PENRITH CITY COUNCIL

MAJOR ASSESSMENT REPORT

Application number:	DA18/0890
Proposed development:	Demolition of Existing Structures & Construction of Six (6) Storey Residential Flat Building including 20 Apartments & Two (2) Levels of Basement Car Parking
Property address:	38 Rodley Avenue, PENRITH NSW 2750 36 Rodley Avenue, PENRITH NSW 2750
Property description:	Lot 59 DP 33490 Lot 58 DP 33490
Date received:	5 September 2018
Assessing officer	Gemma Bennett
Zoning:	Zone R4 High Density Residential - LEP 2010
Class of building:	Class 2 , Class 7a
Recommendations:	Refuse

Executive Summary

Council is in receipt of a development application from Morson Group Pty Ltd, proposing the demolition of existing structures and construction of a six (6) storey residential flat building containing twenty (20) apartments and two (2) levels of basement car parking at 36-38 Rodley Avenue, Penrith.

The subject site is zoned R4 High Density Residential under Penrith Local Environmental Plan 2010 (LEP 2010). Development for the purposes of a residential flat building is permissible with consent in the zone.

The Minister for Planning has given directions under Section 9.1 of the Environmental Planning and Assessment Act 1979 on the development applications that are to be determined on behalf of Council by a Local Planning Panel. These directions, dated 23 February 2018, outline development within the Penrith Local Government Area that is for a residential flat building under the provisions of State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development require determination by a Local Planning Panel.

The proposed development was advertised in the local newspaper and notified to the owners and occupiers of adjoining and nearby properties. The public exhibition period for the proposal was from between the 13 September 2018 and 5 October 2018. During this period, two (2) submissions were received.

Key issues identified for the proposed development include:

- Non compliance with maximum height requirements.
- Non compliance with ADG requirements, including building separations.
- Servicing of the site in relation to stormwater and waste.
- Impacts on visual privacy and solar access to adjacent developments.

An assessment under Section 4.15 of the EP&A Act 1979 (as amended) has been undertaken and, on balance, the application is recommended for refusal.

Site & Surrounds

The subject site is known as 38 - 38 Rodley Avenue, Penrith and is legally known as Lots 58 and 59 of DP 33490. The allotment is rectangular in shape with a frontage onto Rodley Avenue of 30.5m and a depth of 36.6m resulting in an overall site area of 1,112.8m². Each lot is currently provided with a single storey residential dwelling and associated structures. The subject site is relatively flat and there is a drainage easement registered on the western boundary of Lot 58, DP 33490. This easement connects to a drainage easement located on the adjacent site to the south, Penrith Paceway (No. 127-141 Station Street, Penrith), which is a large parcel of land that runs from Mulgoa Road on the west to Station Street to the east.

Rodley Avenue and surrounds is currently in a state of transition from traditional detached dwellings to higher density development (reflecting it's current R4 High Density Zoning) with a number of approvals recently granted for the construction of residential flat buildings. In this regard, to the west of the subject site (No. 50-54 Rodley Avenue) is a 6 storey residential flat building containing 42 apartments with basement car parking (approved under DA16/0262) currently under construction. To the north west of the subject site (No. 12 Vista Street, Penrith) are two 6 storey residential flat buildings containing 79 apartments and basement car parking (approved under DA17/0311) currently under construction.

Proposal

The development proposes the demolition of existing structures and construction of a six storey residential flat building containing 20 apartments and two levels of basement car parking. Specifically, the proposed development includes the following key aspects;

Lower Basement

- The provision of a total of 21 residential car parking spaces including 2 accessible spaces and 1 stacked
- 16 residential storage spaces,
- Ramp access for vehicles to upper basement, and
- One lift, and one set of fire stairs.

Upper Basement

- The provision of a total of 15 car parking spaces including 1 accessible space, 4 visitor spaces and 1 washing/service space,
- Bicycle parking containing 6 spaces,
- 4 residential storage spaces,
- Waste bin storage room,
- Ramp access for vehicles to ground level, and
- One lift and one set of fire stairs.

Ground Floor Level

- Vehicular access to the basement level from Rodley Avenue,
- Waste bin room and bulky waste storage,
- Provision of 1 x 3 bedroom unit and 2 x 2 bedroom units, each with a separate private open space terrace
- Foyer entry area and circulation core providing for lift and waste chutes,
- Pump room, stairs to basement levels and stars to upper floors.

Level 1

- The provision of 2 x 3 bedroom units and 2 x 2 bedroom units each with an associated balcony, and
- Lobby area with circulation core providing for lift, fire stairs, waste chutes, and service cupboard.

Level 2-3

The provision of 2 x 3 bedroom units and 2 x 2 bedroom units each with an associated balcony, and

Lobby area with circulation core providing for lift, fire stairs, waste chutes and service cupboard.

Level 4

- The provision of 2 x 3 bedroom units and 2 x 2 bedroom units each with an associated balcony, and
- Lobby area with circulation core providing for lift, fire stairs, waste chutes and service cupboard.

Level 5

- The provision of 1 x 4 bedroom unit with associated balconies,
- Lobby area with circulation core providing for lift, fire stairs, waste chutes and service cupboard, and
- The provision of a communal open space area (totalling 168.3m² in size) with planter walls, tables and chairs.

The proposed apartment mix is provided by the following table below;

Unit Type	No of units
1 bedroom unit	0
2 bedroom unit	10
3 bedroom unit	9
4 bedroom unit	1

Background

The application was subject to a pre-lodgement meeting held with relevant Council staff members on the 8 May 2018. In addition, the application has been subject to an Urban Design Review Panel Meeting (UDRP) held with Council on the 9 May 2018. A preliminary assessment was conducted on the application with a subsequent additional information letter provided to the applicant on 9 January 2019. In response to this correspondence, additional plans and documentation were provided in February and March 2019, which form the basis of this assessment report.

Plans that apply

- Local Environmental Plan 2010 (Amendment 4)
- Development Control Plan 2014
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- State Environmental Planning Policy No 55—Remediation of Land
- State Environmental Planning Policy No 65—Design Quality of Residential Flat Development
- Sydney Regional Environmental Plan No.20 Hawkesbury Nepean River

Planning Assessment

Section 4.15 - Evaluation

The development has been assessed in accordance with the matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, and having regard to those matters, the following issues have been identified for further consideration:

Section 79C(1)(a)(i) The provisions of any environmental planning instrument

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

This Policy ensures the implementation of the BASIX scheme that encourages sustainable residential development. It requires certain kinds of residential development to be accompanied by a list of commitments to be carried out by applicants.

This application is subject to these requirements as it involves BASIX affected development.

BASIX Certificate No. 952452M dated 16 August 2018 was originally submitted with the Development Application demonstrating compliance with set sustainability targets for water and energy efficiency and thermal comfort. It is noted that an amended BASIX certificate has not accompanied the revised set of plans provided for Council's consideration.

Should the application be approved, any development consent would include a condition requesting an updated BASIX certificate to ensure the commitments in the original certificate are maintained during the life of the proposed development.

State Environmental Planning Policy No 55—Remediation of Land

Clause 7 of State Environmental Planning Policy No. 55 (SEPP 55) outlines the following requirements that a consent authority must consider prior to the issue of a consent for any development:

A consent authority must not consent to the carrying out of any development on land unless:

- (a) it has considered whether the land is contaminated, and
- (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

There is no record that the subject site is contaminated. The proponent has outlined that the site has been historically used for residential purposes while the surrounding area is also used for residential purposes. In this regard, given the residential use of the subject site and surrounding properties, it is not considered that further analysis is required as the proposal is not a change of land use being residential to residential. While so, should any 'unexpected findings' occur during excavation and earthworks, work is to cease immediately and Penrith City Council is to be notified. This may be addressed by way of recommended conditions of consent should the application be approved.

State Environmental Planning Policy No 65—Design Quality of Residential Flat Development

An assessment has been undertaken of the development proposal against the aims and objectives and specific provisions of State Environmental Planning Policy No. 65—Design Quality of Residential Apartment Development. In particular, the development proposal has been assessed against Clause 30 of the Policy which states that:

"Development consent must not be granted if, in the opinion of the consent authority, the development or modification does not demonstrate that adequate regard has been given to the design quality principles, and the objectives specified in the Apartment Design Guide for the relevant design criteria"

Clause 50 (1A)(1AB) of the Environmental Planning and Assessment Regulation 2000 specifies:

50(1A) If a development application that relates to residential apartment development is made on or after the commencement of the Environmental Planning and Assessment Amendment (Residential Apartment Development) Regulation 2015, the application must be accompanied by a statement by a qualified designer.

50 (1AB) The statement by the qualified designer must:

- (a) verify that he or she designed, or directed the design, of the development, and
- (b) provide an explanation that verifies how the development:
- (i) addresses how the design quality principles are achieved, and

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(ii) demonstrates, in terms of the Apartment Design Guide, how the objectives in Parts 3 and 4 of that guide have been achieved.

It is noted that the development application was not submitted with a design verification statement.

An assessment against Schedule 1 'Design Quality Principles', of the Policy has been undertaken and is included in **Table 1** and an assessment against the accompanying Apartment Design Guide is also provided in **Table 2** below.

	ent Against Schedule 1 - Design	Discussion
Table 1: Assessm Quality Principles Principle 1: Context and neighbourhood character		The design is not considered to respond to the context of the site in that the development as proposed does not have regard to required building separation distances as required under the Apartment Design Guide. The neighbourhood character is undergoing change with the R4 high Density zoning allowing for lots to achieve higher yields than what has been traditionally a low to medium density suburban environment. Notwithstanding future intensification of uses in the vicinity, by providing non-compliant separation distances, the proposed development is considered to have little regard for it's current context amongst existing 1 and 2 storey dwellings as well as maintaining consistent and compliant setbacks for any future residential flat buildings in accordance with the Apartment Design Guide. Due to non-compliant building separations, the landscaped area and treatment is considered to be insufficient to balance
Principle 2: Built form and scale	Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook	the built form and is inconsistent with the character of landscaping in the neighbourhood. The bulk and scale of the proposal is not considered likely to be representative of the desired future character of the neighbourhood noting the non compliant building separations provided. The visual presentation of the built form is considered an acceptable addition to a streetscape which is currently in transition from older low scale residential dwellings to larger residential flat buildings. It uses traditional colours and materials in it's design.

Principle 3: Good design achieves a high level of The development is considered to provide Density amenity for residents and each for generally acceptable internal and apartment, resulting in a density external amenity for residents. However the appropriate to the site and its context. development provides inadequate communal open space, bedrooms adjoining Appropriate densities are consistent communal open space, and an undesirable waste infrastructure location with the area's existing or projected population. adjoining the main entry, which is considered to have adverse impacts on Appropriate densities can be residential amenity. sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment. Principle 4: Good design combines positive The application is not considered to Sustainability environmental, social and economic adequately identify that solar access is provided in accordance with the Apartment outcomes. Design Guide rates. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and

vegetation.

Principle 5: Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity.

A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.

Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides for practical establishment and long term management.

Deep soil has been co-located with private open space areas for ground floor apartments, however the proposed communal open space is located on the rooftop, and therefore separated from the deep soil areas.

Landscaping proposed is not consistent with the landscape character of the streetscape in that the landscaping provided within the front setback is minimal. Opportunities for landscaping in the form of front setback planting are limited by the presence of the servicing which are prominently located in the building frontage.

Landscaping on the western boundary is proposed as a combination of small shrubs and medium sized trees within the easement, and planter boxes with larger trees on the private terrace areas. Planting and any structures (such as stairs and fencing) within the easement are not supported by Council, and this limitation will result in minimal planting to the side boundary to assist in providing privacy screening.

Landscaping to the communal roof area is considered to offer areas of relief for future residents using this area.

Principle 6: Amenity

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.

Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degrees of mobility.

The proposal is considered to provide for an appropriate level of amenity for the majority of future occupants in accordance with the requirements of the Apartment Design Guide in regard to room dimensions and privacy.

However, solar access is not considered to have been adequately addressed.

The amenity of Unit 51 in relation to acoustic privacy is considered to be adversely impacted by its location adjacent to the communal open space.

Principle 7: Safety	Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas	The application is considered to have appropriate regard to the principles of Crime Prevention through Environmental Design. The proposal will present to Rodley Avenue with casual surveillance achieved via the location of balconies and windows to all elevations. The building design is not considered to create areas of concealment with clear lines provided in separating public and private areas. The lobby is within view of the entry however the lift is not, which is not considered an appropriate design
	that are easily maintained and appropriate to the location and purpose.	solution to be further discussed within the ADG section of this report.
Principle 8: Housing Diversity and Social Interaction	Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets. Well designed apartment	The mix of units in the development is acceptable.
	developments respond to social context by providing housing and facilities to suit the existing and future social mix.	
	Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.	
Principle 9: Aesthetics	Good design achieves a built form that has good proportions and a balanced	The development is assessed to be appropriate in bulk and scale.
	composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.	As detailed elsewhere in this table and in the assessment of the development against the Apartment Design Guide (ADG) below, the development is considered to be
	The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.	generally consistent with the design criteria and design guidance statements of the ADG, however, non-compliances in relation to building separation distances, communal open space, location of waste storage rooms and service requirements, solar access, and landscaping have been identified.

Table 2:	Table 2: Assessment Against the Apartment Design Guide (ADG)			
Part 3	Required	Discussion	Complies	
3A-1	Each element in the Site Analysis	A Site Analysis plan was included	Yes.	
	Checklist should be assessed.	in the original package of		
		documents and a modified ADG		
		compliance table included on the		
		amended plans to identify applicable		
		elements as required within the		
		Checklist.		

3B-1	Buildings to address street frontages.	The building frontage onto Rodley Ave is naturally orientated to north and allows for direct access from the street.	Yes.
3B-2	Living areas, Private Open Space (POS) and Communal Open Space (COS) to received compliant levels of solar access.	Refer discussion under Part 3D and 4A.	N/A.
	Solar access to living rooms, balconies and private spaces of neighbours should be considered.	The submitted shadow diagrams have identified that the adjoining properties to the east and west of the subject site will be impacted by additional overshadowing.	No.
	If the proposal will significantly reduce the solar access of neighbours, building separation should be increased.	As discussed above, inadequate information has been submitted with the development application to enable an accurate assessment in this regard. It is also noted that the proposed building has been orientated at 90 degrees to the boundary with neighbouring properties to minimise overshadowing created. However it is considered likely that the solar access of the south facing private open space of the adjacent neighbour at 34b Rodley Avenue will be further reduced by the development which is considered a consequence of not maintaining compliant setback requirements.	No.
3C-1	Terraces, balconies and courtyard apartments should have direct street entry, where appropriate.	It appears that Unit 01 has direct access to Rodley Avenue via the terrace. However the stairs from the terrace to the ground level are located within the stormwater easement and would need to be relocated to the northern side of the terrace should the application be approved. No structures (stairs, fencing) are to be located within the easement.	Yes.
	Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings.	Limited level difference (up to 200mm) is provided between the pavement height and the finished floor height of the ground floor apartments fronting Rodley Avenue.	Yes.
	Upper level balconies and windows to overlook the street. Length of solid walls should be limited	All apartments along the street frontage overlook Rodley Avenue. The presentation of the northern	Yes.
	along street frontages. Opportunity for concealment to be minimised.	elevation fronting Rodley Avenue is provided with acceptable openings. While the front entry is separate and allows linear sight lines into the main lobby area, the lift is not	No.
		located in sight of the front entry door but in the circulation space.	

	Opportunities should be provided for casual interaction between residents and the public domain. Design solutions may include seating at building entries, near letter boxes	No seat is provided near the building entry or on other levels. Letterboxes are located inside the main entry doors however no seating is available in this location.	No.
	and in private courtyards adjacent to streets.		
3C-2	Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided.	The mail box location is nominated on plans inside the main entry doors and perpendicular to the front boundary which is considered an appropriate design solution.	Yes.
	Substations, pump rooms, garbage storage areas and other service requirements should be located in basement carparks or out of view.	Waste storage rooms are integrated into the building, however it's location to the front elevation adjacent to the main building entry and in clear view from the street is not considered appropriate and considered to create negative streetscape and visual impact. A location for an electrical substation has been identified within the front setback on the north western corner of the subject site. The hydrant booster is nominated on north eastern corner of the front boundary. Both locations are in prominent positions in the site frontage.	No.
3D-1	Communal Open Space (COS) to have minimum area of 25% of site.	278.5m² of COS is required under the ADG (25% of total site area). Submitted plans state that 168.3m² of the site is provided as COS, which equates to 15%. The area of COS is provided to the roof top level on the southern elevation. The proposed COS area is assessed to provide a moderate level of amenity and usable space for residents, with landscape plans indicating seating and BBQ facilities provided. Equitable access to this area provided from all levels via a lift core.	No.
	Achieve a minimum of 50% direct sunlight to the principle usable part of the communal open space.	The communal open space is proposed to the roof area, and shadow diagrams demonstrate that while some solar access is achieved, it is unclear whether the minimum 50% sunlight for 2 hours is maintained to the principal usable areas as the COS is continually overshadowed by Unit 51.	No
8696286	COS to be consolidated into a well-designed, usable area.	Refer to discussion above.	No.

	COS to be co-located with deep soil.	As the communal open space is	No.
		located to the roof level, co-	
		existance with deep soil area is not	
		provided for.	
3D-2	COS is to be provided with facilities	Seating and barbeque areas are	Yes.
	such as barbeque areas and seating.	provided within the COS area.	
	COS is to be well lit and readily visible	The location of the communal open	No, but
	from habitable rooms.	space to the roof level does not	acceptable i
		provide for visibility from habitable	this instance
		rooms, but while so, and separate	
		to concerns raised in relation to it's	
		overall size and overshadowing, this	
		area is not considered to provide for	
		any areas of entrapment, is allowed	
		equitable access via the proposed	
		lift service with the location on the	
		roof considered to allow for a greater	
		area of use as compared to a	
		confined location along a side	
		boundary or a rear corner of the	
		subject site.	
3D-4	Boundaries should be clearly defined	Boundaries between public and	Yes.
	between public open space and	private space are clear noting	
	private areas.	the use of planter boxes on the front	
		elevation of the building to the	
		boundaries of the Unit 01 terrace.	
		It is considered that fencing has	
		been mostly provided between	
		private open space areas on the	
		ground floor and areas accessible	
		from Rodley Avenue to minimise	
		inappropriate movement of persons.	
		As fencing cannot be located within	
		the stormwater easement on the	
		western elevation, the fence to the	
		private open spaces of Unit 01 and	
		02 cannot meet the property	
		boundary. As the Unit 01 stairs	
		need to be similarly relocated, an	
		alterative fencing design would need	
		to be pursued, such as providing the	
		fence on the terrace areas while	
		maintaining access to the ground	
		level. This could be provided as a	
		condition of consent should the	
	The state of the s	application be approved.	I .

3E-1	Deep soil is to be provided at a rate	77.9m ² of deep soil is required	Yes.
	7% with a minimum dimension of 3m.	under the ADG (7% of total site	
		area).	
		Submitted plans state that 390.1m ²	
		of the site is provided as deep	
		soil. A review of the deep soil	
		provided reveals that much of the	
		space does not meet the	
		minimum 3m depth required by	
		the ADG. However the deep soil	
		within the 5m strip on the eastern	
		boundary of the site equals	
		approximately 142m ² and therefore	
		the deep soil provided is compliant	
		with the ADG.	

3F-1	Minimum required shared separation distances between habitable rooms and balconies are to be as follows: 1-4 Storeys – 6m 5-8 storeys – 9m	Building separation is as follows (measured from the face of the balcony/building to the side boundary):	
		North Separation It is noted that the frontage onto Rodley Avenue provides additional separation to adjoining properties.	Yes.
		Ground: 4.4m to terrace, 6.5m to window Levels 1-4: 4.45m Level 5: 7m	
		South Separation It is noted that the subject site directly adjoins the trotting track to the rear but while so, the proposal is provided with non-compliant separations to all levels.	No.
		Ground: 1.6m to terrace, 3m to window Levels 1-4: 3m Level 5: 3m to rooftop communal open space	
		Western Separation The proposal is provided with non- compliant separation distances to all levels.	No.
		Ground: 2.36m to terrace, 5m to window Levels 1-4: 5m Level 5: 6m	
		East Separation The proposal is provided with non- compliant separation distances to all levels.	No.
		Ground: 5m to terrace, 6m to window Levels 1-4: 5m Level 5: 6m	
3F-2	Communal open space, common areas and access paths to be separated from private open space and windows to apartments.	The proposal is provided with landscaping and fencing to allow for appropriate separation between private and communal open space on the ground level on level 5, Unit 51 is provided with no windows to the communal open space. While so, it is considered likely that the location of bedrooms adjoining the communal open space is likely to result in acoustic impacts on the future occupants of Unit 51.	Yes.
D: 8696286		location of bedrooms adjoining the communal open space is likely to	

	Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas.	An acceptable separation has been provided between habitable rooms and circulation spaces.	Yes.
	Balconies, and private terraces should be located in front of living rooms to increase internal privacy.	Balconies are generally provided adjacent to living rooms.	Yes.
	Windows should be offset from the windows of adjacent buildings.	An offset is provided between proposed windows and openings on adjoining properties, particularly in consideration of likely redevelopment of sites to the east and west of the site. Notwithstanding, the reduced separation distances are considered likely to result in negative impacts on visual privacy.	Yes.
3G-1	Building entries to be clearly identifiable.	The entryway is adequately articulated and defined by planter boxes, with direct connection to the pedestrian access from the frontage.	Yes.
3G-2	Building access ways and lift lobbies to be clearly visible from the public domain and communal spaces.	The main building entry is visible from the street. The lift is located within the lobby but is not visible from the front door.	Yes.
3H-1	Carpark access should be integrated with the building's overall façade.	The entry to the basement carpark is adequately integrated into the building with access directly off Rodley Avenue. The location of the driveway limits the ability of the development to provide for a landscaped buffer to minimise the visual impact of the basement entry. Shrub planting is proposed to the eastern boundary	Yes.
	Clear sight lines to be provided for drivers and pedestrians.	and between the driveway and pedestrian entry. Adequate sight lines are provided for pedestrians or drivers exiting the	Yes.
	Garbage collection, loading and servicing areas are screened.	The bulky waste and garbage areas are integrated within the building, however are located at the front of the building directly adjoining the lobby entry.	Yes.
3J-1	The site is not located within 800m of a railway station and is required to comply with the car parking rates as stipulated within the Penrith DCP 2014.	Refer discussion under Penrith DCP 2014.	N/A
3J-2	Secure undercover bicycle parking should be provided for motorbikes and scooters.	6 secure bicycle parking spaces are provided within the basement levels.	Yes.

3J-3	Carpark design and access is safe and secure - A clearly defined and visible lobby area or waiting area should be provided to lifts and stairs.	Lift lobby areas within the basements are clearly defined and appropriately located.	Yes.
4A-1	Living rooms and private open spaces of at least 70% of apartments to receive 2 hours direct sunlight between 9am and 3pm mid-winter.	Submitted plans indicate that 17 of the 20 proposed units achieve adequate solar access (85%). While so, it is considered that insufficient solar analysis has accompanied the application to adequately demonstrate compliance in this regard, particularly in relation to the south facing units.	No.
	A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at mid winter.	Submitted plans do not indicate the proportion on units that do not achieve any direct sunlight. It is considered that inadequate solar analyses have been provided. However, based on the orientation of the lot it is considered likely that all units will receive at least some solar access between 9am and 3pm.	Yes.
4A-2	Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms.	The application is not provided with any highlight windows, courtyards or skylights.	N/A
4A-3	Sun shading devices are to be utilised.	Shading devices are provided to the north, east and west facing units and on the rooftop communal open space.	Yes.
4B-3	60% of apartments are naturally ventilated and overall depth of cross-through apartments 18m maximum glass-to-glass line.	The submitted plans indicate that 100% of apartments can achieve natural cross ventilation.	Yes.
4C-1	Finished floor to finished ceiling levels are to be 2.7m for habitable rooms, 2.4m for non-habitable rooms.	The proposal is for 3.1m measured from finished floor to finished floor level resulting in a 2.8m finished floor to underside of ceiling, which is compliant with the ADG.	Yes.
4D-1	Apartments are to have the following min. internal floor areas: 1 bed – 50sqm 2 bed – 70sqm 3 bed – 90sqm Additional bathroom areas increase minimum area by 5sqm.	Apartment sizes comply with the ADG requirements.	Yes.
4D-2	In open plan layouts the maximum habitable room depth is 8m from a window.	All units comply with this requirement.	Yes.
4D-3	Master bedrooms to be 10sqm's and other rooms 9sqm's.	All units comply with this requirement.	Yes.
	Bedrooms to have a minimum dimension of 3m. Living rooms to have minimum width of	All units comply with this requirement. All units comply with this	Yes.
	3.6m for a 1 bedroom unit and 4m for 2 & 3 bedrooms.	requirement.	. 55.

4E-1	All units to have the following primary	All units comply with the balcony	Yes.
	balcony areas:	size and area requirements.	
	1 bed – 8sqm (2m deep)		
	2 bed – 10sqm (2m deep)		
45.0	3 bed – 12sqm (2.4m deep)	Lade the state of	NI.
4E-3	Air-conditioning units should be	Individual air conditioning units are	No.
	located on roofs, in basements, or	provided to units. While the units	
	fully integrated into the building	are screened, the balcony units are	
	design.	considered to provide a poor outcome from a visual amenity	
		perspective.	
4F-1	The maximum number of apartments	The application provides for a	Yes.
	off a circulation core on a single level	maximum of 4 units to levels 1 to 4.	
	is eight.		
	Where a development is unable to		
	achieve the design criteria, a higher		
	level of amenity for common lobbies,		
	corridors and apartments should be		
4F-1	demonstrated.	Windows are provided to all	Vaa
46-1	Daylight and natural ventilation to be provided to all common circulation	Windows are provided to all circulation spaces to allow for	Yes.
	spaces.	natural light.	
4F-1	Primary living room or bedroom	All primary bedroom and living room	Yes.
TI I	windows should not open directly onto	windows do not directly front onto	100.
	common circulation spaces, whether	common circulation spaces. In this	
	open or enclosed.	regard, visual and acoustic privacy	
	·	is considered to be maintained.	
	Visual and acoustic privacy from		
	common circulation spaces to any		
	other rooms should be carefully		
	controlled.		
4G-1	In addition to storage in kitchens,	Submitted plans indicate that	Yes.
	bathrooms and bedrooms, the	storage cages are provided with the	
	following storage is to be provided:	basement carpark.	
	1 bed – 4m ³	Adoquato area for internal starage is	
	2 bed – 6m ³ 3 bed – 10m ³	Adequate area for internal storage is also accommodated within	
	J DEC - TOTTIS	apartments.	
	With 50% of the above to be provided	apartinonio.	
	within the Units.		
4H-1	Noise transfer is minimised through	The amenity of Unit 51 in relation to	No.
	the siting of buildings and building	acoustic privacy is considered to be	
	layout.	adversely impacted by the	
		bedrooms located directly adjacent	
		to the communal open space.	
4K-1	Flexible apartment configurations are	The development proposes mostly 2	Yes.
	provided to support diverse household	and 3 bedroom apartments with one	
	types.	4 bedroom apartment on level 5.	
4L-1	Direct street access should be	Direct street access is provided for	Yes.
	provided to ground floor apartments.	ground floor Unit 01 as it faces	
		Rodley Avenue.	1

4M-1	Building facades to be well resolved with an appropriate scale and proportion to the streetscape and human scale.	The proposed street elevation is provides for a varied building elements, with face brock to walls and rendered painted finishes to balconies. The façade is provided with both horizontal and vertical elements with stacked balconies creating clearly identifiable vertical lines while horizontal division is provided via dominant storey levels.	Yes.
40-1	Landscape design to be sustainable and enhance environmental performance.	The proposed landscaping design will allow for small sized trees and shrubs to be incorporated within planter boxes provided to the rooftop level. The nature of the landscaping proposed is considered to allow for some screening of apartments from adjoining premises in association with boundary fencing while also providing some streetscape planting. As previously discussed the extent of planting in the stormwater easement is unlikely to be supported, and in addition a large tree is proposed to be planted in the area within the front setback designated for OSD storage. Landscaping area available within the front setback is further reduced by the placement of booster, driveway, footpath, substation, easement and OSD system. The proportion of the site covered by the building footprint, terraces and driveways is 69%, leaving limited opportunities for meaningful landscaping to be provided. In this regard, the proposed landscaping is considered to not enhance the environmental performance of the structure.	No.
4Q-2	Adaptable housing is to be provided in accordance with the relevant Council Policy.	A total of 3 adaptable units are proposed. With a total of 20 units identified, to meet Council's Policy in relation to adaptable units 2 units are required. In this regard, the proposal is compliant.	Yes.
4U-1	Adequate natural light is provided to habitable rooms.	Apartment depths and open floor plan arrangements allow light into most kitchens, dining and living areas. However, as detailed previously, inadequate solar analysis has been provided to demonstrate availability of natural light.	No.

4V-2	Water sensitive urban design systems	The development application was	Yes.
	to be designed by suitably qualified	referred to Council's internal	
	professional.	Environmental Waterways Unit.	
		While the WSUD plans generally	
		comply with Council's policy, it was	
		noted that the bioretention basin on	
		the landscape plan did not	
		correspond to the location shown on	
		the stormwater concept plans. It	
		was considered that should	
		development consent be	
		granted, the WSUD proposal could	
		be supported provided amended	
		plans were submitted prior to	
		issue of a Construction Certificate,	
		along with	
		other conditions.	
4W-1	A Waste Management Plan is to be	The development application was	No.
	provided.	referred to Council's Waste	
		Management Officer. The waste	
		management proposal was not	
		supported.	
		Council's policy (DCP C5 clause	
		5.2.2.4) requires residential flat	
		buildings of 3 or more storeys to	
		provide on site waste collection,	
		integrated into the building's form.	
		The proposal includes an indented	
		bay with street collection which	
		does not comply with the policy.	
		Further discussion is provided	
		against DCP Section C5 Waste	
		Management.	
	Circulation design allows bins to be	Waste areas and manoeuvring is	No.
	easily manoeuvred between storage	non-compliant with Council's DCP.	
	and collection points.	Bins are to be manoeuvred from the	
		waste room using the pedestrian	
		entry to the building.	

Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

An assessment has been undertaken of the application against relevant criteria with Sydney Regional Environmental Plan No. 20—Hawkesbury-Nepean River (No. 2—1997). This Policy aims "to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context". The Policy requires Council to assess development applications with regard to general and specific considerations, policies and strategies.

The proposal is not found to be contrary to these general and specific aims, planning considerations, planning policies and recommended strategies of the plan. The site is not located within a scenic corridor of local or regional significance and it is considered that the proposed development will not significantly impact on the environment of the Hawkesbury-Nepean River either in a local or regional context.

Local Environmental Plan 2010 (Amendment 4)

Provision	Compliance
Clause 1.2 Aims of the plan	Does not comply - See discussion
Clause 2.3 Permissibility	Complies
Clause 2.3 Zone objectives	Does not comply - See discussion
Clause 2.7 Demolition requires development consent	Complies
Clause 4.1A Minimum lot sizes for dual occupancies, multi dwelling housing and residential flat buildings	Complies
Clause 4.3 Height of buildings	Does not comply - See discussion
Clause 4.4 Floor Space Ratio	N/A
Clause 4.6 Exceptions to development standards	Complies - See discussion
Clause 5.10 Heritage conservation	N/A
Clause 7.1 Earthworks	Complies
Clause 7.2 Flood planning	Does not comply - See discussion
Clause 7.4 Sustainable development	Complies
Clause 7.6 Salinity	Does not comply - See discussion
Clause 7.7 Servicing	Does not comply - See discussion

Clause 1.2 Aims of the plan

The proposal is not considered to comply with the following aims of the LEP:

(b) to promote development that is consistent with the Council's vision for Penrith, namely, one of a sustainable and prosperous region with harmony of urban and rural qualities and with a strong commitment to healthy and safe communities and environmental protection and enhancement

(c) to accommodate and support Penrith's future population growth by providing a diversity of housing types, in areas well located with regard to services, facilities and transport, that meet the current and emerging needs of Penrith's communities and safeguard residential amenity

The adverse amenity impacts on future occupants, in regards to the inadequate communal open space provided and inadequate separation distances for the proposed built form, is considered likely to result in low levels of visual privacy and solar access for future occupants and adjoining residents, and is not aligned with Council's vision for development in Penrith.

Clause 2.3 Zone objectives

The subject site is located within the R4 High Density Residential zone. The objectives of the zone include:

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To ensure that a high level of residential amenity is achieved and maintained.
- To encourage the provision of affordable housing.
- To ensure that development reflects the desired future character and dwelling densities of the area.

The design of the proposed development does not ensure that a high level of residential amenity is achieved and maintained in that the application has not demonstrated that building separation, solar access, communal open space and landscaping standards have been satisfactorily achieved in accordance with the Apartment Design Guide.

Clause 4.3 Height of buildings

The subject site is provided with a maximum building height of 18m under the LEP. The application is provided with a flat roof at RL46.200 and a lift overrun of RL47.200. This provides for a height non compliance on the subject site of between 1.38 and 1.5m (overall height of 19.38m to 19.5m or 7.6% to 8.3% above the maximum height required) to the uppermost habitable floor area (for units 51 on Level 5), with a non-compliance of 2.19m (overall height of 20.19m or 12.2% above the maximum height required) to the lift overrun.

In this regard, the application was accompanied with a '4.6 Exception to development standard' document which has discussed the nature of the height non compliance. Discussion in regard to the non compliance is provided below.

Clause 4.6 Exceptions to development standards

The application is non compliant with the height of buildings development standard as discussed above under Clause 4.3 'Height of Buildings' of the Penrith Local Environmental Plan 2010.

Clause 4.6 of the Penrith Local Environmental Plan 2010 provides that development consent may be granted for development even though the development would contravene a development standard. This is provided that the relevant provisions of the clause are addressed, in particular subclause 3-5 which provide:

- (3) Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:
- that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and
- (b) that there are sufficient environmental planning grounds to justify contravening the development standard.
- (4) Development consent must not be granted for development that contravenes a development standard unless:
- (a) the consent authority is satisfied that:
- the applicant's written request has adequately addressed the matters required to be demonstrated by (i) subclause (3), and
- the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and
- (b) the concurrence of the Secretary has been obtained.
- (5) In deciding whether to grant concurrence, the Secretary must consider:
- whether contravention of the development standard raises any matter of significance for State or regional environmental planning, and
- the public benefit of maintaining the development standard, and
- any other matters required to be taken into consideration by the Secretary before granting concurrence.

Building Height

The application has been accompanied by a revised Clause 4.6 Variation Request prepared by Stimson & Baker Planning dated March 2019 in relation to the building height non-compliance. The request has provided for the following evaluation with reference to Clause 4.6(3)(a) and (b) and the identified variation in relation to Clause 4.3 of the LEP;

How is strict compliance with the development standard unreasonable or unnecessary in this particular case?

The proposal meets the general intent of clause 4.3 Height of Buildings and complies with the objectives of this development standard and more generally the zone as follows:

- The proposal is compatible with the height, bulk and scale of the emerging and desired future character of the locality and with the surrounding development. This is demonstrated within the submitted plans, showing the breach in height would not create any impacts on nearby or adjoining properties.

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- The proposal does not impact on the visual amenity, reduces views or minimises loss of privacy or solar access.
- There is no heritage item on the site.
- The proposal provides a high-quality urban form and provides a building that can contribute to a varying skyline given the recent increase in height limit in this area.
- The high-quality form of the proposal has been supported through the Council's own Urban Design Review Panel process.
- It is unreasonable to apply the height limit across the site in this case as the proposal does not impact on the visual amenity nor does it reduce views or minimises loss of privacy or solar access. The orientation of the building, the stepping of the building and façade treatment minimises shadow impacts with the majority of the shadow falling on the Paceway site to the south.
- The proposed development meets the objectives of the zone and the height of building clause, it contributes to the provision of necessary land uses within the Penrith City in locations in close proximity to services and facilities. Given the spatial context of the building, the proposed encroachment will not present as a perceptible element. It is considered that the proposal is in the public interest and strict compliance with the standard in this instance is both unreasonable and unnecessary.

Are there sufficient environmental planning grounds to justify contravening the development standard?

There are a number of positive environmental planning grounds that arise as a result of this development, and specifically the breach in the height limit, as follows.

- 1. The physical constraints are accommodated on the site whilst still achieving the development outcomes sought under the LEP.
- 2. High quality design being achieved through the Council Urban Design Review Panel process.
- 3. The Council has acknowledged the specific development constraints within the locality and has responded by supporting reasonable variations to the height limit in order to support appropriate development within this zone.

Discussion in regard to building height non-compliance

The commentary provided by the accompanying 4.6 Variation in relation to the non-compliant height is considered to have adequately addressed why compliance with the development standard is unreasonable and unnecessary in this instance.

It is considered that the portion of the building that exceeds the building height standard in itself does not result in additional overshadowing and amenity impacts for neighbouring dwellings. The overshadowing and privacy impacts relate to non compliant separation distances to rear and side boundaries for the proposed building and their current and future relationships specifically to neighbouring properties.

In addition, the site is affected by overland flows and therefore the consequential ground floor level is required to be raised to comply with Council's Policy, which in turn has created an increase in the overall height of the building.

The overall height is considered consistent with the surrounding approvals granted for residential flat buildings currently under construction. The proposal is also provided with appropriate floor to ceiling heights which will not add inappropriate height to the built form.

Noting the above, a departure from the height development standard is therefore considered acceptable in this specific instance. The section of the applicant's written request relating to height non compliance is considered to have provided for sufficient environmental planning grounds to justify contravening the development standard and is not inconsistent with the objectives of Clause 4.3 of the LEP.

Clause 7.2 Flood planning

The subject site is mapped as being affected by overland flows. An existing 6 foot (1.8m) stormwater easement is located on the western boundary of Lot 58, DP 33490. It is also noted that the site is located adjacent to a trapped low point within the roadway, and the proposal is required to adequately demonstrate that overland flows can be conveyed around the development over the proposed easement.

The application proposes to create a new easement on the western boundary of Lot 59, 33490. Part 2.6 of Council's Policy on Stormwater Drainage Specifications for Building Developments indicates that based on the 450mm pipe diameter required to accommodate over flows from the upstream catchment, an easement width of 2.5m is required. Council's Development Engineer has reviewed the proposal and has indicated that a variation on the Policy may be acceptable due to the location of the basement 2.36m from the western boundary and in this instance a minimum width of 2.3m would be required.

The applicant has provided amended stormwater and architectural plans. The stormwater plans indicate a 2.3m easement, however the architectural plans are inconsistent in that a 2m easement is indicated. The architectural and landscaping plans indicate stairs, fencing and planting within the easement, which is not supported by Council.

In addition, as the basement is located 2.36m from the western boundary, the applicant was requested to provide a Geotechical Report prepared by a suitably qualified person for the basement car parking areas addressing excavation adjacent to Council infrastructure (with reference to *RMS Technical Direction GTD 2012/2001 Excavation adjacent to RMS infrastructure*), ground water movement, salinity and contamination. No geotechnical report has been submitted in this regard.

Clause 7.6 Salinity

The application has not been supported by a geotechnical report prepared by a suitably qualified person for the basement car parking areas addressing excavation adjacent to Council infrastructure (with reference to RMS Technical Direction GTD 2012/2001 Excavation adjacent to RMS infrastructure), ground water movement, salinity and contamination. In this regard, the application does not adequately consider the impact of the proposed development on salinity processes.

Clause 7.7 Servicing

Clause 7.7 of the LEP specifies that:

- (1) The objective of this clause is to ensure that development of land to which this Plan applies reflects the availability of services.
- (2) Before granting development consent for development on any land to which this Plan applies, the consent authority must be satisfied that:
- (a) the development will be connected to a reticulated water supply, if required by the consent authority, and
- (b) the development will have adequate facilities for the removal and disposal of sewage, and
- (c) if the development is for seniors housing, the development can be connected to a reticulated sewerage system, and
- (d) the need for public amenities or public services has been or will be met.

It is considered that the development is non-compliant with Clause 7.7(2)(d) as the need for public services, in terms of the waste infrastructure provided and the capacity to collect waste on the site, have not been demonstrated to meet the standards required for servicing in accordance with Council policy. This is discussed further in relation to DCP Section C5 of this report.

In addition, the stormwater easement has not been designed to meet the requirements of Council policy and therefore sufficient public services for the efficient disposal of stormwater are not available.

Section 79C(1)(a)(ii) The provisions of any draft environmental planning instrument Draft Environment State Environmental Planning Policy

The Draft Environment SEPP was exhibited from 31 October 2017 to 31 January 2018. This consolidated SEPP proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property.

Changes proposed include consolidating a total of seven existing SEPPs being:

- State Environmental Planning Policy No. 19 Bushland in Urban Areas
- State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011
- State Environmental Planning Policy No. 50 Canal Estate Development
- Greater Metropolitan Regional Environmental Plan No. 2 Georges River Catchment
- Sydney Regional Environmental Plan No. 20 Hawkesbury-Nepean River (No.2-1997)
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Willandra Lakes Regional Environmental Plan No. 1 World Heritage Property.

It is noted that the proposed changes to State Environmental Planning Policy No 19 – Bushland in Urban Areas (SEPP 19) are not considered to impact the proposed development. In addition, the amendments to Sydney Regional Environmental Plan No 20 – Hawkesbury – Nepean River (No. 2 – 1997) do not impact the proposed development. In this regard, the proposal is not inconsistent with the provisions of this Draft Instrument.

Draft Remediation of Land SEPP

The Department of Planning and Environment has announced a Draft Remediation of Land SEPP, which will repeal and replace the current State Environmental Planning Policy No 55—Remediation of Land.

The proposed new land remediation SEPP will:

- provide a state-wide planning framework for the remediation of land,
- maintain the objectives and reinforce those aspects of the existing framework that have worked well,
- require planning authorities to consider the potential for land to be contaminated when determining development applications and rezoning land,
- clearly list the remediation works that require development consent, and
- introduce certification and operational requirements for remediation works that can be undertaken without development consent.

It is also proposed that it will transfer the requirements to consider contamination when rezoning land to a direction under Section 9.1 of the Environmental Planning and Assessment Act 1979.

Whilst the proposed SEPP will retain the key operational framework of SEPP 55, it will adopt a more modern approach to the management of contaminated land. Noting the above, the Draft SEPP will not alter or affect the findings in respect to contamination of the site.

Section 79C(1)(a)(iii) The provisions of any development control plan

Development Control Plan 2014

Provision	Compliance	
DCP Principles	Does not comply - see Appendix - Development Control Plan Compliance	
C1 Site Planning and Design Principles	Does not comply - see Appendix - Development Control Plan Compliance	
C2 Vegetation Management	Complies	
C3 Water Management	Does not comply - see Appendix - Development Control Plan Compliance	
C4 Land Management	Complies	
C5 Waste Management	Does not comply - see Appendix - Development Control Plan Compliance	
C6 Landscape Design	Does not comply - see Appendix - Development Control Plan Compliance	
C7 Culture and Heritage	N/A	
C8 Public Domain	N/A	
C9 Advertising and Signage	N/A	
C10 Transport, Access and Parking	Does not comply - see Appendix - Development Control Plan Compliance	
C11 Subdivision	N/A	
C12 Noise and Vibration	Complies	
C13 Infrastructure and Services	Does not comply - see Appendix - Development Control Plan Compliance	
D2.1 Single Dwellings	N/A	
D2.2. Dual Occupancies	N/A	
D2.3 Secondary Dwellings	N/A	
D2.4 Multi Dwelling Housing	N/A	
D2.5 Residential Flat Buildings	Does not comply - see Appendix - Development Control Plan Compliance	
D2.6 Non Residential Developments	N/A	

Section 79C(1)(a)(iiia) The provisions of any planning agreement

There are no planning agreements applying to this application.

Section 79C(1)(a)(iv) The provisions of the regulations

The relevant prescribed conditions of the Regulations, such as the requirement for compliance with the Building Code of Australia and fire safety requirements, could be imposed as conditions of consent where applicable. Subject to the recommended conditions of consent, the proposed development complies with the requirements of the *Environmental Planning and Assessment Regulation 2000*.

As previously indicated, Clause 50 (1A)(1AB) of the Environmental Planning and Assessment Regulation 2000 specifies:

50(1A) If a development application that relates to residential apartment development is made on or after the commencement of the Environmental Planning and Assessment Amendment (Residential Apartment Development) Regulation 2015, the application must be accompanied by a statement by a qualified designer.

The development application as amended was not submitted with a design verification statement.

Section 79C(1)(b)The likely impacts of the development

Context and Landscaping

It is noted that the subject site and its surrounds are currently in a state of transition from a previously lower density zone to its current high density zoning, with a number of land parcels either in Rodley Avenue or in the vicinity currently subject to or have been granted approval for the construction of residential flat buildings. This is evident in the provision of a new residential flat building to the west of the subject site at 50-54 Rodley Avenue and further construction works to the north of the subject site also providing for multi level apartment buildings. In this regard, the proposal is considered in keeping with the desired future character of the area allowing for an upgrade in structures from existing detached dwelling houses to large compact residential flat buildings.

Notwithstanding the future character of the vicinity, the application is considered to inadequately cater for maintenance of amenity for existing adjoining neighbours, currently in the form of 1 and 2 storey single dwellings and dual occupancies. The proposal is provided with non-compliant side and rear setbacks in accordance with the ADG and the DCP. Greater setbacks (albeit still non compliant with the requirements of the ADG) are provided for the Level 5 only, which does not significantly reduce the visual impact of the building when viewed from both adjoining properties and surrounding public areas. The overbearing visual impact created by the development when viewed from the adjacent properties to the east and west, combined with adverse impacts to visual privacy and overshadowing of private open space, results in a development that has is considered to have insufficiently considered the context of the site.

The 6m front building setback to the ground floor fronting Rodley Avenue is considered to be consistent with immediately adjacent properties, however the landscaping provided within the front setback area, in the form of shrubs and one small tree, combined with the location of multiple utility services within this area, is not considered to minimise the visual impact of the building and allow for an improved integration with the existing streetscape.

Solar Access

It is considered that insufficient solar analyses have been provided with the application to demonstrate compliance with solar access requirements under the ADG and DCP. In particular, the private open space of 34b Rodley Avenue adjoining the subject site to the east appears likely to be unacceptably impacted by the additional overshadowing created by the proposal.

Overlooking

The reduced building separations provided by the application are considered likely to result in unacceptable impacts on visual privacy to either side of the subject site, with particular regard to the private open space of 34b Rodley Avenue and the elevated terrace areas to Unit 03.

Access, Traffic and Parking

The proposal will generate an increase in traffic volume, but while so, it is considered that the application Document Set ID: has adequately demonstrated that the local road network has capacity to cater for the development. Off-

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street parking spaces are provided in accordance with the DCP requirements. A double width 6.6m driveway is proposed from Rodley Avenue, however this reduces to 3m wide ramp for one way traffic only. It is acknowledged that a signal system is proposed, however the 3m wide ramps allow for one-way traffic, while the proposal is to use the ramps for two direction traffic. These basements do not provide ease of parking for visitors, and it is considered likely that they will choose to park on the street.

Waste Management

The application was supported by a Waste Management Plan which has detailed the way in which all waste and materials resulting from the excavation, construction and on-going use of the building on the site are to be dealt with.

The application has indicated the provision of street collection by Council waste contractors with waste collection/storage rooms and a bulky goods area incorporated into the ground floor plan, accessed by the main pedestrian pathway to the lobby. An indented bay is proposed to the street to facilitate collection of waste bins. Both Council's Waste Management Officer and Traffic Engineer have indicated that they do not support the proposed street collection.

Section 79C(1)(c)The suitability of the site for the development

The site is considered to be unsuitable for the proposed development as the proposal does not respond to the constraints and the size of the site in accommodating a development of the scale proposed. This is evidenced by the non-compliant building separations, limited landscaped area provided by the proposal, intrusion of structures into an identified easement, as well as the inability to adequately service the site with on-site waste removal as required by Council's Policy.

Section 79C(1)(d) Any Submissions

Community Consultation

The development application was advertised in the local newspaper and notified to owners and occupiers of adjoining and nearby properties pursuant to the recommendations of the Regulations and in accordance with Council's Development Control Plan. Affected property owners and occupiers were notified in the surrounding area and invited to make a submission on the proposal during the exhibition period from 13 September 2018 and 5 October 2018. During this period, two (2) submissions were received.

The concerns raised in these submissions are discussed below.

Summary of issues raised in submissions

Issue	Comment	
1. Non-compliance with intent of planning legislation	The application has been assessed against the	
to ensure the wellbeing, privacy, safety, security	relevant planning legislation and on balance is not	
and comfort of existing residents is maintained	considered to meet key objectives and standards	
	contained within those Acts and Policies, as	
	discussed in this report.	
2. Unacceptable noise impact from the number of	Balcony air conditioner units are not viewed as an	
air conditioning units placed on balconies.	acceptable design solution due to visual impacts and	
	potential cumulative noise impacts. Centralised air	
	conditioning systems were recommended in UDRP	
	advice for the proposal dated 16 May 2018.	
3. Rodley Avenue is a quiet, narrow street with	Council's Traffic Engineer has reviewed the application	
existing on street parking problems. The number of	and has indicated that the design of the single width	
new developments in the street will exacerbate that	basement parking ramps is not supported by Council.	
problem.	Additionally, the indented bay proposed to	
	accommodate waste collection vehicles will impact	
	on the number of available street parking spaces and	
	is not supported by Council.	

4. Overshadowing of adjoining properties will result in dampness, health issues, additional electricity costs and inefficient solar panel operation.	The reduced rear and side setbacks of the proposed development in combination with the orientation of the private open space at the adjacent dual occupancy development to the east at 34a and 34b Rodley Avenue is likely to result in overshadowing of the private open space, such that the minimum solar access requirement of 3 hours of sunlight to 40% of the private open space between 9am and 3pm on 21 June (DCP section D2 clause 2.5.9) is not achieved.
5. Visual impact of the development from the adjoining properties, particularly in relation to the 3m rear setback.	The proposed development provides reduced rear and side setbacks and in the context of single and two storey development adjoining the site, the proposal is considered to present overbearing visual impacts when viewed from adjacent properties.
6. Negative impact on privacy, particularly in relation to overlooking from the balconies and rooftop garden of the development into the private open space of adjoining properties.	The proposed development provides reduced rear and side setbacks, which when combined with the elevation of balcony areas is considered to adversely impact on the visual and acoustic privacy of adjoining private open space at 34a and 34b Rodley Avenue.
7. The development does not allow for enough open space between boundaries and the construction and is oversized in relation to the site.	The ADG non-compliant building separation distances on all elevations and limited landscaping provided by the development have been discussed previously in this report and is not considered acceptable.
8. The development does not meet the objectives of the height of building standard.	This is discussed in relation to the Clause 4.6 variation request for the proposed building height which is considered supportable in this instance.
9. The development will have a negative economic impact on the value of neighbouring properties.	The proposed development is considered likely to inhibit future development opportunities for development on adjacent sites, in that the ability of those sites to develop in accordance with the development controls is likely to be restricted by the subject proposal.
10. Concerns about proper precautionary measures with regard to asbestos and demolition of the existing dwellings, and subsidence damage caused as a result of excavations for the development.	Should the application be approved, these aspects can be appropriately managed through conditions of consent related to asbestos demolition and disposal and underpinning of adjacent development.
11. Overdevelopment of Penrith generally and lack of commensurate infrastructure to manage issues caused by development in the area.	The development is located within an R4 High Density Residential zone, and as such is permissible with consent. Strategic planning and housing targets for the local government area are broader issues and not able to be resolved within the context of a single development application.

Referrals

The application was referred to the following stakeholders and their comments have formed part of the assessment:

Referral Body	Comments Received
Building Surveyor	No objections - subject to conditions
Development Engineer	Not supported
Environmental - Environmental management	No objections - subject to conditions
Environmental - Waterways	No objections - subject to conditions
Waste Services	Not supported
Traffic Engineer	Not supported
Community Safety Officer	No objections - subject to conditions

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Section 79C(1)(e)The public interest

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant planning regime and in accordance with the prevailing planning controls. In this regard, the proposed works are inconsistent with the relevant planning provisions related to the development of residential flat buildings and on balance, it is considered that the application is unsupportable primarily in relation to the impacts on the inadequate building separation provided, inability to service the site with regards to waste, lack of landscaped area provided, adverse impacts on residential amenity for future occupants of the proposed development and issues raised in submissions in relation to the development.

Section 94 - Developer Contributions Plans

Development contributions apply to the subject proposal, however as the application is recommended for refusal, a condition of consent requiring their payment prior to the issue of a Construction Certificate is not recommended.

Conclusion

The proposed development has been assessed in accordance with the relevant provisions of the environmental planning instruments and Development Control Plan pertaining to the land. The provision of a residential flat building is a permissible use under the site's R4 High Density Residential zoning. As the development application is for a residential flat building under the provisions of State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development, the application is provided for determination to the Penrith Local Planning Panel.

Noting the commentary contained within this report, the proposed development has been assessed against the relevant heads of consideration contained in Section 4.15 of the *Environmental Planning and Assessment Act*, 1979 and on balance, has been found to be unsatisfactory. The site is unsuitable for the proposed development and the proposal in its current form is not considered to be in the public interest. The proposal is therefore recommended for refusal.

Recommendation

- 1. That DA18/0890 providing for the demolition of existing structures and construction of a six (6) storey residential flat building containing twenty (20) apartments and two (2) levels of basement car parking be refused subject to the attached conditions.
- 2. That those persons who made submissions in relation to the proposal are notified of the determination.

Refusal

1 X Special 02 (Refusal under Section 79C(1)(a)(i) of EPA Act 1979)

The application is not satisfactory for the purpose of Section 4.15(1)(a)(i) of the *Environmental Planning and Assessment Act 1979* as the proposal is inconsistent with the provisions of Penrith Local Environmental Plan 2010 as follows:

- (i) Clause 1.2 Aims of the Plan The proposal is inconsistent with the aims of the plan in relation to promotion of development consistent with Council's vision for Penrith, to meet the emerging needs of Penrith's communities while safeguarding residential amenity and ensuring that the development incorporates the principles of sustainable development.
- (ii) Clause 2.3 Zone Objectives The proposal is inconsistent with the objectives of the R4 High Density Residential zone, particularly (a) The design of the proposed development does not ensure that a high level of residential amenity is achieved and maintained.
- (iii) Clause 7.2 The proposal does not comply with Council's Policy in relation to overland flow management on the site.
- (iv) Clause 7.6 The proposal has not provided sufficient information to assess the impact of the development on salinity.
- (v) Clause 7.7 The proposal does not meet the requirements for waste and stormwater servicing.
- 2 X Special 03 (Refusal under Section 79C(1)(a)(i) of EPA Act 1979)

The application is not satisfactory for the purpose of Section 4.15(1)(a)(i) of the *Environmental Planning and Assessment Act 1979* as the proposal is inconsistent with the provisions of State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development and the accompanying Apartment Design Guide as follows:

- (i) Clause 30(2)(a) compliance with the design quality principles specified in the Apartment Design Guide:
- Principle 1: Context and Neighbourhood Character
- Principle 2: Built form and scale
- Principle 3: Density
- Principle 4: Sustainability
- Principle 5: Landscape
- Principle 6: Amenity
- (ii) Clause 30(2)(b) compliance with the objectives specified in the Apartment Design Guide:
- 3B Orientation
- 3C Public domain interface
- 3D Communal and public open space
- 3F Visual privacy
- 4A Solar and Daylight Access
- 4E Private open space and balconies
- 4H Acoustic privacy
- 40 Landscape design
- 4U Energy efficiency
- 4W Waste management

- 3 X Special 04 (Refusal under Section 79C(1)(a)(iii) of EPA Act 1979)
 - The development application is not satisfactory for the purpose of Section 4.15(1)(a)(iii) of the *Environmental Planning and Assessment Act 1979*, as the proposal is inconsistent with the following provisions of Penrith Development Control Plan 2014:
 - (i) The application has not satisfied Council with respect to the requirements under Part B 'DCP Principles', specifically:
 - The proposal has not been designed with consideration for the health, recreational and social needs of residents, and the proposal does not minimise its ecological footprint or promote sustainable production and consumption.
 - (ii) The application has not satisfied Council with respect to the requirements under Section C1 'Site Planning and Design Principles', specifically:
 - The built form and scale of the proposal does not adequately respond to the context of the site.
 - (iii) The application has not satisfied Council with respect to the requirements under Section C5 'Waste Management', specifically:
 - The proposal provides for street collection and waste bin storage rooms on the ground floor.
 - (iv) The application has not satisfied Council with respect to the requirements under Section C6 'Landscape Design', specifically:
 - The proposal does not include landscaping to the site that responds to the context of the site, or complements the built form or minimises the impacts of the scale of the development.
 - (v) The application has not satisfied Council with respect to the requirements under Section C10 'Transport, Access and Parking', specifically:
 - The proposal provides for single width ramps to the basement levels to cater for two way traffic.
 - The indented bay for waste collection is not supported.
 - (vi) The application has not satisfied Council with respect to the requirements under Section C13 'Infrastructure and Services', specifically:
 - The proposal does not meet the requirements for engineering works in relation to the stormwater easement.
 - (vii) The application has not satisfied Council with respect to the requirements under Section D2 'Residential Development', specifically:
 - Clause D2.5.5 The landscaped area does not meet the minimum 35% required for the site. The landscaping provided is compromised by servicing requirements.
 - Clause D2.5.8 The proposal does not achieve a high level of visual or acoustic privacy for future occupants or adjoining neighbours.
 - Clause D2.5.9 The proposal results in overshadowing of the private open space of adjoining development.
- 4 X Special 06 (Refusal under Section 79C(1)(a)(iv) of EPA Act 1979)

 The application is not satisfactory for the purpose of Section 4.15(1)(a)(iv) of the *Environmental Planning and Assessment Act 1979* as the proposal was not accompanied by all of the information as required under Schedule 1 Forms of the Regulations as follows:
 - Clause 50 (1A)(1AB) of the *Environmental Planning and Assessment Regulation 2000* requires a statement from a qualified designer to be submitted.

5 X Special 07 (Refusal under Section 79C(1)(b) of EPA Act 1979)

The development application is not satisfactory for the purpose of Section 4.15(1)(b) of the *Environmental Planning and Assessment Act 1979* in terms of the likely impacts of that development including those related to:

- (i) Streetscape and character,
- (ii) Context and landscaping,
- (iii) Bulk and scale,
- (iv) Solar access and privacy impacts,
- (v) Amenity, safety and security impacts related to the ground floor layout,
- (vi) Communal open space,
- (vii) Access, traffic and parking,
- (viii) Energy efficiency,
- (ix) Waste management impacts.
- 6 X Special 08 (Refusal under Section 79C(1)(c) of EPA Act 1979)

The application is not satisfactory for the purpose of Section 4.15(1)(c) of the *Environmental Planning and Assessment Act 1979* as the site is not suitable for the scale of the proposed development.

- 7 X Special 10 (Refusal under Section 79C(1)(e) of EPA Act 1979)
 - The application is not satisfactory for the purpose of Section 4.15(1)(e) of the *Environmental Planning and Assessment Act 1979*, as the proposal is not in the public interest.
- 8 X Special 9 (Refusal under Section 79C(1)(d) of EPA Act 1979)

Based on the above deficiencies and submissions received, approval of the proposed development would not be in the public interest pursuant to Section 4.15(1)(d) of the *Environmental Planning and Assessment Act 1979*.

Appendix - Development Control Plan Compliance

Development Control Plan 2014

Part B - DCP Principles

The proposal is contrary to the principles, commitments and objectives of the DCP, specifically as follows:

Principle 2: Achieve long term economic and social security

The building has not been designed with the health, recreational and leisure needs of future occupants in mind as the size of the communal open space is inadequate to meet the needs of residents. Limited opportunity for social interaction are provided by the development.

Principle 4: Enable communities to minimise their ecological footprint.

The proposed development does not provide for adequate waste infrastructure, and as only 30% of the site is available for landscaping insufficient planting is able to be provided.

Part C - City-wide Controls

C1 Site Planning and Design Principles

Clause C1.2.3 provides for the following considerations with regards to building form, including the height, bulk and scale of a development:

- a) Context: An applicant must demonstrate how all proposed buildings are consistent with the height, bulk and scale of adjacent buildings and buildings of a similar type and use.
- d) Overshadowing: Building locations, height and setbacks should seek to minimise any additional overshadowing of adjacent buildings and/or public spaces where there would be a significant reduction in amenity for users of those buildings/spaces.
- e) Setbacks/Separations: Buildings should be sufficiently set back from property boundaries and other buildings to:
- i) Maintain consistency with the street context and streetscape character, especially street/front setbacks;
- ii) Maximise visual and acoustic privacy, especially for sensitive land uses;
- iii) Maximise deep root planting areas that will support landscape and significant tree plantings integrated with the built form, enhancing the streetscape character and reducing a building's visual impact and scale;
- iv) Maximise permeable surface areas for stormwater management; and
- v) Minimise overshadowing.

The proposed development has not appropriately considered the context of the infill site in relation to the adverse overlooking, visual impact and overshadowing created in relation to adjoining 1 and 2 storey properties. Side and rear building setbacks and separations are demonstrated to be non compliant with the ADG and DCP controls. Landscaping does no enhance the streetscape character or reduce the building's visual impact and scale, due to limitations created by the service infrastructure and easement on the western boundary. In this regard, it is considered that the development is non compliant with Section C1 of the DCP.

C5 Waste Management

The proposal includes waste bin storage and bulky waste rooms on the ground floor, with additional bin storage within the upper basement level. Street collection is proposed utilising an indented bay on the Rodley Street frontage. A waste chute system is incorporated into the design.

Council's Waste Management Officer has reviewed the proposal and does not support the on site collection for the following reasons:

• DCP clause C5.2.1 (3) and C5.2.2.4 (1) require waste bin storage areas to be located in the basement of residential flat buildings. The proposal includes part basement, part

- ground floor waste bin storage which provides a poor presentation to the front façade of the development.
- DCP clause C5.2.2.4 (5) requires on site collection to service the development. The proposal provides street collection, with no capacity for collection vehicles to enter the site. C5.2.2.4 (7) and (9) state provide for the following:
- (7) Where on-site collection is not possible because of topographic or access constraints, and/or restrictive site dimensions, adequate arrangements need to be made for the convenient, safe and direct access between the waste storage room and the collection point. These arrangements need to be discussed at a pre-lodgement meeting with Council.
- (9) Council will consider alternate and innovative waste management systems for high density developments which deliver sound town planning and environmental outcomes for the development and broader community. The applicant is encouraged to discuss the innovate solutions with Council's Waste Management Team and during Council's Pre-DA service.

This is further outlined within Section 2.5 of Council's Residential Flat Building Guideline, as follows:

2.5.1 Alternative Solutions

To apply for alternative solutions on restricted sites the following will need to be addressed and submitted:

- The onus is on the applicant to demonstrate that:
- An improved planning and waste operational outcome is achieved for the site; and
- Site characteristics restrict or limit the development accommodating waste collection vehicles entering and exiting in a forward direction

The standards within the waste guidelines and Section C5 of the DCP were adopted by Council on 27 June 2016 and commenced operation on 7 July 2016. All new development applications are subject to these standards. Council reviewed the policy in order to provide an improved collection service and facilitate consistent planning controls for developments.

There is precedent in Rodley Avenue for street collection of waste bins (DA16/0262 at 50-54 Rodley Avenue) however as this application was lodged on 16 March 2016, previous waste collection standards were applied which allowed greater consideration of street collection for residential flat buildings. It is also noted that the development at 50-54 Rodley Avenue consolidated 3 lots, resulting in a wider available frontage for the indented bay, while also pursuing an agreement with the adjoining property owner facilitating part use of their property frontage for the indented bay. This mitigated the impact of the indented bay on the local road.

In this regard, while it is acknowledged that the width of the site limits capacity to collect waste on the site, it is considered that the subject application has not adequately demonstrated that an improved planning outcome is achieved by locating the waste infrastructure to the front elevation of the building, directly adjoining and accessed by a shared pathway to the main lobby. The indented bay, which requires a minimum length of 20m, takes up the entire road frontage of the subject site. This limits opportunity for street tree planting and removes street car parking spaces. The indented bay proposed is not supported by Council's Traffic Engineer, which is further discussed below. It is noted that this advice was provided to the applicant at the pre-lodgement meeting on 8 May 2018 with the application subsequently maintaining these concerns.

C6 Landscape Design

The relevant objectives of Section C6 of the DCP are as follows:

- a) To promote landscape design and planning as part of a fully integrated approach to site development;
- b) To ensure landscape design takes into account the site's context, landscape and visual character, existing landscape features and amenity, both at the local and regional scale;

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- c) To encourage the development of quality landscape design associated with new development that is consistent with industry best-practice;
- e) To ensure landscape design adequately complements the proposed built form and minimises the impacts of scale, mass and bulk of the development in its context;
- f) To encourage landscape design that can be effectively maintained to a high standard for the life of that development

The front setback of the proposed development is dominated by servicing infrastructure (booster, substation, driveway, easement, OSD system) which effectively limits landscaping opportunities presented to the streetscape. The reduced rear setback and limitation of the western side setback to accommodate the stormwater drainage easement, prevents effective screen planting on those elevations in order to promote privacy. The shrubs and small-medium sized trees provided do not assist in ameliorating the impact of the bulk and scale of the built form and or provide adequate green buffers to the development.

The landscaping proposed is inconsistent with objectives a, b, c, e and f as listed above.

C10 Transport, Access and Parking

The following on-site car parking rate is required to be provided in relation to the proposed residential flat building development;

Land Use Element	Parking Rate	Required
Residential Flat	1 space per 1 or 2 bedrooms	10
Buildings		
	2 spaces per 3 or more bedrooms	20
	1 space per 40 units for service	1
	vehicles	
	Visitor parking: 1 space per 5	4
	dwellings	1
	dwellings	'
	1 space for car washing for every 50	
	units	
Total Required		36 spaces

It is noted that the application is compliant with the required car parking rate, via the provision of a total of 36 parking spaces over two basement levels. These parking spaces have also included a designated car wash bay, service vehicle bay and three accessible car parking spaces associated with the provision of adaptable apartments. In this regard, it is considered that adequate parking facilities are provided to cater for future occupants and visitors of the proposed apartments.

However, the application was referred to Council's Traffic Engineering Section who raised objections to the application in with the following comments made:

A double width 6.6m driveway is proposed from Rodley Ave, however this reduces to 3m wide ramp for one way traffic only. This is not supported. It is acknowledged that a signal system is proposed (details provided within the traffic report). 3m wide ramps provide for one-way traffic, however, the ramps propose two direction traffic. These basements do not provide ease of parking for visitors, and they will choose to park on the street.

On-site access for waste collection vehicles is not provided. The indented on-street bay is not supported by Traffic Section. In addition, alteration of unrestricted on-street car parking to restricted parking (eg NP Waste Vehicles exempt) within 1km of Penrith Station requires approval of Transport for NSW via RMS.

The application must consider the ability of the waste collection vehicle to turn around at the western end of Rodley Ave where only eastbound traffic from Mulgoa Rd is available. A waste

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collection vehicle cannot park east facing in an indented bay at this location as this is contrary to the Australian Road Rules.

Noting the comments provided, the proposed ramp to the basement level and indented on street waste collection bay are not considered acceptable design solutions for the proposal.

C13 Infrastructure and Services

The stormwater easement as proposed does not comply with Clause C13.4 in that it requires all engineering works to be undertaken in accordance with the provisions of Council's Policy on Stormwater Drainage for Building Developments. This has been discussed in relation to LEP clause 7.4.

D2 Residential Development

The proposal has been assessed against the applicable provisions of this section and is found to be generally acceptable. Particular clauses which have provided for non compliances or relevant discussion points are identified below:

Clause D2.5.5 Landscaped Area

Clause D2.5.5 Landscaped Area of the DCP provides the following development control in relation to landscaped area for a R4 High Density Residential in which the subject site is located:

Zone: R4 High Density Residential

Minimum Landscaped area % of the site: 35%

In addition to the above, landscaped areas are to have a minimum width of 2m, with no basement encroachment, may include terraces and patios located no higher than 0.5m above ground and pedestrian pathways to building and dwelling entrances but does not include substantially-paved areas such as buildings, driveways and covered garages. Noting these controls, an assessment of the provided plans has identified that with a site area of 1,112m², a total of 389m² landscaping area is required. While so, only 338m² (30% of the total site area) landscaping area is considered to have been provided with the proposal and is therefore non compliant by 51m².

While it is acknowledged that the proposal has provided for a compliant deep soil zone, building separations to the boundaries as well as communal open space is non-compliant. In combination with the extent of intrusion by servicing in the front setback (booster, substation, driveway, easement, OSD system) limiting landscaping opportunities to the streetscape, it is considered that the proposal has not satisfactorily met the objectives for landscaped area.

Clause D2.5.6 Front and Rear Setbacks

Clause D2.5.6 Front and Rear Setbacks within the DCP provides the following development control in relation to front and rear setbacks:

- 1) Determine the maximum development footprint for your site:
- a) The minimum rear setback for a single storey building (or any single storey component of a building) is 4m
- b) The minimum rear setback for a two storey building (or any two storey component of a building) is 6m.
- 2) Within the rear boundary setback:
- a) there shall be no building encroachments either above or below ground (eaves excepted);
- b) maximise the amount of undisturbed soil, encouraging rapid growth of healthy trees and shrubs:
- c) where there are physical encumbrances such as open drains, increase the setback accordingly.

- 3) Determine an appropriate front setback:
- a) either average the setbacks of the immediate neighbours; or
- b) 5.5m minimum whichever is the greater dimension.

The proposal includes a rear setback on the ground floor of 3m to the building (bedroom) wall, with an encroachment created by the terraces to Units 02 and 03. Levels 1 to 4 include a rear setback of 3m to the bedroom wall and balconies 4.44m from the rear boundary. Pre-lodgement advice suggested that a reduced rear setback to bedroom walls may be acceptable based on the location of the trotting track to the rear, however that balconies and living areas must maintain the minimum required setbacks. in this regard the proposed development does not comply with the rear setback controls.

The existing front setbacks of the adjoining dwellings is 7.5m (40 Rodley Avenue) and 5.4m (34 Rodley Avenue) which provides an average of 6.4m. The development provides a 6m setback to the front wall of the building which is considered generally consistent with the immediate neighbours.

D2.5.8 Visual and Acoustic Privacy and Outlook

The objectives of clause D2.5.8 are as follows:

- a. Provide an outlook from dwellings and their private open space, and achieve levels of acoustic and visual privacy that are reasonable for a medium-density residential neighbourhood.
- b. To provide a high level of visual and acoustic privacy for residents and neighbours in dwellings and private open space.
- c. To ensure that building design minimises overlooking problems.

The location of the terrace to Unit 02 at RL27.600 and therefore elevated above the ground level on the adjacent property by approximately 600mm, is considered to have the potential to result in adverse privacy impacts through overlooking into the primary private open space of 34b Rodley Avenue.

D2.5.9 Solar Planning

The reduced rear and side setbacks of the proposed development in combination with the orientation of the private open space at the adjacent dual occupancy development to the east at 34a and 34b Rodley Avenue is likely to result in overshadowing of the private open space, such that the minimum solar access requirement of 3 hours of sunlight to 40% of the private open space between 9am and 3pm on 21 June (DCP section D2 clause 2.5.9) is not achieved.

Inadequate solar analyses have been submitted with the application to demonstrate achievement of solar access requirements.

PROPOSED RESIDENTIAL FLAT BUILDING

36-38 Rodley Avenue, Penrith, NSW, 2750



DEVELOPM	ENT DETAILS	
e Area		1112m²
oss Floor Area (GFA)		2041m²
ning	R4 High Density	Residential
	Allowable	Proposed

Gloss I loof Alea (Gl A)		2041m²			
Zoning	R4 High Density Residential				
	Allowable	Proposed			
Floor Space Ratio (FSR)*	n/a	1.83:1			
Total Storeys	6	6			

Communal Open Space	25%	167m²	15%
Deep Soil Zones	7%	390m²	35%

*LEP REQUIREMEN ^SEPP 65 REQUIREMEN REFER SHEET DA02 FOR DETAIL

	UNITS TYPES
Туре	Count
2B	7
2B Adaptable	3
3B	9
4B	1

GROSS FLOOR AREA						
Level	Area					
GROUND LEVEL	316.7 m ²					
LEVEL 1	396.3 m ²					
LEVEL 2	396.3 m ²					
LEVEL 3	396.3 m ²					
LEVEL 4	388.3 m ²					
LEVEL 5	146.5 m ²					
Grand total: 6	2040 5 m ²					

COMMON OPEN SPACE				
Area % of Site				
166.9 m ²	15.01			

DEEP SOIL AREA					
Area	% the Site				
390.1 m ²	34.99				

CAR SPACES REQUIRED				
2 Bed units: 7	7			
2 Bed units Adaptable: 3	3			
3 Bed units: 9	18			
4 Bed units: 1	2			
Visitors (1/5)	4			
Service vehicles (1/40)	1			
Washing bay (1/50)	1			
Grand total	36			

CAR SPACES - TYPES						
Type Number						
Disabled - 2400w x 5400d	3					
Service - 2500w x 5400d	1					
STANDARD - 2500w x 5400d	28					
Visitor - 2500w x 5400d	4					
Grand total: 36	36					

A 04-09-2018	8 DA SUBMISSION		PROPOSED RESIDENTIAL FLAT BUILDING	MODSON NOMINATED ARCHITECT - P F MORSON REGISTRATION NUMBER 8100	SHEET VIEWS AND SCHEDULES	DA01
B 19-02-2019	9 DA SUBMISSION	SCALE BAR NORTH POI	ADDRESS 36-38 Rodley Avenue, Penrith, NSW, 2750 CLIENT Inglow Investments Two	ACN 159 480 056, ABN 41 159 480 056 www.morsongroup.com (02) 9380 4946 PO Box 170, Potits Point, NSW 1335 SHEET SCALE 1:1	ET SIZE: A1 LE DATE 1	ISSUE NO.

	Design Criteria	Compliance Proposal		Design Criteria	Compliance	Proposal
D-1	Communal open space has a minimum area equal to 25% of the site Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)	1. The Common Open Space is 65.4m² comprising 6% of the site. The Common Area is less then the required size for the site area. The units facing the south and those on ground have Terraces and Balconies which are in excess of the ADG minimums which are intended to offset the reduction in common area provided. The location and quality of the common area exceeds the requirements of the ADG and is a better design outcome as opposed to locating a complaint sized Common area at ground level in the rear corner of the site. The location of the Common Area at Level 5 being further setback from the side boundaries will have a lesser impact on the neighbouring properties. 2. Sunlight Access Requirements are unable to be met due to the location of the Common area on the roof facing the views instead of the Northern Sunlight.	4D-1	1. Apartments are required to have the following minimum internal areas: Apartment type	Yes	Minimal internal areas are in accordance with the design criteria
E-1	Deep soil zones are to meet the following minimum requirements: Site Area Min. Dimension Deep Soil Zone (% of site Area)	Yes 1. Deep soil zones provided well exceed the minimum requirements. The site provides for a total area of 390m² of deep soil zone or 35% of total site.		a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.	Yes	
	>1,500m² 6m		4D-2	Habitable room depths are limited to a maximum of 2.5 x the ceiling height In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	Yes Yes	Habitable room depths are in accordance with the design criteria
F-1	Separation between windows and balconies is provided to ensure visual privacy is achieved. Min required separation distances from buildings to the side and rear boundaries are as follows: Building Height Habitable rooms and balconies Non-habitable rooms	Setbacks: Northen Boundary: [NOTE: Street Frontage of Rodley Ave, residential housing across the road] Setback from 4.7m to 5.5m [Ground-Level 4] Setback from 8.0m to 9.1m [Level 5] Southern Boundary:	4D-3	Master bedrooms have a minimum area of 10m² and other bedrooms to have 9m² (excluding wardrobe space) Bedrooms have a minimum dimension of 3m (excl. wardrobe space)	Yes	All bedrooms are 9m ² & Master bedrooms 10m ² .
	up to 12m (4 storeys) 6m 3m up to 25m (5-8 storey) 9m 4.5m over 25m (9+ storey) 12m 6m Gallery access circulation treated as habitable space when measuring privacy separation distances between neighbouring properties.	Setback from 3.0m to 3.8m [Ground-Level 4] Setback 6.74m to 8.14 [Levels 5] Western Boundary: Setback from 5.0m to 7.3m [Ground-Level 4] Setback from 8.29m to 9.99m [Levels 5] Eastern Boundary: Setback from 5.0m to 7.3m [Ground-Level 4] Setback from 8.29m to 9.99m [Levels 5]		3. Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1 bed apartments 4m for 2 and 3 bedroom apartments	Yes Yes	All bedrooms have minimum dimension of 3m. All living rooms have minimum dimension of 4m.
			4E-1	All apartments are required to have primary balconies as follows: Dwelling type	Yes	Balconies provided to apartments are in accordance with this design criteria.
A-1	1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas.	Yes 1. 85.7% [18-21] of apartments receive 2 hours of direct sunlight.		1 bedroom apartments 8m² 2m 2 bedroom apartments 10m² 2m 3+ bedroom apartments 12m² 2.4m The minimum balcony depth to be counted as contributing		
	3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	3. None of the apartments receive no direct sunlight between 9am & 3pm at mid winter		to the balcony area is 1m. 2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m	Yes	Terraces provided to apartments are in accordance with this design criteria.
IB-3	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed 3. Overall depth of a cross-over or cross-through apartment does not proceed 40m management does line to glass line.	Yes 1. 100% [21-21] of apartments are cross-ventilated n/a	4F-1	The maximum number of apartments off a circulation core on a single level is eight For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	Yes n/a	All levels provide 4 or less apartments off a circulation core.
4C-1	ceiling level, minimum ceiling heights are:	Yes Minimum ceiling heights are in accordance with the design criteria	4G-1	1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: Apartment type Storage size volume Studio 4m³ Studio Studio	Yes	All storage requirements are in accordance with this design criteria. Sotrage Cages are provided in the basement in addtion to sorage cupboards provided within the apartment.
	Minimum ceiling height for apartment and mixed use buildings Habitable rooms 2.7m Non-habitable 2.4m For 2 storey apartments 2.7m for main living area 2.4m for second floor, where its area does not exceed 50% of the apt area.			1 bedroom 6m³ 2 bedroom 8m³ 3+ bedroom 10m³ At least 50% of the required storage is to be located within the apartment		

Principle 1: Context and Neighbourhood Character		Principle 2: Built Form and Scale		Principle 3: Density		Principle 4: Sustainability	
Low-density Residential: The remaining neighbouring properties to the North, al the East, and South side of Rodley Ave, predominantly consist of low density siresidential dwellings (houses and townhouses). The majority of these lots contain density housing located on long rectangular lots with the short boundary address Scattered throughout the low-density housing are some medium-density villa and developments which are generally consist of central 'gun-barrel' driveways with side. Short term to future growth pattern: We note the urban fabric is changing from a urban high-density with recent legislative amendments in the Penrith LGA. To clascale is from a one or two storey single dwelling per lot to a 5-6 storey residential Context, Neighbourhood Character and UDRP recommendations have been take consideration during the design. It is believed that the design responds and conficentext, setting a good example for the future proposed developments in the area.	igle and two storey in single low- sing the street. d townhouse erraces on either low-density to an arify, the change in il development. en into ributes to its	The design responds to its associated context (identified in a single tower addressing Rodley Ave. The facade is well artic regular shaped site, mimicing the layout pattern of dwellings located on Level 5 at the rear of the property to maximise act which allows cross ventilation and natural light to a large nur meets the minimum requirements as well as the direct sunlig UDRP panel recommended design solutions have been take Facade articulation and innovation is successfully achieved bulk and scale. The design achieves a positive outcome for character. R4 zoning and SEPP65 setbacks and height controls have be order to accommodate the stepping of upper storeys and for setbacks and height may vary in parts from the minimum SE It is assumed that the proposed setbacks and heights would The highest height intrusion is the top of lift shaft at nominal control and has an RL 46.840. The lift shaft being centrally be impacts on neighbouring properties.	culated and the footprint sits well within the along Rodley Ave. Common open space is access to the views. The result is an outcome of the units. The cross ventilation and the between 9am & 3pm at mid winter. The one on board and integrated into the design through both form and colours reducing built form, scale, context and neighbouring the bear generally adopted in the proposal. In the building to be well articulated, proposed in the proposal of the building to be well articulated, proposed in the proposal of the building to be well articulated, proposed in the proposal of the building to be well articulated, proposed in the proposal of the building to be well articulated, proposed in the proposal of the building to be well articulated, proposed in the proposal of the building to be well articulated, proposed in the proposal of the building to be well articulated.	The subject site lies within such an arribeen submitted to Council in the close. As there is no FSR control on the site, the height limits and setbacks as per t. Moreover, Communal Open Spaces a minimum requirements of the ADG, fu. The proposal consists of a mixture of	nd Deep Soils zones in the proposed development meet the rther controlling the allowable density on the site.	and transport sol efficiency and was a transport sol efficiency and was a transport of the possible. Consider development to far a bicycle parking henrith area in lie landscape areas Principle 5 for definition the development access to the vas requirements. Us	esign Guide 2015 aims to deliver improved sustainability through better trafficutions, greater building adaptability and robustness, improved energy iter sensitive urban design. velopment aims to exceed the minimum standards of the ADG 2015 whereve eration has been given to the increased apartment areas throughout the acilitate future sustainable growth of Sydney's outer suburbs. as been located on basement 1 to promote the use of active transport to the su of vehicle use. (See Principle 6 for details). The development also features in accordance with the requirements of the ADG 2015 design criteria. (See tails). also features well designed apartments with cross ventilation and solar at majority of the apartments, and well exceeds the minimum ADG 2015 e of awnings will reduce the energy consumption in summer months by acting apartments and controlling the internal conditions of the apartments.
Principle 5: .andscape	Principle 6: Amenity		Principle 7: Safety		Principle 8: Housing Diversity & Social Interaction		Principle 9: Aesthetics
Deep soil planting has been embellished along all boundaries allowing full neight trees to grow and provide privacy between the neighbouring properties and potential future adjacent developments. Due to the easmeent diversion to the western boundary canopy trees are unable to be provided in the deep soil area in this location. To compensate for this planters on structure have been provided adjacent the easement so that canopty trees can be provided to the western setback. Deep soil pockets were maximized and replacement trees are proposed to accommodate landscaping complementing the design and street frontages. The carparking levels have been designed to minimize the footprint but accommodate all the necessary carparking and services. Landscaping has been maxmised through locating planters on the ground evel structure and also at level; 5 to provide amentiy to the Common Open Space.	The site is located and 0.4km to Pen to promote active This design consiliving areas of the and natural cross The apartment lay requirements. 109 NCC requirement Sunshading Device environment of eat to BASIX complia The Common Ophighest degree of	ces have been applied to the facade to improve the internal ach apartment, exceeding minimum standards with regards	Secure pedestrian entry into the site ha centre of the building along side the vel facade to read as such. Intercom acces security from street. Although the pedestrian and vehicle ent point is seperated with a seperate acce. Entry into the basement carpark is via a swipe card security to gain access. Side Fences at the building line secure development. Gates are provided in the access to services within the development easement and biofiltration bed.	nicle entry and expressed in the s & CCTV at the entry provides tries a re co-located, each access so point. I roller shutter control point with the external areas of the side fences to allow for egress and	Residential areas of Penrith have traditionally included a mix housing (3br+) with a scattering of villa developments closer CBD (2br+). With the recent rezoning to R4 High-Density Re proposed development aligns itself to the existing demograp providing increase density to respond to the demands of the suburban ring of Western Sydney. The development features a mix of 2br & 3br apartments wh responds to current market demands in the area. Located in Sydney, apartments prices are considerably lower than inner equivalents which facilitates affordability by default. Social interaction between residents of the development is e design of the lift lobbies and the Level 5 Common Area. Lift Lobbies are pleasant spaces to interact as they are Oper views to the outside world and direct connection to the lift ac	to the Penrith sidential, the hic while growing outer ich also Western city	The character of the building reflects the context in which it is located (as identified in Principle 1). Rodley Ave frontage is set in a moderately quiet residential context. The composition of facade elements is sympathetic to the scale of the surrounding residential houses and lower scale buildings. The combination of facade articulation and landcsaping successfully emphasize the building entry. The facades of the building define a hierarchy for the site. Rodley Ave facade is primary and the facades looking to the side setbacks maintain secondary role. However, through materials & facade articulation & color both facades pursue rationality, clarity, proportion and rhythm which results in a simple elegance (values frequently lost).

THERMAL PERFORMANCE SPECIFICATIONS:

(20331 - 36 Rodley Ave)

The following specifications take precedence over other plan notations for the construction of this building.

NOTE: In addition to BASIX commitments; building compliance is required to comply with the 'New South Wales Additions' in the current edition of the NCC – Vol. 1, at the time of building. This includes New South Wales Part J(A). Specifically:

- Building thermal construction is in accordance with part J1.2
- loss of ceiling insulation is compensated for by increased roof insulation in accordance with Part J1.3(c)
- where metal frames are used that thermal breaks are installed in accordance with Part J1.3(d) and J1.5(c)
- Any roof lights, windows, doors and exhaust fans are sealed in accordance Part J3
- Any new air-conditioning system is installed in accordance with Parts J5.2(a), J5.2(b), J5.2(c), J5.2(d), J5.2(f) & J5.2(g)
- Any new mechanical ventilation system is installed in accordance with Part J5.3
- Any new miscellaneous exhaust system is installed in accordance with Part J5.4
- Any new heated water system is installed in accordance Part J7.2
- Energy monitoring equipment is installed in accordance Part J8.3

WINDOWS (total product specification - glass + frame)

U-value 6.70 (or less than) & SHGC 0.70 (+/-5%) (Default: Plain Glass in AL. frame)

EXTERNAL WALL (Medium colour)

Brick Veneer – R2.5 – 90mm thick Bulk insulation with reflective airgap

INTERNAL WALL

Cavity Panel/Concrete – No Insulation
Partition walls – No thermal insulation required

EXTERNAL FLOOR

Concrete Slab on Ground - No insulation

Suspended Concrete (above Basement areas) - R1.3 Bulk insulation

EXTERNAL CEILING/ROOF (Medium colour)

Concrete / Plasterboard - R1.3 bulk insulation (where roofspace or balcony above)

RATED either with NO DOWNLIGHTS or with LED downlights which do not penetrate ceiling insulation (ie: IC rated)

ISSUE	DATE	AMENDMENT
Α	04-09-2018	DA SUBMISSION

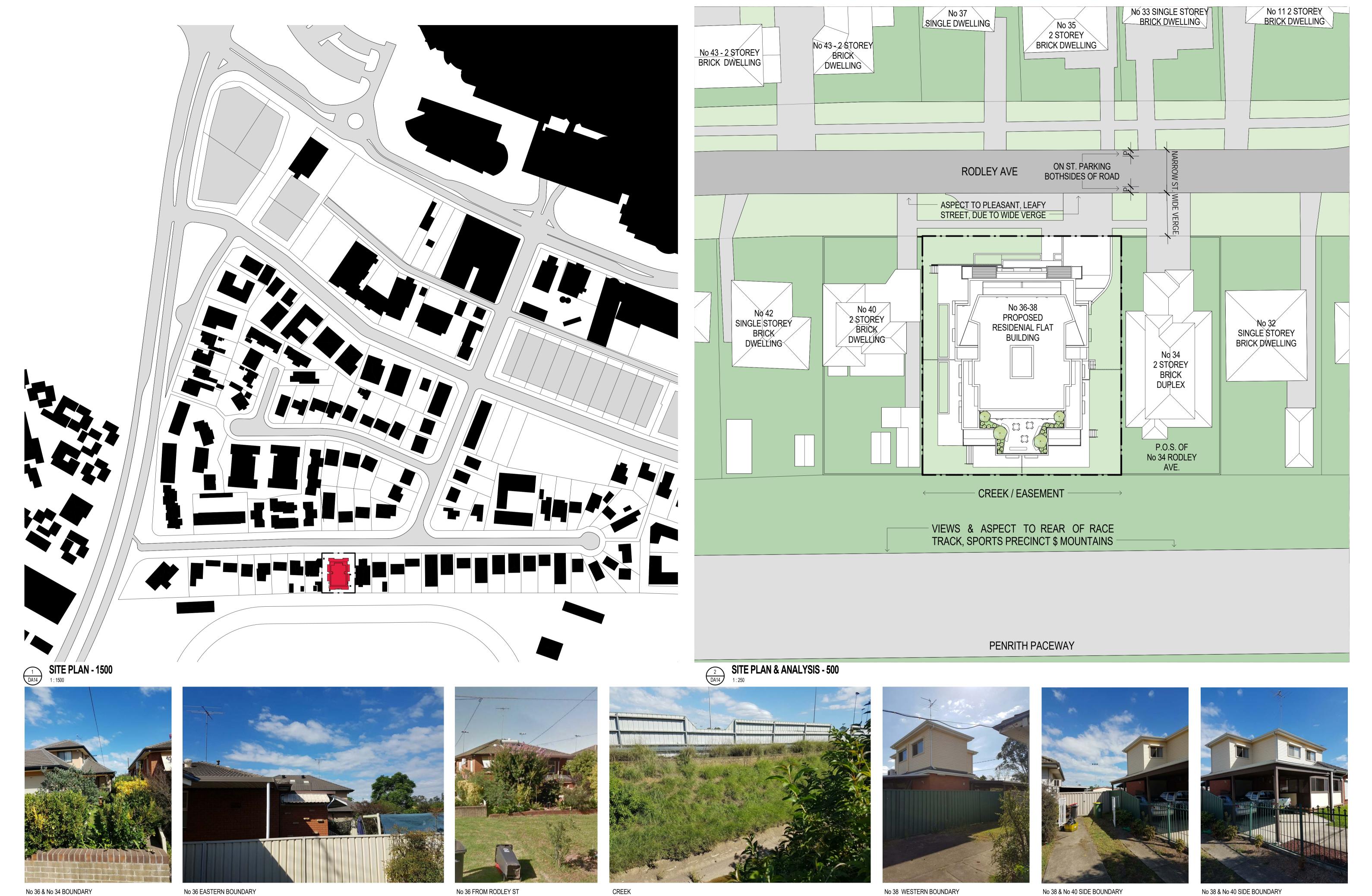
PROJECT
PROPOSED RESIDENTIAL FLAT BUILDING

ADDRESS 36-38 Rodley Avenue, Penrith, NSW, 2750 CLIENT Inglow Investments Two



SHEET SIZE: A1

SCALE DATE



PROPOSED RESIDENTIAL FLAT BUILDING

ADDRESS 36-38 Rodley Avenue, Penrith, NSW, 2750 MORSON GROUP:

CLIENT Inglow Investments Two SHEET SITE PLAN

SHEET SIZE: A1

As indicated

SCALE DATE

DA04

Document Set ID: 8696286 Version: 1, Version Date: 16/05/2019 **AMENDMENT**

DA SUBMISSION

PROPOSED RESIDENTIAL FLAT BUILDING

Inglow Investments Two

ADDRESS 36-38 Rodley Avenue, Penrith, NSW, 2750

10m

SHEET SIZE: A1

SCALE DATE

ISSUE NO.

Document Set ID: 8696286 Version: 1, Version Date: 16/05/2019 NEW WALL/WORK

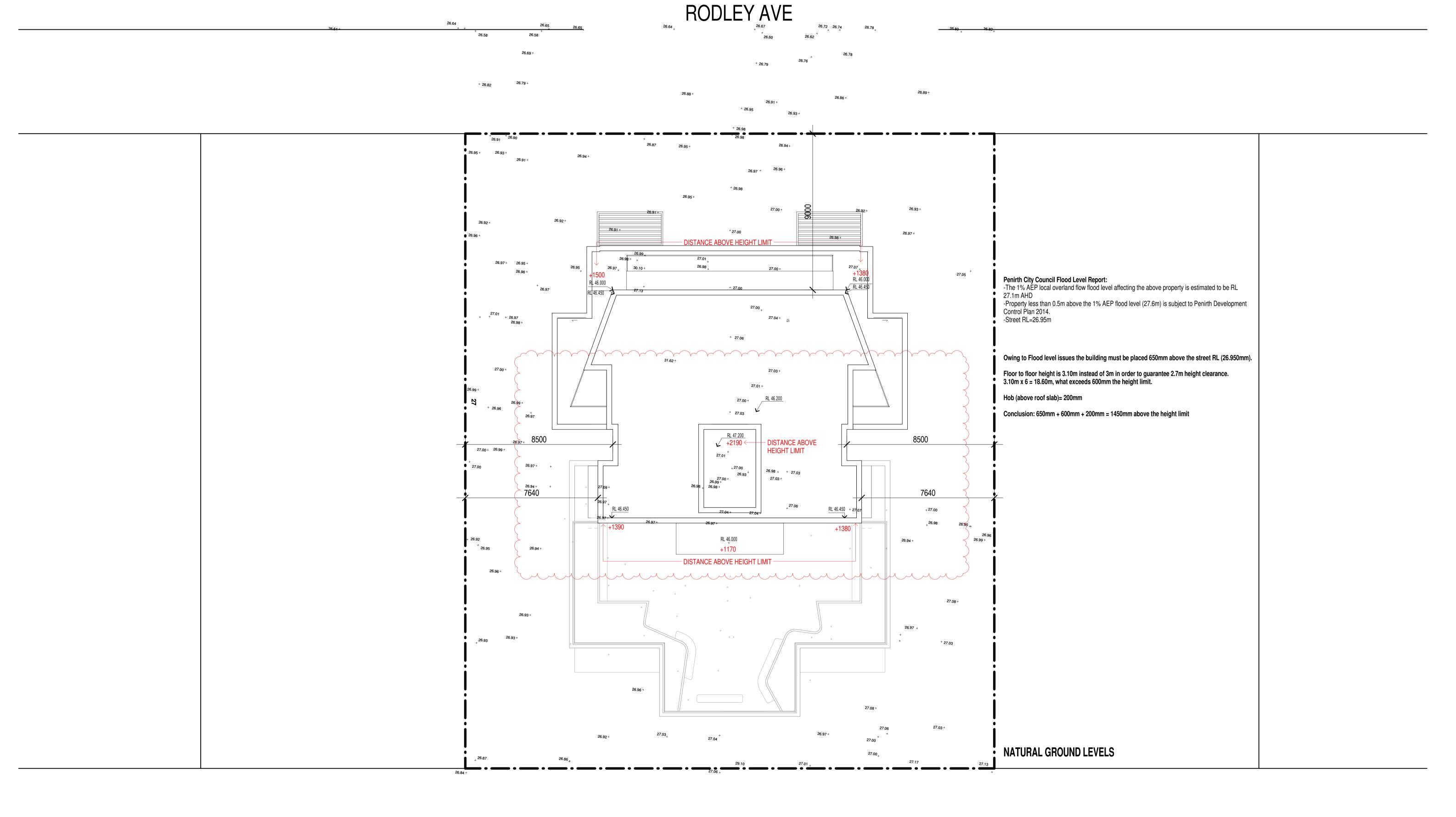
DEMOLITION

TREE TO BE REMOVED

NEW PLANTING

TREE TO BE RETAINED ROPOSED LEVEL

0 1 2 3 4 5



ISSUE	DATE AMENDMENT		PROJECT			DA44
A	04-09-2018 DA SUBMISSION		PROPOSED RESIDENTIAL ELAT BUILDING	NOMINATED ARCHITECT - P F MORSON REGISTRATION NUMBER 8100	SHEET NAME ROOF	DRAWING NUMBER DA11
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		0 1 2 3 4 5 7 10m	ADDRESS	MORSON REGISTRATION NUMBER 8100 ACN 159 480 056, ABN 41 159 480 056 WWW.morsongroup.com (02) 9380 4946 PO Box 170, Potts Point, NSW 1335	SCALE DATE	ISSUE NO.
		COALF DAD MODTH DOINT	36-38 Rodley Avenue, Penrith, NSW, 2750 CLIENT Inglow Investments Two		1:100	D
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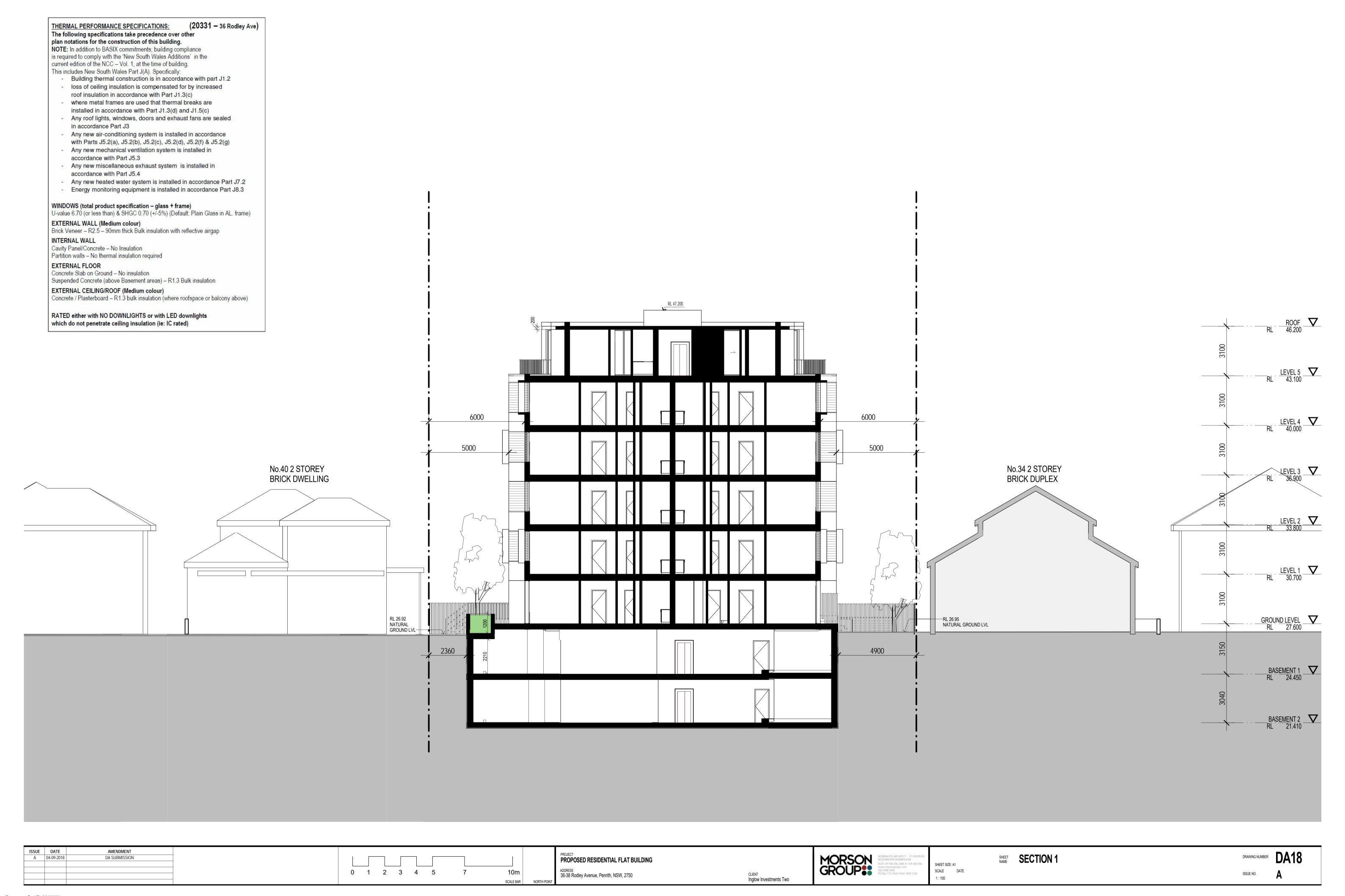


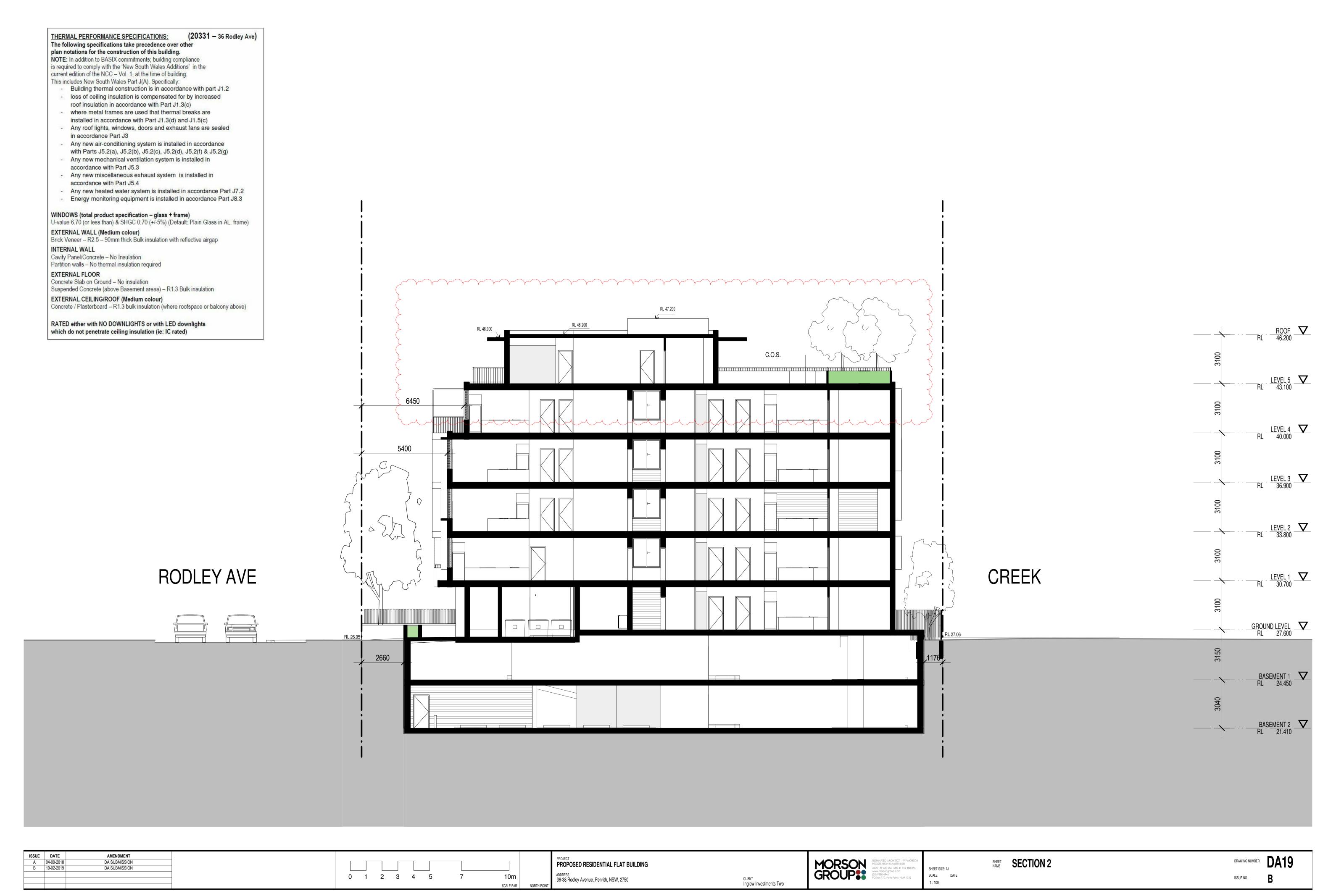
| SSUE DATE | AMENDMENT | AMEN

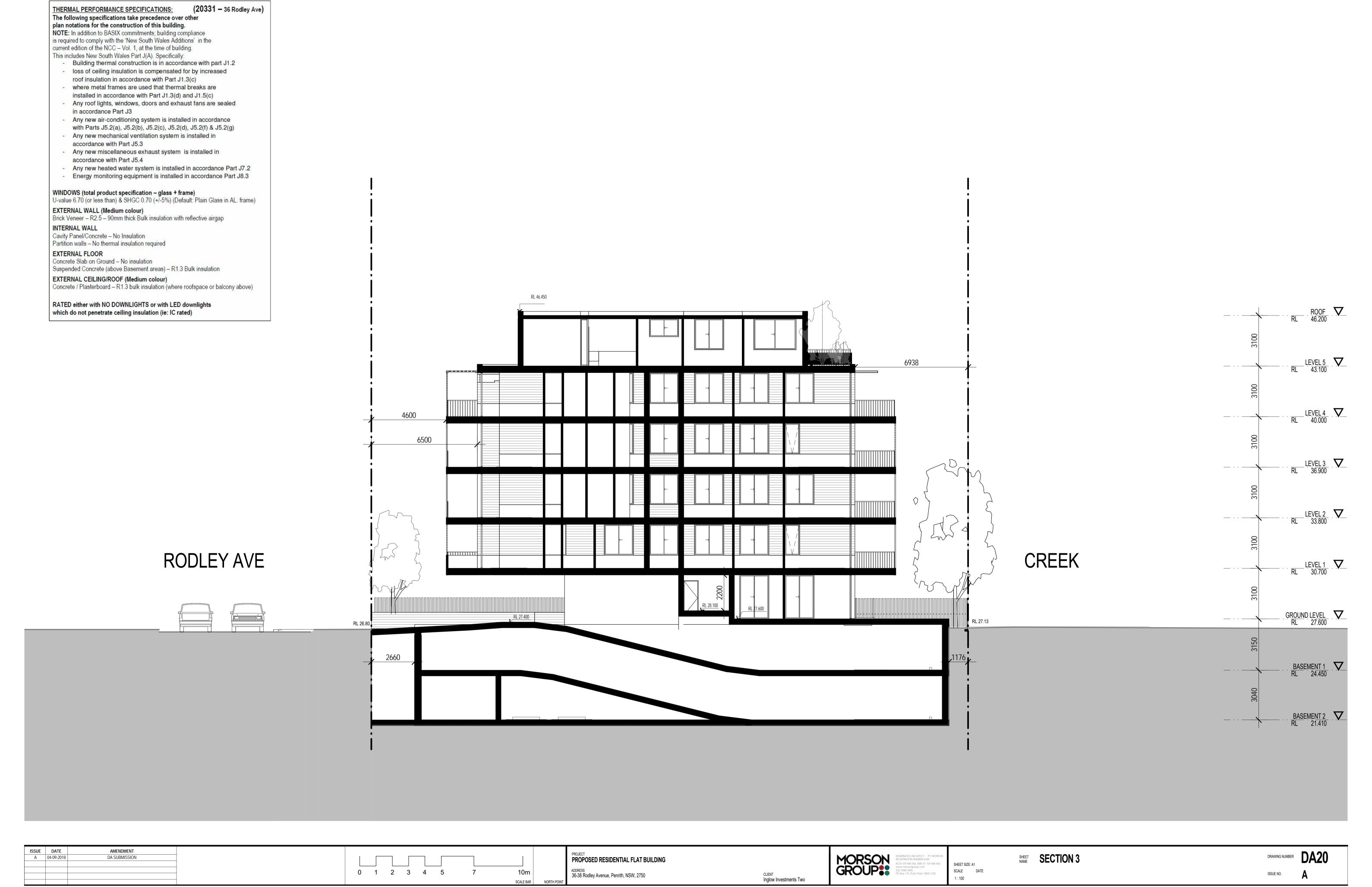
GROUND LEVEL V

BAŞEMENT 2 V

CLEAR GLASS WINDOWS









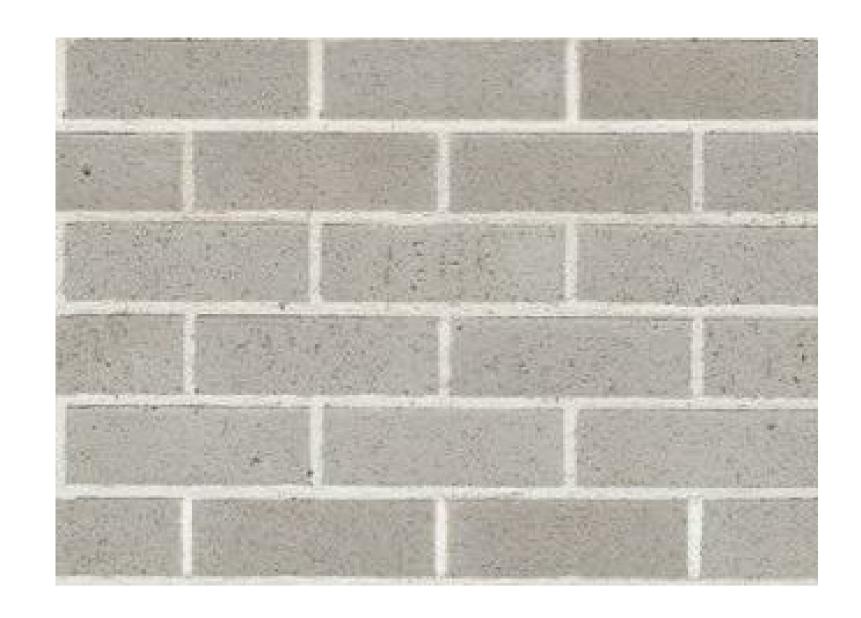








ISSUE DATE	AMENDMENT	PROJECT			
A 04-09-2018	DA SUBMISSION	PROPOSED RESIDENTIAL FLAT BUILDING	CLIENT MORSO GROUP	NOMINATED ARCHITECT - P F MORSON REGISTRATION NUMBER 8100	SHEET VIEWS
B 19-02-2019	DA SUBMISSION			ACN 159 480 056, ABN 41 159 480 056 SHEET SIZE: A1	TO THE TIME TO THE TENT OF THE
		ADDRESS 36-38 Rodley Avenue Penrith NSW 2750	CLIENT GROUP	(02) 9380 4946 PO Box 170, Potts Point, NSW 1335 SCALE DATE	
		SCALE DAD NORTH DOINT	Inglow Investments Two		



AB-Bricks-Whitsunday Brampton 230x76-110-240-NAT

Level 1-4



Dulux Eternity Titanium Pearl Satin 90087728

Louvres and Window Frames



Render Painted Finish Dulux Chanson Grey

Ground level and level 5



Render Painted Finish
Dulux Charcoal Essence 88590

Balconies and Awnings

	ISSUE	DATE	AMENDMENT
	Α	19-02-2019	DA SUBMISSION
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CLIENT Inglow Investments Two SHEET SIZE: A1

SCALE DATE

LANDSCAPE WORK SPECIFICATION

PRELIMINARIES

1.01 GENERAL

The following general conditions should be considered prior to the commencement of landscape works: • The landscape plans should be read in conjunction with the architectural plans, hydraulic plans,

- service plans and survey prepared for the proposed development. All services including existing drainage should be accurately located prior to the commencement of
- landscape installation. Any proposed tree planting which falls close to services will be relocated on site under the instruction of the landscape architect.
- Installation of conduit for required irrigation, electrical and other services shall be completed prior to the commencement of hardscape works and hardstand pours.
- All outdoor lighting specified by architect or client to be installed by qualified electrician
- Anomalies that occur in these plans should be brought to our immediate attention. • Where an Australian Standard applies for any landscape material testing or installation technique, that

1.02 PROTECTION OF ADJACENT FINISHES

standard shall be followed.

The Contractor shall take all precautions to prevent damage to all or any adjacent finishes by providing adequate protection to these areas / surfaces prior to the commencement of the Works

1.03 PROTECTION OF EXISTING TREES

Existing trees identified to be retained shall be done so in accordance with NATSPEC Guide 2 "A Guide to Assessing Tree Quality". Where general works are occurring around such trees, or pruning is required, a qualified Arborist shall be engaged to oversee such works and manage tree health Existing trees designated on the drawing for retention shall be protected at all times during the construction period. Any soil within the drip-line of existing trees shall be excavated and removed by hand only. No stockpiling shall occur within the root zone of existing trees to be retained.

Any roots larger in diameter than 50mm shall only be severed under instruction by a qualified arborist. Roots smaller than 50mm diameter shall be cut cleanly with a saw.

Temporary fencing shall be installed around the base of all trees to be retained prior to the commencement of landscape works. Where possible this fencing will be located around the drip line of these trees, or a minimum of 3m from the trunk. The fencing shall be maintained for the full construction period.

1.04 EROSION & POLLUTION CONTROL

The Contractor shall take all proper precautions to prevent the erosion of soil from the subject site. The contractor shall install erosion & sediment control barriers and as required by council, and maintain these barriers throughout the construction period. Note that the sediment control measures adopted should reflect the soil type and erosion characteristics of the site.

Erosion & pollution control measures shall incorporate the following:

- Construction of a sediment trap at the vehicle access point to the subject site. - Sediment fencing using a geotextile filter fabric in the location indicated on the erosion control plan or as
- instructed on site by the landscape architect - Earth banks to prevent scour of stockpiles
- Sandbag kerb sediment traps
- Straw bale & geotextile sediment filter - Exposed banks shall be pegged with an approved Jute matting in preparation for mass planting

Refer to "Sitewise Reference Kit" as prepared by DLWC & WSROC (1997) for construction techniques

SOIL WORKS 2.01 MATERIALS

Specified Soil Conditioner (Generally to improve site soil)

The specified soil conditioner for site top-soil improvement shall be an organic mix, equal to "Botany Humus", as supplied by ANL. Note that for sites where soil testing indicates toxins or extremes in pH, or soils that are extremely poor, allow to excavate and supply 300mm of imported soil mix.

New gardens & proposed Planting

New garden and planting areas shall consist of a 50/50 mix of clean site soil (refer d) below) and imported "Organic Garden Mix" as supplied by ANL or approved equal. All mixes are to comply with AS 4419 Soils for landscaping & garden use, & AS 4454 Composts, Soil conditioners & mulches.

Specified Soil Mix - Turf The specified soil mix for all turf areas shall be a min 75mm layer of imported soil mix consisting of 80%

compost or soil conditioner, or other approved lawn top dress. Site Topsoil Site topsoil is to be clean and free of unwanted matter such as gravel, clay lumps, grass, weeds, tree roots

sticks, rubbish and plastics, and any deleterious materials and materials toxic to plants. The topsoil must

washed river sand (reasonably coarse), and 20% composted organic matter equivalent to mushroom

have a pH of between 5.5 and 7. Use 100% imported soil mix when site when site topsoil runs out. 2.02 INSTALLATION

All testing is to be conducted in accordance with AS 1289 Methods for testing soils for engineering purposes. Site soil shall be given a pH test prior to modifying to ensure conditions are appropriate for planting as stated above. Tests shall be taken in several areas where planting is proposed, and the pH shall

be adjusted accordingly with sulphur or lime to suit. Note that a soil test conducted by the "Sydney Soil Lab" or approved equal shall be prepared for all the recommendations of this test.

b) Set Out of Individual Trees & Mass Planting Areas

All individual tree planting positions and areas designated for mass planting shall be set out with stakes or another form of marking, ready for inspection and approval. Locate all services.

c) Establishing Subgrade Levels

Subgrade levels are defined as the finished base levels prior to the placement of the specified material (i.e. soil conditioner). The following subgrade levels shall apply:

 Mass Planting Beds - 300mm below existing levels with specified imported soil mix. Turf areas - 100mm below finished surface level.

Note that all subgrades shall consist of a relatively free draining natural material, consisting of site topsoil placed previously by the Civil Contractor. No builders waste material shall be acceptable.

d) Subgrade Cultivation Cultivate all subgrades to a minimum depth of 100mm in all planting beds and all turf areas, ensuring a

thorough breakup of the subgrade into a reasonably coarse tilth. Grade subgrades to provide falls to surface and subsurface drains, prior to the placement of the final specified soil mix

e) Drainage Works

Install surface and subsurface drainage where required and as detailed on the drawing. Drain subsurface drains to outlets provided, with a minimum fall of 1:100 to outlets and / or service pits

f) Placement and Preparation of Specified Soil Conditioner & Mixes.

 Trees in turf & beds - Holes shall be twice as wide as root ball and minimum 100mm deeper - backfill hole with 50/50 mix of clean site soil and imported "Organic Garden Mix" as supplied by ANL or approved equal.

 Mass Planting Beds - Install specified soil conditioner to a compacted depth of 100mm Place the specified soil conditioner to the required compacted depth and use a rotary hoe to thoroughly mix the conditioner into the top 300mm of garden bed soil. Ensure thorough mixing and the preparation of a reasonably fine tilth and good growing medium in preparation for planting.

 Turf Areas - Install specified soil mix to a minimum compacted depth of 75mm Place the specified soil mix to the required compacted depth and grade to required finished soil levels, in preparation for planting and turfing.

PLANTING

3.01 MATERIALS

a) Quality and Size of Plant Material

All trees supplied above a 25L container size must be grown and planted in accordance with Clarke, R 1996 Purchasing Landscape Trees: A guide to assessing tree quality. Natspec Guide No. 2. Certification that trees have been grown to Natspec guidelines is to be provided upon request of Council's Tree Management

Above - Ground Assessment: The following plant quality assessment criteria should be followed:

Plant true to type, Good vigour and health, free from pest & disease, free from injury, self-supporting, good stem taper, has been pruned correctly, is apically dominant, has even crown symmetry, free from included bark & stem junctions, even trunk position in pot, good stem structure

Below - Ground Assessment: Good root division & direction, rootball occupancy, rootball depth, height of crown, non-suckering For further explanation and description of these assessment criteria, refer to Ross Clark's book. All Plant material shall be to the type and size specified. No substitutions of plant material shall be permitted without written prior approval by the Landscape Architect. No plant shall be accepted which does

b) Stakes and Ties

not conform to the standards listed above.

Provide min. 3 No. Stakes and ties to all plants identified as trees in the plant schedule. Stakes shall be sound, unpainted, straight hardwood, free of knots and pointed at one end. They shall be 2200mm x 50mm x 50mm Hardwood, or approved alternative. Ties shall be 50mm wide hessian webbing material.

c) Fertilisers Fertilisers shall be approved slow release fertilisers suitable for the proposed planting types. Note that for

native plants, specifically Proteaceae family plants including Grevillea species, low phosphorus fertilizers shall

Mulch shall be an approved equal to "Forest Blend" as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris.

Turf shall be "Sir Walter" Buffalo or equivalent (unless stated otherwise), free from any weeds and other grasses, and be in a healthy growing condition.

3.02 INSTALLATION

a) Setting Out

All planting set out shall be in strict accordance with the drawings or as directed. Note that proposed tree planting located near services should be adjusted at this stage. Notify Landscape Architect for inspection for approval prior to planting

All plant material shall be planted as soon after delivery as possible. Planting holes for trees shall be excavated as detailed and specified. Plant containers shall be removed and discarded, and the outer roots gently teased from the soil mass. Immediately set plant in hole and backfill with specified soil mix, ncorporating the approved quantity of fertiliser for each plant type. Ensure that plants are set plumb vertically and root balls set to the consolidated finished grades detailed on the drawings. Compact the backfilled soil and saturate by hand watering to expel any remaining air pockets immediately after planting.

Staking and tying shall be in strict accordance with the drawings and shall occur immediately following plant placement and soil backfilling. All plants identified as "Trees" on the planting schedule shall be staked with a min. 3 stakes.

Mulch should be spread so that a compacted thickness of 75mm is achieved after settlement in all planting beds and around each individual plant. Apply immediately following planting and watering in, ensuring that a 50mm radius is maintained around the trunk of each plant. There shall be no mixing of soil and mulch

Moisten soil prior to the turf being laid. Turf shall be neatly butt jointed and true to grade to finish flush with adjacent surfaces. Incorporate a lawn fertilizer and thoroughly water in. Keep turf moist until roots have taker and sods/rolls cannot be lifted. Keep all traffic off turf until this has occurred. Allow for top dressing of all turf areas. All turf shall be rolled immediately following installation.

Nature Strip Works The nature strip (street frontage) for the site is public land, and only authorized works may occur here

HARDSCAPE WORKS

The Contractor shall undertake the installation of all hardscape works as detailed on the drawing, or where not detailed, by manufacturers specificatior

Existing Conditions such as street trees, council planting etc shall be retained and protected during

construction, unless specific approval has been granted for new work in this area.

 Paving - refer to typical details provided, and applicable Australian Standards. Permeable paving may be used as a suitable means of satisfying Council permeable surface requirements, while providing a useable, hardwearing, practical surface. In most instances, the client shall nominate the appropriate paving material to be used.

Australian Standards shall be adhered to in relation to all concrete, masonry & metal work. Some details are typical and may vary on site. All hardscape works shall be setout as per the drawings, and inspected and approved by the Landscape Architect prior to installation. All workmanship shall be of the highest standard. Any queries or problems that arise from hardscape variations should be bought to the attention of the Landscape Architect.

Your attention is directed to any obligations or responsibilities under the Dividing Fences Act, 1991 in respect of adjoining property owner/s which may arise from this application. Any enquiries in this regard may be made to the Crown Lands Division on (02) 8836 5332.

IRRIGATION WORKS

5.01 GENERAL (PERFORMANCE SPECIFICATION)

This is a general Irrigation Performance Specification only, as a guide for projects requiring irrigation systems as part of consent requirements or building contractual arrangements. An automated irrigation system is recommended for the effective establishment of new gardens, and to assist with the success of planting areas on terraces, over slabs and in Communal Open Spaces. The inclusion of this general specification is no guarantee that an irrigation system forms part of the landscape scope of works, which will be determined by the building contract

New irrigation systems to planting areas shall be a Commercial Grade Irrigation System conforming to all relevant Australian standards, including AS 3500 & the Electrical Safety Act 2002, Workplace Health & Safety Act 1995, & the latest Sydney Water Code

An automated drip-irrigation system is to be installed to all gardens, planters and lawn areas in accordance This system shall be designed and installed by a qualified and licensed irrigation specialist, to the highest

The Installer is required to obtain all approvals necessary for the completion of works in accordance with the

Laws of Australia, Laws of the State of NSW, PENRITH Council By-Laws and Ordinances.

industry standards and to maximise the efficient usage of water.

<u>Drawings:</u>
- The Landscape Contractor nominated Licensed Irrigation Specialist shall provide irrigation drawings for approval upon engagement

The irrigation system shall be installed prior to all planting works. It shall incorporate a commercially available irrigation system, with sub-surface dripper lines to irrigate all gardens, planters and lawn areas. It shall incorporate a suitable back flow prevention device for the scale of works, an in-line filter, check valves, and suitable high and low density poly hose fittings and PVC piping to achieve flow rates suitable for

The irrigation application rate shall not exceed the infiltration rate of the soil or creates run-off. The landscape contractor shall check the existing pressure available from the ring mains and size irrigation piping to suit. Supply shall be from local hose cock where available.

All piping and fittings shall be buried 50mm below the finished soil levels in garden and lawn areas, and secured in position at 500mm centres with galv wire pins. Size of pipes shall be selected to ensure the working pressure at the end of the line does not decrease by more than 5%.

Services Co-ordination:

Co-ordination required by Landscape Contractor or Project Manager to provide required conduit, pipe work and penetration through slabs and planter walls for water and power provisions.

The Landscape Contractor shall be engaged with the Irrigation Specialist to co-ordinate with the Project Manager to identify the preferred service and conduit locations. Project Manager and Landscape Contractor to establish area suitable for irrigation control system with required area, power provision and water supply.

Testing & Defects: Jpon completion of installation, the system shall be tested, including:

Main Line Pressure Test: The main line is pressurised to test for leaks. All valves are shut and the pressure is taken over a determined length of time. Dripper Pressure Test: Measurement at flushing valves are taken and the pressure gauged to make sure it conforms to the manufacturer recommendations. The inlet pressure is then tested under the same

conditions to check it does not exceed 300Kpa. All components are to be satisfactorily functional and operational prior to approval. Should any defect develop, or the capacity or efficiency of the system decline during the agreed maintenance system, then these faults shall be immediately rectified.

A full 12 month warranty shall be included to cover labour and all parts.

Further Documentation On request, a detailed irrigation performance specification report can be issued.

CONSOLIDATION AND MAINTENANCE

6.01 GENERAL

The consolidation and maintenance period shall be 12 months beginning from the approved completion of the specified construction work (Practical Completion). A qualified landscape maintenance contractor shall undertake the required landscape maintenance works. Consolidation and maintenance shall mean the care and maintenance of Contracted works by accepted landscaping or horticultural practices, ensuring that all plants are in optimum growing conditions and appearance at all times, as well as rectifying any defects that become apparent in the contracted works.

- This shall include, but not be limited to, the following items where and as required:
- Watering all planting and lawn areas / irrigation maintenance. • Clearing litter and other debris from landscaped areas.
- Removing weeds, pruning and general plant maintenance Replacement of damaged, stolen or unhealthy plants.
- Make good areas of soil subsidence or erosion.
- Topping up of mulched areas. Spray / treatment for Insect and disease control.
- Fertilizing with approved fertilizers at correct rates • Mowing lawns & trimming edges each 14 days in summer or 18 days in winter
- Adjusting ties to Stakes Maintenance of all paving, retaining and hardscape elements.

On the completion of the maintenance period, the landscape works shall be inspected and at the satisfaction of the superintendent or landscape architect, the responsibility will be signed over to the client.

TYPICAL SETBACK FROM CONCRETE PAD UNDER--POCKET PLANTING LAWN/GARDEN EDGE STEPPING STONES BETWEEN STEPPING STONES - REFER 400mm SQ CONCRETE-LANDSCAPE PLAN 75mm DEPTH "FOREST BLEND" STEPPING STONES MULCH OR EQUIVALENT SELECTED BY CLIENT SOIL MIX: **ADJACENT SPECIFIED** 50% OF STOCKPILED SITE TOPSOIL **SURFACE FINISH PLANTING 8** FREE FROM ALL BUILDER'S **RUBBISH AND DELETERIOUS** POT SIZE MATERIALS. TOPSOIL TO BE MIXED WITH MINIMUM 50% IMPORTED GARDEN MIX OR SOIL 300mm DERTH SOIL MIX BLEND CONDITIONER/ COMPOSTED COMPACTED ORGANIC MATTER - SEE SPEC. EARTH UNDER USE 100% IMPORTED SOIL MIX SUBSOIL CULTIVATED TO 100mm WHEN SITE TOPSOIL RUNS OUT

STEPPING STONES IN **GROUNDCOVER PLANTING**

PLANT STOCK SHALL BE

ROSS CLARKE.

ARCHITECT

SOURCED FROM GROWERS CONFORMING TO NATSPEC.

GUIDE 'SPECIFYING TREES' BY

THOROUGHLY WATER IN ALL

IMMEDIATELY AFTER PLANTING.

NEWLY PLANTED STOCK

-QUALITY OF PLANT TO BE

MANAGER OR LANDSCAPE

STAKES 1.8m X 50mm X 50mm

FOR ALL TREES. USE 50mm

HESSIAN TIES TO SECURE

LOWER TRUNK TO STAKES

DEPRESSION TO ALLOW

-75mm 'FOREST BLEND'

FOR EFFECTIVE WATERING

PROVIDE SLIGHT

MULCH OR EQUAL

BACKFILL HOLE WITH

CLEAN, TESTED SITE

TOP-SOIL BLEND OR

IMPORTED SOIL MIX

ARCHITECT

TREE PLANTING DETAIL

SPECIFIED PLANTING -

REFER LANDSCAPE PLAN

FOR PLANTING LAYOUT,

SPECIES, POT SIZES AND

WHERE NO EXTERNAL

PLANTER WALL FACE

& BCA COMPLIANCE.

DRAINAGE PITS AND LAYOUT TO

ENGINEER TO WORK WITH PAVING

STRUCTURAL WATER PROOFING

DETAILS TO BE PROVIDED BY

MUST BE NON-CLIMABLE

TO A HEIGHT TO MEET AS

NOMINATED BY HYDRAULIC

DESIGN AND LANDSCAPE.

ENGINEER

PROPOSED. THE INTERNAL

QUANTITIES

BALUSTRADE IS

SCALE: 1:10

APPROVED BY LANDSCAPE

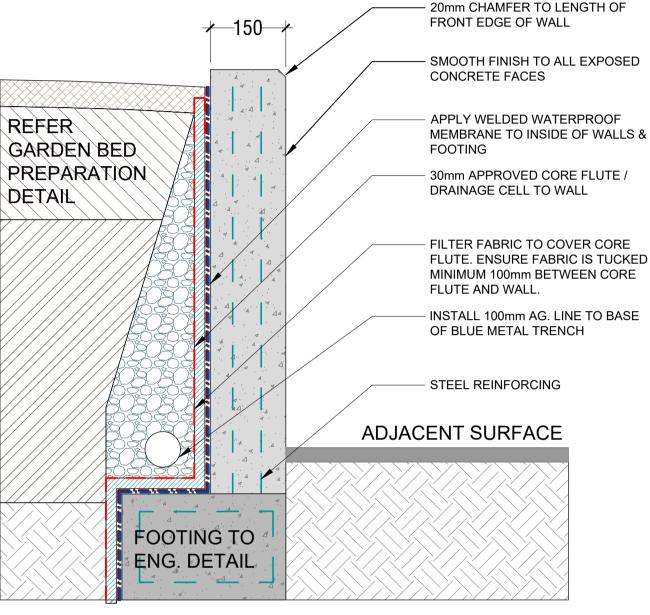
-CULTIVATE/ RIP SUBGRADE

APPROVED BY PROJECT

PROVIDE 3 HARDWOOD

SCALE 1:10





TYPICAL IN SITU RETAINING WALL DETAIL

BENEDICT "SMARTMIX" No.

A LIGHTWEIGHT PLANTER

BENEDICT "SMARTMIX" N

5 LIGHTWEIGHT PLANTER

BOX SUB-SOIL OR EQUAL

SLAB BY CIVIL CONTRACTOR

DETAILED BY OTHERS

BOX MIX OR EQUAL

SCALE 1:10 RE-CYCLED PLASTIC ROOT CONTROL APPROVED & BARRIER TO STREET TREES CERTIFIED FRAMELESS **GLASS BALUSTRADE** CULTIVATE / BREAK-UP -BASE OF HOLE (MIN MIN. HEIGHT ACHIEVE 100mm) TO PROMOTE BCA + AS FOR SAFETY **ROOT GROWTH** TIMBER GARDEN -75mm DEPTH DECORATIVE EDGING-REFER DETAIL PEBBLE MULCH

.150MM WIDE INSITU CONCRETE

DETAILS. CLASS 1 APPROVED

APPLY WELDED WATERPROOF

CORE FLUTE OR PROTECTION

BOARD TO BE INSTALLED OVER

MEMBRANE TO WALLS AND

- APPROVED 50MM DRAINAGE

PROVIDE FILTER FABRIC OVER

CEMENT SCREED TO BASE OF

ALL PLANTERS TO PROVIDE

MIN. 2% FALL TO DRAINAGE

POINTS AS PER HYDRAULIC

CELL TO WALLS AND BASE

PLANTER WALL TO ENG'S

EXPOSED AGGREGATE

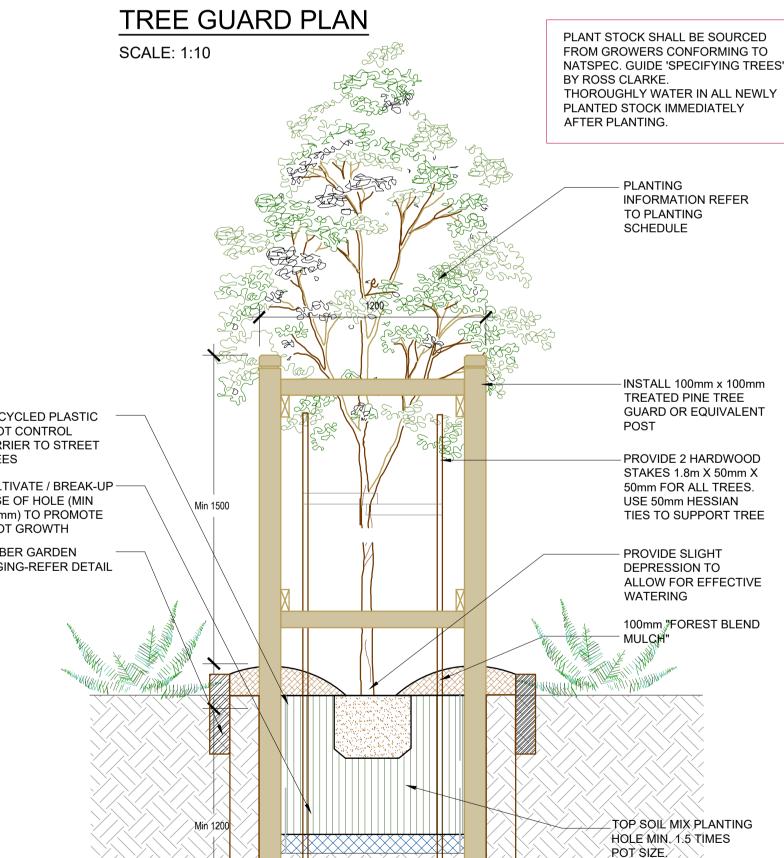
BASE OF ALL PLANTERS.

WATERPROOF LINER

DRAINAGE CELL

ENG'S DETAILS

CONCRETE



EXISTING SUB-GRADE

TREE GUARD DETAIL

SCALE: 1:5

SELECTED BRICK EDGING NOM. BY-

100mm DEPTH 80:20 MIX

SUBSOIL CULTIVATED TO 100mm

TYPICAL TURF AND BRICK EDGE DETAIL

NOTE: TURF AREAS TO FINISH

FLUSH WITH SURROUNDS.

IMMEDIATELY AFTER LAYING

REFER GARDEN

-100MM AG LINE IN

CONNECT TO SITE

SAMPLE IMAGE: BRICK EDGING

TIMBER GARDEN

EDGING-REFER DETAIL

INSTALL 100mm x 100mm

GUARD OR EQUIVALENT

100mm "FOREST BLEND

PROVIDE 2 HARDWOOD

STAKES 1.8m X 50mm X

50mm FOR ALL TREES.

TIES TO SUPPORT TREE

USE 50mm HESSIAN

BACKFILL HOLE WITH

CLEAN. TESTED SITE

TOP SOIL BLEND OR

IMPORTED SOIL MIX

APPROVED BY

LANDSCAPE

ARCHITECT.

MULCH"

TREATED PINE TREE

PREP DETAIL

BLUE METAL

TRENCH TO

DRAINAGE

ROLL AND WATER

CLIENT ON MORTAR BASE TO SUIT

"SIR WALTER" BUFFALO -----

80: 20 TOP DRESS SOIL MIX

SAND: ORGANIC MATTER

SCALE: 1:10

LAY TURF ON MINIMUM 100mm—

CONCRETE PLANTER ON SLAB DETAIL



ADJACENT SURFACE

COUNCIL	REV	DATE	NOTATION/AMENDMENT	PROJECT:
PENRITH	Α	13.08.18	Preliminary DA prepared for review	PROPOSED RESIDENTIAL
	В	30.08.18	Co-ordinated with amended architectural plan & stormwater plan	I NOI OOLD NEOIDENTIAL
	С	03.09.18	Co-ordinated with Client & Architect's comments & finalized plan	APARTMENT DEVELOPMEN
CLIENT				
INGLOW INVESTMENT TWO PTY LTD				36-38 RODLEY AVENUE
				PENRITH

DETAILS & SPECIFICATION DEVELOPMENT APPLICATION NT AUGUST 2018 AS SHOWN R.F K.Z LPDA 19-40

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Statement of Environmental Effects

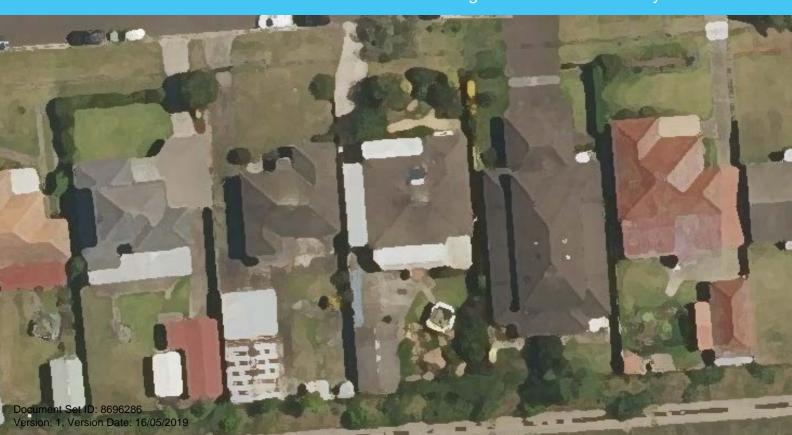
Proposed Demolition of Existing Structures and Construction of Residential Flat

Building

36-38 Rodley Ave, Penrith

August 2018

Inglow Investment Two Pty Ltd





Statement of Environmental Effects

Statement of Environmental Effects prepared by:

Name: Warwick Stimson

Qualification: Bachelor of Arts (Geography and Planning) (UNE)

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Suite 5

488 High Street Penrith NSW 2750

Client and Land Details

Client: Inglow Investment Two Pty Ltd

C/o Morson Group PO Box 170

Potts Point, NSW, 1335

Subject Site: Lot 58 and Lot 59, DP33490, 36-38 Rodley Ave, Penrith

Proposal: Proposed Demolition of Existing Structures and Construction of Residential Flat

Building

Warwick Stimson MPIA CPP
Director



This report dated August 2018 is provided to 'the client' exclusively. No liability is extended for any other use or to any other party. Whilst the report is derived in part from our knowledge and expertise, it is based on the conditions prevailing at the time of the report and upon the information provided by the client.

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APPENDIX A

Clause 4.6 Variation Request

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1 Introduction

1.1 Project Overview

Stimson & Baker Planning has been engaged by Inglow Investment Two Pty Ltd to prepare a Statement of Environmental Effects in relation to a proposed residential flat building on the property known as 36-38 Rodley Avenue, Penrith.

The proposed development includes the demolition of all existing structures and the construction of a new 6 storey flat building. Associated basement car parking and landscaping also form part of the application.

The site is zoned *R4 High Density Residential* under *Penrith Local Environmental Plan 2010* with the proposal being permissible with consent.

The proposal is defined as *development* in Section 4 of the *Environmental Planning and Assessment Act 1979* (EPA Act). The EPA Act stipulates that the development must not be carried out on the subject site until consent has been obtained. Furthermore, the application does not trigger any of the 'integrated development' provisions of the Act and so no third party approvals are required.

This report describes the proposed development and subject site in detail and undertakes an assessment of the proposal against the relevant aims, objectives and development provisions of Council's LEP and DCP, and Section 4.15 of the EPA Act.

1.2 Report Structure

This Statement of Environmental Effects is structured as follows:

- Section 1: Introduction provides an overview of the proposal, planning history for the site and background to the application.
- Section 2: The Site and Surrounds provides an analysis of the subject site, development within the locality and a consideration of the local and regional context.
- Section 3: Development Proposal provides a detailed description of the proposed development and its characteristics.
- Section 4: Statutory Context provides for consideration of the proposal against the specific planning instruments and policies that are applicable.
- Section 5: Section 79C Assessment provides an assessment against section 79C of the EPA Act.
- Section 6: Conclusion and Recommendation summarises the report and presents a recommendation.



1.3 History of the Application

1.3.1 Urban Design Review Panel Meeting

The proposal was discussed at an urban design review meeting held with the relevant officers at Penrith Council on 9 May 2018

Key Issue	Consideration
The proposed side access arrangements do not provide for suitable lines of sight from the lobby to the street and currently provide poor surveillance / CPTED outcomes as the entry point is recessed behind waste storage areas.	Direct street access is provided in the accompanying plans.
The resulting reconfiguration of the ground floor and landscape design would benefit from a reduction in the width of the driveway to a single width within the site (dual width for basement circulation), increased side setbacks, revised ground floor apartment configuration and relocated waste facilities.	Access arrangements have been amended accordingly.
The proposed common open space location is not supported and results in increasing amenity impacts for the neighbouring property. The site adjoins a raceway with opportunities to orientate open space / congregation opportunities towards this land use and not habitable rooms of adjoining developments. The common open space should normally be located off the ground floor lobby in the rear setback (subject to suitable solar access) however in this instance opportunity exists for roof top common open space with expansive views over the raceway. This requires configuration and yield amendment to the top floor but provides a far better planning and amenity outcome noting that the proposed noncompliance to building height requires a clause 4.6 variation. If the roof top open space is not pursued, a compliant 6.0m rear setback is required which maximises common open space with sufficient solar access on the ground floor.	Rooftop common open space is now provided. The yield has been adjusted accordingly.
The proposal does not comply with the ADG and SEPP 65 principles in terms of boundary setbacks.	Side setbacks have been amended in response.
The rear setback also requires amendment. The proposed bedrooms can maintain a reduced setback such as 3.0m, however balcony and living areas must comply with the 6.0m requirements to enable sufficient spatial separation between the built form and boundary for sizeable tree planting.	Distances provided in the ADG relate to tower separation as opposed to being a prescribed setback. Acceptable separation would be provided with any potential development to the south because of the drainage channel to the south. It is highly likely the channel would ever be constructed over and therefore the separation prescribed by the ADG could be satisfied.
The proposed drainage solution and easement relocation (or creation) must have suitable regard to planting requirements at the boundary edges.	Noted and included in the design.
The proposed basement setback at the south-western corner is supported and necessary to provide for suitable deep root landscaping. The same setback is to be replicated at the south- eastern corner of the basement.	Responded to in the submitted plans.
The proposed elevated planter boxes are not deemed a suitable outcome with minimal ability for maintenance. The design and finishes of the building should provide sufficient street presentation without reliance on narrow planter boxes.	These have been deleted.
Balcony air-conditioning units is a poor outcome from both an amenity and visual perspective and an integrated ducted system with basement or roof plant is required.	Screening has been provided in the submitted plans.
Staggered or varied window locations / treatments should be considered to provide visual interest and reduced uniformity.	Noted and provided for in the plans.



Key Issue Consideration

Waste management requirements need to be verified through pre- lodgement discussions with Council's planning officers prior to lodgement. The site does not enable basement access (due to lot depth, required driveway grade and resulting truck clearance floor heights). At grade collection would necessitate expansive driveways splays which are unsupportable and undermine the streetscape requirements of SEPP 65. From an urban design perspective alone, on street collection is likely the only suitable option however collection cannot block the road. The provision of indented bay(s) within the verge width of 6.5m (estimated) provides opportunities which could also accommodate parking with tree planting

The DA Plans respond to these comments accordingly.

1.3.2 Pre-Lodgement Meeting

The proposal was discussed at a pre-lodgement meeting held with the relevant officers at Penrith Council on 8 May 2018 where a range of issues were discussed. Whilst it was considered that the proposal could be supported, this Statement of Environmental Effects and accompanying information addresses the technical and planning compliance issues raised in that meeting and in summary include:

Key Issue	Requirement for Consideration
PLANNING REQUIREMENTS	
You are to demonstrate compliance with SEPP 65 Design quality of residential apartment development, and the associated design guidelines. Commentary on aspects of this policy was deferred to the future UDRP meeting. However, concerns raised at the pre-lodgement are:	Commentary on SEPP65 and the ADG's is provided within the plan set and this report.
 deep soil available considering new drainage easement proposed and extent of basement setback variation, particularly to the Strata Plan to the east 	
• The height of building map within Local Environmental Plan (LEP) 2010 is limited to 18 metres. Compliance with this height limit is required. Any variation sought for this aspect is to address Clause 5.6 (Architectural roof features) as applicable. Consideration will need to be given to the impacts arising from any variation. Any variation to Penrith LEP will need to be addressed through a Clause 4.6 variation.	A Clause 4.6 variation accompanies this submission.
Early consultation with an energy provider and Sydney Water is required regarding the need and location of any required infrastructure.	Noted. This is still being undertaken by the client.
• The waste collection proposed is unsupportable. Waste collection should be further investigated, and possible alternative solutions explored. The applicant will need to demonstrate the difference scenarios considered and the resulting outcomes.	The waste collection arrangements have been redesigned and reflects comments and advice provided by Council's UDRP.
ENVIRONMENTAL MANAGEMENT REQUIREMENTS	
• Contamination (SEPP 55)	The site has historically been used for residentia purposes. It is highly unlikely that contamination would be

The application is to address all relevant requirements under State Environmental Planning Policy 55 Remediation of Land (SEPP 55). Council cannot consent to any development unless these requirements have been satisfied. A Stage 1 - Preliminary Site Investigation (PSI) report is required to support the application, as a minimum. Should the PSI determine the need for further investigation, a Detailed Site Investigation shall be required. Should remediation be required this will require development consent. The application is to demonstrate that the land is suitable for the proposed purpose.

The site has historically been used for residential purposes. It is highly unlikely that contamination would be present. A PSI is considered to be onerous and we note it has not been required on other flat building developments in this locality.



Requirement for Consideration Noise Impacts An Acoustic Report is required to be submitted as a part of the development application to demonstrate that the development can achieve the internal noise criteria, and that it will not have any impact on adjoining premises. Waste Management Plan is to be provided addressing waste produced during the demolition, construction and operational phases of the development. It should address waste quantities, storage locations and removal.

ENGINEERING REQUIREMENTS

Stormwater

- Stormwater drainage for the site must be in accordance with the following:
- Council's Development Control Plan,
- Stormwater Drainage Specification for Building Developments policy, and
- Water Sensitive Urban Design Policy and Technical Guidelines.
- A stormwater concept plan accompanied by a supporting report and calculations, shall be submitted with the application.
- An easement will be required over the relocated pipe to benefit Council. The width of the easement will be in accordance of Section 2.6 of Council's Stormwater Drainage Guidelines for Building Developments Policy.
- No large tree planting is permitted in the easement.
- A water sensitive urban design strategy prepared by a suitably qualified person is to be provided for the site.
 The strategy shall address water conservation, water quality, water quantity, and operation and maintenance.

Noted. A Stormwater concept plan accompanies the application.

A WSUD Strategy is also included.

An easement is shown on the submitted plans.

Local Overland Flows

• The site is affected by local overland flow flooding.

A suitable Flood Analysis accompanies the application.

TRAFFIC COMMENTS

 The application must demonstrate that the proposed parking, access, clearances and servicing comply with AS2890 Parts 1 & 6 and Council's Development Control Plan. Any non-compliance, and specifically those that may be associated with an elevated driveway crest to provide required freeboard with regard to flood levels, must be clearly and adequately demonstrated to not compromise access and manoeuvring.

In order to do this amelioration measures must be clearly outlined.

- All accessible car parking spaces are to comply with AS2890.6.
- All vehicles must enter and exit in a forward direction.
- The loss of on-street parking associated with on-street collection of large (660L – 1100L) bins, whether via a restricted parking zone or via an indented waste collection bay, is not supported.
- The tugging of large bins (660L 1100L required for the internal chute system) across pedestrian areas/paths is a matter of concern with regard to pedestrian safety, therefore on-street collection of large bins is not supported.
- The required sight lines for drivers/vehicles exiting the site are not to be compromised by signage, fencing or structures

Noted on the submitted plans. A Traffic and Parking Assessment also accompanies the application addressing these matters.



Key Issue	Requirement for Consideration	
BUILDING REQUIREMENTS		
Ensure combustible cladding is not used.	Noted and incorporated into the design.	
Hydrant protection of the building is required, it is likely an on-site hydrant and booster assembly will be necessary. Please provide details of location.		
• 2 exits from the basement are required. Alternatively, a Performance Solution may be provided		
The basement will need to be sprinkler protected if more than 40 car spaces are provided		
Make one of the visitor carparking spaces accessible		
• 3 adaptable units are to be provided		
WASTE REQUIREMENTS		
The current proposal will consist of 21 x dwellings. The submitted plans do not address the DCP provisions or provide a 'improved planning outcome' for the site. The proposal in its current state is not supported and requires amended plans addressing the respective provisions.	A Waste Management Plan accompanies the application addressing these matters. The design reflects the advice provided by Councils UDRP and is considered acceptable in that context.	
Alternate Waste Collection Proposal	Alternatives have been considered prior to the UDRP and	
Alternated Waste Collection solutions may be proposed in accordance with section 2.5 of the 'Residential Flat Building Guideline' document. An extract is provided below (including but not limited to):	at that meeting, advice was provided that the proposed arrangements are likely to be the most suitable.	
To apply for alternative solutions on restricted sites the following will need to be addressed and submitted:		
 The onus is on the applicant to demonstrate that: An improved planning outcome is achieved for the site; All alternative solutions will be viewed and assessed by Council's Waste Management Department. 		
Waste Onsite Loading Bay	Provided for in the accompanying plans.	
Residential Flat Building developments as outlined in the C5 Waste Management DCP 2014, Section 5.2.2.4;		
Subsection 2: Developments comprising three or more storeys, the development is to incorporate a waste chute system.		
Subsection 5: On-site collection is required to service the development. Adequate and safe access must be provided for Council's Standard Waste Collection Vehicles and waste collection staff		
Waste Chute System	Amendments have been made to the plans to reflect this	
RFB developments are required to install a dual chute system for residual and recyclable waste streams. This is outlined in section 5.2.2.4 Residential Flat Buildings.	advice.	
Bulky Households Goods Room	A bulky waste room has been provided for as per the requirements.	

Statement of Environmental Effects 36-38 Rodley Ave, Penrith



1.4 Supporting Documentation

The proposed development is accompanied by the following documentation:

Documentation	Prepared by
Survey	John Lowe & Associates P/L
Architectural Drawings	Morson Group
Hydraulic Report/Stormwater Plans	SGC
Landscape Plan	Conzept Landscape Architects
Traffic Impact Assessment	Stanbury Traffic Planning
Noise Impact Assessment	Rodney Stevens Acoustics
Access Report	Vista Access Architects
Flood Impact Statement	SGC

1.5 Legislation, Environmental Planning Instruments and Policies to be considered

- Penrith Local Environmental Plan 2010
- Penrith Development Control Plan 2014
- Sydney Regional Environmental Plan No 20 Hawkesbury Nepean River (No 2 -1997)
- State Environmental Planning Policy No 55 Remediation of Land
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

1.6 Consent Authority

The consent authority for this application is Penrith City Council.



2 The Site and Surrounds

2.1 The Subject Site

The subject site and its surrounds have the following characteristics.

Site Address	36-38 Rodley Ave, Penrith
Lot/DP	Lot 58 DP 33490 & Lot 59 DP 33490
Local Government Area	Penrith City Council
Site Area	1112.8 sqm (by survey)
Zoning	R4 High Density
Current Land Use	Residential
Proposed Land Use	Residential
Surrounding Land Uses	Residential, transitioning from low density to high density.
Topography	Generally flat
Terrestrial Biodiversity	Not mapped in LEP
Vegetation	Not mapped in LEP
Heritage	None with the vicinity
Flooding/Overland Flow	Noted. Details in Pre DA advice
Bushfire	Not mapped



Figure 1 Subject Site- Aerial





Figure 2 Subject Site- Cadastre



3 Project Description

3.1 Overview

The proposal is for the demolition of all existing structures, site clearing and preparation, and the construction of a residential flat building and associated basement car parking, stormwater and landscape works.



Figure 3 Development perspective

3.2 Unit Mix

The building is proposed to include the following detailed elements:

- · Residential flat building over 6 storeys
- A total of 21 apartments (9 x 2br. 3 x 2br adaptable, 9 x 3br)
- Gross floor area of 2095sqm, equating to a Floor Space Ratio of 1.88:1

3.3 Vehicular Elements

The proposal includes the provision of 37 car spaces comprising 32 residential spaces. 1 service (wash bay) space and 4 visitor spaces. The controls require 36 spaces to be provided in total.

The proposed parking spaces are to be provided over two basement levels.

The proposed development is to be accessed via a single lane, signalised driveway with priority given to vehicles entering the site.

Bicycle parking is provided for on-site as per NSW Government guidelines.



3.9 National Construction Code Compliance

All works will be carried and comply with the National Construction Code (now incorporating the BCA). A Construction Certificate will be required in relation to the proposal and it is expected that Council will require matters relating to NCC compliance.



Figure 7 Streetscape elevation



4 Statutory Context

4.1 Sydney Regional Environmental Plan No 20 – Hawkesbury Nepean River

The aim of SREP 20 is to protect the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.

Appropriate conditions of consent would normally be applied to any approval to ensure the health of the river system is not compromised by way of sediment or erosion from the works or use.

4.2 State Environmental Planning Policy. No 55 – Remediation of Land

The historic use of this site for residential purposes suggests there have been no uses that could potentially pose a contamination risk on the land, and therefore not triggering the SEPP. Further studies are therefore not required.

4.3 State Environmental Planning Policy 65 – Design Quality of Residential Apartment Development

The objectives of the SEPP are as follows:

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



- (f) to contribute to the provision of a variety of dwelling types to meet population growth, and
- (g) to support housing affordability, and
- (h) to facilitate the timely and efficient assessment of applications for development to which this Policy applies.
- (4) This Policy aims to provide:
 - (a) consistency of policy and mechanisms across the State, and
 - (b) a framework for local and regional planning to achieve identified outcomes for specific places.

A full assessment of the proposal against the SEPP and the Apartment Design Guidelines (ADG's) are within the architectural set of plans. Compliance with the ADG's has been achieved.

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

The application is accompanied by the required BASIX documentation.

4.5 Penrith Local Environmental Plan 2010

The Penrith LEP is the main environmental planning instrument applicable to the subject site. The objectives of the LEP are as follows:

- to provide the mechanism and planning framework for the management, orderly and economic development, and conservation of land in Penrith,
- (b) to promote development that is consistent with the Council's vision for Penrith, namely, one of a sustainable and prosperous region with harmony of urban and rural qualities and with a strong commitment to healthy and safe communities and environmental protection and enhancement,
- (c) to accommodate and support Penrith's future population growth by providing a diversity of housing types, in areas well located with regard to services, facilities and transport, that meet the current and emerging needs of Penrith's communities and safeguard residential amenity,
- (d) to foster viable employment, transport, education, agricultural production and future investment opportunities and recreational activities that are suitable for the needs and skills of residents, the workforce and visitors, allowing Penrith to fulfil its role as a regional city in the Sydney Metropolitan Region,
- (e) to reinforce Penrith's urban growth limits by allowing rural living opportunities where they will promote the intrinsic rural values and functions of Penrith's rural lands and the social well-being of its rural communities,
- (f) to protect and enhance the environmental values and heritage of Penrith, including places of historical, aesthetic, architectural, natural, cultural, visual and Aboriginal significance,
- (g) to minimise the risk to the community in areas subject to environmental hazards, particularly flooding and bushfire, by managing development in sensitive areas,



(h) to ensure that development incorporates the principles of sustainable development through the delivery of balanced social, economic and environmental outcomes, and that development is designed in a way that assists in reducing and adapting to the likely impacts of climate change.

It is submitted that the proposed development is not inconsistent with these objectives.

The subject site is zoned *R4 High Density Residential* with the following zone objectives applying to that zone.

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs
 of residents.
- To ensure that a high level of residential amenity is achieved and maintained.
- To encourage the provision of affordable housing.
- To ensure that development reflects the desired future character and dwelling densities of the area.

The proposed development is consistent with the objectives of the zone in that:

- The additional high-density development in this locality is consistent with the zoning controls and will contribute to the housing needs and diversity in the area.
- As the proposal largely satisfies the planning controls, SEPP 65 and AGD provisions, a high level of amenity will be provided for.
- The proposal is consistent with the future character of this high-density locality.



Figure 8 Land use zoning map

The Land Use Table of the LEP nominates *residential flat building* as a permissible form of development in the zone, given the notation on the zoning. The Dictionary definition of *residential flat building* is:

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



The following relevant clauses have also been considered in respect of this development proposal.

Part 4 Principal Development Standards:					
Standard		Permitted	Proposed	Comment	
4.1A	Minimum lot sizes for dual occupancies, multi dwelling housing and residential flat buildings	800sqm	1112.8sqm	Complies	
4.3	Height of Buildings:	18m	20.19m	Refer to appended Clause 4.6 report	
4.4	Floor Space Ratio	N/A	N/A	N/A	

Part 5	Part 5 Miscellaneous Provisions	
Provision		Comment
5.1	Relevant acquisition authority	N/A
5.2	Classification and reclassification of public land	N/A
5.3	Development near zone boundaries	N/A
5.4	Controls relating to miscellaneous permissible uses	N/A
5.5	Development within the coastal zone	N/A
5.6	Architectural roof features	N/A
5.7	Development below mean high water mark	N/A
5.8	Conversion of fire alarms	N/A
5.10	Heritage conservation	N/A
5.11	Bush fire hazard reduction	N/A
5.12	Infrastructure development and use of existing buildings of the Crown	N/A
5.13	Eco-tourist facilities	N/A
5.14	Siding Spring Observatory— maintaining dark sky	N/A
5.15	Defence communications facility	N/A

Part 7 Additional Local Provisions			
Provision		Comment	
7.1	Earthworks	N/A	
7.2	Flood planning	A flood analysis has been undertaken on the site and accompanies the application. The design accommodates the required freeboard, and this is a contributing factor with the overall height of the building.	
7.3	Development on natural resources sensitive land	N/A	
7.4	Sustainable Development	A 'whole of building' approach has been taken with the design of the proposed building. It is also noted that compliance is achieved with both the ADG's and the development can satisfy the BASIX requirements.	
7.5	Protection of scenic character and landscape values	N/A	



7.6	Salinity	N/A
7.7	Servicing	The site can be appropriately serviced to accommodate the proposal.
7.8	Active street frontages	N/A
7.9	Development of land in flight path of proposed Second Sydney Airport	N/A
7.10	Dual occupancies and secondary dwellings in certain rural and environmental zones	N/A
7.11	Penrith Health and Education Precinct	N/A
7.12	Maximum gross floor area of commercial premises	N/A
7.13	Exhibition homes limited to 2 years	N/A
7.14	Cherrywood Village	N/A
7.15	Claremont Meadows	N/A
7.16	Glenmore Park Stage 2	N/A
7.17	Dwelling houses on certain land in Castlereagh, Cranebrook, Llandilo, Londonderry, Kemps Creek and Mulgoa	N/A
7.18	Mulgoa Valley	N/A
7.19	Villages of Mulgoa and Wallacia	N/A
7.20	Orchard Hills	N/A
7.21	Twin Creeks	N/A
7.22	Waterside Corporate	N/A
7.23	Location of sex services premises and restricted premises	N/A
7.24	Sydney Science Park	N/A
7.25	Warehouses and distribution centres on land zoned B7 Business Park	N/A

4.6 Penrith Development Control Plan 2014

The Penrith DCP contains finer grain controls, and these have been considered in the following context.

Part C1: Site Planning and Design Principles

The design methodology is explained on the accompanying plans The site has been responded to with the proposed development and a Context and Site Analysis Plan accompanies the application.

Part C2: Vegetation Management

A Landscape Concept Plan accompanies the application and provides for a mix of planting that integrates with the development and surrounding area. Good deep soil areas can accommodate deep rooted tree planting. The required flood storage and easements have been incorporated into the design.

Part C3: Water Management

Appropriate initiatives are proposed for on-site stormwater management and a BASIX assessment has been carried out. These have been incorporated into the design of the development. A Stormwater Concept Plan accompanies the application demonstrating suitable management of stormwater quality and quantity. A WSUD Strategy also accompanies the application and addresses the requirements of the DCP.



Part C4: Land Management

Appropriate measures will be put in place to ensure the site is protected from erosion and sedimentation. An erosion and sedimentation control plan is provided. It is submitted that there are no concerns around potential contamination of the site given the historical residential use.

Part C5: Waste Management

The provision for waste management on site is considered satisfactory and there is provision for a waste chute, waste room sufficient for the scale and size of the building. A Waste Management Plan accompanies the application outlining the waste requirements.

C6: Landscape Design

A detailed Landscape Concept Plan accompanies this application. The provisions of SEPP 65 have been considered in respect of the landscaping proposed and the stormwater requirements for the site have also been accommodated.

The plants that will be used in the landscaping will be varieties that require low levels of maintenance and are drought resistant to reduce water use within the development. The proposal also includes rooftop communal space.

C7: Culture and Heritage

The site is not a heritage item and does not adjoin a heritage item or precinct.

C10: Transport, Access and Parking

A Traffic Impact Assessment accompanies the application. The report concludes that the proposed development is satisfactory in terms of car parking, vehicular access and traffic generation.

There is also provision for bicycle parking areas

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Version: 1, Version Date: 16/05/2019

C12: Noise and Vibration

There is no anticipated noise or vibration generated from the proposed development. However, the adjoining Paceway Club has been considered in the Acoustic Impact Assessment that accompanies this application. The proposal is considered to be satisfactory.

C13: Infrastructure and Services

As stated previously, the subject site is already serviced to accommodate the proposed development and any augmentation required will be confirmed with the relevant service providers.

D2 - Residential Development 2.5 Residential Flat Buildings

The proposal generally satisfies the SEPP 65 and ADG requirements

Statement of Environmental Effects



5 Section 4.15 Assessment

An assessment of the proposal has been undertaken in accordance with the statutory requirements of the EPA Act. The following assessment against Section 4.15 of the EPA Act has been undertaken.

5.1 Section 4.15(1)(a)(i) – Any Environmental Planning Instruments

The relevant environmental planning instruments have been considered earlier in this report.

The proposal is permissible with consent and is considered satisfactory when assessed against the relevant requirements.

5.2 Section 4.15(1)(a)(ii) – Any Draft Environmental Planning Instrument

There are no known draft Environmental Planning Instruments applicable to the subject site.

5.3 Section 4.15(1)(a)(iii) – Any Development Control Plan

Compliance against the relevant DCP's has been considered earlier in this report.

5.4 Section 4.15(1)(a)(iiia) – Any Planning Agreement or Draft Planning Agreement entered into under Section 93f

There are no known planning agreements that apply to the site or development.

5.5 Section 4.15(1)(a)(iv) – The Regulations

There are no sections of the regulations that are relevant to the proposal at this stage.

5.6 Section 4.15(1)(b) – The Likely Impacts of the Development

The following impacts have been considered in the preparation of this development proposal.

5.6.1 Flora and Fauna

There are no significant examples of vegetation on the site, nor any evidence of any fauna communities. No negative impacts are expected in this regard.



5.6.2 Stormwater and Flooding

A stormwater concept plan has been submitted with the development application demonstrating compliance with Council's requirements in this regard and is consistent with the discussions held at the pre-lodgement meeting. An easement has been accommodated along with the required on-site flood storage.

5.6.3 Erosion and Sediment Control

It is expected that Council would impose appropriate conditions of consent to ensure that erosion and sediment control measures were installed on the site prior to construction commencing.

5.6.4 Traffic Generation and Parking

The proposed development does not propose any significant increase in traffic generation as a result of the proposed development. On site car parking is also considered to be adequate and this is supported in the accompanying Traffic Impact Assessment.

The Assessment also supports the kerbside collection of household waste.

5.6.5 Noise Impacts

Whilst there will be some noise associated with the construction of the development, longer term there is not expected to be any noise impacts above and beyond what might normally be associated with a residential environment. Notwithstanding an acoustic report has been commissioned and accompanies the application giving consideration to the adjoining Paceway Club. No unacceptable impacts are expected.

5.6.6 Heritage Issues

There are no unacceptable heritage impacts arising from the proposed development.

5.6.7 Services

The site is appropriately serviced to allow for the proposed development.

5.6.8 Overshadowing

There will be no unacceptable overshadowing impacts as a result of the proposed development. This is largely due to the central location of the building and the substantial setbacks that are proposed.

5.6.9 Social and Economic

There are no negative economic or social impacts considered relevant to the proposed development.



5.6.10 Crime Prevention Through Environmental Design (CPTED)

The consideration of CPTED issues has been prepared having regard to various published CPTED literature and academic works, and specifically includes the "Crime Prevention and Assessment of Development Application Guidelines under Section 4.15 of the Environmental Planning and Assessment Act 1979" published by the former Department of Urban Affairs and Planning.

The advice is structured in accordance with Part B of the above guidelines – *Principles for Minimising Crime Risk*. In this regard, the advice considers the responsiveness of the proposed design to each of the adopted four principles for CPTED (surveillance; access control; territorial reinforcement and space management).

CPTED principles have been adopted by the NSW Police Force, based on recognition that the design of spaces plays a pivotal role in facilitating the safety and security of its users. The NSW Police Force has identified key principles of CPTED being:

- Establish opportunities for **good surveillance**, both casually and technically.
- Provide legible barriers for **access control** for spatial definition.
- Create a sense of ownership over spaces that are also clearly demarcated between public and private ownership for territorial reinforcement.
- Establish spaces that are utilised appropriately through proper space management,
 relating to litter and graffiti removal, and ensuring lighting fixtures are working.

When implemented, these measures are likely to reduce opportunities for crime by using design and place management principles.

Surveillance

The proposed development will provide numerous opportunities for surveillance. The following casual surveillance opportunities have been provided through the design of the project:

- Opportunities for visual observance through a high percent of transparent glazing along all frontages allow normal space users to see and be seen by others.
- Entries are located in highly visible locations.
- Active communal areas at the front and rear of the building are well positioned.
- Clear visual pathways within resident areas as well as from public streets to private entrances.
- Areas of entrapment are limited due to multiple exit points from around the development.

Access Control

Access control to public, semi public and private areas of the development is considered to be well managed and effective. Access control to the building can be effectively managed through lockable entry doors. Common areas at all locations and levels should have access control measure in place. With respect to fire escape points and building services rooms, the location of these access points, the use of lockable doors and other environmental cues will make it



clear that these are not public entry points. Access to the basement level will be via lockable roller door.

Overall access to the building will be managed by the on-site manager/body corporate.

Territorial Reinforcement

Clear separation exists between public and private space in terms of the relationship between the proposal and the public domain. Appropriate signage, landscaping, site furnishings and paving will provide good environmental cues about the transition or movement from public to private domain.

Space Management

For most modern residential developments, space management is increasingly carried out in a professional manner, often by third party specialist building management businesses. Therefore, the effectiveness of management systems such as light globe replacement, removing graffiti, and fixing broken site furnishings will influence the perceived level of care of the project. In this case, the on-site manager/body corporate will ensure that processes are established to respond to and fix services and structures and under whose responsibilities these services are assigned.

Site cleanliness is also a factor that influences the perceived and actual level of care of an area.

Cleanliness of the project is dependent upon the management practices of individual tenants as well as the implementation of waste removal and street cleaning processes. This will be overseen by the on-site manager. The selection of lighting should also be vandal proof, and materials facilitate ease of maintenance in the long-term, to delay the appearance of decay.

5.7 Section 4.15(1)(c) – The Suitability of the Site

The proposal is generally consistent with the planning controls that apply in this zone. Moreover, the objectives of the zone have been satisfied, ensuring the proposal would not result in any unacceptable impact on any adjoining landowners or buildings.

For the reasons outlined in this report the site is considered suitable for this development proposal.

5.8 Section 4.15(1)(d) – Any Submission Made

Council will undertake a notification process in accordance with its controls and policies. We welcome the opportunity to provide additional information in response to those.

5.9 Section 4.15(1)(e) – The Public Interest

Given the type of development, its general compliance with the planning controls, how the objectives are satisfied and the suitability of the site it is considered that the public interest would not be jeopardised as a result of this development.



6 Conclusion and Recommendation

The proposed development has been assessed against the requirements of the Penrith LEP and DCP and is considered to represent a form of development that is acceptable.

The proposed residential flat building would not result in any unacceptable impact on the locality. The site is considered quite suitable for a use of this nature and is consistent with nearby and adjoining development.

An assessment against section 4.15 of the EPA Act has not resulted in any significant issues arising.

Accordingly, it is recommended that the proposed development of a residential flat building at 36-38 Rodley Street, Penrith, be approved.



Appendix A

Clause 4.6 Variation Request



Clause 4.6 Variation Request

Proposed Demolition of Existing Structures and Construction of a Residential Flat **Building**

36-38 Rodley Ave, Penrith

Inglow Investment Two Pty Ltd

Stimson & Baker Planning ACN: 167 096 371 ABN: 34 824 672 534

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This submission has been prepared by

Warwick Stimson MPIA CPP
Director



This submission dated August 2018 is provided to 'the client' exclusively. No liability is extended for any other use or to any other party. Whilst the report is derived in part from our knowledge and expertise, it is based on the conditions prevailing at the time of the report and upon the information provided by the client.

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1 Introduction

The NSW planning system provides flexibility in planning controls by providing the ability for a council to vary development standards in certain circumstances.

Stimson & Baker Planning has been engaged by Inglow Investment Two Pty Ltd to prepare a request to vary one development standard in respect of its proposed residential flat building at 36-38 Rodley Avenue, Penrith. This submission accompanies plans that have been separately submitted to Council.

The development proposes a breach in the *height of building* development standard and this submission aims to address those aspects of the application.

The proposed breach in height is considered to be minor, with the resultant built form not resulting in any unacceptable visual impact. The breach arises from the need to raise the freeboard of the building to accommodate local overland flooding.

It is considered there are sufficient environmental planning grounds to support the variations. Primarily these include the ability for the development to, at the same time, accommodate the physical constraints of the land, whilst also delivering the envisaged built form and housing numbers within the zone in this locality.



2 Variation Consideration

The NSW Land and Environment Court has resolved a number of matters that have guided the way in which requests to vary development standards are to be considered by the consent authority.

2.1 NSW Land and Environment Court: Case Law (tests)

The key elements are outlined below.

Winten v North Sydney Council

The decision in *Winten v North Sydney Council* established the basis on which the former Department of Planning and Infrastructure's Guidelines for varying development standards was formulated.

The questions that needed to be considered included:

- Is the planning control in question a development standard?
- What is the underlying object or purpose of the standard?
- Is compliance with the development standard consistent with the aims of the Policy, and in particular does compliance with the development standard tend to hinder the attainment of the objects specified in section 5(a)(i) and (ii) of the EP&A Act?
- Is compliance with the development standard unreasonable or unnecessary in the circumstances of the case (and is a development which complies with the development standard unreasonable or unnecessary in the circumstances of the case)? and
- Is the objection well founded?

Wehbe v Pittwater [2007] NSW LEC 827

The decision in *Wehbe v Pittwater* [2007] *NSW LEC 827* expanded on the findings in *Winten v North Sydney Council* and established a five (5) part test to determine whether compliance with a development standard is unreasonable or unnecessary considering the following questions:

- Would the proposal, despite numerical non-compliance be consistent with the relevant environmental or planning objectives;
- Is the underlying objective or purpose of the standard not relevant to the development thereby making compliance with any such development standard is unnecessary;
- Would the underlying objective or purpose be defeated or thwarted were compliance required, making compliance with any such development standard unreasonable;
- Has Council by its own actions, abandoned or destroyed the development standard, by granting consents that depart from the standard, making compliance with the development standard by others both unnecessary and unreasonable; or
- Is the "zoning of particular land" unreasonable or inappropriate so that a development standard appropriate for that zoning was also unreasonable and unnecessary as it applied



to that land. Consequently, compliance with that development standard is unnecessary and unreasonable.

Four2Five Pty Ltd v Ashfield Council [2015] NSW LEC

In the matter of Four2Five Pty Ltd v Ashfield Council [2015] NSW LEC, it was found that an application under Clause 4.6 to vary a development standard must go beyond the five (5) part test of Wehbe V Pittwater [2007] NSW LEC 827 and demonstrate the following:

- Compliance with the particular requirements of Clause 4.6, with particular regard to the provisions of subclauses (3) and (4) of the LEP;
- Whether there are sufficient environment planning grounds, particular to the circumstances
 of the proposed development (as opposed to general planning grounds that may apply to
 any similar development occurring on the site or within its vicinity);
- That maintenance of the development standard is unreasonable and unnecessary on the basis of planning merit that goes beyond the consideration of consistency with the objectives of the development standard and/or the land use zone in which the site occurs; and
- All three elements of clause 4.6 have to be met and it is best to have different reasons for each but it is not essential

Moskovich v Waverley Council [2016] NSWLEC 1015

The court further reflected on the recent Four2Five decisions and noted:

- Clause 4.6(3)(a) is similar to clause 6 of SEPP 1 and the Wehbe ways of establishing compliance are equally appropriate. One of the most common ways is because the objectives of the development standard are achieved.
- Whereas clause 4.6(4)(a)(ii) is worded differently and is focused on consistency with objectives of a standard. Consequently, a consideration of consistency with the objectives of the standard required under clause 4.6(4)(a)(ii)) to determine whether non-compliance with the standard would be in the public interest is different to consideration of achievement of the objectives of the standard under clause 4.6(3).
- The written request should address the considerations in the granting of concurrence under clause 4.6(5).



2.2 What is the name of the environmental planning instrument that applies to the land?

Penrith Local Environmental Plan 2010.

2.3 What is the zoning of that land?

The subject site is zoned R4 High Density Residential.

2.4 What are the objectives of the zone?

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs
 of residents.
- To ensure that a high level of residential amenity is achieved and maintained.
- To encourage the provision of affordable housing.
- To ensure that development reflects the desired future character and dwelling densities of the area.

The proposed development is consistent with the objectives in that:

- The additional high-density development in this locality is consistent with the zoning controls and will contribute to the housing needs and diversity in the area.
- As the proposal largely satisfies the planning controls, SEPP 65 and AGD provisions, a high level of amenity will be provided for.
- The proposal is consistent with the future character of this high-density locality.

2.5 What is the development standard being varied?

Height of Building

2.6 Under what clause is the development standard listed in the environmental planning instrument?

Clause 4.3 Height of Building.



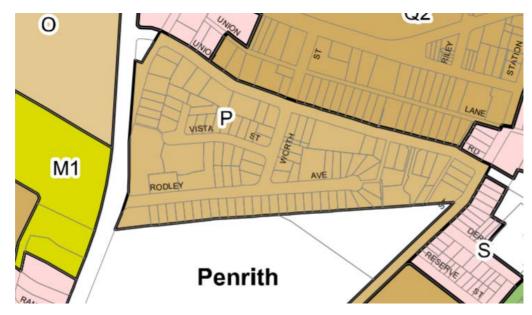


Figure 1: Height of Buildings Map (extract Penrith Local Environmental Plan 2010)

2.7 What are the objectives of the development standard?

Clause 4.3 Height of Building objectives include:

- (a) to ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of the locality,
- (b) to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development and to public areas, including parks, streets and lanes,
- (c) to minimise the adverse impact of development on heritage items, heritage conservation areas and areas of scenic or visual importance,
- (d) to nominate heights that will provide a high quality urban form for all buildings and a transition in built form and land use intensity.

2.8 What is the numeric value of the development standard in the environmental planning instrument?

The maximum building height is 18m.

2.9 What is proposed numeric value of the development standard in your development application?

The proposal exceeds the building height at varying heights across the building to accommodate the design and to fully utilise the building envelope.

The roof edge rises a maximum of only 1.287m above the 18m height limit, while the central lift core rises 2.19m above the 18m height limit resulting in a total building height of 20.19m.



2.10 What is the percentage variation (between your proposal and the environmental planning instrument)?

The maximum variation to the height of building control (top of lift) is 12.1%.

2.11 How is strict compliance with the development standard unreasonable or unnecessary in this particular case?

2.11.1 Height of Building

The proposal meets the general intent of clause 4.3 *Height of Buildings* and complies with the objectives of this development standard and more generally the zone as follows:

 The proposal is compatible with the height, bulk and scale of the emerging and desired future character of the locality and with the surrounding development. This is demonstrated within the submitted plans, showing the breach in height would not create any impacts on nearby or adjoining properties.



Figure 2 Shadow Diagram

- The proposal does not impact on the visual amenity, reduces views or minimises loss of privacy or solar access.
- There is no heritage item on the site.
- The proposal provides a high quality urban form and provides a building that can contribute to a varying skyline given the recent increase in height limit in this area.



- The high-quality form of the proposal has been supported through the Council's own Urban Design Review Panel process.
- It is unreasonable to apply the height limit across the site in this case as the proposal
 does not impact on the visual amenity nor does it reduce views or minimises loss of
 privacy or solar access. The orientation of the building, the stepping of the building and
 façade treatment minimises shadow impacts with the majority of the shadow falling on
 the Paceway site to the south.
- The proposed development meets the objectives of the zone and the height of building clause, it contributes to the provision of necessary land uses within the Penrith City in locations in close proximity to services and facilities.

Given the spatial context of the building, the proposed encroachment will not present as a perceptible element. It is considered that the proposal is in the public interest and strict compliance with the standard in this instance is both unreasonable and unnecessary.

2.12 How would strict compliance hinder the attainment of the objects specified in Section 5(a)(i) and (ii) of the Act?

Section 5(a)(i) and (ii) of the Environmental Planning and Assessment Act 1979 provide:

The objects of this Act are: (a) to encourage: the proper management, development and conservation of natural and artificial (i) resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment, (ii) the promotion and co-ordination of the orderly and economic use and development of land, the protection, provision and co-ordination of communication and utility (iii) services. (iv) the provision of land for public purposes, (v) the provision and co-ordination of community services and facilities, and the protection of the environment, including the protection and conservation of (vi) native animals and plants, including threatened species, populations and ecological communities, and their habitats, and (vii) ecologically sustainable development, and the provision and maintenance of affordable housing, and (b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and to provide increased opportunity for public involvement and participation in environmental (c) planning and assessment.

It is submitted that the height encroachment still maintains an appropriate bulk and scale, and also maintains the objectives of the clause within the LEP that relate to the zone and the height of building. The objects of the Act are not hindered through the proposed variation being supported.



Complying with the height will not alter the outcome in relation to visual bulk, scale, amenity and solar access and it is considered the proposal provides a good planning outcome. To require compliance with the height limit, an entire level of apartments would need to be deleted.

It is against the objects of the Act and not in the public interest to comply with the 18m height limit as this would not be orderly and economic use of the land and its would reduce the opportunity for additional residential accommodation to be provided within the Penrith City Centre.

2.13 Is the development standard a performance-based control?

No, they are prescriptive.

2.14 Would strict compliance with the standard, in your particular case, would be unreasonable or unnecessary?

2.14.1 Height of Building

Strict compliance with the standard in this particular case is unreasonable and unnecessary as the variation sought as part of this development application is considered appropriate in the context and setting of the site. The proposed development meets the objectives of the zone, it meets the objectives of the height of buildings clause and it is considered that the objectives of the Act would not be undermined by supporting the variation.

It is submitted that the development standard is unnecessary given the negligible resultant environmental impacts arising from the proposal and is unreasonable given the benefits that the development as proposed would bring to the City of Penrith, over a strictly compliant development.

In supporting the variation, it is noted that the public interest is retained in that some key objectives of the planning controls have been achieved as a result of the development. Those include:

- Compliance with the objects of the zone.
- Compliance with the objects of the development standard.
- Consistent with all other planning controls applicable to the site.
- Building Alignment to existing context Preparing for future context and potential neighbouring buildings
- Minimal Shadow Impacts as it has the Paceway site located to the south

2.15 Are there sufficient environmental planning grounds to justify contravening the development standard?

There are a number of positive environmental planning grounds that arise as a result of this development, and specifically the breach in the height limit, as follows.

- 1. The physical constraints are accommodated on the site whilst still achieving the development outcomes sought under the LEP.
- 2. High quality design being achieved through the Council Urban Design Review Panel process.



3 Specific consideration of cl4.6(4) of Penrith Local Environmental Plan 2010

A recent decision of the NSW Land and Environment Court (*Initial Action Pty Ltd v Woollahra Municipal Council*) further clarified the correct approach to the consideration of Clause 4.6 requests. This included clarifying that the Clause does not require that a development that contravenes a development standard must have a neutral or better environmental planning outcome than one that does not.

Clause 4.6 of a standard instrument LEP permits a consent authority to grant development consent for development that would contravene a development standard where the consent authority is satisfied that:

- cl4.6(4)(a)(i): a written request from the applicant adequately demonstrates that
 compliance with the development standard is unreasonable or unnecessary(cl4.6(3)(a)),
 and that there are sufficient environmental planning grounds to justify the contravention
 (cl4.6(3)(b)), and
- cl4.6(4)(a)(ii): the proposed development will be in the public interest because it is
 consistent with the objectives of the development standard and the objectives for
 development within the relevant zone.

To clearly consider this case and its applicability to the proposed development, the clauses have been tabulated below, and considered against the above Court case, the proposal, and this very submission.

Penrith Local Environmental Plan 2010

21-25 Woodriff Street, Penrith

- (4) Development consent must not be granted for development that contravenes a development standard unless:
- (a) the consent authority is satisfied that:
- the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and

Subclause (3) requires the following to be demonstrated for the purposes of this consideration:

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

In respect of the <u>height of building</u> variation, the reasons why compliance is unreasonable or unnecessary are provided in Section 2.11.1.

We also note that the objectives of the standards have been achieved notwithstanding the non-compliance with those standards (*Wehbe v Pittwater Council*) as follows:

Height of Building

 The height, bulk and scale of the proposal is consistent with that of the desired future character of



the locality, as demonstrated in the accompanying architectural plans.

- There will be no loss of views to or from public areas, nor any loss of solar access.
- The height proposed is considered to result in a building that will present as a high-quality architectural element in this locality, represents a scale and bulk generally consistent with the desired future character.
- The proposed development is able to achieve design excellence, as evidenced by progressing through Council's own Urban Design Panel.

The objective of each of the development standards can be satisfied through this development as proposed.

It follows that this aspect of Clause 4.6 has been satisfied.

As to there being 'sufficient environmental planning' grounds to justify the variation, 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. In this context the following is submitted in relation to the two development standards:

Height of Building

The position we submit has been (we believe) adequately presented earlier int his submission. In summary, strict compliance of the development standard would limit the amount of residential development envisaged for this precinct. The benefits outweigh the non-compliance, noting the non-compliance is limited to small areas of the buildings roof, and there being no perceptible impacts arising as a result. We also note the ability for the proposal to achieve a high quality design as demonstrated by the positive comments from Council's own Urban Design Panel. We believe that we have adequately addressed this matter.

(ii) the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and The proposed development is consistent with both the development standards that are proposed to be varied, as well as the objectives of development in the zone. The development is therefore in the public interest (see para 27 of the judgement).

Given the assessment above, it is considered the Clause 4.6 is well founded and can be supported in the context of this most recent court case.



4 Conclusion

This submission provides the required form requesting a variation to the height of building development standard within the LEP. It is considered that the proposed variation is warranted, and that the development as proposed provides a better planning outcome as detailed in this request.

Compliance with the development standard in relation to the maximum height of building control is unnecessary and unreasonable in the circumstances of this development and there are sufficient planning grounds to justify the variation. It satisfies the consideration required under Clause 4.6 of the LEP and can be supported on that basis.



Amended Clause 4.6 Variation Request

Proposed Demolition of Existing Structures and Construction of a Residential Flat
Building

36-38 Rodley Ave, Penrith

March 2019

Inglow Investment Two Pty Ltd

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CERTIFIED PRACTISING PLANNER

This submission dated March 2019 is provided to 'the client' exclusively. No liability is extended for any other use or to any other party. Whilst the report is derived in part from our knowledge and expertise, it is based on the conditions prevailing at the time of the report and upon the information provided by the client.

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1 Introduction

The NSW planning system provides flexibility in planning controls by providing the ability for a council to vary development standards in certain circumstances.

Stimson & Baker Planning has been engaged by Inglow Investment Two Pty Ltd to prepare a request to vary one development standard in respect of its proposed residential flat building at 36-38 Rodley Avenue, Penrith. This submission accompanies plans that have been separately submitted to Council.

The development proposes a breach in the *height of building* development standard and this submission aims to address those aspects of the application.

The proposed breach in height is considered to be minor, with the resultant built form not resulting in any unacceptable visual impact. The breach arises from the need to raise the freeboard of the building to accommodate local overland flooding.

It is also noted that the breach occurs for approximately 50% of the building footprint which is a minor portion of the entire site.

It is considered there are sufficient environmental planning grounds to support the variations. Primarily these include the ability for the development to, at the same time, accommodate the physical constraints of the land, whilst also delivering the envisaged built form and housing numbers within the zone in this locality.

Significantly, we note the approach of Council to new development in this locality and cite specific examples of breaches that have been supported by the relevant consent authority. The proposed breach is consistent with that approach.



2 Variation Consideration

The NSW Land and Environment Court has resolved a number of matters that have guided the way in which requests to vary development standards are to be considered by the consent authority.

2.1 NSW Land and Environment Court: Case Law (tests)

The key elements are outlined below.

Winten v North Sydney Council

The decision in *Winten v North Sydney Council* established the basis on which the former Department of Planning and Infrastructure's Guidelines for varying development standards was formulated.

The questions that needed to be considered included:

- Is the planning control in question a development standard?
- What is the underlying object or purpose of the standard?
- Is compliance with the development standard consistent with the aims of the Policy, and in particular does compliance with the development standard tend to hinder the attainment of the objects specified in section 5(a)(i) and (ii) of the EP&A Act?
- Is compliance with the development standard unreasonable or unnecessary in the circumstances of the case (and is a development which complies with the development standard unreasonable or unnecessary in the circumstances of the case)? and
- Is the objection well founded?

Wehbe v Pittwater [2007] NSW LEC 827

The decision in *Wehbe v Pittwater* [2007] *NSW LEC 827* expanded on the findings in *Winten v North Sydney Council* and established a five (5) part test to determine whether compliance with a development standard is unreasonable or unnecessary considering the following questions:

- Would the proposal, despite numerical non-compliance be consistent with the relevant environmental or planning objectives;
- Is the underlying objective or purpose of the standard not relevant to the development thereby making compliance with any such development standard is unnecessary;
- Would the underlying objective or purpose be defeated or thwarted were compliance required, making compliance with any such development standard unreasonable;
- Has Council by its own actions, abandoned or destroyed the development standard, by granting consents that depart from the standard, making compliance with the development standard by others both unnecessary and unreasonable; or
- Is the "zoning of particular land" unreasonable or inappropriate so that a development standard appropriate for that zoning was also unreasonable and unnecessary as it applied



to that land. Consequently, compliance with that development standard is unnecessary and unreasonable.

Four2Five Pty Ltd v Ashfield Council [2015] NSW LEC

In the matter of Four2Five Pty Ltd v Ashfield Council [2015] NSW LEC, it was found that an application under Clause 4.6 to vary a development standard must go beyond the five (5) part test of Wehbe V Pittwater [2007] NSW LEC 827 and demonstrate the following:

- Compliance with the particular requirements of Clause 4.6, with particular regard to the provisions of subclauses (3) and (4) of the LEP;
- Whether there are sufficient environment planning grounds, particular to the circumstances
 of the proposed development (as opposed to general planning grounds that may apply to
 any similar development occurring on the site or within its vicinity);
- That maintenance of the development standard is unreasonable and unnecessary on the basis of planning merit that goes beyond the consideration of consistency with the objectives of the development standard and/or the land use zone in which the site occurs; and
- All three elements of clause 4.6 have to be met and it is best to have different reasons for each but it is not essential

Moskovich v Waverley Council [2016] NSWLEC 1015

The court further reflected on the recent Four2Five decisions and noted:

- Clause 4.6(3)(a) is similar to clause 6 of SEPP 1 and the Wehbe ways of establishing compliance are equally appropriate. One of the most common ways is because the objectives of the development standard are achieved.
- Whereas clause 4.6(4)(a)(ii) is worded differently and is focused on consistency with objectives of a standard. Consequently, a consideration of consistency with the objectives of the standard required under clause 4.6(4)(a)(ii)) to determine whether non- compliance with the standard would be in the public interest is different to consideration of achievement of the objectives of the standard under clause 4.6(3).
- The written request should address the considerations in the granting of concurrence under clause 4.6(5).



2.2 What is the name of the environmental planning instrument that applies to the land?

Penrith Local Environmental Plan 2010.

2.3 What is the zoning of that land?

The subject site is zoned R4 High Density Residential.

2.4 What are the objectives of the zone?

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs
 of residents.
- To ensure that a high level of residential amenity is achieved and maintained.
- To encourage the provision of affordable housing.
- To ensure that development reflects the desired future character and dwelling densities of the area.

The proposed development is consistent with the objectives in that:

- The additional high-density development in this locality is consistent with the zoning controls and will contribute to the housing needs and diversity in the area.
- As the proposal largely satisfies the planning controls, SEPP 65 and AGD provisions, a high level of amenity will be provided for.
- The proposal is consistent with the future character of this high-density locality.

2.5 What is the development standard being varied?

Height of Building

2.6 Under what clause is the development standard listed in the environmental planning instrument?

Clause 4.3 Height of Building.



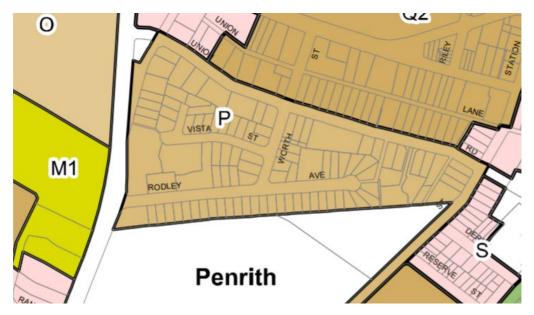


Figure 1: Height of Buildings Map (extract Penrith Local Environmental Plan 2010)

2.7 What are the objectives of the development standard?

Clause 4.3 Height of Building objectives include:

- (a) to ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of the locality,
- (b) to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development and to public areas, including parks, streets and lanes,
- (c) to minimise the adverse impact of development on heritage items, heritage conservation areas and areas of scenic or visual importance,
- (d) to nominate heights that will provide a high quality urban form for all buildings and a transition in built form and land use intensity.

2.8 What is the numeric value of the development standard in the environmental planning instrument?

The maximum building height is 18m.

2.9 What is proposed numeric value of the development standard in your development application?

The proposal exceeds the building height at varying heights across the building to accommodate the design and to fully utilise the building envelope.

The roof edge rises between 1.38m and 1.5m above the 18m height limit, while the central lift core rises 2.19m above the 18m height limit resulting in a total building height of 20.19m. Importantly,



in footprint terms, this breach only applies to some 50% of the total building footprint area, which in turn is a minor proportion of the overall site area.

2.10 What is the percentage variation (between your proposal and the environmental planning instrument)?

In simplistic terms, the maximum variation to the height of building control (top of lift) is 12.1%. However, this is a very small part of the breach. The majority of the roof that breaches the height limit does so by between 7.5% and 8%.

2.11 How is strict compliance with the development standard unreasonable or unnecessary in this particular case?

2.11.1 Height of Building

The proposal meets the general intent of clause 4.3 *Height of Buildings* and complies with the objectives of this development standard and more generally the zone as follows:

 The proposal is compatible with the height, bulk and scale of the emerging and desired future character of the locality and with the surrounding development. This is demonstrated within the submitted plans, showing the breach in height would not create any impacts on nearby or adjoining properties.



Figure 2 Shadow Diagram

- The proposal does not impact on the visual amenity, reduces views or minimises loss of privacy or solar access.
- There is no heritage item on the site.



- The proposal provides a high-quality urban form and provides a building that can contribute to a varying skyline given the recent increase in height limit in this area.
- The high-quality form of the proposal has been supported through the Council's own Urban Design Review Panel process.
- It is unreasonable to apply the height limit across the site in this case as the proposal
 does not impact on the visual amenity nor does it reduce views or minimises loss of
 privacy or solar access. The orientation of the building, the stepping of the building and
 façade treatment minimises shadow impacts with the majority of the shadow falling on
 the Paceway site to the south.
- The proposed development meets the objectives of the zone and the height of building clause, it contributes to the provision of necessary land uses within the Penrith City in locations in close proximity to services and facilities.

Given the spatial context of the building, the proposed encroachment will not present as a perceptible element. It is considered that the proposal is in the public interest and strict compliance with the standard in this instance is both unreasonable and unnecessary.

2.12 How would strict compliance hinder the attainment of the objects specified in Section 5(a)(i) and (ii) of the Act?

planning and assessment.

Section 5(a)(i) and (ii) of the Environmental Planning and Assessment Act 1979 provide:

The objects of this Act are: (a) to encourage: (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment, the promotion and co-ordination of the orderly and economic use and (ii) development of land, (iii) the protection, provision and co-ordination of communication and utility services, (iv) the provision of land for public purposes, the provision and co-ordination of community services and facilities, and (v) (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and (vii) ecologically sustainable development, and (viii) the provision and maintenance of affordable housing, and to promote the sharing of the responsibility for environmental planning between the (b) different levels of government in the State, and (c) to provide increased opportunity for public involvement and participation in environmental



It is submitted that the height encroachment still maintains an appropriate bulk and scale, and also maintains the objectives of the clause within the LEP that relate to the zone and the height of building. The objects of the Act are not hindered through the proposed variation being supported.

Complying with the height will not alter the outcome in relation to visual bulk, scale, amenity and solar access and it is considered the proposal provides a good planning outcome. To require compliance with the height limit, an entire level of apartments would need to be deleted.

It is against the objects of the Act and not in the public interest to comply with the 18m height limit as this would not be orderly and economic use of the land and its would reduce the opportunity for additional residential accommodation to be provided within the Penrith City Centre.

2.13 Is the development standard a performance-based control?

No, it is prescriptive.

2.14 Would strict compliance with the standard, in your particular case, would be unreasonable or unnecessary?

2.14.1 Height of Building

Strict compliance with the standard in this particular case is unreasonable and unnecessary as the variation sought as part of this development application is considered appropriate in the context and setting of the site. The proposed development meets the objectives of the zone, it meets the objectives of the height of buildings clause and it is considered that the objectives of the Act would not be undermined by supporting the variation.

It is submitted that the development standard is unnecessary given the negligible resultant environmental impacts arising from the proposal and is unreasonable given the benefits that the development as proposed would bring to the City of Penrith, over a strictly compliant development.

In supporting the variation, it is noted that the public interest is retained in that some key objectives of the planning controls have been achieved as a result of the development. Those include:

- Compliance with the objects of the zone.
- Compliance with the objects of the development standard.
- Consistent with all other planning controls applicable to the site.
- Building Alignment to existing context Preparing for future context and potential neighbouring buildings
- . Minimal Shadow Impacts as it has the Paceway site located to the south

It is also important to note the consistent approach by Council to the issue of height breaches in this locality. Often justified on the same basis, relating to responding to overland flood controls in the locality, the relevant consent authority has supported several breaches of this nature.

The following diagram shows the breaches that have occurred in the locality. The average height of these developments is 20.4m, and the proposed development is below this.





2.15 Are there sufficient environmental planning grounds to justify contravening the development standard?

There are a number of positive environmental planning grounds that arise as a result of this development, and specifically the breach in the height limit, as follows.

- 1. The physical constraints are accommodated on the site whilst still achieving the development outcomes sought under the LEP.
- 2. High quality design being achieved through the Council Urban Design Review Panel process.
- 3. The Council has acknowledged the specific development constraints within the locality and has responded by supporting reasonable variations to the height limit in order to support appropriate development within this zone.



3 Specific consideration of cl4.6(4) of Penrith Local Environmental Plan 2010

A recent decision of the NSW Land and Environment Court (*Initial Action Pty Ltd v Woollahra Municipal Council*) further clarified the correct approach to the consideration of Clause 4.6 requests. This included clarifying that the Clause does not require that a development that contravenes a development standard must have a neutral or better environmental planning outcome than one that does not.

Clause 4.6 of a standard instrument LEP permits a consent authority to grant development consent for development that would contravene a development standard where the consent authority is satisfied that:

- cl4.6(4)(a)(i): a written request from the applicant adequately demonstrates that compliance with the development standard is unreasonable or unnecessary(cl4.6(3)(a)), and that there are sufficient environmental planning grounds to justify the contravention (cl4.6(3)(b)), and
- cl4.6(4)(a)(ii): the proposed development will be in the public interest because it is
 consistent with the objectives of the development standard and the objectives for
 development within the relevant zone.

To clearly consider this case and its applicability to the proposed development, the clauses have been tabulated below, and considered against the above Court case, the proposal, and this very submission.

Penrith Local Environmental Plan 2010

36-38 Rodley Avenue, Penrith

- (4) Development consent must not be granted for development that contravenes a development standard unless:
- (a) the consent authority is satisfied that:
- the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and

Subclause (3) requires the following to be demonstrated for the purposes of this consideration:

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

In respect of the <u>height of building</u> variation, the reasons why compliance is unreasonable or unnecessary are provided in Section 2.11.1.

We also note that the objectives of the standards have been achieved notwithstanding the non-compliance with those standards (*Wehbe v Pittwater Council*) as follows:

Height of Building

 The height, bulk and scale of the proposal is consistent with that of the desired future character of



the locality, as demonstrated in the accompanying architectural plans.

- There will be no loss of views to or from public areas, nor any loss of solar access.
- The height proposed is considered to result in a building that will present as a high-quality architectural element in this locality, represents a scale and bulk generally consistent with the desired future character.
- The proposed development is able to achieve design excellence, as evidenced by progressing through Council's own Urban Design Panel.

The objective of each of the development standards can be satisfied through this development as proposed.

It follows that this aspect of Clause 4.6 has been satisfied.

As to there being 'sufficient environmental planning' grounds to justify the variation, 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. In this context the following is submitted in relation to the two development standards:

Height of Building

The position we submit has been (we believe) adequately presented earlier in this submission. In summary, strict compliance of the development standard would limit the amount of residential development envisaged for this precinct. The benefits outweigh the non-compliance, noting the non-compliance is limited to small areas of the buildings roof, and there being no perceptible impacts arising as a result. We also note the ability for the proposal to achieve a high-quality design as demonstrated by the positive comments from Council's own Urban Design Panel. We believe that we have adequately addressed this matter.

(ii) the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and The proposed development is consistent with both the development standards that are proposed to be varied, as well as the objectives of development in the zone. The development is therefore in the public interest (see para 27 of the judgement).

Given the assessment above, it is considered the Clause 4.6 is well founded and can be supported in the context of this most recent court case.



4 Conclusion

This submission provides the required form requesting a variation to the height of building development standard within the LEP. It is considered that the proposed variation is warranted, and that the development as proposed provides a better planning outcome as detailed in this request.

Compliance with the development standard in relation to the maximum height of building control is unnecessary and unreasonable in the circumstances of this development and there are sufficient planning grounds to justify the variation. It satisfies the consideration required under Clause 4.6 of the LEP and can be supported on that basis.



TRAFFIC & PARKING IMPACT ASSESSMENT

PROPOSED RESIDENTIAL APARTMENT DEVELOPMENT 36 – 38 RODLEY AVENUE PENRITH

PREPARED FOR INGLOW INVESTMENT TWO PTY. LTD.
OUR REF: 18-045



AUGUST 2018

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- 1. Architectural Plans
- 2. Swept Path Plans
- 3. Traffic Survey Data
- 4. SIDRA Output Summaries

1. INTRODUCTION

1.1 Scope of Assessment

Stanbury Traffic Planning has been commissioned by Inglow Investment Two Pty. Ltd. to prepare a Traffic & Parking Impact Assessment to accompany a Development Application to be lodged with Penrith City Council. The Development Application seeks consent for the demolition of two detached residential dwellings and the construction of a residential apartment development containing 21 dwellings at 36 – 38 Rodley Avenue, Penrith (hereafter referred to as the 'subject site').

This aim of this assessment is to investigate and report upon the potential traffic and parking consequences of the development application and to recommend appropriate ameliorative measures where required. This report provides the following scope of assessment:

- Section 1 provides a summary of the site location, details, existing and surrounding land-uses;
- Section 2 describes the proposed development;
- Section 3 assesses the adequacy of the proposed site access arrangements, parking provision, internal circulation and servicing arrangements with reference to relevant Council, Roads & Maritime Services and Australian Standard specifications;
- Section 4 assesses the existing traffic, parking and transport conditions surrounding and servicing the subject development site including a description of the surrounding road network, traffic demands, operational performance and available public transport infrastructure; and
- Section 5 estimates the projected traffic generating ability of the proposed development and assesses the ability or otherwise of the surrounding road network to be capable of accommodating the altered demand in a safe and efficient manner.

The report has been prepared pursuant to State Environmental Planning Policy (Infrastructure) 2007. The application is not of sufficient scale to be referred to the Roads & Maritime Services under this Instrument.

1.2 Reference Documents

Reference is made to the following documents throughout this report:

- The Roads & Maritime Services' *Guide to Traffic Generating Developments* and the more recently released *Technical Direction TDT 203/04a*;
- Penrith City Council's Penrith Development Control Plan 2014 (DCP 2014);

- Penrith City Council's Residential Flat Building Developments Waste Management Guidelines;
- Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1:2004);
- Australian Standard for Parking Facilities Part 3: Bicycle Parking Facilities (AS2890.3:2015); and
- Australian Standard for *Parking Facilities Part 6: Off-Street Parking for People with Disabilities* (AS2890.6:2009).

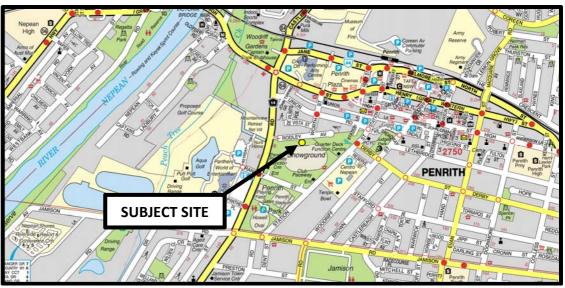
Architectural plans have been prepared by Morson Group and should be read in conjunction with this report, reduced copies of a selection of which (ground and basement plans only) are included as **Appendix 1** for reference.

1.3 Site Details

1.3.1 Site Location

The subject site is situated on the southern side of Rodley Avenue, approximately 60m to the west of Worth Street, Penrith. The site location is illustrated below and overleaf within a local and aerial context by **Figure 1** below and **Figure 2** overleaf, respectively.

FIGURE 1
SITE LOCATION WITHIN A LOCAL CONTEXT



Source: UBD's Australian City Streets - Version 4

FIGURE 2 SITE LOCATION WITHIN AN AERIAL CONTEXT



Source: Google Earth (accessed 16/08/18)

1.3.2 Site Description

The subject site provides a real property description of Lot 58 and 59 DP 33490 and a street address of 36 and 38 Rodley Avenue, Penrith. Collectively, the allotments form a rectangular shaped parcel of land, providing an approximate frontage of 30.5m to Rodley Avenue. The site extends to the south away from Rodley Avenue some 36.5m, providing a total area of approximately 1,113m².

1.3.3 Existing Site Use

The subject site currently accommodates two detached residential dwellings and associated outbuildings. Each dwelling is serviced by vehicular access driveway connecting separately with Rodley Avenue, situated in the north-western corner of each lot.

1.3.4 Surrounding Uses

The site is adjoined to the north, east and west by similar detached residential dwellings, fronting and serviced by Rodley Avenue.

Penrith Paceway adjoins the site to the south.

2. PROPOSED DEVELOPMENT

2.1 Built Form

The subject application seeks Council's approval to demolish the existing dwellings and the construction of residential apartment development comprising a total of 21 dwellings, made up of the following:

- 12 two bedroom dwellings; and
- 9 three bedroom dwellings.

The dwellings are proposed to be contained within a six storey building located approximately central to the site.

The development is to be serviced by two levels of basement parking accommodating 37 passenger vehicle spaces and six bicycle spaces. Access between this parking area and Rodley Avenue is proposed via combined ingress / egress driveway located within the north-eastern corner of the site.

Pedestrian connectivity is proposed between the development and the southern Rodley Avenue footway to the west and separate from the abovementioned vehicular access driveway.

Further to the above internal site works, the proposal involves the construction of an indented bay within the southern Rodley Avenue footway. This bay, providing approximate dimensions of 20.5m x 2.5m, is proposed to partially encompass the passenger vehicle driveway but be primarily located to the west, to accommodate waste collection activities associated with the proposed development.

3. SITE ACCESS & INTERNAL CIRCULATION

3.1 Passenger Vehicular Access

Vehicular access between the development site and Rodley Avenue is proposed to be provided via a single combined ingress / egress driveway provided within the north-eastern corner of the site. The access driveway is proposed to provide a width of 6.6m.

This driveway is proposed to provide direct connectivity to an internal roadway which provides a 3m wide ingress lane separated from a 3m wide egress lane by a 0.6m wide median for a length of 6m. The internal roadway thence reduces in width and forms a single carriageway providing a minimum width of 3m, facilitating a one-way traffic function providing connectivity to the upper basement parking level.

The one-way section of the internal roadway / ramp proposed to be governed by traffic signal control whereby a green signal will be provided for entering traffic in 'passive' mode so that the signals will only change when a vehicle is exiting the basement levels and a red signal is activated. The separate ingress and egress lanes situated immediately within the site boundary can accommodate vehicular waiting in the unlikely event that an entering vehicle is delayed. The suitability or otherwise of the proposed one-way section of the internal roadway connecting to the driveway is discussed in subsequent sections of this report.

AS2890.1:2004 provides driveway design specifications based on the proposed primary land use, the functional order of the access road and the number of spaces the driveway is to serve. Tables 3.1 and 3.2 of AS2890.1:2004 specify that a Category 1 type driveway is required, providing a combined ingress / egress driveway width of between 3m and 5.5m based on the local (non-arterial) nature of Rodley Avenue, the residential land-use and the on-site passenger vehicle parking provision of less than 100 spaces. The proposed 6.6m wide combined ingress / egress driveway therefore exceeds the minimum AS2890.1-2004 specifications.

Swept path plans have been prepared in order to demonstrate the ability of passenger vehicles to enter and exit the site, copies of which are included as **Appendix 2**.

The safety and efficiency of access / egress movements are also proposed to be assisted by the provision of a relatively level (maximum of 1:20) grade within the first 6m inside the property boundary.

The consistency of the horizontal and vertical alignment of Rodley Avenue in the vicinity of the subject site results in a good level of sight distance prevailing between the driveway and the frontage road. Sight distance between vehicles exiting the site and Rodley Avenue to the west of the site is proposed to be assisted by the provision of a triangle adjoining the southern side of the driveway measuring 2.5m into the site and 2.0m along the boundary being free of obstructions to visibility in accordance with the relevant AS2890.1:2004

requirements. In consideration of this and the abovementioned discussion, the proposed site access arrangement is considered to be satisfactory.

3.2 Parking Provision

3.2.1 Vehicular Parking Provision

The development is serviced by a total of 37 off-street passenger vehicle parking spaces provided as follows:

Basement level 1

Visitor spaces 4 Wash / service space 1

Resident spaces 10 (including 3 adaptable)

Basement level 2

Resident spaces 22

Total 37 spaces

3.2.2 Council's Vehicular Parking Requirements

Penrith City Council provides the following locally sensitive parking requirements for residential flat building with DCP 2014:

1 space per 1 or 2 bedrooms

2 spaces per 3 or more bedrooms

1 space per 40 units for service vehicles

1 space per every 5 dwellings, or part thereof for visitors

1 space for car washing for every 50 units, up to a maximum of 4 spaces per building

Table 1 below provides the off-street parking requirements based on the above Penrith City Council's car parking rate.

TABLE 1 OFF-STREET PARKING REQUIREMENTS PENRITH DCP 2014								
Item	Rate	No.	Spaces Required					
1 or 2 bedroom dwellings	1 space per dwelling	12	12					
3 bedroom dwellings	2 space per dwelling	9	18					
Service vehicles	1 space per 40 dwellings	21	0.5 (adopt 1)					
Visitor Parking	1 space per 5 dwellings	21	4.2 (adopt 5)					
Car Washing	1 space per 50 units	21	0.4 (adopt 1)					
	Total 37							

Table 1 indicates that DCP 2014 requires the development provide a total of 37 passenger vehicle parking spaces, comprising 30 resident, five visitor, one service and one car wash space.

The proposed total passenger vehicle parking provision of 37 spaces therefore complies with the numerical requirements of DCP 2014.

The following is however acknowledged:

- The service vehicle and washing bay have been combined in a single parking space; and
- The visitor parking requirement of 4.2 spaces has been rounded down to four spaces.

The combining of the service bay and wash bay is considered to be satisfactory given the sporadic nature of the use of such bays. Further the rounding down of the visitor parking calculations is supported as the abovementioned service / wash bay could reasonably be utilised as by visitors if so required. In consideration of this, the proposed passenger vehicle parking provision and allocation is considered to be satisfactory.

3.2.2 Bicycle Parking

The subject development is to provide three bicycle storage racks capable of accommodating up to six bicycles within the upper basement parking level.

Penrith Council refers to NSW Government's *Planning Guidelines for Walking and Cycling* 2004 with respect to the provision of bicycle parking. This publication provides the following recommendations relevant to the subject proposal:

Resident

20% of units should provide a space

Visitors

5% of units should provide a space

Based on 21 dwellings, the NSW Government's *Planning Guidelines for Walking and Cycling* recommends resident and visitor bicycle parking provision of 4.2 (adopt five) resident and 1.05 (adopt one) visitor parking spaces or a total of six spaces.

The proposed provision of six on-site bicycle parking spaces therefore complies with the requirement specified in the NSW Government's guidelines and accordingly, is considered to be satisfactory.

3.3 Internal Circulation and Manoeuvrability

3.3.1 Internal Access Ramps

Vehicular connectivity between the access driveway and Basement Level 1 and between Basement Level 1 and Basement Level 2 is proposed to be serviced by one-way vehicular ramps. Clause 3.2.2 of AS2890.1-2004 states that internal roadways accommodating low traffic demands (less than 30 hourly vehicles during peak periods) can provide for one-way traffic without the need for passing

bays and / or control mechanisms. The design of the ramps however impede sight distance between the driveway and Basement Level 1 and between Basement Level 1 and Basement Level 2 and accordingly, it is considered that traffic signal control is warranted and is therefore proposed.

Traffic movements between the site access driveway and Basement Level 1 and between Basement Level 1 and Basement Level 2 are proposed to be governed by an internal traffic signal system, which limits the direction of traffic flow within the ramps to one-way at any given time. The traffic signal system is to utilise red / green traffic lanterns located at the top and bottom of the ramps. The lanterns are to be supplemented with 'Stop Here on Red' signage and stop lines located clear of the ramps thereby allowing vehicles to safely manoeuvre from the ramps clear of queued vehicles.

Direction sensitive vehicle detection loops are to be installed before the stop lines and a directional sensitive vehicle radar detection unit is to be located at the exit of the ramps, to activate and monitor vehicle movements.

The default position will display a green to the movement of vehicles from the site access driveway into the site and a red display for vehicles exiting the basement parking levels. Under this arrangement, when vehicles approach the site, they will be provided with a green display and move down the access ramp to Basement Level 1 and thence onto Basement Level 2 if so desired. An input is to be received by the operating system from the radar direction unit as the vehicle travels down the ramp/s.

When a vehicle stops at the stop line within the basement levels, it will activate the direction sensitive vehicle loop detector. The operating system will then display a red to the entrance lantern and the other basement level while the vehicle/s wishing to exit the specific basement will remain red. The operating system will have recorded any vehicles already in the ramp/s via the radar detection units and commenced a timer to allow a vehicle to complete its journey through the ramp/s. The display for the activated loop detector within the specific basement level will then change from red to green thereby allowing vehicles to exit that specific level of the basement. When the directional sensitive radar unit located at the top of the access ramp is activated by the exiting vehicle/s, the system returns to the default position.

Vehicle detector loops within the access driveway and the basement levels will be fitted with presence timer technology to ensure that they are not unduly impacted by the manoeuvring of vehicles to and from nearby passenger vehicle parking spaces.

It is acknowledged that a number of parking spaces on each basement level are located between the access ramps and the vehicle waiting bay. In order to ensure that vehicles occupying these spaces are not required to manoeuvre to access the waiting bay, a push button will be provided adjacent to these spaces and invehicle remotes will be allocated to occupants of the resident spaces. When a vehicle within these spaces is required to exit the basement, the driver will activate the system either through the push button or the in vehicle remote. The operating system, similar to that which occurs if a vehicle triggers the detectors

within the basement waiting bays, will then display a red to the site entrance lantern, and a green the basement parking level/s.

Signage will be provided within the basement specifying that vehicles are not to exit car spaces until a green lantern is displayed within the basement to ensure there is no undesirable conflict within the basement circulation aisles.

The location of stop lines, vehicle detectors, push buttons and lanterns are illustrated on the architectural plans, reduced scale copies of which are included as **Appendix 1**.

The traffic signal system is to be fitted with a battery powered back up system to ensure that it continues to operate during power black outs.

3.3.2 Passenger Vehicle Circulation

Passenger vehicles, upon entry to the site, will travel in a forward direction via a ramp running along the eastern site boundary to access Basement Level 1. Basement Level 1 is proposed to contain a series of standard 90 degree angled parking spaces serviced by an adjoining parking / circulation aisle, with spaces being allocated to residents and visitors.

A further access ramp (also facilitating one-way traffic) is proposed to provide connectivity between Basement Level 1 and Basement Level 2, accommodating the remainder of the resident parking provision in a similar layout to that provided in Basement Level 1.

The passenger vehicle (and bicycle) parking spaces within both basement parking levels have been designed with the following minimum dimensions in accordance with the requirements of AS2890.1:2004, AS2890.3:2015 and AS2890.6:2009:

- Standard vehicular parking space width = 2.4m;
- Disabled vehicular parking space width = 2.4m (with adjoining 2.4m wide shared area);
- Additional vehicular space width where parking spaces adjoins an obstruction = 0.3m;
- Bicycle parking width = 0.6m;
- Standard and disabled vehicular parking space length = 5.4m;
- Horizontal bicycle rack length (depth) = 1.8m;
- Vertical bicycle rack depth = 1.2m;
- Bicycle parking rack aisle width = 1.5m;
- Vehicular parking aisle width adjoining parking spaces = 5.8m;

- One-way straight roadway / ramp = 3m;
- Two-way straight roadway / ramp width = 5.8m;
- Parking aisle extension past dead end parking bays = 1.0m;
- Headroom = 2.2m;
- Headroom above disabled parking spaces and adjoining shared areas = 2.5m;
- Maximum ramp grade = 1 in 4;
- Maximum ramp grade for the first 6m inside the site and within parking module = 1 in 20; and
- Maximum change in grade = 1 in 8.

Safe and efficient internal manoeuvring and parking space accessibility is anticipated to result, taking into consideration the above compliance with the relevant AS2890.1:2004, AS2890.3:2015 and AS2890.6:2009 specifications.

In order to demonstrate the internal passenger vehicle manoeuvrability within the vicinity of these areas and generally throughout the overall parking areas, this Practice has prepared a number of swept path plans which are included as **Appendix 2**. The turning paths provided on the plans have been generated using Autoturn software and derived from B85 and B99 vehicle specifications provided within AS2890.1-2004.

Section B4.4 of AS2890.1-2004 states the following with regard to the use of templates to assess vehicle manoeuvring:

'Constant radius swept turning paths, based on the design vehicle's minimum turning circle are not suitable for determining the aisle width needed for manoeuvring into and out of parking spaces. Drivers can manoeuvre vehicles within smaller spaces than swept turning paths would suggest.'

It would therefore appear that whilst the turning paths provided within AS 2890.1 - 2004 can be utilised to provide a 'general indication' of the suitability or otherwise of internal parking and manoeuvring areas, vehicles can generally manoeuvre more efficiently than the paths indicate. Notwithstanding this, the swept path plans illustrate that passenger vehicles can manoeuvre throughout and enter and exit the most difficult passenger vehicle parking spaces within the parking areas. The proposed site layout as it relates to passenger vehicle manoeuvrability is considered satisfactory.

3.3.3 Waste Collection

The subject site is anticipated to generate the requirement for regular waste collection vehicle servicing. Waste collection vehicles are proposed to service the site via an indented bay provided within the southern Rodley Avenue footway, situated to the immediate west of the development vehicular access driveway.

Garbage bins are proposed to be contained within a storage room located within the upper basement level. These bins are to be transferred to a holding room located approximately central to the site frontage to Rodley Avenue, which can efficiently be wheeled to the proposed indented collection bay within the southern public road footway.

The proposed indented bay provides the following design criteria:

- A width of 2.5m, measured from the existing kerb line to the new kerb line, for a length of 10.5m;
- A 6m ingress splay / manoeuvring space at the rear of the bay, measured along the existing kerb line (and partially encompassing the development access driveway);
- A 4m egress splay / manoeuvring space at the front of the bay, measured along the existing kerb line;
- A 1.2m wide footpath within the southern Rodley Avenue footway between and providing a minimum separation of 0.8m to the northern site boundary and the indented bay; and
- A 2.8m wide kerb ramp to facilitate wheeled bin access to the rear of the indented bay.

It is acknowledged that detailed design of the above arrangements, and any supplementary signage and line marking arrangements, will need to be submitted to and approved by Council through a Section 138 Application, including the payment of application and inspection fees. The requirement for this can reasonably be imposed by Council as a condition of consent.

It is further acknowledged that Council's *Residential Flat Building Waste Management Guidelines* specifies that it is desirable that development design facilitate the provision of on-site collection of waste by Council's 10.5m long collection vehicle and facilitate forward entry and exit movements between the site and the adjoining public road network. The Guidelines however also specify that on-site collection may not be practicable for all development sites due to site dimensions, topography or the resultant associated undesirable planning outcome achieved.

The above proposed waste collection arrangements have accordingly been formulated following a detailed assessment of potential on-site collection arrangements in accordance with Council's *Residential Flat Building Waste Management Guidelines*. These alternate collection arrangements have also

being the subject of various discussions with Council staff through pre-lodgement meetings / assessment and reviews by Council's Urban Design Panel.

In regard to the above, an alternate development scheme was prepared for discussions with Council officers which incorporated the provision of an at-grade heavy vehicle turntable within the south-eastern corner of the site. This alternate on-site collection area was to be accessed via an internal roadway along the eastern site boundary, connecting with Rodley Avenue in the north-eastern corner of the site via a driveway, separate but adjoining the passenger vehicle access driveway servicing the basement parking levels.

The overlaying of indicative swept paths of Council's 10.5m long collection vehicle on the above alternate design scheme illustrated undesirable interaction with public road traffic flow and parking areas as well as vehicular access / egress movements associated with the development basement parking areas.

In comparison, swept path plans which have been prepared by this Practice, copies of which are attached as **Appendix 2**, demonstrate that Council's 10.5m long collection vehicle is capable of manoeuvring to and from the proposed indented bay without unreasonable encroachment on public road traffic flow and parking areas, also being clear of the development access driveway servicing the basement parking areas.

Cognisant of the above, Council's Development Assessment Coordinator, Gavin Cherry, specified the following in an email dated 27 June 2018 to the application architects, Morson Group, following the matter being considered by Council's Urban Design Panel:

...it is acknowledged that waste collection should not be at the expense of quality design outcomes. The provision of on-site collection as proposed in the options plan does significantly reduce critical landscape opportunities and required boundary planting with a diminished streetscape presentation for the development. Basement access is also not likely possible due to lot depth constraints, manoeuvring requirements and the need for a third basement construction.

Whilst it is acknowledged that the proposed indented on-street bay will result in the loss of approximately three on-street parallel parking spaces, a similar loss of on-street parking would eventuate from the excessively wide driveways and manoeuvring which would be required in the event that collection vehicles were required to enter and exit the site.

It should further be acknowledged that any on-street reduction in parking would be limited to that immediately adjacent to the subject site. All adjoining properties provide formal off-street parking infrastructure and additional adjacent on-street kerb-side if so required. It is accordingly not expected that the minor loss of on-street parking supply will unreasonably impact adjoining residential amenity. In fact, it could be argued that the provision of the indented bay will provide for additional roadway capacity by providing additional pavement width to allow oncoming vehicles to pass.

Importantly, it should be noted that the proposed off-site collection arrangements and design are consistent with that recently approved for similar residential apartment development at 50 – 54 Rodley Avenue via DA16/0262. Council's Major Assessment Report for this development dated 16 March 2016 specified the following:

Despite this department not generally accepting the provision of an on-street loading bay, in the circumstances of this case it is the most suitable solution for the development given manoeuvring through the basement with a heavy vehicle is difficult to achieve. The amended proposal provides proximity to the collection area and to the basement driveway, and allows for the waste vehicle to enter and exit the property (bay) in a forward direction as required.

In consideration of the above and the previous discussion, the proposed waste collection arrangements are therefore considered to be satisfactory and consistent with that previously approved within Rodley Avenue.

4. EXISTING TRAFFIC CONDITIONS

4.1 Surrounding Road Network

The following provides a description of the road network surrounding the subject site:

 Rodley Avenue performs a local access road function under the care and control of Penrith City Council. It provides an east-west alignment connecting the southbound Mulgoa Road carriageway in the west with Worth Street approximately 60m to the east of the site. Rodley Avenue extends a further 160m to the east of Worth Street, at which point it forms a terminating culde-sac.

Rodley Avenue provides an approximate pavement width of 7m providing one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. Traffic flow is governed by a sign posted speed limit of 50km/h.

Rodley Avenue provides a half road closure to the west on immediate approach to the Mulgoa Road southbound carriageway, from which left turn entry movements only are facilitated.

Rodley Avenue forms a T-junction with Worth Street to the east, operating under major / minor priority control with Rodley Avenue performing the through route.

Worth Street provides a north-south collector function, also under the care
and control of Penrith City Council. It provides a connection between High
Street and Penrith Plaza in the north, intersecting with which under traffic
signal control, and Rodley Avenue in the south. Worth Street also intersects
with Union Road under traffic signal control, some 150m to the north of
Rodley Avenue.

Worth Street, between Rodley Avenue and Union Road, provides a 7m wide pavement providing one through lane of traffic in each direction, in conjunction with indented parallel passenger vehicle parking bays. To the north of Union Road, Worth Street forms a 13m wide pavement providing two though lanes of traffic in each direction.

Union Road provides an east-west collector function, linking Station Street in
the east with Mulgoa Road in the west. Union Road provides a 13m wide
pavement, primarily providing one through lane of traffic in each direction in
conjunction with parallel parking along both kerb alignments. Parking
restrictions apply on immediate approach to and departure from Worth
Street, facilitating two through lanes on approach and departure from the
signalised intersection.

Union Road intersects with Station Street (and The Broadway) under single lane circulating roundabout control to the east. To the west, Union Road intersects with Mulgoa Road under major / minor priority control with Mulgoa Road performing the priority route. Whilst a dedicated right turn lane and break is provided within the Mulgoa Road central median, facilitating right turn movements to Union Road, right turn egress movements from Union Road are prohibited.

4.2 Existing Traffic Volumes

Staff of Stanbury Traffic Planning have undertaken surveys of the intersection of Union Road and Worth Street in order to accurately ascertain the traffic demands. Surveys were undertaken between 7:00am – 9:00am and 4:00pm – 6:00pm on the 28th of May 2018.

Figure 3 provides a summary of the surveyed commuter peak hour (8:00am – 9:00am and 4:00pm – 5:00pm) traffic flows at the intersections whilst full details are contained within **Appendix 3** for reference.

FIGURE 3
EXISTING WEEKDAY COMMUTER PEAK HOUR TRAFFIC VOLUMES
INTERSECTION OF UNION ROAD & WORTH STREET

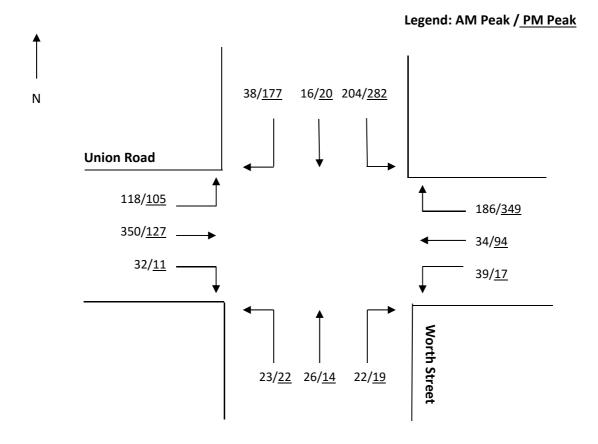


Figure 3 illustrates the following:

- Worth Street, to the south of Union Road, accommodates directional traffic demands of less than 100 vehicles per hour;
- Worth Street, to the north of Union Road, accommodates directional traffic demands of 300 – 500 vehicles per hour; and
- Union Road accommodates directional traffic demands of 300 500 vehicles per hour.

4.3 Existing Road Network Operation

4.3.1 Intersection Operation

The surveyed intersection of Union Road and Worth Street has been analysed utilising the SIDRA computer intersection analysis program in order to objectively assess the operation of the surveyed intersections. SIDRA is a computerised traffic arrangement program which, when volume and geometrical configurations of an intersection are imputed, provides an objective assessment of the operation efficiency under varying types of control (i.e. signs, signal and roundabouts). Key indicators of SIDRA include level of service where results are placed on a continuum from A to F, with A providing the greatest intersection efficiency and therefore being the most desirable by the Roads and Maritime Services.

SIDRA uses detailed analytical traffic models coupled with an iterative approximation method to provide estimates of the abovementioned key indicators of capacity and performance statistics. Other key indicators provided by SIDRA are average vehicle delay, the number of stops per hour and the degree of saturation. Degree of saturation is the ratio of the arrival rate of vehicles to the capacity of the approach. Degree of saturation is a useful and professionally accepted measure of intersection performance.

SIDRA provides analysis of the operating conditions that can be compared to the performance criteria set out in **Table 2** (being the RMS NSW method of calculation of Level of Service).

	TABLE 2 LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS							
Level of Service								
SIGNALISED INT	ERSECTIONS AND ROL	INDABOUTS						
Α	Less than 14	Little or no delay						
В	15 to 28	Minimal delay and spare capacity						
С	29 to 42	Satisfactory delays with spare capacity						
D	43 to 56	Satisfactory but near capacity						
E	57 to 70	At capacity, incidents will cause excessive delays						
F	> 70	Extreme delay, unsatisfactory						

The existing conditions have been modelled utilising the peak hour traffic volumes presented within **Figure 3**. **Table 3** overleaf provides a summary of the SIDRA output data whilst more detailed summaries are included as **Appendix 4**.

TABLE 3 SIDRA OUTPUT – EXISTING WEEKDAY PEAK HOUR PERFORMANCE							
INTERSECTION OF U	JNION ROAD & WORTH	STREET					
	AM	PM					
Average Vehicular Delay (seconds)	26.7	29.9					
Degree of Saturation 0.54 0.71							
Level of Service	В	С					

Table 3 indicates that the intersection of Union Road and Worth Street currently operates with a satisfactory level of service with spare capacity.

4.3.2 Rodley Avenue Performance

Rodley Avenue accommodates low traffic demands commensurate with its access function within the local road hierarchy. In this regard, directional traffic demands have been observed to be less than one vehicle every minute. The Roads & Maritime Services' *Guide to Traffic Generating Developments* specifies that a two-way two-lane roadway accommodating directional traffic demands of less than 200 vehicles per hour provides a level of service 'A' during peak periods, representing free flow where drivers are virtually unaffected by others in the traffic stream.

Notwithstanding the above, the 7m width of the Rodley Avenue pavement in conjunction with the prevalence of kerb side parking along both alignments results in one direction of traffic flow being permitted at any one time. Opposing traffic flow therefore has been observed to occur under courtesy conditions whereby a vehicle will utilise a break in kerb side parking, generally associated with a driveway, to stop and allow a vehicle travelling in the opposite direction to pass. The low traffic demands combined with general diligence displayed by motorists has been observed to ensure that two way traffic flow within Rodley Avenue occurs in a reasonably safe and efficient manner

4.3.3 Abutting Site Access Movements

Traffic movements from abutting development sites and Rodley Avenue have been observed to occur in a safe and efficient manner. These movements are assisted by the low traffic demands within Rodley Avenue resulting in regular and extended gaps in traffic flow, allowing motorists to undertake turning movements from abutting development driveways without unreasonable delay.

The proliferation of driveways servicing abutting development sites in the immediate vicinity result in trailing through traffic movements within Rodley Avenue being aware of the potential for vehicles to decelerate to access private properties. This situation, combined with the consistent vertical and horizontal alignment of Rodley Avenue in the immediate vicinity, results in vehicles being able to undertaken entry and egress movements between private abutting development sites and the public road in a safe and efficient manner.

4.3.4 Arterial Road Network Connectivity

The local road network provides connectivity to the surrounding regional road network as follows:

- Worth Street intersects with High Street to the north under traffic signal control with all movements being facilitated;
- High Street intersects with Mulgoa Road to the north-west under traffic signal control with all movements being facilitated;
- High Street intersects with The Northern Road and Great Western Highway to the east under traffic signal control with all movements being facilitated;
- Both Ransley Street and Jamison Road (accessed via Station Street) intersect with Mulgoa Road, to the south-west under traffic signal with all movements being facilitated;
- Union Road intersects with Mulgoa Road under major / minor control to the north-west, albeit with right turn movements from Union Road being prohibited; and
- Rodley Avenue intersects with the southbound Mulgoa Road carriageway under major / minor priority control to the west, whereby left turn movements to the local road are facilitated.

Whilst traffic demands within the surrounding state road network (High Street, Mulgoa Road, The Northern Road and Great Western Highway) are considerable, commensurate with their functional hierarchy in the road network, the abovementioned precinct access controls provide motorists with safe and efficient connectivity to the surrounding regional and state road network.

4.4 Public Transport

4.4.1 Heavy Rail

The site is located approximately 1km walking distance to the south-west of Penrith Railway Station. Penrith Railway Station provides access to train services which operate along the T1 (North Shore, Northern & Western) Line.

The T1 Line provides regular services between Penrith and the remainder of the Sydney Trains network, servicing The Blue Mountains to the west and Blacktown, Parramatta and The City to the east.

4.4.2 Buses

The following bus routes operate along High Street, with the closest stop being located approximately 500m walking distance from the site:

- Route 688 between Penrith and Emu Heights;
- Route 689 between Penrith and Leonay;
- Route 691 between Penrith and Mount Riverview; and
- Route 690P between Penrith and Springwood.

Further, the following bus routes operate along Station Street, with the closest stop being located approximately 600m walking distance from the site:

- Route 770 between Penrith and Mount Druitt;
- Route 774 between Penrith ad Mount Druitt via Nepean Hospital;
- Route 775 between Penrith and Mount Druitt via Erskine Park;
- Route 776 between Penrith and Mount Druitt via St Clair;
- Route 781 between Penrith and St Marys via Glenmore Park;
- Route 791 between Penrith and Jamisontown via South Penrith;
- Route 793 between Penrith and Jamisontown;
- Route 794 between Penrith and Glenmore via The Northern Road;
- Route 795 between Penrith and Warragamba;
- Route 797 between Penrith and Glenmore Park;
- Route 799 between Penrith and Glenmore Park via Regentville; and
- Route S13 between Penrith and Mountainview Village.

4.4.3 Pedestrians / Cyclists

Pedestrians and cyclists are provided with the following access and mobility infrastructure within the immediate vicinity of the subject site:

- A footpath is provided along the northern side of Rodley Avenue;
- A footpath is provided along the western side of Worth Street between Rodley Avenue and Union Road;

- Signalised pedestrian crossings are provided over all approaches of the intersection of Union Road and Worth Street;
- Footpaths are provided along both sides of Worth Street to the north of Union Road and along both sides of Union Road;
- A shared path is provided along the eastern side of Mulgoa Road; and
- Signalised pedestrian crossings are provided over all approaches of the intersection of High Street and Worth Street.

5. PROJECTED TRAFFIC CONDITIONS

5.1 Traffic Generation

Traffic generation rates for various land-uses have been established through extensive surveys undertaken throughout NSW and published within their *Guide to Traffic Generating Developments* and the more recently released *Technical Direction TDT 203/04a*. The following sub-sections provide a summary of the traffic generating potential of the previous and proposed site uses with respect to those rates established by the Roads & Maritime Services.

5.1.1 Existing Site Uses

Section 1.3.3 of this report presented that the subject site currently contains two detached residential dwellings.

The Roads & Maritime Services' *Technical Direction TDT 203/04a* specifies average traffic generation rates of 0.95 peak hour vehicle movements per dwelling during the morning peak and 0.99 peak hour vehicle movements per dwelling during the evening peak.

For the purposes of this assessment and for reasons of simplicity, a traffic generation rate of 1 peak hour vehicle trip per dwelling has been applied to detached residential dwellings. The current site development is therefore capable of generating up to two vehicle trips to and from the site during weekday commuter peaks periods.

5.1.2 Proposed Development

The proposed development involves the provision of a high density residential apartment building, accommodating 21 dwellings.

The Roads & Maritime Services' *Technical Direction TDT 203/04a* provides trip generation advice for high-density residential developments, specifying average weekday morning and evening peak hour trip generation of 0.19 and 0.15 trips per unit respectively. It is however considered that the traffic generation rates provided within the Roads & Maritime Services' Guide to Traffic Generating Developments of 0.29 trips per dwelling are more likely to be relevant to apartments within the subject locality.

The proposed development is therefore projected to be capable of generating in the order of six vehicular trips during weekday peak hours.

5.2 Traffic Impacts

The proposed development has been projected to generate up to six peak hour trips to and from the site, or four peak hour trips over and above that currently capable of being generated by the existing two detached dwellings provided onsite. This equates to approximately one vehicle movement every 10 minutes during commuter peaks, or one additional vehicle movement every 15 minutes over and above that capable of being generated by existing site uses. Such a level of additional traffic is not projected to, in itself, result in any unreasonable impacts on the existing operational performance of the surrounding local road network. The previous assessment contained within this report has revealed that traffic demands within the surrounding local road network are reasonably low and accordingly motorists are provided with a good level of service with spare capacity.

Whilst it is acknowledged that traffic demands within the surrounding arterial road network are considerable, the positive intersection control servicing connection to / from the surrounding regional and state road network allows motorist to access and egress the local precinct in a safe and efficient manner.

In consideration of the above, the impact of the development is most likely to be a result of the safety and efficiency with which motorists are capable of entering and exiting the development. The low traffic demands within Rodley Avenue combined with the good sight distance provisions is such that it is envisaged that motorists will be capable of entering and exiting the site in a safe and efficient manner.

5.4 Transport Impacts

The subject site is located within reasonably close walking distance to a number of bus services and a 10 minute walk to train services. It is accordingly expected that a proportion of the future residents within the subject development will utilise the surrounding public transport infrastructure to access destinations throughout the Sydney metropolitan area. The capacity of the existing public transport system is however not envisaged to be measurably affected by any additional demand associated with the development, given its limited scale.

6. CONCLUSION

This report assesses the potential traffic and parking implications associated with a residential development containing 21 dwellings at 36 – 38 Rodley Avenue, Penrith. Based on this assessment, the following conclusions are now made:

- The proposed site access arrangements are projected to result in motorists being capable of entering and exiting the subject site in a safe and efficient manner;
- The proposed off-street vehicular parking provision is considered to be satisfactory, given the requirements of DCP 2014;
- The internal passenger vehicle circulation arrangements are capable of providing for safe and efficient internal manoeuvring;
- The proposed indented bay within Rodley Avenue adjacent to the site is projected to safely and efficiently accommodate refuse servicing of the site and is consistent with that previously approved within the immediate precinct;
- The surrounding road network operates with a satisfactory level of service during peak periods;
- The subject development has been projected to generate up to four peak hour vehicle trips to and from the subject site; and
- It is considered that the adjoining road network is capable of accommodating the traffic projected to be generated by the subject development.

It is considered, based on the contents of this report and the conclusions contained herein, there are no traffic or parking related issues that should prevent approval of the subject application. This action is therefore recommended to Council.

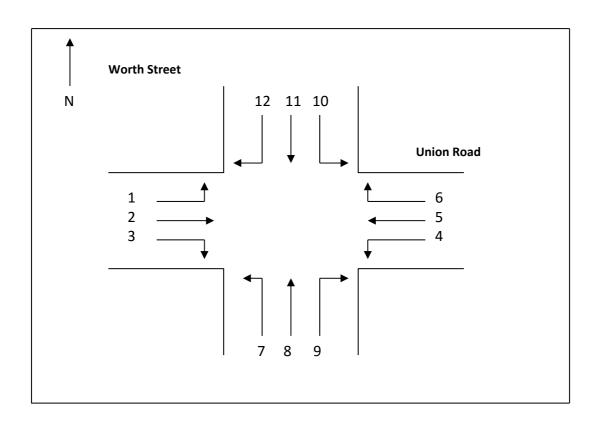


TRAFFIC COUNTS AT: Union Road & Worth Street, Penrith

DATE: 28th May 2018

TIME: Fine

Time					Directi	on of Ve	ehiculai	r Traffic				
	1	2	3	4	5	6	7	8	9	10	11	12
7.00 – 7.15pm	19	98	4	4	8	35	3	2	3	39	3	9
7.15 – 7.30pm	20	90	3	5	7	25	7	5	5	49	2	8
7.30 – 7.45pm	15	101	2	2	9	30	5	3	3	45	1	6
7.45 – 8.00pm	18	108	4	4	8	22	2	6	4	44	1	10
TOTAL	72	397	13	15	32	112	17	16	15	177	7	33
8.00 – 8.15pm	28	110	5	6	10	37	6	8	7	55	5	9
8.15 – 8.30pm	22	90	6	12	9	45	5	5	8	51	3	6
8.30 – 8.45pm	35	85	9	9	10	49	7	7	5	57	5	12
8.45 – 9.00pm	33	65	12	12	5	55	5	6	2	41	3	11
TOTAL	118	350	32	39	34	186	23	26	22	204	16	38
4.00 – 4.15pm	25	29	3	5	25	95	5	1	5	67	5	40
4.15 – 4.30pm	24	35	2	5	29	80	6	3	5	75	4	38
4.30 – 4.45pm	34	34	2	4	23	91	8	3	6	57	7	45
4.45 – 5.00pm	22	29	4	3	17	83	3	7	3	83	4	54
TOTAL	105	127	11	17	94	349	22	14	19	282	20	177
5.00 – 5.15pm	29	25	5	6	25	101	8	5	5	79	5	55
5.15 – 5.30pm	25	30	7	5	30	84	5	2	6	80	3	55
5.30 – 5.45pm	20	36	4	4	17	99	5	1	7	71	5	35
5.45 – 6.00pm	8	30	4	4	10	90	8	2	6	50	2	28
TOTAL	82	121	20	19	82	374	26	10	24	280	15	173



MOVEMENT SUMMARY

Site: [Union Road & Worth Street]

Existing AM

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

Move	ment F	Performanc	e - Ve	hicles								
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	
South	: Worth	Street South										
1	L2	23	5.0	0.350	47.3	LOS D	3.0	22.1	0.96	0.75	0.96	33.8
2	T1	26	5.0	0.350	41.7	LOS C	3.0	22.1	0.96	0.75	0.96	34.4
3	R2	22	5.0	0.350	47.3	LOS D	3.0	22.1	0.96	0.75	0.96	33.7
Appro	ach	71	5.0	0.350	45.3	LOS D	3.0	22.1	0.96	0.75	0.96	34.0
East:	Union R	oad East										
4	L2	39	5.0	0.079	17.5	LOS B	1.6	11.7	0.54	0.57	0.54	47.0
5	T1	34	5.0	0.079	11.9	LOS A	1.6	11.7	0.54	0.57	0.54	48.2
6	R2	186	5.0	0.529	30.6	LOS C	6.7	48.6	0.84	0.81	0.84	39.1
Appro	ach	259	5.0	0.529	26.2	LOS B	6.7	48.6	0.75	0.74	0.75	41.2
North	: Worth	Street North										
7	L2	204	5.0	0.539	40.5	LOS C	8.2	59.7	0.94	0.81	0.94	35.4
8	T1	16	5.0	0.141	31.5	LOS C	2.0	14.3	0.85	0.71	0.85	38.0
9	R2	38	5.0	0.141	37.1	LOS C	2.0	14.3	0.85	0.71	0.85	37.2
Appro	ach	258	5.0	0.539	39.4	LOS C	8.2	59.7	0.92	0.79	0.92	35.8
West:	Union F	Road West										
10	L2	118	5.0	0.135	19.5	LOS B	2.9	21.2	0.59	0.71	0.59	44.5
11	T1	350	5.0	0.441	16.7	LOS B	11.0	80.3	0.71	0.63	0.71	46.8
12	R2	32	5.0	0.441	22.2	LOS B	11.0	80.3	0.71	0.63	0.71	45.5
Appro	ach	500	5.0	0.441	17.7	LOS B	11.0	80.3	0.68	0.65	0.68	46.2
All Ve	hicles	1088	5.0	0.539	26.7	LOS B	11.0	80.3	0.77	0.71	0.77	41.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec		Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94	
P2	East Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94	
P3	North Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94	
P4	West Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94	
All Pe	edestrians	211	39.3	LOS D			0.94	0.94	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: [Union Road & Worth Street]

Existing PM

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 90 seconds (Site Optimum Cycle Time - Minimum Delay)

Move	ement F	Performanc	e - Ve	hicles								
Mov ID	Turn	Demand F Total veh/h	lows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	
South	: Worth	Street South										
1	L2	22	5.0	0.272	46.9	LOS D	2.3	16.9	0.95	0.74	0.95	33.8
2	T1	14	5.0	0.272	41.3	LOS C	2.3	16.9	0.95	0.74	0.95	34.4
3	R2	19	5.0	0.272	46.8	LOS D	2.3	16.9	0.95	0.74	0.95	33.7
Appro	ach	55	5.0	0.272	45.4	LOS D	2.3	16.9	0.95	0.74	0.95	33.9
East:	Union R	toad East										
4	L2	17	5.0	0.126	19.5	LOS B	2.7	19.6	0.59	0.51	0.59	47.1
5	T1	94	5.0	0.126	13.9	LOS A	2.7	19.6	0.59	0.51	0.59	48.3
6	R2	349	5.0	0.704	29.4	LOS C	13.0	94.9	0.86	0.85	0.90	39.6
Appro	ach	460	5.0	0.704	25.8	LOS B	13.0	94.9	0.80	0.77	0.82	41.4
North	: Worth	Street North										
7	L2	282	5.0	0.708	42.4	LOS C	12.0	87.7	0.98	0.86	1.04	34.7
8	T1	20	5.0	0.492	33.7	LOS C	7.7	56.4	0.92	0.80	0.92	36.7
9	R2	177	5.0	0.492	39.3	LOS C	7.7	56.4	0.92	0.80	0.92	36.0
Appro	ach	479	5.0	0.708	40.9	LOS C	12.0	87.7	0.96	0.84	0.99	35.3
West:	Union F	Road West										
10	L2	105	5.0	0.077	8.6	LOS A	1.2	8.5	0.27	0.64	0.27	51.2
11	T1	127	5.0	0.164	14.8	LOS B	3.5	25.3	0.61	0.52	0.61	48.0
12	R2	11	5.0	0.164	20.4	LOS B	3.5	25.3	0.61	0.52	0.61	46.6
Appro	ach	243	5.0	0.164	12.4	LOS A	3.5	25.3	0.47	0.57	0.47	49.3
All Ve	hicles	1237	5.0	0.708	29.9	LOS C	13.0	94.9	0.80	0.76	0.82	39.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Move	Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec		Average Back Pedestrian ped	of Queue Distance m	Prop. Queued	Effective Stop Rate	
P1	South Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94	
P2	East Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94	
P3	North Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94	
P4	West Full Crossing	53	39.3	LOS D	0.1	0.1	0.94	0.94	
All Pe	edestrians	211	39.3	LOS D			0.94	0.94	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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REPORT 180128R1

Revision 0

Road Noise and Race Track Impact Assessment Proposed Residential Development 36 - 38 Rodley Avenue, Penrith

PREPARED FOR:

Inglow Investment Two Pty Ltd

C/o Morson Group PO Box 170 POTTS POINT NSW 2011

18 April 2018

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Road Noise and Race Track Impact Assessment Proposed Residential Development 36 - 38 Rodley Avenue, Penrith

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DOCUMENT CONTROL

Reference	Status	Date	Prepared	Checked	Authorised	
180128R1	Revision 0	18 April 2018	Dani Awad	Desmond Raymond	Rodney Stevens	



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INTRODUCTION 1

Rodney Stevens Acoustics Pty Ltd (here forth referred to as RSA) has been engaged by Morson Group to conduct a Road and Race Track Noise Impact Assessment for Development Application (DA) lodgment of the proposed multi residential development, 36-38 Rodley Avenue, Penrith.

This report addresses the road traffic noise impacts from Mulgoa Road and the noise emitted from harness racing at the Penrith Showground on the amenity of the proposed multi-residential development. In addition, mechanical plant noise criteria have been stablished.

This assessment is to form part of the supporting documentation for the DA submission to Penrith 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 Site Location

The proposed residential development site is located at 36-38 Rodley Avenue, Penrith, it is bounded by residential premises to the north and east, the Penrith Showground to the south and Mulgoa Road to the west. The location of the proposed site and its surroundings is presented in Figure 2-1.

Figure 2-1 Site Location



Aerial image courtesy of Near Map © 2018

2.2 **Proposed Development**

The proposal is to demolish the existing residential dwellings at 36-38 Rodley Avenue, Penrith, and build a 6 storey multi-residential building. The architectural plans of the proposed residential development are presented in Appendix D

Page 4



3 EXISTING ACOUSTIC ENVIRONMENT

3.1 Unattended Noise Monitoring

In order to characterise the existing acoustical environment of the area, unattended noise monitoring was conducted between Tuesday 31st May to Tuesday 7th June 2016 at the logging location shown in Figure 2-1. The first noise logger was located on the front yard of the site overlooking Mulgoa Road. The noise monitoring at this location is representative of the traffic noise the future facades will encounter

The second noise logger was located at the rear yard of the site. The noise monitoring at this location is representative of the acoustic environment at the project site.

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

Instrumentation for the survey comprised of 2 Rion NL42 EX environmental noise logger (serial numbers 133010 and 546394) fitted with microphone windshields. Calibration of the logger was checked prior to and following measurements. Drift in calibration did not exceed ±0.5 dB(A). All equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

3.2 Ambient Noise Level Results

In order to assess the acoustical implications of the proposed development on the levels of noise received at the neighboring residential and commercial premises, the measured data was processed according to the NSW Ambient Noise Levels.

Table 3-1 Ambient Noise Results

Noise Level – dBA re 20 μPa						
D	ay	Evening		1	Night	
RBL ¹	L _{Aeq} ²	RBL ¹	L _{Aeq} ²	RBL ¹	L _{Aeq} ²	
41	50	41	48	34	44	

Note 1: The RBL noise level is representative of the average minimum background sound level (in the absence of the source under consideration), or simply the background level.

Note 2: The L_{Aeq} is essentially the average sound level. It is defined as the steady sound level that contains the same amount of acoustical energy as a given time-varying sound.



4 NOISE CRITERIA

4.1 Road Noise Criteria

The determination of an acceptable level of road noise affecting the internal residential spaces requires consideration of the activities carried out within the space and the degree to which noise will interfere with

As sleep is the activity most affected by traffic noise, bedrooms are considered the most sensitive internal living areas. Higher levels of noise are acceptable in living areas without interfering with activities such as reading, listening to the television etc. Noise levels in utility spaces such as kitchens, bathrooms, laundries etc. can be higher.

4.1.1 State Environmental Planning Policy (Infrastructure) 2007

Road Noise Criteria

The NSW Government's State Environmental Planning Policy (Infrastructure) 2007 (SEPP (Infrastructure) 2007) was introduced to facilitate the delivery of infrastructure across the State by improving regulatory certainty and efficiency. In accordance with the SEPP, Table 3.1 of the NSW Department of Planning and Infrastructure's "Development near Rail Corridors and Busy Roads - Interim Guideline" (the DP&I Guideline) of December 2008 provides noise criteria for residential and non-residential buildings. These criteria are summarised in Table 4-1.

Table 4-1 DP&I Interim Guideline Noise Criteria

Type of occupancy	Noise Level dB(A)	Applicable time period
Sleeping areas (bedroom)	35	Night 10 pm to 7 am
Other habitable rooms (excl. garages, kitchens, bathrooms & hallways)	40	At any time

Note 1: Airborne noise is calculated as $L_{\text{Aeq(15hour)}}$ daytime and $L_{\text{Aeq(9hour)}}$ night-time

The following guidance is also provided in the DP&I Guideline:

"These criteria apply to all forms of residential buildings as well as aged care and nursing home facilities. For some residential buildings, the applicants may wish to apply more stringent design goals in response to market demand for a higher quality living environment.

The night-time "sleeping areas" criterion is 5 dB(A) more stringent than the "living areas" criteria to promote passive acoustic design principles. For example, designing the building such that sleeping areas are less exposed to road or rail noise than living areas may result in less onerous requirements for glazing, wall construction and acoustic seals. If internal noise levels with windows or doors open exceed the criteria by more than 10 dB(A), the design of the ventilation for these rooms should be such that occupants can leave windows closed, if they so desire, and also to meet the ventilation requirements of the Building Code of Australia."

The noise criteria presented in Section 4.1.1 and in Table 4-1 apply to a 'windows closed condition'. Standard window glazing of a building will typically attenuate noise ingress by 20 dB(A) with windows closed and 10 dB(A) with windows open (allowing for natural ventilation). Accordingly, the external noise threshold above which a dwelling will require mechanical ventilation is an LAeq(9hour) of 55 dB(A) for bedrooms and LAeq(15hour) of 60 dB(A) for other areas.

Where windows must be kept closed, the adopted ventilation systems must meet the requirements of the Building Code of Australia and Australian Standard 1668 - The use of ventilation and air conditioning in buildings.



4.2 Protection of the Environment Operations Act 1997

In accordance with the POEO Act, the proposed development should not cause "Offensive Noise" to the neighbouring residential receivers. The definition of "Offensive Noise" in the POEO Act is noise:

- a) that, by reason of its level, nature, character or quality, or the time at which it is made, or any other circumstances:
 - (i) is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or
 - (ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or
- b) that is of a level, nature, character or quality prescribed by the regulations or that is made at a time, or in other circumstances, prescribed by the regulations.

As the POEO Act does not prescribe any numerical criteria to ensure that the development does not cause "Offensive Noise". Hence, appropriate noise guidelines and policies to assess mechanical plant noise have been prescribed in this assessment report to quantify if the operation of the project will cause "Offensive Noise".

4.3 Protection of the Environment Operations (Noise Control) 2008 – Item 52

Air conditioners and heat pump water heaters

- 1) A person must not cause or permit an air conditioner or heat pump water heater to be used on residential premises in such a manner that it emits noise that can be heard within a habitable room in any other residential premises (regardless of whether any door or window to that room is open):
- (a) before 8 am or after 10 pm on any Saturday, Sunday or public holiday, or
- (b) before 7 am or after 10 pm on any other day.

4.4 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.

4.4.1 Intrusiveness Noise Levels

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

4.4.2 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.

4.4.3 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.

4.4.4 Project Specific Trigger Noise Levels

Having defined the area type, the processed results of the attended noise monitoring have been used to determine project specific project trigger noise level. The intrusive and amenity project trigger noise level for nearby residential premises are presented in Error! Reference source not found.. These project trigger noise evels are nominated for the purpose of assessing potential noise impacts from the proposed development.

For each assessment period, the lower (i.e. the more stringent) of the amenity or intrusive criteria are adopted. These are shown in bold text in Table 4-2.

Table 4-2 Project Specific Trigger Noise Levels

	Time of Day	ANL ¹ — L _{Aeq(15min)}	Measured		Project specific Noise Levels	
Receiver			RBL ² L _{A90(15min)}	L _{Aeq} Noise Level)	Intrusive L _{Aeq(15min)}	Amenity ³ L _{Aeq(15min)}
	Day	60	41	50	46	58
Residential	Evening	50	41	48	46	48
	Night	45	34	44	39	43

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

Note 2: RBL = "Rating Background Level".

Note 3: Assuming existing noise levels are unlikely to decrease in the future



5 NOISE IMPACT ASSESSMENT

5.1 Road Traffic Noise

5.1.1 Road Traffic Noise Intrusion Assessment

In order to ascertain the existing noise levels from the Mulgoa Road, the measured noise logger data was processed in accordance to the NSW Road Noise Policy assessment time periods. Table 5-1 details the traffic noise levels.

Table 5-1 Measured Traffic Noise Levels



Traffic noise levels recorded by the noise logger have been corrected to account for the distance from the road to the proposed façade. These are representative of the noise levels the proposed façade will encounter.

5.2 Mechanical Plant Noise Assessment

A specific mechanical plant selection has not been supplied at this stage. It is anticipated that the building will be serviced by typical mechanical ventilation/air conditioning equipment.

It is likely that the criteria set out in Table 4-2 will be met through the use of conventional noise control methods (e.g. selection of equipment on the basis of quiet operation and, where necessary, providing enclosures, localised barriers, silencers and lined ductwork).

An appropriately qualified acoustic consultant should review the mechanical plant associated with the development at the detailed design stage when final plant selections have been made

5.3 Penrith Showground Race Track

In order to ascertain the noise emitted by Penrith Paceway, attended measurements were carried out on Thursday 2nd June 2016 between 6:00pm and 9:00pm at the location shown in Figure 4-2. Harness races take place every Thursday between 6:00 pm and 10:00 pm.

A summary of the different noise sources and resulting noise levels is presented in Table 5-2

Table 5-2 Attended Noise Measurements

A cath side o	Noise Level – dB(A) re 20 μPa
Activity	L_{Aeq}
PA Announcements	70
Horses Warming Up	74
Horses Lining Up with Gate Car	82

Page 9



Horses Racing	84
Tractor	81
Truck	78

We note that all activities do not occur at the same time, the noise levels presented above were measured approximately 9 meters from the track's centre line and are representative of each activity pass by.

5.3.1 Paceway Noise Intrusion Assessment

The noise levels presented in Table 5-2 were used to calculate the overall noise emitted by a single race taking into account the time each activity takes place. Each race consists of the following:

- Horses come out on track and start warm up laps
- Horses line up at start line and wait for gate car
- Horses begins trotting behind gate car
- Races begins
- Race ends and horses exit track
- Tractor or truck combs the racing track

The PA announcements occur before, after and throughout the race. No PA announcements occur while the tractor or truck is smoothing the race track.

The following table shows the calculated noise levels at the facades of the proposed multi residential development.

Table 5-3 Calculated Noise Levels at Proposed Development

Floor	Noise Level – dB(A) re 20 μPa
Floor	L _{Aeq}
Ground	69
Level 1	70
Level 2 - 4	73
Level 5	72



6 RECOMMENDED NOISE CONTROL TREATMENT

The calculation procedure establishes the required noise insulation performance of each surface component such that the internal noise level is achieved whilst an equal contribution of traffic noise energy is distributed across each component. Building envelope components with a greater surface area must therefore offer increased noise insulation performance.

The recommended acoustic treatment is based on the following floor finishes:

Bedrooms: Carpet and underlay

Living Room Hard Flooring

Kitchen/Wet Areas: Tiles

The acoustic requirements shown in this report will increase further where the bedroom floor finishes are tiled or timber.

All recommendations must be checked by others to ensure compliance with other non-acoustic requirements that Council or other authority may impose (e.g. Thermal requirements for BASIX compliance).

6.1 Glazing

The R_w rating required for each window will vary from room to room. Recommendations for windows also apply to any other item of glazing located on the external facade of the building in a habitable room unless otherwise stated.

Note that the R_w rating is required for the complete glazing and frame assembly. The minimum glazing thicknesses will not necessarily meet the required R_w rating without an appropriate frame system. It will be therefore necessary to provide a window glass and frame system having a laboratory tested acoustic performance meeting the requirements acoustic requirements.

The window systems must be tested in accordance with both of the following:

- Australian Window Association Industry Code of Practice Window and Door Method of Acoustic Testing; and
- AS 1191 Acoustics Method for laboratory measurement of airborne sound insulation of building elements.

It is necessary to submit such Laboratory certification for the proposed glazing systems (i.e. windows and framing systems) (e.g. NAL or CSIRO) for approval by RSA Acoustics prior to ordering or commitment.

The entire frame associated with the glazing must be sealed into the structural opening using acoustic mastics and backer rods. Normal weather proofing details do not necessarily provide the full acoustic insulation potential of the window system. The manufacturers' installation instructions for the correct acoustic sealing of the frame must be followed.

It is possible that structural demands for wind loading or fire rating or the like may require more substantial glass and framing assemblies than nominated above. Where this is the case the acoustic requirements must clearly be superseded by the structural or fire rating demands.

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6.2 Rw Requirements for Glazing

Standard glazing may be installed on the northern and north-east and north-west facades, standard aluminium frames, quality seals (rubber seals) and 6mm glass panes should be installed to maintain a good degree of noise insulation. Other glazing systems may be available but their Rw rating must be reviewed prior to installation. No further acoustic requirements are needed.

Due to noise emissions from the activities carried out at Penrith Paceway, the apartments on the southern façade facing the racing track must be upgraded to maintain a good degree of noise isolation. The following upgrades are required.

Table 6-1 Required Glazing Upgrades

Room	Windows	Glazed Doors				
Ground Floor (South, South East & South west)						
Living Room	Rw 33	Rw 35				
Bedroom	Rw 33	Rw 35				
Levels 1 - 3 (South, South East & South west)						
Living Room	Rw 35	Rw 35				
Bedroom	Rw 35	Rw 35				
Level 4 (South, South East & South west)						
Living Room	Rw 35	Rw 37				
Bedroom	Rw 35	Rw 37				
Level 5 (South, South East & South west)						
Living Room	Rw 33	Rw 35				
Bedroom	Rw 35	Rw 35				

6.3 Mechanical Ventilation

The windows and doors can be opened for natural ventilation throughout the proposed development. If mechanical ventilation is needed it must be approved by Council and it should be implemented in accordance with the relevant regulations such as the National Construction Code (NCC Vol.1, Part 4.5 *Ventilation of rooms*) and AS1668.2-2002 *The use of ventilation and air conditioning* will be required.



7 CONCLUSION

Rodney Stevens Acoustics has conducted a review of the proposed multi-storey residential development at 36-38 Rodley Avenue, Penrith. The review has assessed the noise generated by Penrith Paceway on the site as well as traffic noise intrusion and compared it with the noise criteria required by in Penrith City Council and other relevant standards.

Noise emissions criteria for mechanical plant has been stablished in accordance with the EPA's Noise Policy for Industry intrusiveness and amenity. A further noise survey must be carried out once a mechanical plant schedule has been finalised.

Based on the noise impact study conducted, the proposed development is assessed to comply with the SEPP (Infrastructure) 2007 noise criteria with recommendations from this report. It is therefore recommended that planning approval be granted for the proposed development on the basis of acoustics.

Approved: -

Rodney Stevens

odney O. Stevens

Manager/Principal



Appendix A Acoustic Terminology

A-weighted sound pressure

The human ear is not equally sensitive to sound at different frequencies. People are more sensitive to sound in the range of 1 to 4 kHz (1000-4000 vibrations per second) and less sensitive to lower and higher frequency sound. During noise measurement an electronic 'A-weighting' frequency filter is applied to the measured sound level dB(A) 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 dB(linear).

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.

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-Goals specified in terms of the outcomes/performance to be achieved, but not in terms of the means of achieving them.

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RatingThe rating background level is the overall single figure background level representing each day, evening and night time period. The rating background level is the 10th percentile min L_{A90} noise level measured over

all day, evening and night time monitoring periods.

Receptor The noise-sensitive land use at which noise from a development can be

heard.

Sleep disturbance Awakenings and disturbance of sleep stages.

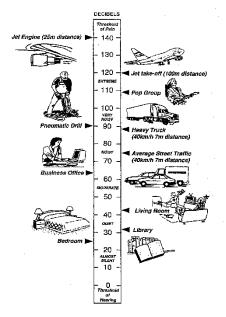
Sound and Sound (or noise) is caused by minute changes in atmospheric pressure that are detected by the human ear. The ratio between the quietest noise audible and that which should cause permanent hearing damage is a million times the change in sound pressure. To simplify this range the sound pressures are logarithmically converted to decibels from a reference

level of 2 x 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)*.

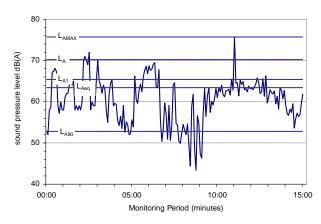
Sound Pressure Level (SPL)

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.

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

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.

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

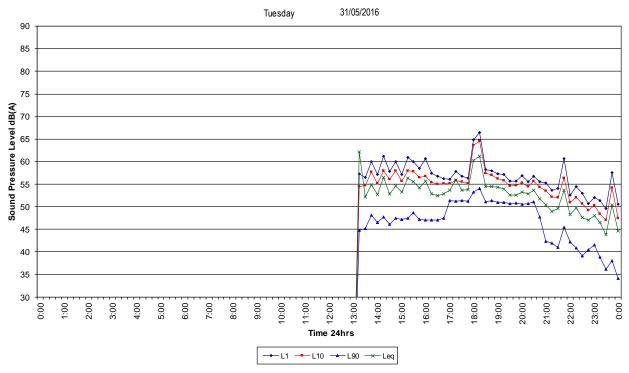
Tonal noise contains one or more prominent tones (and characterised by a distinct frequency components) and is considered more annoying. A 2 to 5 dB(A) penalty is typically applied to noise sources with tonal characteristics



Appendix B Logger Graphs

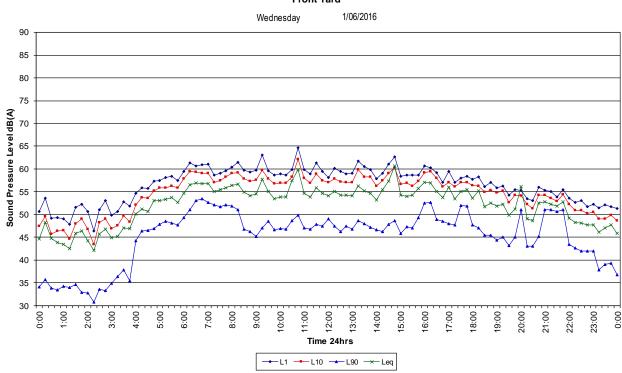
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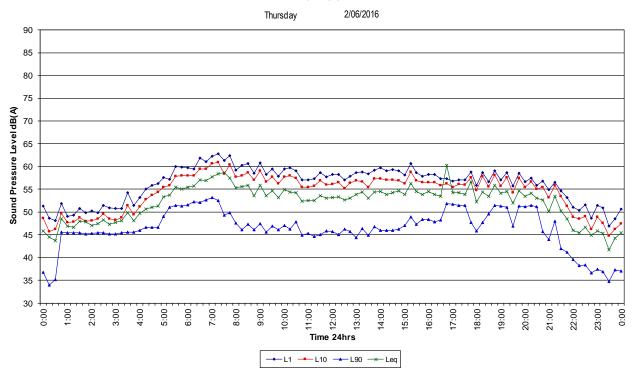
50 Rodley Avenue, Penrith

Front Yard



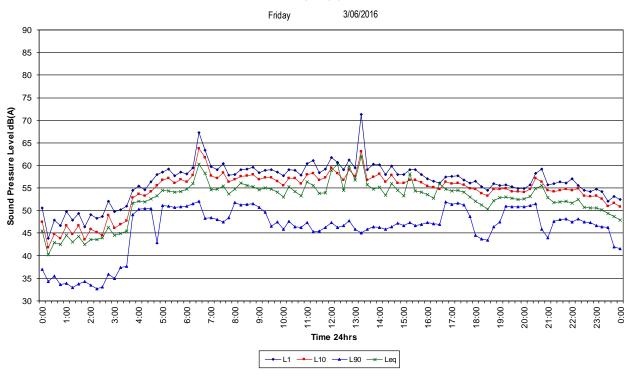


Front Yard



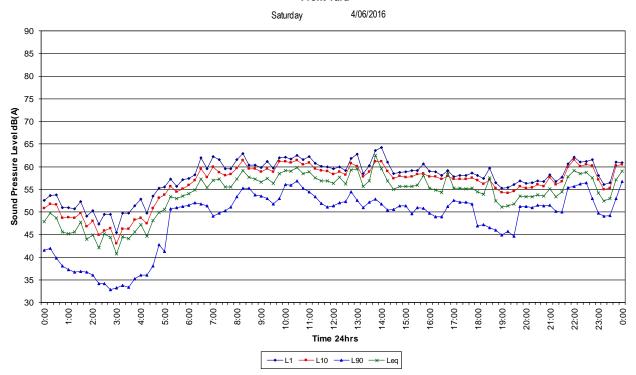
50 Rodley Avenue, Penrith

Front Yard





Front Yard



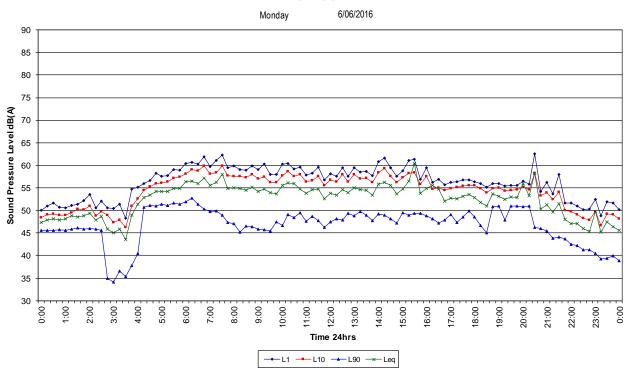
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Front Yard



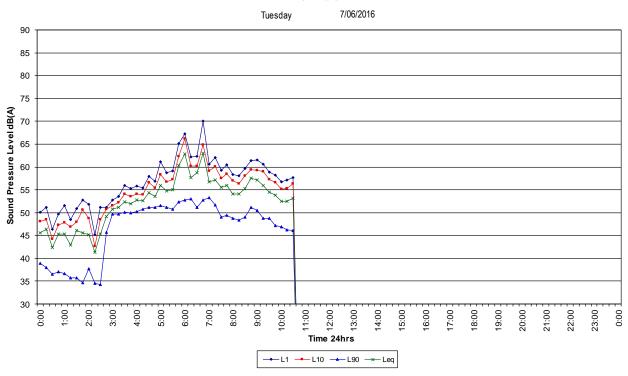


Front Yard



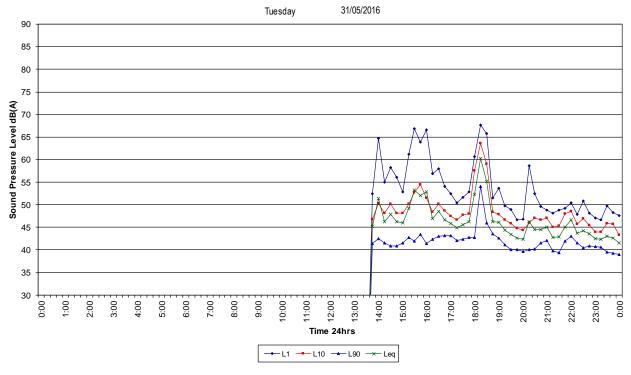
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Front Yard

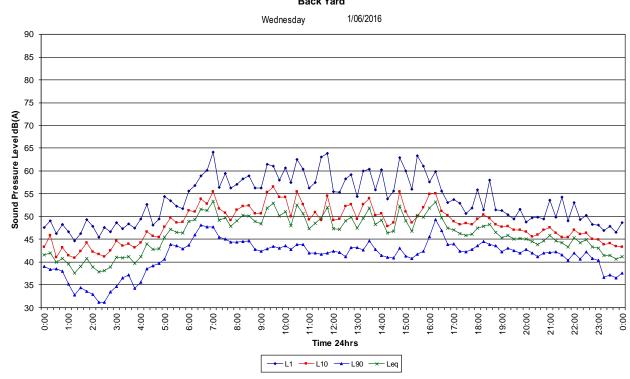








50 Rodley Avenue, Penrith Back Yard

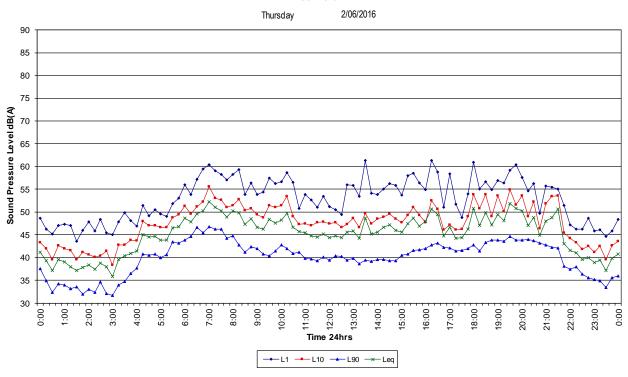


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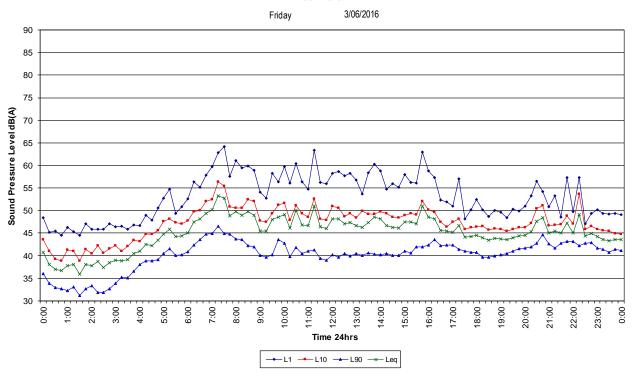


Back Yard



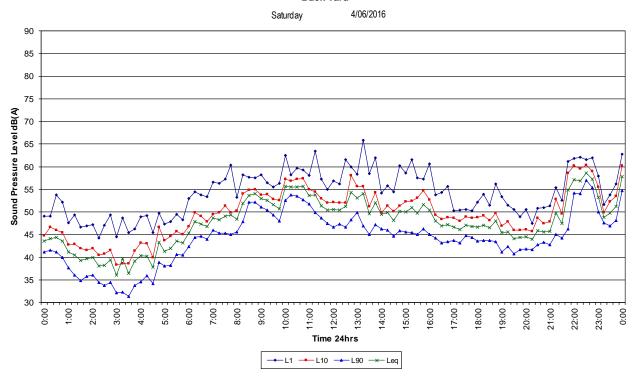
50 Rodley Avenue, Penrith

Back Yard



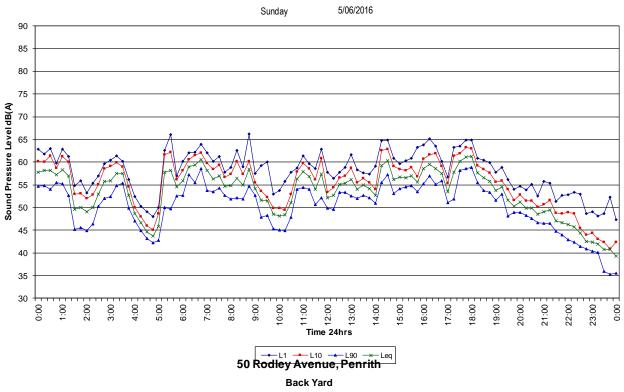


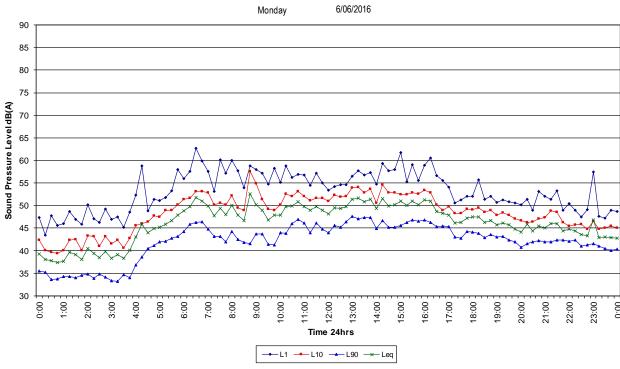
Back Yard





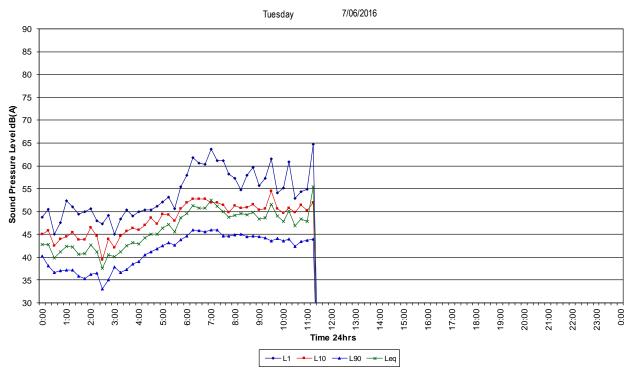
50 Rodley Avenue, Penrith Back Yard







50 Rodley Avenue, Penrith Back Yard





Appendix C **Calibration Certificate**



Acoustic Level 7 Building 2 423 Pennant Hills Rd Research Pennant Hills 1834 A.B.N. 65 160 399 119 Labs Pty Ltd | www.acousticresearch.com.au

Sound Level Meter IEC 61672-3,2006

Calibration Certificate

Calibration Number C15295

Client Details Rodney Stevens Acoustics Pty Ltd

1 Majura Close

St Ives Chase NSW 2075

Rion NL-42 Equipment Tested/ Model Number:

Instrument Serial Number: 00133010 Microphone Serial Number: 144589 Pre-amplifier Serial Number: 23057

Pre-Test Atmospheric Conditions Ambient Temperature: 23.6°C Relative Humidity: 38.5%

Barometric Pressure: 100.42kPa

Post-Test Atmospheric Conditions

Ambient Temperature: 21.8°C Relative Humidity: 46.8% **Barometric Pressure:** 100.42kPa

Calvin Calibration Technician: **Calibration Date:**

Simpfendorfer 22/06/2015

Secondary Check: Kate Alchin

Report Issue Date: 23/06/2015

Approved Signatory:

Ken Williams

Clause and Characteristic Tested	Result	Clause and Characteristic Tested	Result
10: Self-generated noise	Pass	14: Level linearity on the reference level range	Pass
11: Acoustical tests of a frequency weighting	Pass	15: Level linearity incl. the level range control	Pass
12: Electrical tests of frequency weightings	Pass	16: Toneburst response	Pass
13: Frequency and time weightings at 1 kHz	Pass	17: Peak C sound level	Pass
		18: Overload Indication	Pass

The sound level meter submitted for testing has successfully completed the class 2 periodic tests of IEC 61672-3:2006, 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 61672-1:2002 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 61672-1:2002 and because the periodic tests of IEC 61672-3:2006 cover only a limited subset of the specifications in IEC 61672-1:2002.

Least	Uncertainties	of	Measurement -	

coustic Tests		Environn
31.5 Hz to 8kHz	±0.120dB	Tem
12.5kHz	±0.165dB	Rela
16kHz	±0.245dB	Bar

mental Conditions nperature ±0.3°C lative Humidity ±4.1% $\pm 0.1kPa$ rometric Pressure

Electrical Tests 31.5 Hz to 20 kHz ±0.121dB

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.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards.

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Acoustic Level 7 Building 2 423 Pennant Hills Rd Pennant Hills NSW AUSTRALIA 2120 Ph: +61 2 9484 0800 A.B.N. 65 160 399 119 Labs Pty Ltd | www.acousticresearch.com.au

Sound Level Meter IEC 61672-3.2006

Calibration Certificate

Calibration Number C14662

Rodney Stevens Acoustics Pty Ltd **Client Details**

1 Majura Close

St Ives Chase NSW 2075

Equipment Tested/ Model Number: Rion NL-42EX

00546394 **Instrument Serial Number:** Microphone Serial Number: 152907 Pre-amplifier Serial Number : 46605

Pre-Test Atmospheric Conditions

Ambient Temperature: 23°C

Relative Humidity: 51.3% 99.81kPa Barometric Pressure :

Calibration Technician: Corey Stewart Calibration Date: 26/11/2014

Post-Test Atmospheric Conditions

Ambient Temperature: 22.9°C Relative Humidity: 51.2% Barometric Pressure : 99.7kPa

Secondary Check: Luke Hudson Report Issue Date: 28/11/2014

Approved Signatory:

Ken Williams

Clause and Characteristic Tested	Result	Clause and Characteristic Tested	Result
10: Self-generated noise	Pass	14: Level linearity on the reference level range	Pass
11: Acoustical tests of a frequency weighting	Pass	15: Level linearity incl. the level range control	Pass
12: Electrical tests of frequency weightings	Pass	16: Toneburst response	Pass
13: Frequency and time weightings at 1 kHz	Pass	17: Peak C sound level	Pass
		18: Overload Indication	Pass

The sound level meter submitted for testing has successfully completed the class 2 periodic tests of IEC 61672-3:2006, 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 61672-1:2002 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 61672-1:2002 and because the periodic tests of IEC 61672-3:2006 cover only a limited subset of the specifications in IEC 61672-1:2002.

Least Uncertainties of Measurement -

Environmental Conditions Acoustic Tests 31.5 Hz to 8kHz ±0.120dB ±0.3°C Temperature 12.5kHz $\pm 0.165dB$ Relative Humidity +4 1% $\pm 0.1kPa$ 16kH= $\pm 0.245 dB$ Barometric Pressure Electrical Tests 31.5 Hz to 20 kHz

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.

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The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards.

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Rodney Stevens Acoustics Report Number 180128R1 Revision 0 Document Set ID: 8696286