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RAPISARDA HOLDINGS PTY LTD

Acid Sulfate Soil Management Plan

183 Macquarie Street, Parramatta NSW

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1. Introduction

1.1 Background

EI Australia (EI) was engaged by Rapisarda Holdings Pty Ltd to prepare an Acid Sulfate Soils Management Plan (ASSMP) for the property located at 183 Macquarie Street, Parramatta NSW ('the site').

The site is located 1 km south-east to the Parramatta central business district (CBD), within the local government area (LGA) of City of Parramatta Council (**Figure 1**, **Appendix A**). It comprises one cadastral allotment, identified as Lot A in Deposited Plan (DP) 375159, covering an area of 497 m^2.

This report has been prepared to assist with management of acid sulfate soils (ASS), should it be encountered during the proposed redevelopment of the site and will be submitted in support of a Development Application (DA) to City of Parramatta Council . It enables the developer to meet obligations under the *Contaminated Land Management Act 1997* and *State Environmental Planning Policy (Resilience and Hazards) 2021*.

1.2 Proposed Development

Based on the supplied documents (**Appendix B**), the proposed development will involve the construction of a thirteen-storey mixed-use development overlying a single-level basement. The lowest basement level is proposed to have a finished floor level (FFL) of RL 2.8 metres Australian Height Datum (mAHD). A Bulk Excavation Level (BEL) of RL 2.5 mAHD is assumed, which will require excavation depths of about 3.5 metres below existing ground level (mBGL). Locally deeper excavations may be required for footings, lift overrun pits, crane pads, and service trenches.

1.3 Project Objectives

The objective of this ASSMP is to provide the framework for the management and monitoring of the impacts of Acid Sulfate Soils (ASS), throughout the construction and operation phases of the project, in accordance with the *Acid Sulfate Soils Manual* (ASSMAC, 1998).

1.4 Scope of Works

To achieve the above objectives, the scopes of works are as follows:

- Summary of previous investigations (if any);
- A description of the soil attributes of the site;
- A description of the potential impacts caused by the proposed construction activities;
- A description of the measures and procedures to be undertaken in the ASS area which when implemented will prevent, control or minimise the generation or escape of acid leachate into the surrounding environment;
- A focussed monitoring program covering soils, surface waters, and groundwater;
- A description of the contingency procedures to be implemented in the case of failure of management procedures; and
- A record of consultation with co-ordinating authorities.

2. Desktop Review

2.1 Property Identification, Location and Physical Setting

The site identification details and associated information are presented in **Table 2-1**, while the site locality is shown in **Figure 1**.

Table 2-1 Site Identification, Location and Zoning

Attribute	Description
Street Address	183 Macquarie Street, Parramatta NSW
Location Description	The site is bound by: North: Macquarie Street, followed by commercial properties; South: Residential and commercial properties (south), East: commercial properties and an on-ground parking area; and West: Two-storey commercial / residential properties.
Site Coordinates	North-eastern corner of site (GDA2020-MGA56): Easting: 315776.805 Northing: 6256396.434 (Source: http://maps.six.nsw.gov.au).
Site Area	497m² (**Appendix B**)
Lots and Deposited Plans (DPs)	Lot A in DP375159 (Source: http://maps.six.nsw.gov.au).
Local Government Authority	City of Parramatta
Current Zoning	MU1: Mixed Use (*Parramatta Local Environmental Plan 2023*)
Brief Site Description	Based on a previous investigation (EI, 2023a) the site was previously used for residential purposes since at least 1943. It has recently been vacant (undeveloped) land used for vehicle parking.

2.2 Regional Setting

Local topography, geology, soil landscape and hydrogeological information are summarised in **Table 2-2**.

Table 2-2 Topographical, Geological, Soil Landscape and Hydrogeological Information

Attribute	Description
Topography	The site gently down slopes to the north-east. Relative elevations of the ground surface are 7-8 mAHD (**Appendix B**).
Site Drainage	Site drainage is likely to consist of mostly surface infiltration. Any run off would be expected to flow in a north-easterly direction towards the municipal stormwater pits on Macquarie Street, then Parramatta River (consistent with the general slope of the site).
Regional Geology	According to the Department of Mineral Resources *Sydney 1:100,000 Geological Series Sheet 9130* (DMR, 1983), the site is underlain by Ashfield Shale (*Rwa*) of the Wianamatta Group, consisting of black to dark-grey shale and laminate.

Attribute	Description
Soil Landscape	The Soil Conservation Service of NSW *Soil Landscapes of the* Sydney *1:100,000 Sheet* (Chapman and Murphy, 1989) indicates that the site overlies a Birrong (*bg*) fluvial landscape. This landscape is characterised by level to gently undulating alluvial floodplain draining Wianamatta Group shales.
Soil Profile	As per the previous Geotechnical Investigation (EI, 2022), the subsurface strata typically were considered to be gravelly sand fill, overlying alluvial silty and sandy clay, residual silty clay, followed by shale.
Depth to Groundwater	As per the Groundwater Monitoring Report (EI, 2023b), groundwater elevations ranged from 1.30 – 1.47 mAHD.
Nearest Surface Water Feature	Clay Cliff Creek, approximately 170m south-east of the site; and Parramatta River, approximately 300m north-east of the site.
Anticipated Groundwater Flow Direction	Groundwater flow direction in the vicinity of the site is inferred to be in a north-easterly direction, towards Parramatta River.

2.3 Acid Sulfate Soils

Acid Sulfate Soils (ASS) are naturally occurring sediments containing iron sulphides. Sediments containing ASS may have been deposited in estuarine conditions previously existing in the general area of the subject site. As ASS comprise natural geological materials, their occurrence is not related to site boundaries or anthropogenic contamination, but rather extend across areas/regions previously suitable for their deposition.

When ASS are exposed to air (e.g. due to bulk excavation or dewatering), oxygen reacts with iron sulphides in the sediment, producing sulphuric acid. This acid can sometimes be produced in large quantities and drain into waterways causing severe short and long term socio-economic and environmental impacts, including damage to manmade structures and natural ecosystems.

ASS can either be classified as actual acid sulphate soils (AASS) within which are materials that have already reacted with oxygen to produce acid, or potential acid sulfate soils (PASS) with which are materials that contain iron sulphide, but have not been exposed to oxygen (e.g. soils below the water table) and therefore have not produced sulphuric acid (although they have the potential to do so).

2.4 Acid Sulfate Soil Risk Map

With reference to the Prospect / Parramatta Acid Sulfate Soil Risk Map (1:25,000 scale; Chapman and Murphy, 1989), indicated that the site lies on the border of areas of '*No Known Occurrence'* and '*X4: Disturbed Terrain'*. The disturbed terrain may include filled areas, which often occur during reclamation of low lying swamps for urban development. Other disturbed terrain includes areas which have been mined or dredged, or have undergone heavy ground disturbance through general urban development or construction of dams or levees. Soil investigations are required to assess these areas for acid sulfate potential.

Also, in accordance with Parramatta Local Environmental Plan 2023 and Acid Sulfate Soils Planning Maps, the site lies within Acid Sulfate Soils *Class 4*. For properties in a *Class 4* area, any works that extend beyond 2 metres below the natural ground surface, or are likely to lower water table beyond 2 metres below the natural ground surface, there is a requirement for development consent and ASS assessment.

Mapped ASS zones in relation to the site are presented in **Figure 2.1** below.

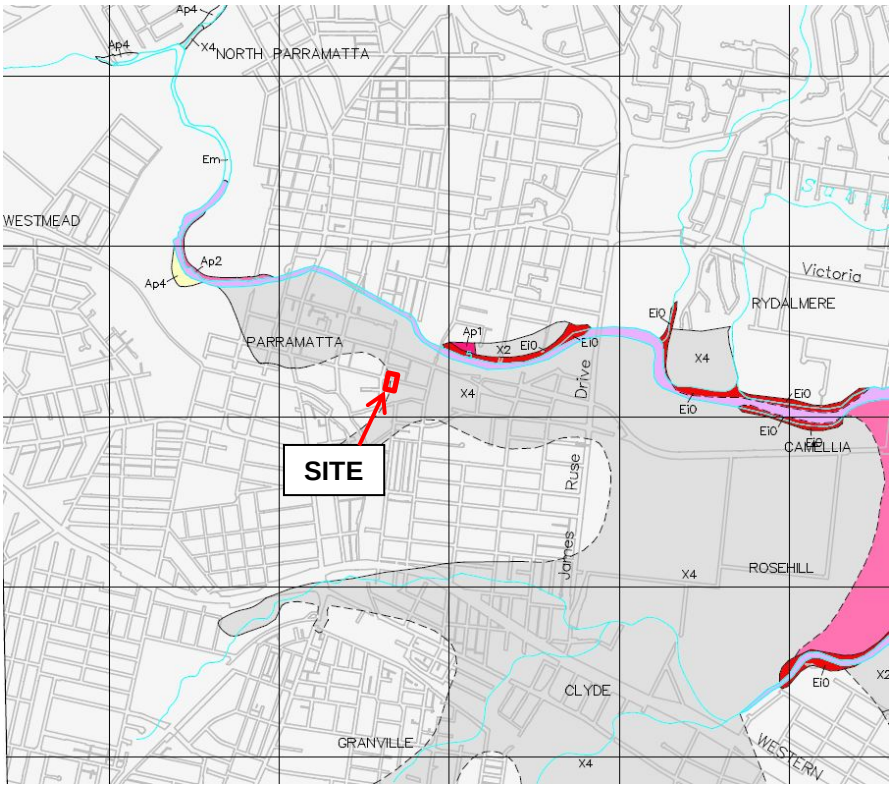

Figure 2-1 Acid Sulfate Soil Zones (DLWC, 1989)

2.5 Previous Investigations

The following reports have previously been completed by EI and the relevant information is summarised below:

- EI (2022) *Geotechnical Investigation, 183 Macquarie Street, Parramatta NSW*, Ref. E25770.G03, dated 7 October 2022;
- EI (2023a) *Preliminary Site Investigation, 183 Macquarie Street, Parramatta NSW*, Ref. E25770.E01_Rev1, dated 13 June 2023;
- EI (2023b) *Groundwater Monitoring Report No.1, 183 Macquarie Street, Parramatta NSW*, Ref. E25770.G11.01, dated 12 October 2023; and
- EI (2024) *Finite Element Analysis for TfNSW, 183 Macquarie Street, Parramatta NSW*, Ref. E25770.G06_Rev1, dated 16 May 2024.

EI (2023a) established that there was a low potential for contamination to exist on the site and that it was suitable for the proposed development. It was concluded that since the proposed development will consist of bulk excavation of soils across the majority of the site, any contamination present will be investigated and removed off-site during waste classification process

EI (2022) identified the sub-surface conditions to generally comprise of gravelly sand and silty clay fill (1.0 to 1.6 m thickness), overlying natural alluvial silty and sandy clays (3.2 to 3.8 m thickness), residual silty clays (1.0 to 2.4 m thickness), followed by shale bedrock. Groundwater seepage was only identified in borehole BH3 at 4 mBGL (or RL 2 mAHD).

Subsequent groundwater monitoring by EI (2023b) undertaken at monitoring well BH1M reported groundwater levels between RL 1.47 to 1.3 mAHD. EI concluded that groundwater levels are situated below the BEL (RL 2.5 mAHD) and the hydrogeological condition of the site will remain unaffected by the proposed excavation and construction (EI, 2024).

3. Acid Sulfate Soils Risks, Impacts & Management

3.1 Acid Sulfate Soils Assessment

An Acid Sulfate Soils Assessment (ASSA) is required prior to excavation works to ensure ASSs are not present within site soils. Soil materials onsite will be assessed for acid sulfate soils through pH (field) and pH (fox) analysis as a preliminary indicator. If the preliminary screening results are indicative of acid sulfate soils, supplementary assessment will be conducted by the Chromium Reducible Sulfur (S_{CR}) and/or Suspension Peroxide Oxidation Combined Acidity and Sulphate (SPOCAS) analytical method, which will determine ASS risk, and establish required rates of liming for neutralisation purpose.

At least four sampling locations are required for sites up to 1 hectare (ASSMAC, 1998). Soil and/or sediment samples should be collected at 0.5 m increments and at recognised soil horizon changes during advancement. Sampling will be conducted 1.0m below the maximum depth of excavation or until bedrock is encountered. Soils should be assessed in the field with regard to indicators of ASS by an experienced and qualified Environmental Scientist / Engineer. Such indicators may include some or all of the following:

- Dark blue/grey (sometimes black) clays/sands;
- Mottled or blotched yellow colouring within natural soils;
- Remnants of plants/grasses/shells within natural soils;
- A ‘rotten eggs’ type odour may emit from the soils; and
- A field pH of <4.0.

3.1.1 Action Criteria

ASSMAC (1998) provides action criteria that trigger management requirements for ASS, and these action criteria are broken down into three broad texture categories, as identified in **Table 3-1**. For this site, the action criteria for disturbance of more than 1000 tonnes of fine textured materials are to be adopted.

Table 3-1 Summary of ASSMAC (1998) Action Criteria

Texture	Approximate Clay Content	Sulphur Trail (Spos%)	Acid Trail TPA /TSA (Mol H+/tonne)
< 1000 Tonnes of Material Disturbed			
Coarse Texture Sands to Loamy Sands	<5.0%	0.03	18
Medium Texture Sandy Loams to Light Clays	5-40%	0.06	36
Fine Texture Medium to Heavy Clays and Silty Clays	>40%	0.1	62

Texture	Approximate Clay Content	Sulphur Trail (Spos%)	Acid Trail TPA /TSA (Mol H+/tonne)
> 1000 Tonnes of Material Disturbed			
Coarse Texture Sands to Loamy Sands	<5.0%	0.03	18
Medium Texture Sandy Loams to Light Clays	5-40%	0.03	18
Fine Texture Medium to Heavy Clays and Silty Clays	>40%	0.03	18

For environmental protection purposes, the highest result from either the sulfur or the acid trail are to be used to confirm the presence of ASS (i.e. to determine if further action, or management, is required), unless mitigating factors apply (e.g. the quantity, fineness and reactivity of neutralising material, such as shell).

Following collection and interpretation of the additional ASS information, handling and management measures described in the following sections should be reviewed and amended by the environmental consultant to ensure that most satisfactory methods are proposed for soil disturbance works.

3.2 Extent of Soil Disturbance during Proposed Redevelopment

It is understood that the site redevelopment involves the construction of thirteen-storey mixed-use development overlying a single-level basement.

The following activities may therefore have an impact on PASS (should it be present):

- Disturbance or exposure of soils and sediments during bulk (basement) excavation;
- Piling works; and
- Localised groundwater dewatering (if required).

3.3 Potential Environmental Impacts

The site lies within the Class Description of disturbed terrain and categorized as *Class 4* ASS area. EI consider there is a risk of encountering actual ASS (AASS) and / or potential ASS (PASS) in deeper soils.

Soils identified as ASS will require appropriate management (see **Section 3.4** to **Section 3.9**) to minimise environmental impacts that are likely caused by soil and groundwater disturbance during the construction activities.

Soil management options commonly adopted for ASS comprise (WA DER, 2015):

- Avoidance, or minimisation of ASS disturbance;
- Soil neutralisation (typically with lime);
- Strategic reburial under water; and
- Off-site ASS treatment and disposal.

The following issues will need to be considered during construction in a potential ASS environment:

- Exposure and oxidation of excavated (stockpiled) material and generation of acid leachate;
- Release of acidic surface and groundwater(s) during the excavation; and
- Ongoing oxidation of excess ASS generated by excavations and consequential generation of acidic groundwater.

The extent of any associated adverse impacts will depend on the following factors:

- Volume of excavated soil identified as being ASS;
- Physical characteristics of the ASS, such as grain size and natural buffering capacity;
- Time that ASS are exposed to air; and
- Rate of oxidation and transport of the oxidation products.

Effective control of these potential impacts will rely on adequate identification and appropriate management, including a monitoring program. An effective monitoring program, combined with planned maintenance and appropriate contingencies, will ensure there is no incremental contribution of acid leachates during construction.

Should ASS be identified in materials to be excavated, all disturbed ASS should either be neutralised and disposed off-site to a licensed facility, or disposed to a licensed waste handling facility and placed below the water table. Management and treatment requirements are further discussed in **Section 3.4** to **Section 3.9**. No ASS should be used for structural or general filling above the groundwater table without prior neutralisation and validation of successful neutralisation.

Inadequate identification, management, and monitoring will result in detectable incremental impacts. Many aquatic and marine organisms are extremely sensitive to acid drainage; as a result, the acid leachates released may have serious environmental impacts including:

- Aluminium and iron dissolved in acid leachates can be poisonous to both aquatic and terrestrial life forms;
- Sulfate salts released can increase the salinity of freshwater; and
- Acidic sediment may “fix” phosphates and other nutrients which prevents their uptake by plants.

3.4 Disposal of Potential Acid Sulfate Soils below the Water Table

In accordance with the EPA (2014) *Waste Classification Guidelines Part 4: Acid Sulfate Soils*, potential ASS may be disposed of in water below the permanent water table, provided:

- This occurs before they have had a chance to oxidise, i.e. within 24 hours of excavation;
- They meet the definition of ‘virgin excavated natural material’ (VENM) under the *Protection of the Environment Operations Act 1997*, even though they contain sulfidic ores or soils; and
- Landfills must be licensed by NSW EPA to dispose of potential ASS below the water table.

Potential ASS must be disposed of within 8 hours of their receipt at a landfill and kept wet at all times until their burial at least 2.0 metres below the lowest historical level of the water table at the disposal site. It is understood that PASS will either be disposed below the water table at the

lawfully receiving landfill facility, or treated onsite, classified based on the Waste Classification Guidelines 2014 and disposed of offsite to licensed facility to receive such material.

3.4.1 Process for Excavation of PASS

Excavation shall proceed in stages, as follows:

- The site surface shall be stripped and prepared; any existing fill materials shall be excavated and removed or stored separately in covered stockpiles;
- Surface fill shall be stripped and removed and care must be taken to ensure that no surface fill material is mixed with PASS material below. The sides of the excavation shall also be stripped a further 200 mm laterally to ensure potential fill soils do not fall into the pit and cross contaminate PASS materials below;
- Once fill material is removed, the surface shall be inspected by a qualified environmental consultant and a representative of the receiving landfill facility, prior to excavation of PASS;
- When surface clearance is granted, PASS materials shall be excavated to the required depth and loaded directly onto waiting trucks. Each truckload shall be inspected and verification testing for pH shall be carried out to confirm soil pH does not fall below pH 5.5 prior to leaving the site; and
- Verification testing is required to demonstrate that materials with existing acidity are not being reburied. Should field pH fall below pH 5.5, the materials from that truck are to remain on-site and lime neutralisation techniques are to be implemented, as discussed in **Section 3.5**.

3.4.2 Transportation

Transport of PASS material to the receiving landfill facility shall take place immediately. If this is not possible, PASS soils shall be stockpiled and immediately covered. Stockpiled PASS materials must leave the site within 12 hours of excavation otherwise lime neutralisation techniques shall proceed as discussed in **Section 3.5**.

3.4.3 Documentation

Documentation must be provided to the occupier of the landfill for each truckload of PASS received, indicating that the soil excavation, transport and handling have been in accordance with ASSMAC (1998), thus preventing the generation of acid.

The occupier of the disposal site must also test the pH of each load of soil received immediately prior to its placement under water using the test method(s) in ASSMAC (1998) (Methods 21A and/or 21AF). These details, together with the pH of the soil recorded at the time of its extraction, must be retained by the occupier of the landfill site.

Soil that has dried out, undergone any oxidation of its sulfidic minerals, or which has a pH of less than pH 5.5 must be treated by neutralisation and disposed of at a landfill that can lawfully accept it.

The pH of the water at the landfill into which the potential ASS is placed must not be less than pH 5.5 at any time. Landfill licence conditions require the occupiers of potential ASS disposal sites to regularly monitor the pH of ground and surface waters at their premises.

3.5 Disposal of Potential Acid Sulfate Soils above the Water Table

The total volume of PASS to be excavated or disturbed during the development program shall be stockpiled separately within designated areas, and treated (limed) immediately. More specifically, the management procedures are:

- For treatment of large volumes of material by mechanical application of neutralisation materials, treatment should be carried out on a treatment pad, with adequate sediment erosion control measures in place;
- Excavated PASS shall be stockpiled upon the treatment pad area. The treatment pad should consist of a minimum 300 mm thickness of compacted crushed limestone, or other appropriate neutralisation material. The level of compaction used should produce an appropriately low permeability base to prevent infiltration of leachate. The treatment pad should be bunded with a minimum 150 mm high perimeter of compacted, crushed limestone to contain potential leachate runoff within the treatment pad area and prevent surface water runoff from entering the treatment pad area. Lime shall be spread evenly upon the excavated materials, and thoroughly mixed; and
- Following treatment, soils should be chemically assessed and waste classified for offsite disposal in accordance with the EPA (2014) *Waste Classification Guidelines*.

In addition, the following management strategies shall also be considered and implemented, as required, to manage risk:

- Installation of leachate collection and treatment systems;
- Construction of supplementary erosion and sediment control structures.

If lime treatment on freshly excavated PASS cannot be performed immediately, plastic sheeting shall be placed over the stockpile to reduce oxidation, and the following shall be adopted:

- For every day a stockpile remains on-site, representative samples will be monitored for pH; where pH falls below pH 5.5, lime will be applied for neutralisation purposes; and
- On-site neutralisation of acidic soils (<pH 5.5) will be carried out using powdered, agricultural lime.

3.5.1 Determination of Lime Requirement

The quantity of lime required to neutralise the theoretical maximum amount of acid that could be generated from complete oxidation of the ASS is to be established at the conclusion of ASSA, as discussed in **Section 3.1**.

3.5.2 Method of Neutralisation

In order to facilitate mixing, the soils should be thinly spread (<0.5 m). Lime should be added by hand and/or excavator bucket, followed by mixing using light-weight rotators and/or shovels.

Field pH testing on representative samples should be performed to ensure that sufficient neutralisation has occurred (i.e. pH is >pH 5.5), prior to disposal.

3.6 Management of In-situ Acid Sulfate Soils

Potential ASS which becomes exposed (oxidised) on excavation surfaces may produce acid. This corresponds to natural soil below the depth of site fill at the subject site. For every day that such an excavated surface is in an exposed state, pH values shall be monitored from representative samples. Where soil pH levels falls below pH 5.5, lime will be applied to the potential ASS horizon(s) following the methodology presented in **Section 3.5**. Plastic sheeting can be placed over the corresponding surface (where possible) to reduce the oxidation rate.

3.7 Groundwater Management and Disposal

Since groundwater has been reported at levels (1.30 – 1.47 mAHD (EI, 2022; EI, 2023b, and EI, 2024)) below the estimated BEL (**Section 1.2**) groundwater is not likely to be intercepted and dewatering will not be required. The following sections (**Section 3.7.1** and **Section 3.7.2**)

have been included as a precautionary measure if the proposed plans are altered and groundwater dewatering is required.

3.7.1 Groundwater Management

The removal (pumping) of any groundwater from an excavation area may cause alterations to the existing groundwater table. Extracted groundwater should be pumped to a holding vessel for assessment of pH characteristics during the dewatering process. Extracted water should be treated with hydrated lime to display a pH level of pH 6-8, prior to off-site disposal. Powdered agricultural lime should be added to the water by hand and/or excavator bucket and mixed. Field pH testing on representative samples should be performed to ensure that sufficient neutralisation has occurred, prior to disposal.

In addition to the above, an appropriately designed truck wash area will be required to capture liquids and solids generated, prior to vehicles exiting the site. Treatment and neutralisation of solids and liquids shall be in accordance with **Section 3.6.2** and above, respectively.

3.7.2 Groundwater Disposal

It is anticipated that extracted groundwater from the dewatering process (if required) will be disposed to the municipal stormwater system. Any permits / licences from Council and Water NSW shall be obtained prior to discharging to the municipal stormwater system.

Water for disposal will be tested routinely (weekly intervals) for the duration of dewatering activities, to ensure that no change to the quality of water entering the stormwater system, with the results made available to Council or Water NSW on request. Should it be found that groundwater quality is not suitable for disposal to the stormwater system, groundwater treatment or a Sydney Water permit to dispose to sewer shall be required prior to disposal.

Water quality monitoring for disposal to the municipal stormwater system shall include the following:

- Daily monitoring of field parameters (pH, electrical conductivity, dissolved oxygen, temperature and turbidity) in the treated discharge water using data logging equipment;
- Weekly sampling and laboratory analysis of treated groundwater water for a range of relevant analytical parameters (i.e. to be specified in the Dewatering Management Plan). Laboratory results should be compared to marine water trigger values provided in Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2018) for slightly - moderately disturbed systems to provide a 95% level of species protection. Weekly sampling shall be performed by a suitably qualified Environmental Consultant and submitted to a NATA accredited laboratory for analysis of the above parameters, depending on the time frame required to complete the works.

3.8 Risk Management

This management plan has been based on the assumption that PASS is present in natural soils below the depth of filling soils, and will be disturbed and exposed during the proposed development. Should the actual amounts of ASS significantly differ from those in this document, management techniques may need to be revised.

During the proposed excavations, it is recommended that site inspections be conducted by a qualified environmental consultant/engineer, in order to supervise the works and check that the assumptions made in the report are consistent with field evidence. The qualified environmental consultant/engineer should ensure:

- Soils indicative of potential ASS materials are adequately managed; and
- Adequate testing of excavated / exposed PASS is performed to establish liming requirements.

All contractors must employ best practices in managing any off-site water and soil quality impacts during site redevelopment. All waste materials must be chemically assessed and waste classified under the EPA (2014) *Waste Classification Guidelines*, prior to off-site disposal to appropriate landfill facilities.

3.9 Contingency Planning

A contingency plan is detailed below in **Table 3-2**. The plan provides a list of potential events that may arise during bulk excavation and the actions to be undertaken if unexpected conditions occur.

Table 3-2 Contingency Plan

Unexpected Condition	Action
Potential ASS identified at unexpected depths	• Stop excavations; • Have material assess by an environmental consultant for the presence of ASS; and • Follow management procedures adopted in the ASSMP.
Neutralisation of ASS was not effective	• Re-assess liming rates and add additional lime to material; and • Re-test material to check neutralisation.
Neutralisation of ASS indicates that too much lime has been added and soils are alkaline	• Remediate soils before use; • Remediation comprises mixing additional ASS with the material, i.e. use excess lime to neutralise more ASS; and • Re-test material to check neutralisation.
Bunded PASS treatment area is damaged	• Repair bund as soon as practicable; • Clean-up any PASS that escaped the treatment area and place back into the treatment area; and • Check surrounding area for impact from the PASS or leachate, and undertake remedial action as required.
Groundwater level falls below the top of areas defined as containing PASS	• Stop dewatering; • Review PASS exposure by checking the ASS and Non-ASS interface in the affected area; • Determine potential causes by reviewing construction practises, weather, baseline groundwater monitoring data, and performing additional groundwater monitoring as necessary on groundwater monitoring present at the site; • Review and confirm mitigation measures to be implemented, including: • Maintain PASS soil moisture levels through targeted groundwater recharge; • Adjusting the construction activities or schedule; and • Treatment of additional PASS in treatment area.

4. Consultation and Records

During ASS management, regard must be given to the needs of the following organisations:

- NSW Environment Protection Authority, concerning their requirements with respect to the various contamination control issues associated with the project and the detail required in the ASSMP;
- WaterNSW, for dewatering conditions and permit; and
- City of Parramatta, for DA compliance and the handling requirement for ASS situations.

A file will be established to store all hard copy records associated with ASS management for the project. All analysis and monitoring information will be stored electronically to permit ease of access and data interpretation.

5. Statement of Limitations

This report has been prepared for the exclusive use of the Rapisarda Holdings Pty Ltd, whom is the only intended beneficiary of EI's work. The scope of the assessment was limited to that agreed with the client.

No other party should rely on the document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

EI has used a degree of care and skill ordinarily exercised in similar investigations by reputable members of the environmental industry in Australia as at the date of this document. No other warranty, expressed or implied, is made or intended. Each section of this report must be read in conjunction with the whole of this report, including its appendices and attachments.

This report and associated documents remain the property of EI subject to payment of all fees due for this assessment. The report should not be reproduced except in full and with prior written permission by EI.

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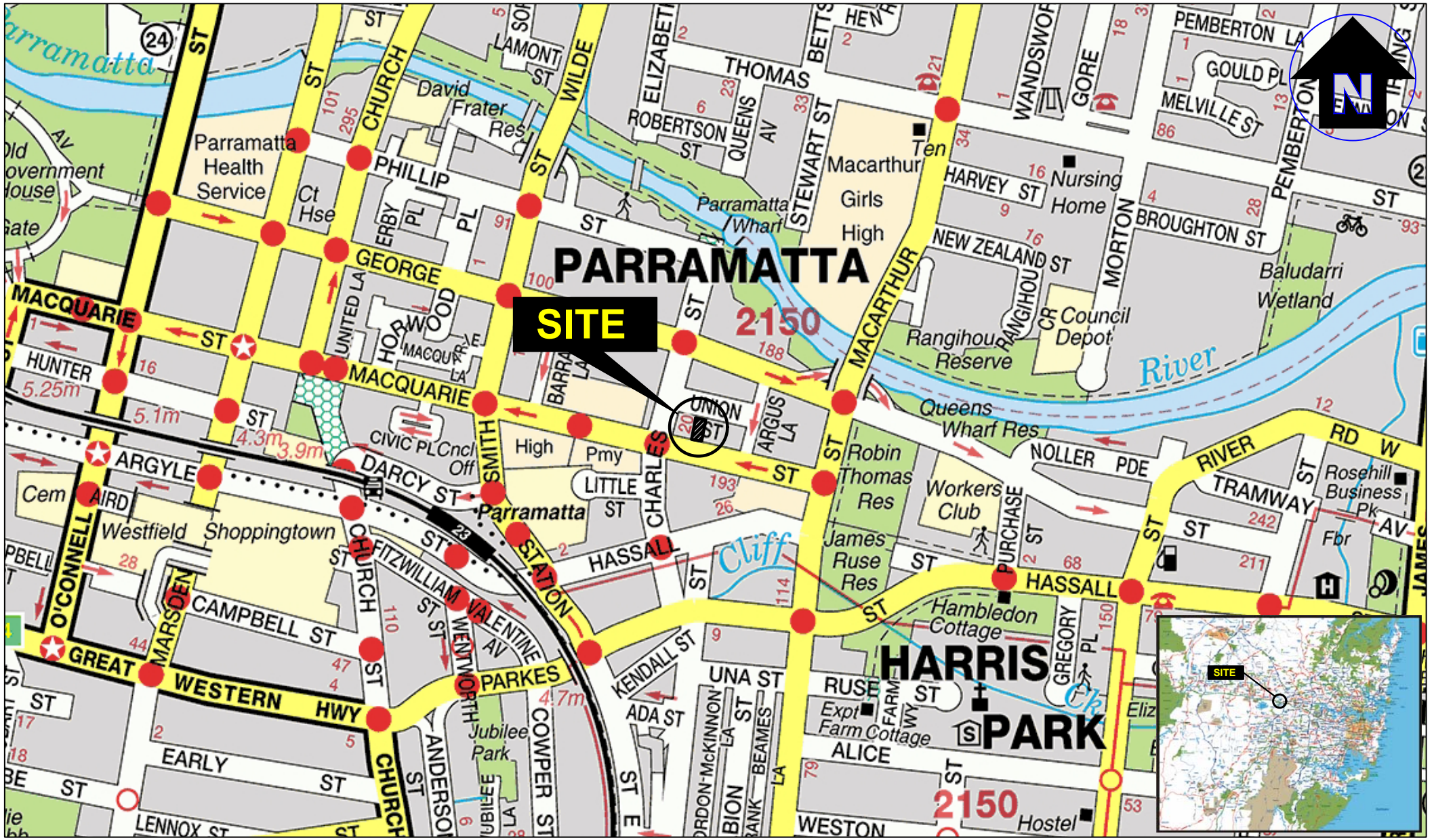
ABBREVIATIONS

AASS	Actual acid sulfate soils
AHD	Australian Height Datum
ASS	Acid sulfate soils
ASSMAC	Acid Sulfate Soil Management Advisory Committee (ASSMAC)
BGL	Below Ground Level
BEGL	Below Existing Ground Level
BH	Borehole
COC	Chain of Custody
DA	Development Application
DP	Deposited Plan
EI	EI Australia
EPA	Environmental Protection Authority
km	Kilometres
m	Metres
mAHD	Metres relative to Australian Height Datum
mBGL	Metres below ground level
mBEGL	Metres below existing ground level
NATA	National Association of Testing Authorities, Australia
NSW	New South Wales
OEH	Office of Environment and Heritage, NSW (formerly DEC, DECC, DECCW)
PASS	Potential acid sulfate soils
pH	Measure of the acidity or basicity of an aqueous solution
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance / Quality Control
SRA	Sample receipt advice (document confirming laboratory receipt of samples)

Appendix A – Figures



Drawn:	S.N.	
Approved:	E.W.	
Date:	5/07/2024	
Scale:	Not To Scale	

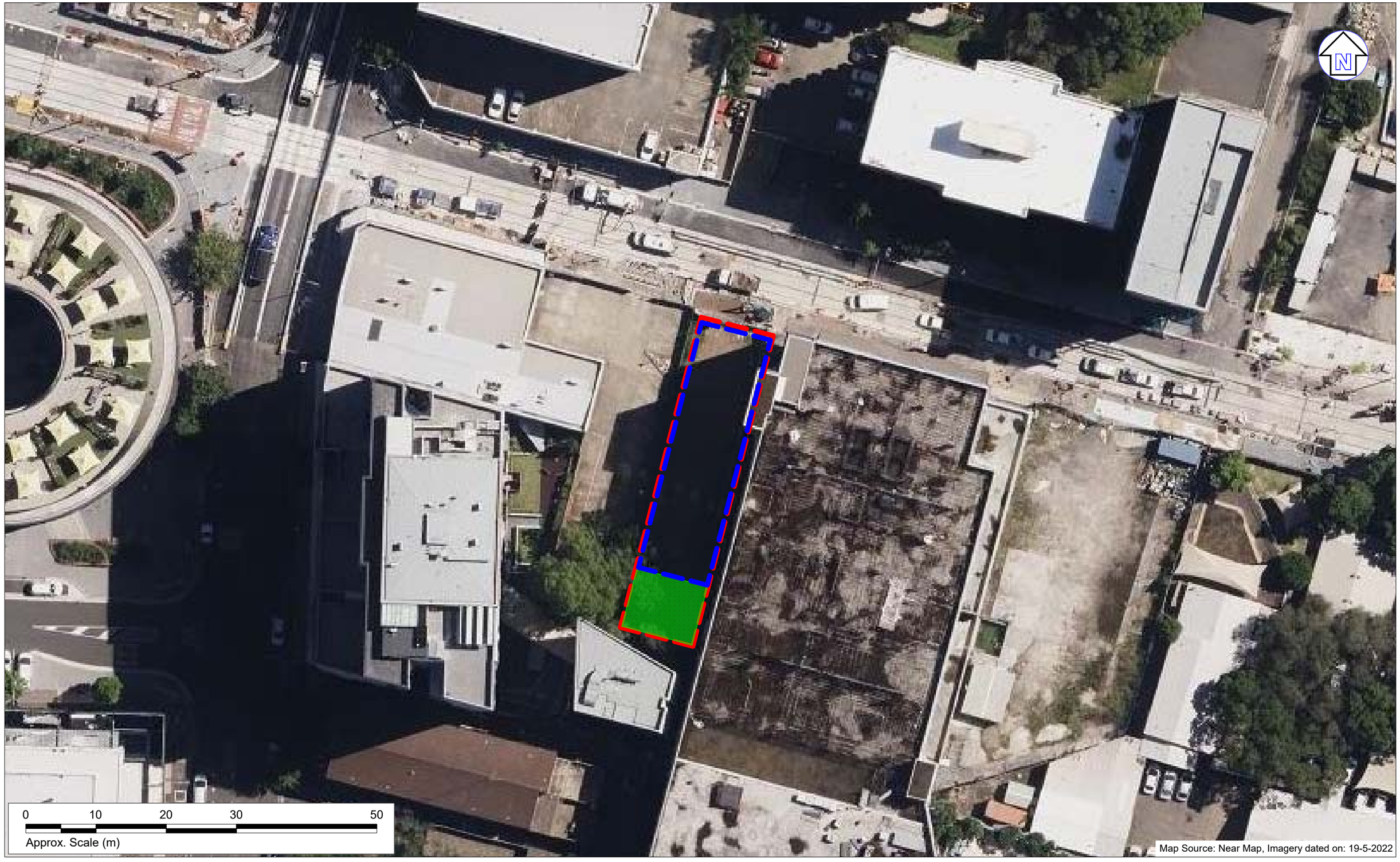
PTI Architecture
Acid Sulfate Soil Management Plan
183 Macquarie Street, Parramatta NSW

Site Locality Plan

Figure: 1

Project: E25770.E14_Rev0

eiaustralia
Practical Solutions for Built Environments
Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088



LEGEND (Note: All locations are approximate)

- Site boundary
- Proposed basement boundary
- Proposed deep soil zone

eiaustralia
Practical Solutions for Built Environments
Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn:	S.N.
Approved:	E.W.
Date:	13-07-24

PTI Architecture
Acid Sulfate Soil Management Plan
183 Macquarie Street, Parramatta NSW

Site Layout Plan

Figure: 2

Project: E25770.E14_Rev0

Appendix B – Proposed Development Plans

DRAWING LIST

00	COVER SHEET
01	SITE LOCATION
02	SITE PLAN
03	BASEMENT FLOOR PLAN
04	GROUND FLOOR PLAN
05	LEVEL 1 FLOOR PLAN
06	LEVEL 2-4 FLOOR PLAN
07	TYPICAL FLOOR PLAN (LEVEL 5-11)
08	ROOF TERRACE PLAN
09	ROOF PLAN
10	SECTION A
11	SECTION B
12	ELEVATIONS
13	FSR AREA CALCULATION
14	AMENITY AREA DIAGRAMS
15	SHADOW DIAGRAMS - SHEET 1
16	SHADOW DIAGRAMS - SHEET 2
17	SHADOW DIAGRAMS - SHEET 3
18	SHADOW DIAGRAMS - SHEET 4
19	SOLAR STUDY DIAGRAMS
20	ROOM TYPE A & B
21	181 MACQUARIE ST & 12 CHARLES ST GFA DIAGRAM
21	ROOM TYPE C & D
22	ROOM TYPE E & F
23	3D VIEW

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DEVELOPMENT APPLICATION FOR THE PROPOSED STUDENT ACCOMMODATION

AT 183 MACQUARIE STREET, PARRAMATTA

ARCHITECTURE
Tourism + Residential

Main Office: Level 2, 68 Sophia Street, Surry Hills NSW 2010
Parramatta Office: Suite 4103, 11 Hassall Street, Parramatta NSW 2150
+ 61 2 9283 0860 | www.ptiarchitecture.com.au
Nominated Registered Architect: Peter Israel (reg no 5064)
ABN 90 050 071 022

PREPARED FOR

RAPISARDA INVESTMENTS

1 SITE LOCATION PLAN
1:5000

LOCATION PLAN LEGEND

- SUBJECT SITE
- PRINCIPLE PEDESTRIAN ACCESS
- BUS STOP
- TRAIN STATION
- LIGHT RAIL
- FERRY WHARF
- GOGET CARSHARE

2 VIEW FROM EAST (MACQUARIE STREET)

3 VIEW FROM WEST (MACQUARIE STREET)

4 VIEW FROM NORTH (MACQUARIE STREET)

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ABN 90 050 071 022

REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SITE LOCATION

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:5000, 1:4.05 AT A3
PROJECT No: P567

DA stage. 01 dwg no. P1 revision

CHARLES STREET

SP87452
LOT 73
EXISTING RESIDENTAIL
MIXED-USE DEVELOPMENT
6-10 CHARLES STREET

DP615271
LOT 2

DP129068
LOT 1

12 CHARLES STREET

8 STOREY
COMMERCIAL
MIXED USE
DEVELOPMENT

NO. 15
8 STOREY FLAT
BUILDING

MACQUARIE
STREET

SUN

SUMMER SUNSET
(Dec 21, pm)

Cold WINTER winds AM

Cold WINTER winds PM

WINTER SUNSET
(June 21, pm)

12
NOON
SUN

DP375159
LOT B
EXISTING OPEN
CAR PARK

EXISTING
6 STOREY
APARTMENT
BUILDING

DP375159
LOT A
183 MACQUARIE STREET

WINTER SUNRISE
(June 21, am)

COUNCIL EASEMENT

Cool SUMMER breezes PM

Cool SUMMER breezes AM

SUMMER SUNRISE
(Dec 21, am)

DP1214839
LOT 1
EXISTING MIXED-USE
DEVELOPMENT
189 MACQUARIE STREET

8 STOREY
RESIDENTIAL
DEVELOPMENT

1 SITE LOCATION PLAN
1:500

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA
INVESTMENTS

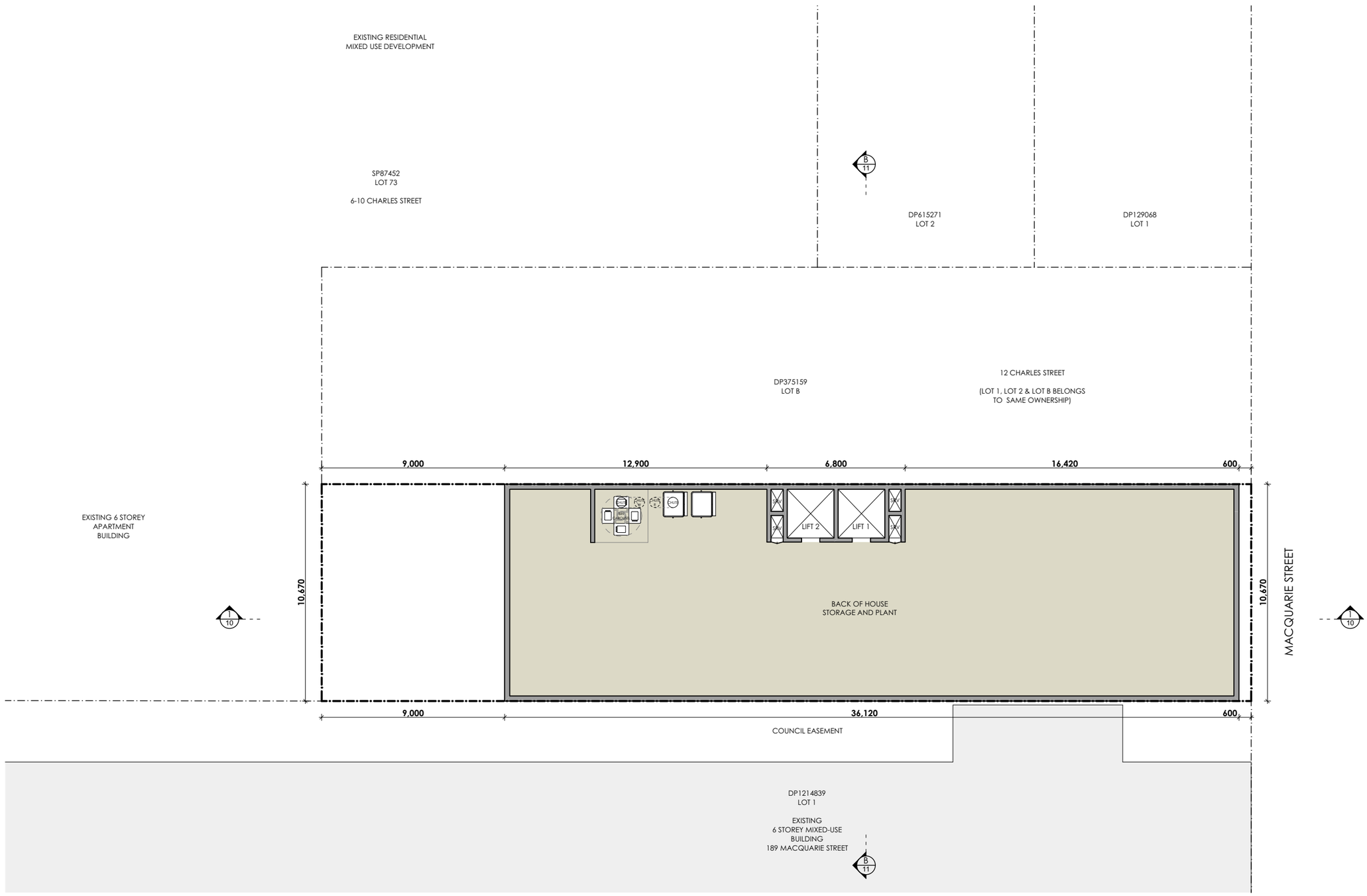
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SITE PLAN

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:500 AT A3
PROJECT No: P567

DA stage. 02 dwg no. P1 revision



1 BASEMENT
1:200

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ABN 90 050 071 022

REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA
INVESTMENTS

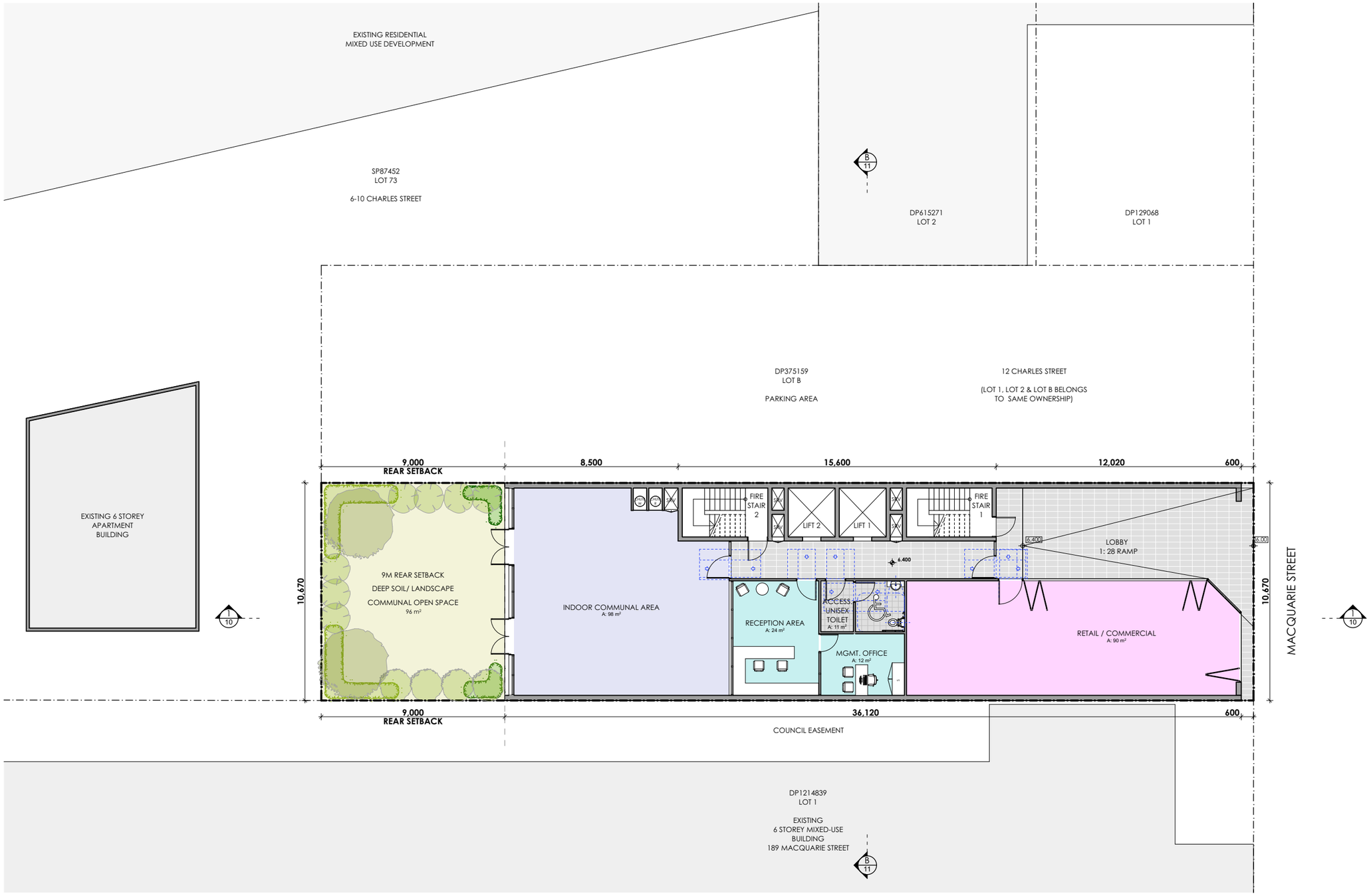
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
BASEMENT FLOOR PLAN

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

DA stage. 03 dwg no. P1 revision



1 GROUND FLOOR
1:200

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA
INVESTMENTS

PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
GROUND FLOOR PLAN

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
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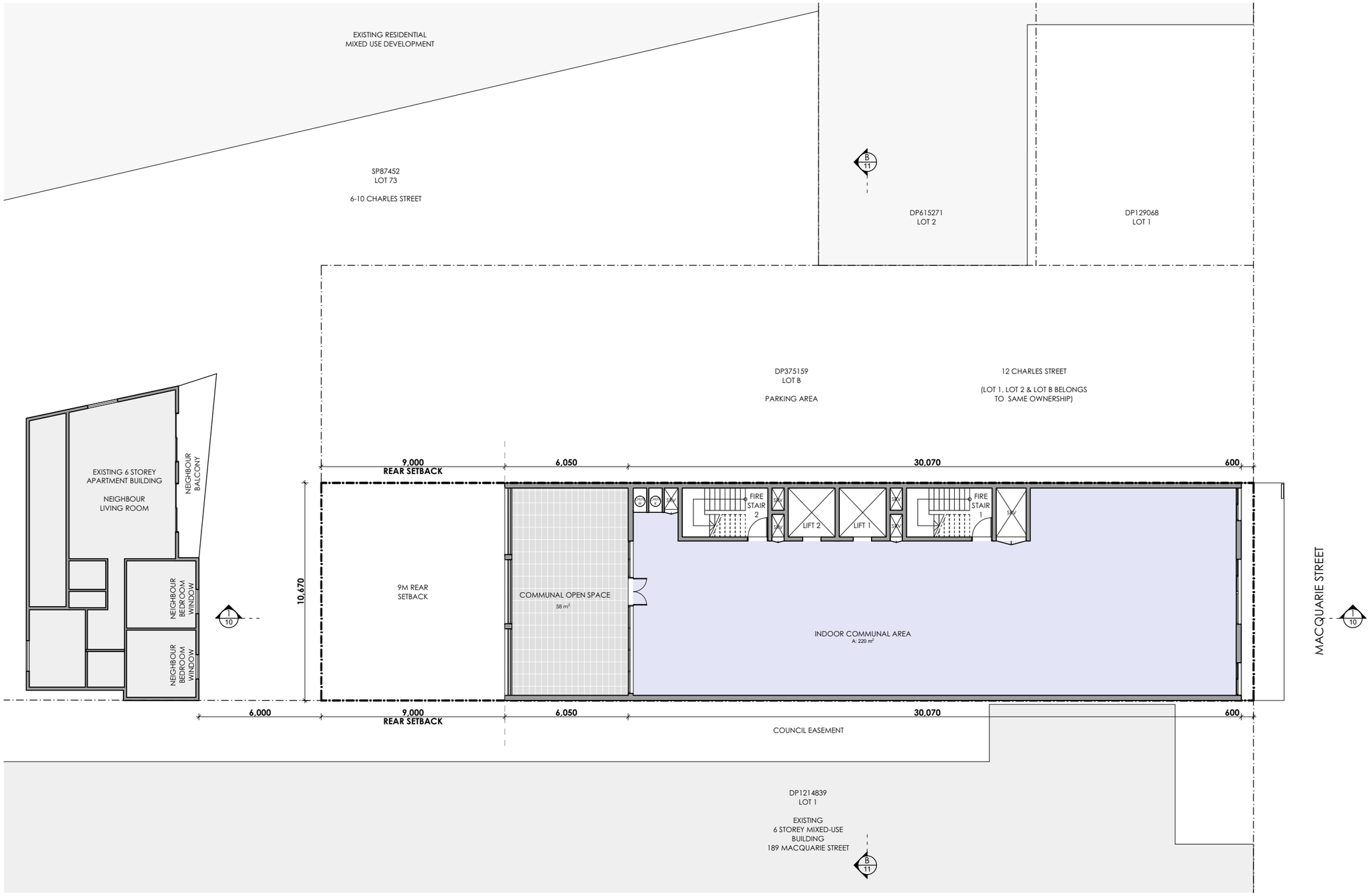
PROJECT No: P567

DA stage. 04 dwg no. P1 revision



1 LEVEL 1
1:200

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
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INVESTMENTS

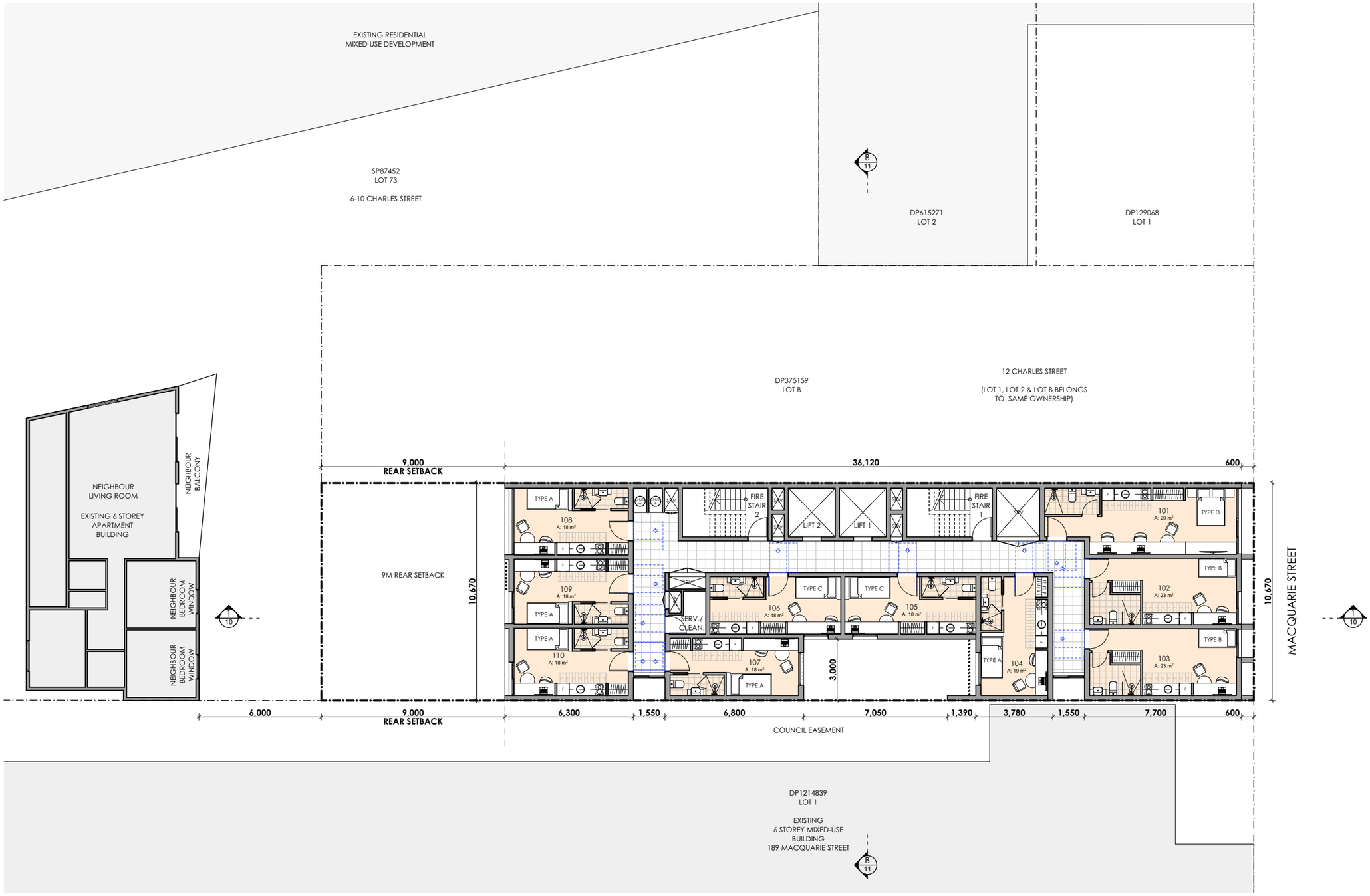
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
LEVEL 1 FLOOR PLAN

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

DA stage. 05 dwg no. P1 revision



1 LEVEL 2-4
1:200

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA
INVESTMENTS

PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
LEVEL 2-4 FLOOR PLAN

NORTH POINT:

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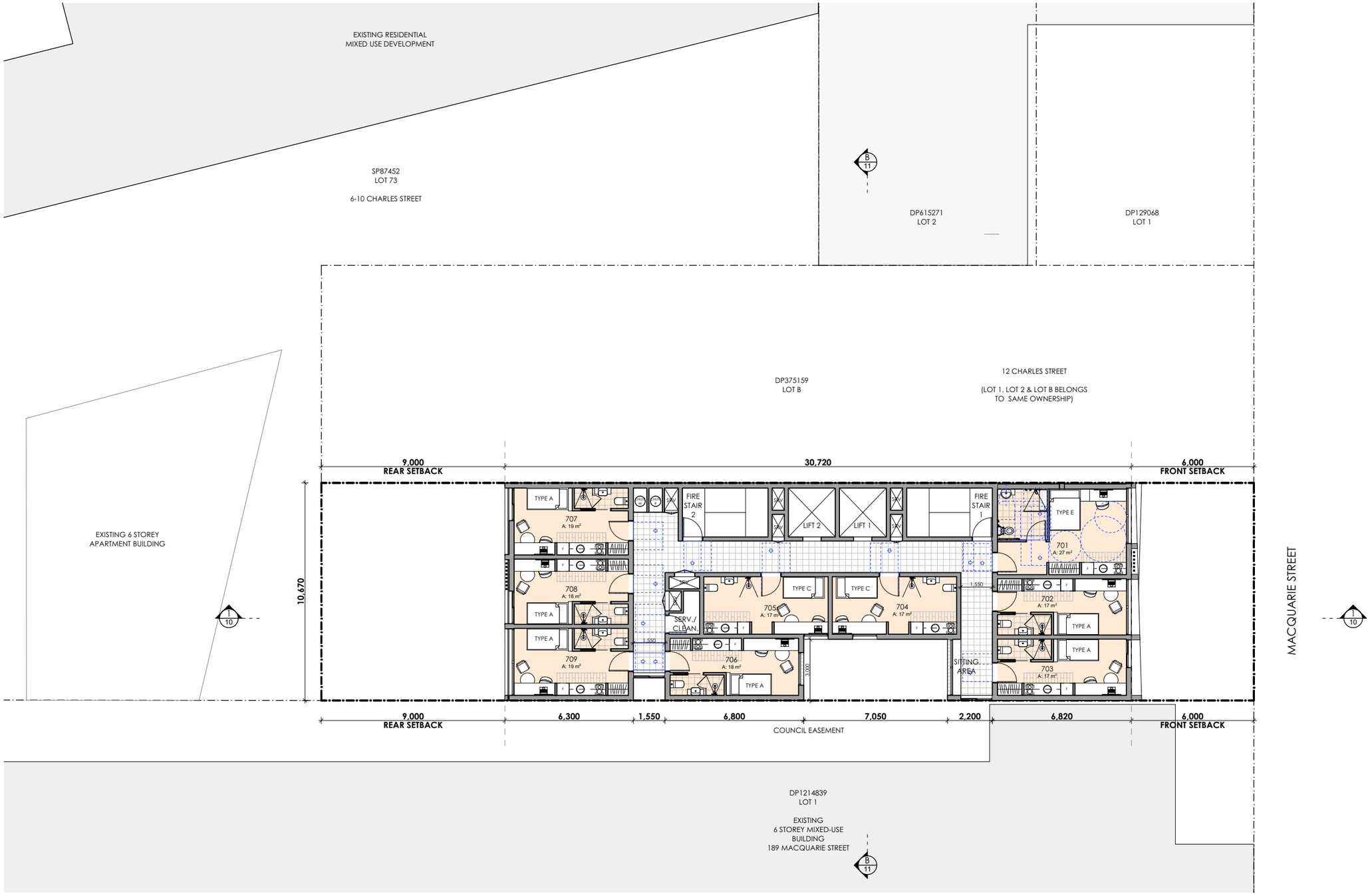
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

DA stage. 06 dwg no. P1 revision



1 LEVEL 5-11 (LEVEL 8 SHOWN)
1:200

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ABN 90 050 071 022

REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
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INVESTMENTS

PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
TYPICAL FLOOR PLAN (LEVEL 5-11)

NORTH POINT:

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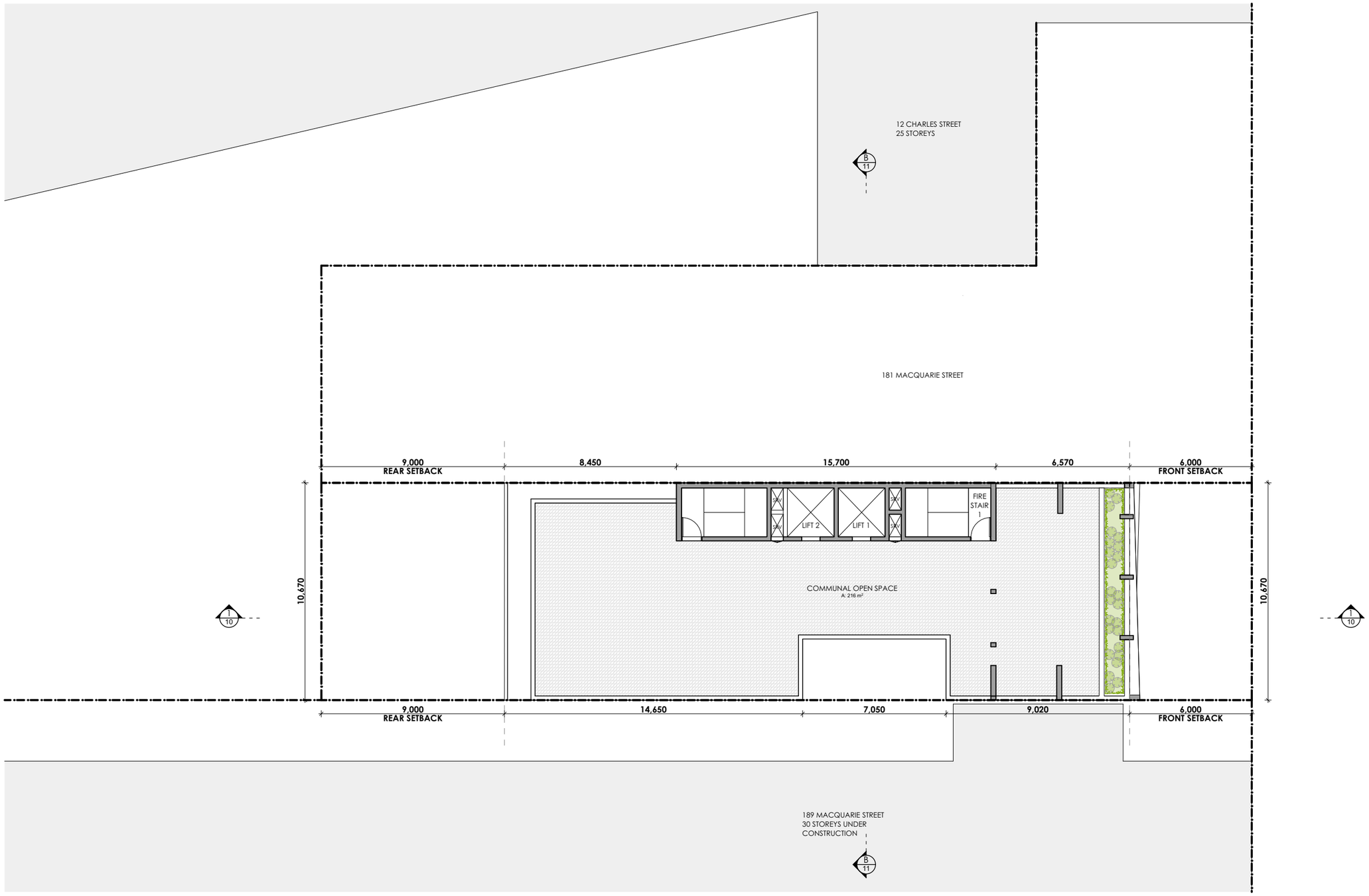
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

DA stage. 07 dwg no. P1 revision



1 ROOF TERRACE PLAN
1:200

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA
INVESTMENTS

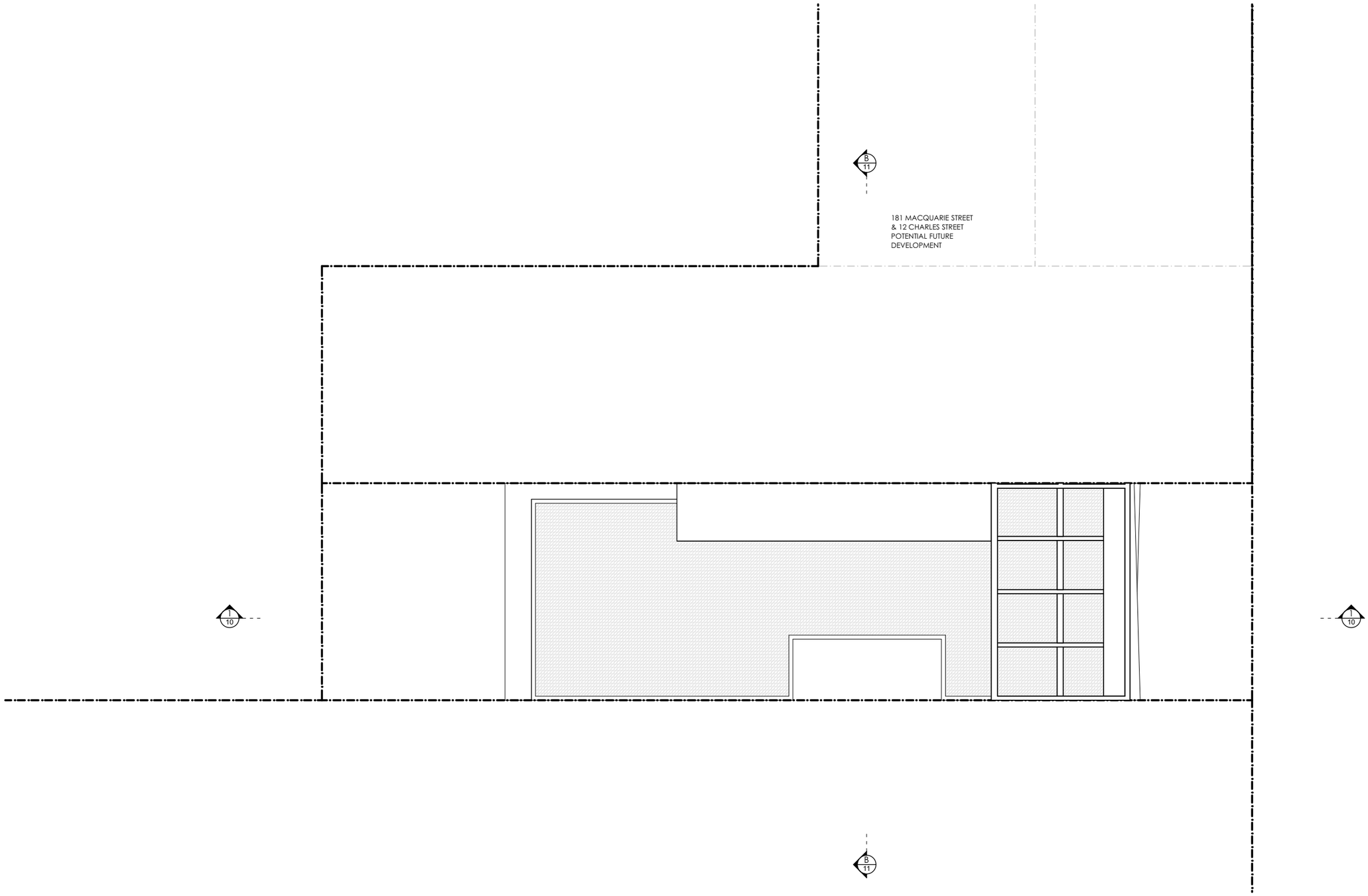
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
ROOF TERRACE PLAN

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

DA stage. 08 dwg no. P1 revision



1 ROOF PLAN
1:200

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
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INVESTMENTS

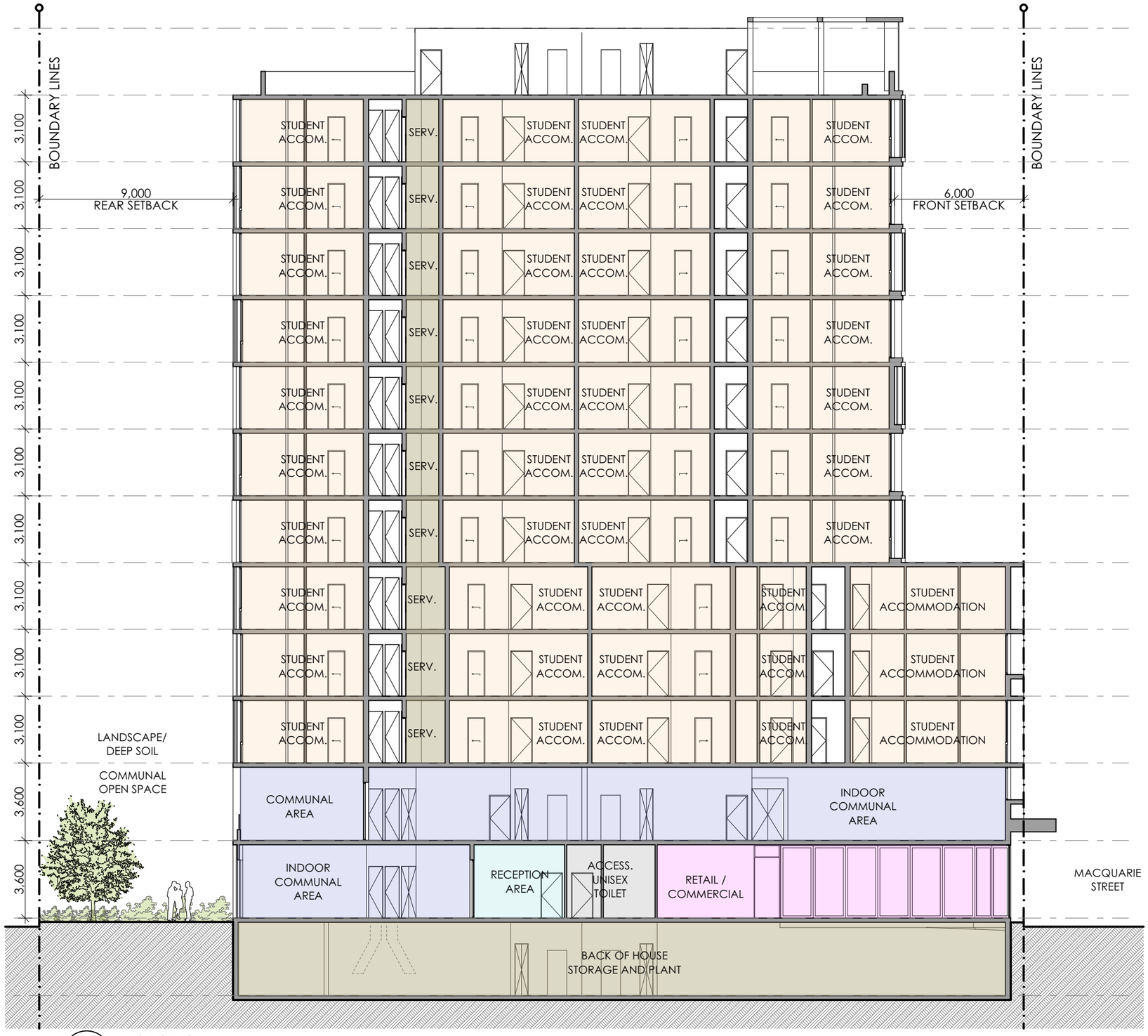
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
ROOF PLAN

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

DA stage. 09 dwg no. P1 revision



1 SECTION
1:200

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA
INVESTMENTS

PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SECTION A

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

DA stage. 10 dwg no. P1 revision

1 SECTION
1:200

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Nominated Registered Architect: Peter Israel (reg no 5064)
ABN 90 050 071 022

REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

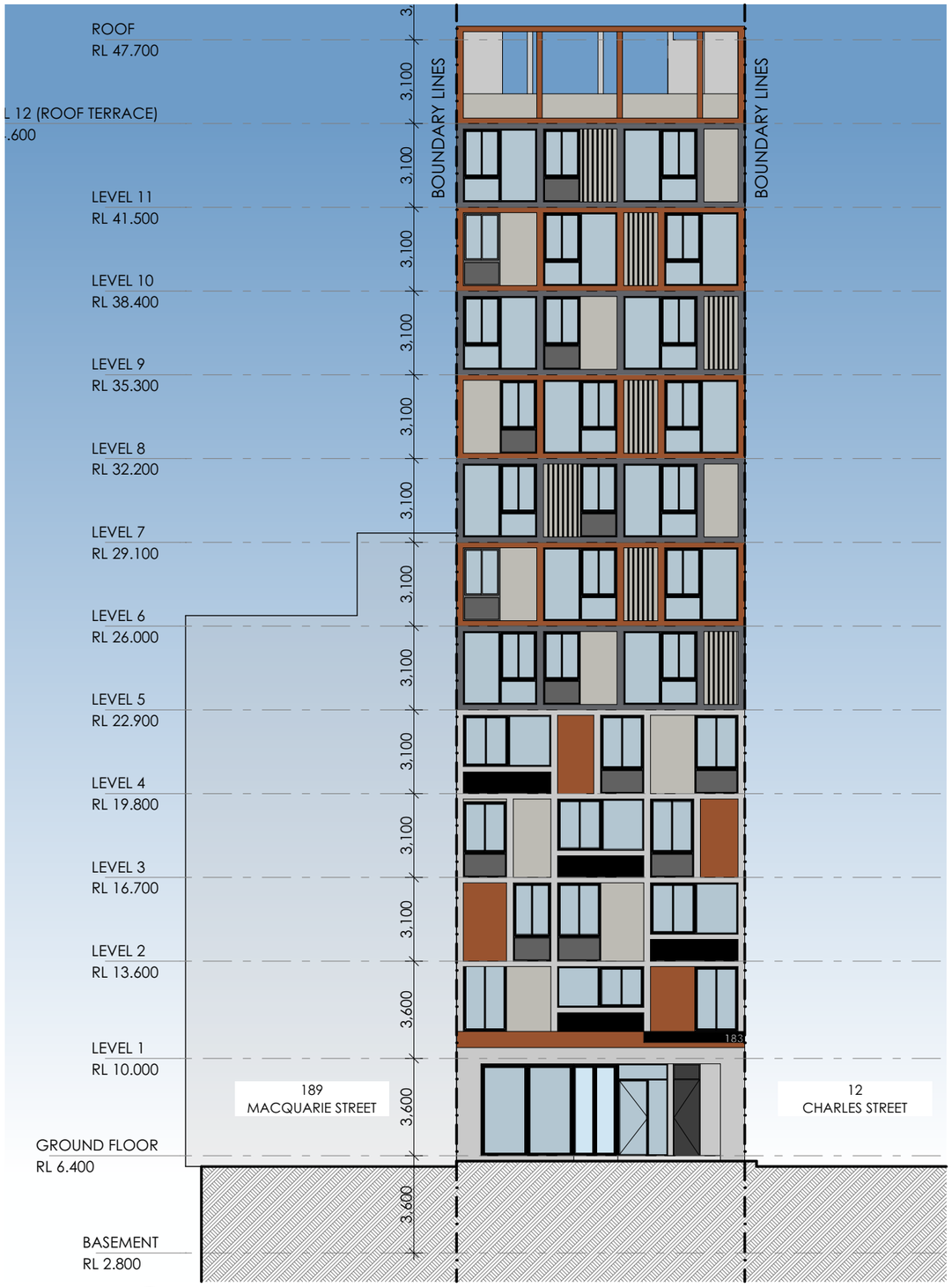
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SECTION B

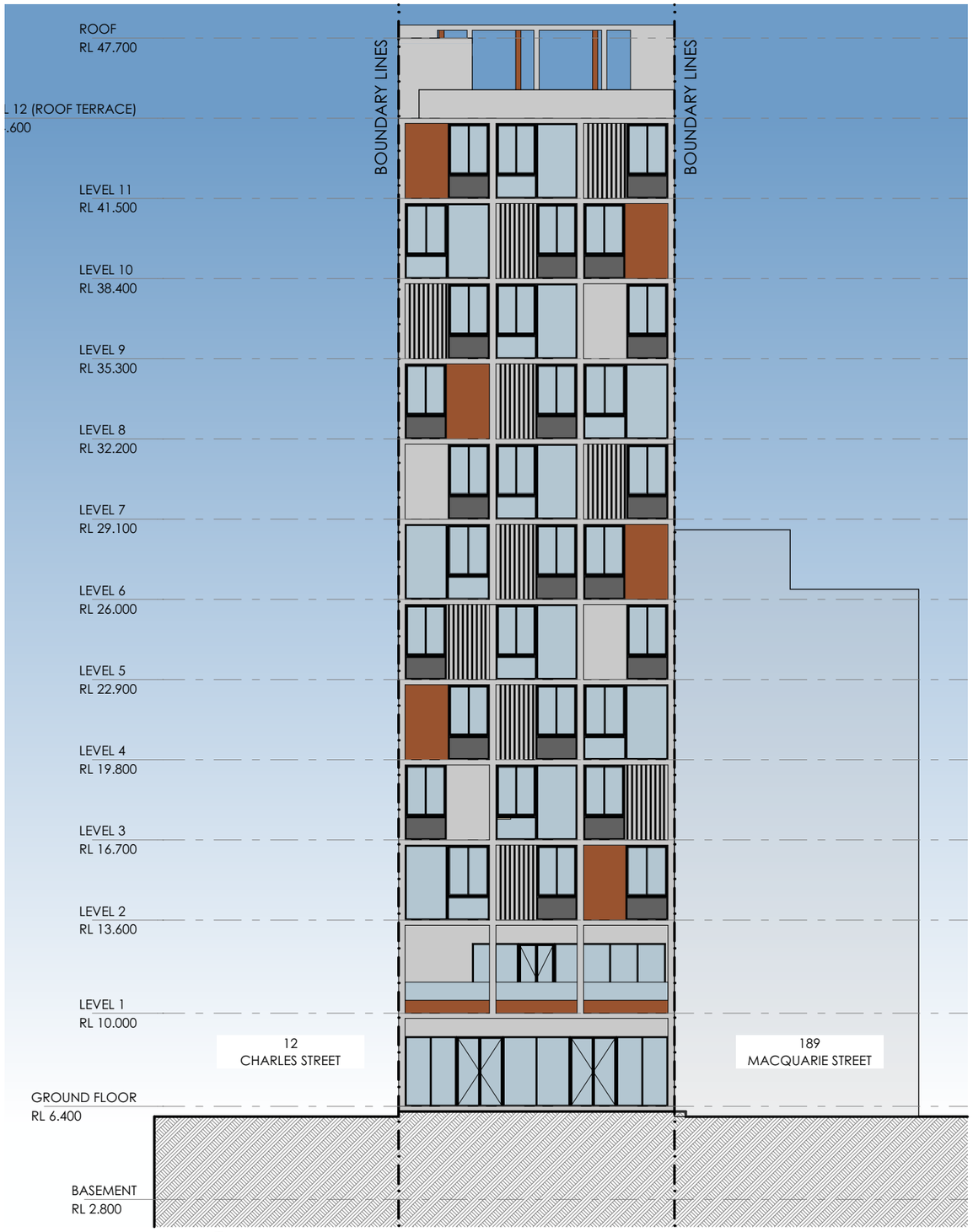
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

DA stage. 11 dwg no. P1 revision



1 NORTH ELEVATION
1:200



2 SOUTH ELEVATION
1:200

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA
INVESTMENTS

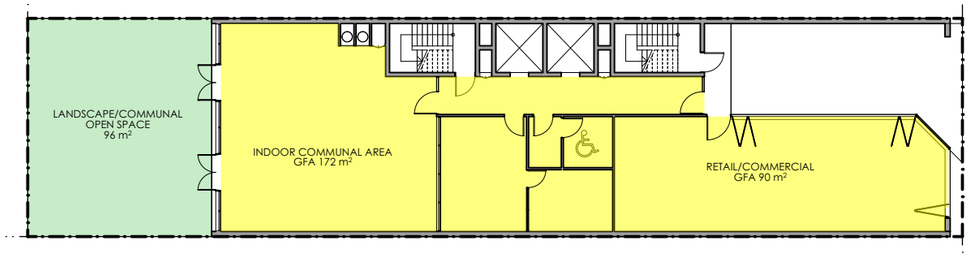
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
ELEVATIONS

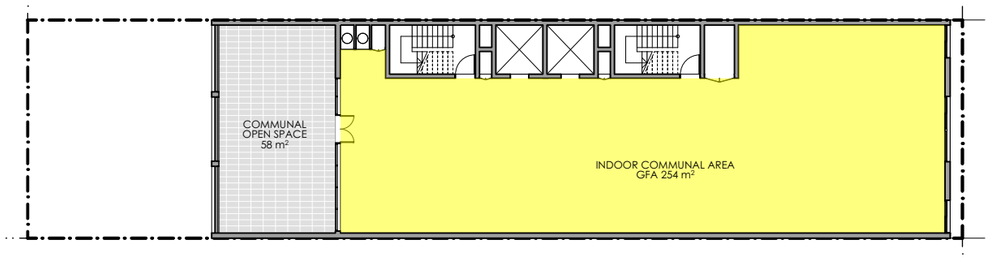
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

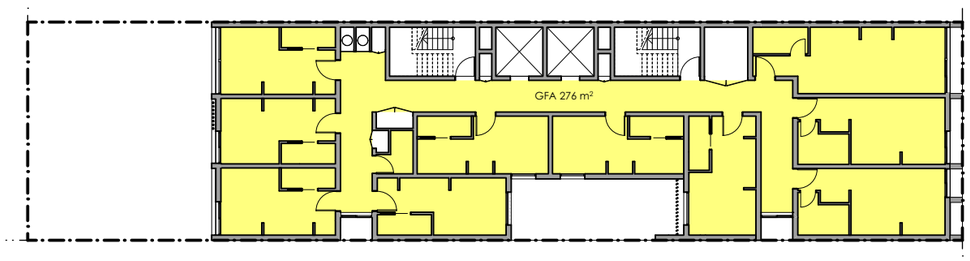
DA stage. 12 dwg no. P1 revision



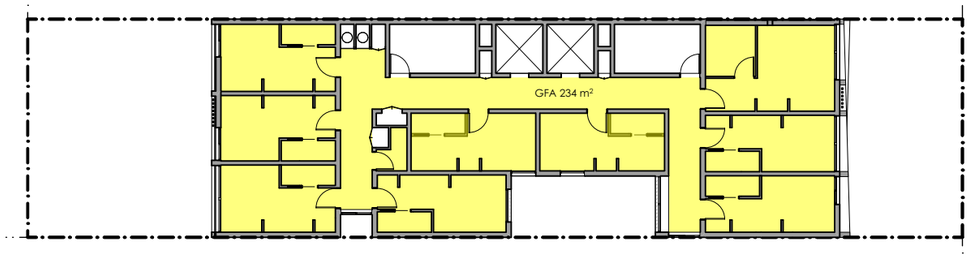
1 GROUND FLOOR
1:300



2 LEVEL 1
1:300



3 LEVEL 2-4
1:300



4 LEVEL 5-11
1:300

183 MACQUARIE STREET, PARRAMATTA

CITY OF PARRAMATTA COUNCIL

ZONING = B4 MIXED USE
HEIGHT = 38.40m
FSR = 6.0:1
ALLOWABLE MAX. GFA = 2,982m²
ALLOWABLE MAX. HEIGHT = 72m

EXISTING SITE AREA= 497m²

ACCOMODATION SCHEDULE		
NUMBER OF ROOMS	GF	0
	LEVEL 1	0
	LEVEL 2-4	30 (10 PER LEVEL)
	LEVEL 5-11	63 (9 PER LEVEL)
TOTAL NUMBER OF STUDENT ROOMS		**93**
COMMUNAL AREA		2 (AT GF AND LEVEL 1)
ACCESSIBLE ROOMS		7 PROVIDED WITHIN THE 93
MANAGER/RECEPTION AREA		1 (AT GF)

AREA SCHEDULE		
RETAIL GFA		**90 m²**
STUDENT ACCOMMODATION GFA	LEVEL 2-4	828 m² (276 m² EACH LEVEL)
	LEVEL 5-11	1,638 m² (234m² EACH LEVEL)
TOTAL STUDENT ACCOMMODATION GFA		**2,466.0 m²**
COMMUNAL INDOOR SPACE AREA		**426 m²**
COMMUNAL OPEN SPACE AREA		**58 m²**
LANDSCAPE AREA		**96 m²**

AREA SCHEDULE	
TOTAL PROPOSED GFA	**2,982 m²**
TOTAL PROPOSED FSR	**6.0:1**

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ABN 90 050 071 022

REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA
INVESTMENTS

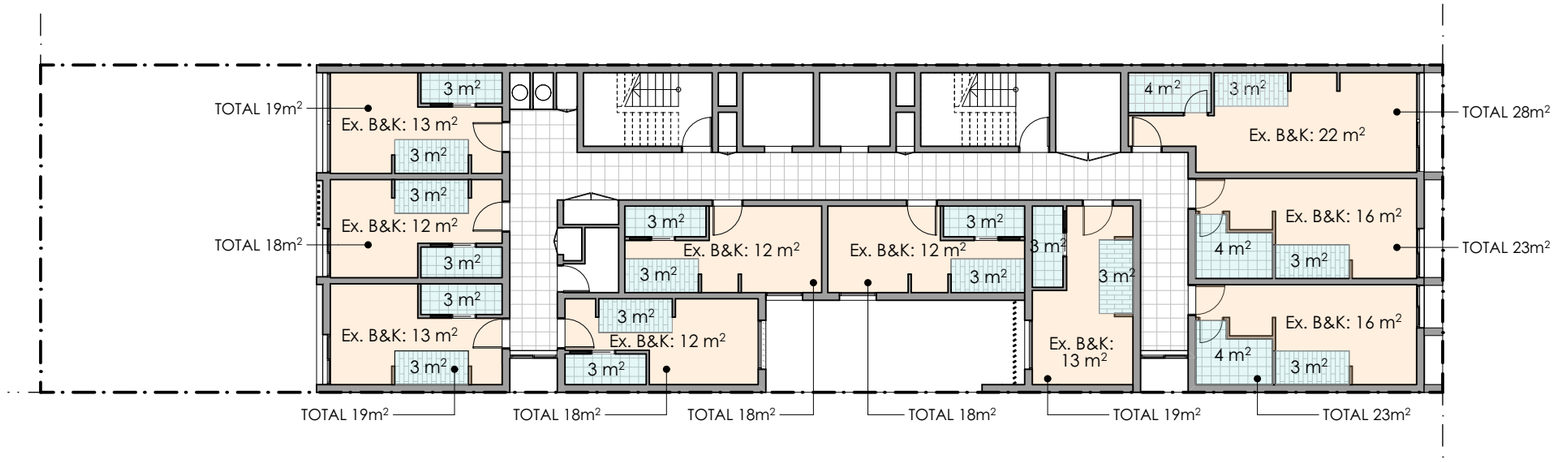
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
FSR AREA CALCULATION

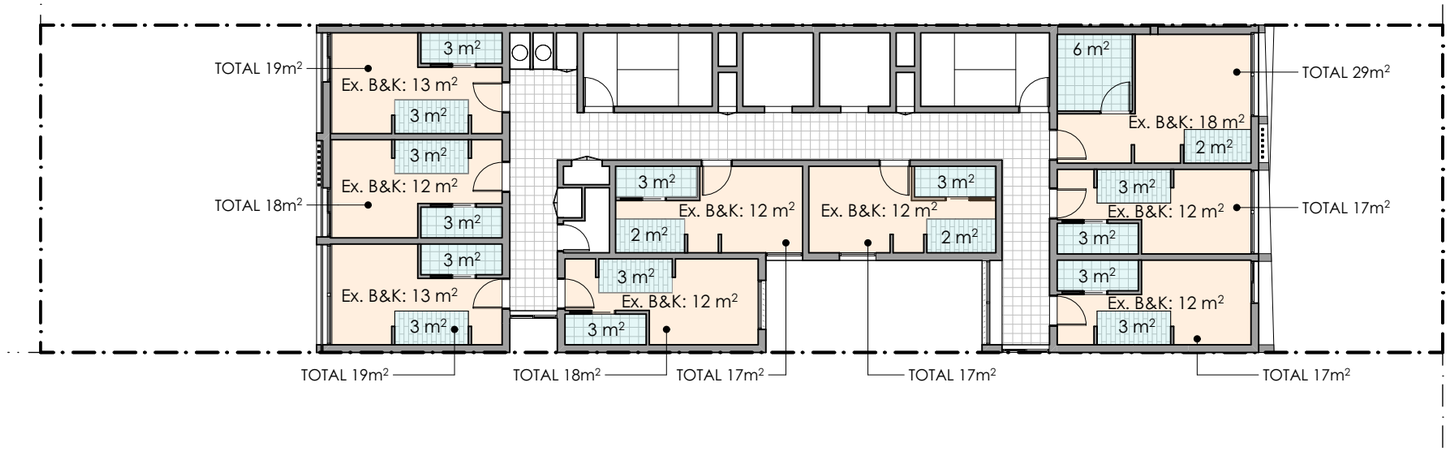
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:300 AT A3
PROJECT No: P567

DA stage. 13 dwg no. P1 revision



1 LEVEL 2-4
1:200



2 LEVEL 5-11
1:200

AMENITY AREA LEGEND

- ROOM AREA (EXCL. KITCHEN & BATHROOM)
- AMENITYAREA (KITCHEN / BATHROOM)
- PRIVATE OPEN SPACE

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
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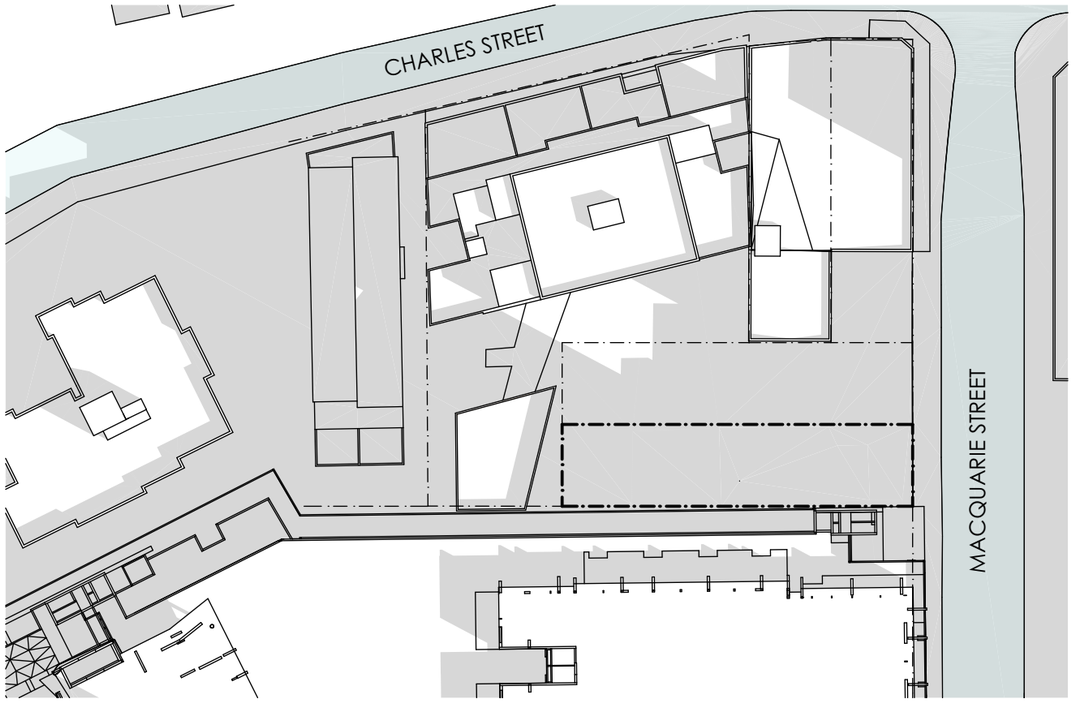
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
AMENITY AREA DIAGRAMS

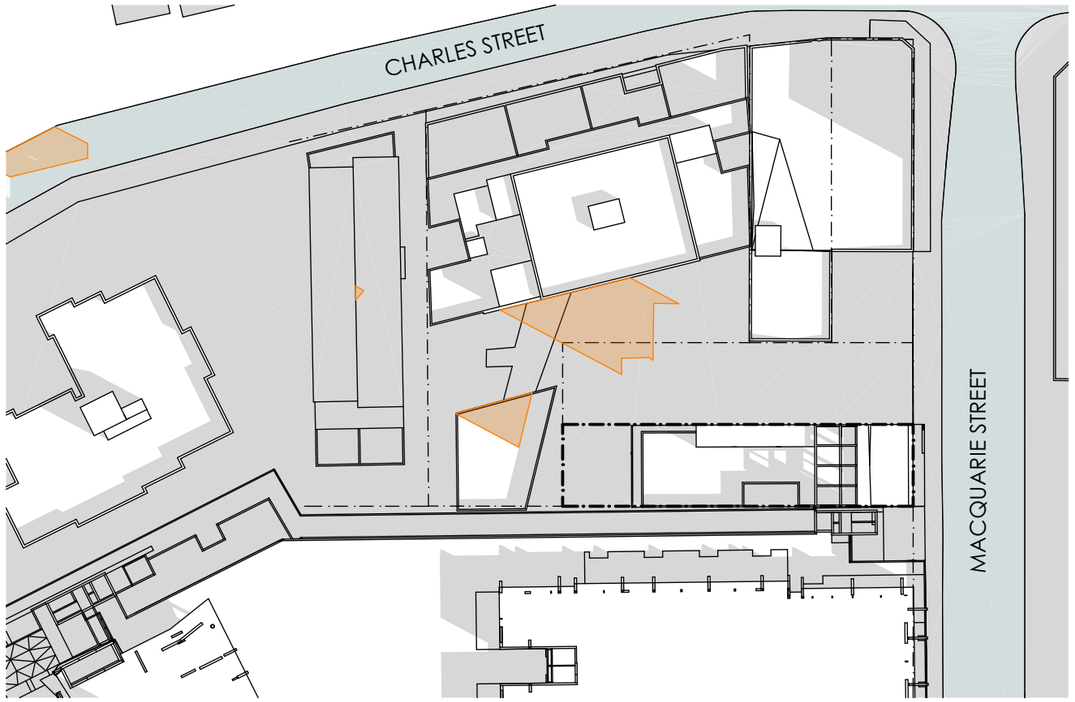
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:200 AT A3
PROJECT No: P567

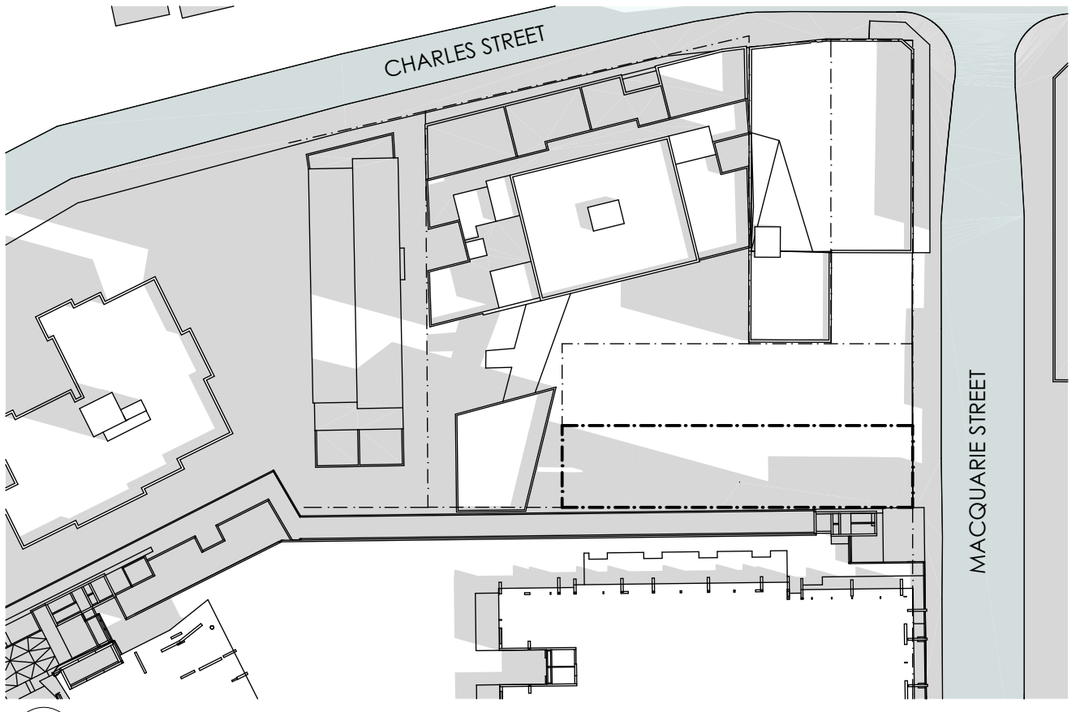
DA stage. 14 dwg no. P1 revision



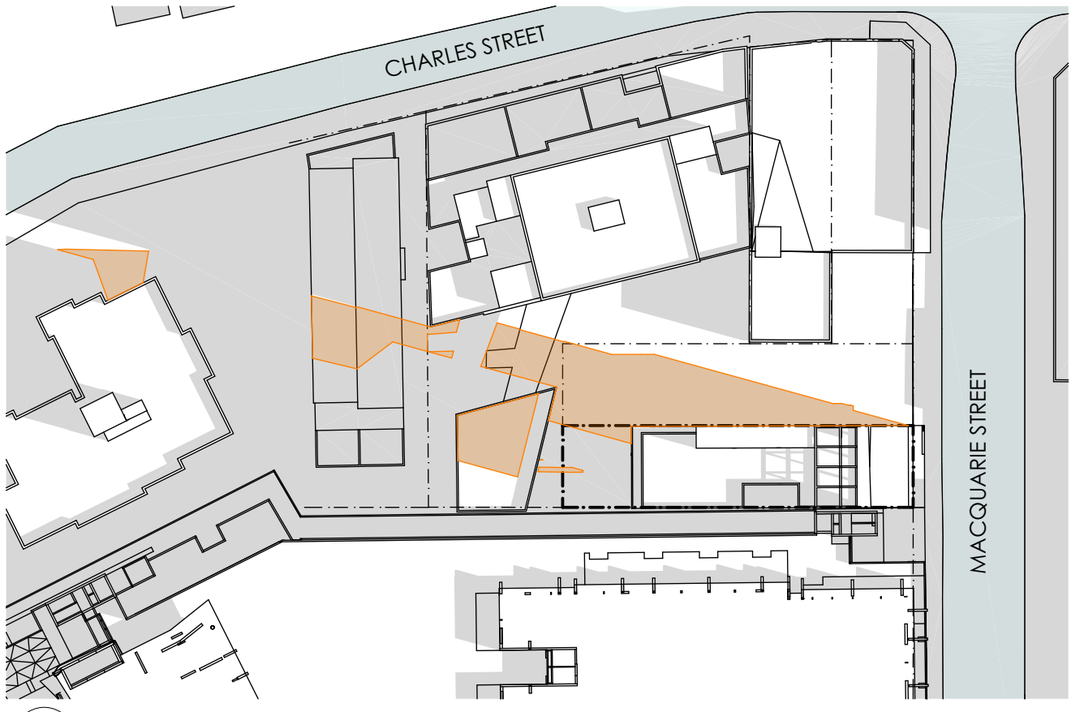
1 **JUNE 21 - 9AM (EXISTING)**
1:800



2 **JUNE 21 - 9AM (PROPOSED)**
1:800



3 **JUNE 21 - 10AM (EXISTING)**
1:800



4 **JUNE 21 - 10AM (PROPOSED)**
1:800

SHADOW IMPACT LEGEND

EXISTING SHADOWS

ADDITIONAL SHADOW CAST BY PROPOSED BUILDING

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Nominated Registered Architect: Peter Israel (reg no 5064)
ABN 90 050 071 022

REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

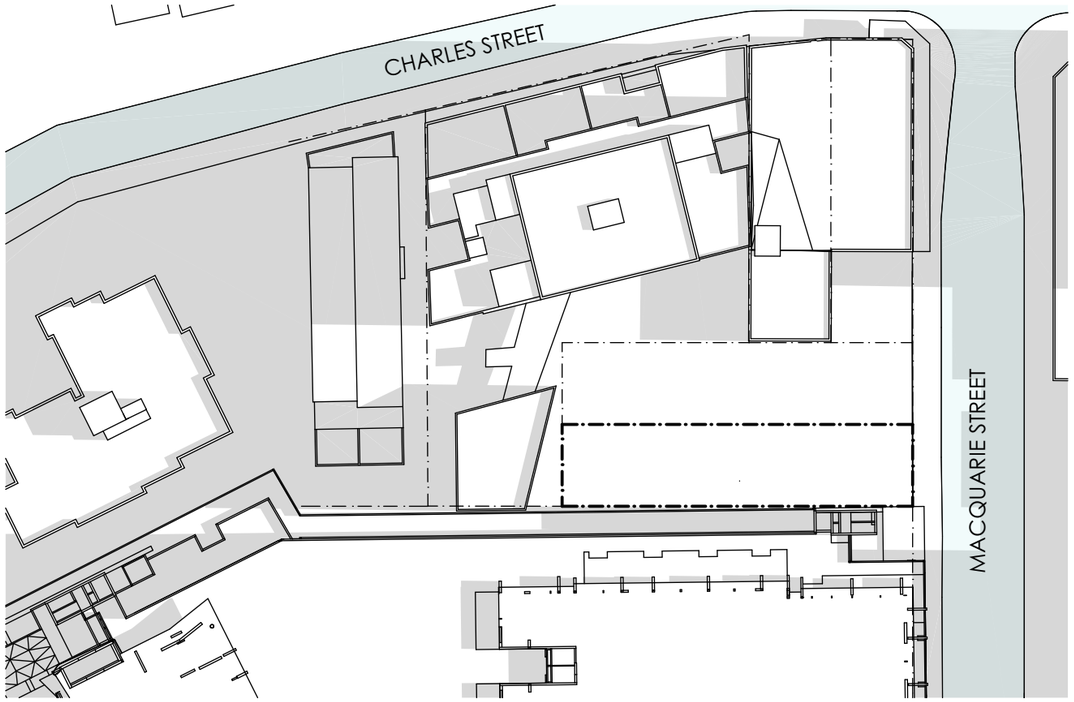
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SHADOW DIAGRAMS - SHEET 1

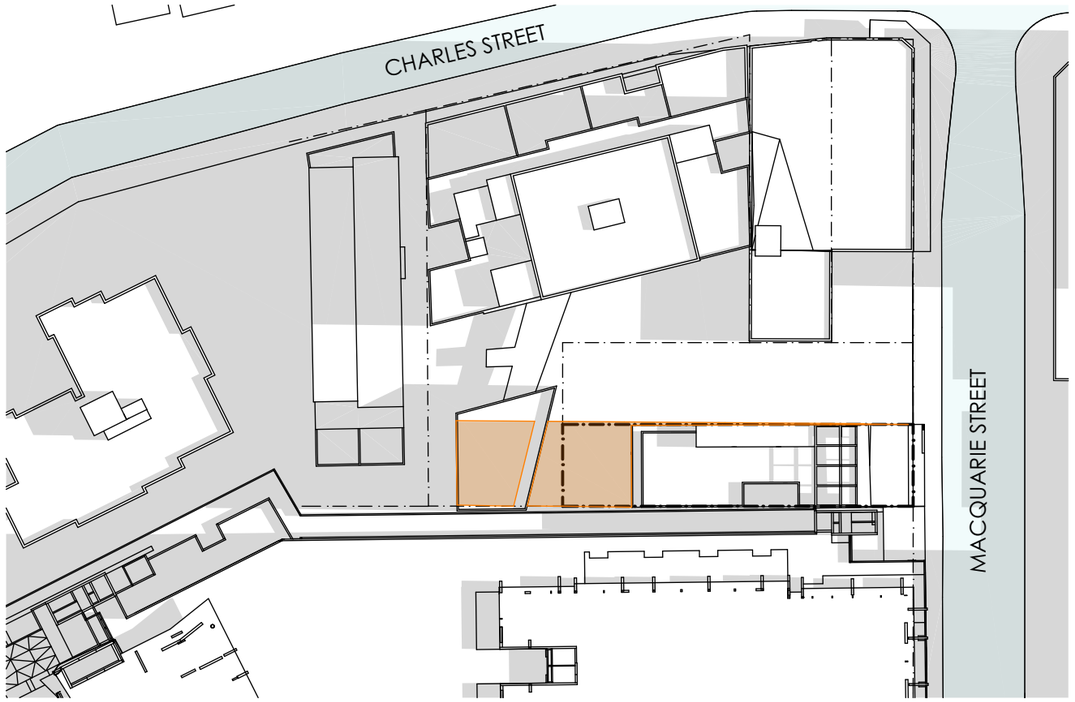
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:800 AT A3
PROJECT No: P567

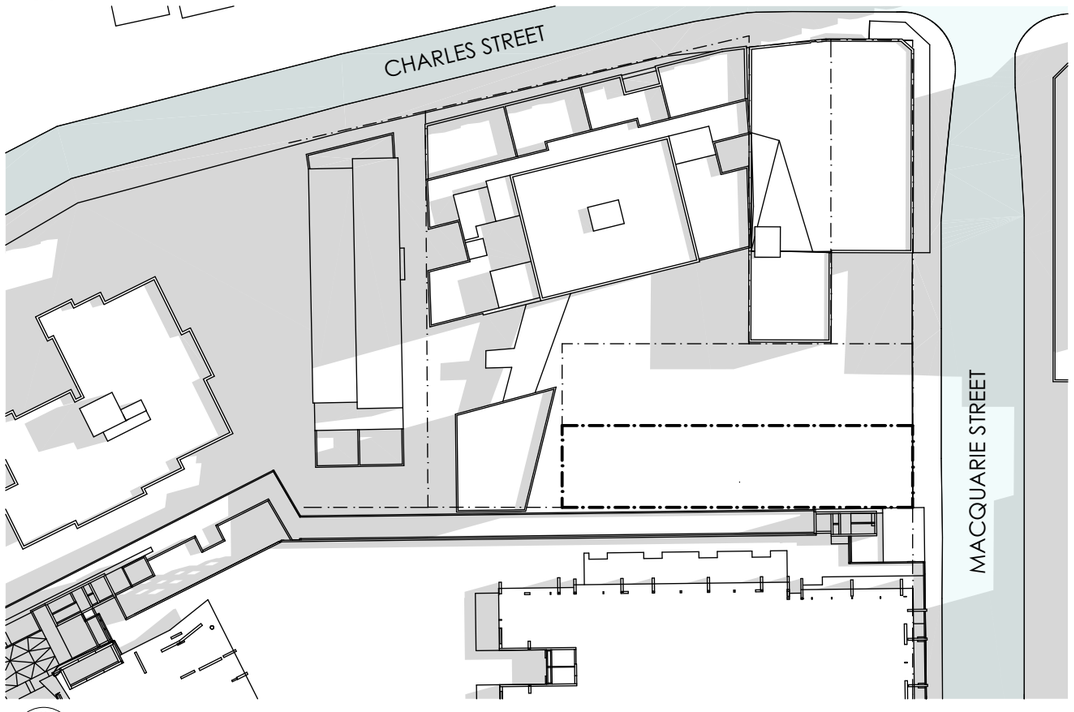
DA stage. 15 dwg no. P1 revision



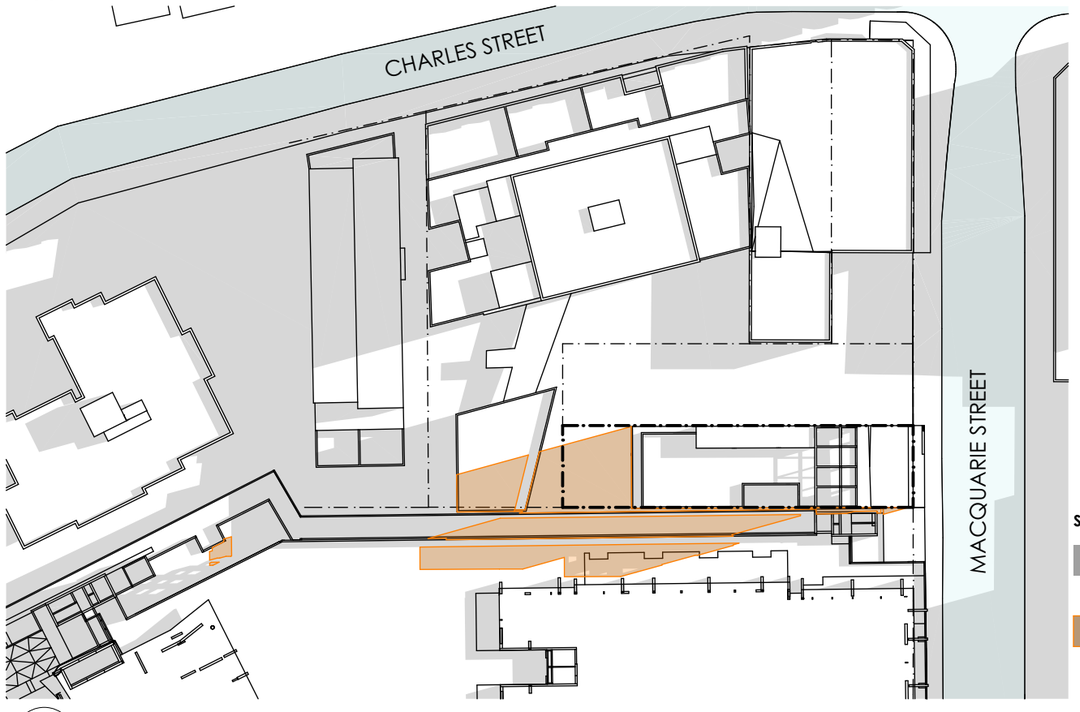
1 **JUNE 21 - 11AM (EXISTING)**
1:800



2 **JUNE 21 - 11AM (PROPOSED)**
1:800



3 **JUNE 21 - 12PM (EXISTING)**
1:800



4 **JUNE 21 - 12PM (PROPOSED)**
1:800

SHADOW IMPACT LEGEND

EXISTING SHADOWS

ADDITIONAL SHADOW CAST BY PROPOSED BUILDING

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

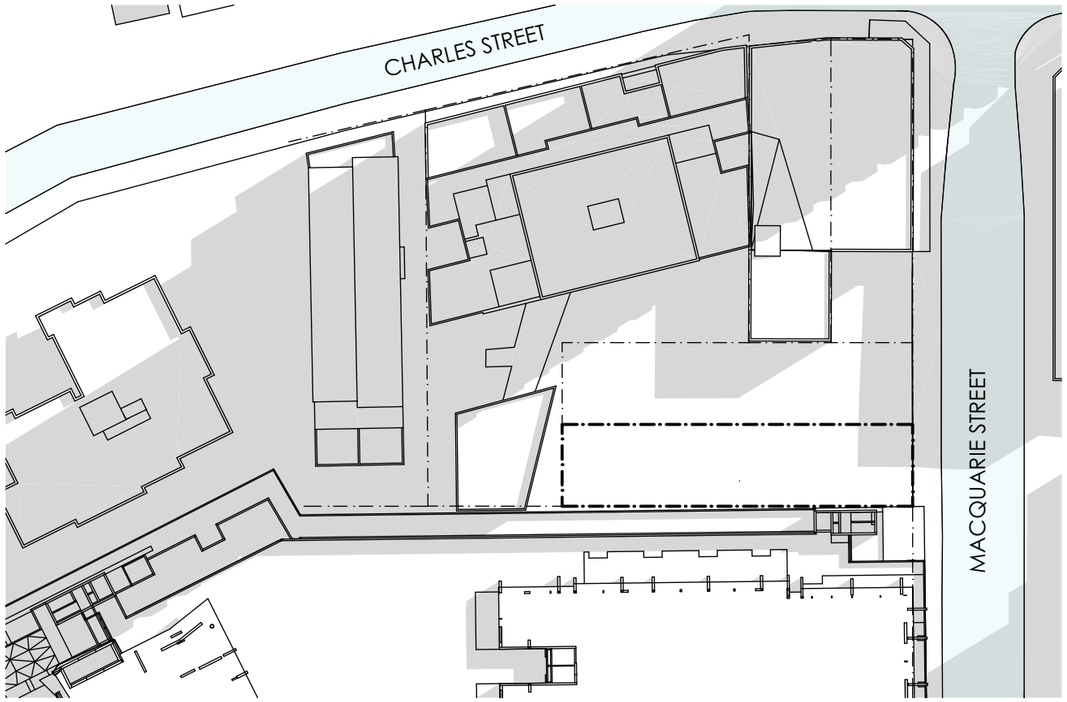
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SHADOW DIAGRAMS - SHEET 2

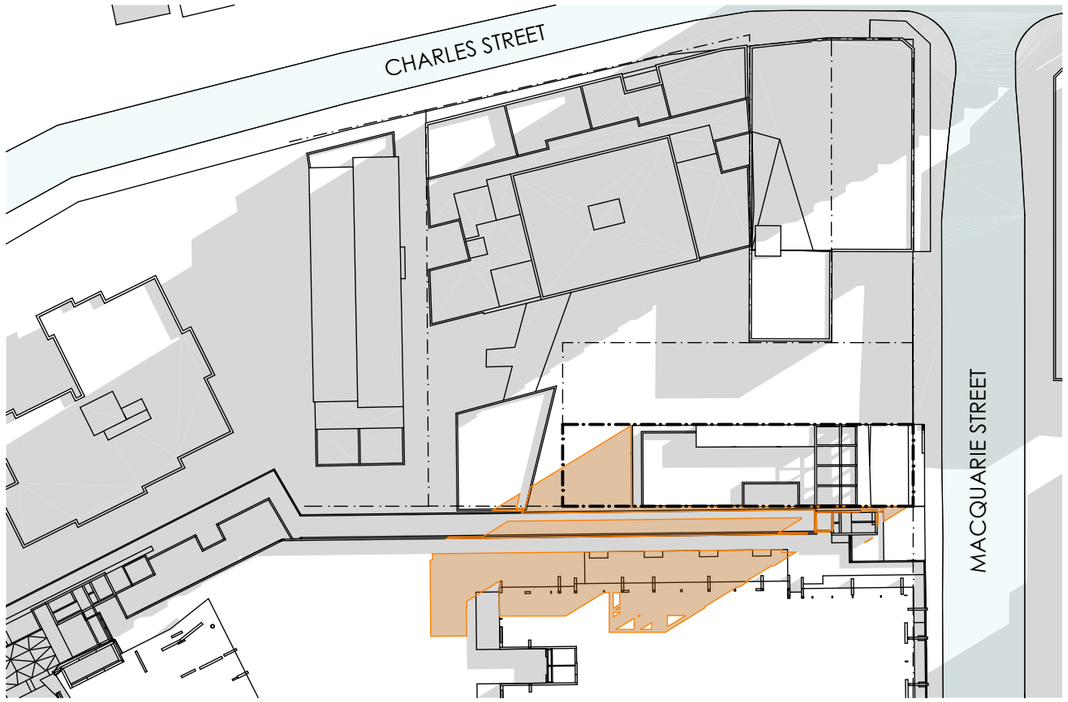
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:800 AT A3
PROJECT No: P567

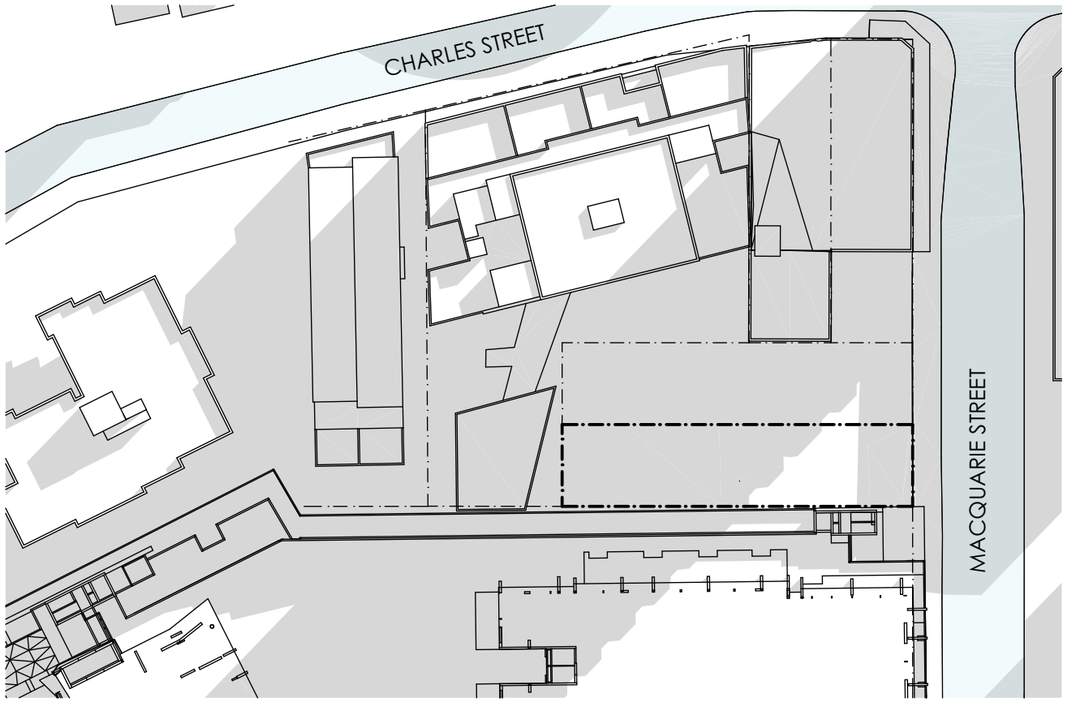
DA stage. 16 dwg no. P1 revision



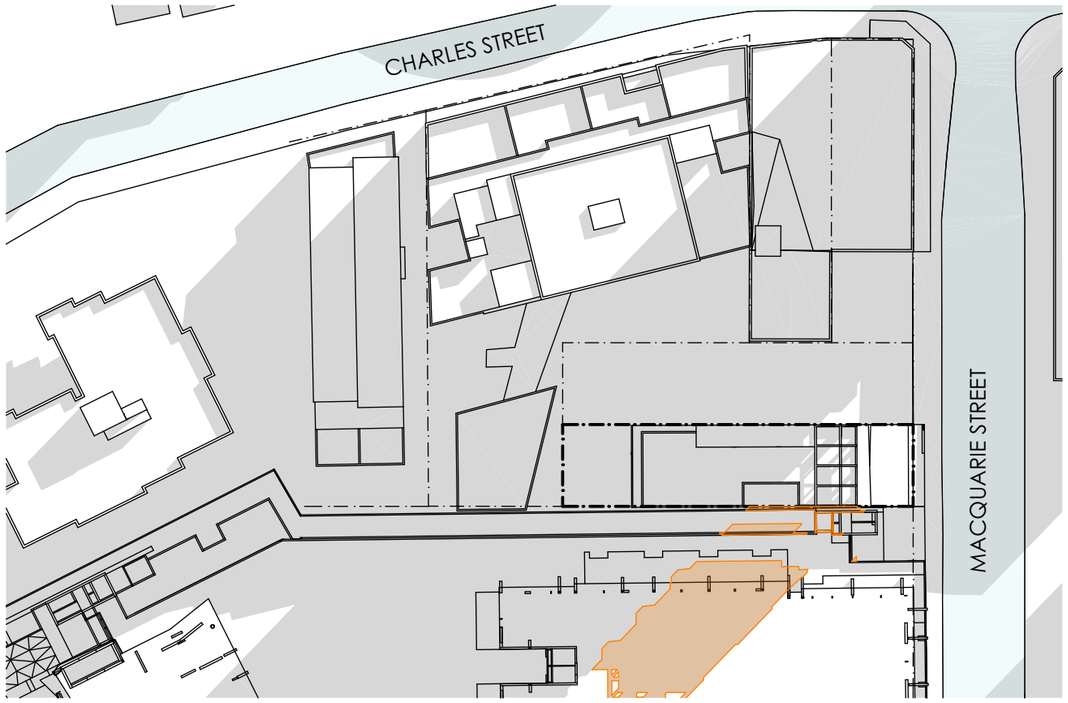
1 **JUNE 21 - 1PM (EXISTING)**
1:800



2 **JUNE 21 - 1PM (PROPOSED)**
1:800



3 **JUNE 21 - 2PM (EXISTING)**
1:800



4 **JUNE 21 - 2PM (PROPOSED)**
1:800

SHADOW IMPACT LEGEND

EXISTING SHADOWS

ADDITIONAL SHADOW CAST BY PROPOSED BUILDING

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

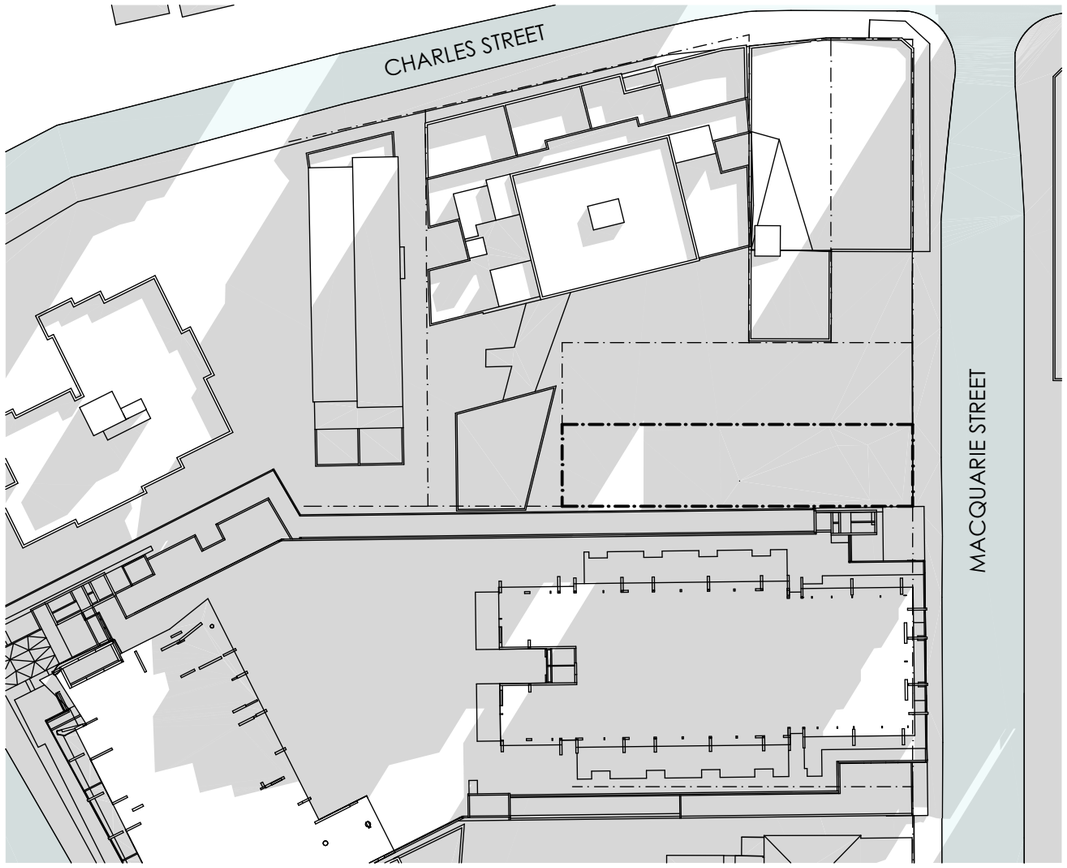
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SHADOW DIAGRAMS - SHEET 3

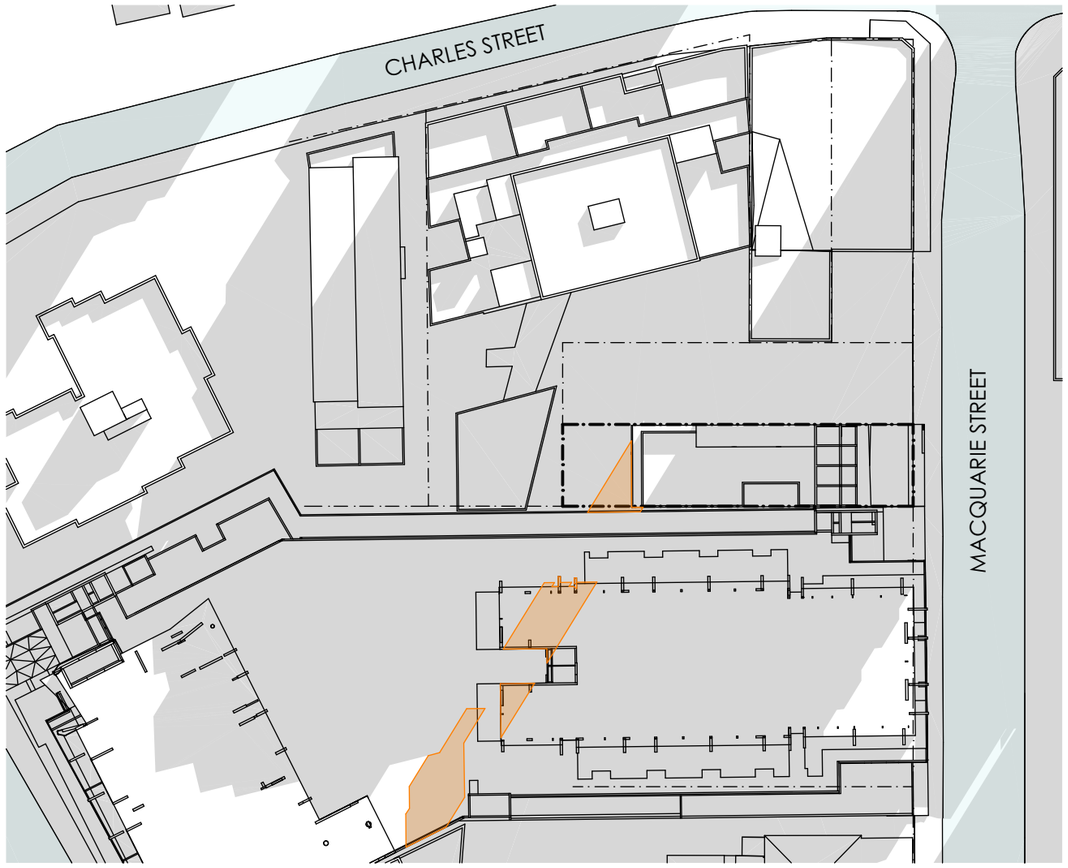
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:800 AT A3
PROJECT No: P567

DA stage. 17 dwg no. P1 revision



1 **JUNE 21 - 3PM (EXISTING)**
1:800



2 **JUNE 21 - 3PM (PROPOSED)**
1:800

SHADOW IMPACT LEGEND

EXISTING SHADOWS

ADDITIONAL SHADOW CAST BY PROPOSED BUILDING

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

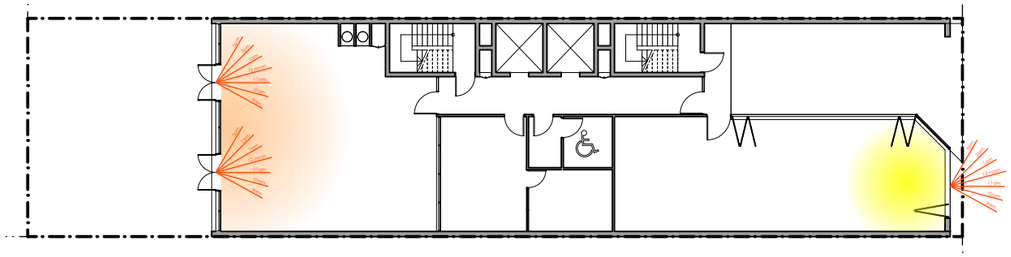
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SHADOW DIAGRAMS - SHEET 4

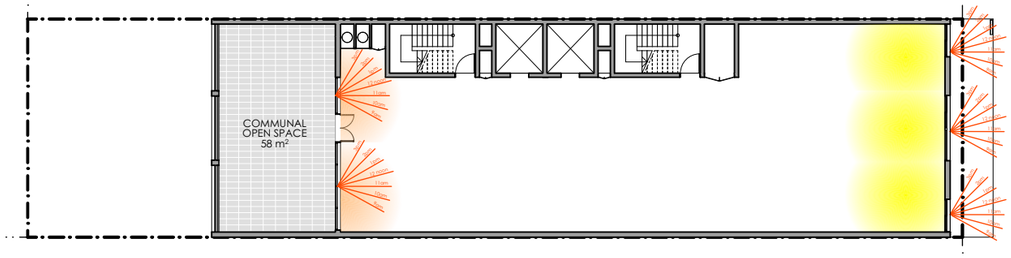
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:800 AT A3
PROJECT No: P567

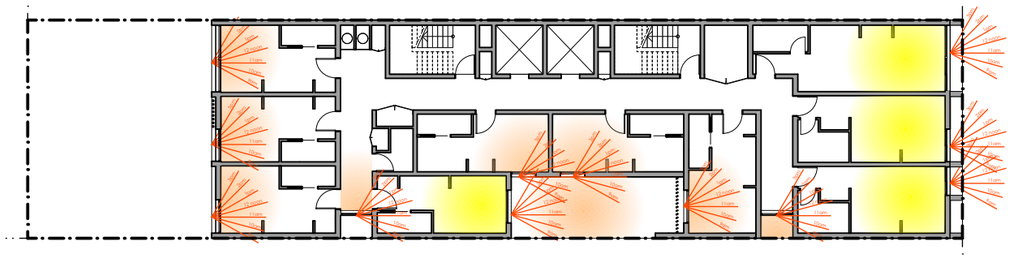
DA stage. 18 dwg no. P1 revision



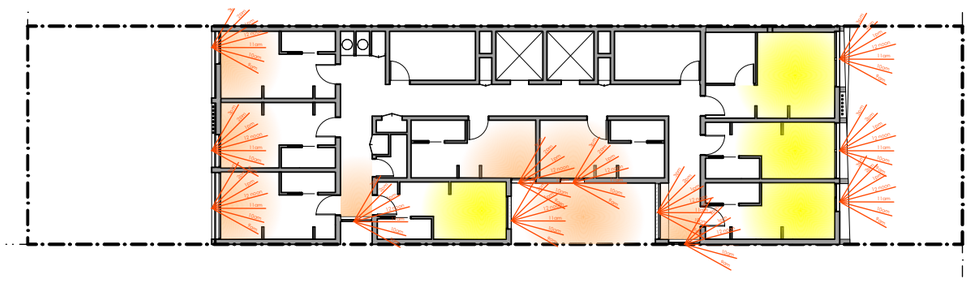
1 SOLAR STUDY - GROUND FLOOR
1:300



2 SOLAR STUDY - LEVEL 1
1:300



3 SOLAR STUDY - LEVEL 2-4
1:300



4 SOLAR STUDY - LEVEL 5-11
1:300

SOLAR ACCESS

2 HOURS DIRECT SUNLIGHT — SUN ACCESS FROM 9AM-3PM MIN 2HRS

LEVEL	TOTAL NO. UNITS	ACHIEVE 2 HOURS SUNLIGHT
GF		
L1		
L2 - 4		
L5 - 11		
TOTAL		

NO DIRECT SUNLIGHT

LEVEL	TOTAL NO. UNITS	NO DIRECT SUNLIGHT
GF		
L1		
L2 - 4		
L5 - 11		
TOTAL		

NOTE:

SOLAR ACCESS LEGEND

DIRECT SUNLIGHT

INDIRECT SUNLIGHT

SUNLIGHT ACCESS TOOL

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

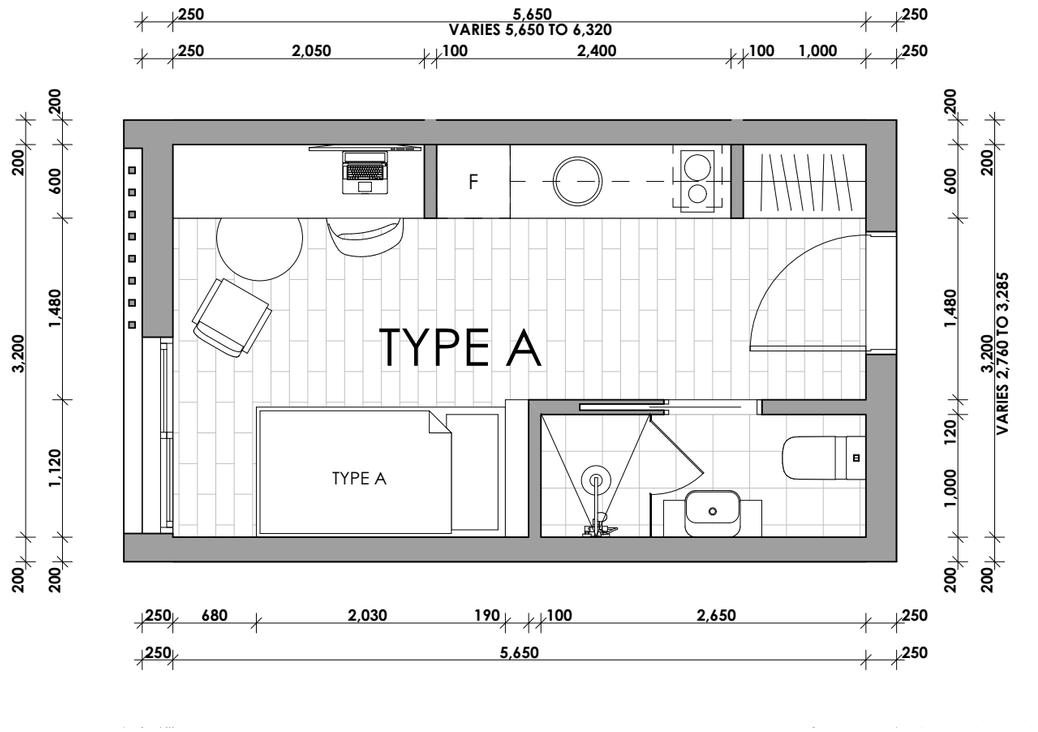
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
SOLAR STUDY DIAGRAMS

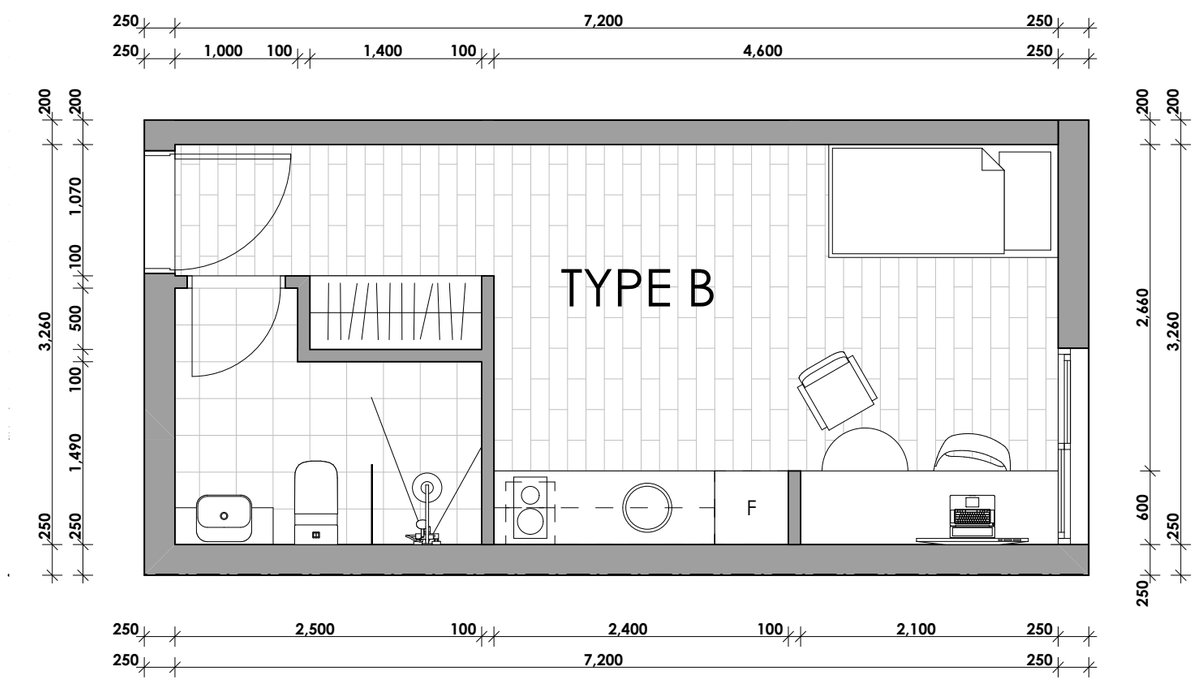
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:300 AT A3
PROJECT No: P567

DA stage. 19 dwg no. P1 revision



1 ROOM TYPE A - FLOOR PLAN
1:50



2 ROOM TYPE B - FLOOR PLAN
1:50

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

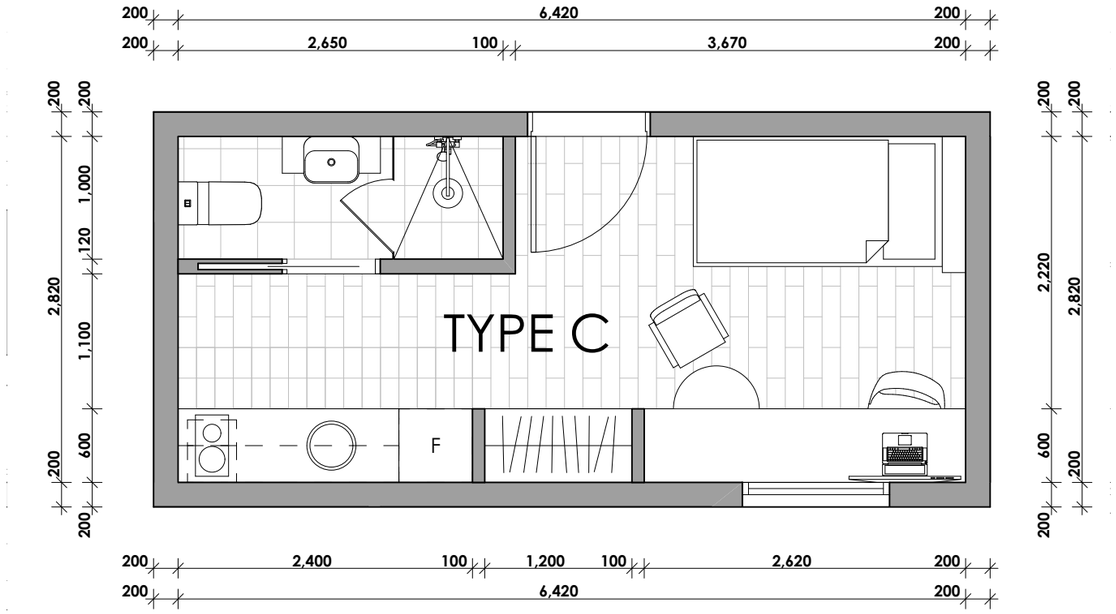
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
ROOM TYPE A & B

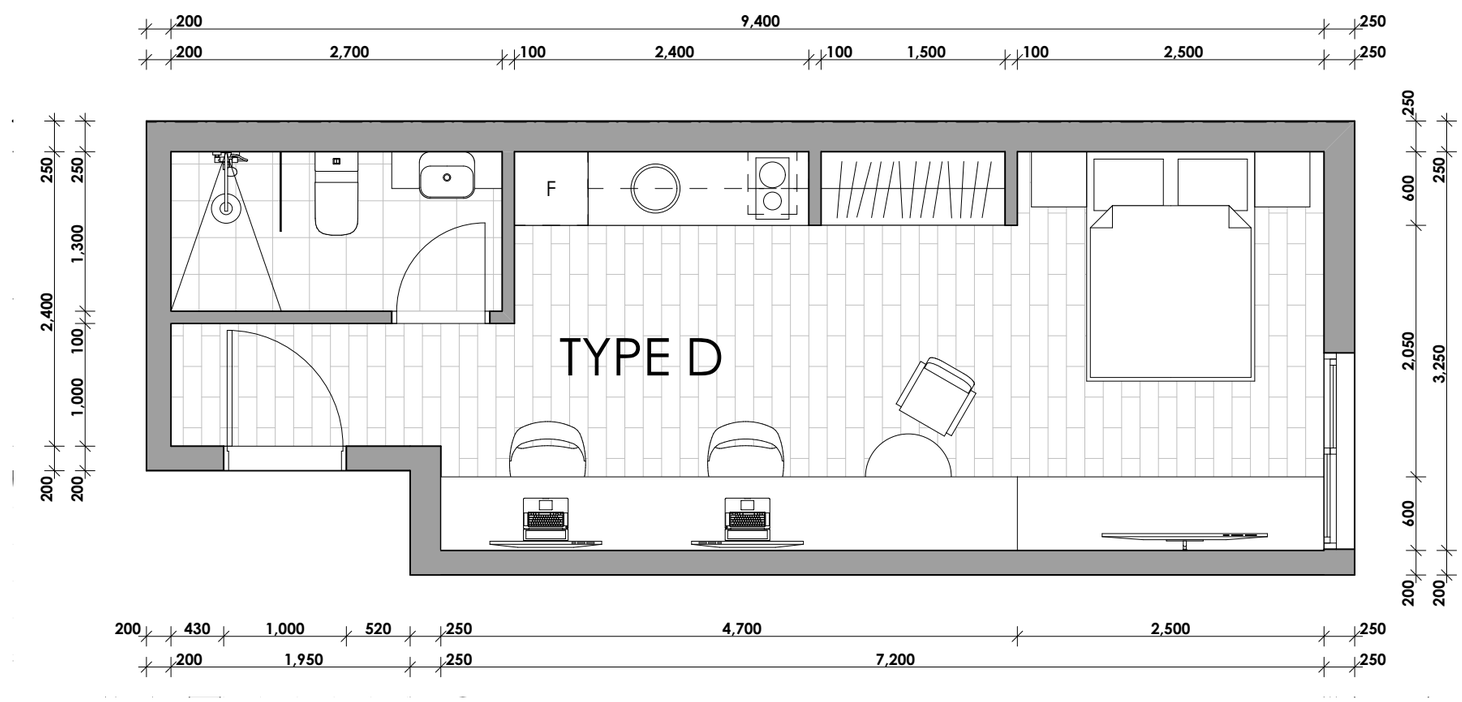
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:50 AT A3
PROJECT No: P567

DA stage. 20 dwg no. P1 revision



2 ROOM TYPE C - FLOOR PLAN
1:50



1 ROOM TYPE D - FLOOR PLAN
1:50

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

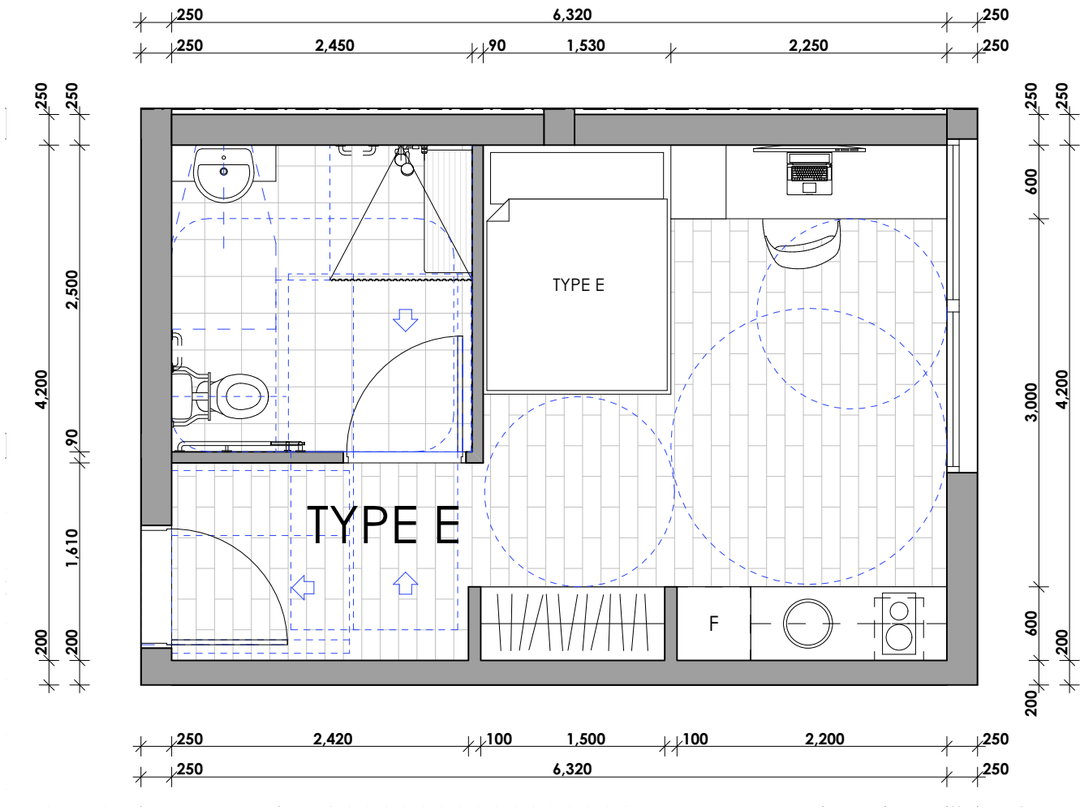
PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
ROOM TYPE C & D

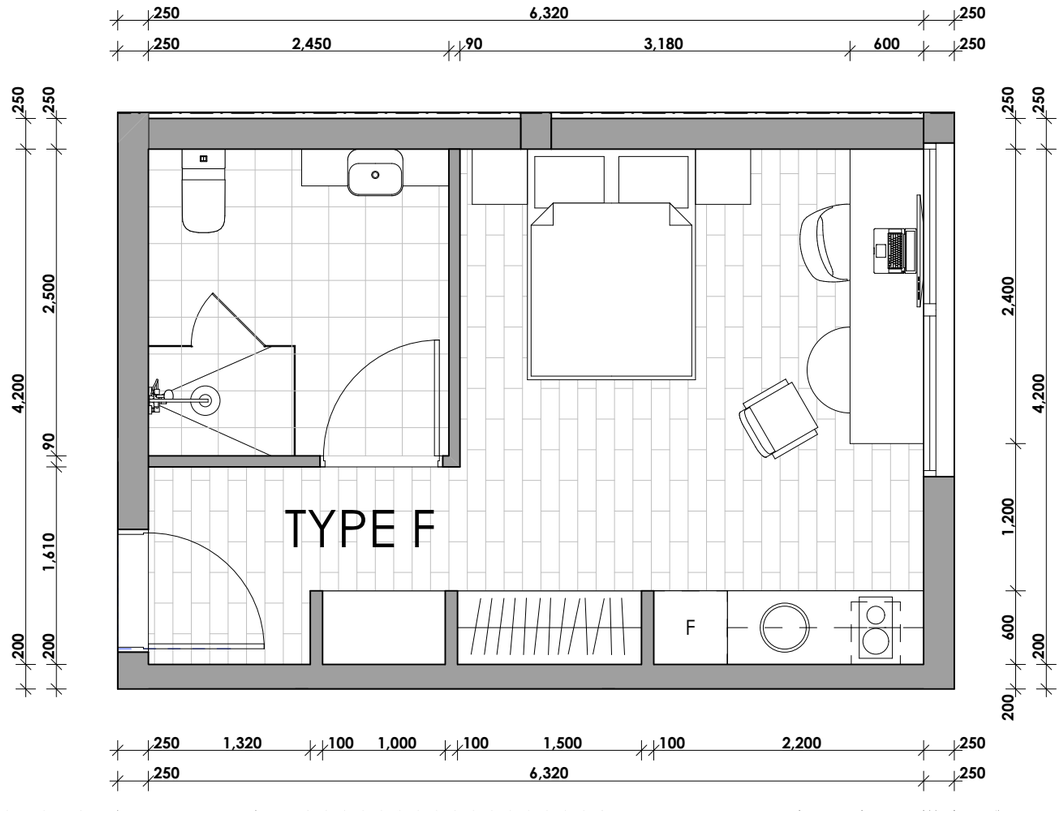
NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:50 AT A3
PROJECT No: P567

DA stage. 21 dwg no. P1 revision



1 ROOM TYPE E - FLOOR PLAN
1:50



2 ROOM TYPE F - FLOOR PLAN
1:50

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

DRAWING TITLE:
ROOM TYPE E & F

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:50 AT A3
PROJECT No: P567

DA stage. 22 dwg no. P1 revision

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REV	DESCRIPTION	BY	DATE
P1	-	-	-

CLIENT:
RAPISARDA INVESTMENTS

PROJECT TITLE:
DEVELOPMENT APPLICATION
STUDENT ACCOMMODATION AT
183 MACQUARIE STREET, PARRAMATTA

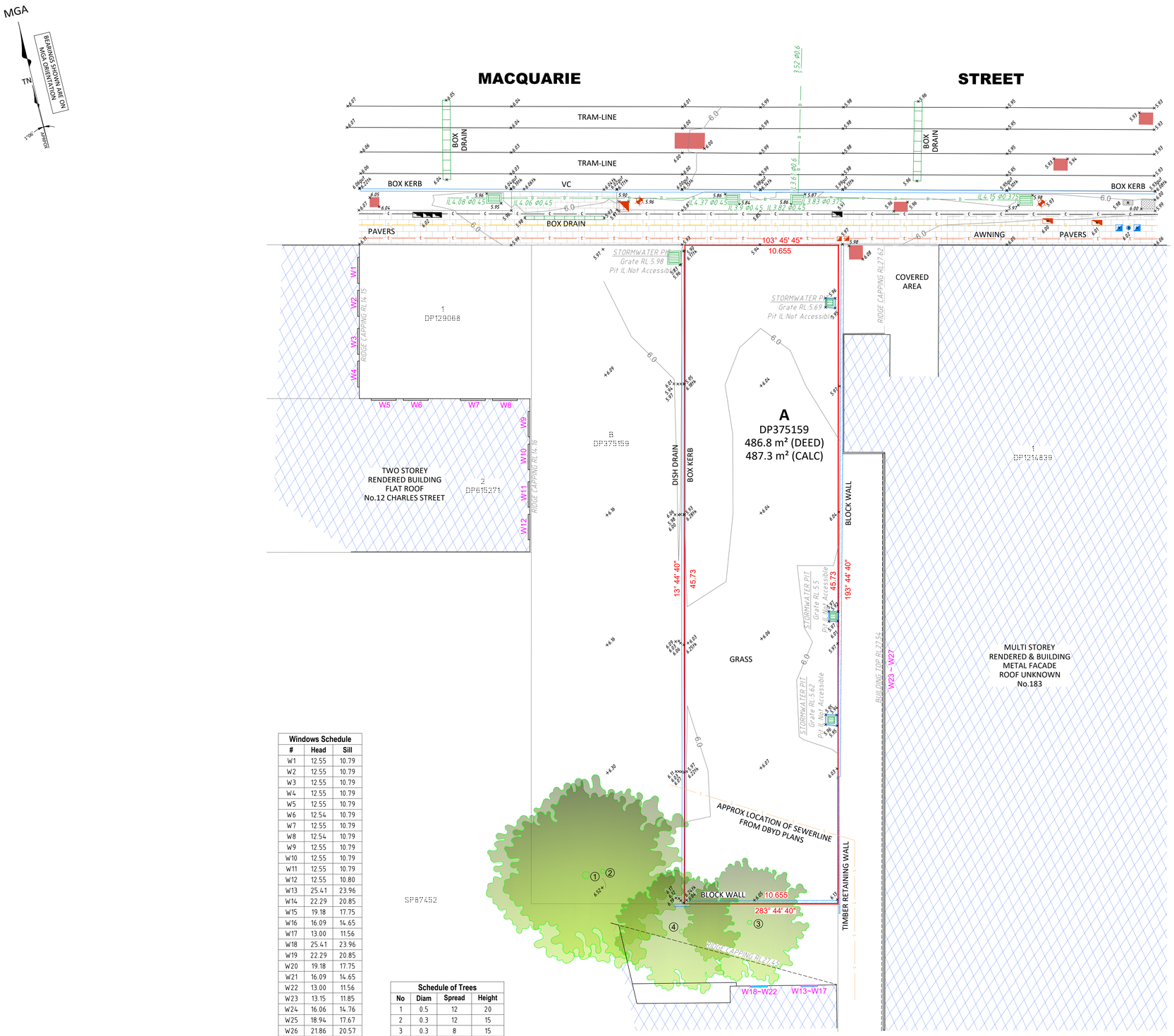
DRAWING TITLE:
3D VIEW

NORTH POINT:

DRAWN BY: LZ/NR
CHECKED BY: PI
SCALE: 1:7.58 AT A3
PROJECT No: P567

DA stage. 23 dwg no. P1 revision

A1



Windows Schedule		
#	Head	Sill
W1	12.55	10.79
W2	12.55	10.79
W3	12.55	10.79
W4	12.55	10.79
W5	12.55	10.79
W6	12.54	10.79
W7	12.55	10.79
W8	12.54	10.79
W9	12.55	10.79
W10	12.55	10.79
W11	12.55	10.79
W12	12.55	10.80
W13	25.41	23.96
W14	22.29	20.85
W15	19.18	17.75
W16	16.09	14.65
W17	13.00	11.56
W18	25.41	23.96
W19	22.29	20.85
W20	19.18	17.75
W21	16.09	14.65
W22	13.00	11.56
W23	13.15	11.85
W24	16.06	14.76
W25	18.94	17.67
W26	21.86	20.57
W27	25.32	23.47

Schedule of Trees			
No	Diam	Spread	Height
1	0.5	12	20
2	0.3	12	15
3	0.3	8	15
4	0.3	8	15

2 4 6 8 10 15
1:150

GENERAL NOTES

ONLY TREES GREATER THAN 3.5 METRES IN HEIGHT ARE SHOWN ON THIS PLAN AND THEIR POSITIONS ARE DIAGRAMMATIC ONLY AND MAY REQUIRE ADDITIONAL SURVEY WHERE CRITICAL TO DESIGN.

CONTOURS ARE INDICATIVE AT GROUND FORM ONLY. SPOT LEVELS ONLY SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.

LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD).

ALL SETOUT LEVELS MUST BE REFERRED TO THE BENCH MARK SHOWN ON THIS PLAN.

BOUNDARY NOTES

A BASIC BOUNDARY SURVEY HAS BEEN DONE SUITABLE FOR DA LODGEMENT PURPOSES.

BOUNDARIES HAVE NOT BEEN MARKED.

SURVEY INFORMATION NOTES

THE ORIGIN OF COORDINATES COMES FROM SSM47063 E315719.154 N625648.005 CLASS B POSITIONAL UNCERTAINTY (PU) N/A (MGA2020) ADOPTED FROM SCIMS DATED 31/05/2022.

THE ORIGIN OF LEVELS COMES FROM SSM47063 RL5.859 CLASS LB POSITIONAL UNCERTAINTY (PU) N/A ADOPTED FROM SCIMS DATED 31/05/2022.

THE ORIENTATION OF THIS PLAN IS MGA NORTH WHICH HAS BEEN DETERMINED BY DP1214839.

CERTIFICATE OF TITLE NOTES

THE FOLLOWING INFORMATION RELATES TO THE RESPECTIVE CERTIFICATE OF TITLE OF EACH LOTS:

- LOT A IN DP375159
  (CT EDITION 1 DATED 07/12/2015 SEARCH DATE 21/06/2022)
  -THERE ARE NO NOTATIONS ON THE CERTIFICATE OF TITLE

COVENANTS AND RESTRICTIONS NOTED ON THE TITLE HAVE NOT BEEN INVESTIGATED. THESE SHOULD BE INVESTIGATED PRIOR TO DESIGN TO ENSURE ANY FUTURE DEVELOPMENT COMPLIES.

SERVICES NOTES

ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND ARE QUALITY LEVEL A AS DEFINED BY AS 5488.1:2019.

UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM 'DIAL-BEFORE'YOU-DIG' PLANS, ARE QUALITY LEVEL D AS DEFINED BY AS 5488.1:2019 AND ARE ONLY CURRENT AT THE DATE OF SEARCH.

ALL RELEVANT AUTHORITIES MUST BE CONTACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.

LEGEND

- COMMUNICATIONS PIT
- ELECTRICITY PILLAR
- ELECTRICITY PIT
- HYDRANT
- LIGHT POLE
- STOP VALVE
- TRAFFIC SIGNAL PIT
- UNCLASSIFIED SERVICE

UNDERGROUND SERVICES LEGEND
QUALITY LEVEL D (AS 5488.1:2019)

- D — STORMWATER PIPE
- S — SEWER MAIN
- C — COMMUNICATIONS CABLES
- E — ELECTRICITY CABLES
- G — GAS MAIN

CAUTION: FIBRE OPTIC CABLES ARE PRESENT IN THIS AREA

APPROXIMATE POSITION ONLY VIDE 'DIAL-BEFORE-YOU-DIG' PLANS JOB No. 31998984 SEARCH DATE 24/05/2022. WHERE CRITICAL TO DESIGN, UNDERGROUND SERVICES SHOULD BE LOCATED BY MORE ACCURATE METHODS.

SERVICES NOTES:-

1. ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND IF SHOWN AS '+ 89.67' ARE QUALITY LEVEL A AS DEFINED BY AS 5488.1:2019. LEVELS SHOWN ARE SURFACE LEVELS UNLESS NOTED OTHERWISE.

2. UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM 'DIAL-BEFORE'YOU-DIG' PLANS, ARE QUALITY LEVEL D AS DEFINED BY AS 5488.1:2019 AND ARE ONLY CURRENT FOR 3 MONTHS FROM THE SEARCH DATE NOTED ABOVE. ALL RELEVANT AUTHORITIES MUST BE CONTRACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.

ISSUE	DATE	AMENDMENT	SURV	CHK
A	15/07/22	ORIGINAL ISSUE	PS	MD

DIAL BEFORE YOU DIG www.1100.com.au

GDA2020

VICTORIA TESTER ID: SU008514
REGISTERED LAND SURVEYOR

PROJECT:
DETAIL AND LEVEL SURVEY OF
LOT A IN DP375159

183 MACQUARIE STREET
PARRAMATTA

CLIENT: PTI ARCHITECTURE PTY LTD

FILE: 8748_183 MACQUARIE STREET PARRAMATTA_REV A

LGA: PARRAMATTA

REF: 8748	CONTOURS: 0.5m
ISSUE: A	DATUM: AHD
SURVEY DATE: 30/05/2022	AZIMUTH: MGA2020
SCALE: 1:150	SHEET 1 OF 1 SHEETS

SDG Pty Ltd
abn 85 213 523 621
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