noise trigger levels, which are the lower (i.e. more stringent) value of the project intrusiveness noise level and project amenity noise level, have been determined as shown in Table 5-3 below.

Table 5-3 – Project Noise Trigger Levels, dB(A)

Receiver Location	Receiver Type	$L_{Aeq, 15min}$ Project noise trigger levels, dB(A)		
		Day	Evening	Night
Receiver R1 – 12 Derby Crescent	Residential	48	46	39
Receiver R2 – 14 Derby Crescent	Residential	48	46	39
Receiver R3 – 16 Derby Crescent	Residential	48	46	39
Receiver R4 – 18 Derby Crescent	Residential	48	46	39
Receiver R5 – 20 Derby Crescent	Residential	48	46	39
Receiver R6 – 77 Governor Macquarie Drive	Industrial	68 (When in use)		
Receiver R7 – 45 Riverside Road	Industrial	68 (When in use)		
Receiver R8 – 43 Riverside Road	Industrial	68 (When in use)		
Receiver R9 – 23 Childs Road	Industrial	68 (When in use)		

5.1.4 Sleep Disturbance

The potential for sleep disturbance from maximum noise level events during the night-time period should be considered. In accordance with NPfI, a detailed maximum noise level event assessment should be undertaken where the subject development night time noise levels at a residential location exceed:

- $L_{Aeq, 15min}$ 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or
- L_{AFmax} 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater.

Where there are noise events found to exceed the levels shown above, further analysis is undertaken to identify:

- The likely number of events that might occur during the night assessment period,
- The extent to which the maximum noise level exceeds the rating background noise level.

The sleep disturbance noise levels for the project are presented in Table 5-4.

Table 5-4 – Sleep Disturbance Assessment Levels

Receiver type	Assessment Level $L_{Aeq, 15min}$	Assessment Level L_{AFmax}
Residential	40	52

Other factors that may be important in assessing the extent of impacts on sleep include:

- how often high noise events will occur
- the distribution of likely events across the night-time period and the existing ambient maximum events in the absence of the subject development
- whether there are times of day when there is a clear change in the noise environment (such as during early-morning shoulder periods)
- current scientific literature available at the time of the assessment regarding the impact of maximum noise level events at night.

Maximum noise level event assessments should be based on the L_{AFmax} descriptor on an event basis under 'fast' time response.

The detailed assessment should consider all feasible and reasonable noise mitigation and management measures with a goal of achieving the sleep disturbance noise trigger levels. The detailed assessment should cover the maximum noise level, the extent to which the maximum noise level exceeds the rating background noise level, and the number of times this happens during the night-time period. Some guidance on possible impact is contained in the review of research results in the NSW Road Noise Policy as presented below.

NSW Road Noise Policy

In relation to maximum noise level events, the NSW Road Noise Policy (RNP) identifies in its summary on sleep disturbance research to date that:

1. *Maximum internal noise levels below 50–55 dB(A) are unlikely to awaken people from sleep*
2. *One or two noise events per night, with maximum internal noise levels of 65–70 dB(A), are not likely to affect health and wellbeing significantly.*

The above references identify that internal noise levels of 50 to 55 dB(A), are unlikely to cause awakenings. On the assumption that there is a 10 dB(A) outside-to-inside noise loss through an open window (see Section 2.6 of the NPfI, p15), this indicates that external noise levels of L_{Amax} 60 to 65 dB(A) are unlikely to cause awakening reactions. Therefore, based on the RNP a noise level of L_{Amax} 65 dB(A) has then been used as the assessment level to determine the potential for awakening reactions.

World Health Organisation reports

As stated in the NPfI, other factors that may be important in assessing the extent of impacts on sleep, includes current scientific literature regarding the impact of maximum noise level events at night. The international organisation that reports on the current scientific literature pertaining to night-time impacts on sleep is the World Health Organisation (WHO).

The latest guidelines produced by the WHO relating to night-time impacts on sleep, were produced in 2009 and 2018. These reports mainly focus on sleep disturbance from transportation noise sources, such as aircraft, road and rail, with the 2018 guideline also providing recommendations for wind turbine and leisure noise sources. As stated in the later report, it does not provide specific recommendations for industrial activity noise due to lack of information and data.

However, given that some of the proposed operations of the Proposal, may have a similar nature and character of noise to road traffic noise, guidance and limits relating to road traffic noise are referred to in this noise and vibration impact assessment to assess potential sleep disturbance from site operations and activities.

Following the publication of community noise guidelines in 1999, the WHO released the *Night Noise Guidelines for Europe (WHO 2009)* in 2009, which uses $L_{night (outside)}$ as a primary measure of night-time noise. The $L_{night (outside)}$ is an A-weighted noise level at the most exposed facade outdoors over all night periods determined as a long-term average over a year, and is roughly equivalent to the external $L_{Aeq,9hour}$ night-time descriptor.

The report recommends a long-term $L_{night (outside)}$ noise guideline level of 40 dB(A), with an interim $L_{night (outside)}$ target level of 55 dB(A). The interim target is only intended as an intermediate step in localised situations as health impacts, particularly on vulnerable groups, are apparent at this noise level.

The report notes:

1. For $L_{Aeq(9hour)}$ (external) levels above 55 dB(A), adverse health effects occur frequently, and a sizeable proportion of the population is highly annoyed and sleep disturbed.
2. For $L_{Aeq(9hour)}$ (external) levels between 40 dB(A) and 55 dB(A), adverse health effects are observed and vulnerable groups are more severely affected.

The WHO released the latest research into sleep in 2018 as the *Environmental Noise Guidelines for the European Region: A systematic Review on Environmental Noise and Effects on Sleep* (WHO 2018). The WHO 2018 guideline recommends reducing noise levels produced by road traffic during the night-time to be below $L_{night (outside)}$ 45 dB(A), as night-time road traffic noise above this level is associated with adverse effects on sleep.

The WHO 2018 guideline does not recommend criteria in terms of single-event noise indicators or maximum sound pressure levels (e.g. L_{Amax}), because the assessment of the relationship between different types of single-event noise indicators and long-term health outcomes at the population level remains tentative. The WHO guideline therefore makes no recommendations for single-event noise indicators. Thus, the WHO guideline is restricted to long-term health effects during the night time and therefore, only includes recommendations about average noise indicators; e.g. $L_{night (outside)}$.

Sleep disturbance assessment noise levels

In accordance with the NPfl and current scientific literature, the sleep disturbance project assessment noise levels, are presented in Table 5-5 below.

Table 5-5 – Sleep Disturbance Project Assessment Noise Levels

Receiver location	Sleep disturbance project assessment noise levels, dB(A)			
	EPA NPfl sleep disturbance assessment levels, L_{Amax}	Awakening reaction ¹ , L_{Amax}	EPA NPfl sleep disturbance assessment levels, $L_{Aeq, 15min}$	WHO 2018 ² $L_{Aeq, 15min}$
All residential	52	65	40	48

Notes: 1. As per the NSW RNP

2. As per Section 2.2 of the NPfl, the WHO 45 dB(A) $L_{night (outside)}$ has been converted to a $L_{Aeq, 15min}$ level by adding 3 dB(A).

5.2 Operational Noise Sources

A summary of the plant and equipment currently being used for the operation of the site and their corresponding sound power levels are provided in Table 5-6.

Sound power levels for the plant and equipment are based on noise measurement data collected on site on Wednesday 17th July 2024. Measurements were conducted for the plant items during their typical operations on site.

Noise measurements results were analysed for tonal, low frequency or intermittent characteristics as per the methodology prescribed in Fact Sheet C of the NPfI. After accounting for acoustic shielding provided by intervening structures between the site and both residential and industrial receptors, source noise levels were not considered to be tonal, have low frequency or intermittent characteristics.

Therefore, it is not necessary to apply modifying factors to correct for the character of the noise.

It is noted that the plant and equipment listed in the table below will be mobile within the site and, for modelling purposes it is assumed that the items of plant will be moving within their respective areas within the site.

Table 5-6 – Proposed Plant and Equipment Sound Power Levels, dB(A) re.1pW

Plant Item	Plant	L _{Aeq, 15min}	L _{Afmax}
1	Truck moving	105	115
2	Truck accelerating	-	107 ¹
3	Truck decelerating	-	109 ¹
4	Hyster container handler	102	112
5	Container forklift	102	112

Notes: 1. Taken from RTA noise database

Noise emissions from mechanical services plant (e.g. air conditioning equipment) will be insignificant compared to the industrial noise sources operating on the site as listed in Table 5-6 and therefore, would not be considered for further assessment from herein.

5.3 Operational Noise Assessment

Noise emissions were predicted by modelling the noise sources, receiver locations, topographical features of the intervening area, and possible noise control treatments using CadnaA (version 2023) noise modelling computer program. The program calculates the contribution of each noise source at each specified receptor point and allows for the prediction of the total noise from a site.

- The noise prediction model takes into account:
- Location of noise sources and receiver locations;
- Height of sources and receivers;
- Separation distances between sources and receivers;
- Ground type between sources and receivers (hard – fully reflective); and
- Attenuation from barriers (natural and purpose built)

RENZO TONIN & ASSOCIATES

10 JANUARY 2025

Although the application does not include Tenancy 1A, the noise emissions from Tenancy 1A has been included in the modelling and assessment in order to provide the cumulative noise level from the entire site. As advised by the client, Tenancy 1A operates on Mondays to Fridays from 8am to 5pm, and operates 3-4 trucks per week and no heavy plant and equipment.

The following worst case scenarios have been assumed for the operation of the site for each time period:

Day

- One container handler and one container forklift operating at any one time within Tenancy 1B
- One container handler operating at any one time within Tenancy 2
- 2 trucks entering and 2 trucks leaving Tenancy 1A in the worst one hour period
- 7 trucks entering and 7 trucks leaving Tenancy 1B in the worst one hour period
- 19 trucks entering and 19 trucks leaving Tenancy 2 in the worst one hour period
- All of the above plant and equipment operating concurrently.

Evening

- One container handler operating at any one time within Tenancy 2
- 19 trucks entering and 19 trucks leaving Tenancy 2 in the worst one hour period
- All of the above plant and equipment operating concurrently.

Night

- One container handler operating at any one time within Tenancy 2
- 5 trucks entering and 5 trucks leaving Tenancy 2 in the worst one hour period
- All of the above plant and equipment operating concurrently.

Based on the proposed plant and equipment, Table 5-7 below present the predicted noise levels for the worst-case scenario described above.

Table 5-7 – Predicted $L_{Aeq, 15min}$ Operational Noise Levels at Surrounding Receiver Locations, dB(A)

Receiver Location	Project Noise Trigger Levels			Predicted Operational Noise Levels			Comply? (Yes/No)
	Day	Evening	Night	Day	Evening	Night	
R1	48	46	39	46	41	37	Yes
R2	48	46	39	48	42	38	Yes
R3	48	46	39	48	43	39	Yes
R4	48	46	39	47	43	38	Yes
R5	48	46	39	48	42	38	Yes
R6	68 (When in use)			38	36	32	Yes
R7	68 (When in use)			39	37	32	Yes
R8	68 (When in use)			33	31	27	Yes
R9	68 (When in use)			37	36	34	Yes

Table 5-7 indicates that the operational noise levels comply with the project noise trigger levels for all receivers. Therefore, no mitigation measures are required to reduce operational noise impacts.

5.4 Sleep disturbance assessment

This section assesses the potential for sleep disturbance impacts at residential receivers, specifically looking at the maximum noise levels (L_{AFmax}) associated with on-site truck movements including release of truck airbrakes and shipping container loading events.

For the assessment of sleep disturbance against $L_{Aeq, 15min}$ noise levels, reference is made to the predicted $L_{Aeq, 15min}$ noise levels presented in Section 5.3 and compared against the NPfl $L_{Aeq, 15min}$ sleep disturbance assessment levels.

In regards to the WHO 2018 sleep disturbance project assessment noise level of 48 dB(A) $L_{Aeq, 15min}$ (as presented in Table 5-5), the highest predicted night period noise level is 39 dB(A) $L_{Aeq, 15min}$, and as such comply with the WHO 2018 recommended noise level.

Predicted L_{Amax} noise levels at nearby representative receiver locations during the operation of the proposed site during the night period are presented in Table 5-8.

Table 5-8 – Predicted L_{Amax} Operational Noise Levels at Residential Receivers, dB(A)

Receiver	Night Screening Level	Awakening Reaction	Predicted Noise Level	Exceedance	
				Screening Level	Awakening Reaction
Receiver R1	52	65	59	7	-
Receiver R2	52	65	61	9	-
Receiver R3	52	65	61	9	-

RENZO TONIN & ASSOCIATES

10 JANUARY 2025

Receiver	Night Screening Level	Awakening Reaction	Predicted Noise Level	Exceedance	
				Screening Level	Awakening Reaction
Receiver R4	52	65	60	8	-
Receiver R5	52	65	61	9	-

Notes: 1. Sleep disturbance assessment based on L_{Amax} noise source of a truck decelerating

The L_{Amax} maximum noise levels from the proposed site may potentially be above the sleep disturbance screening levels at nearby residential receivers when accelerating and/or decelerating at the start of the driveway / shared path. However, L_{Amax} maximum noise levels are below the awakening reaction level of 65 dB(A).

The traffic study indicates there are 14,300 vehicles per day along Governor Macquarie Drive with a greater than 10% proportion consisting of heavy vehicles. The heavy vehicle movements generated by the proposed development would be insignificant in comparison to the heavy vehicle movements along Governor Macquarie Drive. Thus, considering the existing high volume of heavy vehicles on Governor Macquarie Drive and the varying potential L_{Amax} noise events due to the proposed development, it is concluded that the number of L_{Amax} events from onsite activities would not add significantly to the existing number of events caused by heavy vehicle movements on Governor Macquarie Drive.

6 Road Traffic Noise Impacts

6.1 Road Traffic Noise Criteria

The EPA's 'Road Noise Policy' (RNP) is used to assess the potential traffic noise impact generated from the site's operations. Table 3 – 'Road traffic noise assessment criteria for residential land uses' divides land use developments into different categories and lists the respective criteria for each case.

Based on functionality, Governor Macquarie Drive is categorised as a 'sub-arterial' road as defined in the RNP. Therefore, the appropriate traffic noise criteria for residences located along or adjacent to Governor Macquarie Drive are the 'sub-arterial' road noise criteria presented in Table 6-1 below.

Table 6-1 – RNP Road Traffic Noise Criteria, dB(A)

Road Category	Type of project/land use	Assessment Criteria, dB(A)	
		Day 7am – 10pm	Night 10pm – 7am
Freeway/arterial/sub-arterial roads	Existing residences affected by additional traffic on existing freeways/arterial/sub-arterial roads generated by land use developments	L _{Aeq} (15hr) 60 (external)	L _{Aeq} (9hr) 55 (external)

In addition to the above traffic noise criteria, the RNP states that for existing residences and other sensitive land uses affected by *additional traffic on existing roads generated by land use developments*, any increase in the total traffic noise level (where the assessment criteria cannot be achieved) should be limited to 2 dB above that of the corresponding 'no build' option.

6.2 Road Traffic Noise Assessment

The traffic study (ref: 1019_Tia_Rep01d01 dated August 202 prepared by Navianto Group) states that the existing vehicles volumes along Governor Macquarie Drive is in the order of 14,300 vehicles per day.

It is noted that vehicle movements from the proposed site would be insignificant in comparison to the AADT along Governor Macquarie Drive and therefore, the increase in road traffic noise due to traffic generated by the proposed site would be insignificant for residential properties currently experiencing traffic noise from Governor Macquarie Drive and would not result in a 2 dB increase in noise level.

7 Conclusion

Renzo Tonin and Associates has completed an environmental noise assessment of the proposed change of permitted use to a Depot for part of the site at 77 Governor Macquarie Drive, Chipping Norton.

Noise emissions from the construction phase of the project were predicted to exceed at the nearest receiver locations. In-principle feasible and reasonable noise mitigation measures are provided in Section 4.4 to limit the potential impact of noise generated by construction activities.

Noise emissions from the operational phase of the project were predicted to comply at all nominated receiver locations.

Road traffic noise impacts due to additional traffic generated by the development on residential properties along the transport route were found to be insignificant and comply with the relevant RNP criteria.

APPENDIX A Glossary of Terminology

The following is a brief description of the technical terms used to describe noise to assist in understanding the technical issues presented.

Adverse weather	Weather effects that enhance noise (that is, wind and temperature inversions) that occur at a site for a significant period of time (that is, wind occurring more than 30% of the time in any assessment period in any season and/or temperature inversions occurring more than 30% of the nights in winter).
Ambient noise	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Assessment period	The period in a day over which assessments are made.
Assessment point	A point at which noise measurements are taken or estimated. A point at which noise measurements are taken or estimated.
Background noise	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level (see below).
Decibel [dB]	The units that sound is measured in. The following are examples of the decibel readings of every day sounds: 0dB The faintest sound we can hear 30dB A quiet library or in a quiet location in the country 45dB Typical office space. Ambience in the city at night 60dB CBD mall at lunch time 70dB The sound of a car passing on the street 80dB Loud music played at home 90dB The sound of a truck passing on the street 100dB The sound of a rock band 110dB Operating a chainsaw or jackhammer 120dB Deafening
dB(A)	A-weighted decibels. The A- weighting noise filter simulates the response of the human ear at relatively low levels, where the ear is not as effective in hearing low frequency sounds as it is in hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter.
dB(C)	C-weighted decibels. The C-weighting noise filter simulates the response of the human ear at relatively high levels, where the human ear is nearly equally effective at hearing from mid-low frequency (63Hz) to mid-high frequency (4kHz), but is less effective outside these frequencies.
Frequency	Frequency is synonymous to pitch. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
Impulsive noise	Having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent noise	The level suddenly drops to that of the background noise several times during the period of observation. The time during which the noise remains at levels different from that of the ambient is one second or more.
L _{Max}	The maximum sound pressure level measured over a given period.
L _{Min}	The minimum sound pressure level measured over a given period.

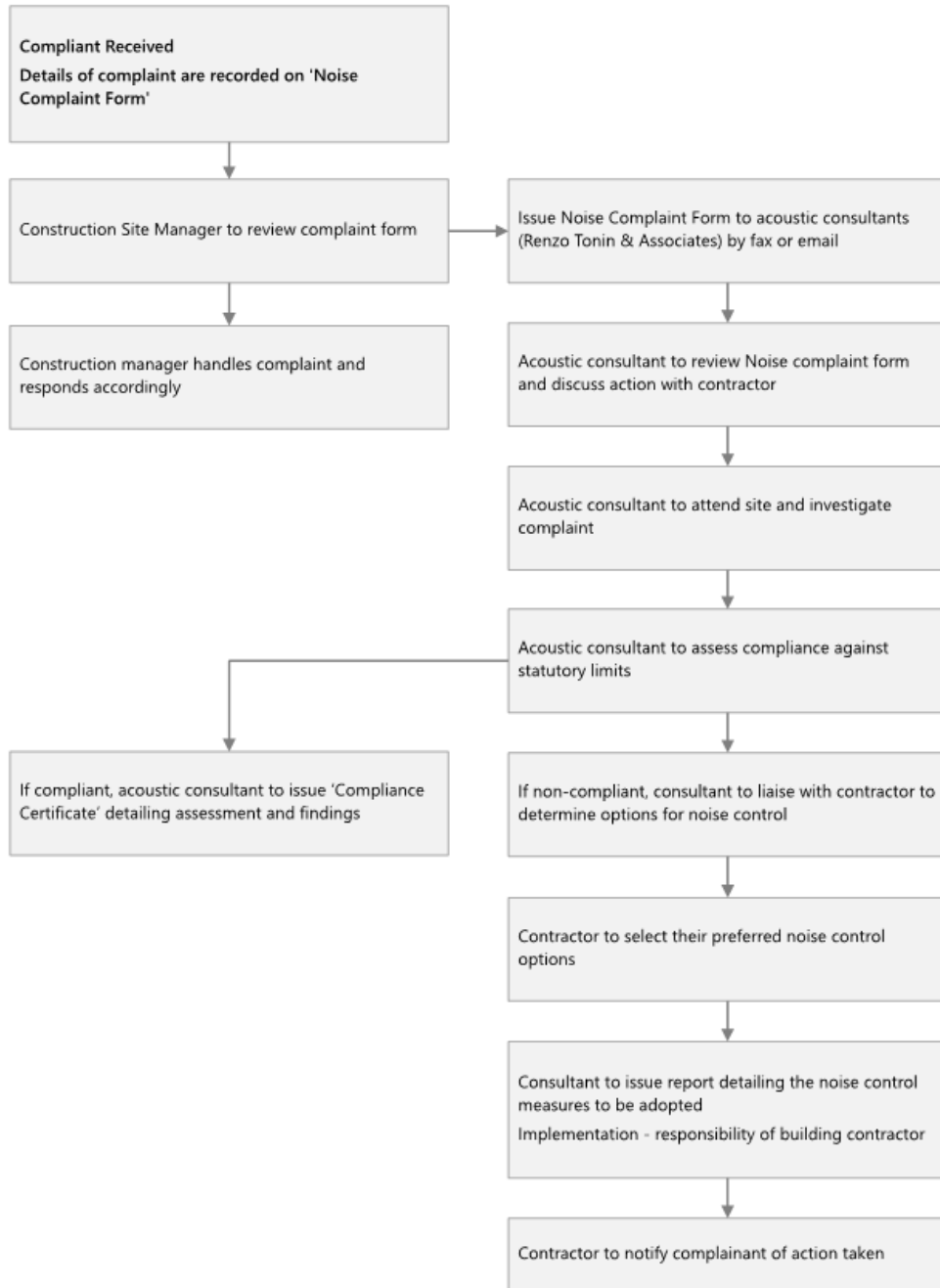
RENZO TONIN & ASSOCIATES

10 JANUARY 2025

L ₁	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.
L ₁₀	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
L ₉₀	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
L _{eq}	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time.
Reflection	Sound wave changed in direction of propagation due to a solid object obscuring its path.
SEL	Sound Exposure Level (SEL) is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain Leq sound levels over any period of time and can be used for predicting noise at various locations.
Sound	A fluctuation of air pressure which is propagated as a wave through air.
Sound absorption	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound level meter	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound pressure level	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound power level	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
Tonal noise	Containing a prominent frequency and characterised by a definite pitch.

RENZO TONIN & ASSOCIATES

10 JANUARY 2025

APPENDIX B **Noise Complaint Management Procedure**

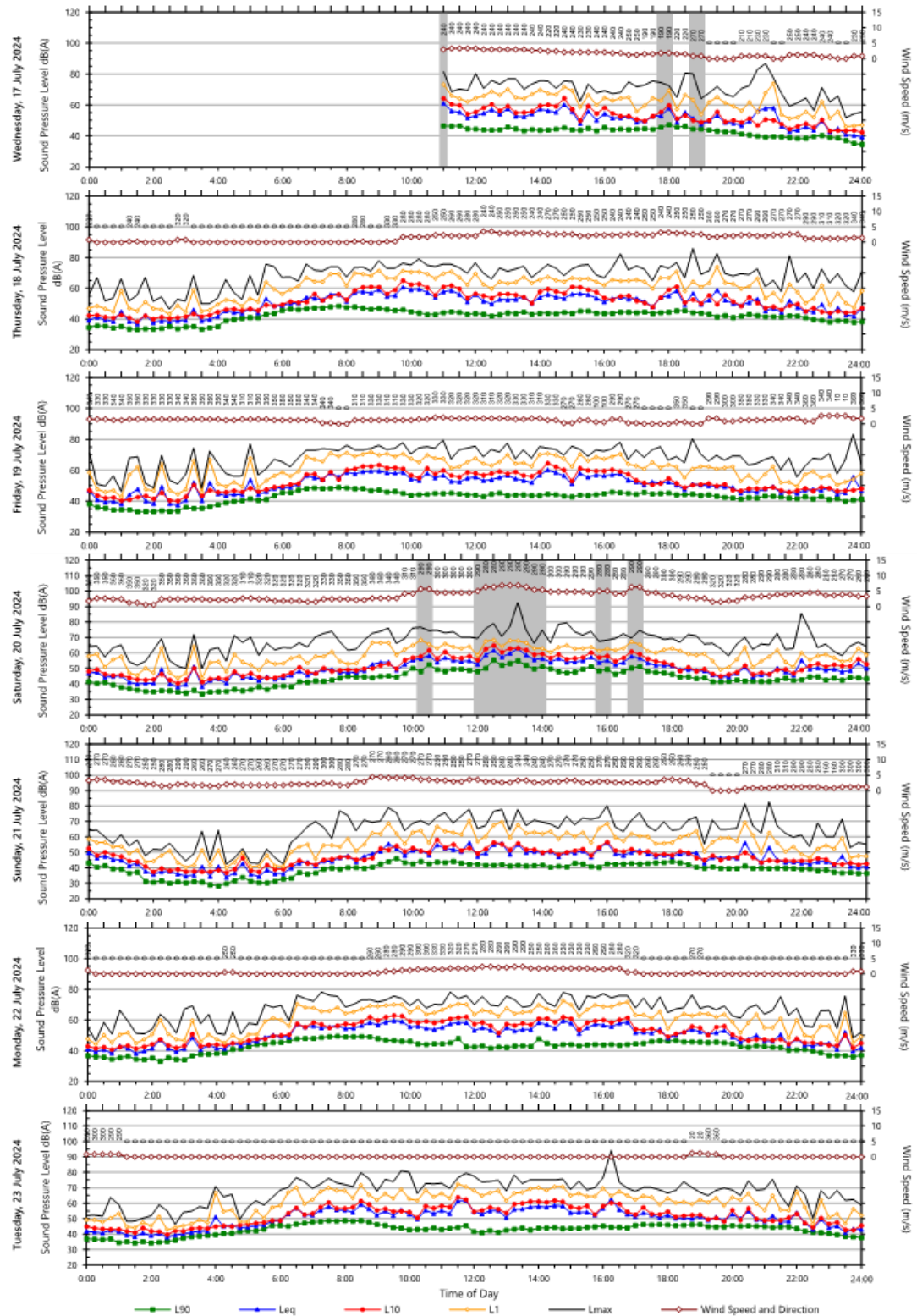
RENZO TONIN & ASSOCIATES

10 JANUARY 2025

APPENDIX C Long Term Noise Monitoring Results

Unattended Monitoring Results

Location: 56 Rugby Crescent, Chipping Norton - Front Yard

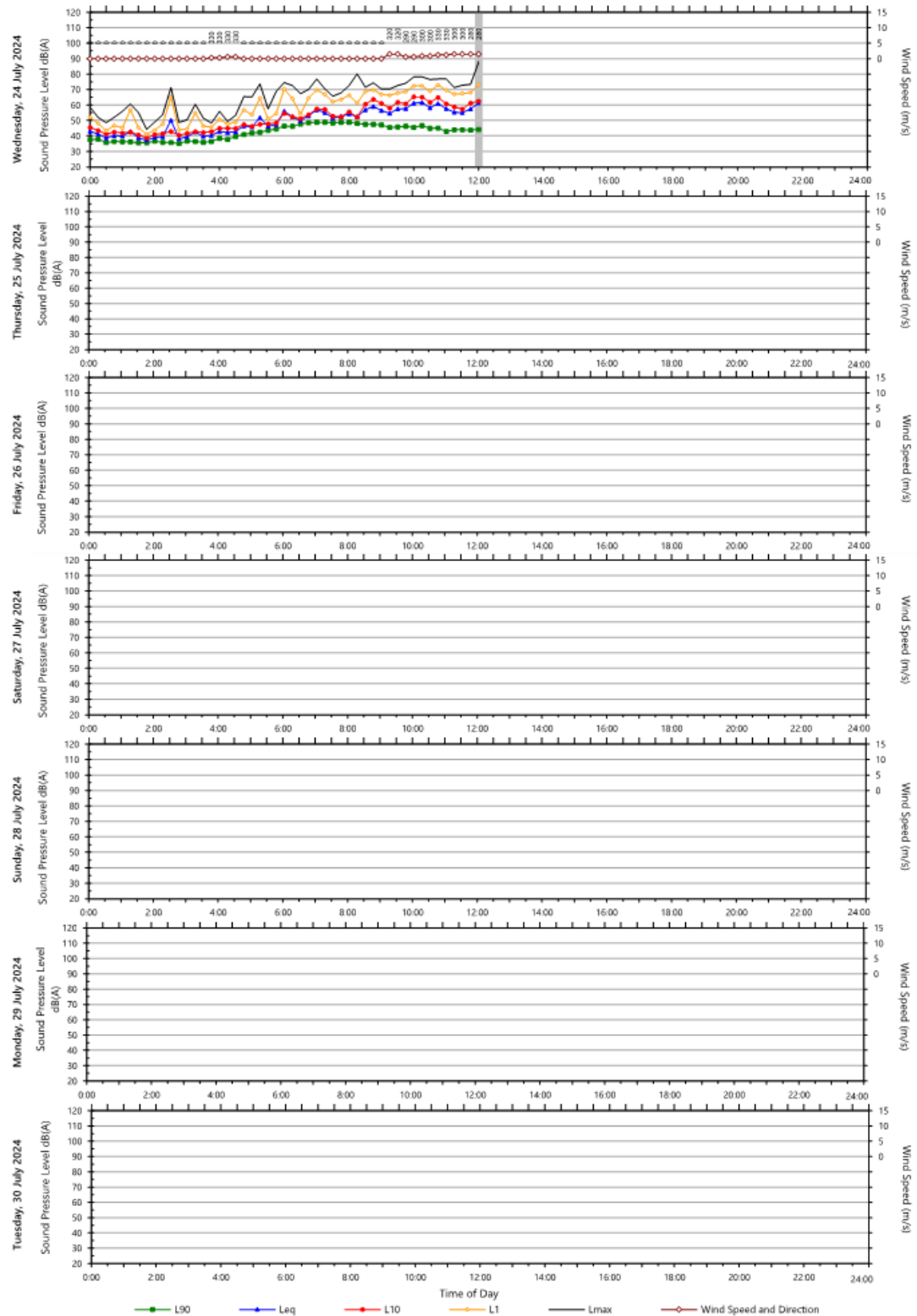


Data File: 2024-07-17_SLM_000_123_Rpt_Report.txt

Template: QTE-26 Logger Graphs Program (v46)

Unattended Monitoring Results

Location: 56 Rugby Crescent, Chipping Norton - Front Yard



Data File: 2024-07-17_SLM_000_123_Rpt_Report.txt

Template: QTE-26 Logger Graphs Program (v46)

77 Governor Macquarie Drive, Chipping Norton – Waste Management Plan

A Submission to Plan Project Management

23rd July 2024





77 Governor Macquarie Drive, Chipping Norton – Waste Management Plan

Prepared by

Mike Ritchie & Associates Pty Ltd
trading as MRA Consulting Group
ABN 13 143 273 812

+61 2 8541 6169

info@mraconsulting.com.au

mraconsulting.com.au

Version History

Ver	Date	Status	Author	Approver	Signature
0.1	26/06/2024	Draft			
0.2	28/06/2024	Review			
1	23/07/2024	Final			

Disclaimer

This report has been prepared by Mike Ritchie and Associates Pty Ltd – trading as MRA Consulting Group (MRA) – for Plan Project Management. MRA (ABN 13 143 273 812) does not accept responsibility for any use of, or reliance on, the contents of this document by any third party.

In the spirit of reconciliation MRA Consulting Group acknowledges the Traditional Custodians of Country throughout Australia and their connection to land, sea and community. We pay our respects to Aboriginal and Torres Strait Islander peoples and to Elders past, present and emerging.



Table of contents

Glossary	4
1 Introduction	5
2 Background	6
2.1 Zoning and land use	6
2.2 Strategies	7
2.3 Assumptions	7
3 Construction	9
3.1 Construction Waste	9
3.2 Waste Contractors and Facilities	1
3.3 Site Documentation	1
4 Operational Waste Management	2
4.1 Overview	2
4.2 Waste Generation and Storage Requirements	2
5 Waste Management Systems	4
5.1 Waste Management System Summary	4
5.2 Waste Management and Recycling Method	4
5.3 Management System and Responsibilities	4
5.4 Collection Method and Loading Areas	5
5.5 Waste and Recycling Storage Areas	5
5.6 Signage	5
5.7 Prevention of Pollution and Litter Reduction	6
6 References	7

List of Tables

Table 3: Waste service contractors and facilities	1
Table 10: Collection points and loading areas requirements and specification	5

List of Figures

Figure 1: Site and surrounding area	6
Figure 2: Zoning and land use	7
Figure 3: Site layout plan - waste management area	8
Figure 4: Examples of standard signage for bin uses	9
Figure 5: Example and layout of safety signage	9



Glossary

Terminology	Definition
AS	Australian Standard
C&D	Construction and Demolition
C&I	Commercial and Industrial
DA	Development Application
DCP	Development Control Plan
ENM	Excavated Natural Material
EPA	Environment Protection Authority
ILU	Independent Living Unit
LGA	Local Government Area
LDCP	Liverpool Development Control Plan 2008
LLEP	Liverpool Local Environmental Plan 2008
MGB	Mobile Garbage Bin
MRA	MRA Consulting Group
MSW	Municipal Solid Waste
VENM	Virgin Excavated Natural Material
WMP	Waste Management Plan
WSP	Waste Service Provider



1 Introduction

MRA Consulting Group (MRA) was engaged by Plan Project Management to prepare a Waste Management Plan (WMP) related to the proposed industrial development located at 77 Governor Macquarie Drive, Chipping Norton. The site is located within the Liverpool Council Local Government Area (LGA).

The proposed development includes the establishment of an industrial storage container facility.

This WMP addresses the requirements of the Consent Authority (Council) and conforms to the following environmental planning instruments and reference documents:

- Liverpool Local Environmental Plan 2008 (LLEP).
- Liverpool Development Control Plan 2008 (LDCP).

Consideration has also been given to the following supplementary documents in the preparation of the WMP:

- NSW EPA (2019) *Better Practice Guide for Resource Recovery in Residential Developments*; and
- (NSW EPA, 2012) *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities*.

The objectives of this plan align closely with those outlined in the LDCP 2008, specifically:

- a) *To minimise waste produced during demolition and construction of new development and maximise resource recovery.*
- b) *To ensure waste management for the end use of the development is designed to provide satisfactory amenity for occupants and provide appropriately designed collection systems.*
- c) *To minimise ongoing waste to landfill and maximise recycling of ongoing waste.*

This WMP guides the design of the building to achieve optimal waste management practices and foster sustainable outcomes across the construction, and operational phases of the development. It addresses waste generation and storage associated with construction activities, redevelopment, and ongoing use of the proposed facility.



2 Background

The proposed development site is identified as Lot 38 of DP 17311 according to the Liverpool Local Environmental Plan 2008, known as 77 Governor Macquarie Drive, Chipping Norton.

The proposed industrial development will include the following key features:

- Site preparation and earthworks to make way for the proposed development; and
- Construction of a container storage yard, including:
 - Hydrant services,
 - Fencing, and
 - Associated lighting.

The following is an aerial view of the site and surrounds (see Figure 1).

Figure 1: Site and surrounding area



Source: SIX Maps, 2024

2.1 Zoning and land use

The proposed development is located within a general industrial zone (refer to Figure 2) and is accessible via Governor Macquarie Drive, which connects to Newbridge Road. Although the area is predominantly industrial, it is situated in close proximity to a residential neighborhood.

Objectives of the General Industrial (E4) are outlined as follows:

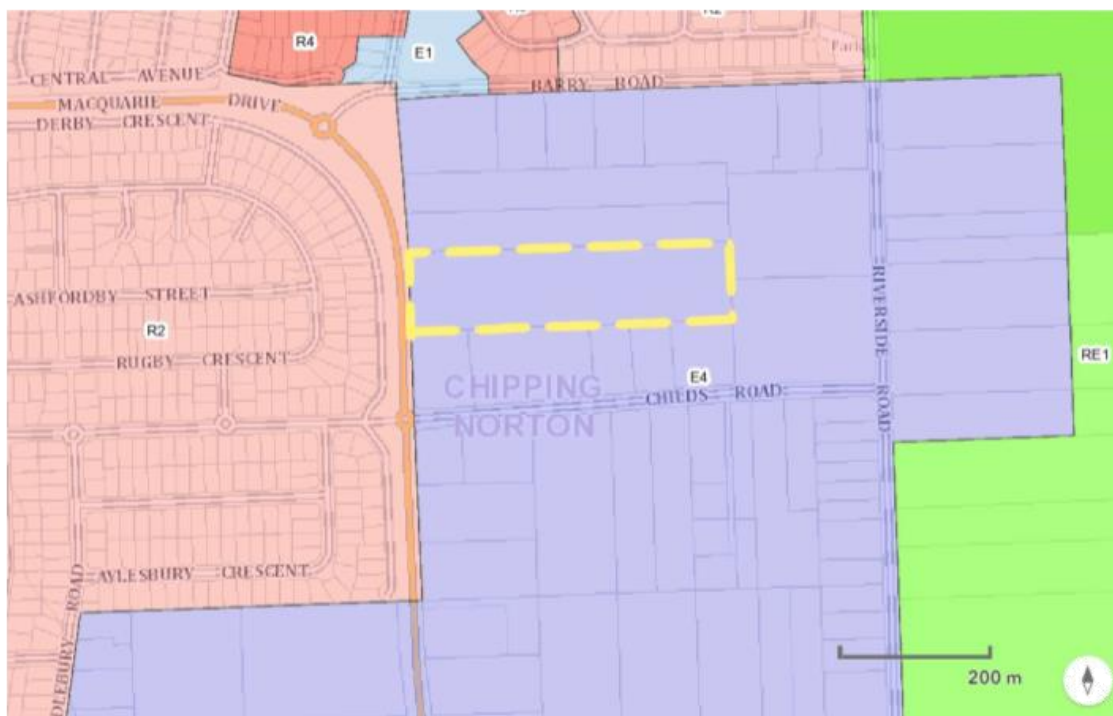
- To provide a range of industrial, warehouse, logistics and related land uses.
- To ensure the efficient and viable use of land for industrial uses.
- To minimise any adverse effect of industry on other land uses.
- To encourage employment opportunities.



- To enable limited non-industrial land uses that provide facilities and services to meet the needs of businesses and workers.
- To allow other land uses that are compatible with industry and that can buffer heavy industrial zones while not detracting from centres of activity.

The proposed development of a container storage yard is categorised as a general industrial use and is therefore consistent with the objectives of the zone.

Figure 2: Zoning and land use



Source: NSW ePlanning Spatial Viewer, 2024

2.2 Strategies

Waste management for the site considers better practice, necessary equipment, and integration with other guidance documents including the NSW Waste and Sustainable Materials Strategy (NSW EPA, 2021), and National Waste Policy: Less Waste, More Resources (DAWE, 2018). The key policy aims that are considered are:

- Avoidance (to prevent the generation of waste);
- Reduce the amount of waste (including hazardous waste) for disposal;
- Manage waste as a resource; and
- Ensure that waste treatment, disposal, recovery and re-use are undertaken in a safe, scientific and environmentally sound manner.

Management of waste generated onsite according to directives of the NSW Strategy will assist in achieving the target of 80% diversion from landfill in the C&D sector.

2.3 Assumptions

This report is a Waste Management Plan (WMP), forming part of the development documentation and assumes:



- Drawings and information that have been used in waste management planning for this WMP are the final design set for the development plan from Concept Y Architecture, dated Apr 2024;
- Waste and recycling streams and predicted volumes consider the NSW EPA's Best Practice Guideline documents, MRA's previous experience with similar facilities and operational information provided by the Client; and
- This WMP is a living document and therefore, waste management equipment and systems described in this report are subject to change based on future operations and available technology.



3 Construction

There is no demolition proposed as part of the proposed site works.

Construction activities at the site will generate a range of construction waste. Throughout the development process, all materials will be reused and recycled where possible, minimising the disposal (landfilling) of materials other than those that are contaminated or unsuitable for reuse or recycling processes.

Waste storage during construction operations will involve some stockpiling reusable material, as well as placement of wheeled bins for the separation of construction materials for recycling. A bin for residual waste or contaminated material will also be made available at the site for disposal where necessary. Bins may require alternative placement across construction operations to facilitate the safe and efficient storage of materials and will be retained within property boundaries to avoid illegal dumping.

A waste storage area shall be designated by the construction contractor and shall be sufficient to store the various waste streams expected during operations. Waste storage areas will be kept clear to maintain access and shall also be kept tidy to encourage separation of waste materials and for WHS reasons. The waste storage area will retain multiple bins to allow for source separation of waste to allow for ease of recovery and reuse of materials.

Waste management principles and procedures will be included in the site induction for all personnel working on the site.

3.1 Construction Waste

Construction works for the proposed development will involve:

- Site preparation and earthworks to make way for the proposed development; and
- Construction of a container storage yard, including:
 - Hydrant services,
 - Fencing, and
 - Associated lighting.

Table 1 outlines indicative volume to weight conversion factors for common construction materials.

Table 1: Building waste material by percentage and conversion factor for volume and weight

Building waste material	Tones per m ³	Waste as % of the total material ordered
Soil/aggregate	1.4 – 1.6	-
Bricks	1.2	5-10%
Concrete	1.5	3-5%
Tiles/ceramics	0.5 – 1	2-5%
Timber	0.3	5-7%
Plasterboard	0.2	5-20%
Metals	0.15 – 0.9	-

Source: Green Building Code of Australia C&D Waste Criteria.

Table 2 outlines the estimated waste generation rates for materials through construction of the proposed development, in addition to the appropriate management methods for each material type.



Table 2: Construction waste generation

Type of Material	Estimated Volumes (m ³)	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
Excavation material (site preparation works)	200 – 400	✓	✓	✓	<5%	>95%	Onsite: Reuse for fill and levelling. Offsite: Removed from site for reuse as recycled fill material or soil. Disposal: Removal of any contaminated material for appropriate treatment or disposal.
Bricks/pavers	< 2	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.
Concrete	150 – 200	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for filling, levelling or road base. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Tiles	< 1	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.
Timber (clean)	< 2	-	✓	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery.



Type of Material	Estimated Volumes (m³)	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
							>50% Offsite: Returned to supplier for reuse removed to C&D facility for recovery where possible.
Timber (treated)	< 2	-	✓	✓	50%	50%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier for reuse removed to C&D facility for recovery where possible.
Plasterboard	< 2	-	✓	✓	<10%	90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier or removed to a C&D/plasterboard recovery facility for recovery where possible.
Glass	< 2	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.
Metals (ferrous) Metals (non-ferrous)	< 5	-	✓	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier for reuse or removed to C&D facility for recovery and recycling.
Floor covering	< 2	✓	✓	✓	<10%	>90%	On site: to be separated wherever possible to enhance resource recovery.



Type of Material	Estimated Volumes (m³)	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
							Reuse: surplus and offcut material returned to manufacturer for reuse where possible. C&D processor: recovery and recycling.
Fixtures and fittings	< 2	✓	✓	✓	<10%	>90%	On site: to be separated wherever possible to enhance resource recovery. Reuse: surplus and offcut material returned to manufacturer for reuse where possible. C&D processor: recovery and recycling.
Packaging materials (pallets, wrap, cardboard, etc)	10 – 15	-	✓	✓	<10%	>90%	Returned to supplier where possible or separated by material type for resource recovery.
Garden organics (Vegetation)	<3m3	✓	✓	-	<10%	>90%	Garden organic waste from landscaping. Organics processor: storage on-site (from minor excavations) processing for recovered product (e.g. mulch or other blended recovered fines) or organics treatment.
Residual waste	10 - 15	-	✓	✓	100%	-	Resource recovery dependant on facility destination capability.
Total % Diversion from Landfill Estimated						>90%	



3.2 Waste Contractors and Facilities

To ensure best practice waste management, appropriate contractors and facilities have been proposed based on their location and service offerings (Table 3).

Table 3: Waste service contractors and facilities

Role	Details
Recommended Waste Collection Contractor	The following are local skip bin operators for consideration in the management of excavation and construction waste for the site: • Bingo Bins; • Empire Bins; • Aussie Industries Skip Bins; and • Mobile Skips Or another supplier as elected by the building contractor.
Principal Off-Site Recycler	The following are local C&D processing facilities for consideration in the management of C&D waste generated at the site: • Empire Bins Alexandria; • Bingo Industries Recycling Centre Artarmon Or another appropriate facility as elected by the waste management contractor.
Principal Licensed Landfill Site	• Bingo Eastern Creek Landfill Or other appropriate facility as elected by the waste management contractor.

3.3 Site Documentation

This WMP will be retained on-site during the construction phases of the development, along with other waste management documentation (e.g. contracts with waste service providers).

Responsibility for the WMP, waste documentation and processes during the excavation and construction phases will be with the site manager or builder.

A logbook that records waste management and collection will be maintained on site, with entries including:

- Time and date of collections;
- Description of waste and quantity;
- Waste/processing facility that will receive the waste; and
- Vehicle registration and company name.

Waste management documentation, the logbook and associated dockets and receipts must be made available for inspection by an authorised Council Officer at any time during site works.



4 Operational Waste Management

4.1 Overview

Operational waste management at the site will address waste generated from the daily activities of the facility. This includes waste produced by operational staff during regular business hours (approximately 6 staff). The facility is proposed to operate 24 hours a day, Monday through Friday. Given the nature of the operations, the waste generated by staff is expected to be minimal. However, consistent waste management practices will be in place to ensure sustainability and efficiency.

Ongoing waste management at the site will involve the two-bin system (general waste and commingled recycling) collected on a weekly and fortnightly schedule.

The following calculations are based off the mobile garbage bin (MGB) dimensions sourced from NSW EPA's *Better Practice Guide for Resource Recovery in Residential Developments* (2019) (Table 5).

Table 4: MGB capacity and footprint

Bin Capacity	Height (mm)	Depth (mm)	Width (mm)	Footprint (Approx. m ²)
240L	1,080	735	580	0.43
660L	1,250	850	1,370	1.16
1,100L	1,470	1,245	1,370	1.71

Source: *Better practice guide for resource recovery in residential developments* (2019).

4.2 Waste Generation and Storage Requirements

The DCP does not specify generation rates for specific industrial uses, therefore rates have considered NSW EPA's *Better Practice Guide for Resource Recovery in New Developments* (2019) as well as MRA experience with similar uses and operational information provided by the Client. Weekly waste volumes from operational staff will be consolidated into the following MGBs and collected on a weekly or fortnightly schedule as required:

- General Waste: 660L bin
- Commingled Recycling: 660L bin.

Larger 660L wheelie bins are expected to be the most suitable option for the management of general waste and recycling streams for the proposed development. Site management can observe the bin fullness levels once the site is fully occupied and adjust the number of collections accordingly.

A bin storage area has been provided to accommodate waste management infrastructure.

Based on waste generation expectations Table 5 outlines the expected bins required to manage waste generated from the proposed use, space required for the storage of bins and collection frequency per material stream.

Table 5: Site Bin and Space Requirements

Waste Stream	Bins Required	Collection Frequency	Space Allocation
General Waste	1 x 660L	Weekly	2m ²
Recycling (commingled)	1 x 660L	Weekly/Fortnightly	2m ²
Total			4m²

Bins will be positioned in a designated bin storage area near the entoffice area, as shown on site plans shown in Appendix A. A waste collection vehicle will be capable of accessing the site to service bins direct from the bin storage area.



A private waste service provider will be appropriate for servicing of the site. The waste service provider engaged to manage general waste and recycling stream will likely be able to service bulky wastes if necessary.



5 Waste Management Systems

5.1 Waste Management System Summary

The following specific management methods are proposed for the various collection waste streams expected to be generated at the site, including alternative waste streams outside of general waste, recycling and organics:

- **General Waste:** General waste shall be placed within a tied plastic bag prior to transferring into collection bins. For collection purposes, general waste shall be stored within a mobile garbage bin (MBG).
- **Commingled Recycling:** All recyclables will be stored in commingled bins (mixed plastic, paper, cardboard, glass, aluminium, steel). All recyclables should be decanted loose (not bagged) with containers un-capped, drained and rinsed prior to disposal into the recycling bin. Paper should be flattened and placed in paper and cardboard bin if applicable.
- **Paper and Cardboard:** Should large quantities of paper and cardboard waste be generated from proposed site uses a separate service may be suitable for application at the site. The contracted waste service provider may be able to provide separate paper and cardboard bins for the source separation and collection of paper and cardboard waste.
- **Other (Problem) Waste:** The disposal of hard, bulky, electronic, liquid or potentially hazardous wastes shall be organised between the operator and site users as necessary.

5.2 Waste Management and Recycling Method

The flow of **waste and recycling** goes from generation to collection through several steps:

1. Waste is temporarily stored at its point of generation in an appropriately sized receptacle, clearly marked for type of waste;
2. Site cleaners and staff are to transfer waste to the respective waste storage room for appropriate disposal into the respective bin.
3. Cleaning staff and site management are responsible for maintenance of bins and the waste storage rooms, ensuring bins are clean and in working order. Cleaning staff and site management are also responsible for switching out full bins and monitoring bin fullness;
4. Site management is to ensure contracts with Council or a private waste contractor, who also ensure appropriate collection scheduling and access is organised to minimise noise, odour, vermin, and visual amenity impacts to staff, visitors and the public.

5.3 Management System and Responsibilities

The site manager will be responsible for the management of waste at the site. Should there be any issues that impact on the operational efficiency, safety and suitability of waste management, management will be responsible for making any necessary changes, responsibilities include:

- Using this WMP to inform waste management operations, design and infrastructure;
- Providing educational materials and information on sorting methods for recycled waste, awareness of waste management procedures for waste minimisation and resource recovery;
- Maintaining a valid and current contract with a licensed waste service provider for waste and recycling collection and disposal;
- Making information available to residents and visitors about waste management procedures;
- Organising, maintaining and cleaning bins as part of a regular maintenance schedule;
- Manoeuvring bins to specified onsite collection point prior to and following scheduled collection of waste bins;
- Organising bulky waste collections as required;
- Ensuring bin allocation and waste/recycling collection frequency is adequate. Requesting additional infrastructure or services where necessary; and



- Monitoring any vermin and pest issues and arranging appropriate controls (traps or fumigating) and maintenance of doors or other points of potential entry.

5.4 Collection Method and Loading Areas

The site proposes on-site waste collection by a private contractor. Table 6 provides further information related to collection points and servicing requirements.

Table 6: Collection points and loading areas requirements and specification

Component	Requirement	Specification
Collection point	Allow safe waste collection and loading operations	- Adequate clearance and manoeuvring space; - Sufficient clearance for the safe handling of materials and equipment; and - Sectioned loading bay does not impede upon traffic and pedestrian safety.
Vehicle manoeuvring and loading space	Truck space for adequate lift clearance, manoeuvring and operation for a contractor collection vehicle	- Collection from each site use loading area by a rear lift collection vehicle; - Adequate loading bay dimensions to not impede lift clearance; - Operational clearance for truck manoeuvring in a forward direction; and - The provision of space clear of vehicle parking spaces (level and free of obstructions).
Operating times	Appropriate collection times to limit noise and traffic disturbance	- Collection times will be arranged during off-peak times to ensure minimal disturbance to operations and surrounding residential development.

5.5 Waste and Recycling Storage Areas

The waste areas will provide centralised storage that has adequate capacity to receive and store the maximum likely generation of waste and recycling between collection times. In accordance with the DCP, it is recommended the bin storage areas be designed with the following considerations:

- Storage areas reflect the equipment, infrastructure, manoeuvring space and potential future needs of the development;
- Be located in a position that is convenient for users and waste collection staff; and
- All waste and recycling storage areas and access paths to be kept clean and free of obstructions.

5.6 Signage

Signage that promotes resource recovery, waste minimisation, safety and amenity follows the Australian Standard for safety signs for the occupational environment (Standards Australia, 1994).

Signage will be designed to consider language and non-English speaking backgrounds, vision impairment and accessibility. Illustrative graphics must form a minimum 50% of the area of the signage. Signage is to be prominently posted in the waste room indicating:

- Details regarding acceptable recyclables;
- Recyclables are to be decanted loose (not bagged);
- *No standing* and *danger* warnings apply to the area surrounding the waste storage area;
- Contact details for arranging the disposal of bulky items; and
- The area is to be kept tidy.

Standard signage requirements and guidance for application apply (see Appendix B).



5.7 Prevention of Pollution and Litter Reduction

To minimise dispersion of litter and prevent pollution (to water and land via contamination of runoff, dust and hazardous materials), building management and the site cleaning staff will also be responsible for:

- Maintenance of open and common site areas;
- Ensuring waste areas are well maintained and kept clean;
- Securing the waste storage area from vandalism and the escape of litter;
- Identification and appropriate disposal of goods with hazardous material content (paints, e-waste, fluorescent tubes);
- Taking action to prevent dumping and unauthorised use of waste areas; and
- Requiring contractors to clean up any spillage that may occur during waste servicing or other work.



6 References

Australian Department of Sustainability, Environment Water, Population and Communities (2011) Construction and Demolition Waste Guide - Recycling and Re-use Across the Supply Chain.

Australian Standards 4123.7 Mobile Waste Containers.

Liverpool Development Control Plan 2008

Liverpool Local Environmental Plan 2008

NSW EPA (2012) Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities.

NSW EPA (2021) NSW Waste and Sustainable Materials Strategy 2041.

NSW EPA (2014) Waste Classification Guidelines.

NSW EPA (2016) Recycling Signs, Posters and Symbols. Available at: <http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm>.

NSW EPA (2019) Better Practice Guide for Resource Recovery in Residential Developments.

NSW Government (1979) Environmental Planning and Assessment Act.

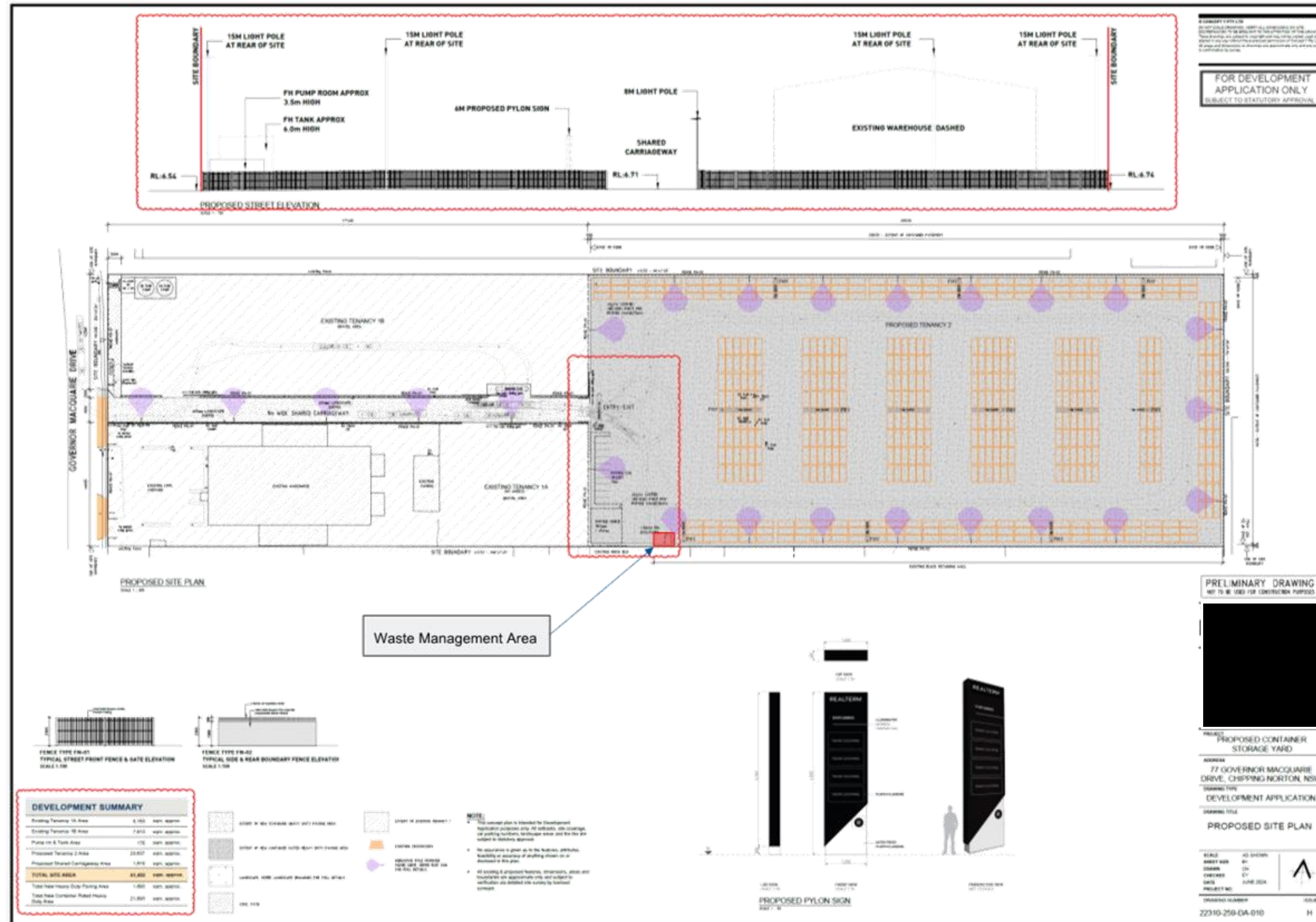
NSW Government (1997) Protection of the Environment Operations Act.

NSW Government (2000) Environmental Planning and Assessment Regulation.

NSW Government (2001) The Waste Avoidance and Resource Recovery Act

Appendix A Site Plans

Figure 3: Site layout plan - waste management area



Source: Concept Y, 2024.

Appendix B Standard Signage

Waste Signage

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the NSW EPA.

Standard symbols for use in signage, bin facade and educational materials are promoted through the NSW Environment Protection Authority. They are available for download from the NSW EPA website (NSW EPA 2016b), in black and white and colour versions. The Australian Standard series AS 4123 (Part 7) details colours for mobile waste containers (Standards Australia 2008).

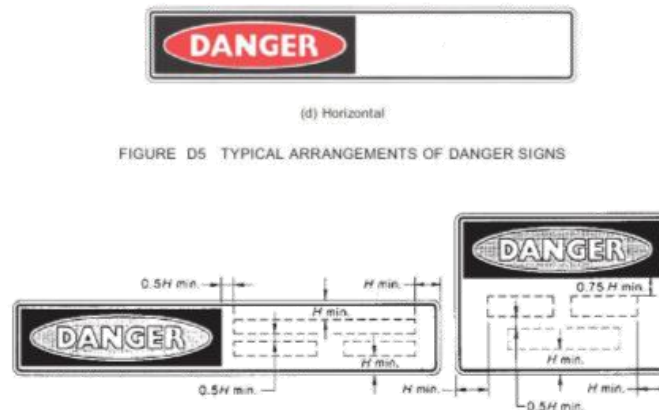
Figure 4: Examples of standard signage for bin uses



Safety Signs

The design and use of safety signs for waste and recycling rooms and enclosures should comply with AS 1319 (Standards Australia 1994). Safety signs should be used to regulate, and control safety related to behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Clear and easy to read 'NO STANDING' and 'DANGER' warning signs must be fixed to the external face of each waste and recycling room where appropriate.

Figure 5: Example and layout of safety signage



MRA Consulting Group



+61 2 8541 6169
info@mraconsulting.com.au
mraconsulting.com.au



WILLOWTREE PLANNING



10 April 2025

REF: WTJ24 - 142

Liverpool City Council
Locked Bag 7064
Liverpool BC
NSW 1871

RE: DEVELOPMENT APPLICATION FOR PROPOSED CHANGE OF USE TO A DEPOT FOR PART OF THE SITE AND MINOR ADDITIONAL WORKS (DA439/2024)

PROPERTY AT: 77 GOVERNOR MACQUARIE DRIVE, CHIPPING NORTON

Dear Joseph,

This letter has been prepared by Willowtree Planning Pty Ltd (Willowtree Planning) on behalf of [REDACTED]. This letter includes our response to Liverpool City Council's request for the applicant to address Clause 7.41(1) of the Liverpool Local Environmental Plan 2008. The relevant clause is provided below:

7.41 Certain developments in Zones E4 and E5

*(1) **Depots in Zones E4** If development for the purposes of a depot is permitted under this Plan on land identified as "Area B" on the Land Zoning Map, the total site area must not exceed 2,000 square metres.*

In addition to the above, **Figure 1** below illustrates the location of "Area B" on the Land Zoning Map in the context of 77 Governor Macquarie Drive, Chipping Norton (the Site).

ACN: 146 035 707 ABN: 54 146 035 707
Suite 204, Level 2, 165 Walker Street
North Sydney NSW 2060

enquiries@willowtp.com.au
willowtreeplanning.com.au
02 9929 6974



SYDNEY | BRISBANE

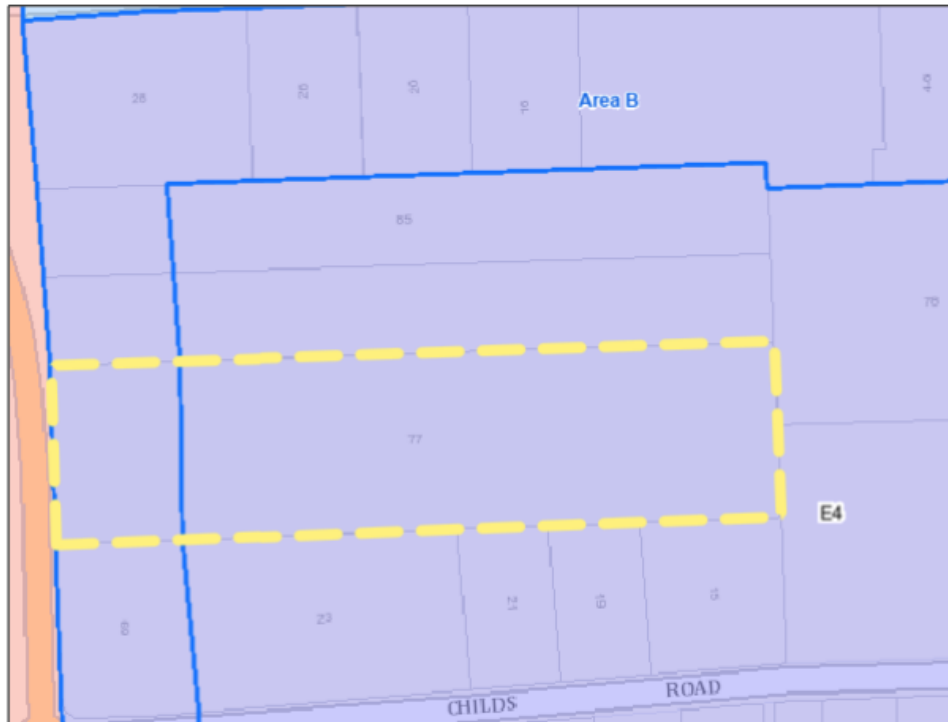


Figure 1: Extract of the Land Zoning Map and "Area B" affectation at the Site (Source: NSW Planning Portal Spatial Viewer)

As can be seen, "Area B" impacts a small portion of the front of the Site, with the balance of the Site at the rear remaining unaffected.

It is noted that the application before Council is for the proposed change of use to a depot for part of the Site and minor additional works. The Site is existing and no change is proposed to the total site area as part of the current application. The Statement of Environmental Effects submitted in support of the application has demonstrated that any impacts associated with the application can be appropriately mitigated. Having regard for the above, it is considered that Clause 7.41 does not reasonably apply to the current application.

Should you have any questions in relation to the above, please do not hesitate to contact me on ph.

[Redacted]

Your sincerely,

[Redacted Signature]

Director
Willowtree Planning Pty Ltd

