

PENRITH CITY COUNCIL

MAJOR ASSESSMENT REPORT

Application number:	DA20/0164
Proposed development:	Demolition of Existing Structures, Tree Removal, Construction of Two x 5 Storey Residential Flat Buildings Containing a Total of 51 Apartments with Two Shared Basement Car Parking Levels, Landscaping & Civil Works
Property address:	16 Hope Street, PENRITH NSW 2750 18 Hope Street, PENRITH NSW 2750 20 Hope Street, PENRITH NSW 2750 22 Hope Street, PENRITH NSW 2750 24 Hope Street, PENRITH NSW 2750
Property description:	Lot 29 DP 31239 Lot 30 DP 31239 Lot 32 DP 31239 Lot 33 DP 31239 Lot 31 DP 31239
Date received:	31 March 2020
Assessing officer	Kathryn Saunders
Zoning:	SEPP WSA - Affected by Obstacle Limitation SEPP WSA - Affected by Wildlife Buffer Zone Zone R4 High Density Residential - LEP 2010
Class of building:	Class 2 , Class 7a
Recommendations:	Approve

Executive Summary

Council is in receipt of a development application which proposes the demolition of existing structures, tree and vegetation removal and the construction of 2 x 5 storey residential apartment buildings with shared ground floor podium and two levels of shared basement car parking comprising 51 apartments and 77 car parking spaces at 16-24 Hope Street, Penrith.

Under Penrith Local Environmental Plan 2010 (PLEP), the proposal is defined as a residential flat building which is a form of residential accommodation. Residential accommodation is a permitted land use with consent in the R4 High Density Residential zone under PLEP.

The subject site which comprises five residential allotments, was the subject of a previous development proposal for two residential apartment buildings under development application number DA18/0792 which was refused by the Penrith Local Planning Panel on 11 September 2019 for reasons which included:

- The extent of non-compliance with State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development and the associated Apartment Design Guide including in relation to setbacks and built form separation, landscaped area, facade design, visual privacy, public domain interface, balcony and circulation design,
- The unsatisfactory nature of written request under clause 4.6 of PLEP in relation to height, and
- Issues related to site responsiveness, car parking non-compliance with Council's Development Control Plan, and matters of public interest.

The subject application originally proposed two, six storey apartment buildings comprising of a total of 60

apartments, and was accompanied by a written request addressing clause 4.6 of PLEP, seeking to vary the height of buildings development standard. Council wrote to the applicant in correspondence dated 4 August 2020 and raised matters related to the adequacy of the development having regard to the Apartment Design Guide and issues of urban design. Technical engineering, traffic and waste matters were also raised.

The proposal has been the subject of a review by Council's external urban design expert on two occasions and the applicant has adopted the majority of the recommendations made. The proposal has been amended to reduce the number of units (from 60 to 51) and has also been reduced in height from 18.7m to approximately 16.8m through the reduction in the number of storeys from six to five. The applicant has withdrawn their written request under clause 4.6 of PLEP as the development now complies with the PLEP maximum height for the site of 18m.

A review of the amended proposal against State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development (SEPP 65) and the Apartment Design Guide (ADG) has been undertaken and the proposal is considered to be supportable as detailed within this report.

The previously raised outstanding technical matters related to traffic, waste and stormwater engineering have been resolved with no objections raised from Council's internal technical officers.

Key issues which arose as a consequence of the development assessment include:

- Select matters raised by Council's external urban design expert in relation to landscaping which remain unaddressed;
- Solar access and overshadowing impacts to properties to the south (which front Derby Street); and
- Absence of an Arboricultural Assessment of existing trees on the site and potential for the retention and protection of a mature tree at the rear.

The above matters have been addressed through the recommended conditions of consent.

The application has been notified to adjoining occupiers and land owners and was advertised and exhibited between 24 April and 8 May 2020. A total of three individual submissions in objection were received raising matters related to over development in the area, impacts of construction such as dust, odours and noise, visual impacts, impacts of the hours of construction works, over population and congestion, social impacts, solar impacts and the importance of open space. Council also received one petition containing 51 signatures in objection, which raised issues relating to devaluation of surrounding properties, noise, damage to surrounding properties, height, loss of views and sunlight and impacts of stress. The issues raised in the submissions are addressed in this report.

In accordance with the Local Planning Panels Direction - Development Applications and Applications to Modify Development Consents, Ministerial Direction dated 30 June 2020, this application is to be determined by the Penrith Local Planning Panel as the development proposal is identified as Sensitive Development to which SEPP 65 applies and as the proposed development is four or more storeys in height.

An assessment under Section 4.15 of the Environmental Planning and Assessment Act 1979 has been undertaken and the application is recommended for Approval, subject to recommended conditions.

Site & Surrounds

The subject site is known as 16-24 Hope Street, Penrith and is legally known as Lots 29, 30, 31, 32 and 33, DP 31239. The site is rectangular in shape with a frontage to Hope Street of 79.25m and a depth of 40.120m resulting in an overall site area of 3,182m². Each lot currently contains a single storey residential dwelling and ancillary structures. The subject site falls from the rear to the front with a fall of between 1.5m to 2m across the depth of the site towards Hope Street.

This section of Hope Street is currently in a slow phase of transition from traditional detached dwellings to higher density development with a number of recent residential flat buildings having been constructed. Directly adjoining the subject site to the east (No. 12-14 Hope Street) is a five storey residential flat building containing 27 apartments and basement car parking approved under DA16/0123. To the north of the subject site along the opposite side of Hope Street (No. 25-31 Hope Street) are two six (6) storey residential flat buildings containing 61 apartments with basement car parking approved under DA15/1185.

Directly to the west of the subject site at No. 26-30 Hope Street, a Development Application for a six (6) storey residential flat building containing 45 apartments and two (2) levels of basement car parking (under DA18/0488) was refused by the Penrith Local Planning Panel on 12 June 2019. However, consent number DA20/0365 has since been issued over this site by the Penrith Local Planning Panel for a six storey residential flat building containing 38 apartments and basement car parking. Construction is yet to begin.

Further to the west at 32-36 Hope Street, a Development Application for a six (6) storey residential flat building containing forty-five (45) apartments and two (2) levels of basement car parking (under DA17/1341) was refused by the Penrith Local Planning Panel on 12 March 2019 and was the subject of an appeal with the NSW Land and Environment Court, which subsequently resulted in the approval of a 41 apartment development. Further to the west of the subject site at the intersection of Hope Street and Colless Street (No. 38-40 Hope Street) is a constructed five (5) storey residential flat building containing 24 apartments with basement car parking (approved under DA15/0683).

The site is located approximately 115m to the west of Parker Street (The Northern Road) and is 140m from the most western edge of the Nepean Hospital complex and Health and Education Precinct. The site is 1.5km walking distance to the south-west of Kingswood Railway Station and is 1.5km (as the crow flies) from Penrith Railway Station.

Hope Street is a narrow two way local road with marked parking bays on each side of the street. Hope Street is aligned east-west spanning between Parker Street to the north and Colless Street to the west. The predominant built form along Hope Street is single storey dwellings and there are four residential apartment developments with one of those directly adjacent at 12-14 Hope Street. Three sites have consents for residential flat development with construction yet to commence.

Proposal

The proposed development seeks consent for the following:

- Demolition of all existing structures and tree removal,
- The construction of two x 5 storey residential flat buildings containing a total of 51 apartments and 77 car parking spaces over two basement levels, with access from Hope Street. Each building is generally square shaped and positioned each side of a communal entry point and centrally located common open space area.

The proposal has been amended following the previous refusal by the Penrith Local Planning Panel of DA18/0792 and following the review of the current application by Council's external urban design expert. In particular, the development has been reduced in height by one storey (from 6 storeys to 5 storeys) and amendments have been made to the common open space areas, streetscape landscaping and landscaped planters and balconies.

More specifically, the proposed development will contain the following:

- A total of 51 units, being 2 x 1 bedroom units (4%), 36 x 2 bedroom units (70.5%), 12 x 3 bedroom units (23.5%), and 1 x 4 bedroom unit (2%);
- A total of 77 parking spaces (including 5 x accessible spaces) in two basement levels, comprising 64 resident spaces, 13 visitor spaces, 2 service spaces and 1 wash bay;
- The applicant is proposing 795.5sqm of communal open space (COS) which is 25% of the site area;
- The applicant is proposing 1013.1sqm of deep soil which is 31.84% of the site area (3182sqm) noting that the ADG requires 7% minimum and up to 15% for sites greater than 1500sqm).

With regard to internal amenity of the proposed design, the following is noted:

- 36 of the total of 51 units will achieve compliant solar access, representing 70.58% of units (ADG requires 70%);
- 34 of the total of 51 units will achieve cross ventilation, representing 66.6% of units (ADG requires 60%);
- The unit and balcony arrangements are generally compliant and address the objectives and controls of the ADG.

Plans that apply

- Local Environmental Plan 2010
- Development Control Plan 2014
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- State Environmental Planning Policy (Vegetation in non-rural areas) 2017
- State Environmental Planning Policy (Western Sydney Aerotropolis) 2020
- 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 proposed 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 4.15(1)(a)(i) The provisions of any environmental planning instrument

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

The application has been assessed as suitable having regard to the Policy. The application was accompanied by BASIX Certificate number 947968M_03 which was amended to reflect the development for which consent is sought. The proposal is assessed as being acceptable having regard to the Policy.

State Environmental Planning Policy (Vegetation in non-rural areas) 2017

The development proposal is assessed as being satisfactory having regard to the Policy.

State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

The subject site is located outside of the Western Sydney Aerotropolis precinct. However, the SEPP (Western Sydney Aerotropolis) 2020 contains a map that relates to wildlife buffer areas. This map is titled the "Wildlife Buffer Zone Map". The map shows that the subject site is within a 13 kilometre 'wildlife buffer zone' of the Badgerys Creek airport site.

The Aerotropolis SEPP commenced on 1 October 2020, after the Development Application was lodged. The SEPP contains Savings Provisions which means that the SEPP does not strictly apply to the proposed development. Nevertheless, consideration has been given to Clause 21 of the SEPP and the proposed development. The objective of Clause 21 is to regulate development on land surrounding the Badgerys Creek airport site where wildlife may present a risk to the operation of the airport (such as bird strikes). Certain types of development trigger the requirements for further consideration under Clause 21. The proposed development, being a form of residential accommodation, is not one of the types of uses that warrant additional consideration under the SEPP with regard to wildlife and the operation of the airport.

The subject site is also identified as being located within the "Obstacle Limitation Surface Map" area. Clause 24 of the SEPP relates to development that would penetrate the prescribed air space for the airport and be a 'controlled activity'. The proposed development neither penetrates the prescribed air space, nor is it a controlled activity, therefore not triggering any additional considerations under this clause.

State Environmental Planning Policy No 55—Remediation of Land

The application has been assessed against the applicable provisions of the Policy and is found to be acceptable. The application was accompanied by a Preliminary Site Investigation prepared by Banksia EnviroSciences, dated 15 April 2021, reference 18006/16-24. The investigation concludes that the site is suitable for the proposed development.

The application was also referred to Council's Environmental Health unit with no objections raised subject to standard recommended conditions which include the requirement for the preparation of a Hazardous Materials Survey to be prepared prior to works or demolition commencing. A condition of consent is also recommended to require an Unexpected Finds Protocol to be developed and implemented.

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

The Policy aims to improve the design quality of residential apartment development in New South Wales. In particular, the Policy requires consideration of the design quality of the development when evaluated in accordance with the design quality principles, and the related Apartment Design Guide (ADG).

The application is accompanied by a statement from a qualified designer, in accordance with Clause 50 (1A) and (1B) of the Regulations. This statement verifies that they have designed (or directed the design); confirms the development addresses achievement of the design quality principles; and plan no. DA05 includes how Parts 3 and 4 of the ADG have been achieved. The design has been made (or has been directed by) a Registered Architect, Peter Morson, registration number 8100.

Urban Design Review

The proposal (as submitted and prior to the final amendments) was reviewed by Council's external urban design expert. The review comments were forwarded to the applicant and the amended proposal was subsequently submitted to address the points raised. The following summarised comments were provided by Council's external urban design expert:

- Form, articulation and composition of facades demonstrate positive responses to SEPP 65 principles and the DCP's desired character,

- Landscaped areas and landscaping requires further work in relation to character and amenity,
- Common areas at ground level also require further work in terms of amenity, territory and security,
- Balconies of ground level apartments facing the street also require improved articulation to address desired character.

Council's external urban design expert suggested the following summarised matters to address the above:

(a) In relation to landscaped areas and landscaping:

- Deep soil areas that accommodate clusters of trees with overlapping canopies, rather than hedgerows as currently proposed,
- Primary trees (6m-8m to avoid power lines) to bookend and separate building forms as per the LEC's Roseth Planning Principle for compatibility,
- Primary trees to be complemented by 'secondary clusters' with canopy diameters of 4m-6m.

(b) In relation to deep soil:

- The central open space should be extended by a deep soil planter above the basement storage areas; a combined area of 12.5m x 9.5m is achievable, and could accommodate two large trees; to achieve this the cross-ramp should be moved southwards to become part of the common open space,
- The substation should be relocated to the eastern side of the ramp and ideally should sit beneath a landscaped planter,
- Fire boosters to be located adjacent to the ramp,
- Pathways to balconies to be consolidated and stairs recessed behind planters,
- Planter dimensions to be increased by reducing or eliminating unnecessary balcony areas: a minimum dimension of 2m may be sufficient for 2 bed apartments.

(c) In relation to common areas:

- Common areas to be protected by security fencing that allows views to the street,
- Ramps and pathways consolidated - in part by moving the cross-ramp southwards to sit in the secured common area,
- Lobbies to include under-crofts with sight-lines to common recreation areas, with lobby window walls moved back approximately to walls of Units 02 and 29,
- Outdoor areas to be designed as outdoor rooms; areas of lawn shaded by trees, paved dining paces with pergolas, paved sitting terraces,
- Access to the common room to be reconfigured to provide level access to outdoors along east and south frontage and to include accessible wc and small kitchen.

(d) In relation to articulated terraces:

- Vary heights and alignment of planters and balustrades: currently all the same, need to step in and out, up and down,
- Increasing planter dimensions: primarily by reducing widths of balconies to 2m,
- Stepping planter levels: some high, some low, some in-between.

In summary, Council's external urban design expert stated that *"Overall the recommended changes are important and are necessary to address State and local controls. In essence, they involve adjustments to the current design rather than comprehensive redesign: no loss of yield or changes to building layouts or forms. If the recommended changes are made, I believe that this development could demonstrate exceptional quality"*. A sketch was also provided (refer accompanying documents).

Staff Response:

The architectural drawings and the landscape plans were amended to incorporate the majority of the suggested changes. The following alterations were adopted:

(a) In relation to landscaped areas and landscaping:

- Deep soil areas that accommodate clusters of trees are included although hedgerows remain. Taller Eucalyptus trees are proposed along the frontage rather than 6m-8m high varieties.
- Planting bookends provided and separates building forms and primary trees are complemented by 'secondary clusters' with canopy diameters of 4m-6m.

(b) In relation to deep soil:

- The applicant has relocated the substation to the eastern side of the ramp and a landscaped planter is

provided to the rear and western side and the fire booster set is relocated to the far western site boundary.

- Pathways to the balconies are consolidated and stairs are recessed between planters. It is noted that stairs to Units 01 and 02, and 28 and 29 are shared. For security and privacy reasons it is recommended that a condition of consent be included to require stairs for these units to be separated. Access to Units 02 and 29 are to be provided off the central entry pathways.
- Council's contract urban designer requested that planter dimensions should be increased by reducing or eliminating unnecessary balcony areas and stated that a minimum dimension of 2m may be sufficient for 2 bed apartments. The balcony areas and landscaped planters were adjusted, although it is not clear from the landscape or architectural plans, sections and details if the landscape planters along the north facing elevation are sufficiently articulated as was recommended under (d), dot point 1 and 3 above.

(c) In relation to common areas:

- Common areas are now indicated to be secured through the use of boundary planting, security fencing and gates and ramps and pathways consolidated. The applicant has relocated the cross-ramp southwards to sit in the secured common area as was requested.
- Lobbies are protected from the elements through the inclusion of under-crofts with sight-lines to common recreation areas (refer drawing DA03) and lobby glazing is set slightly back from the building edge.
- Outdoor areas are designed as 'rooms' although surface treatments in these areas and pergolas are not nominated. A condition of consent is recommended to require submission of a final common open space plan indicating paving treatments, pergolas and the like. The access to the common room was reconfigured to be accessible, with accessible WC and kitchen.

(d) In relation to articulated terraces:

- Council's external urban design expert requested that heights of the planters vary, and that the alignment of planters and balustrades vary as these were all the same. It is not understood from the plans that this element has been adopted and the alignment appears to be the same. A condition of consent has been recommended to require adoption of this aspect of the review, noting that the urban design review emphasised the importance of this aspect and its relevance to character and streetscape.

Subject to the recommended condition requiring adoption of the urban design landscape planter advice, it is assessed that the design has had adequate regard to Council's urban design review advice and is supported.

SEPP 65 and ADG Assessment

An assessment against the 'Design Quality Principles' of the SEPP is at **Table 1** below, and an assessment against the Apartment Design Guide is at **Table 2** below.

Table 1: Assessment Against Design Quality Principles	Discussion

<p>Principle 1: Context and Neighbourhood Character</p>	<p>Good design responds and contributes to its context.</p> <p>Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.</p> <p>Responding to context involves identifying the desirable elements of an area's existing or future character.</p> <p>Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.</p> <p>Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.</p>	<p>The proposal is for a 5 storey residential flat development in a R4 High Density zone. This is an appropriate land use for the neighbourhood as it complements the other residential developments in the street and is in accordance with the future vision of the area by providing denser housing commensurate with the uplift in zoning and height.</p> <p>The siting of the proposed development has taken its cue from nearby apartment development and in compliance with the ADG (also refer comments above).</p> <p>Additional street tree planting will occur as a result of one of the recommended conditions of consent and the proposal includes side boundary landscaping to provide a green buffer to the detached dwellings to the rear.</p> <p>As is discussed elsewhere in this report, a condition is recommended in relation to the requirement for an Arboricultural Assessment report to determine whether a mature tree located within the rear of the second most eastern allotment is worthy of retention and can be retained.</p>
<p>Principle 2: Built Form and Scale</p>	<p>Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.</p> <p>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.</p> <p>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</p>	<p>The development has been sited to provide compliant setbacks from all property boundaries, including 6m for lower levels and 9m for the fifth floor.</p> <p>The development is compliant with the PLEP height of buildings development standard of 18m.</p> <p>The building alignment and presentation to Hope Street is designed with deep soil planting areas fronting the street, private courtyards behind and individual entries to the street level apartments.</p>

Principle 3: Density	<p>Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.</p> <p>Appropriate densities are consistent with the area's existing or projected population.</p> <p>Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.</p>	<p>The development proposes 51 apartments across two x 5 storey buildings and provides for compliant basement car parking and landscaped area.</p> <p>The building envelope is restricted by controls relating to height, setbacks and deep soil planting. The proposed development complies with these core controls.</p> <p>Therefore, the density of the development is acceptable for the site.</p>
Principle 4: Sustainability	<p>Good design combines positive environmental, social and economic outcomes.</p> <p>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.</p> <p>Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.</p>	<p>The apartments are designed to have good solar access and cross ventilation.</p> <p>The proposal is accompanied by a BASIX Certificate.</p>

<p>Principle 5: Landscape</p>	<p>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity.</p> <p>A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.</p> <p>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.</p> <p>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.</p>	<p>The proposal has been amended to improve the landscape design of the development. The quantum of deep soil and landscaped area provided is compliant with the ADG numerical requirements.</p> <p>The landscaping within the front setback has been improved to accommodate comments from Council's external urban design expert and conditions of consent are recommended in relation to street tree planting and the design of landscaped planters.</p> <p>The ground floor communal areas contain areas of deep soil, planting on structure and provide suitable passive areas for entertaining and enjoyment including a kitchen area, barbeque and seating.</p>
<p>Principle 6: Amenity</p>	<p>Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.</p> <p>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.</p>	<p>The resulting amenity of the amended proposal is acceptable. The proposed apartments comply with the core ADG controls, including cross ventilation, solar access, privacy / separation, apartment sizes and storage.</p> <p>The communal room and adjoining communal open space have also been amended to respond to comments from Council's external urban design expert.</p>

Principle 7: Safety	<p>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.</p> <p>A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.</p>	<p>The development has been designed with four apartments fronting Hope Street, each having an access from the living room, to a private courtyard and then to the street at ground floor.</p> <p>Deep soil planting is also located between the street boundary and each private courtyard.</p> <p>The front entry to the development is wide and direct and covered at the lobby entry for each building.</p>
Principle 8: Housing Diversity and Social Interaction	<p>Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.</p> <p>Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.</p> <p>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.</p>	<p>The proposal provides a suitable mix of 1 bedroom, 2 bedroom, 3 bedroom and 4 bedroom apartments, as well as apartments which contain 'plus study' rooms.</p>
Principle 9: Aesthetics	<p>Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.</p> <p>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.</p>	<p>The proposed development will have a 4 storey street wall, with the fifth floor set back from the front building alignment and complies with the height standard and ADG setbacks.</p> <p>The materials and facade detailing also change according to these levels. The lower levels contain mostly painted and rendered walls with brick elements, including glass and masonry balustrades.</p> <p>The side elevations present as a combination of painted render and brick.</p>

Table 2: Assessment Against the Apartment Design Guide (ADG)

Part 3	Objective	Discussion	Complies
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3A-1	Design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context.	<p>A Site Analysis plan is included and has addressed the elements specified in Appendix 1 of the ADG.</p> <p>The proposal takes advantage of the site's northern orientation, provides suitable side and rear setbacks and continues the landscaped and open appearance of the rear setback of the adjoining, approved development.</p>	Yes
3B-1	Buildings types and layouts respond to the streetscape and site while optimising solar access.	<p>The building is orientated to front Hope Street.</p> <p>The 4 ground floor apartments fronting Hope Street will have a direct and private access to the street, and there are no apartments on the ground floor facing south.</p>	Yes

3B-2	Overshadowing of neighbouring properties is minimised during mid winter.	<p>The discussion below under Parts 3D and 4A demonstrates that the proposed apartments meet the design guidance of the ADG, with 36 of the proposed 51 apartments (70.5%) achieving solar compliance. The application includes detailed information about which apartments receive sunlight at what times in the applicant's 'eye of the sun study' document.</p> <p>Because of the northern orientation of the site and buildings, the shadows cast by the proposed development will not cause non-compliant shading of neighbouring properties with the exception of the rear yard on one dwelling house to the south at the winter solstice.</p> <p>A dwelling at no. 81 Derby Street will be most impacted with solar access to the rear yard reduced to between 12 midday and 2pm to around 40% of the rear yard. Greater solar access will be achieved in the summer months.</p> <p>It is expected that due to the zoning of this site that it will undergo re-development in the future, and it is not expected that a subtle redesign of the subject development will result in significantly greater solar access.</p> <p>In addition, the proposed development has compliant side and rear setbacks and is compliant in height (having been reduced from 6 to 5 storeys).</p> <p>Further, the dwelling's sitting area is located to the east of the dwelling, with this area maintaining existing levels of solar access from 11am through to 3pm. It is also noted that the rear yard is currently shaded by trees and shrubs which are proposed for removal.</p>	Yes, noting overshadowing to one property to the rear. See discussion.
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3C-1	Transition between private and public domain is achieved without compromising safety and security.	<p>The ground floor will contain four north facing apartments, one south/east and one south. All four north facing apartments will have direct frontage and access to Hope Street.</p> <p>The changes in level between the apartments and the street is managed by providing private courtyards (with a combination of hard surface and landscaping in a planter bed) with a portion of deep soil planting. Further, the apartments are set back 6m from the street.</p> <p>The front fencing along Hope Street is slat style fencing which allows some permeability.</p> <p>The main entry to each building is differentiated by a different design using a partial undercroft and separated entry ramps and each is provided with a glazed security door and full height windows.</p> <p>Upper level apartments facing Hope Street have windows orientated to the street to allow for passive surveillance.</p>	Yes
3C-2	Amenity of the public domain is retained and enhanced.	<p>Deep soil landscaping and planting on structure is proposed along the front of the development.</p> <p>The buildings are also set back 6m from the street alignment and will match the front setback of the other approved flat building developments and complies with the ADG.</p> <p>Although the proposed driveway is wider than a standard two way driveway (to enable waste truck access), planting is provided on either side of the driveway.</p> <p>Each building main entry is wide and is flanked by landscaping. Security gates and lobby doors provide access to well proportioned foyers.</p> <p>Hydrants and substations are a feature of the frontage although are landscaped and located near the vehicle entryway.</p>	Yes

3D-1	An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.	<p>The ADG suggests a design criteria of communal open space equal to 25% of the site. The proposed development provides a total of 795.5sqm of communal open space which equates to 25% of the site area. These common spaces are in the form of an internal communal room, ground floor common open space which is directly linked to the communal room and the centrally located and landscaped common area.</p> <p>The second design criteria is that at least 50% of the principal open space achieves 2 hours of sunlight between 9am and 3pm at winter solstice. The communal open space along the eastern side boundary achieves this (refer drawing DA27B).</p> <p>The applicant proposes the majority of the common open space areas centrally between the two buildings and includes an indoor area. These centrally located areas are coupled with the internally facing lobbies.</p> <p>Other areas of landscaping along the frontage and western elevation could be used as common open space although are secondary and passive in nature. These areas are accessible to all residents and are overlooked by the apartments above.</p>	Yes
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3D-2	Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.	<p>The design guidance in the ADG makes reference to providing seating for individuals and groups, barbeque and play areas and common rooms (amongst other suggestions). It also references winter sun, summer shade and concealing services.</p> <p>The proposed development meets these objectives. The rear setback contains denser landscaping with a pathway to passive areas of common open space. Seating, a barbeque area and a common room are provided centrally for residents and this includes a kitchen and accessible WC.</p> <p>The common room is linked by lobby entry points and the main entry ramps.</p>	Yes
3D-3	Communal open space is designed to maximise safety.	<p>The communal open space areas on the ground floor are visible from the apartments in the first floor and above as well as from the lobby areas (in the case of the central area).</p> <p>Access to the rear and western setback area is only via the central area or from the western side boundary frontage.</p> <p>Lighting and security will be in place to discourage unauthorised entry.</p>	Yes

3E-1	<p>Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. The design criteria for this site is to provide deep soil zones equal to 7% of the site area and having a minimum dimension of 6m.</p>	<p>1013.1sqm of deep soil planted areas are proposed. This equates to 31.84% of the site area, which complies with the ADG design criteria.</p> <p>The deep soil zone is mostly along the rear (in sections) and front setback area. These areas will contain suitable trees and landscaping. The rear setback area has a minimum dimension of 1.92m and 5.8m. The narrow setback was supported to allow for on-site waste collection and allowed a greater rear setback for the larger portion of the eastern side of the site.</p> <p>The deep soil within the frontage of the site varies from a minimum of 3.92m, 6.731m and 9.170m (near the driveway area) and the basement steps in and out to provide consolidated pockets of landscaping.</p> <p>This was accepted as a compromise to allow for on-site waste collection and a greater street setback. Planting on structure is included to supplement deep soil within the front setback as well as an additional deep soil pocket in the central courtyard between buildings.</p>	No, however acceptable.
3F-1	<p>Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.</p> <p>The design criteria requires the first 4 levels to be separated from side and rear boundaries by 6m, and for any levels between 5-8 to be separated by 9m (for habitable rooms).</p>	All setbacks and internal building separation distances comply with the ADG.	Yes

3F-2	<p>Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space.</p> <p>The ADG design guidance references:</p> <ul style="list-style-type: none"> • separating communal open space areas from private areas; • separating habitable rooms (bedrooms, living rooms) from other open gallery access spaces within the apartment; • positioning balconies in front of living rooms; • offsetting windows from adjacent developments; and • recessing balconies or using fins between adjacent balconies. 	<p>The proposal is provided with landscaping and fencing to allow for appropriate separation.</p> <p>The communal areas on the ground floor are contained within the south and central section of the development.</p> <p>The south facing apartment with a side interface with the common area is provided with a landscaped buffer to the common areas.</p> <p>Internally facing windows are not offset however are 12m apart and provided with screens.</p>	Yes
3G-1	<p>Building entries and pedestrian access connects to and addresses the public domain.</p>	<p>The ground floor street frontage will contain individual entries to ground floor apartments, via private courtyards and stairs flanked by landscaped planters. The front setback area is also landscaped and fenced in front of each of these courtyards.</p> <p>The main entry to each building will be identifiable. Each has an appearance and architectural treatment that is different from the private courtyards mentioned above. The entry will be via a wider ramp, flanked by planting with mail box structures and a secure gate.</p>	Yes
3G-2	<p>Access, entries and pathways are accessible and easy to identify.</p>	<p>The main entry to each building is clearly identifiable from the street and level access is provided. Foyer spaces provide good visibility to the lift and lobby areas.</p>	Yes
3H-1	<p>Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.</p>	<p>The entry to the basement car park is adequately integrated into the development with access directly off Hope Street.</p> <p>The basement ramp is located just behind the front building line. Landscaping along the driveway edges and around the adjacent substation is included.</p> <p>The waste collection arrangement is located to the rear of the building within the basement.</p>	Yes

3J-1	Car parking is provided based on proximity to public transport.	<p>The car parking spaces provided exceed the minimum requirements of Council's DCP, and are located within the basement levels.</p> <p>The proposal includes 64 residential spaces, 13 visitor spaces, 2 service spaces and a car wash bay.</p>	Yes
3J-2	Parking and facilities are provided for other modes of transport.	There are 14 secure bicycle parking spaces provided within the basement levels.	Yes
3J-3	Car park design and access is safe and secure.	The lift lobby areas within the basement levels have adequate circulation space and visibility. The storage cages within the basement are accessible for residents and the bicycle racks are positioned away from vehicle circulation areas.	Yes
3J-4	Visual and environmental impacts of underground car parking are minimised.	The car parking layout is well organised and logical, with aisles clear of structure. The basement levels are located below ground.	Yes
4A-1	<p>Optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.</p> <p>The design criteria states that:</p> <ul style="list-style-type: none"> • living rooms and private open spaces of at least 70% of apartments to receive 2 hours direct sunlight between 9am and 3pm mid-winter; and • a maximum of 15% of apartments receive no direct sunlight. 	<p>The drawings include plans showing daylight access to individual apartments, a shadow diagram, and the applicant has submitted an 'eye of the sun study'. These show that 36 of the total 51 apartments will achieve compliance with the design criteria. This equates to 70.6% which exceeds the 70% requirement.</p> <p>South facing apartments are minimised and will not receive direct sunlight. These equate to 13.7%. However, the amenity of these apartments is considered to be high and is acceptable.</p>	Yes

4A-2	<p>Daylight access is maximised where sunlight is limited.</p> <p>The design guidance makes reference to only using courtyards, skylights and high level windows as secondary light sources for habitable rooms, and using reflective and light coloured materials.</p>	<p>It is anticipated that the apartments mentioned above (Units 4, 10, 16, 25, 31, 37 and 43) will receive daylight because of the compliant setbacks from the rear boundary and the general sense of openness.</p> <p>However, it is also acknowledged that those 7 units sit behind the rear building line and have balconies facing into the rear, which may limit the amount of daylight received into parts of the space. Unit 25 has ground floor open space and is a 4 bedroom apartment with larger outdoor areas.</p>	Yes
4A-3	Design incorporates shading and glare control, particularly for warmer months.	<p>A selection of north facing apartments include vertical battens on part of the balconies which will allow for shading. The balcony floor of upper apartments will also provide shade to the balconies below.</p> <p>Parts of the communal area in the central shared zone will be shaded and other areas will be sunny.</p>	Yes
4B-1	All habitable rooms are naturally ventilated.	All habitable rooms have operable windows to allow natural breezes to flow through the spaces.	Yes
4B-2	<p>The layout and design of single aspect apartments maximises natural ventilation.</p> <p>The design guidance references limiting apartment depths relative to ceiling heights and that 8m is the maximum depth for a single aspect apartment (in an open plan scenario).</p>	The single aspect apartments are no deeper than 8m in the areas that are open plan living (combining living, dining and kitchen).	Yes
4B-3	<p>The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents.</p> <p>The design criteria states that 60% of apartments are naturally ventilated and that inlet and outlet windows are approximately of the same size.</p>	The drawings include ventilation diagrams on each level that indicate which apartments achieve cross ventilation. According to these drawings, the applicant shows that 34 of the total of 51 apartments achieve cross ventilation. This equates to 66.6% which complies with the 60% design guide.	Yes
4C-1	<p>Ceiling height achieves sufficient natural ventilation and daylight access.</p> <p>The design criteria references habitable rooms achieving a finished floor to ceiling height of 2.7m.</p>	The drawings show floor to floor heights of 3.1m to achieve a floor to ceiling height of 2.7m.	Yes

4D-1	<p>The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity.</p> <p>The design criteria states the following minimum internal floor areas: 1 bed – 50sqm 2 bed – 70sqm 3 bed – 90sqm</p> <p>Additional bathrooms increase minimum areas by 5sqm and all habitable rooms are to have BCA compliant windows in terms of size (glass area of not less than 10% of room size).</p>	<p>The proposed development includes 1, 2, 3 and 4 bedroom apartments, as well as apartments which are designed as a 'plus study' apartments.</p> <p>All proposed apartments are larger than the design criteria set out in the ADG.</p>	Yes
4D-2	<p>Environmental performance of the apartment is maximised.</p> <p>The design criteria references habitable room depths limited to 2.5 x ceiling height, and open plan layouts have a maximum depth of 8m from the window.</p>	<p>The proposed apartment depths comply with this requirement. Apartment depth in the open plan layout is not greater than 8m, measured from the window to the kitchen bench.</p>	Yes
4D-3	<p>Apartment layouts are designed to accommodate a variety of household activities and needs.</p> <p>The design criteria specifies:</p> <ul style="list-style-type: none"> • master bedrooms to be 10sqm and other bedrooms to be 9sqm; • bedrooms have minimum dimensions of 3m; • living rooms have minimum widths of 3.6m (for 1 bedders) and 4m (for 2/3 bedders); • cross-through apartments are at least 4m wide. 	<p>All apartments comply with this requirement.</p>	Yes
4E-1	<p>Apartments provide appropriately sized private open space and balconies to enhance residential amenity.</p> <p>The design criteria states that all apartments are to have primary balcony areas of the following size:</p> <ul style="list-style-type: none"> • 1 bed – 8sqm (2m deep); • 2 bed – 10sqm (2m deep); and • 3 bed – 12sqm (2.4m deep). <p>Ground floor apartments are to have at least 15sqm of private open space with a minimum depth of 3m.</p>	<p>All apartments either comply with, exceed or are acceptable having regard to the private open space size and area requirements.</p>	Yes

4E-2	<p>Primary private open space and balconies are appropriately located to enhance liveability for residents.</p>	<p>Balconies are located adjacent to living areas, they predominantly face north, east, or west, and have their longer side (length) facing outwards, so are suitably proportioned.</p>	Yes
4E-3	<p>Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building.</p> <p>The design guide suggests that front fences are visually permeable, full width-full height glass balustrades are avoided, operable screens are used, air-conditioning should be located on roofs or screened if on balconies.</p>	<p>The proposed development is acceptable.</p>	Yes
4F-1	<p>Common circulation spaces achieve good amenity and properly service the number of apartments.</p> <p>The design criteria states that no more than 8 apartments can be accessed off a circulation core.</p> <p>The design guidance suggests that greater corridor widths improve amenity, daylight and natural ventilation should be provided, and primary windows should not open onto the corridor.</p>	<p>Circulation spaces and lobby areas all are provided with high amenity and glazing over the central court.</p>	Yes
4F-2	<p>Common circulation spaces promote safety and provide for social interaction between residents.</p>	<p>The proposed foyer areas are direct and provide legible access to all apartments, also having no pinch points. The generally rectangular shape of the foyer areas would also allow residents to meet and greet each other in the spaces, if desired, which are wider at the glazing and would provide areas for interaction and could accommodate a bench seat or chair.</p>	Yes
4G-1	<p>Adequate, well designed storage is provided in each apartment.</p> <p>The design criteria requires additional storage as follows:</p> <ul style="list-style-type: none"> • 1 bed – 4 cubic metres; • 2 bed – 6 cubic metres; and • 3 bed – 10m cubic metres, with 50% of that space in the apartment. 	<p>The floor plans show a designated space allocated for this storage within each apartment. Adequate storage is also provided in the basement.</p>	Yes

4G-2	Additional storage is conveniently located, accessible and nominated for individual apartments.	There are 52 storage cages located in the basement levels.	Yes
4H-1 and 4H-2	<p>Noise transfer is minimised through the siting of buildings and building layout.</p> <p>Noise impacts are mitigated with apartments through layout and acoustic treatments.</p>	<p>Compliant building separation is proposed in accordance with the ADG objectives.</p> <p>Windows within apartments are generally located to open out towards the property boundaries.</p>	Yes
4K-1 and 4K-2	<p>A range of apartment types and sizes is provided to cater for different household types and into the future.</p> <p>The apartment mix is distributed to suitable locations within the building.</p>	<p>The development proposes a range of apartment sizes and configurations, the mix being:</p> <ul style="list-style-type: none"> • 2 x 1 bedroom; • 36 x 2 bedroom; • 12 x 3 bedroom; and • 1 x 4 bedroom apartments. 	Yes
4L-1 and 4L-2	<p>Street frontage activity is maximised where ground floor apartments are located.</p> <p>Design of ground floor apartments delivers amenity and safety for residents.</p>	<p>Four apartments are located on the ground floor with frontage to the street. Each will have a direct access to Hope Street via an individual path to a private courtyard.</p> <p>Deep soil landscaping and planters are located in front of each private courtyard and this will provide a green buffer between the living spaces and the street. The courtyards are also contained in a slat style fence.</p>	Yes
4M-1 and 4M-2	<p>Building facades provide visual interest along the street while respecting the character of the local area.</p> <p>Building functions are expressed by the facade.</p>	<p>The building facades were amended to address comments made by Council's planner and external urban design expert.</p> <p>A variety of materials and finishes are proposed, the building entry points are clearly defined, slab edges are used to frame sections of facade and lighter weight metal cladding is used for the upper levels.</p>	Yes
4N-1, 4N-2 and 4N-3	<p>Roof treatments are integrated into the building design and positively respond to the street.</p> <p>Opportunities to use roof space for residential accommodation and open space are maximised.</p> <p>Roof design incorporates sustainability features.</p>	The proposed roof is generally flat with an expressed slab edge that caps the building.	Yes

4O-1 and 4O-2	<p>Landscape design is viable and sustainable.</p> <p>Landscape design contributes to the streetscape and amenity.</p>	<p>The proposal was amended to respond to comments from Council's external urban design expert. Specifically, the landscape design was altered to provide more planting and higher amenity communal areas.</p> <p>Deep soil landscaping in the front setback is also proposed and a variety of areas in the building contain landscaping on structure, including the central terrace and raised planters flanking the north facing courtyards.</p>	Yes
4P-1, 4P-2, and 4P-3	<p>Planting on structures contributes to the quality and amenity of communal and public open spaces.</p>		
4Q-1, 4Q-2 and 4Q-3	<p>Universal design features are included in apartment design to promote flexible housing for all community members.</p> <p>The design guidance makes references to a 'silver level' in the Livable Housing Guideline and seven core design features.</p>	<p>It is considered that the proposed development achieves these principles as the following is included in the proposed development:</p> <ul style="list-style-type: none"> • A safe, continuous and step free path of travel from the street entrance to the apartment entrance; • Internal doors and corridors facilitate comfortable and unimpeded movement between spaces; • An accessible toilet is provided on the ground level that provides easy access. This is located next to the communal room. 	Yes
4U-1, 4U-2 and 4U-3	<p>Development incorporates passive environmental design.</p> <p>Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer.</p>	<p>Adequate natural daylight, sunlight and ventilation is provided to apartments as per the design criteria of the ADG.</p> <p>Shading is provided by balcony overhangs, shade devices and planting.</p>	Yes
4V-1, 4V-2, and 4V-3	<p>Potable water is minimised. Urban stormwater is treated on site before being discharged to receiving waters. Flood management systems are integrated into site design.</p>	<p>The stormwater/civil drawings were amended to address initial concerns raised by Council's Waterways and Engineering Units. The amended and additional information submitted has satisfied the technical requirements of Council.</p>	Yes

4W-1 and 4W-2	<p>Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents.</p> <p>Domestic waste is minimised by providing safe and convenient source separation and recycling.</p>	<p>The proposed development includes provision for on-site waste collection by Council's waste trucks. The driveway to Hope Street is wider so as to allow the waste truck to use the driveway along the western side boundary. The waste access driveway is separated from the resident/visitor vehicle driveway.</p> <p>Council's Waste Officer raises no objection to the proposed arrangement for waste collection.</p> <p>In addition, the building includes waste chutes on all upper floors, a bulky waste room in the basement and waste infrastructure in the basement.</p>	Yes
4X-1, 4X-2 and 4X-3	<p>Building design detail provides protection from weathering.</p> <p>Systems and access enable ease of maintenance.</p> <p>Material selection reduces ongoing maintenance costs.</p>	<p>The design and materials selected are acceptable.</p>	Yes

Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

An assessment has been undertaken of the proposal against relevant criteria within 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

Provision	Compliance
Clause 1.2 Aims of the plan	Complies
Clause 2.3 Permissibility	Complies
Clause 2.3 Zone objectives	Complies
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	Complies - See discussion
Clause 4.4 Floor Space Ratio	N/A
Clause 4.6 Exceptions to development standards	N/A
Clause 7.1 Earthworks	Complies
Clause 7.4 Sustainable development	Complies
Clause 7.6 Salinity	Complies
Clause 7.7 Servicing	Complies

Clause 4.3 Height of buildings

An 18m height of building development standard applies to the subject lots under PLEP 2010. The application originally proposed two x 6 storey apartment buildings containing a combined total of 60 apartments with two levels of shared basement car parking containing 97 vehicles and a shared ground floor podium. The original application proposed a maximum height of 18.7m and was accompanied by a written request to vary the height of building development standard under PLEP Clause 4.6.

The application has since been amended and now proposes two x 5 storey buildings containing a total of 51 apartments each with a maximum height of approximately 17.41m, which complies with the 18m LEP development standard. The applicant has confirmed that a written request to vary the height of building development standard is no longer required.

Section 4.15(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 bush land, 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 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.

While 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.

SEPP Design and Place

In February 2021, the Department of Planning, Industry and Environment (DPIE) exhibited an Explanation of Intended Effect (EIE) for a new State Environmental Planning Policy, called the 'Design and Place SEPP'. The exhibition period for the EIE was to 31 March 2021. The proposed new SEPP seeks to integrate and align good design and place considerations into planning policy. It will apply to subdivision of new residential estates and residential flat buildings. Its focus is to start with Connecting with Country as a foundation for place-based design, and to then create five guiding principles:

- 1) Design places with beauty and character;
- 2) Design inviting public spaces;
- 3) Design productive and connected places;
- 4) Design sustainable and greener places; and
- 5) Design resilient and diverse places.

The EIE refers to how the COVID-19 pandemic has changed how people live and work, such as the community's need for public space, recreation and destinations that are walkable from their homes, and areas in their homes from which to work from.

The proposed SEPP will replace SEPP 65 - Design Quality of Residential Apartment Development, and SEPP (Building Sustainability Index: BASIX) 2004. The new SEPP will be accompanied by two (revised and new) guidance documents; a revised Apartment Design Guide (ADG) and a new Urban Design Guide (UDG). Some of the changes indicated in the Draft EIE are as follows:

- Clarifying that the design criteria are mandatory;
- Simplifying the method for calculating solar access, and increasing the range of hours a development may achieve solar access;
- Requiring ceiling fans for habitable rooms with 2.7m ceiling heights;
- Increasing natural cross-ventilation requirements to 70% of units;
- Increasing the number of units suitable for a growing ageing population and families with children through livable housing targets;
- 20% of 2 (or more) bedroom units are to be 'family units' providing a minimum 12sqm bedroom size for all bedrooms (this is relating to flexible and varying layouts);
- Decreasing the amount of storage to be provided within the units from 50% to one-third;
- Decoupling criteria for communal open space and common rooms to provide flexibility in the provision of both, based on the size of the development and households, such as removing the 25% of site area control with a unit mix / occupancy metric; and
- Requiring natural light and ventilation to common circulation spaces.

Section 6.4 of the EIE states that there will be savings provisions and it is expected that the SEPP will be made by the end of 2021. Therefore, the current proposal before the Panel is to be considered under the current State planning controls (BASIX and SEPP 65). However, having regard to the future draft SEPP, the proposed development is still considered to result in an acceptable design outcome, subject to the recommended conditions. Many of the apartments exceed the relevant internal design criteria in the ADG, solar access and cross-ventilation is fully compliant, the amount of communal open space exceeds the ADG minimum and suitable landscaping is provided in the setback areas.

Draft Penrith LEP Amendments

The development application is not impacted by Council's Planning Proposals which have been the subject of public exhibition.

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

Development Control Plan 2014

Provision	Compliance
DCP Principles	Complies
C1 Site Planning and Design Principles	Complies
C2 Vegetation Management	Complies
C3 Water Management	Complies
C4 Land Management	Complies
C5 Waste Management	Complies
C6 Landscape Design	Complies
C7 Culture and Heritage	N/A
C8 Public Domain	Complies
C9 Advertising and Signage	N/A
C10 Transport, Access and Parking	Complies
C11 Subdivision	N/A
C12 Noise and Vibration	Complies
C13 Infrastructure and Services	Complies
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	Complies
D2.6 Non Residential Developments	N/A

Section 4.15(1)(a)(iiia) The provisions of any planning agreement

There are no planning agreements in place applying to the site or development application.

Section 4.15(1)(a)(iv) The provisions of the regulations

The proposed development is supportable having regard to the applicable matters for consideration under the Environmental Planning and Assessment Regulation 2000, subject to the recommended conditions of consent.

Section 4.15(1)(b) The likely impacts of the development

Impacts Related to Redevelopment of Site for Higher Density Development

The demolition of existing dwellings and the construction of two residential flat buildings in the location will result in impacts on streetscape and will result in some overshadowing and view impacts. The site is zoned to permit the development which is compliant with the maximum permissible height expressed for

the site under PLEP. The design of the development includes measures to protect the privacy of adjacent low density sites in that setbacks comply with the building separation requirements of the ADG (refer discussion under SEPP 65) and dwelling balconies largely face the street or to the rear.

Solar impacts resulting from the development affect properties to the south and in particular the rear open space and rear elevation of a dwelling at no. 11 Derby Street. The rear yard of this allotment will have no direct solar access between 9am and approximately 12 midday at the winter solstice and then will have limited solar access from 12 midday to 2pm and then again after approximately 3pm.

It is not considered that further reducing the height of the development or other design alterations will provide greater solar access to this dwelling without sterilising the development potential of the subject site beyond that which would be feasible, and in this respect, the impacts are reasonable. The design of the development (having the common open space centrally located) does allow for some solar access to be maintained in the winter months to no. 11 Derby Street.

With respect to views and privacy, ground level fencing and landscaping will assist in blocking direct views to neighbouring developments and upper level views will be distant and not downward owing to the built form separation.

Access, Traffic and Parking

The application is accompanied by a Traffic and Parking Assessment. This report assesses the development in terms of the existing and proposed traffic conditions, traffic generation, access arrangements, roads, car parking and public transport accessibility.

Hope Street is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to property frontages. Kerb side parking is generally permitted on both sides of the road and the legal speed limit is 50km per hour. Hope Street connects to Parker Street to the east and Colless Street to the west.

The proposal includes 77 car parking spaces, being 64 resident spaces (3 of which are accessible), 13 visitor spaces (including 2 accessible spaces), 1 car wash bay as well as 2 additional service car parking spaces. The Penrith DCP requires 64 residential car spaces, 10.2 spaces for visitors, 1 car wash bay and 2 service bays. The proposal fully complies with the DCP controls for car parking numbers.

Council's Traffic Engineer has reviewed the proposal and stated that the existing road network can accommodate the expected increase in traffic as a result of the proposed development. Council's Traffic Engineer has also reviewed the driveway and basement design and has confirmed that these areas are acceptable and conditions have been recommended.

Accessibility

The proposal includes 3 accessible car parking spaces for residents and 2 accessible car parking spaces for visitors. All common areas of the development are accessible and an Access Report was submitted to support the development proposal. It is noted that the access report has not been updated to reflect the amended design and unit numbers. Notwithstanding, a condition of consent is recommended to require compliance with the applicable recommendations of the report.

Demolition and Tree / Vegetation Removal

The proposal includes the demolition of all of the buildings on the site. This includes the five single detached dwellings and their outbuildings (sheds, garages and a pool). Standard conditions of consent are recommended in relation to the control of noise, dust and mud and in relation to unexpected finds.

Conditions of consent are recommended in relation to reviewing trees on the site which may be able to be retained post development and in relation to the provision of street trees. The landscape plans propose a mix of trees, shrubs and ground covers as replacement plantings and are acceptable.

Construction Impacts

Impacts in the form of noise, truck movements and traffic will occur during the construction phase of the development. It is noted that these will be temporary and can be managed through the recommended conditions of consent.

Section 4.15(1)(c) The suitability of the site for the development

The site is assessed to be suitable for the proposed development. The landscaping and common areas are adequate to offset the impacts of the development in the selected location. The site can be drained and serviced sufficiently and the use is complementary to other approved uses in the site's context. The environmental impact of the development have been assessed as acceptable having regard to the applicable planning instruments, guides and policies and in this respect the application is supportable.

Section 4.15(1)(d) Any Submissions

Community Consultation

The application was publicly exhibited and notified to surrounding landowners and occupiers in accordance with Council's Community Consultation Policy. This included notification letters and a notice in the local newspaper. Three submissions and one petition have been received. Matters raised in the submissions are addressed in the table below.

Submission Comment:	Response:
Impacts of over development. Penrith becoming like Parramatta. Too many high rise developments. Over population.	<p>The land is zoned R4 High Density Residential, which allows the type of residential flat development being proposed. It is acknowledged that the area is changing from traditional single dwellings to higher density living. The location of the site near the Nepean Hospital precinct, two train stations and the Penrith commercial centre, makes it suitable for increased residential density.</p> <p>The development is assessed as largely compliant with the applicable controls for the R4 High Density Residential area.</p>
Traffic, parking and congestion.	<p>Council's Traffic Engineer has reviewed the proposal and has not raised objections, noting that the local road network is sufficient to accommodate the additional dwellings.</p> <p>The Traffic Report submitted with the application is acceptable and the proposed number of car parking spaces complies with Council's DCP rates.</p>

<p>The reduction in open spaces in the area, noting impacts of COVID lockdowns.</p> <p>Impact of reduced yard areas for playing being detrimental to the suburb well being.</p> <p>Social impacts will result.</p>	<p>It is agreed that traditional 'open spaces' being the large rear yards of traditional dwellings provide greater living space and opportunity for private recreation and that these will not be provided as a result of the development. However, the site is zoned for higher density living and the communal open spaces provided are considered adequate when supplemented by local public open space.</p> <p>The proposed development includes compliant setbacks, with deep soil landscaping in the front, rear and side in order to provide some visually soft buffers to the site's edges and common open space and balconies are of a compliant size.</p> <p>There are not expected to be any ongoing social impacts resulting from the development, noting the high amenity unity layouts and compliant design.</p> <p>It is understood that the redevelopment of the site will cause stress to those persons who have raised objection, although it is noted that the area was re-zoned to R4 High Density Residential under PLEP 2010 and that community consultation was undertaken at that time.</p>
<p>Disturbance during construction, basement excavation and other construction processes - noise, dirt, odours, impacts to health.</p> <p>Damage to private property will occur.</p>	<p>The excavation and construction stages of a development do cause disturbance while those processes are occurring. Council applies standard conditions of consent and regulations to mitigate these impacts. In addition, the excavation and construction phases are limited in time and will come to an end.</p> <p>Concerned residents can contact Council's Development Compliance Unit in relation to hours of construction, noise and dust. The Compliance Unit is able to investigate and take action if warranted.</p> <p>The development site notice is required to contain the contact details of the building firm and the Principal Certifying Authority, who is the first point of contact, and in most cases would be better positioned to act quickly on receiving concerns.</p> <p>Issues related to property damage can also be reported to the police.</p>

<p>Loss of sunlight will result.</p>	<p>Some loss of sunlight to properties on the southern side of a development site will often be expected. Both NSW state (through SEPP 65) and local Council controls (Penrith DCP) try to limit this impact by restricting the duration and amount of overshadowing permitted by a re-development.</p> <p>While the proposal will cast additional overshadowing to back yards of dwellings adjoining the site to the rear, it is considered that the shadows cast have been reduced as far as is reasonable considering the zoning of the land and through the reduction in the height of the development (from 6 to 5 storeys).</p> <p>It should also be noted that the adjoining properties to the rear (fronting Derby Street) are also located in the R4 High Density Residential zone and therefore there might be some expectation that these dwelling lots may develop in the future.</p>
<p>Overlooking from apartments will occur.</p>	<p>It is expected that there will be a change to the sense of overlooking experienced by the dwellings to the south and west of the site. This is because existing single dwellings will be replaced with a multi-storey residential flat development.</p> <p>However, the proposed building is fully compliant with the Apartment Design Guide with regard to setbacks (building separation).</p> <p>The lower floors of the buildings will be set back 6m from the site boundaries, and the upper fifth floor will be set back by 9m. In addition, the proposal was amended to include more dense vegetation and tree planting in the setbacks and it is expected that when established, this will act as a visual green buffer between properties.</p>
<p>Height non-compliance should not be supported.</p>	<p>The design of the development has been amended to reduce the overall height from 6 storeys to 5 storeys. The development is now compliant with the applicable height under PLEP of 18m.</p>

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	No objections - subject to conditions
Environmental - Environmental management	No objections - subject to conditions
Environmental - Waterways	No objections - subject to conditions
Waste Services	No objections - subject to conditions
Traffic Engineer	No objection subject to conditions
Community Safety Officer	No objections - subject to conditions

Section 4.15(1)(e)The public interest

The proposal is considered to be in the public interest as it will provide an increased supply of housing in the area, with apartments having a good level of amenity, and the resulting development being of a suitable bulk and scale with landscaped edges.

Section 94 - Developer Contributions Plans

The following Section 7.11 development contributions plans apply to the proposal:

- Penrith City District Open Space Facilities
- Penrith City Cultural Facilities
- Penrith City Local Open Space

The following Section 7.11 calculations apply to the proposed development.

Residential Apartment Development					
<i>Local and District Open Space</i>					
No. of units	x	Rate	-	Credit for existing dwelling/s	Contribution rate
51	x	2	-	$3.1 \times 5 = 15.5$	86.5
<i>Cultural Facilities</i>					
No. of units	x	Rate	-	Credit for existing dwelling/s	Contribution rate
51	x	2.4	-	$3 \times 5 = 15$	107.4
AMOUNT					
S.7.11 Contributions Plan		Contribution Rate x Calculation Rate			Total
District Open Space Facilities		107.4 x \$194.00			\$20,836.00
Local Open Space		86.5 x \$739.00			\$63,924.00
Cultural Facilities		86.5 x \$2,043.00			\$176,720.00
		NET TOTAL			\$261,480.00

Conditions requiring payment of the applicable development contributions are recommended.

Conclusion

The proposed development has been amended to have regard to issues raised by Council in its initial review and having regard to the matters raised by Council's external urban design expert and has been reduced in overall density from 60 units to 51 units and has been reduced in height from 6 storeys to 5 storeys.

The proposal under the amended development application has now addressed and resolved issues relating to the previously refused scheme for the site and it is considered that the proposed development is a well thought out design that provides appropriate setbacks, landscaped edges, good quality communal areas and ADG compliant apartments, and subject to the recommended conditions, should be supported.

In addition, the proposed development provides for appropriate on-site waste collection, the bulk and height of the proposal has been reduced, the number of apartments has been reduced and a mix of communal open spaces is provided at ground floor.

The proposed development is acceptable on planning and design grounds, subject to the recommended conditions. Other internal units of Council have raised no objection to the amended design, subject to conditions. The Development Application is therefore recommended for approval.

Recommendation

1. That DA20/0164 for the demolition of structures, tree removal, construction of two x 5 storey residential flat buildings containing 51 apartments and two levels of shared basement parking, landscaping and civil works at 16-24 Hope Street, Penrith, be approved, subject to the following conditions; and
2. That those making submissions are notified of the determination.

General

1 [A001 - Approved plans table](#)

The development must be implemented substantially in accordance with the following supporting documents and plans submitted with the application (except as may be amended by the conditions of this consent):

- Traffic and Parking Assessment Report, prepared by Stanbury Traffic Planning, Reference 19-201-2, dated April 2021;
- Construction Waste Management Plan, prepared by Peter Morson, and Operational Waste Management Plan, Reference 18006 16-24 Hope Street_Waste management - Waste Section document;
- Preliminary Assessment Report, prepared by Banksia EnviroSciences, dated 15 April 2021;
- Access Report, prepared by Vista Access Architects, revision B, dated 18-03-2020, reference no. 18148;
- BASIX Certificate No. 947968M_03; and
- The following drawings:

Drawing Title	Drawing No.	Revision Number	Prepared By	Dated
Cover Plan	DA01	D	Morson Group	15/06/2021
3D Views	DA02	D	Morson Group	15/06/2021
3D Views	DA03	D	Morson Group	15/06/2021
Statement of Design	DA04	B	Morson Group	01/04/2021
SEPP 65 and Design Criteria	DA05	B	Morson Group	01/04/2021
Site Analysis	DA06	B	Morson Group	01/04/2021
Site Plan	DA07	B	Morson Group	01/04/2021
Site Analysis Streetscape	DA08	B	Morson Group	01/04/2021
Demolition Plan	DA09	B	Morson Group	01/04/2021
Basement 2	DA10	B	Morson Group	01/04/2021
Basement 1	DA11	B	Morson Group	01/04/2021
Ground Floor Plan	DA12	D	Morson Group	15/06/2021
Level 1	DA13	B	Morson Group	01/04/2021
Level 2	DA14	B	Morson Group	01/04/2021
Level 3	DA15	B	Morson Group	01/04/2021
Level 4	DA16	B	Morson Group	01/04/2021
Roof Plan	DA17	C	Morson Group	25/08/2021
North Elevation	DA19	D	Morson Group	15/06/2021
East Elevation	DA20	C	Morson Group	15/06/2021
West Elevation	DA21	C	Morson Group	15/06/2021
South Elevation	DA22	B	Morson Group	01/04/2021
Central Elevations	DA23	C	Morson Group	15/06/2021
North-South Section 1	DA24	D	Morson Group	15/06/2021
North-South Section 2	DA25	D	Morson Group	15/06/2021
East-West Section	DA26	C	Morson Group	07/05/2021
Detailed Section 2	DA26D	B	Morson Group	16/06/2021
Solar Access Study	DA27	B	Morson Group	01/04/2021
Solar COS	DA27B	B	Morson Group	01/04/2021
Window Schedule & Adaptable Units	DA28	C	Morson Group	25/08/2021
Daylight Access	DA29	A	Morson Group	17/03/2020
Daylight Access	DA30	A	Morson Group	17/03/2020
Material Schedule	DA31	B	Morson Group	01/04/2021

Section 1-50	DA32	B	Morson Group	15/06/2021
Nathers	DA33	A	Morson Group	25/08/2021
Stormwater Plans				
Cover Sheet Plan	000	C	ACE Civil	27/07/2018
Stormwater Concept Plan Basement Level 2 Sheet 1 of 2	101	E	ACE Civil	16/07/2021
Stormwater Concept Plan Basement Level 2 Sheet 2 of 2	102	D	ACE Civil	18/03/2021
Stormwater Concept Plan Basement Level 1	103	E	ACE Civil	16/07/2021
Stormwater Concept Plan Level 1	104	E	ACE Civil	16/07/2021
On-Site Detention Calculations Sheets Sheet 1 of 2	105	F	ACE Civil	16/07/2021
On-Site Detention Details and Calculation Sheet 2 of 2	105.1	E	ACE Civil	16/07/2021
Misc. Details Sheet	106	C	ACE Civil	18/03/2021
Landscape Plans				
Landscape Plan	L-01/2	D	RFA Landscape Architects	14/07/2021
Landscape Plan	L-02/2	D	RFA Landscape Architects	14/07/2021

2 [A001a Special \(Design and Landscaping Amendments\)](#)

Prior to the issue of any Construction Certificate for the development, amended landscape and architectural plans are to be submitted to and approved by the Manager of Development Services at Penrith City Council.

The amended plans are to incorporate the following:

- (a) For security and privacy reasons, separated and recessed, individual access is to be provided to apartments 02 and 29 off the central entry pathways.
- (b) The landscape planters and deep soil areas along the frontage of the site are to be amended to reflect Council's urban design advice and attached mark-up prepared by Brett Newbold dated 21 May 2021, to the satisfaction of Council.
- (c) A final ground floor outdoor common open space plan indicating fencing, paving treatments, pergolas and landscape treatments and levels.
- (d) Any trees identified and approved for retention in the Council approved Arboricultural Report (as required by Condition 3), be retained and protected and the location of any such tree(s) be noted on plans.

3 [A001b Special \(Arborist Report\)](#)

Prior to the issue of any Construction Certificate for the development, an Arboricultural Impact Assessment is to be submitted to and approved by the Manager of Development Services at Penrith City Council. The report is to provide an assessment of trees located on and adjacent to the site and is to identify any trees which may be retained and protected throughout the re-development of the site.

4 [A008 - Works to BCA requirements \(Always apply to building works\)](#)

The work must be carried out in accordance with the requirements of the Building Code of Australia. If the work relates to a residential building and is valued in excess of \$20,000, then a contract of insurance for the residential development shall be in force in accordance with Part 6 of the Home Building Act 1989.

{Note: Residential building includes alterations and additions to a dwelling, and structures associated with a dwelling house/dwelling such as a carport, garage, shed, rural shed, swimming pool and the like.}

5 **A014 - LOT CONSOLIDATION**

All five lots that make up the subject development site, being Lots 29, 30, 31, 32 and 33 in Deposited Plan 31239, are to be consolidated as one lot. Written evidence that the request to consolidate the lots has been lodged with NSW Land Registry Services is to be submitted to the certifying authority before the Construction Certificate for the development can be issued by the certifier.

A copy of the registered plan of consolidation from NSW Land Registry Services is to be submitted to the Principal Certifying Authority (PCA) and Penrith City Council, if Council is not the PCA, prior to the issue of the Occupation Certificate for the development.

6 **A019 - OCCUPATION CERTIFICATE (ALWAYS APPLY)**

The development shall not be used or occupied until an Occupation Certificate has been issued.

7 **A046 - Obtain Construction Certificate before commencement of works**

A **Construction Certificate** shall be obtained prior to commencement of any building works.

8 **A047 - Mail Box Structures and Fencing**

Prior to the issue of a construction certificate, a plan indicating the selected materials for all ground floor and podium fencing and the design and details of security gates and mailbox structures is to be provided to the Manager of Development Services at Penrith City Council for review and approval.

This condition is imposed to ensure that fencing and mailbox structures are appropriately located, are suitably integrated into the architectural and landscape design of the development and that these elements are of suitable high quality, to ensure that the streetscape presentation is enhanced.

9 **A048 - Design and Building Practitioners - Particulars for Regulated Designs Order 2021**

Prior to the issue of a Construction Certificate, evidence of compliance with the Design and Building Practitioners - Particulars for Regulated Designs Order 2021 is to be provided to the satisfaction of the Certifying Authority, for any excavation, shoring and anchoring works that traverse a property boundary. This includes evidence of a registered easement over a neighbouring property granting the right to install such works as required.

10 **A Special (Accessibility)**

A minimum of 5 apartments shall be constructed as adaptable apartments to meet the requirements for persons with a disability and in accordance with the stamped approved plans. The adaptable units shall each be allocated an accessible car parking space compliant with AS 2890.6 and shall be evenly distributed throughout the building and not be concentrated in any one area or level.

The Construction Certificate application must be accompanied by certification from a person suitably qualified and experience professional, confirming that the adaptable dwellings are capable of being modified, when required by the occupant, to comply with the Australian Housing Standard (AS 4299-2009). The WC provided within the common area at ground floor is to be accessible.

A Compliance Certificate in relation to the above, shall be provided prior to the issue of an Occupation Certificate.

11 **A Special (Air conditioning and screening of plant machinery and utilities)**

Any air conditioning units installed on individual apartment balconies are to be set back from the outer edge of the balcony and are not to be mounted on the wall above the balustrade level. All roof mounted plant, ducting or services infrastructure shall be setback so as to be screened from view. No approval is granted for the installation of ducting, conduit, stormwater drainage, plant machinery or services infrastructure on the external facades of the building.

12 [A Special \(Crane and Hospital Proximity - Helipad\)](#)

Prior to the erection of any crane or any temporary construction structure at a height greater than the roof of the subject development, written notice shall be provided to Council and the Nepean Blue Mountains Local Health District at least 21 days prior to the erection, indicating at least the following:

- Name of responsible company and relevant contact details.
- Dimensions (height, length, etc.)
- Length of time that such a crane or structure will be erected on site.
- The management plan and measures that will ensure that the crane or structure will be of least possible impact on flight operations for Ambulance NSW.

Any crane or any temporary construction structure erected at a height greater than the roof of the subject development shall comply with the following:

- Be equipped with medium intensity steady red lighting positioned at the highest point and at each end of the boom/jib and counter boom/jib, such that the lighting will provide an indication of the height of the crane and the radius of the crane boom/jib. Such lighting, which should be displayed at all times of the day and night, should be positioned so that when displayed it is visible from all directions.

13 [A Special \(Regs 98E - Shoring and adequacy of adjoining property\)](#)

For the purposes of Section 4.17(11) of the Act, it is a prescribed condition of this development consent that if the development involves an excavation that extends below the level of the base of the footings of a building, structure or work (including any structure or work within a road or rail corridor) on adjoining land, the person having the benefit of this development consent must, at the person's own expense:

- (a) protect and support the building, structure or work from possible damage from the excavation, and
- (b) where necessary, underpin the building, structure or work to prevent any such damage.

Further to the above and **prior to the commencement of any excavation works**, a dilapidation report is to be prepared and submitted to Council. The report is to record and detail the existing state of surrounding assets and structures including those located on adjacent private property.

14 [A Special Cladding](#)

The external walls of the building including attachments must comply with the relevant requirements of the National Construction Code (NCC). Prior to the issue of a Construction Certificate and Occupation Certificate the Certifying Authority and Principal Certifying Authority must:

- (a) Be satisfied that suitable evidence is provided to demonstrate that the products and systems proposed for use or used in the construction of external walls including finishes and cladding such as synthetic or aluminium composite panels comply with the relevant requirements of the NCC; and
- (b) Ensure that the documentation relied upon in the approval processes include an appropriate level of detail to demonstrate compliance with the NCC as proposed and as built.

15 A Special CPTED Requirements

The following community safety and crime prevention through environmental design (CPTED) requirements are required to be implemented:

(a) Lighting

- All outdoor/public spaces throughout the development must be lit to the minimum Australian Standard of AS 1158. Lighting must be consistent in order to reduce the contrast between shadows and illuminated areas and must be designed in accordance with AS 4282 - Control of the obtrusive effects of outdoor lighting.

(b) Basement Car Parking

- A security system must be installed on any pedestrian and vehicle entry/exit points to the car park, including the lift and stairwell, to minimise opportunities for unauthorised access.
- All areas of the car park must be well-lit, with consistent lighting to prevent shadowing or glare.
- Car park surfaces including walls and ceilings are to be light coloured with details included with the **Construction Certificate** application.
- Storage facilities/cages must be sturdy, vandal resistant and well secured.

(c) Building Security & Access Control

- Intercom, code or card locks or similar must be installed for all entries to the buildings.
- Australian Standard 220 door and window locks must be installed in all dwellings.
- Access to common areas must be restricted to residents and their visitors.
- CCTV is to be provided to cover communal public space areas, in particular the basement car park entry/exit. Cameras must be of sufficient standard to be useful for police in the event of criminal investigations. Lighting must be provided to support cameras at night (alternatively infra-red cameras are recommended). Signage must be displayed to indicate that CCTV cameras are in use.
- Letterboxes must be positioned to be opened from within a secure space only (i.e. residential lobby area).

(d) Graffiti/Vandalism

- Graffiti resistant coatings must be used to external surfaces where possible, including signage, furniture, retaining walls, etc.
- Procedures must be in place to ensure the prompt removal and/or repair of graffiti or vandalism to the buildings, fencing, and common areas. This includes reporting incidents to police and/or relevant authorities.

(e) Landscaping

- All vegetation must be regularly pruned to ensure that sight lines are maintained.

Demolition

16 B002 - AS FOR DEMOLITION AND DISPOSAL TO APPROVED LANDFILL SITE

All demolition works are to be conducted in accordance with the provisions of AS 2601-2001 "The Demolition of Structures". **Prior to demolition**, all services shall be suitably disconnected and capped off or sealed to the satisfaction of the relevant service authority requirements.

All demolition and excavated material shall be disposed of at a Council approved site or waste facility. Details of the proposed disposal location(s) of all excavated material from the development site shall be provided to the Principal Certifying Authority **prior to commencement of demolition**.

17 B003 - ASBESTOS

You should read Council's Fact Sheet titled "Handling and Disposal of Fibrous Cement Products" **before any demolition works commence on the site.**

Prior to commencement of demolition works on site, a portaloo with appropriate washing facilities shall be located on the site and the Principal Certifying Authority is to be satisfied that:

- Measures are in place so as to comply with the WorkCover Authority's "Short Guide to Working with Asbestos Cement", and
- The person employed to undertake the works is a licensed asbestos removal contractor and is holder of a current WorkCover Asbestos Licence.

Any demolition works involving the removal of all asbestos shall only be carried out by a licensed asbestos removal contractor who has a current WorkCover Asbestos Licence.

All asbestos laden waste, including asbestos cement flat and corrugated sheeting, must be disposed of at a tipping facility licensed by the Environment Protection Authority to receive asbestos wastes.

18 B004 - Dust

Dust suppression techniques are to be employed during demolition and construction works to reduce any potential nuisances to surrounding properties.

19 B005 - Mud/Soil

Mud and soil from vehicular movements to and from the site during works must not be deposited on the road.

20 B006 - Hours of work

Demolition works shall be restricted to the following hours in accordance with the NSW Environment Protection Authority Noise Control Guidelines:

- Mondays to Fridays, 7am to 6pm
- Saturdays, 7am to 1pm if inaudible on neighbouring residential premises, otherwise 8am to 1pm
- No demolition work is permitted on Sundays and Public Holidays.

In the event that the demolition relates to works inside the building, does not involve external walls or the roof and does not involve the use of equipment that emits noise, then the demolition works are not restricted to the hours stated above.

The provisions of the Protection of the Environment Operations Act 1997 in regulating offensive noise also apply to all construction works.

21 B Special

Prior to the commencement of demolition works, a Hazardous Materials Survey is to be conducted on the existing structures to be demolished by an appropriately qualified consultant(s). The Hazardous Materials Survey is to be prepared in accordance with:

- AS 2601-2001 "The Demolition of Structures", and
- Preliminary Site Investigation prepared by Banksia EnviroSciences (dated 15 April 2021, ref. 18006/16-24).

The associated investigations are to be carried out to assess the location, extent and condition of hazardous building materials including, but not limited to, the following:

- Asbestos;
- Synthetic mineral fibres (SMF);
- Polychlorinated biphenyls (PCBs);
- Lead-containing paint;
- Ozone depleting substances;
- Lead dust in ceiling cavities.

The survey is to provide recommendations for the removal of the hazardous materials, including the preparation of safe work method statements and risk assessments to appropriately address health and safety issues. SafeWork NSW requirements apply to demolition work and compliance with those requirements, including the SafeWork NSW Code of Practice Demolition Work (August 2019), is required.

All demolition works are to be conducted in accordance with the recommendations made in the approved Hazardous Materials Survey.

Heritage/Archaeological relics

22 C003 - Uncovering relics

If any archaeological relics are uncovered during the course of the construction and excavation work, no further activities shall be undertaken until further directed by Penrith City Council or the NSW Heritage Office/Department of Planning, Industry and Environment.

The applicant is advised that depending on the possible significance of relics or items of Aboriginal cultural heritage, an archaeological assessment and applicable permits issued under the Heritage Act 1977 may be required before any work can be recommenced.

Environmental Matters

23 D001 - Implement approved sediment& erosion control measures

Erosion and sediment control measures shall be installed **prior to the commencement of works on site** including approved clearing of site vegetation. The erosion and sediment control measures are to be maintained in accordance with the approved erosion and sediment control plan(s) for the development.

The approved sediment and erosion control measures are to be installed **prior to and maintained throughout the construction phase of the development until the landscaping, driveway and on-site parking areas have been completed for the development**. These measures shall ensure that mud and soil from vehicular movements to and from the site does not occur during the construction of the development.

24 D006 - No filling without prior approval (Use always, except for bulk earthworks/ major fill operations)

No fill material shall be imported to the site until such time as a Validation Certificate (with a copy of any report forming the basis for the validation) for the fill material has been submitted to, considered and approved by Council. The Validation Certificate shall:

- state the legal property description of the fill material source site,
- be prepared by an appropriately qualified person (as defined in Penrith Development Control Plan) with consideration of all relevant guidelines (e.g. EPA, ANZECC, NH&MRC), standards, planning instruments and legislation,
- clearly indicate the legal property description of the fill material source site,
- provide details of the volume of fill material to be used in the filling operations,
- provide a classification of the fill material to be imported to the site in accordance with the Environment Protection Authority's "Environmental Guidelines: Assessment, Classification & Management of Non-Liquid Wastes" 1997, and
- (based on the fill classification) determine whether the fill material is suitable for its intended purpose and land use and whether the fill material will or will not pose an unacceptable risk to human health or the environment.

{Note: Penrith Development Control Plan defines an appropriately qualified person as "a person who, in the opinion of Council, has a demonstrated experience, or access to experience in hydrology, environmental chemistry, soil science, eco-toxicology, sampling and analytical procedures, risk evaluation and remediation technologies. In addition, the person will be required to have appropriate professional indemnity and public risk insurance."}.

If the Principal Certifying Authority or Penrith City Council is not satisfied that suitable fill materials have been used on the site, further site investigations or remediation works may be requested. In these circumstances the works shall be carried out prior to any further approved works.

25 D009 - Covering of waste storage area

All waste materials stored on-site during works are to be contained within a designated area such as a waste bay or bin to ensure that no waste materials are allowed to enter the stormwater system or neighbouring properties. The designated waste storage areas shall provide at least two waste bays / bins so as to allow for the separation of wastes, and are to be fully enclosed when the site is unattended.

26 **D010 – Appropriate disposal of excavated or other waste**

All excavated material and other wastes generated as a result of the development are to be re-used, recycled or disposed of in accordance with the approved waste management plan.

Waste materials not specified in the approved waste management plan are to be disposed of at a lawful waste management facility. Where the disposal location or waste materials have not been identified in the waste management plan, details shall be provided to the Certifying Authority as part of the waste management documentation accompanying the Construction Certificate application.

All receipts and supporting documentation must be retained in order to verify lawful disposal of materials and are to be made available to Penrith City Council on request.

27 **D014 - Plant and equipment noise**

The operating noise level of plant and equipment shall not exceed 5dB(A) above the background noise level when measured at the boundaries of the premises. The provisions of the Protection of the Environment Operations Act 1997 apply to the development, in terms of regulating offensive noise.

28 **D020 - Vehicle wash bay**

All vehicle washing and steam cleaning shall be conducted in a wash bay approved, installed and connected to the sewer in accordance with Sydney Water's requirements.

Details of the vehicle wash bay including the Section 73 Certificate issued by Sydney Water for the discharge of trade waste from the site shall be submitted to the Principal Certifying Authority before the wash bay can be installed.

At no time is wastewater generated from the vehicle wash bay to be directed into the stormwater drainage system.

29 **D026 - Liquid wastes**

Only clean and unpolluted water is to be discharged into Penrith City Council's stormwater drainage system. Liquid wastes suitable for discharge to the mains sewer are to be discharged in accordance with Sydney Water requirements.

If mains sewer is not available or if Sydney Water will not allow disposal to the sewer, then a licensed waste contractor is to remove the liquid waste from the site to an appropriate waste facility.

The waste contractor and waste facility are to hold the relevant licenses issued by the NSW Environment Protection Authority.

30 **D Special BLANK**

Prior to the issue of the Construction Certificate, a Construction Noise and Vibration Impact Management Plan is to be prepared and submitted to Council for approval. This assessment is to consider (at minimum) the details of the construction program, construction methods, equipment and vehicles in association with the (then) NSW Department of Environment and Climate Change's "Interim Construction Noise Guideline" 2009.

The recommendations of the approved Management Plan are to be implemented and adhered to during the construction phase of the development.

31 **D Special BLANK**

No wastewater resulting from, or associated with, the excavation and construction phase of the development, is permitted to enter Council's stormwater system. All wastewater from the site is to be removed by a licensed transporter and disposed of at an EPA licensed waste facility. All receipts and supporting documentation must be retained in order to verify lawful disposal of wastewater and are to be made available to Penrith City Council on request.

Should approval be obtained from Sydney Water for the discharge of any wastewater from the excavation and construction phase of the development, to the sewer, evidence and details of this approval are to be submitted to both Council and the Certifying Authority prior to the commencement of works.

32 **D Special BLANK**

An Unexpected Finds Protocol (the Protocol) is to be developed by an appropriately qualified environmental consultant. **Prior to the issue of a Construction Certificate**, the Protocol is to be submitted to Council and approved. If Council is not the certifying authority for the development, the Protocol is required to be provided to Penrith City Council for approval.

The Protocol is to address, at minimum, the management of any contamination found on the site during the excavation/construction phase of the development, including at minimum, contaminated soils, groundwater, buried building materials, asbestos, odour and staining.

The above Protocol is to be complied with at all times during the excavation and construction phase of the development.

33 **D Special BLANK**

The following waste management requirements must be satisfied:

- (a) All waste collection infrastructure, doors and access points are to be locked/accessed through an Abloy Key System. System specifications are outlined in Section 3.5.5 of the 'Residential Flat Building Waste Management Guideline' document.
- (b) Waste areas are to be provided with a centralised mixing valve and hose cock and the floor area is to be provided with drainage. All floor wastes are to connect to the sewer.
- (c) The chute inlets on each residential level are to be located within cupboards (maximum depth of 150mm) and incorporate dual doors and appropriate ventilation.
- (d) All on-site waste collection areas are to be provided with:
 - automatic lighting and mechanical ventilation to applicable building code requirements,
 - 180-degree outwards opening doors,
 - unobstructed internal height clearances of 2600mm free from external services and utilities.

34 **D Special BLANK**

Prior to the issue of an Occupation Certificate, those acting on the consent are to enter into a written agreement with Penrith City Council for the utilisation of Council's waste collection service. This is to include Council being provided with indemnity against claims for loss and damage.

BCA Issues

35 **E001 - BCA compliance**

All aspects of the building design shall comply with the applicable performance requirements of the Building Code of Australia so as to achieve and maintain acceptable standards of structural sufficiency, safety (including fire safety), health and amenity for the on-going benefit of the community. Compliance with the performance requirements can only be achieved by:

- (a) complying with the deemed to satisfy provisions, or
- (b) formulating an alternative solution which:
 - complies with the performance requirements, or
 - is shown to be at least equivalent to the deemed to satisfy provision, or
- (c) a combination of (a) and (b).

Utility Services

36 **G002 - Section 73 (not for**

A Section 73 Compliance Certificate under the Sydney Water Act 1994 shall be obtained from Sydney Water. The application must be made through an authorised Water Servicing Coordinator. Please refer to "Your Business" section of Sydney Water's website at www.sydneypwater.com.au then the "e-developer" icon, or telephone 13 20 92.

The Section 73 Compliance Certificate must be submitted to the Principal Certifying Authority prior to the issue of any Occupation Certificate for the development.

37 [G004 - Integral Energy](#)

Prior to the issue of a Construction Certificate, a written clearance is to be obtained from Endeavour Energy stating that electrical services have been made available to the development or that arrangements have been entered into for the provision of services to the development.

In the event that a pad mounted substation is necessary to service the development, Penrith City Council shall be consulted over the proposed location of the substation before the Construction Certificate for the development is issued as the location of the substation may impact on other services and building, driveway or landscape design already approved by Council.

38 [G006 -](#)

Prior to the issue of a Construction Certificate, the Principal Certifying Authority shall be satisfied that telecommunications infrastructure may be installed to service the premises which complies with the following:

- The requirements of the Telecommunications Act 1997;
- For a fibre ready facility, the NBN Co's standard specifications current at the time of installation; and
- For a line that is to connect a lot to telecommunications infrastructure external to the premises, the line shall be located underground.

Unless otherwise stipulated by telecommunications legislation at the time of construction, the development must be provided with all necessary pits and pipes, and conduits to accommodate the future connection of optic fibre technology telecommunications.

Prior to the issue of an Occupation Certificate, written certification from all relevant service providers that the telecommunications infrastructure is installed in accordance with the requirements above and the applicable legislation at the time of construction, must be submitted to the Principal Certifying Authority.

Construction

39 [H001 - Stamped plans and erection of site notice](#)

Stamped plans, specifications, a copy of the development consent, the Construction Certificate and any other Certificates to be relied upon shall be available on site at all times during construction.

The following details are to be displayed in a maximum of 2 signs to be erected on the site:

- the name of the Principal Certifying Authority, their address and telephone number,
- the name of the person in charge of the work site and telephone number at which that person may be contacted during work hours,
- that unauthorised entry to the work site is prohibited,
- the designated waste storage area must be covered when the site is unattended, and
- all sediment and erosion control measures shall be fully maintained until completion of the construction phase.

Signage but no more than 2 signs stating the above details is to be erected:

- at the commencement of, and for the full length of the, construction works on site, and
- in a prominent position on the work site and in a manner that can be easily read by pedestrian traffic.

All construction signage is to be removed when the Occupation Certificate has been issued for the development.

40 H002 - All forms of construction

Prior to the commencement of construction works:

(a) Toilet facilities at or in the vicinity of the work site shall be provided at the rate of one toilet for every 20 persons or part of 20 persons employed at the site. Each toilet provided must be:

- a standard flushing toilet connected to a public sewer, or
- if that is not practicable, an accredited sewage management facility approved by Council, or
- alternatively, any other sewage management facility approved by Council.

(b) All excavations and backfilling associated with the erection or demolition of a building must be executed safely and in accordance with the appropriate professional standards. All excavations associated with the erection or demolition of a building must be properly guarded and protected to prevent them from being dangerous to life or property.

(c) If an excavation associated with the erection or demolition of a building extends below the level of the base of the footings of a building on an adjoining allotment of land, the person causing the excavation to be made:

- must preserve and protect the building from damage, and
- if necessary, must underpin and support the building in an approved manner, and
- must, at least 7 days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation to the owner of the building being erected or demolished. The owner of the adjoining allotment of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land, (includes a public road and any other public place).

(d) If the work involved in the erection or demolition of a building is likely to cause pedestrian or vehicular traffic in a public place to be obstructed or rendered inconvenient, or involves the enclosure of a public place, a hoarding or fence must be erected between the work site and the public place:

- if necessary, an awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place,
- the work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place, and
- any such hoarding, fence or awning is to be removed when the work has been completed.

41 H006 - Implement waste management plan

The approved waste management plan must be implemented on-site and adhered to throughout all stages of the development including demolition, with supporting documentation / receipts retained in order to verify the recycling and disposal of materials in accordance with the approved plan.

42 H022 - Survey

The building shall be set out by a registered surveyor. A Survey Certificate shall be undertaken and submitted to the Principal Certifying Authority when the building is constructed to ground floor slab level.

43 H041 - Hours of work (other devt)

Construction works that are carried out in accordance with an approved consent that involve the use of heavy vehicles, heavy machinery and other equipment likely to cause offence to adjoining properties shall be restricted to the following hours in accordance with the NSW Environment Protection Authority Noise Control Guidelines:

- Mondays to Fridays, 7am to 6pm
- Saturdays, 7am to 1pm (if inaudible on neighbouring residential premises), otherwise 8am to 1pm
- No work is permitted on Sundays and Public Holidays.

Other construction works carried out inside a building/tenancy and that do not involve the use of equipment that emits noise are not restricted to the construction hours stated above.

The provisions of the Protection of the Environment Operations Act 1997 in regulating offensive noise also apply to all construction works.

Engineering

44 **K101 - Works at no cost to Council**

All roadworks, stormwater drainage works, signage, linemarking, associated civil works and dedications, required to effect the consented development shall be undertaken by the applicant at no cost to Penrith City Council.

45 **K201 - Infrastructure Bond**

An Infrastructure Restoration Bond is to be lodged with Penrith City Council for development involving works around Penrith City Council's Public Infrastructure Assets. The bond is to be lodged with Penrith City Council prior to commencement of any works on site or prior to the issue of any Construction Certificate, whichever occurs first. The bond and applicable fees are in accordance with Council's adopted Fees and Charges.

An application form together with an information sheet and conditions are available on Council's website.

Contact Penrith City Council's Asset Management Department on 4732 7777 or visit Penrith City Council's website for more information.

46 **K202 - S138 Roads Act – Works and Structures - Minor Works in the public road DRIVEWAYS ROAD OPENINGS**

Prior to the issue of any Construction Certificate, a Section 138 Roads Act application, including payment of application and inspection fees together with any applicable bonds, shall be lodged and approved by Penrith City Council (being the Roads Authority for any works required in a public road). These works may include but are not limited to the following:

- a) Road opening for utilities (service lead in works and under grounding of existing services)
- b) Road occupancy or road closures
- c) The placement of hoardings, structures, containers, waster skips, signs, etc in the road reserve
- d) Temporary construction access
- e) Temporary ground anchors (for basement construction)

All works shall be carried out in accordance with the Roads Act approval, the development consent, including the stamped approved plans, and Penrith City Council's specifications, guidelines and best engineering practice.

Contact Penrith City Council's Asset Management Department on 4732 7777 or visit Penrith City Council's website for more information.

Note:

- Where Penrith City Council is the Certifying Authority for the development, the Roads Act approval for the above works may be issued concurrently with the Construction Certificate.
- All works associated with the Roads Act approval must be completed prior to the issue of any Occupation Certificate.

47 **K203 - S138 Roads Act – Works and structures - Roadworks requiring approval of civil drawings. CIVIL CONSTRUCTION IN THE ROAD RESERVE**

Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that a Section 138 Roads Act application, including payment of application and inspection fees, has been lodged with, and approved by Penrith City Council (being the Roads Authority under the Roads Act), for driveway, footpath, landscaping, kerb inlet pit and stormwater works in the Hope Street road reserve fronting the development.

As part of this Section 138 Roads Act approval, the application is required to demonstrate that the proposed driveway layback will achieve a minimum 1m clearance to both the existing and proposed kerb inlet pits in close proximity to this layback. This approval shall include any works that may be required to achieve this outcome.

Engineering plans are to be prepared in accordance with the development consent, Penrith City Council's Design Guidelines for Engineering Works for Subdivisions and Developments, Engineering Construction Specification for Civil Works, Austroads Guidelines and best engineering practice.

Contact Penrith City Council's Development Engineering Department on 4732 7777 to obtain a formal fee proposal prior to lodgement and visit Penrith City Council's website for more information.

Note:

- Where Penrith City Council is the Certifying Authority for the development, the Roads Act approval for the above works may be issued concurrently with the Construction Certificate.
- All works associated with the Roads Act approval must be completed prior to the issue of any Occupation Certificate.

48 **K210 - Stormwater Management**

The stormwater management system shall be consistent with plans lodged for development approval, prepared by Ace Civil Stormwater Services Pty Ltd, project number 180919, dated 16/07/2021.

Engineering plans and supporting calculations for the stormwater management systems are to be prepared by a suitably qualified person and shall accompany the application for a Construction Certificate.

Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that the stormwater management system has been designed in accordance with Penrith City Council's Stormwater Drainage for Building Developments and Water Sensitive Urban Design (WSUD) policies.

49 **K222 - Access, Car Parking and Manoeuvring – General**

Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that vehicular access, circulation, manoeuvring, pedestrian and parking areas associated with the subject development are in accordance with AS 2890.1, AS 2890.2, AS 2890.6 and Penrith Development Control Plan.

50 **K224 - Construction Traffic Management Plan**

Prior to the commencement of any works on-site (including demolition works) or prior to the issue of any Construction Certificate, whichever occurs first, a Construction Traffic Management Plan (CTMP) shall be submitted to Council's City Assets Department for endorsement. The CTMP shall be prepared by a suitably qualified consultant with appropriate training and certification from Transport for NSW (TfNSW). The CTMP shall include details of any required road closures, work zones, loading zones and the like. Approval of the CTMP may require approval of the Local Traffic Committee. Please contact Council's Asset Management Department on 4732 7777 and refer to Council's website for a copy of the Temporary Road Reserve Occupancy Application Form.

51 **K225 - Performance Bond**

Prior to the issue of a Roads Act Approval, a Performance Bond is to be lodged with Penrith City Council for driveway, footpath, landscaping, kerb inlet pit and stormwater works in the Hope Street road reserve fronting the development.

The value of the bond shall be determined in accordance with Penrith City Council's adopted Fees and Charges.

Note:

- Contact Penrith City Council's Development Engineering Department on 4732 7777 for further information relating to bond requirements.

52 **K226 - Basement Geotechnical Testing/ Dilapidation Report**

Prior to the issue of a Construction Certificate, a geotechnical investigation report and strategy shall be submitted to the Certifying Authority to ensure stability of the Council infrastructure and surrounding developments. The geotechnical investigation, report and strategy shall comply with the recommendations contained in the technical direction GTD 2012/001 prepared by the Road and Maritime Services, as amended.

53 **K228 - Dilapidation Report**

The developer shall undertake a dilapidation report for all surrounding buildings and Council owned infrastructure that confirms that no damage occurs due to the excavations associated with the development. If Council is not the Certifying Authority, the dilapidation report shall be submitted to Council prior to Construction Certificate issue and then updated and submitted prior to any Occupation Certificate issue confirming no damage has occurred.

54 **K301 - Sediment & Erosion Control**

Prior to commencement of works, sediment and erosion control measures shall be installed in accordance with the approved Construction Certificate and to ensure compliance with the Protection of the Environment Operations Act 1997.

The erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised.

55 **K405 - Turf to Verge**

Upon completion of all works in the road reserve, all verge areas fronting and within the development are to be turfed. The turf shall extend from the back of kerb to the property boundary, with the exception of concrete footpaths, service lids or other infrastructure which is not to be turfed over. Turf laid up to concrete footpaths, service lids or other infrastructure shall finish flush with the edge.

56 **K406 - Underground Services**

All existing (aerial) and proposed services for the development, including those across the frontage of the development, are to be located or relocated underground in accordance with the relevant authority regulations and standards.

57 **K501 - Penrith City Council clearance – Roads Act/ Local Government Act**

Prior to the issue of any Occupation Certificate, the Principal Certifying Authority shall ensure that all works associated with a Section 138 Roads Act approval have been inspected and signed-off by Penrith City Council.

58 **K503 - Works as executed – General and Compliance Documentation**

Prior to the issue of an Occupation Certificate, works-as-executed drawings, final operation and maintenance management plans and any other compliance documentation shall be submitted to the Principal Certifying Authority in accordance with Penrith City Council's Engineering Construction Specification for Civil Works, WSUD Technical Guidelines and Stormwater Drainage for Building Developments policy.

An original set of works-as-executed drawings and copies of the final operation and maintenance management plans and compliance documentation shall also be submitted to Penrith City Council with notification of the issue of the Occupation Certificate where Penrith City Council is not the Principal Certifying Authority.

59 **K504 - Stormwater Compliance**

Prior to the issue of any Occupation Certificate, the Principal Certifying Authority shall ensure that the:

- a) Stormwater management systems (including on-site detention and water sensitive urban design)
- b) Basement pump out systems

- Have been satisfactorily completed in accordance with the approved Construction Certificate and the requirements of this consent.
- Have met the design intent with regard to any construction variations to the approved design.
- Any remedial works required to be undertaken have been satisfactorily completed.

Details of the approved and constructed systems shall be provided as part of the works-as-executed drawings.

60 **K505 - Restriction as to User and Positive Covenant**

Prior to the issue of any Occupation Certificate, a restriction as to user and positive covenant relating to the:

- a) Stormwater management systems (including on-site detention and water sensitive urban design)
- b) Basement pump out systems

shall be registered on the title of the property. The restriction as to user and positive covenant shall be in Penrith City Council's standard wording as detailed in Penrith City Council's Stormwater and Drainage for Building Developments policy.

61 **K509 - Linemarking & Signage**

Prior to the issue of any Occupation Certificate and installation of regulatory / advisory linemarking and signage, plans are to be lodged with Penrith City Council and approved by the Local Traffic Committee.

Note:

- Contact Penrith City Council's Engineering Services Department on 4732 7777 for further information on this process.
- Allow eight (8) weeks for approval by the Local Traffic Committee.
- Applicable fees are indicated in Council's adopted Fees and Charges Schedule.

62 **K515 - Maintenance Bond**

Prior to the issue of any Occupation Certificate, a Maintenance Bond is to be lodged with Penrith City Council for driveway, footpath, landscaping, kerb inlet pit and stormwater works in the Hope Street road reserve fronting the development.

The value of the bond shall be determined in accordance with Penrith City Council's adopted Fees and Charges Schedule.

Note:

- Contact Penrith City Council's Engineering Services Department on 4732 7777 for further information relating to bond requirements.

63 **K601 - Stormwater management system operation and maintenance**

The stormwater management systems shall continue to be operated and maintained in perpetuity for the life of the development in accordance with the final operation and maintenance management plan.

Regular inspection records are required to be maintained and made available to Penrith City Council on request. All necessary improvements are required to be made immediately upon awareness of any deficiencies in the stormwater management systems.

64 **K Special (BLANK)**

Prior to the issue of a Construction Certificate, a signage and line marking plan for proposed on-street parking changes (on the northern and southern side of Hope Street), to be instated as Marked Parking Bays as per the "Park In Marked Bays Only" scheme currently in place on Hope Street, must be submitted to Council for endorsement via the Local Traffic Committee.

The plan will be subject to consultation with affected residents as part of the Local Traffic Committee process. Due to the timing of Local Traffic Committee meetings, the reporting period prior, and the need for the Committee's recommendations to be endorsed at Council's Ordinary Meeting, a time frame of approximately 10 weeks is required from the time an accepted signage and line marking plan is received by Council for assessment.

65 **K Special (BLANK)**

Prior to the issue of a Construction Certificate, a Traffic Management Plan is to be prepared and is to be submitted to Council for approval. The Plan shall include all details of the installation and management of the proposed traffic control signal system proposed for installation in relation to waste service vehicle access to the basement. The Plan shall include, but not limited to, the provision of:

- The product and its specifications (including signage and signal lantern dimensions and clearances, with any associated details of loop detectors, signal output controllers and the like).
- Details of swipe card/security/activation/trip/manual activation mechanisms/intercom use and/or positional sensors and their operation (whether in-ground or surface-mounted for vehicle detection).
- Signal programming details with regard to "revert to" and "dwell" for green and red signals (for ingressing and egressing vehicles).
- Nominated system wait times and pre-set clearance timing.
- Instructions on use of the system to be given to waste vehicle drivers.
- Installation and maintenance details from the installer (including a copy of the user operation manual, or the like).
- Contingencies in the event of a system failure.

66 **K Special (BLANK)**

The required sight lines around the driveway entrance are not to be compromised by landscaping, fencing or signage.

67 **K Special (Enter and Leave in Forward Direction)**

All vehicles are to enter and exit in a forward direction.

Landscaping

68 **L001 - General**

All landscape works are to be constructed in accordance with the stamped approved plans noted at Condition 1 and in accordance with Chapter C6 of the Penrith Development Control Plan. Landscaping shall thereafter be maintained in accordance with the approved plans, in a healthy state, and in perpetuity by the existing or future owners and occupiers of the property. If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity as the vegetation which died or was removed. Any such replacement planting must occur within 6 months of the former vegetation dying or being removed, or within the next relevant seasonal cycle.

69 **L002 - Landscape construction**

The approved landscaping for the site must be constructed by a suitably qualified and experienced landscape professional.

70 **L003 - Report requirement**

The following series of reports relating to landscaping are to be submitted to the Certifying Authority at the appropriate time periods as listed below. These reports shall be prepared by a suitably qualified and experienced landscape professional.

i. **Implementation Report**

On completion of the landscape works associated with the development and prior to the issue of any Occupation Certificate for the development, an Implementation Report must be submitted attesting to the satisfactory completion of the landscaping works for the development.

An Occupation Certificate should not be issued until such time as a satisfactory Implementation Report has been received. If Penrith City Council is not the Certifying Authority, a copy of the satisfactory Implementation Report is to be submitted to Council together with the Occupation Certificate for the development.

ii. **Maintenance Report**

On the first anniversary of the date of the Occupation Certificate issued for the development, a Landscape Maintenance Report is to be submitted to Penrith City Council certifying that the landscape works are still in accordance with the development consent and the plant material is alive and thriving.

71 **L006 - Aust Standard**

All landscape works are to meet industry best practice and the following relevant Australian Standards:

- AS 4419 Soils for Landscaping and Garden Use,
- AS 4454 Composts, Soil Conditioners and Mulches, and
- AS 4373 Pruning of Amenity Trees.

72 **L007 - Tree protectionmeasures–no TMPwith DA**

All trees that are required to be retained as part of the development are to be protected in accordance with the minimum tree protection standards prescribed in Chapter C6 of the Penrith Development Control Plan.

73 **L008 - Tree PreservationOrder**

No trees are to be removed, ringbarked, cut, topped or lopped or wilfully destroyed (other than those within the proposed building footprint or as shown on the approved plans) without the prior consent of Penrith City Council and in accordance with Council's Tree Preservation Order and Policy.

74 **L013 - Street Trees**

Prior to the issue of any Occupation Certificate, street trees are to be planted at a rate of one tree per existing lot (or to the satisfaction of the Manager of Development Services). Prior to the planting of street trees, approval of the selected plant species, location and pot size of the street trees is to be approved by Penrith City Council (as the relevant Roads Authority). In this regard, please contact Council's Development Services Department on 4732 7991.

Development Contributions

75 **N001a - Section 7.11 Contributions (Cultural Facilities)**

This condition is imposed in accordance with Penrith City Council's Section 7.11 Contributions Plan for Cultural Facilities. Based on the current rates detailed in the accompanying schedule attached to this Notice, \$176,720.00 is to be paid to Council prior to the issue of any Construction Certificate issued for this development (the rates are subject to quarterly reviews).

If not paid within the current quarterly period, this contribution will be reviewed at the time of payment in accordance with the adopted Section 7.11 Contributions Plan. The projected rates of this contribution amount are listed in Council's Fees and Charges Schedule.

Council should be contacted prior to payment to ascertain the rate for the current quarterly period. The Section 7.11 invoice accompanying this consent should accompany the contribution payment. The Section 7.11 Contributions Plan for Cultural Facilities may be inspected at Council's Civic Centre, 601 High Street, Penrith and is also available on Council's website.

Note: The timing of contributions payable may be otherwise affected in accordance with Planning Circular PS 20-003 dated 3 July 2020 and the associated NSW Government Ministerial Direction - Infrastructure Contributions.

76 **N001b - Section 7.11 contribution (District Open Space)**

This condition is imposed in accordance with Penrith City Council's Section 7.11 Contributions Plan for District Open Space Facilities. Based on the current rates detailed in the accompanying schedule attached to this Notice, \$20,836.00 is to be paid to Council prior to the issue of any Construction Certificate issued for this development (the rates are subject to quarterly reviews).

If not paid within the current quarterly period, this contribution will be reviewed at the time of payment in accordance with the adopted Section 7.11 Contributions Plan. The projected rates of this contribution amount are listed in Council's Fees and Charges Schedule.

Council should be contacted prior to payment to ascertain the rate for the current quarterly period. The Section 7.11 invoice accompanying this consent should accompany the contribution payment. The Section 7.11 Contributions Plan for District Open Space Facilities may be inspected at Council's Civic Centre, 601 High Street, Penrith and is also available on Council's website.

Note: The timing of contributions payable may be otherwise affected in accordance with Planning Circular PS 20-003 dated 3 July 2020 and the associated NSW Government Ministerial Direction - Infrastructure Contributions.

77 **N001c - Section 7.11 contribution (Local Open Space)**

This condition is imposed in accordance with Penrith City Council's Section 7.11 Contributions Plan for Local Open Space. Based on the current rates detailed in the accompanying schedule attached to this Notice, \$63,924.00 is to be paid to Council prior to the issue of any Construction Certificate issued for this development (the rates are subject to quarterly reviews).

If not paid within the current quarterly period, this contribution will be reviewed at the time of payment in accordance with the adopted Section 7.11 Contributions Plan. The projected rates of this contribution amount are listed in Council's Fees and Charges Schedule.

Council should be contacted prior to payment to ascertain the rate for the current quarterly period. The Section 7.11 invoice accompanying this consent should accompany the contribution payment. The Section 7.11 Contributions Plan for Local Open Space may be inspected at Council's Civic Centre, 601 High Street, Penrith and is also available on Council's website.

Note: The timing of contributions payable may be otherwise affected in accordance with Planning Circular PS 20-003 dated 3 July 2020 and the associated NSW Government Ministerial Direction - Infrastructure Contributions.

Payment of Fees

78 **P002 - Fees associated with Council land (Applies to all works & add K019)**

Prior to the commencement of any works on site, all fees associated with Penrith City Council-owned land and infrastructure shall be paid to Council. These fees include Road Opening fees and Infrastructure Restoration fees.

Certification

79 **Q01F - Notice of Commencement & Appointment of PCA2 (use for Fast Light only)**

Prior to the commencement of any earthworks or construction works on site, the proponent is to:

- (a) employ a Principal Certifier to oversee that the said works carried out on the site are in accordance with the development consent and related Construction Certificate issued for the approved development, and with the relevant provisions of the Environmental Planning and Assessment Act and accompanying Regulation, and
- (b) submit a Notice of Commencement to Penrith City Council.

The Principal Certifier shall submit to Council an "Appointment of Principal Certifier" notice in accordance with Section 6.6 of the Environmental Planning and Assessment Act 1979.

Information to accompany the Notice of Commencement

Two (2) days before any earthworks or construction/demolition works are to commence on site (including the clearing site vegetation), the proponent shall submit a "Notice of Commencement" to Council in accordance with Section 6.6 of the Environmental Planning and Assessment Act 1979.

80 **Q05F - Occupation Certificate**

An Occupation Certificate is to be obtained from the Principal Certifying Authority on completion of all works and prior to the occupation/use of the development.

The Certificate shall not be issued if any conditions of this consent, but not the conditions relating to the operation of the development, are outstanding.

A copy of the Occupation Certificate and all necessary documentation supporting the issue of the Certificate is to be submitted to Penrith City Council, if Council is not the Principal Certifying Authority.

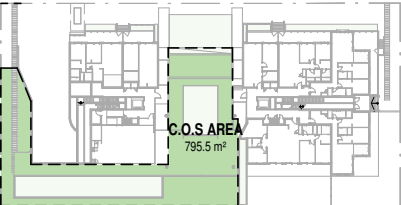
18006 - PROPOSED RESIDENTIAL DEVELOPMENT

16-24 HOPE STREET, PENRITH 2750

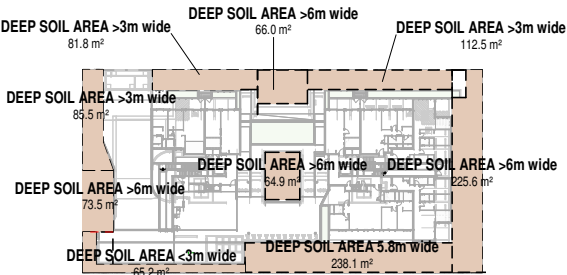


Development Details		
Site Area		3182m ²
Gross Floor Area (GFA)		5247m ²
Zoning		R4 High Density Residential
	Allowable	Proposed
Floor Space Ratio (FSR)*	N/A	1.65:1
Total Storeys		5
Communal Open Space % of Site Area^	25%	795.5m ² 25%
Deep Soil Zones % of Site Area^	7%	430m ² 14%

*LEP REQUIREMENT
^SEPP 65 REQUIREMENT
REFER SHEET DA02 FOR DETAILS



COS - GROUND
1 : 750



DEEP SOIL DIAGRAM
1 : 750

UNITS TYPES		
Type		Count
1 BED	Adaptable	2
2 BED		32
2 BED	Adaptable	4
3 BED		7
3 BED	Livable	5
4 BED		1
		51

GROSS FLOOR AREA	
Level	Area
GROUND LEVEL (TOWER 2)	876.5 m ²
LEVEL 1 (TOWER 2)	1200.1 m ²
LEVEL 2 (TOWER 2)	1200.1 m ²
LEVEL 3 (TOWER 2)	1192.1 m ²
LEVEL 4 (TOWER 2)	778.1 m ²
Grand total: 10	5247.0 m ²

COMMON OPEN SPACE		
Name	Area	% of Site

C.O.S AREA	795.5 m ²	0.25
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DEEP SOIL AREA		
Name	Area	% of Site

DEEP SOIL AREA 5.8m wide	238.1 m ²	7.48
DEEP SOIL AREA <3m wide	65.2 m ²	2.05
DEEP SOIL AREA >3m wide	279.8 m ²	8.79
DEEP SOIL AREA >6m wide	430.0 m ²	13.51
	1013.1 m ²	31.84

CAR SPACES REQUIRED	
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4 Bed units: 1	2
3 Bed units: 12	24
2 Bed units: 32	32
2 Bed units Adaptable: 4	4
1 Bed units Adaptable: 2	2
Visitors (1/5)	10
Service vehicles (1/40)	2
Washing bay (1/50)	1
Grand total	77

CAR SPACES - TYPES	
Type	Number

Disabled - 2500w x 5400d	6
Service - 2500w x 5400d	2
Standard - 2500w x 5400d	60
Visitor - 2500w x 5400d	11
Washing - 3400w x 5400d	1
Grand total: 80	80

Bike	14
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VISUALISATION 1



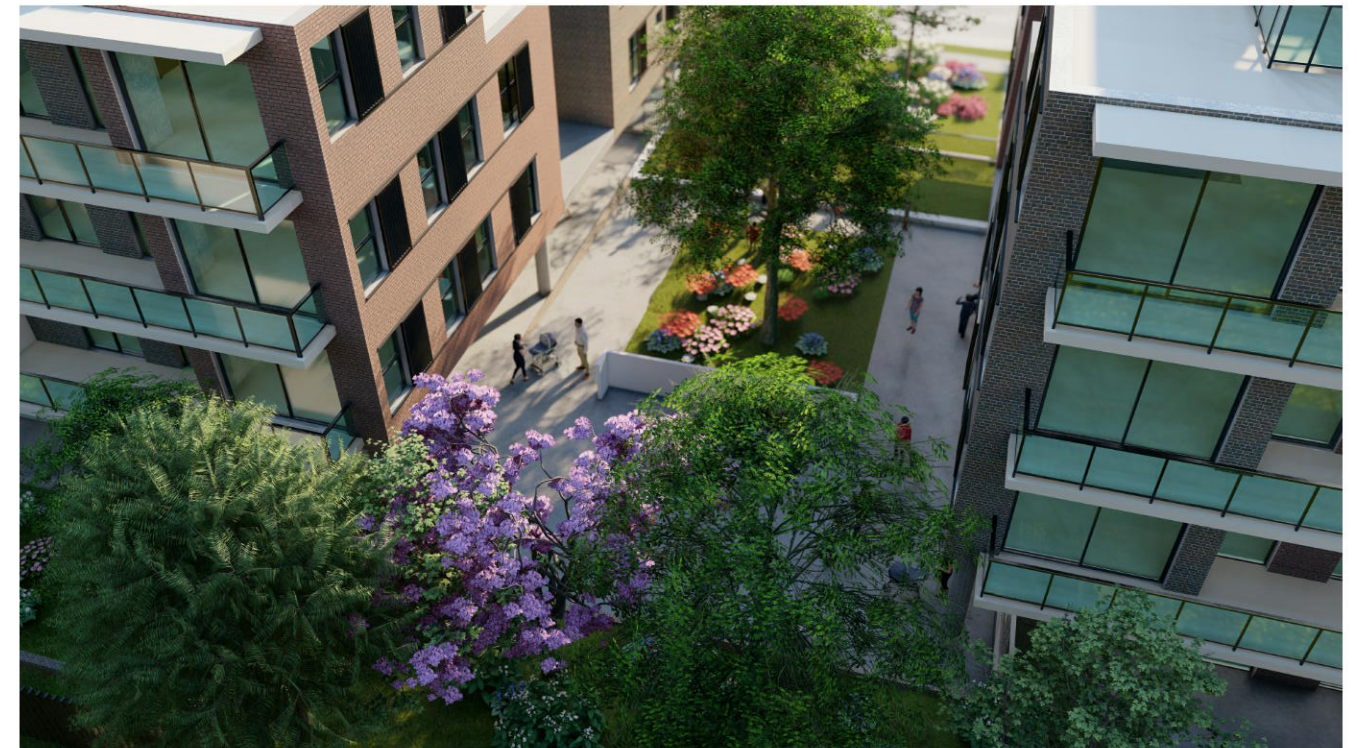
VISUALISATION 2



VISUALISATION 3



VISUALISATION 4

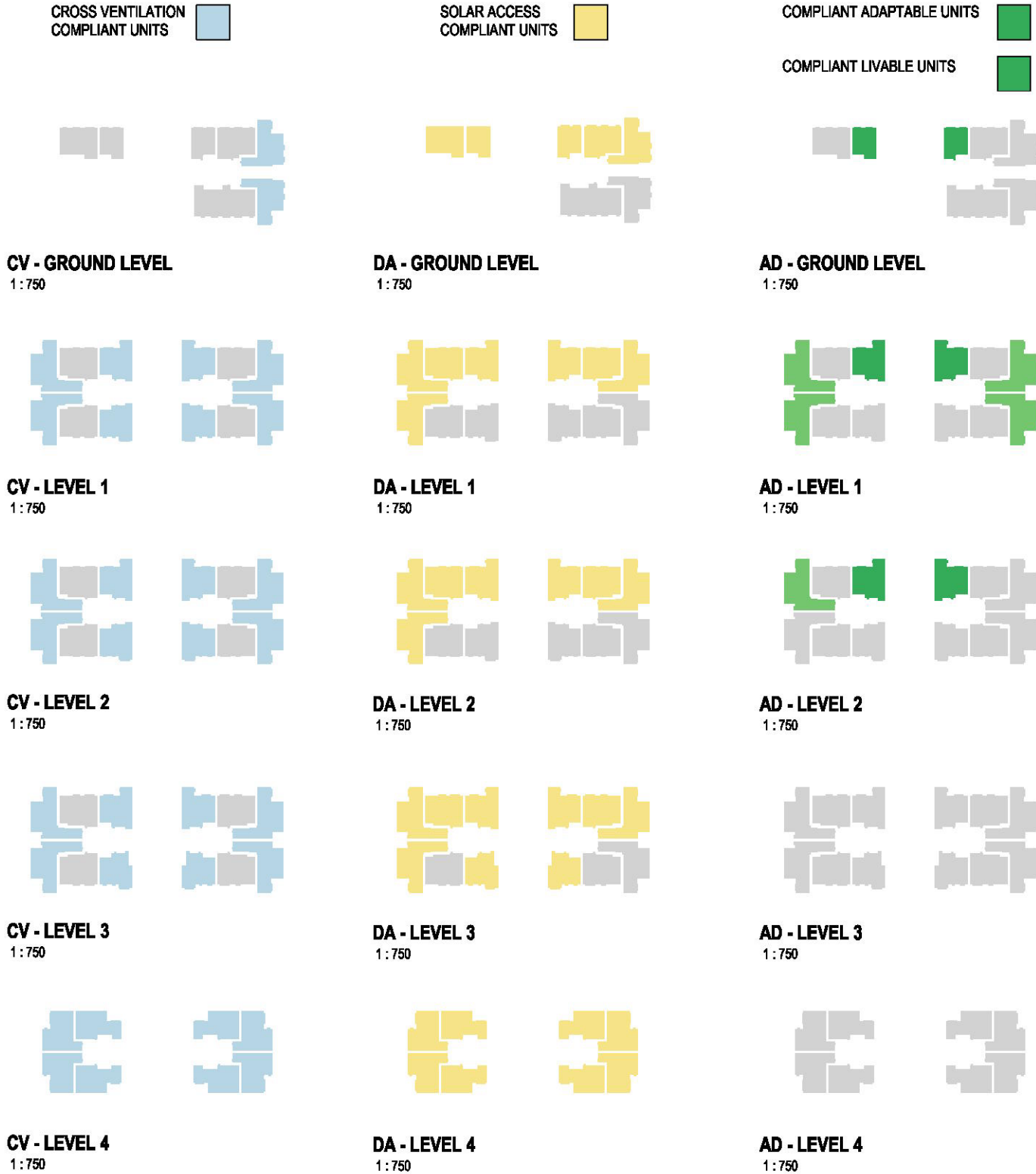
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STORAGE				
Unit / Location	Height	Width	Depth	Volume
01				
Basement	2350	2220	1642	6.36 m³
Unit	2350	500	2300	2.70 m³
				11.27 m³
02				
Basement	2350	2220	1642	6.36 m³
Unit	2350	500	1680	2.19 m³
				10.75 m³
03				
Basement	2350	2220	1642	6.36 m³
Unit	2350	500	1680	2.12 m³
				10.58 m³
04				
Basement	2350	2220	1642	6.36 m³
Unit	2350	500	1430	2.02 m³
				10.50 m³
05				
Basement	2350	2220	1642	6.36 m³
Unit	2350	700	2367	3.89 m³
				12.46 m³
06				
Basement	2350	2220	1642	6.36 m³
Unit	2350	700	2367	3.89 m³
Unit	2350	1000	1700	4.00 m³
				18.46 m³
07				
Basement	2350	4000	1500	14.10 m³
Unit	2350	1000	1700	4.00 m³
Unit	2350	800	1430	2.02 m³
				20.11 m³
08				
Basement	2350	4000	1500	14.10 m³
Unit	2350	500	910	1.07 m³
				15.17 m³
09				
Basement	2350	4107	940	9.07 m³
Unit	2350	1800	500	2.12 m³
				11.19 m³
10				
Basement	2350	940	3500	7.73 m³
Unit	2350	800	1430	2.02 m³
				9.75 m³
11				
Basement	2350	1520	2500	8.83 m³
Unit	2350	800	2367	4.46 m³
				13.38 m³
12				
Basement	2350	1520	2500	8.83 m³
Unit	2350	800	2367	4.46 m³
Unit	2350	1000	1700	4.00 m³
				17.37 m³
13				
Basement	2350	1520	2500	8.83 m³
Unit	2350	1000	1700	4.00 m³
Unit	2350	800	1430	2.02 m³
				14.94 m³
14				
Basement	2350	1300	2500	7.84 m³
Unit	2350	910	500	1.07 m³
				8.71 m³
15				
Basement	2350	1520	2500	8.83 m³
Unit	2350	500	2480	2.83 m³
				11.66 m³
16				
Basement	2350	1520	2500	8.83 m³
Unit	2350	800	1430	2.02 m³
				10.95 m³
17				
Basement	2350	1520	2500	8.83 m³
Unit	2350	700	2367	3.89 m³
				12.82 m³
18				
Basement	2350	1000	4005	9.41 m³
Unit	2350	700	2367	3.89 m³
Unit	2350	1100	1775	4.59 m³
				17.89 m³
19				
Basement	2350	1000	4005	9.41 m³
Unit	2350	1000	1775	4.17 m³
Unit	2350	800	1430	2.02 m³
				15.60 m³
20				
Basement	2350	1000	4005	9.41 m³
Unit	2350	1600	600	2.26 m³
				11.67 m³
21				
Basement	2350	1000	4005	9.41 m³
Unit	2350	700	1700	2.80 m³
				12.21 m³
22				
Basement	2350	1000	4005	9.41 m³
Unit	2350	800	1750	3.29 m³
				12.70 m³
23				
Basement	2350	1000	4005	9.41 m³
Unit	2350	800	1750	3.29 m³
				12.70 m³
24				
Basement	2350	1000	4005	9.41 m³
Unit	2350	700	1700	2.80 m³
				12.21 m³

STORAGE				
Unit / Location	Height	Width	Depth	Volume
25				
Basement	2350	1000	4005	9.41 m³
Unit	2350	910	600	1.28 m³
				10.69 m³
26				
Basement	2350	1000	4005	9.41 m³
Unit	2350	800	1650	2.75 m³
				12.16 m³
27				
Basement	2350	1000	4005	9.41 m³
Unit	2350	500	1950	2.29 m³
				11.70 m³
28				
Basement	2350	2220	1642	6.36 m³
Unit	2350	800	1480	2.09 m³
				10.65 m³
29				
Basement	2350	2220	1642	6.36 m³
Unit	2350	800	1680	2.19 m³
				10.75 m³
30				
Basement	2350	2220	1642	6.36 m³
Unit	2350	500	1800	2.12 m³
				10.68 m³
31				
Basement	2350	2220	1642	6.36 m³
Unit	2350	800	1430	2.02 m³
				10.68 m³
32				
Basement	2350	2220	1642	6.36 m³
Unit	2350	700	2367	3.89 m³
				12.46 m³
33				
Basement	2350	2220	1642	6.36 m³
Unit	2350	700	2367	3.89 m³
				12.46 m³
34				
Basement	2350	4000	1500	14.10 m³
Unit	2350	800	1430	2.02 m³
				16.12 m³
35				
Basement	2350	4000	1500	14.10 m³
Unit	2350	500	1600	1.86 m³
				15.96 m³
36				
Basement	2350	1590	2500	9.94 m³
Unit	2350	500	1600	2.12 m³
				11.46 m³
37				
Basement	2350	1590	2500	9.94 m³
Unit	2350	1000	1700	4.00 m³
Unit	2350	800	1430	2.02 m³
				15.35 m³
38				
Basement	2350	1590	2500	9.94 m³
Unit	2350	800	2373	4.46 m³
Unit	2350	1000	1700	4.00 m³
				17.80 m³
39				
Basement	2350	1200	2500	7.05 m³
Unit	2350	800	2373	4.46 m³
				11.51 m³
40				
Basement	2350	1168	2500	8.86 m³
Unit	2350	800	1430	2.02 m³
				8.86 m³
41				
Basement	2350	1168	2500	8.86 m³
Basement	2350	800	3400	7.19 m³
Unit	2350	910	500	1.07 m³
				15.12 m³
42				
Basement	2350	1168	2500	8.86 m³
Unit	2350	500	2480	2.93 m³
				9.78 m³
43				
Basement	2350	1168	2500	8.86 m³
Unit	2350	1200	1700	4.79 m³
Unit	2350	800	1430	2.02 m³
				13.67 m³
44				
Basement	2350	800	2686	5.52 m³
Unit	2350	700	2367	3.89 m³
Unit	2350	1200	1700	4.79 m³
				14.21 m³
45				
Basement	2350	800	3609	7.35 m³
Unit	2350	700	2367	3.89 m³
				11.24 m³
46				
Basement	2350	800	3609	7.35 m³
Unit	2350	800	1430	2.02 m³
				9.37 m³
47				
Basement	2350	800	3609	7.35 m³
Unit	2350	1600	600	2.26 m³
				9.61 m³
48				
Basement	2350	800	3609	7.35 m³
Unit	2350	700	1700	2.80 m³

STORAGE				
Unit / Location	Height	Width	Depth	Volume
49				10.15 m³
Basement	2350	800	3609	7.35 m³
Unit	2350	800	1750	2.47 m³
Unit	2350	1000	1700	4.00 m³
				13.81 m³
50				
Basement	2350	800	3400	6.39 m³
Unit	2350	800	1750	2.47 m³
Unit	2350	1000	1700	4.00 m³
				12.86 m³
51				
Basement	2350	800	3000	6.04 m³
Unit	2350	700	1700	2.80 m³
				8.44 m³

SEPP 65 COMPLIANCE TABLE						
No.	Type	Area	Cross Ventilation	Solar & Daylight Access	Kitchen Bm from Window	Adaptable Unit
GROUND LEVEL (TOWER 2)						
01	2 BED	80.1 m²	No	Yes	Yes	No
02	1 BED Adaptable	53.9 m²	No	Yes	Yes	Yes
25	4 BED	128.0 m²	No	No	Yes	No
26	2 BED	88.7 m²	Yes	No	Yes	No
27	2 BED	88.7 m²	Yes	Yes	Yes	No
28	2 BED	82.2 m²	No	Yes	Yes	No
29	1 BED Adaptable	53.9 m²	No	Yes	Yes	Yes
LEVEL 1 (TOWER 2)						
03	2 BED	79.0 m²	Yes	No	Yes	No
04	2 BED	83.9 m²	No	No	Yes	No
05	3 BED Livable	103.2 m²	Yes	Yes	Yes	No
06	3 BED Livable	103.2 m²	Yes	Yes	Yes	No
07	2 BED	83.9 m²	No	Yes	Yes	No
08	2 BED Adaptable	82.6 m²	Yes	Yes	Yes	Yes
30	2 BED	79.0 m²	Yes	No	Yes	Yes
31	2 BED	83.9 m²	No	No	Yes	No
32	3 BED Livable	103.2 m²	Yes	No	Yes	No
33	3 BED Livable	103.2 m²	Yes	Yes	Yes	No
34	2 BED	83.9 m²	No	Yes	Yes	No
35	2 BED Adaptable	82.7 m²	Yes	Yes	Yes	Yes
LEVEL 2 (TOWER 2)						
09	2 BED	79.0 m²	Yes	No	Yes	No
10	2 BED	83.9 m²	No	No	Yes	No
11	3 BED	103.2 m²	Yes	Yes	Yes	No
12	3 BED Livable	103.2 m²	Yes	Yes	Yes	No
13	2 BED	83.9 m²	No	Yes	Yes	No
14	2 BED Adaptable	82.6 m²	Yes	Yes	Yes	Yes
36	2 BED	79.0 m²	Yes	No	Yes	No
37	2 BED	83.9 m²	No	No	Yes	No
38	3 BED	103.2 m²	Yes	No	Yes	No
39	3 BED	103.2 m²	Yes	Yes	Yes	No
40	2 BED	83.9 m²	No	Yes	Yes	No
41	2 BED Adaptable	82.8 m²	Yes	Yes	Yes	No
LEVEL 3 (TOWER 2)						
15	2 BED	75.0 m²	Yes	Yes	Yes	No
16	2 BED	83.9 m²	No	No	Yes	No
17	3 BED	103.2 m²	Yes	Yes	Yes	No
18	3 BED	103.2 m²	Yes	Yes	Yes	No
19	2 BED	83.9 m²	No	Yes	Yes	No
20	2 BED	82.9 m²	Yes	Yes	Yes	No
42	2 BED	75.0 m²	Yes	Yes	Yes	No
43	2 BED	83.9 m²	No	No	Yes	No
44	3 BED	103.2 m²	Yes	No	Yes	No
45	3 BED	103.2 m²	Yes	Yes	Yes	No
46	2 BED	83.9 m²	No	Yes	Yes	
47	2 BED	83.0 m²	Yes	Yes	Yes	No
LEVEL 4 (TOWER 2)						
21	2 BED	80.1 m²	Yes	Yes	Yes	No
22	2 BED	88.2 m²	Yes	Yes	Yes	No
23	2 BED	88.0 m²	Yes	Yes	Yes	No
24	2 BED	80.5 m²	Yes	Yes	Yes	No
48	2 BED	80.6 m²	Yes	Yes	Yes	No
49	2 BED	88.0 m²	Yes	Yes	Yes	No
50	2 BED	88.0 m²	Yes	Yes	Yes	No
51	2 BED	80.6 m²	Yes	Yes	Yes	No
UNITS: 51		4457.3 m²				



Compliance Schedule (SEPP65-2015 Apartment Design Guide - Design Criteria & Objectives)																									
Design Criteria		Compliance	Design Proposal	Design Criteria		Compliance																			
3D-1	1. Communal open space has a minimum area equal to 25% of the site 2. Developments achieve a minimum of 60% 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)	YES	There is a total combined Communal Open Space Area of 636m². As a percentage of the site, this equates to 26%. The location of the several areas at Ground provides great amenity and usefulness to the residents of the development.	40-1	1. Apartments are required to have the following minimum internal areas: <table><tr><th>Apartment type</th><th>Minimum internal area</th></tr><tr><td>Studio</td><td>35m²</td></tr><tr><td>1 bedroom</td><td>50m²</td></tr><tr><td>2 bedrooms</td><td>70m²</td></tr><tr><td>3 bedrooms</td><td>90m²</td></tr></table> The minimum internal areas include only one bathroom. Additional bathroom increase the minimum internal area by 5m² each 2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.	Apartment type	Minimum internal area	Studio	35m²	1 bedroom	50m²	2 bedrooms	70m²	3 bedrooms	90m²	YES	All minimum apartment sizes are achieved								
	Apartment type	Minimum internal area																							
Studio	35m²																								
1 bedroom	50m²																								
2 bedrooms	70m²																								
3 bedrooms	90m²																								
3E-1	1. Deep soil zones are to meet the following minimum requirements: <table><tr><th>Site Area</th><th>Min. Dimension</th><th>Deep Soil Zone (% of site Area)</th></tr><tr><td><500m²</td><td>-</td><td rowspan="3">7%</td></tr><tr><td>500m²-1,500m²</td><td>3m</td></tr><tr><td>>1,500m²</td><td>6m</td></tr></table>	Site Area	Min. Dimension	Deep Soil Zone (% of site Area)	<500m²	-	7%	500m²-1,500m²	3m	>1,500m²	6m	YES	There is a total combined Deep Soil Area of 972.8m². As a percentage of the site, this equates to 31%, exceeding the minimum requirement. The Deep Soil with a minimum dimension of 6m equals to 441.8m², 14% of the site	40-2	1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height 2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	YES	All habitable room depths comply with the calculation (2.5 x ceiling height) All habitable room depths, with open plan layouts, are less than 8m from a window								
Site Area	Min. Dimension	Deep Soil Zone (% of site Area)																							
<500m²	-	7%																							
500m²-1,500m²	3m																								
>1,500m²	6m																								
3F-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: <table><tr><th>Building Height</th><th>Habitable rooms and balconies</th><th>Non-habitable rooms</th></tr><tr><td>up to 12m (4-storey)</td><td>6m</td><td>3m</td></tr><tr><td>up to 20m (5-8-storey)</td><td>8m</td><td>4.0m</td></tr><tr><td>over 20m (9+ storey)</td><td>12m</td><td>6m</td></tr></table> Gallery access circulation treated as habitable space when measuring privacy separation distances between neighbouring properties.	Building Height	Habitable rooms and balconies	Non-habitable rooms	up to 12m (4-storey)	6m	3m	up to 20m (5-8-storey)	8m	4.0m	over 20m (9+ storey)	12m	6m	YES	Refer to Statement of Environmental Effects (SEE) for a detailed building separation summary	40-3	1. Master bedrooms have a minimum area of 10m² and other bedrooms to have 8m² (excluding wardrobe space) 2. Bedrooms have a minimum dimension of 3m (excl. wardrobe space) 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	All Master Bedrooms have a minimum area of 10m². In a majority of the apartments, the second bedroom is also 10m².						
Building Height	Habitable rooms and balconies	Non-habitable rooms																							
up to 12m (4-storey)	6m	3m																							
up to 20m (5-8-storey)	8m	4.0m																							
over 20m (9+ storey)	12m	6m																							
4A-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. 3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	YES	A total of 39/51 apartments receive a minimum of 2 hours direct sunlight between 9am and 3pm at mid winter. This equates to 76.6%	4E-1	1. All apartments are required to have primary balconies as follows: <table><tr><th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr><tr><td>Studio/apartments</td><td>4m²</td><td>-</td></tr><tr><td>1 bedroom apartments</td><td>8m²</td><td>2m</td></tr><tr><td>2 bedroom apartments</td><td>12m²</td><td>2m</td></tr><tr><td>3+ bedroom apartments</td><td>12m²</td><td>2.4m</td></tr></table> The minimum balcony depth to be counted as contributing 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	Dwelling type	Minimum area	Minimum depth	Studio/apartments	4m²	-	1 bedroom apartments	8m²	2m	2 bedroom apartments	12m²	2m	3+ bedroom apartments	12m²	2.4m	YES	All minimum primary balcony sizes are met. Refer to Sheets DA10-DA12 for details.			
Dwelling type	Minimum area	Minimum depth																							
Studio/apartments	4m²	-																							
1 bedroom apartments	8m²	2m																							
2 bedroom apartments	12m²	2m																							
3+ bedroom apartments	12m²	2.4m																							
4B-3	1. At least 80% 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 exceed 16m, measured glass line to glass line	YES	A total of 34/51 apartments are naturally cross ventilated. This equates to 75% and well exceeds to minimum of 80%. Due to the nature of the design and creation of corner apartments, this will provide great amenity.	4F-1	1. The maximum number of apartments off a circulation core on a single level is eight 2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	YES	There are two towers, each having their own circulation core. For each core, there are 7 apartments only.																		
	N/A	There are no cross-over apartments in the proposed design.																							
4C-1	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: <table><tr><th>Minimum ceiling height for apartment and mixed use buildings</th><th></th></tr><tr><td>Habitable rooms</td><td>2.2m</td></tr><tr><td>Non-habitable</td><td>2.4m</td></tr><tr><td>For 3 storey apartments</td><td>2.7m for main living area 2.6m for second floor, where its area does not exceed 50% of the apt area.</td></tr></table>	Minimum ceiling height for apartment and mixed use buildings		Habitable rooms	2.2m	Non-habitable	2.4m	For 3 storey apartments	2.7m for main living area 2.6m for second floor, where its area does not exceed 50% of the apt area.	YES	As we have allowed 3100mm between each level, all minimum ceiling heights can realistically be achieved. Additional to this, we have ensured that there are no wet areas located above habitable rooms.	40-1	1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: <table><tr><th>Apartment type</th><th>Storage size volume</th></tr><tr><td>Studio</td><td>4m³</td></tr><tr><td>1 bedroom</td><td>6m³</td></tr><tr><td>2 bedrooms</td><td>8m³</td></tr><tr><td>3+ bedroom</td><td>12m³</td></tr></table> At least 50% of the required storage is to be located within the apartment	Apartment type	Storage size volume	Studio	4m³	1 bedroom	6m³	2 bedrooms	8m³	3+ bedroom	12m³	YES	Refer to DA04
Minimum ceiling height for apartment and mixed use buildings																									
Habitable rooms	2.2m																								
Non-habitable	2.4m																								
For 3 storey apartments	2.7m for main living area 2.6m for second floor, where its area does not exceed 50% of the apt area.																								
Apartment type	Storage size volume																								
Studio	4m³																								
1 bedroom	6m³																								
2 bedrooms	8m³																								
3+ bedroom	12m³																								

Design Statement (SEPP65-2015 SCHEDULE 1 - Design Quality Principles)									
<p>Principle 1: Context and Neighbourhood Character</p> <p>The proposed development significantly contributes to the local context & character of the area. By providing a diverse range of apartment options which are affordable for a wider demographic of people, it not only assists with the densification issue currently within Sydney, but also provides social & economic benefits for the community. These include new businesses, improvement to environmental conditions (ie. parks, roads through contributions) and social interaction & participation in community events just to name a few. The Landscaping strategy has been critically analysed to ensure that it is not only enhances the existing character of the neighbourhood, but also the future character. If such development can do the same, it will create a continuous green network of planting. By doing so, it will not only acknowledge the key built & natural features of the area, but also improve them.</p> <p><i>Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.</i></p> <p><i>Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent site, streetscape and neighbourhood.</i></p> <p><i>Combination of local context is important for all sites, including sites in established areas, those undergoing change or classified for change.</i></p>		<p>Principle 2: Built Form and Scale</p> <p>If you were to walk down Hope St. today, the local neighbourhood character is best summarised by single storey, detached residences with 1-2 buildings under construction. This however is not an accurate depiction of the future character of Hope St. Currently, 38-40 & 25-31 Hope St. are under construction, 12-14 Hope St has an approved DA & 25-30 & 32-38 Hope St. have DA's under review, all of which are six storey, residential flat buildings. With this in mind we made some critical design decisions to appropriately consider the future neighbourhood context.</p> <p>The built form & public domain are clearly defined with a central entry way & a row of canopy trees lining the site. To minimise visual & acoustic privacy issues, we located all of the private balcony areas to the North & South. This will provide a more desirable outlook and increase satisfaction specifically to Hope St. All side & rear setbacks are generally compliant in order to reduce overshadowing on the surrounding properties. See Principle 5: Aesthetics for further information.</p> <p><i>Good design achieves a scale, built not height appropriate to the existing or desired future character of the street and surrounding buildings.</i></p> <p><i>Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignment, proportions, building type, articulation and the composition of building elements.</i></p> <p><i>Appropriate built form delivers the public domain, contributes to the character of streetscape and parks, including their views and vistas, and provides inherent security and comfort.</i></p>		<p>Principle 3: Density</p> <p>Housing affordability is a key issue within Sydney that affects both individuals & families. Increased supply of various housing options at an affordable price is key in dealing with the increased levels of densification.</p> <p>The proposal aims to cater for a diverse number of individuals & families looking to get into the housing market. Located within walking distance to the Nepean hospital, it provides good potential rental possibilities for owners. Similarly, the number of jobs & community facilities within Penrith (and the greater region) continues to increase, not to mention the work being done on the local environment, specifically at the Nepean River. Both Penrith & Kingswood train stations are in close proximity to the development, as well as local buses which frequently operate along the Northern Rd (150m walk)</p> <p><i>Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.</i></p> <p><i>Appropriate densities are combined with the area's existing or projected population. Appropriate densities can be achieved by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.</i></p>		<p>Principle 4: Sustainability</p> <p>As Penrith has a large temperature variation between Winter & Summer Solstices, the need to provide amenity through passive design was one of the key drivers for the proposal. By creating numerous corner apartments, it allows natural ventilation rather than mechanical heating or cooling. We have well exceeded the minimum requirement (87%) for cross ventilation in SEPP65.</p> <p>Additional to this, we have ensured that over 70% of the apartments will have great access to daylight all year round. This will reduce the reliance on artificial lighting and in turn, energy. On each level, we have provided a 6m Chute system with both Residual & Recycling options. This is in excess within the waste room (Basement) and be collected multiple times throughout the week to ensure it is being dealt with responsibly.</p> <p><i>Good design combines positive environmental, social and economic outcomes.</i></p> <p><i>Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and livability of residents and positive 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 areas for groundwater recharge and vegetation.</i></p>			
<p>Principle 5: Landscape</p> <p>We have worked closely with our Landscape Architect to ensure that the Landscape design achieves our intent. To improve the local context, neighbourhood character and the building & connecting an existing green network, we propose a continuous tree row of canopy trees. They will have a mature growth height of approximately 6m, which will assist in bringing down the scale of the built form.</p> <p>We have consciously created a large area of Deep Soil central to the proposal. This will allow us to have significant planting in that area; improving the amenity, usability & opportunity for social interaction in the Common Open Space. We want the Landscaping & Building to work together & complement one another. To mitigate the level change along the Southern boundary, we have created a landscaped planter with extensive planting.</p> <p><i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good security. A positive image and context of a well designed development is achieved by contributing to the landscape character of the streetscape and neighbourhood.</i></p> <p><i>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 value and preserving green corridors.</i></p> <p><i>Good landscape design optimises usability, privacy and opportunities for social interaction, ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor spaces, related outdoor and service areas and areas of access for all age groups and degrees of ability.</i></p>		<p>Principle 6: Amenity</p> <p>Providing greater than adequate amenity for the future inhabitants of the proposal is critically important to us. The shape and general arrangement of the apartments and services, and the inclusion of a large meeting place for the entire development. Over 70% of the apartments will receive great access to sunlight all year round; reducing the requirements for artificial lighting.</p> <p>To mitigate visual privacy concerns associated to building separation, we propose a variety of enclosed elements which, when placed in the correct position, completely eliminate any privacy issues.</p> <p>As we have carefully considered the landscaping strategy, residents are generally screened by large canopy trees, which also contribute towards shielding the hot summer sun whilst providing another level of privacy/acoustic treatment to the surrounding context.</p> <p><i>All of the public & private spaces are clearly defined and well integrated to the local neighbourhood.</i></p> <p><i>Good design optimises safety and security within the development and the public domain & provides for quality public and private spaces that are clearly defined and fit for their intended purposes. Opportunities to maximise passive surveillance of public and communal areas promote safety.</i></p> <p><i>A positive relationship between public and private spaces is achieved through clearly defined secure outdoor public and well lit and visible areas that are easily maintained and appropriate to the location and purpose.</i></p>		<p>Principle 7: Safety</p> <p>Residents enter through a central walkway through a secure, clearly defined access point & into the entry foyer. Not only will the main entry be adequately lit at night, the window provided for the east tower overlooks the area, encouraging passive surveillance at all times.</p> <p>Similarly, the main Common Open Space is centrally located and can be viewed from the entry walkway & apartments either side. It was designed as a safe, quiet & relaxing space with extensive landscaping.</p> <p>Many developments have a number of walkways & common spaces which are located at the rear of the building. From our experience, this is where residents feel most unsafe & uncomfortable. With this in mind, we eliminated this from our design & simply improved the size & amenity of the private terraces.</p> <p>All of the public & private spaces are clearly defined and well integrated to the local neighbourhood.</p> <p><i>Good design optimises safety and security within the development and the public domain & provides for quality public and private spaces that are clearly defined and fit for their intended purposes. Opportunities to maximise passive surveillance of public and communal areas promote safety.</i></p> <p><i>A positive relationship between public and private spaces is achieved through clearly defined secure outdoor public and well lit and visible areas that are easily maintained and appropriate to the location and purpose.</i></p>		<p>Principle 8: Housing Diversity & Social Interaction</p> <p>We have created two distinctively different Common Areas for the residents. We aim to encourage various methods of social interaction by creating two contrasting atmospheres. The central area is a meeting place; a place to read a book, meditate or simply watch off. The second area however is a space for running around and kicking a ball. By creating two different zones, it creates an opportunity for a diverse range of people to meet and converse the way they enjoy most. The facilities provided will suit both the existing & future social mix of the development.</p> <p>There are a variety of apartment sizes in the development. They range from 32m² to 95m². Although a majority of the apartments are two bedroom and approximately 60m², they vary significantly in terms of general arrangement, amenity, location and outlook.</p> <p><i>Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.</i></p> <p><i>Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.</i></p> <p><i>Good design breaks predated and obsolete features, including different types of communal spaces for a local range of people and providing opportunities for social interaction among residents.</i></p>		<p>Principle 9: Aesthetics</p> <p>Typically, the streetscape character of the area is predominantly individual, free standing houses. Now re-zoned & unrealistic for increased densification, we believe it is important to bring that character through in our facade treatment & overall building envelope.</p> <p>Along Hope St, the proposal meets our four individual towers. This has been achieved by varying the scale, composition, colours & textures of each tower. The design similarly considers the internal layout & structure of the building as a priority to ensure amenity & functionality is not sacrificed.</p> <p>The East & West elevations have been carefully considered. Using a variety of colours, horizontal & vertical elements, we have broken down the scale of the building and provided a suitable transition between the North & South facade directions.</p> <p><i>Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.</i></p> <p><i>The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and qualities of the streetscape.</i></p>	

ISSUE	DATE	AMENDMENT	ISSUES / NOTES	DATE	PROJECT	CLIENT	SHEET	COMPLIANCE SEPP65 - Design Criteria & Objectives	ISSUE NO.
A	17-05-2020	DA SUBMISSION	BR BEDROOM	04-04-2021	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	DA05		
B	07-04-2021	COUNCIL REVISION	CM COMMON CLIPBOARD				B		
			DP DOWNPIPE						
			E ELECTRICAL CLIPBOARD						
			FR FIRE HOSE REEL						
			GAS GAS CLIPBOARD						
			GO GATED GATE						
			GR GARAGE EXHAUST						
			MAX MAXIMUM						
			RL RELATIVE LEVEL						
			TOH TOP OF HOBB						
			TOH TOP OF WALL						
			TY TACTILE INDICATORS						



REPORTING NUMBER **DA06**
FILE NO. **B**

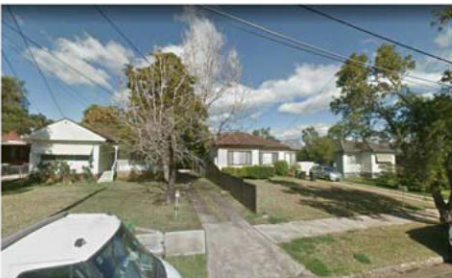
EXISTING STREETScape PHOTOGRAPHS:



PHOTOGRAPH 1 - 18 & 18 HOPE ST.



PHOTOGRAPH 2 - 18 & 20 HOPE ST.



PHOTOGRAPH 3 - 20 & 22 HOPE ST.



PHOTOGRAPH 4 - 22 & 24 HOPE ST.



PHOTOGRAPH 5 - 24 & 26 HOPE ST.



PHOTOGRAPH 6 - 25-31 HOPE ST.



PHOTOGRAPH 7 - 21 & 23 HOPE ST.



PHOTOGRAPH 8 - 17 & 19 HOPE ST.



PHOTOGRAPH 9 - 13 & 15 HOPE ST.



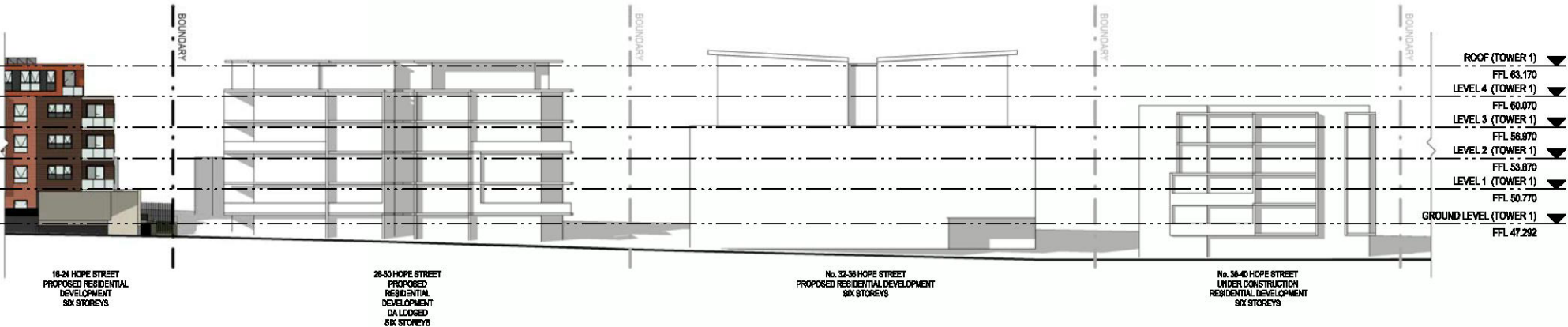
PHOTOGRAPH 10 - HOPE ST. LOOKING WEST



STREETSCAPE ELEVATION 1 - 17-35 HOPE ST
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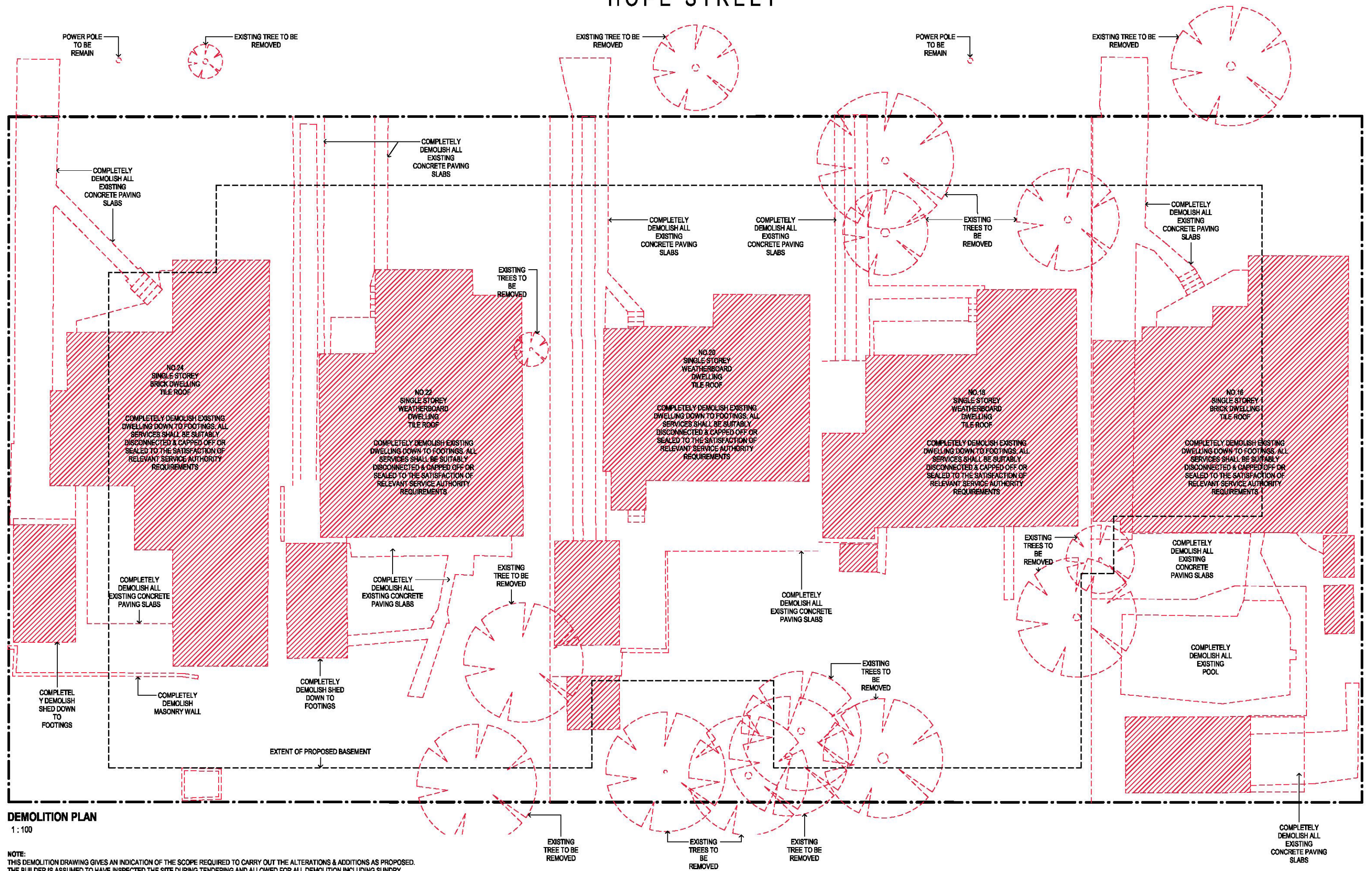
STREETSCAPE ELEVATION 2 - No.12-26
1 : 300



STREETSCAPE ELEVATION 3 - 24-40
1 : 300

ISSUE	DATE	AMENDMENT	PROJECT	CLIENT	DESIGNER	SHEET NAME	DATE	SCALE	ISSUE NO.
A	17-05-2020	DA SUBMISSION	16006 - PROPOSED RESIDENTIAL DEVELOPMENT	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	MORSON GROUP	SITE ANALYSIS - STREETSCAPE / FORM STUDY	17-05-2020	1:300	DA08
B	07-04-2021	COUNCIL REVISION	16-24 HOPE STREET, PENRITH 2750						B

HOPE STREET

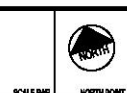


DEMOLITION PLAN

1 : 100

NOTE:
THIS DEMOLITION DRAWING GIVES AN INDICATION OF THE SCOPE REQUIRED TO CARRY OUT THE ALTERATIONS & ADDITIONS AS PROPOSED. THE BUILDER IS ASSUMED TO HAVE INSPECTED THE SITE DURING TENDERING AND ALLOWED FOR ALL DEMOLITION INCLUDING SUNDRY WORKS NOT INDICATED ON THIS DRAWING THAT ARE REQUIRED IN ORDER TO CONSTRUCT THE WORKS.

ISSUE	DATE	AMENDMENT
A	17-03-2020	1A SUBMISSION
B	01-04-2021	COUNCIL REVISION



PROJECT
18006 - PROPOSED RESIDENTIAL DEVELOPMENT

ADDRESS
16-24 HOPE STREET, PENRITH 2750

CLIENT
PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD



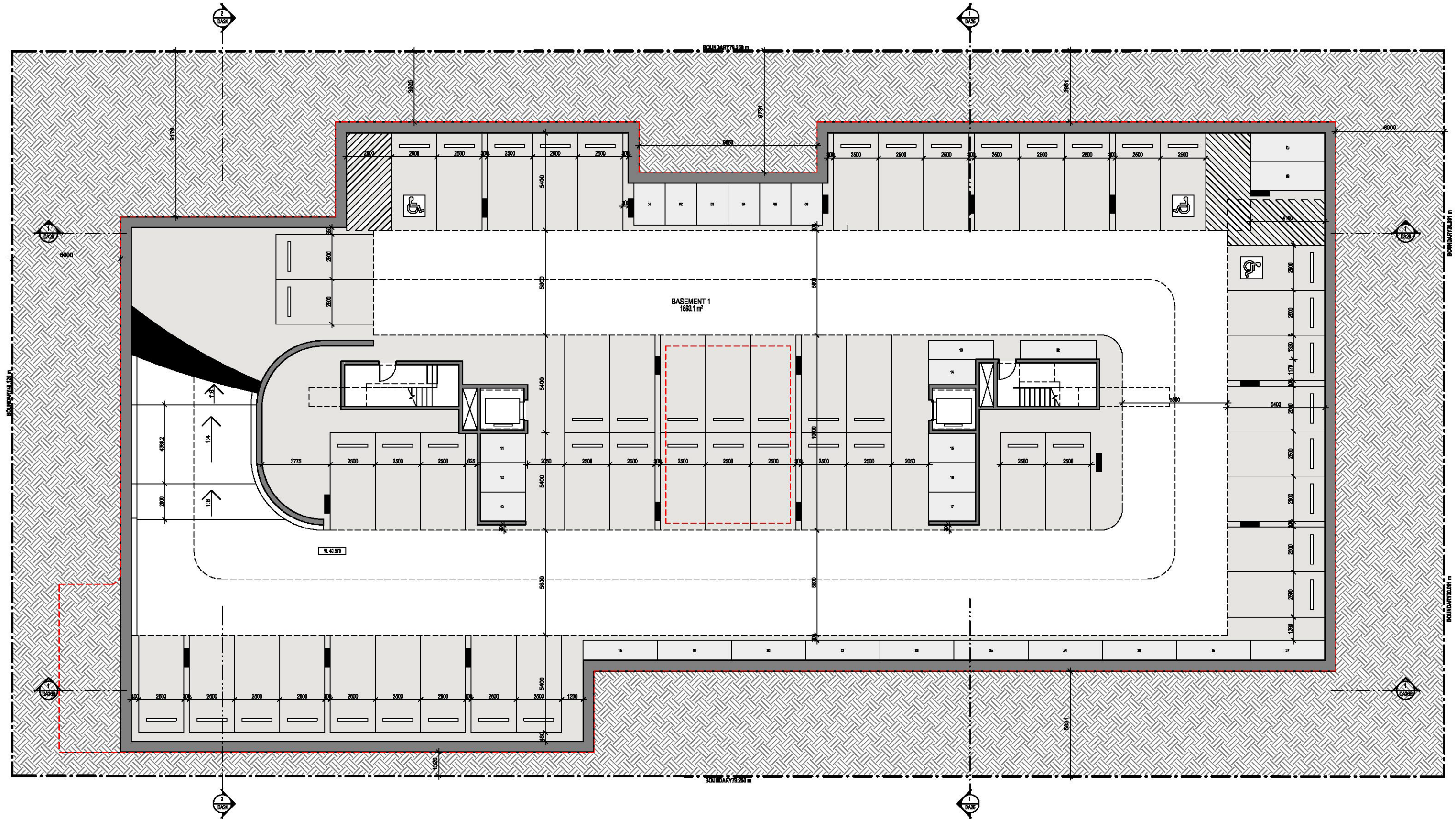
NOMINATED ARCHITECT - P.F.
JACOBSON REGISTRATION NUMBER 510
ACN 138 480 256, ABN 41 138 480 256
www.jacobsongroup.com.au
TEL 9380 4944
PO Box 170, Northcote, VIC 3070

SHEET SIZE: A1	DATE
SCALE	E
1:100	JULY 2018

SHEET NAME **DEMOLITION PLAN**

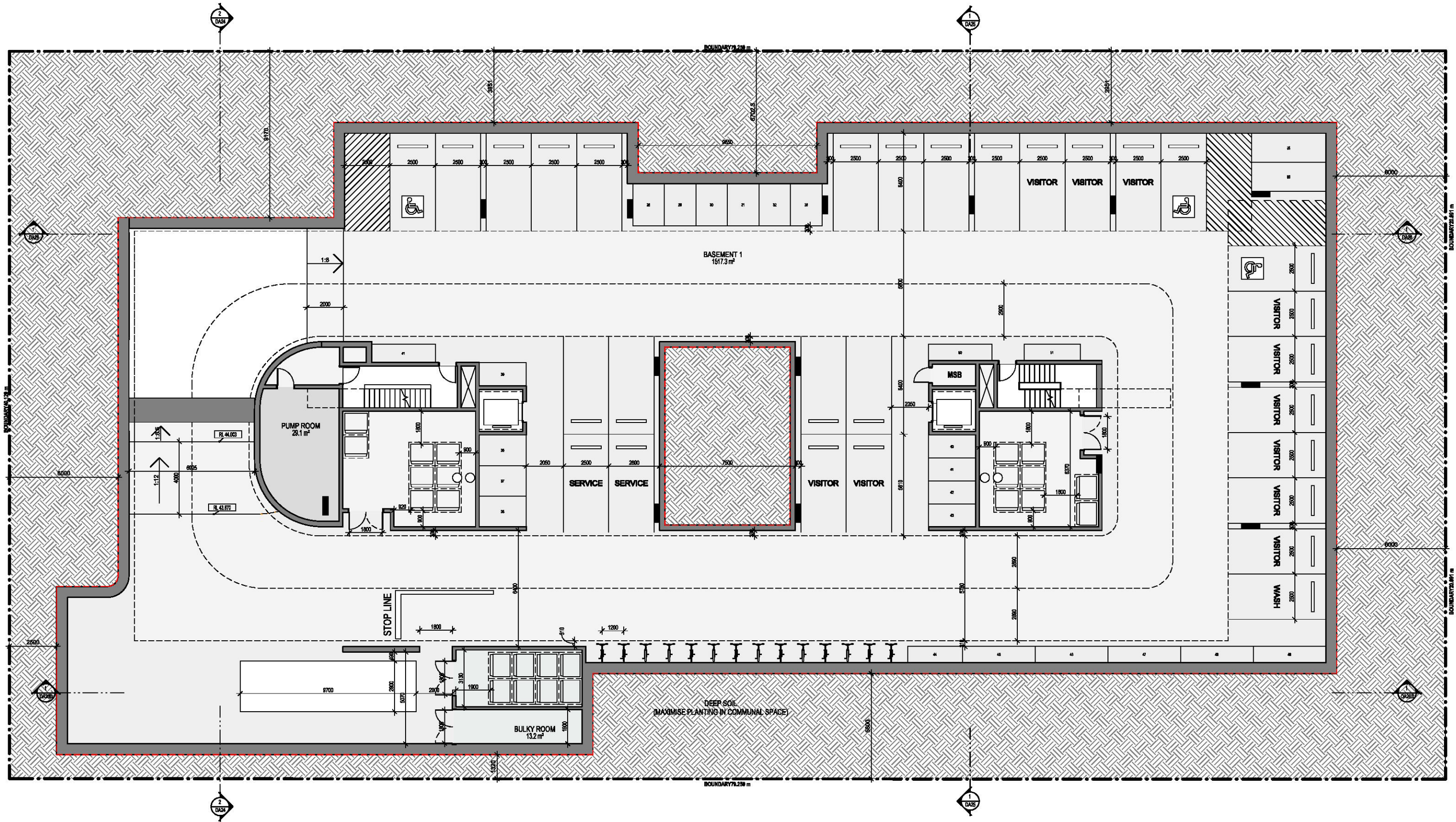
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E NO. **B**

HOPE STREET



ISSUE	DATE	AMENDMENT	DESIGNER / NOTES	DATE	PROJECT	CLIENT	ARCHITECT	SHEET NAME	CHANGING NUMBER
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B	07-04-2021	COUNCIL REVISION	CON. COMMONS CLIPBOARD						B
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			E. ELECTRICAL CLIPBOARD						
			FHR. FIRE HOSE REEL						
			GAS GAS CLIPBOARD						
			GO. BAKED OVEN						
			GEK. GARAGE EXHAUST						
			MAX. MAXIMUM						
			RL. RELATIVE LEVEL						
			TY. TACTILE INDICATORS						
			RH. RHYTHMIC WATER OUTLET						
			SWP. STORM WATER PIT						
			TOH. TOP OF HOBB						
			TOH. TOP OF WALL						
			TY. TACTILE INDICATORS						

HOPE STREET



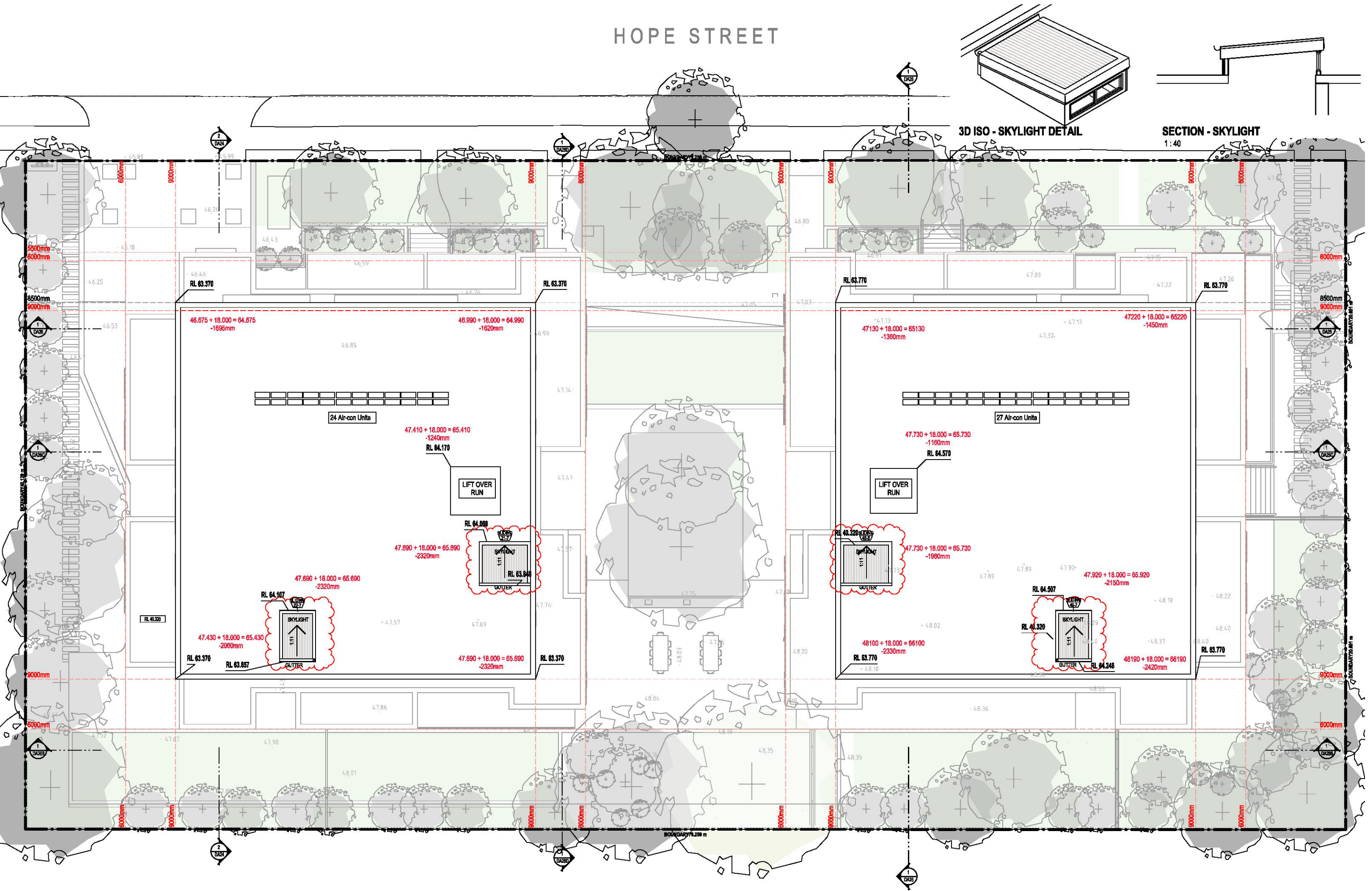
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A	17-05-2020	DA SUBMISSION	BR BEDROOM CON COMB CLIPBOARD DP DOWNPIPE E ELECTRICAL CLIPBOARD FHA FIRE HOSE REEL	17-05-2020	16006 - PROPOSED RESIDENTIAL DEVELOPMENT	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	MORSON GROUP	FLOOR PLAN - BASEMENT 1	DA11
B	07-04-2021	COUNCIL REVISION	GAS GAS CLIPBOARD GO BAKED OVEN GEX GARAGE EXHAUST MAX MULCH RL RELATIVE LEVEL	07-04-2021	16-24 HOPE STREET, PENRITH 2750				B
			RHORNWATER OUTLET SWP STORM WATER PIT TOH TOP OF HOBB TOH TOP OF HALL TTO TACTILE INDICATORS						

HOPE STREET

3D ISO - SKYLIGHT DETAIL

SECTION - SKYLIGHT

1:40



ISSUE	DATE	AMENDMENT	DESIGNER / NOTES	DATE	PROJECT	CLIENT	SCALE	SHEET NAME	CHANGING NUMBER
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B	2021-04-01	COUNCIL REVISION	CON. COMMONS CLIPBOARD	ADDRESS: 16-24 HOPE STREET, PENRITH 2750					
C	2021-08-26	COUNCIL REVISION	DP. DOWNPIPE						
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			F. FIRE HOSE REEL						
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			M. SKYDOME CLIPBOARD						
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			W. SKYDOME CLIPBOARD						
			X. SKYDOME CLIPBOARD						
			Y. SKYDOME CLIPBOARD						
			Z. SKYDOME CLIPBOARD						



NORTH ELEVATION
1 : 100

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NB: FOR ALL WINDOW NUMBERS, REFER TO SHEET DA22



<table><tr><th>ISSUE</th><th>DATE</th><th>AMENDMENT</th></tr><tr><td>A</td><td>17-05-2020</td><td>DA SUBMISSION</td></tr><tr><td>B</td><td>01-04-2021</td><td>COUNCIL REVISION</td></tr><tr><td>C</td><td>16-06-2021</td><td>COUNCIL REVISION</td></tr></table>			ISSUE	DATE	AMENDMENT	A	17-05-2020	DA SUBMISSION	B	01-04-2021	COUNCIL REVISION	C	16-06-2021	COUNCIL REVISION	<table><tr><th colspan="3">LEGEND / NOTES</th></tr><tr><td>BR</td><td>BEDROOM</td><td>GAS GAS CUPBOARD</td></tr><tr><td>COM</td><td>COMMON CUPBOARD</td><td>GO GRATED DRAIN</td></tr><tr><td>DP</td><td>DOWNPIPE</td><td>SEX GARAGE EXHAUST</td></tr><tr><td>E</td><td>ELECTRICAL CUPBOARD</td><td>MAX MAILBOX</td></tr><tr><td>FHR</td><td>FIRE HOSE REEL</td><td>RL RELATIVE LEVEL</td></tr><tr><td></td><td></td><td>TTI TACTILE INDICATORS</td></tr></table>			LEGEND / NOTES			BR	BEDROOM	GAS GAS CUPBOARD	COM	COMMON CUPBOARD	GO GRATED DRAIN	DP	DOWNPIPE	SEX GARAGE EXHAUST	E	ELECTRICAL CUPBOARD	MAX MAILBOX	FHR	FIRE HOSE REEL	RL RELATIVE LEVEL			TTI TACTILE INDICATORS	<table><tr><td colspan="2">PROJECT 18006 - PROPOSED RESIDENTIAL DEVELOPMENT</td><td rowspan="2"><div>HOUSING ARCHITECT - P.F. JACOBS RESIDENTIAL PARTNERS (P) LTD AC/201/191-400/2016-191-400/2016 www.morsongroup.com.au 1300 555 555</div></td></tr><tr><td colspan="2">ADDRESS 16-24 HOPE STREET, PENRITH 2750</td></tr><tr><td colspan="2">CLIENT PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD</td><td>SHEET NAME EAST ELEVATION</td></tr></table>			PROJECT 18006 - PROPOSED RESIDENTIAL DEVELOPMENT		 <div>HOUSING ARCHITECT - P.F. JACOBS RESIDENTIAL PARTNERS (P) LTD AC/201/191-400/2016-191-400/2016 www.morsongroup.com.au 1300 555 555</div>	ADDRESS 16-24 HOPE STREET, PENRITH 2750		CLIENT PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD		SHEET NAME EAST ELEVATION	DRAWING NUMBER DA20	
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Version: 1, Version Date: 07/10/2021																																																			





NB: FOR ALL WINDOW NUMBERS, REFER TO SHEET DA22

ISSUE	DATE	AMENDMENT	DESIGNER / NOTES	PROJECT	CLIENT	DATE	SCALE	SHEET NAME	SHED NUMBER
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			DP DOWNPIPE						
			E ELECTRICAL CLIPBOARD						
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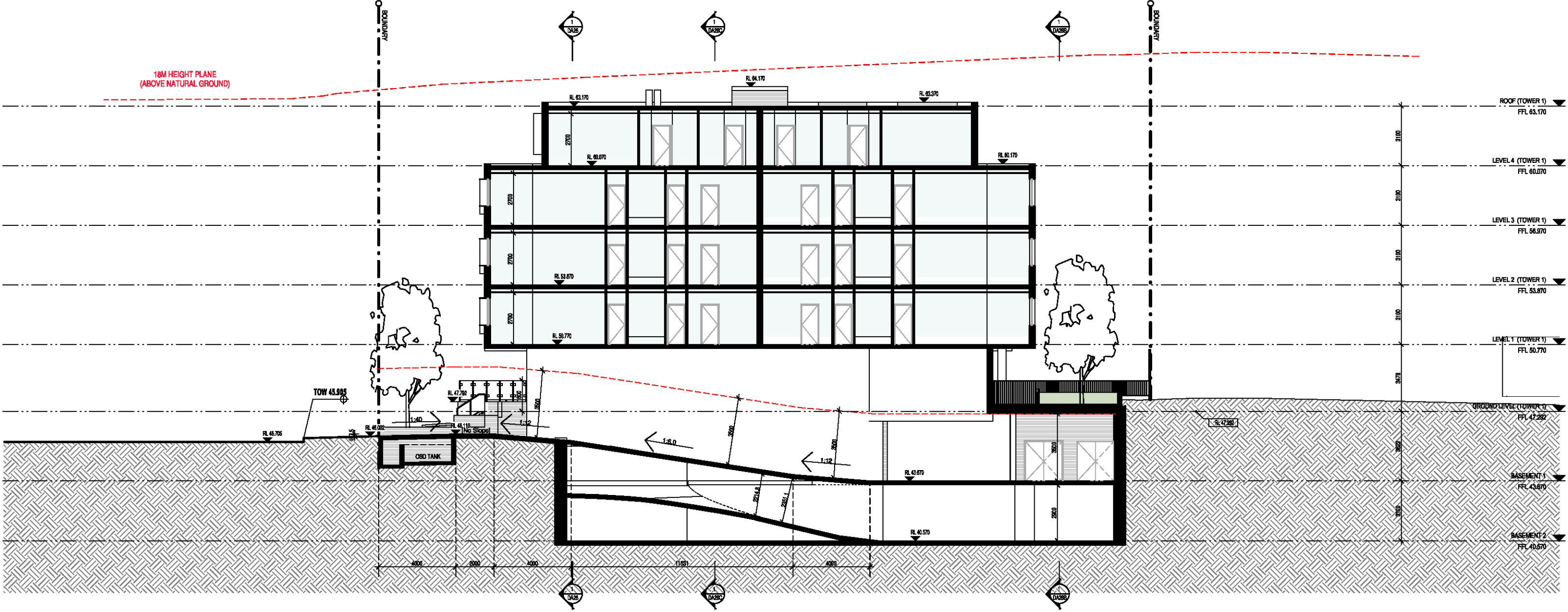
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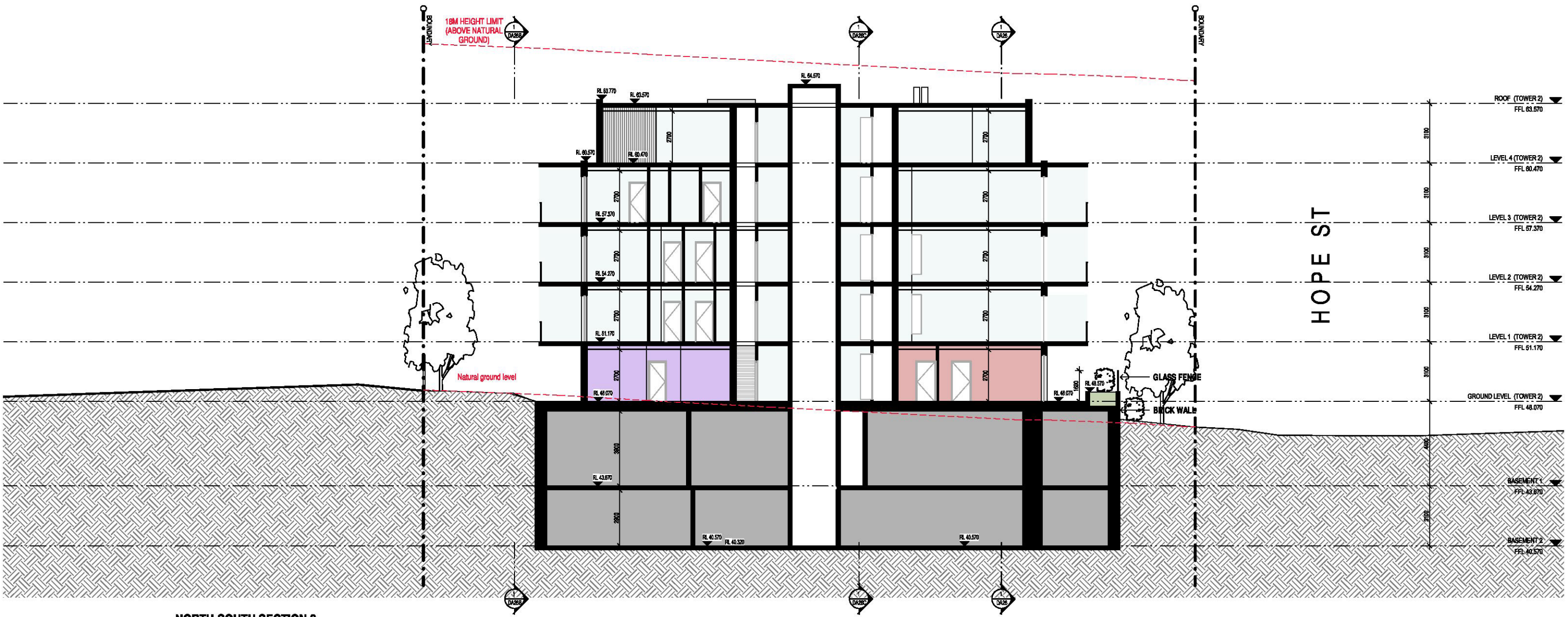
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NB: FOR ALL WINDOW NUMBERS, REFER TO SHEET DA22

ISSUE	DATE	AMENDMENT	LEGEND / NOTES	PROJECT	CLIENT	MORSON GROUP	SHEET SIZE: A1	SHEET NAME	DRAWING NUMBER
A	17-05-2020	DA SUBMISSION	BR BEDROOM COM COMING CUPBOARD DP DOWNPIPE E ELECTRICAL CUPBOARD FHH FIRE HOSE REEL	18006 - PROPOSED RESIDENTIAL DEVELOPMENT ADDRESS 16-24 HOPE STREET, PENRITH 2750	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	NON-APPLICABLE ARCHITECT - P.F. JACKSON ARCHITECTURE ARCHITECTS 10/10 HOPE STREET, PENRITH 2750 TEL: 02 9611 1111 WWW.PRESTIGEDVELOPMENTS.COM.AU	1:100	JULY 2018	DA23
B	01-04-2021	COUNCIL REVISION	GS GAS CUPBOARD GO GRATED DRAIN GEX GARAGE EXHAUST MEX MAILBOX RL RELATIVE LEVEL						C
C	16-06-2021	COUNCIL REVISION	RWD RAINWATER OUTLET SWP STORM WATER PIT TCH TOP OF HOSE TOW TOP OF WALL TII TACTILE INDICATORS						

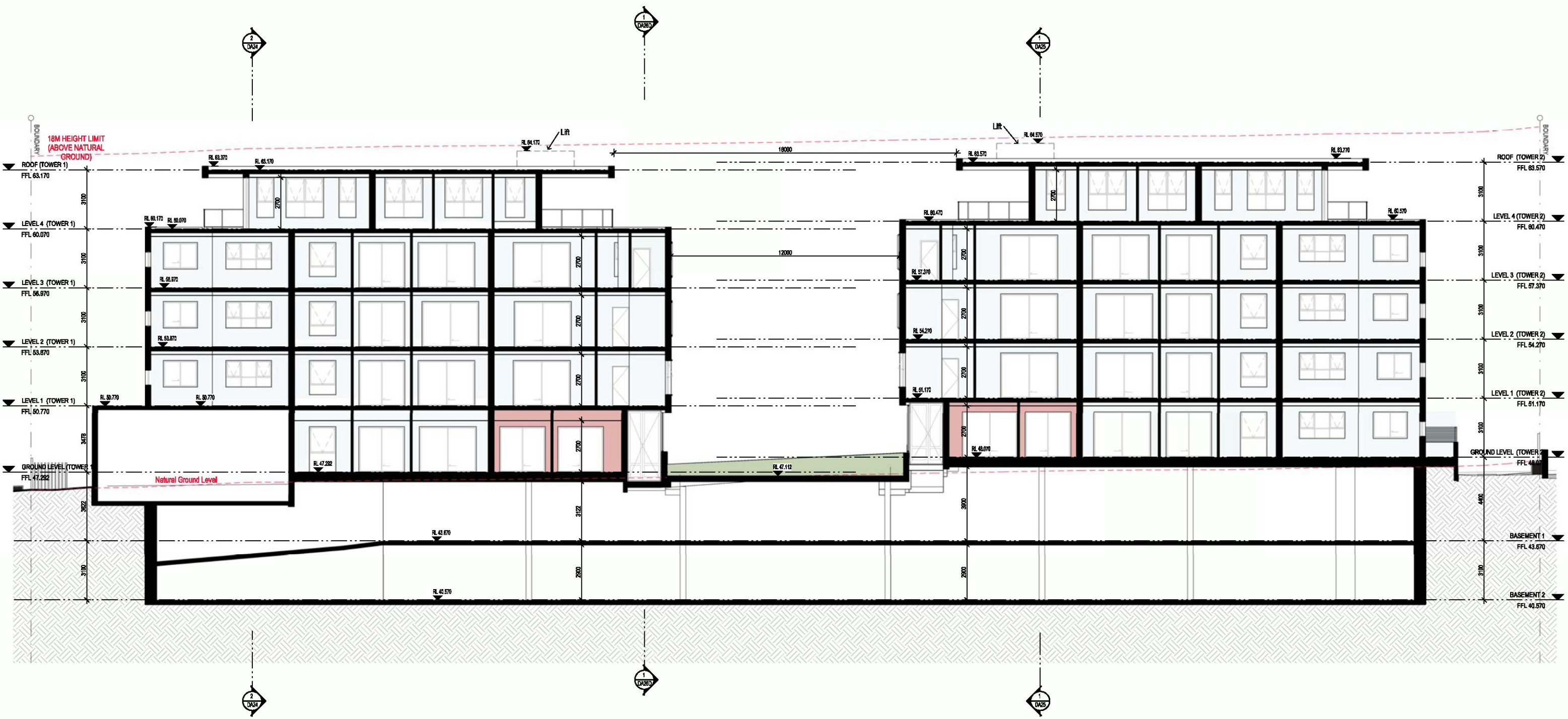


ISSUE	DATE	AMENDMENT	LEGEND / NOTES	PROJECT	CLIENT	DESIGNER	SCALE	SHEET NAME	DRAWING NUMBER
A	17-09-2020	DA SUBMISSION	BR BEDROOM COM COMING UPWARD DP DOWNPIPE E ELECTRICAL CUPBOARD FHH FIRE HOSE REEL	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	MORSON GROUP	1:100	NORTH-SOUTH SECTION 1	DA24
B	01-04-2021	COUNCIL REVISION	GAS GAS CUPBOARD GO GRATED DRAIN GEX GARAGE EXHAUST MEX MAILBOX RL RELATIVE LEVEL	ADDRESS 16-24 HOPE STREET, PENRITH 2750					
C	07-06-2021	COUNCIL REVISION	RWD RAINWATER OUTLET SWP STORM WATER PIT TCH TOP OF HOIS TOW TOP OF WALL TII TACTILE INDICATORS						
D	15-09-2021	COUNCIL REVISION							

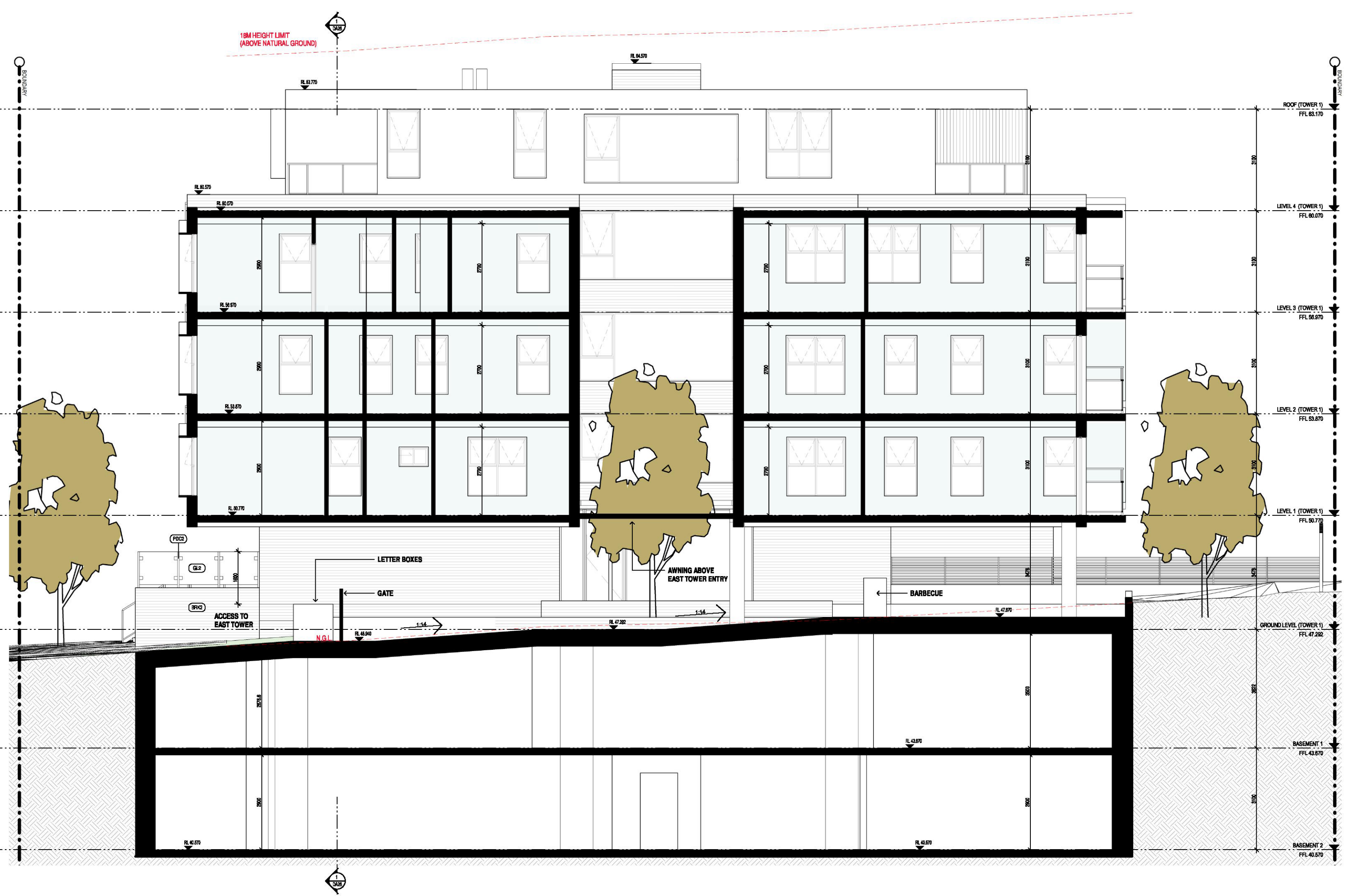


NORTH-SOUTH SECTION 2
1 : 100

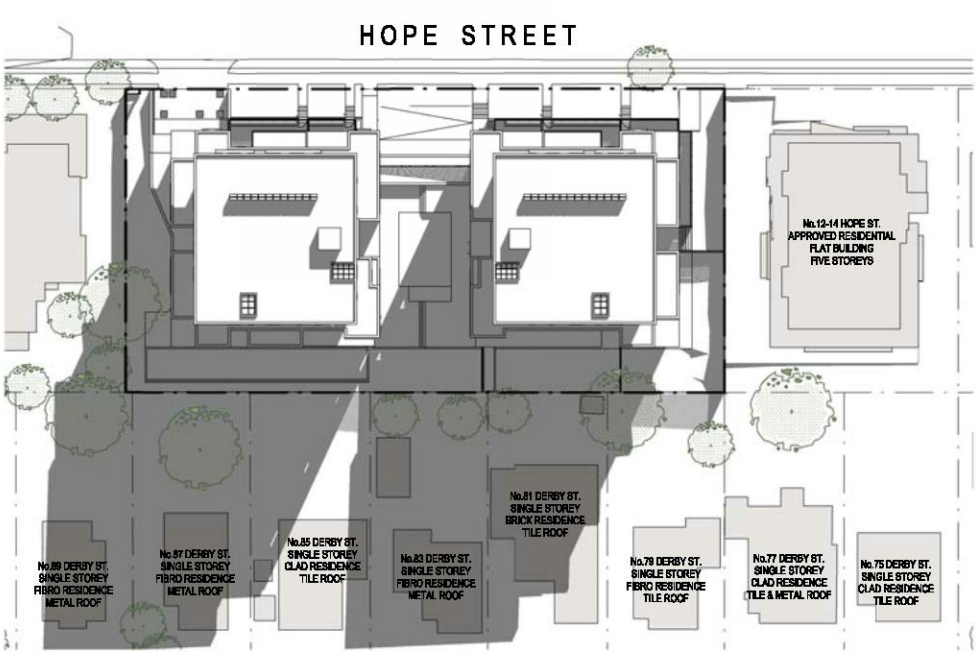
ISSUE	DATE	AMENDMENT	LEGEND / NOTES	PROJECT	CLIENT	ARCHITECT	SHEET NAME	DRAWING NUMBER
A	17-09-2020	DA SUBMISSION	SR BEDROOM COM COMING CURBOARD DP DOWNPIPE E ELECTRICAL CURBOARD FRR FIRE HOSE REEL	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	MORSON GROUP	NORTH-SOUTH SECTION 2	DA25
B	01-04-2021	COUNCIL REVISION	GAS GAS CURBOARD GO GRATED DRAIN GEX GARAGE EXHAUST MEX MAILBOX RL RELATIVE LEVEL	ADDRESS 16-24 HOPE STREET, PENRITH 2750				D
C	07-06-2021	COUNCIL REVISION	RWD RAINWATER OUTLET SWP STORM WATER PIT TCH TOP OF HOE TOW TOP OF WALL TTO TACTILE INDICATORS					
D	15-09-2021	COUNCIL REVISION						



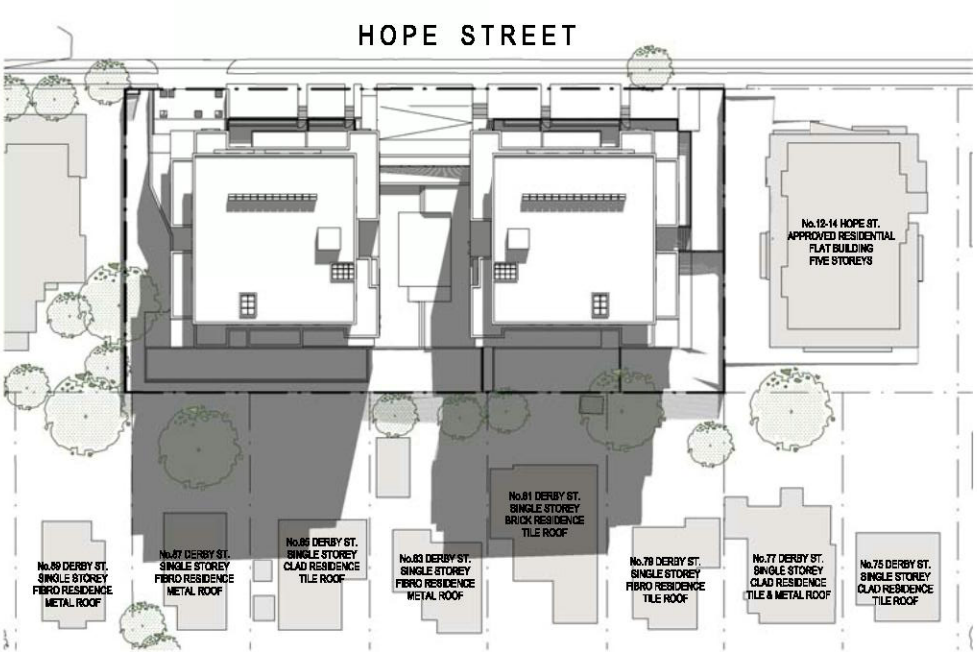
ISSUE		DATE	AMENDMENT	LEGEND / NOTES		PROJECT		MORSON GROUP		SHEET NAME: EAST-WEST SECTION 1		DRAWING NUMBER: DA26	
A		17-05-2020	DA SUBMISSION	BR	BEDROOM	GAS	GAS CLIPBOARD	NORWATD ARCHITECT - P.F.		SHEET SIZE: A1		DATE: JULY 2018	
B		01-04-2021	COUNCIL REVISION	GO	BATHROOM	GO	BATHROOM	ARCHITECTURE		SCALE: 1:100		SHEET NAME: C	
C		07-05-2021	COUNCIL REVISION	DP	DOWNPIPE	GEK	GARAGE EXHAUST	16-24 HOPE STREET, PENRITH 2750		1:100		1:100	
				E	ELECTRICAL CLIPBOARD	REL	RELATIVE LEVEL	CLIFF PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD					
				FHR	FIRE HOSE REEL	TY	TACTILE INDICATORS						



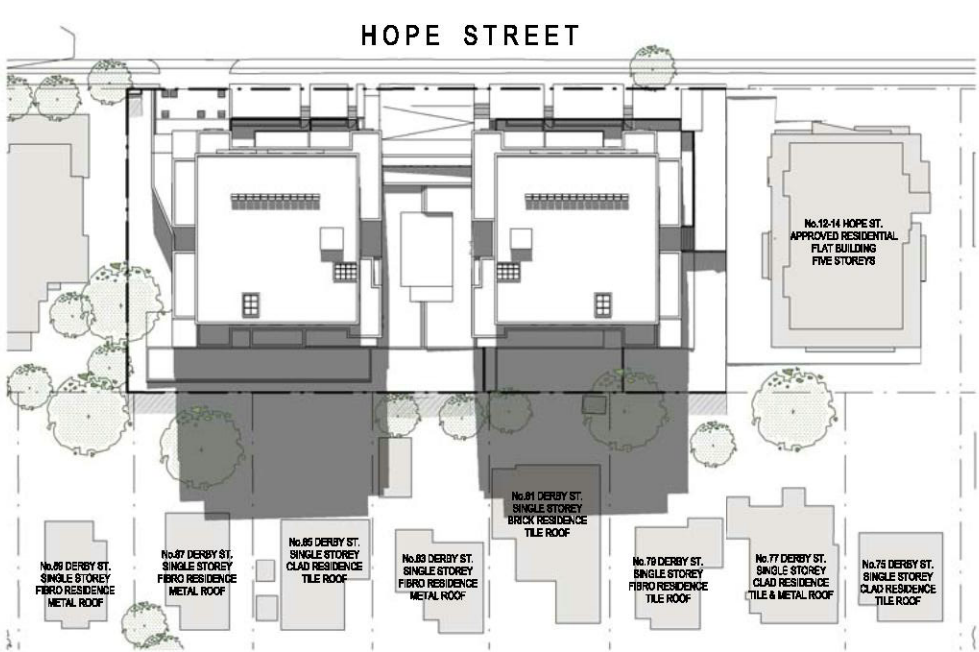
ISSUE	DATE	AMENDMENT	LEGEND / NOTES	PROJECT	MORSON GROUP	SHEET NAME	DETAILS SECTION 2	DRAWING NUMBER	DA26D
A	07-05-2021	COUNCIL REVISION	BR BEDROOM CD COMING CLIPBOARD CP DOWNPIPE E ELECTRICAL CLIPBOARD FIR FIRE HOSE REEL	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT
B	18-08-2021	COUNCIL REVISION	GAS GAS CLIPBOARD GD GATED DRAW GX GARAGE EXHAUST MEX MECHANICAL RL RELATIVE LEVEL	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT
			RWC RAINWATER OUTLET SWP STORM WATER PIT TCH TOP OF HOOD TOT TOP OF WALL TIT TACTILE INDICATORS	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	18006 - PROPOSED RESIDENTIAL DEVELOPMENT



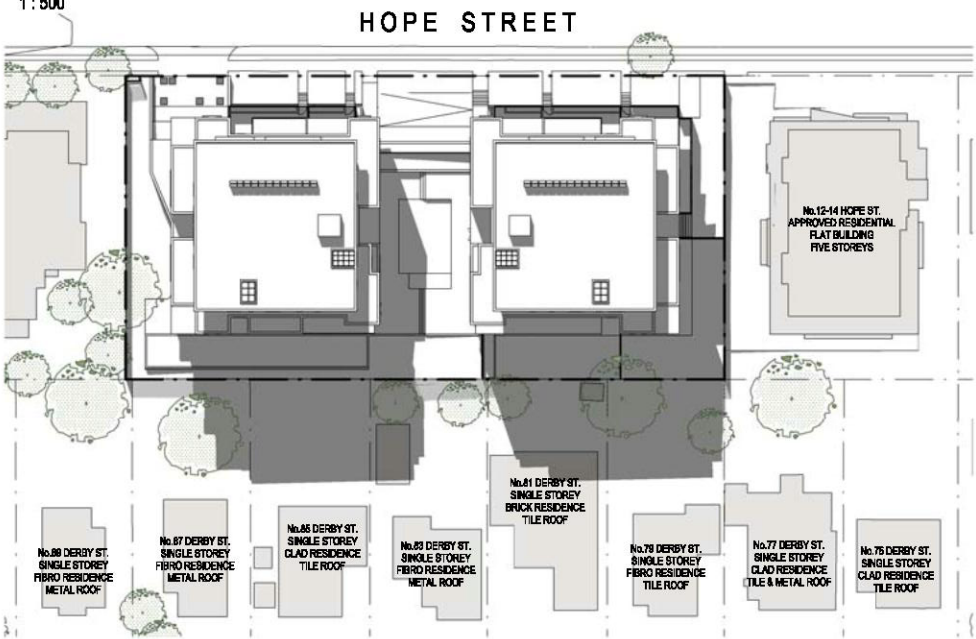
JUNE 22ND - 9AM
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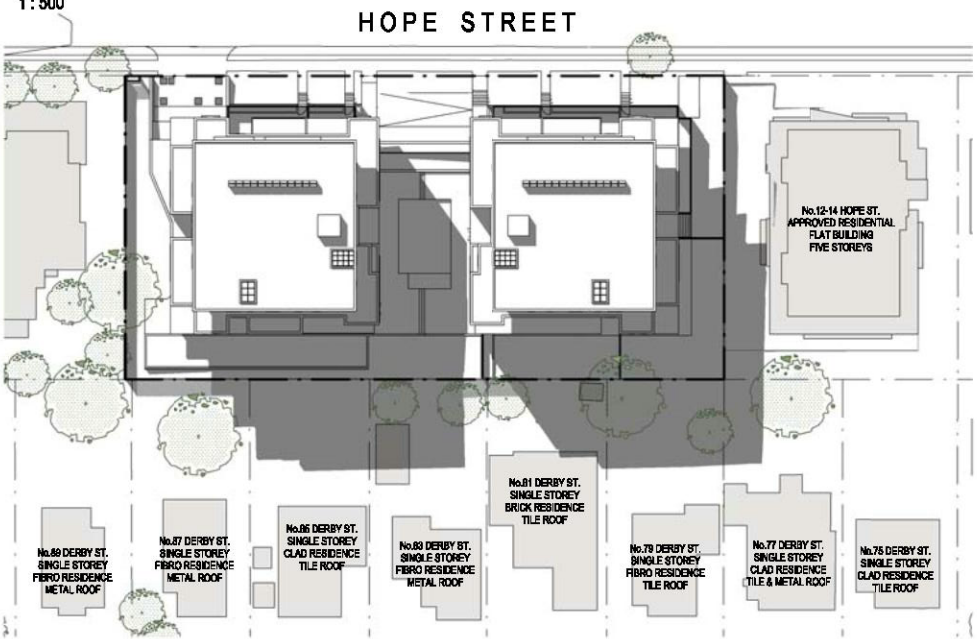
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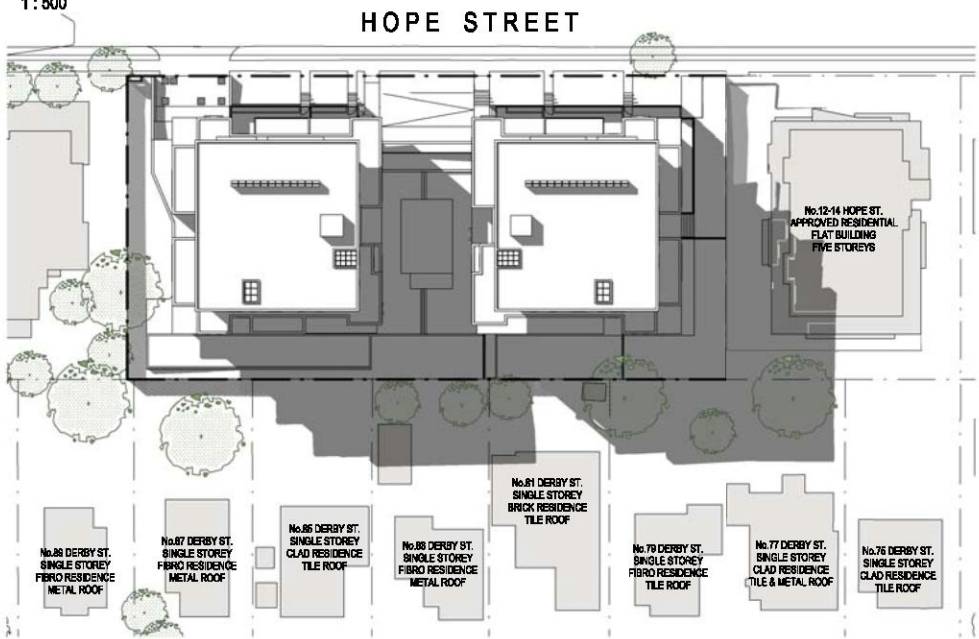
JUNE 22ND - 11AM
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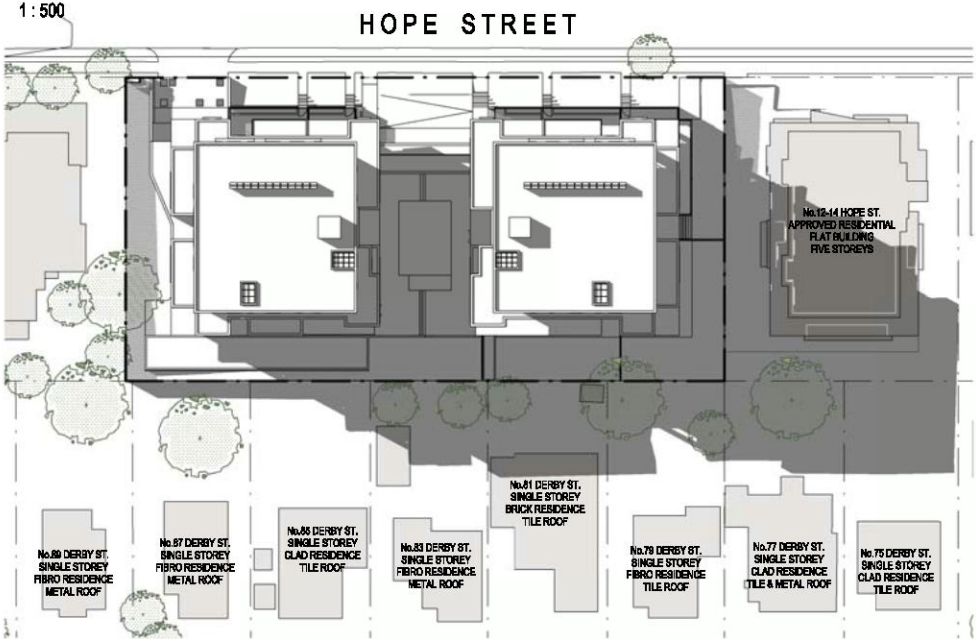
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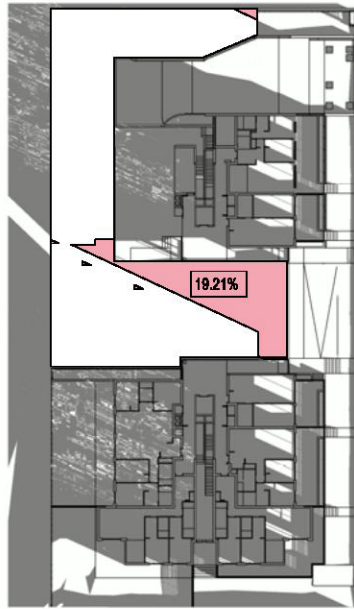
JUNE 22ND - 1PM
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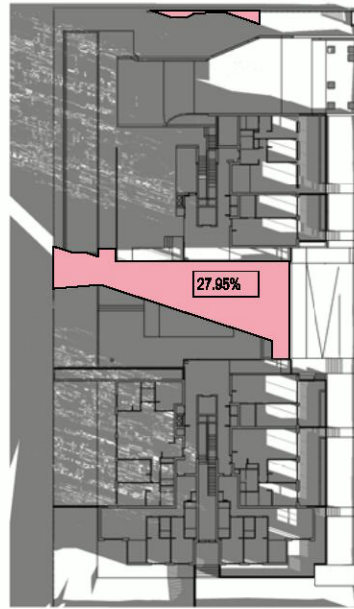
JUNE 22ND - 2PM
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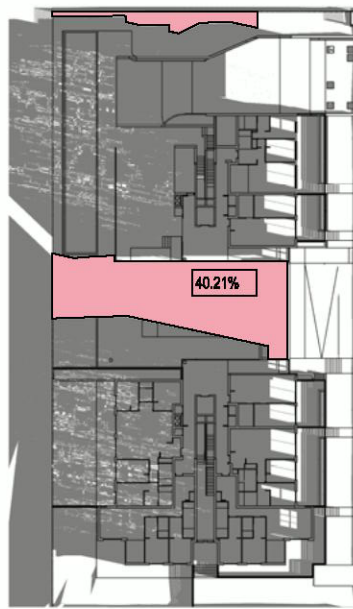
JUNE 22ND - 3PM
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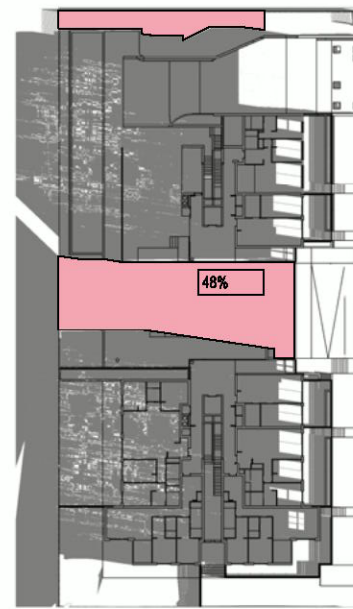
COS - SOLAR ACCESS GROUND 9AM



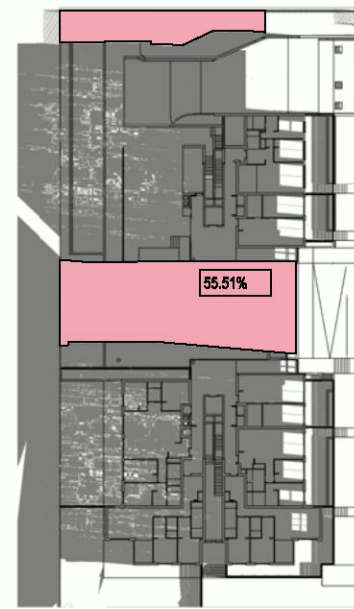
COS - SOLAR ACCESS GROUND 9.30AM



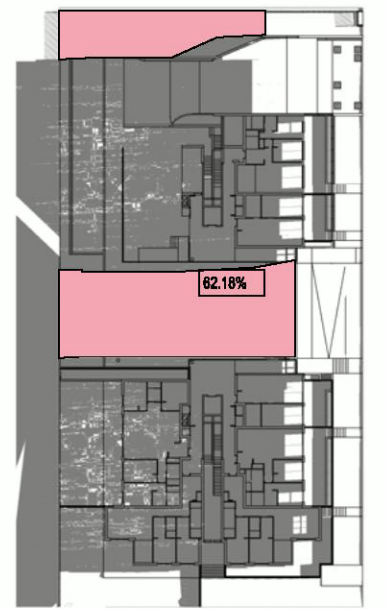
COS - SOLAR ACCESS GROUND 10.00AM



COS - SOLAR ACCESS GROUND 10.15AM



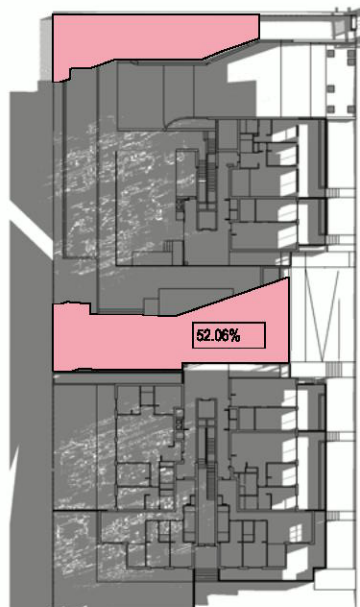
COS - SOLAR ACCESS GROUND 10.30AM



COS - SOLAR ACCESS GROUND 11.00AM



COS - SOLAR ACCESS GROUND 11.30AM



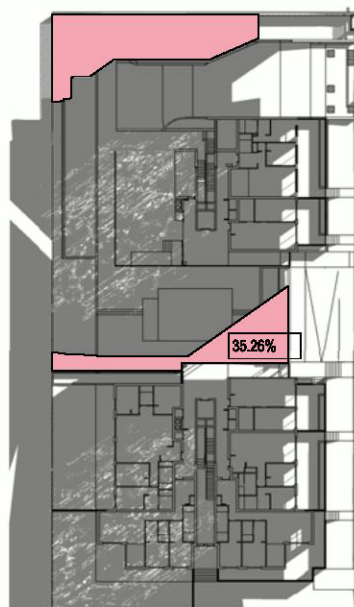
COS - SOLAR ACCESS GROUND 12.00PM



COS - SOLAR ACCESS GROUND 12.15PM



COS - SOLAR ACCESS GROUND 12.30PM



COS - SOLAR ACCESS GROUND 1PM



COS - SOLAR ACCESS GROUND 1.30PM



COS - SOLAR ACCESS GROUND 2PM



COS - SOLAR ACCESS GROUND 2.30PM



COS - SOLAR ACCESS GROUND 3PM

ISSUE	DATE	AMENDMENT	1. DESIGN / NOTES	2. GAS / GAS CLIPBOARD	3. RHYTHM / WATER OUTLET	4. PROJECT	5. MORSON GROUP	6. SHEET SIZE: A1	7. SHEET NAME	8. DRAWING NUMBER
A	07-04-2021	COUNCIL REVISION	BR BEDROOM COM COMB CLIPBOARD DP DOWNPIPE E ELECTRICAL CLIPBOARD FHA FIRE HOSE REEL	GAS GAS CLIPBOARD GO BOKED DRAW GEX GARAGE EXHAUST MEX MULLION RL RELATIVE LEVEL	RHYTHM WATER OUTLET SWP STORM WATER PIT TCH TOP OF HOBB TCH TOP OF WALL TCH TACTILE INDICATORS	16006 - PROPOSED RESIDENTIAL DEVELOPMENT ADDRESS: 16-24 HOPE STREET, PENRITH 2750	MORSON GROUP NORRINGTON ARCHITECTS - P.F. ARCHITECTS ADDRESS: 101-103 HOPE STREET, PENRITH 2750 WWW.MORSONGROUP.COM.AU PENRITH 2750 NSW	1:50	JULY 2018	DA27B
						CLIENT: PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD				A

WINDOW SCHEDULE									
			Opening Width	Opening Height					
No.	Opening				Slat Height	Glass Material	Location		Rating
14-8	Sliding	3000	1800	0	0	GL-1			
36-7	Awning	1400	2400	0	800	E			
36-1	Awning	1400	2400	0	800	E			
LEVEL 2 (TOWER 2)									
14-1	WRO	1000	1800	200	0	E			
14-3	WRO	1000	1800	200	0	E			
14-4	WRO	1000	1800	200	0	E			
26-1	Awning	1800	1500	500	0	E			
36-2	Awning	1900	1500	600	0	W	E		
36-3	WRO	1000	1500	800	0	E			
36-4	WRO	1000	1500	800	0	E			
36-6	Sliding	3000	2400	0	0	GL-1			
36-8	Clawmark	1200	2400	0	0	GL-1	S		
36-7	Sliding	1700	2400	0	0	GL-1			
37-1	Sliding	3000	2400	0	0	GL-1			
37-2	Sliding	1700	2400	0	0	GL-1			
37-3	WSS	1400	1500	900	0	E			
38-1	WSS	2400	1400	1000	0	N			
38-2	Sliding	2400	2400	0	0	GL-1			
38-3	WSS	1800	1400	1000	0	GL-1	N		
38-4	WB4	2100	800	1100	0	GL-1			
38-5	Awning	1800	1500	800	0	E			
38-6	Awning	1800	1500	800	0	E			
38-2	Awning	1900	1500	900	0	E			
38-3	Awning	1800	1500	800	0	E			
38-4	WB4	2100	800	1100	0	GL-1	E		
38-5	WSS	1800	1400	1000	0	GL-1	N		
38-6	Sliding	2400	2400	0	0	GL-1			
39-7	WSS	2400	1400	1000	0	N			
40-1	Awning	1800	1500	800	0	N			
40-2	Sliding	2400	2400	0	0	GL-1	N		
40-3	Sliding	3000	2400	0	0	GL-1			
41-1	Sliding	3000	2400	0	0	GL-1			
41-2	Clawmark	1200	2400	0	0	GL-1			
41-3	Awning	1800	1500	800	0	E			
41-4	Awning	1800	1500	800	0	E			
41-6	Awning	1800	1500	800	0	W			
41-8	Awning	1800	1500	800	0	W			
41-6	Awning	1900	1500	900	0	W			
LEVELS (TOWER 1)									
15-1	Sliding	1700	2400	0	0	GL-1	S		
15-2	Rtr	1200	2400	0	0	GL-1	S		
15-3	Sliding	3000	2400	0	0	GL-1	S		
15-4	WRO	1000	1800	200	0	E			
15-6	WRO	1000	1800	200	0	E			
15-8	WTR	1800	1500	800	0	E			
15-7	WTR	800	1500	900	0	E			
15-8	Awning	1800	1500	800	0	W			
15-1	Awning	1400	1500	900	0	S			
16-2	Sliding	2400	2400	0	0	GL-1	S		
16-3	Sliding	1700	2400	0	0	GL-1			
17-1	Awning	1400	2400	0	0	E			
17-2	Awning	1800	1500	800	0	W			
17-3	Awning	1800	1500	800	0	W			
17-4	WB4	2100	800	1100	0	GL-1	E		
17-6	WSS	1800	1400	1000	0	GL-1	N		
17-8	Sliding	2400	2400	0	0	GL-1			
17-3	WSS	2400	1400	1000	0	N			
18-1	WSS	2400	1400	1000	0	N			
18-2	Sliding	2400	2400	0	0	GL-1			
18-3	WSS	1800	1400	1000	0	GL-1	N		
18-4	WB4	2100	800	1100	0	GL-1	E		
18-5	Awning	1800	1500	800	0	W			
18-6	Awning	1800	1500	800	0	W			
18-7	Awning	1900	1500	900	0	E			
18-1	Sliding	3000	2400	0	0	GL-1			
18-2	Sliding	2400	2400	0	0	GL-1	N		
18-3	Awning	1400	1500	900	0	N			
20-1	WRO	1000	1800	200	0	E			
20-2	WRO	1000	1800	200	0	E			
20-3	WRO	1000	1500	800	0	E			
20-4	WRO	1000	1500	800	0	E			
20-5	Awning	1900	1500	900	0	E			
20-6	Clawmark	1200	2400	0	0	GL-1			
20-7	Sliding	3000	2400	0	0	GL-1			
44-7	Awning	1400	2400	0	800	E			
44-1	Awning	1400	2400	0	800	E			
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44-1	Awning	1400	2400	0	800	E			
44-1	Awning	1400	2400	0	800	E			
44-1	Awning	1400	2400	0	800	E			</

Floor plan of a 1-bedroom apartment unit. The unit is labeled "1 BED Adaptable 53.9 m²". It features a living area with a sofa and coffee table, a dining area with a table and chairs, and a kitchen with a stove and sink. The bedroom has a bed and a desk. The bathroom includes a bathtub, toilet, and sink. The unit is located on the second floor of the building.

ADAPTABLE UNITS
TOTAL UNITS - 51
ADAPTABLE UNITS - 6 (10%)
UNIT NUMBERS - 03, 34, 04, 35, 09, 40

A floor plan of a house with a yellow background. The plan includes a living area with a sofa, a dining area with a table and chairs, a kitchen with a stove and sink, and a bedroom with a bed. Dimensions are marked with arrows: 1000 for the width of the living area, 1000 for the width of the bedroom, 1000 for the width of the dining area, 1000 for the width of the kitchen, 1000 for the width of the bedroom, 1000 for the width of the living area, 1000 for the width of the dining area, 1000 for the width of the kitchen, 1000 for the width of the bedroom, 1000 for the width of the living area, 1000 for the width of the dining area, 1000 for the width of the kitchen, 1000 for the width of the bedroom.

1 : 250

1 : 250

1 : 250

1 : 250

1 : 250

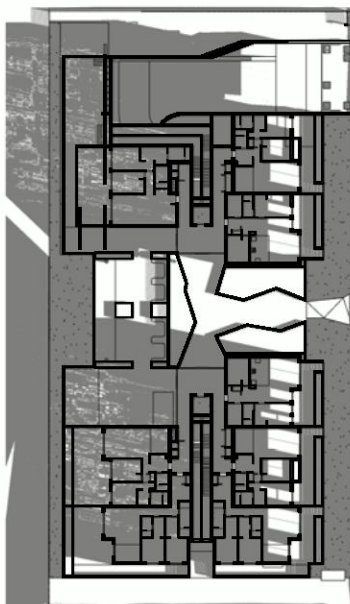
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NOTE:
-ALL WINDOWS MUST BE SITE MEASURED BEFORE THE PREPARATION OF SHOP DRAWINGS & FABRICATION
-REFER TO SECTION 'J' OF THE BCA FOR GLAZING VALUES
REFER TO BASIX SPECIFICATION REPORT FOR ALUMINIUM & GLAZING VALUES.
-ALL WINDOWS TO COMPLY WITH NCC 2013 CLAUSE D2.24 Protection of operable windows

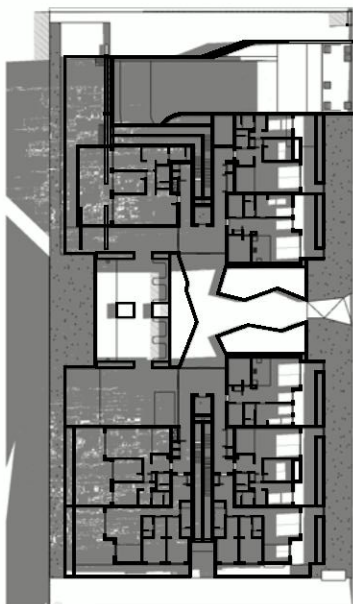
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Version: 1, Version Date: 07/10/2021



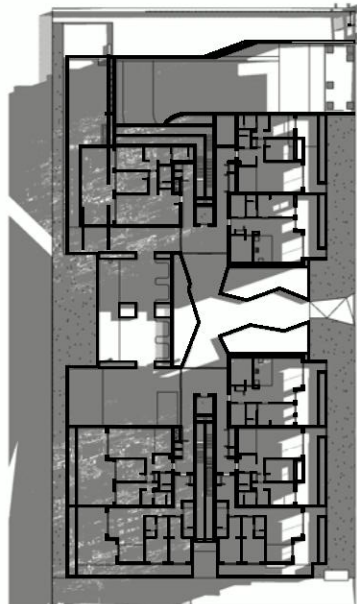
SOLAR ACCESS GROUND 9AM



SOLAR ACCESS GROUND 10AM



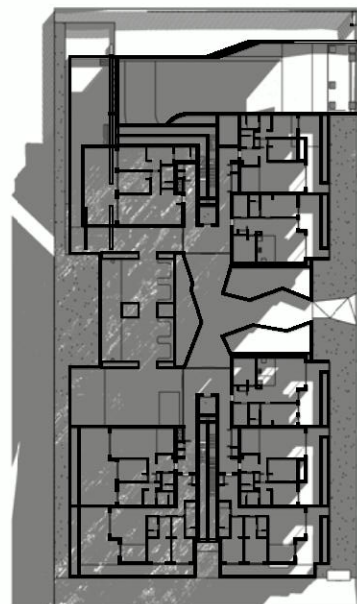
SOLAR ACCESS GROUND 11AM



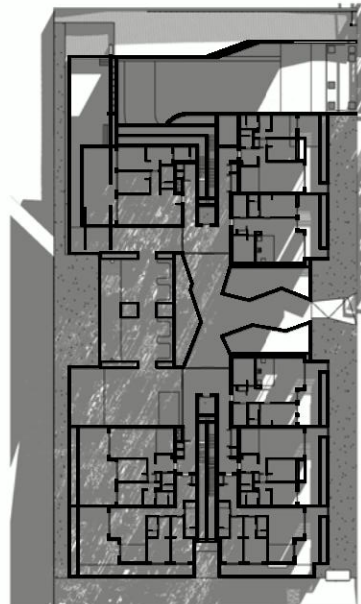
SOLAR ACCESS GROUND 12PM



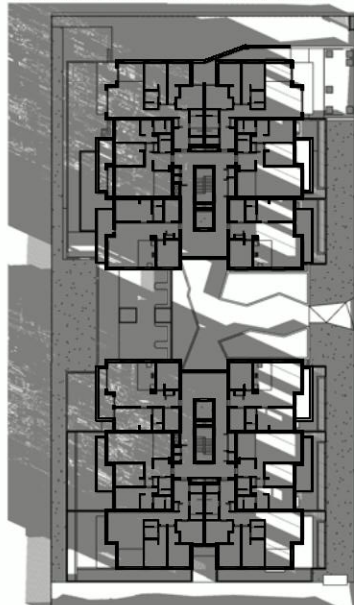
SOLAR ACCESS GROUND 1PM



SOLAR ACCESS GROUND 2PM



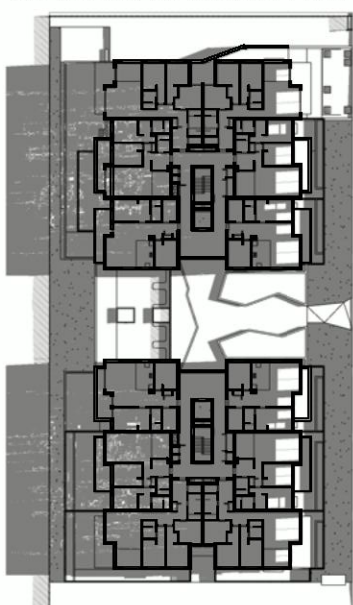
SOLAR ACCESS GROUND 3PM



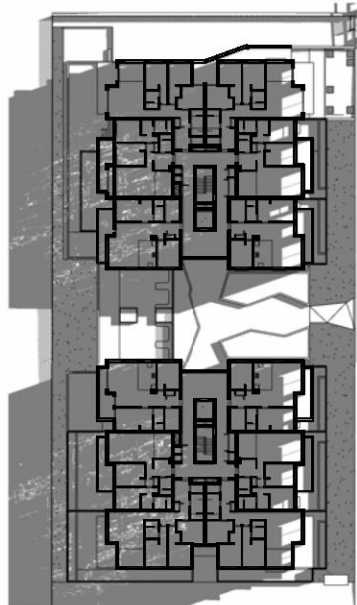
SOLAR ACCESS LVL1 9AM



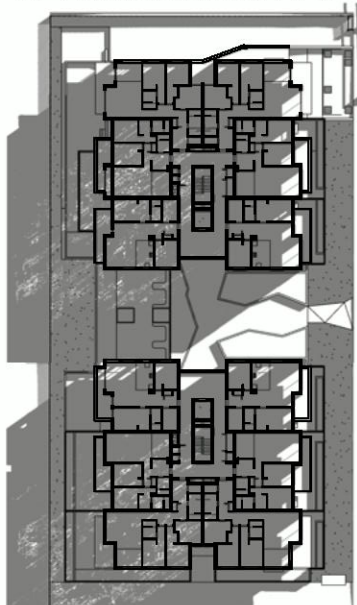
SOLAR ACCESS LVL1 10AM



SOLAR ACCESS LVL1 11AM



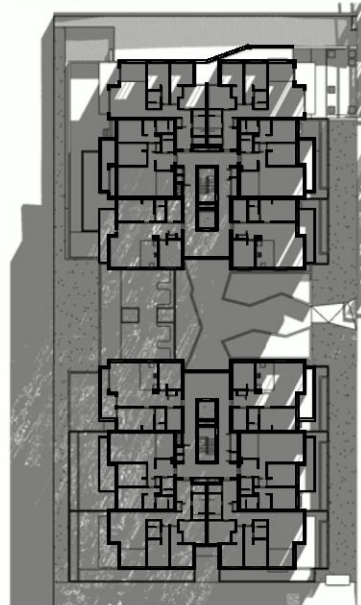
SOLAR ACCESS LVL1 12PM



SOLAR ACCESS LVL1 13PM



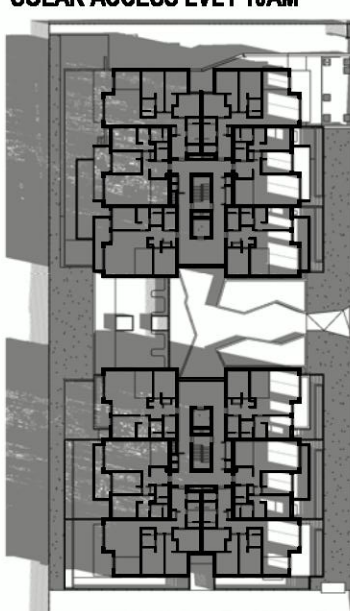
SOLAR ACCESS LVL1 14PM



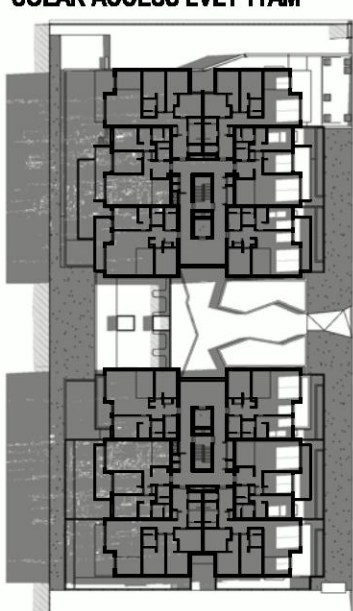
SOLAR ACCESS LVL1 15PM



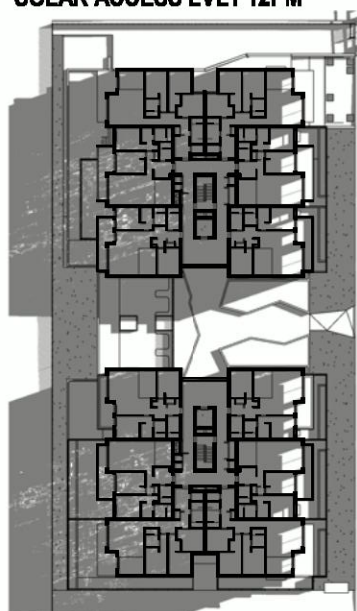
SOLAR ACCESS LVL2 9AM



SOLAR ACCESS LVL2 10AM



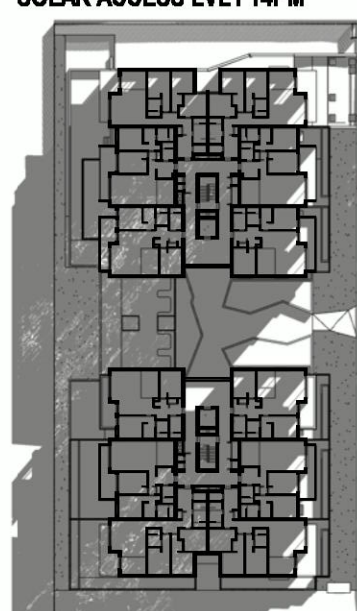
SOLAR ACCESS LVL2 11AM



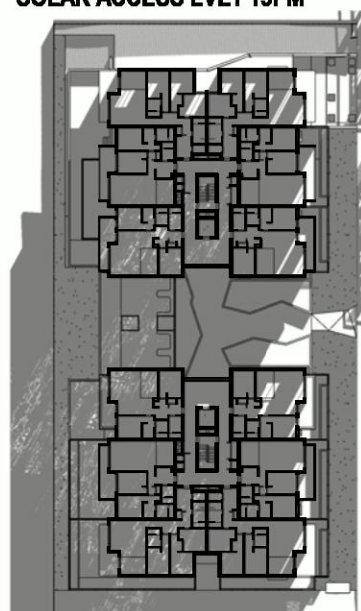
SOLAR ACCESS LVL2 12PM



SOLAR ACCESS LVL2 13PM

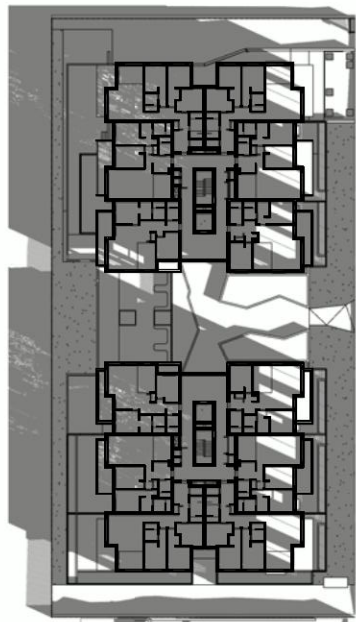


SOLAR ACCESS LVL2 14PM



SOLAR ACCESS LVL2 15PM

ISSUE	DATE	AMENDMENT	LEGEND / NOTES	PROJECT	CLIENT	SCALE	SHEET NAME	DATE	ISSUE NUMBER
A	17-05-2020	DA SUBMISSION	BR BEDROOM CCM COMB CLIPBOARD DP DOWNPIPE E ELECTRICAL CLIPBOARD FHA FIRE HOSE REEL GAS GAS CLIPBOARD GD GATED GARDEN GEX GARAGE EXHAUST MEX MULLION RL RELATIVE LEVEL RHYDRAWATER OUTLET SMP-STORE WATER PIT TOH TOP OF HOBB TOH TOP OF WALL TTO TACTILE INDICATORS	16006 - PROPOSED RESIDENTIAL DEVELOPMENT ADDRESS: 16-24 HOPE STREET, PENRITH 2750	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	1:500	DAYLIGHT ACCESS	JULY 2018	DA29 A



SOLAR ACCESS LVL3 9AM



SOLAR ACCESS LVL3 10AM



SOLAR ACCESS LVL3 11AM



SOLAR ACCESS LVL3 12PM



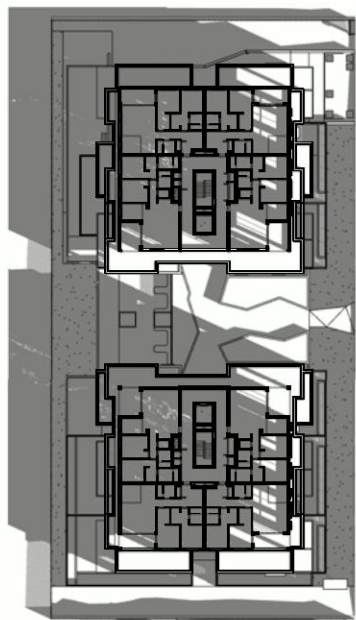
SOLAR ACCESS LVL3 13PM



SOLAR ACCESS LVL3 14PM



SOLAR ACCESS LVL3 15PM



SOLAR ACCESS LVL4 9AM



SOLAR ACCESS LVL4 10AM



SOLAR ACCESS LVL4 11AM



SOLAR ACCESS LVL4 12PM



SOLAR ACCESS LVL4 13PM



SOLAR ACCESS LVL4 14PM



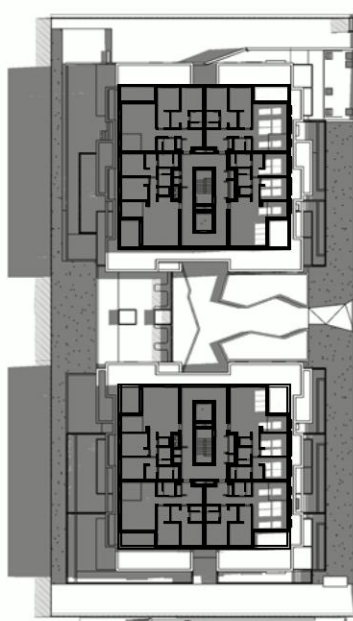
SOLAR ACCESS LVL4 15PM



SOLAR ACCESS LVL5 9AM



SOLAR ACCESS LVL5 10AM



SOLAR ACCESS LVL5 11AM



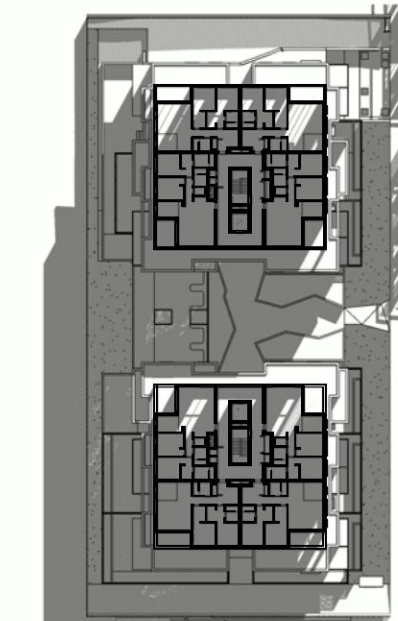
SOLAR ACCESS LVL5 12PM



SOLAR ACCESS LVL5 13PM

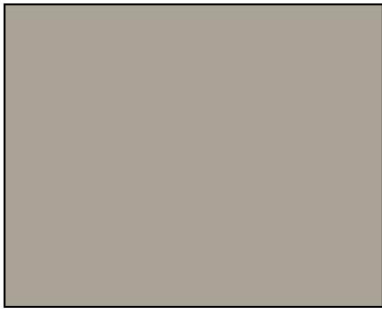


SOLAR ACCESS LVL5 14PM

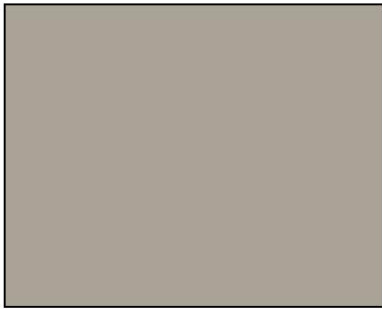


SOLAR ACCESS LVL5 15PM

ISSUE		DATE	AMENDMENT	LEGEND / NOTES		PROJECT		MORSON GROUP		SHEET NAME		DRAWING NUMBER	
A		17-03-2020	DA SUBMISSION	BR	BEDROOM	16006 - PROPOSED RESIDENTIAL DEVELOPMENT				DAYLIGHT ACCESS		DA30	
				CCM	COMMON CLIPBOARD								
				DP	DOWNPIPE								
				E	ELECTRICAL CLIPBOARD								
				FHR	FIRE HOSE REEL								
				GAS	GAS CLIPBOARD								
				GO	GRAVEL DRIVE								
				GR	GRASS								
				IR	IRRELATIVE LEVEL								
				MEK	MULTI-METER								
				REL	RELATIVE LEVEL								
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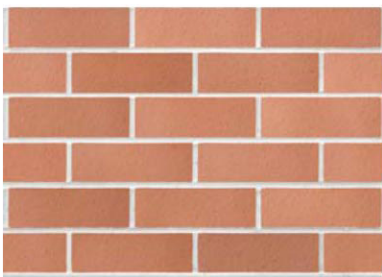


PT1
EXTERNAL (HIGH PERFORMANCE)
Dulux - White Dune
Code: SW1D6
RGB Value: 232,227,211
LRV Value: 79
URL: https://www.dulux.com.au/specifier/colour/colour-atlas#/colour/dulux_dulux_24971



PDC1
POWDERCOAT ALUMINIUM
EXTERNAL GRADE

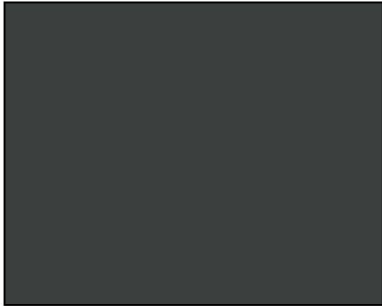
Dulux PowderCoat - Duralloy - Dune
Code: 2723087S
RGB Value: 170,163,152
LRV Value: 42
URL: <https://duluxpowders.com.au/products/duralloy/>



BRK1
Austral Bricks Symmetry Paprika
230x76-110-240-NSW



GL1
CLEAR GLASS



PT2
EXTERNAL (HIGH PERFORMANCE)

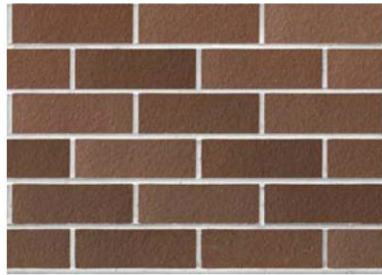
Dulux - Domino
Code: S06G8
RGB Value: 60,62,63
LRV Value: 7
URL: https://www.dulux.com.au/specifier/colour/colour-atlas#/colour/dulux_dulux_24734

GL and Level 5



PDC2
POWDERCOAT ALUMINIUM
Dulux PowderCoat - Duratec - Zeus Monument Matt
Code: 90Z8189M
RGB Value: 66,67,67
LRV Value: 9
URL: <https://duluxpowders.com.au/products/duratec-zeus/>

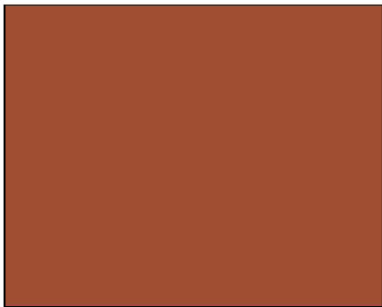
Louvre, windows frame and fence



BRK2
Austral Bricks Symmetry Mocha
230x76-110-240-NSW



GL2
COLOR BACK GLASS
"MONUMENT TO MATCH WINDOW FRAMES"



PT3
EXTERNAL (HIGH PERFORMANCE)
Dulux - Very Terracotta
Code: S08E8
RGB Value: 161,79,52
LRV Value: 17
URL: https://www.dulux.com.au/specifier/colour/colour-atlas#/colour/dulux_dulux_20813

Level 5

ISSUE	DATE	AMENDMENT	PROJECT	ADDRESS	SCALE	NORTH POINT	CLIENT	DESIGNER	DATE	SCALE	SHEET NAME	ISSUE NO.	ISSUE NAME
A	17-05-2020	DA SUBMISSION	16006 - PROPOSED RESIDENTIAL DEVELOPMENT	16-24 HOPE STREET, PENRITH 2750			PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	MORSON GROUP	17-05-2020	1:100	MATERIAL SCHEDULE	DA31	
B	01-04-2021	COUNCIL REVISION										B	

26th August 2021

NatHERS Thermal Performance Specifications (BASIX Thermal Comfort)
16-24 Hope Street, Penrith

These are the specifications upon which the NatHERS assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project.

Windows	Glass	Frame	U value	SHGC	Detail
Default	Single glazed, clear	Aluminium	6.7	0.57	Generally for window types (except where noted below): Awning, bi-fold, casement
Default	Single glazed, clear	Aluminium	6.7	0.70	Generally for window types (except where noted below):: Sliding window/ door, double hung, fixed, louvre
Default	Single glazed, low E (high solar gain)	Aluminium	5.4	0.49	All glazing for units: 3, 15, 21, 22, 23, 25, 48, 49, 50 for window types: awning, bi-fold, casement
Default	Single glazed, low E (high solar gain)	Aluminium	5.4	0.58	All glazing for units: 3, 15, 21, 22, 23, 25, 48, 49, 50 for window types: sliding window/ door, double hung, fixed
Default	Double glazed, low e (high solar gain)	Aluminium	4.3	0.47	All glazing for units: 26, 42, 44 for window types: awning, bi-fold, casement
Default	Double glazed, low e (high solar gain)	Aluminium	4.3	0.53	All glazing for units: 26, 42, 44 for window types: sliding window/ door, double hung, fixed

Skylights	Glass	Frame	U value	SHGC	Detail
None – see above for highlight windows: 21-7, 22-7, 48-6, 49-7					

External walls	Construction	Added Insulation	Detail
Brick veneer		R 2.5	As per drawings

Internal walls	Construction	Added Insulation	Detail
Plasterboard on studs		None	Walls within units
Hebel + stud		None	Walls between units
Hebel + stud / Concrete		R 1.0	Walls separating units from common lobbies / stairwells / services areas

Floors	Construction	Added Insulation	Detail
Concrete		None	Generally
Concrete		R 2.0	For units: 1, 2, 3, 4, 5, 6, 8, 25, 26, 27, 28, 29, 30, 35

Ceilings	Construction	Added Insulation	Detail
Plasterboard		(see roof detail below)	

Roof	Construction	Added Insulation	Detail
Concrete		R 1.0	For units: 15, 17, 18, 20, 42, 44, 45, 47
Concrete		R 3.0	For units: 21, 22, 23, 24, 48, 49, 50, 51

Other Requirements
All exhaust fans and downlights (if installed) to be sealed to prevent air-infiltration

Report Type: DA Access Report
Reference Number: 18148
Client: Prestige Development Group c/o Morson Group
Site Address: 16-24 Hope Street, Penrith



ACCESS REPORT

Vista Access Architects



Company Details

Vista Access Architects Pty. Ltd
ABN 82 124 411 614 ARN 6940
ACAA 281, CP 006, LHA 10032

Postal Address

POBox 353
Kingswood
NSW 2747

Contact details

www.accessarchitects.com.au
admin@accessarchitects.com.au
Farah Madon 0412 051 876

Project Summary:

This Access Compliance Report is to accompany a Development Application for the development proposed at 16-24 Hope Street, Penrith

This development proposes a New Building with a total of 60 Residential units. The development is within Penrith Council LGA that requires the provision of 10% Adaptable units and therefore the development proposes 6 Adaptable units. A total of 6 Accessible parking spaces have been provided in the development.

The project also provides 12 Livable units to comply with the SEPP 65 Objective 4Q1, that requires 20% of the units to incorporate the features of the Silver level of the Livable Housing Guidelines. (Refer to report for details)

The development has building classification as detailed below;

- Class 2 (building containing more than 2 SOUs i.e. sole-occupancy units)
- Class 7a (car park)

This Access report is based on the relevant components of;

- Building Code of Australia (BCA) 2016, Volume 1- Performance requirements of DP1, DP2, DP8, DP9, EP3.4, FP2.1 and Parts D2, D3, E3 and F2 (where applicable)
- Disability (Access to Premises-Building) Standards 2010 (henceforth referred to as APS)
- AS1428.1-2009 Part 1: General requirements for access, including any amendments
- AS1428.4.1-2009 Part 4.1: TGSIs (Tactile ground surface indicators), including any amendments
- AS2890.6-2009 Part 6: Off-street parking for people with disabilities.
- AS4299-1995 Adaptable Housing
- AS1735 Lifts types included in the BCA including Part 12: Facilities for persons with disabilities
- State Environmental Planning Policy 65 (SEPP 65), Objective 4Q1, relating to requirements of the provision of Livable Housing Australia's Silver Level Apartments
- Livable Housing Australia's Livable Housing Design Guidelines- Fourth Edition

The assessment of the proposed development has been undertaken to the extent necessary to issue DA (Development application) consent under the Environmental Planning and Assessment Act. The proposal achieves the spatial requirements to provide access for people with a disability and it is assumed that assessment of the detailed requirements such as assessment of internal fit-out, details of stairs, ramps and other features will occur at CC (Construction Certificate) stage.

By compliance with the recommendation in this report, the development complies with the requirements of Access Code of Disability (Access to Premises-Building) Standards 2010, the Disability Access relevant sections of Building Code of Australia 2016, the requirements of SEPP 65 related to Objective 4Q1 - Livable Housing and the essential criteria of AS4299-Adaptable Housing.

ASSESSED BY



Farah Madon

Accredited Access Consultant and LHA Assessor

ACAA Accredited Membership number 281

LHA Assessor Licence number 10032

Vista Access Architects Pty. Ltd.

Relevant dates:

Fee proposal, number FP-8246 dated 06-07-2018. Fee proposal was accepted by Client on 06-07-2018.

Assessed Drawings:

The following drawings by Morson Group Architects have been assessed for compliance.

Drawing no	Issue	Date	Details
DA10	A	17-03-2020	Floor plan- Basement 2
DA11	A	17-03-2020	Floor plan- Basement 1
DA12	A	17-03-2020	Floor plan- Ground floor
DA13	A	17-03-2020	Floor plan- Level 1
DA14	A	17-03-2020	Floor plan- Level 2
DA15	A	17-03-2020	Floor plan – Level 3
DA16	A	17-03-2020	Floor plan – Level 4
DA17	A	17-03-2020	Floor plan – Level 5
DA28	A	17-03-2020	Window Schedule & Adaptable Units

Document Issue:

Issue	Date	Details
Draft 1	16-07-2018	Issued for Architect's review
A	26-07-2018	Issued for DA
B	18-03-2020	Issued for DA

Limitations and Copyright information:

This report is based on discussions with the project architect and a review of drawings and other relevant documentation provided to us. No site visit was undertaken for the purposes of this project.

This assessment is based on the provided drawings and not based on constructed works, hence the assessment will provide assurance of compliance only if all the recommendations as listed in this report are complied with and constructed in accordance with the requirements of the current BCA, AS1428.1-2009 and other latest, relevant standards and regulations applicable at the time of construction. Assessment is based on classification/use of the building. If the Class of the building changes to any other building Class, this access report will have to be updated accordingly.

Unless stated otherwise, all dimensions mentioned in the report are net (CLEAR) dimensions and are not be reduced by projecting skirting, kerbs, handrails, lights, fire safety equipment, door handles less than 900mm above FFL (finished floor level) or any other fixtures/fit out elements. When we check drawings, we assume that the dimensions noted are CLEAR dimensions and therefore the Architect / Builder is to allow for construction tolerances. Only some numerical requirements from relevant AS (Australian Standards) have been noted in the report and for further details and for construction purposes refer to the latest relevant AS.

This report and all its contents are a copyright of Vista Access Architects Pty Ltd (VAA) and can only be used for the purposes of this particular project. This document may also contain Standards Australia Ltd copyrighted material that is distributed by SAI Global on Standards Australia Ltd.'s behalf. It may be reproduced in accordance with the terms of SAI Global Ltd.'s Licence 1801c001. Standards Australia Ltd.'s material is not for resale, reproduction or distribution in whole or in part without written permission from SAI Global Ltd.

This report does not assess compliance matters related to WHS, Structural design, Services design, Parts of DDA other than those related to APS or Parts of BCA or Parts of AS other than those directly referenced in this report. VAA gives no warranty or guarantee that this report is correct or complete and will not be liable for any loss arising from the use of this report. We will use our best judgement in regards to the LHA assessments. However, we are not to be held responsible if another licenced LHA assessor comes to a different conclusion about compliance, certification or allocation of a particular Quality mark to us as a number of items are subject to interpretation.

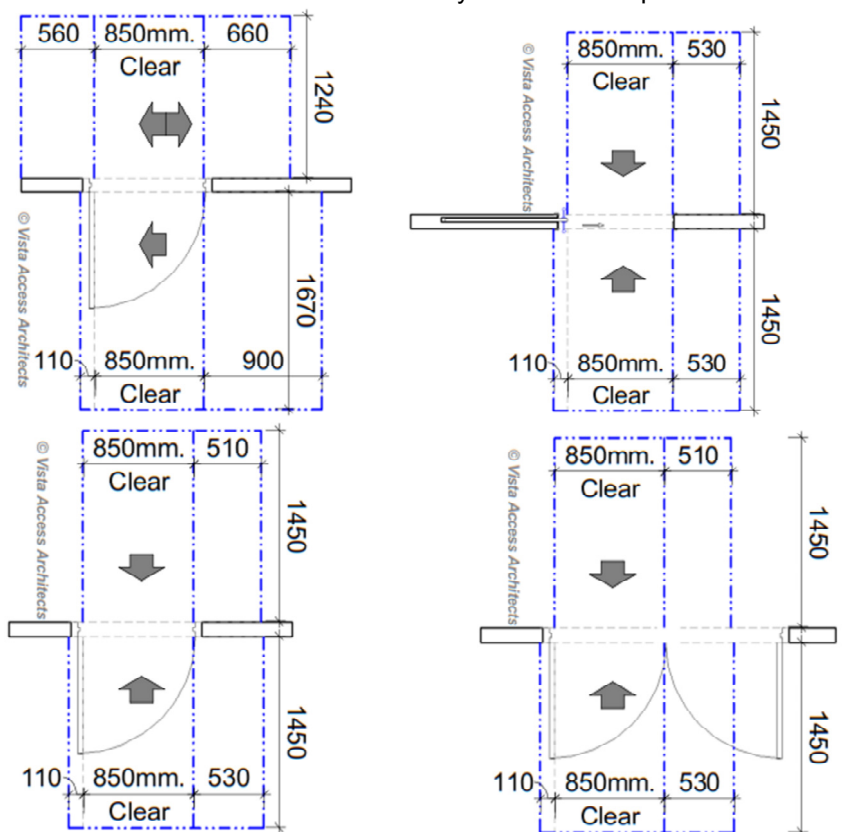
We have no ability to check for slip resistance of surfaces. All wet areas, parking areas, pavement markings shall have the appropriate slip resistance for the location. We also have no ability to check for wall reinforcements once the walls have already been constructed. The builder is to take full responsibility that the requirements listed in this report are met and the construction to be as per requirements of AS1428.1/ AS4299 / AS2890.6/ AS3661/ AS4586

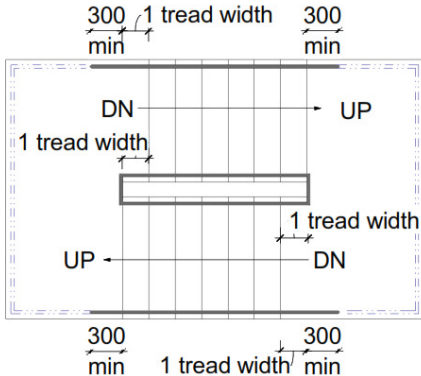
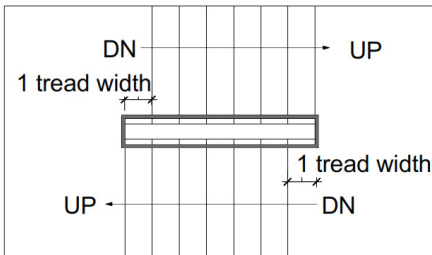
A report issued for DA (development application) is not suitable for use for CC (construction certificate) application.

Compliance assessment with Access related requirements of BCA and Disability (Access to Premises-Building) Standards 2010 (APS)

BCA Part D3 Access for People with a Disability

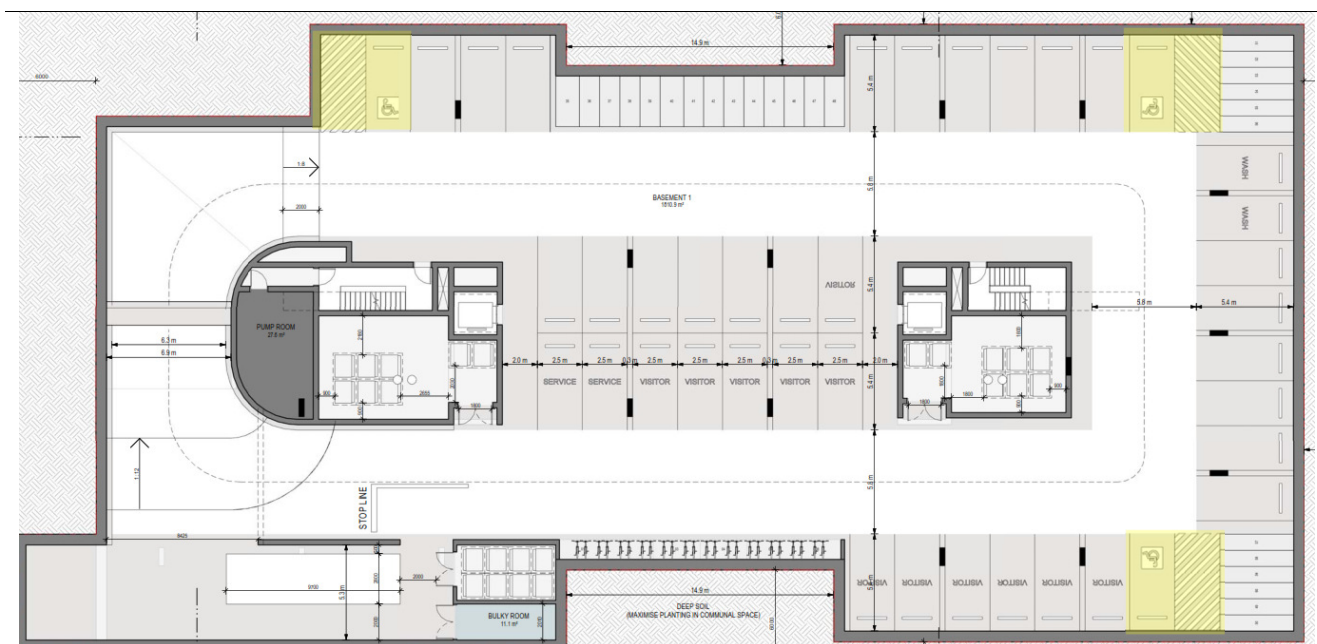
	BCA D3.1 General building Access requirements SOU refers to a Sole Occupancy Unit
Requirement	Class 2 For residential use components, access is required: <ul style="list-style-type: none"> - From a required accessible pedestrian entrance to at least 1 floor with SOUs and till the entry of door of each SOU on that level. - To and within 1 of each type of room or space in common use. - Where floor is accessed by an AS1428.1 ramp or lift, access is required to the entry doorway of each SOU on that level and to and within all common use areas on that level.
Compliance Comments	Complies. <ul style="list-style-type: none"> - Access has been provided from the main pedestrian entry doorway to the entry doors of all SOUs on all levels by means of accessible pathways and lifts. - Access has been provided to at least 1 of each common use space such as communal garden on Ground floor level. - Where common use areas are on a floor that is accessible by means of a ramp or lift (Ground floor in this case), access has been provided to the same. - Access has been provided to common use garbage chutes on each floor level. Details to be verified at CC stage of works.
Requirement	Class 7a- Covered car park. <ul style="list-style-type: none"> - To and within any level containing accessible carparking spaces.
Compliance Comments	Complies. Access has been provided to all levels containing Accessible carparking spaces. Details to be verified at CC stage of works.
	BCA Part D3.2 Access to buildings
Requirement	Accessway is required from; <ul style="list-style-type: none"> - Main pedestrian entry at the site boundary for new buildings. - Any other accessible building connected by a pedestrian link. - Accessible car parking spaces.
Compliance Comments	Complies. <ul style="list-style-type: none"> - Level Access has been provided from the main pedestrian entry at the site boundary (max 1:40 grade walkway) - Access has been provided from accessible car parking spaces by means of lifts. Details to be verified at CC stage of works.
Requirement	External Walkway / Pedestrian Access- to be as per requirements of AS1428-2009.
Compliance Comments	Capable of compliance. Details to be verified at CC stage of works.
Requirement	Accessway is required through: <ul style="list-style-type: none"> - Main entry; and - Not less than 50% of all pedestrian entrances; and - In building with floor area over 500m², non-accessible entry and accessible entry to be not more than 50M apart.
Compliance Comments	Complies The building has only 1 pedestrian entry from site boundary which has been designed to be accessible. There are two main entry doorways to the building. Details to be verified at CC stage of works.

Requirement	<p>Where accessible pedestrian entry has Multiple doorways:</p> <ul style="list-style-type: none"> - At least 1 to be accessible if 3 provided - At least 50% to be accessible, if more than 3 provided - Where doorway has multiple leaves, at least 1 leaf is to have clear opening of 850mm (excluding automatic doors)
Compliance Comments	<p>Capable of compliance.</p> <p>In common use areas, all single hinged doors and in case of multiple leaf doorways, at least 1 operable leaf is required to provide a clear opening of 850mm with the door circulations spaces as per AS1428.1-2009. Note that door circulation spaces are to be at a grade of not more than 1:40 and the external doorways are to have a maximum level difference of 35mm when used in combination with doorway threshold ramp.</p>  <p>This is achievable and the door selections are to be verified at CC stage of works.</p>
BCA Part D3.3 Parts of buildings required to be accessible	
Requirement	<p>Every Ramp with grades steeper than 1:20 and less than or equal to 1:14 (excluding fire-isolated ramp) is to be compliant with:</p> <ul style="list-style-type: none"> - AS1428.1-2009 (including but not limited to - maximum grade of 1:14 with appropriate landings at a maximum of 9M of a flight of ramp). - 1M clear width to be provided between handrails / kerb / kerbrails. - Handrails and kerbs to be provided on both sides with appropriate handrails extensions. - Slip resistance of ramp and landings to comply with BCA Table D2.14
Compliance Comments	<p>N/A</p> <p>No 1:14 ramps have been identified in the development.</p>
Requirement	<p>Step ramp if provided is to be compliant with:</p> <ul style="list-style-type: none"> - AS1428.1-2009 including max grade of 1:10, max height of 190mm, max length of 1.9M - Slip resistance of ramp and landings to comply with BCA Table D2.14.
Compliance Comments	<p>N/A</p> <p>No step ramps have been identified in the development.</p>
Requirement	<p>Kerb ramp if provided is to be compliant with:</p> <ul style="list-style-type: none"> - AS1428.1-2009 including max grade of 1:8, max height of 190mm, max length of 1.52M - Slip resistance of ramp and landings to comply with BCA Table D2.14.
Compliance Comments	<p>N/A</p> <p>No kerb ramps have been identified in the development.</p>


Requirement	<p>Every Stairway (excluding fire-isolated stairway) is to be compliant with:</p> <ul style="list-style-type: none"> - AS1428.1-2009 (including but not limited to opaque risers, handrails on both sides including appropriate handrail extensions between 1M clear width and compliant nosing strips). - Slip resistance to comply with BCA Table D2.14 when tested in accordance with AS4586.
Compliance Comments	<p>Capable of compliance.</p> <p>Where non-fire-isolated stairways have been provided, the features of the stairway will be assessed with the requirements of AS1428.1-2009 at the CC stage of works.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Note: In some cases, the stairway from the basement to the ground floor level is considered to be non-fire-isolated, in which case full compliance will be required as per AS1428.1-2009. Verify with the BCA consultant.</p> <p>Note: For stairways with 90° to 180° turns at landings, in order for the handrails to comply with the consistent height requirement, the risers have to be offset at the mid-landings so that no vertical sections are created in the handrails. This applies to both non- fire-isolated and fire-isolated stairways.</p> </div> </div>
Requirement	<p>Handrail cross-section – for stairways and ramps to comply with AS1428.1-2009.</p> <ul style="list-style-type: none"> - Diameter of handrails to be between 30mm-50mm and located not less than 50mm from adjacent walls with no obstructions to top 270° arc.
Compliance Comments	<p>Capable of compliance.</p> <p>Details to be verified at CC stage of works.</p>
Requirement	<p>Every Fire-isolated Stairway is to be compliant with AS1428.1-2009 in the following aspects:</p> <ul style="list-style-type: none"> - Handrail on one side (requirement under D2.17) with 1M clear space. Handrail extensions are not required however since the handrails cannot have any vertical sections and since handrail is required to be at a consistent height throughout the stairway including at landings, it may be essential to either provide handrail extensions or offset first riser going up at mid landings to achieve this at 90° to 180° turns. - Nosing strips 50mm-75mm wide with minimum of 30% luminance contrast and - Slip resistance to comply with BCA Table D2.14.
Compliance Comments	<p>Capable of compliance.</p> <p>Detailed features of the fire-isolated stairways will be assessed with the requirements of AS1428.1 at the CC stage of works.</p> <div style="text-align: center;">  </div>

Requirement	Slip resistance requirements as per BCA		
	BCA Table D2.14 has the following Slip –resistance requirements when tested in accordance with AS4586:		
	Application	Surface conditions	
		Dry	Wet
	Ramp steeper than 1:14	P4 or R11	P5 or R12
	Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
	Tread or landing surface	P3 or R10	P4 or R11
	Nosing or landing edge strip	P3	P4
	Slip resistance requirements as per AS4299		
	AS4299 has slip resistance requirements based on requirements of AS3661 (Slip resistance of pedestrian surfaces) for the following areas:		
	<ul style="list-style-type: none"> - Floor surfaces in sanitary facilities including all toilets and bathrooms (essential feature). - Floor surfaces in the kitchens and Laundries (essential feature). - Pathways / walkways within the site, within landscaped areas, balconies and other external paved areas (desirable feature for Class A or B developments). - AS3661.1-1993 is an old Australian standard which has been superseded with AS4586:2013 (Slip resistance classification of new pedestrian surface materials). 		
	HB 197 An introductory guide to the slip resistance of pedestrian surface materials provides guidelines for the selection of slip-resistant pedestrian surfaces		
Compliance Comments	Capable of compliance. For Slip resistance of surfaces the builder is required to provide a Certificate stating that the Slip resistance of the surfaces comply with the above listed requirements when tested as per AS4586. Details to be provided at the CC stage of works.		
Requirement	Every Passenger lift is to comply with the requirements of BCA E3.6.		
Compliance Comments	This has been assessed further in the report in the Lifts section. Refer to Lifts section.		
Requirement	Passing spaces requirement		
	It is a requirement to provide passing spaces in accessways complying with AS1428.1 at maximum 20 M intervals, where a direct line of sight is not available. Space required is 1800x2800mm (in the direction of travel). Chamfer of 400x400mm is permitted at corners.		
Compliance Comments	Complies Adequate passing spaces have been provided. Details to be verified at CC stage of works.		
Requirement	Turning spaces requirement		
	It is a requirement to provide turning spaces in accessways complying with AS1428.1-2009 within 2M of the end of accessways where it is not possible to continue travelling and at every 20M intervals. CLEAR Space required is 1540mm x 2070mm in the direction of travel (measured from skirting to skirting).		
Compliance Comments	Complies. <ul style="list-style-type: none"> - Adequate turning spaces have been provided with minimum common use passageway widths being 1540mm clear or alternatively a space of 1540mm x 2070mm provided at or within 2M of the end of the passageway. - A space of 1540mm x 2070mm is also required / provided in front of all passenger lift doors. Details to be verified at CC stage of works.		
Requirement	Carpet specifications		
	Carpet if used in areas required to be accessible are to be provided with pile height or thickness not more than 11mm and carpet backing not more than 4mm bringing the total height to a maximum of 15mm.		
Compliance Comments	Capable of compliance if carpets are provided in the common use areas Carpet selections generally take place at CC stage of works. Selection of carpets as specified above will lead to compliance. Details to be verified at CC stage of works.		

	BCA Part D3.4 Exemption
Requirement	Access is not required to be provided in the following areas: <ul style="list-style-type: none"> - Where access would be inappropriate because of the use of the area - Where area would pose a health and safety risk - Any path which exclusively provides access to an exempted area
Compliance Comments	<p>For information only.</p> <p>Areas such as lift machine rooms, fire services room, commercial kitchens etc. in the development are exempted from providing access under this clause due to WHS concerns. Where a care taker is provided in the development, the toilet provided exclusively for use by the caretaker can be excluded from providing access based on the provisions in this clause.</p>
	BCA Part D3.5 Accessible Carparking
Requirement	Class 2 There are no Accessible carparking requirements for a Class 2 under the BCA. If adaptable housing has been mandated by the Council, then carparking spaces for Adaptable units will be required under the requirements of AS4299- Adaptable housing.
Compliance Comments	<p>Complies.</p> <p>Penrith Council requires provision of 10% Adaptable units in the development. Development has total number of 60 units. 10% of 60 = 6 required Adaptable units. Therefore, 8 accessible carparking spaces are required for the residential component of the development. 8 Accessible car parking spaces have been provided in development. One accessible parking space is required to be allocated to each of the Adaptable units. Detailed features of the accessible/ adaptable parking spaces are to be verified at CC stage of works.</p>
	AS2890.6-2009 requirements for Accessible car parking space
Requirement	<ul style="list-style-type: none"> - Dedicated space 2.4Mx5.4M, Shared space 2.4Mx5.4M at the same level - Slip resistant flooring surface with maximum fall 1:40 in any direction or maximum 1:33 if bituminous and outdoors. - Central Bollard in shared space at 800+/-50mm from entry point . - Pavement marking in dedicated space by means of access symbol between 800mm-1000mm high placed on a blue rectangle of maximum 1200mm and between 500mm-600mm from its entry point (marking not required where allocated to an Adaptable unit). - Minimum headroom of 2.2M at entrances and 2.5M is required over shared zones as well as dedicated spaces. - Non-trafficked area of the shared space to have marking strips at 45°, 150-200mm wide at 200mm-300mm spaces (not required where driveways are used as shared spaces)
Compliance Comments	<p>Capable of compliance.</p> <p>Details to be verified at the CC stage of works.</p> <p>Refer to diagrams below for requirements, especially in regards to head height requirements.</p> <p>Note: The pavement marking shall have the appropriate slip resistance for the location. This requirement is to be added to the project specifications to ensure compliance.</p> <div> </div> <p>Head heights for both dedicated accessible parking space and the shared zone to be as shown above. No beams, pipes, sprinklers or any other encroachments are permissible for the entire 5.4M width of the dedicated and shared zone as per Section shown above.</p>



Basement 1 shown above

	BCA Part D3.6 Signage	
Requirement	Braille and Tactile signage is required to identify Accessible Sanitary facilities	
Compliance Comments	N/A No common use sanitary facilities have been proposed in the development.	
Requirement	Braille and Tactile signage is required to identify Ambulant Sanitary facilities	
Compliance Comments	N/A No common use, ambulant sanitary facilities have been provided in the development.	
Requirement	Braille and Tactile signage is required to identify Hearing Augmentation	
Compliance Comments	N/A Hearing augmentation is not provided since there is no inbuilt amplification system proposed in the development.	
Requirement		Braille and Tactile signage is required to identify a Fire exit door required by E4.5 by stating the 'Exit' and 'Level', followed by either: <ul style="list-style-type: none"> - The floor level number or - Floor level descriptor or - A combination of both of the above. Sign must be located on the side that faces a person seeking egress The "?" shown in image above is to be replaced with the floor level where the door is located. Image of the running person is optional.
Compliance Comments	Capable of compliance. All doors nominated as Exit doors require signage as described above. Signage selections generally take place at CC stage of works. Selection of signage as specified above will lead to compliance. Details of selected signage to be verified at CC stage of works.	
Requirement	Signage is required to a non-accessible pedestrian entrance	
Compliance Comments	N/A The development has only 1 entry which has been designed to be accessible.	
Requirement	Signage is required where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility.	
Compliance Comments	N/A	

	BCA Part D3.8 Tactile indicators (TGSIs)
Requirement	TGSIs are required when approaching: <ul style="list-style-type: none"> - Stairways other than fire-isolated stairways. - Escalators / passenger conveyor / moving walk. - Ramp (other than fire-isolated ramps / kerb or step or swimming pool ramps). - Under an overhead obstruction of <2M if no barrier is provided. - When accessway meets a vehicular way adjacent to a pedestrian entry (if no kerb / kerb ramp provided at the location). Compliance is required with AS1428.4.1 including Luminance contrast and slip resistance requirements for all TGSIs.
Compliance Comments	N/A No areas requiring TGSIs have been identified in the development. To be verified at the CC stage of works.
	BCA Part D3.11 Limitations on Ramps
Requirement	On an accessway: <ul style="list-style-type: none"> - A series of connected ramps must not have a combined vertical rise of more than 3.6M; - And a landing for a step ramp must not overlap a landing for another step ramp or ramp.
Compliance Comments	N/A No ramps have been identified in the development.
	BCA Part D3.12 Glazing on Accessways
Requirement	Glazing requirements: Where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening are required to have a glazing strip as per requirements of AS1428.1
Compliance Comments	Capable of compliance Glazing strips are required to be provided to full length glazed areas (doors and windows) used in common use areas such as lift lobbies and common passageways. Glazing strip selections generally take place at CC stage of works. Selection of glazing strips as specified above will lead to compliance and these selection details are to be verified at CC stage of works.
	BCA Part F Accessible Sanitary Facilities
	BCA F2.4 Accessible sanitary facilities
Requirement	Accessible unisex toilet is to be provided in accessible part of building such that; <ul style="list-style-type: none"> - It can be entered without crossing an area reserved for 1 sex only - Where male and female sanitary facilities are provided at different locations, Accessible unisex toilet is only required at one of the locations - Even distribution of LH and RH facilities - An accessible facility is not required on a level with no lift / ramp access.
Compliance Comments	N/A No common use sanitary facilities have been proposed in the development.
Requirement	Accessible unisex toilet are to be designed in accordance with AS1428.1-2009
Compliance Comments	N/A No common use sanitary facilities have been proposed in the development.
Requirement	Ambulant use male / female toilets are to be provided if an additional toilet to the Accessible unisex toilet is provided
Compliance Comments	N/A. No common use ambulant use facilities have been provided in the development.
Requirement	Ambulant use toilets are to be designed in accordance with AS1428.1-2009
Compliance Comments	N/A. No common use ambulant use facilities have been provided in the development.

	BCA F2.4(a) Accessible unisex sanitary compartments
Requirement	Class 2 - At least 1 unisex Accessible toilet when sanitary compartments are provided in common areas.
Compliance Comments	Complies. 1 unisex accessible bathroom has been provided in the development.
	BCA F2.4(b) Requirements for Accessible unisex showers
Requirement	Class 2 - At least 1 unisex Accessible shower when showers are provided in common areas.
Compliance Comments	N/A No common use sanitary facilities have been identified in the development.
Requirement	Showers for Accessible use are to be designed in accordance with AS1428.1.
Compliance Comments	N/A No common use shower facilities have been identified in the development.
	BCA Part E Lift Installations
	BCA E3.2 Stretcher facility in lifts
Requirement	A Stretcher lift is to be provided if a passenger lift is installed to serve any storey with an effective height of 12M. The space requirement is 600mm wide x 2000mm deep x 1400mm high above the floor level. Confirm this requirement with your BCA consultant.
Compliance Comments	Capable of compliance Details to be verified at CC stage of works.
	BCA E3.6 Passenger lift
Requirement	In an accessible building, Every Passenger Lift (excluding electric passenger lift, electrohydraulic passenger lift, inclined lift) must be subject to limitations on use and must comply with Tables E3.6a and E3.6b
Compliance Comments	Capable of compliance. A certificate of compliance from the lift supplier will be required at the CC stage of works stating that the proposed lift complies with the requirements of BCA Part E3- Lift installations.
Requirement	Limitations on use of Stairway platform lifts, Low-rise platform lift, Low-rise, low-speed constant pressure lift and small sized, low-speed automatic lift
Compliance Comments	N/A Not identified in the development.
Requirement	Handrail requirements for passenger lifts. Apart from stairway platform lift and low-rise lifts, a handrail is required as per AS1735.12.
Compliance Comments	Capable of compliance. Details to be verified at CC stage of works.
Requirement	Lift floor dimensions (excluding stairway platform lift) - Lifts traveling 12M or under, floor size, 1100mm wide x 1400mm deep - Lifts travelling more than 12M, floor size 1400mm wide x 1600mm deep
Compliance Comments	Capable of compliance Details to be verified at CC stage of works. Additional lift car size may apply if stretcher lift is required under the BCA.
Requirement	Minimum Door opening size complying with AS1735.12, not less than 900mm clear (excluding stairway platform lift).
Compliance Comments	Capable of compliance Details to be verified at CC stage of works.

Requirement	All lifts with a power operated door are required to have a Passenger protection system complying with AS1735.12.
Compliance Comments	Capable of compliance Details to be verified at CC stage of works.
Requirement	Lift landing doors to be provided at upper landing (excluding stairway platform lift).
Compliance Comments	Capable of compliance Details to be verified at CC stage of works.
Requirement	Lift car and landing control buttons to comply with AS1735.12 (excluding stairway platform lift and low-rise platform lift).
Compliance Comments	Capable of compliance Details to be verified at CC stage of works.
Requirement	Lighting (for all enclosed lift cars) to be provided in accordance with AS1735.12 and AS1680. Minimum illuminance of 100 lx is required at the level of the car floor and average of 50 lx is required on the control panel surface.
Compliance Comments	Capable of compliance Details to be verified at CC stage of works.
Requirement	To all lifts serving more than 2 levels , audible and visual indication to be provided as per AS1735.12.
Compliance Comments	Capable of compliance. Details to be verified at CC stage of works.
Requirement	Emergency hands free communication (excluding stairway platform lift) – provide a button that alerts a call centre and a light that the call has been received.
Compliance Comments	Capable of compliance Details to be verified at CC stage of works.

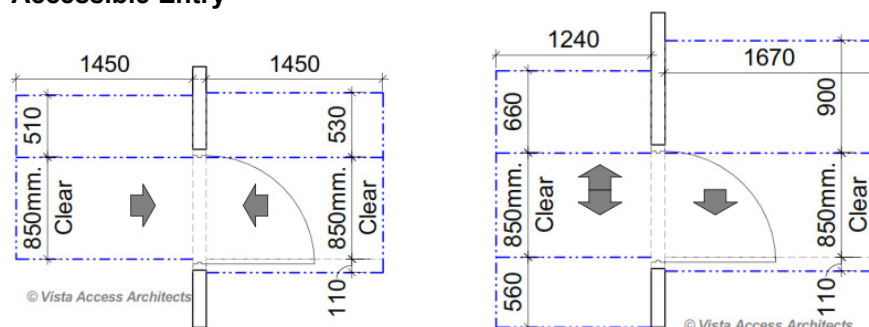
Additional Features required as per AS1428

Refer to AS1428 for full list of requirements.

	The following accessibility requirements apply only to: <ul style="list-style-type: none"> - Common use areas within the residential component (including passageways leading to SOUs)
Requirement	Accessway width requirements <ul style="list-style-type: none"> - All Accessway widths are to be a minimum of 1M clear (measured from skirting to skirting) with vertical clearance of at least 2M
Compliance Comments	Complies. Details to be verified at CC stage of works.
Requirement	Doorway requirements <ul style="list-style-type: none"> - All common use doorways in the development to be in accordance with AS1428.1 - Door thresholds are to be level or they can incorporate a Threshold ramp as per AS1428.1 i.e. max 1:8 grade, max height of 35mm and located within 20mm of door leaf. - Distance between successive doorways in airlocks to be 1450mm which is measured when the door is in open position in case of swinging doors.
Compliance Comments	Capable of compliance. Details to be verified at CC stage of works.
Requirement	Door hardware requirements <ul style="list-style-type: none"> - Door hardware including door handles, door closers and the in-use indicators / snibs in accessible and ambulant toilets are required to comply with requirements of AS1428.1.
Compliance Comments	Capable of compliance. Door hardware selections generally take place at CC stage of works. Selection of door hardware as specified above will lead to compliance and these selection details are to be verified at CC stage of works.
Requirement	Luminance contrast requirements for doorways. <ul style="list-style-type: none"> - All doorways to have a minimum luminance contrast of 30% provided as per AS1428.1 with the minimum width of the luminance contrast to be 50mm.
Compliance Comments	Capable of compliance. Painting schedule is generally developed at the CC stage of works. The painting schedule of walls/doors and door frames are to consider the above requirements when colours are selected. Generally a light colour door with a dark colour frame will satisfy requirements. Selection details are to be verified at CC stage of works.
Requirement	Floor or ground surfaces <ul style="list-style-type: none"> - Use slip-resistant surfaces. The texture of the surface is to be traversable by people who use a wheelchair and those with an ambulant or sensory disability. - Abutment of surfaces is to have a smooth transition. Construction tolerances to be as per AS1428.1 - Grates if used in the accessible path of travel is required to comply with the requirements as per AS1428.1
Compliance Comments	Capable of compliance. Floor surface selections generally take place at CC stage of works. Selection of floor surfaces as specified above will lead to compliance and these selection details are to be verified at CC stage of works.
	Switches, Controls and Lighting requirements <ul style="list-style-type: none"> - All switches and controls (including controls for intercom facilities and external lift control buttons) on an accessible path of travel, Accessible SOUs and Accessible sanitary facilities to be located as per requirements of AS1428.1
Compliance Comments	Capable of compliance. Lighting fixture selections and locations generally take place at CC stage of works. Selection of lighting fixtures and locating them as specified above will lead to compliance. These selection/location details are to be verified at CC stage of works.

Car parking space or garage of minimum 6.0Mx 3.8M or a hard surfaced level outside of 5.4Mx3.8M is to be provided as a sheltered car park or can be provided in the future	✓	✓	Complies. Space can also be provided as per AS2890.6 Details to be verified at the CC stage
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Accessible Entry



Door circulation requirements of AS1428.1 with approach directions shown with arrows below. Accessible entry to be provided with, - An accessible door threshold - 1550mm diameter landing - 850mm clear opening door with clearances, door hardware operable with one hand and located 900-1100mm above floor	✓	✓	Capable of compliance. Details to be verified at the CC stage
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Interior: General

- Internal doors to have 820mm minimum clearance with provision for compliance with AS1428.1 for door approaches and minimum corridors width of 1M - Door hardware operable with one hand and located 900-1100mm above floor	✓	✓	Capable of compliance. Provide an 850mm clear opening door to the adaptable bathroom and 1 main bedroom. Rest to have 820mm clear opening. Details to be verified at the CC stage
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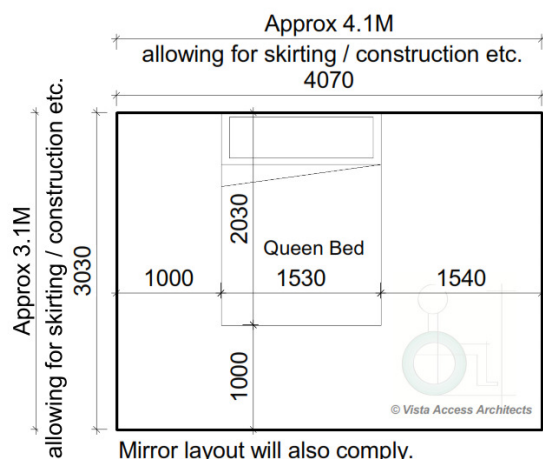
Living room and dining room

Circulation space of minimum 2250mm diameter.	✓	✓	Complies.
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Kitchen

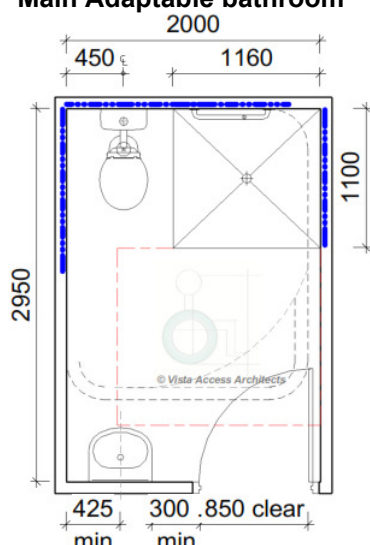
It is general industry practice to accept that kitchen is something that has a very short life span and can be completely replaced when required to be adapted. As such only the following requirements apply, <u>Potential of achieving the following at Post- Adaptation:</u> - Minimum width 2.7M and 1550mm clear between benches - Provision for circulation at doors to comply with AS1428.1 (if doors provided) - Provision for benches, taps, cooktops, ovens as required under AS4299	✓	✓	Can be compliant post adaptation. Details to be verified at the CC stage
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Main bedroom



At least one bedroom of area sufficient to accommodate a queen size bed and wardrobe and circulation space requirements of AS1428.2	✓	✓	Complies Details to be verified at the CC stage
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Main Adaptable bathroom



Post Adaptation bathroom layout shown

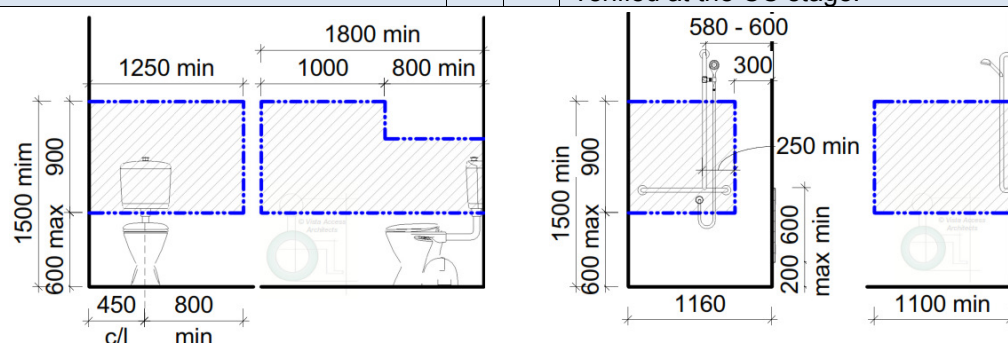
Noted dimensions in these diagrams are approximate and depend on selected features such as size of the basin. These dimensions include allowances for reinforcements and normal construction tolerances.

Thick blue line indicates the location of wall reinforcements which are to be provided at pre-adaptation itself. Red dotted line indicates the shower circulation space. Black dotted line indicates the WC pan circulation space.

<ul style="list-style-type: none"> - Provision for bathroom area with Circulation spaces of Shower and WC (including fixtures) to comply with AS1428.1. - Note that wall reinforcements and waterproofing details to comply with AS4299 	✓	✓	Complies A bathroom with minimum space of 2Mx 2.95M or 2.3Mx2.7M or 2.4Mx2.45M is achievable. Wall reinforcement details to be verified at the CC stage.
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Wall reinforcement requirements at Pre-adaptation

Reinforcement requirements for the Adaptable unit for WC and shower (in post-adaptive position) showed hatched. Refer to AS4299 for further details.



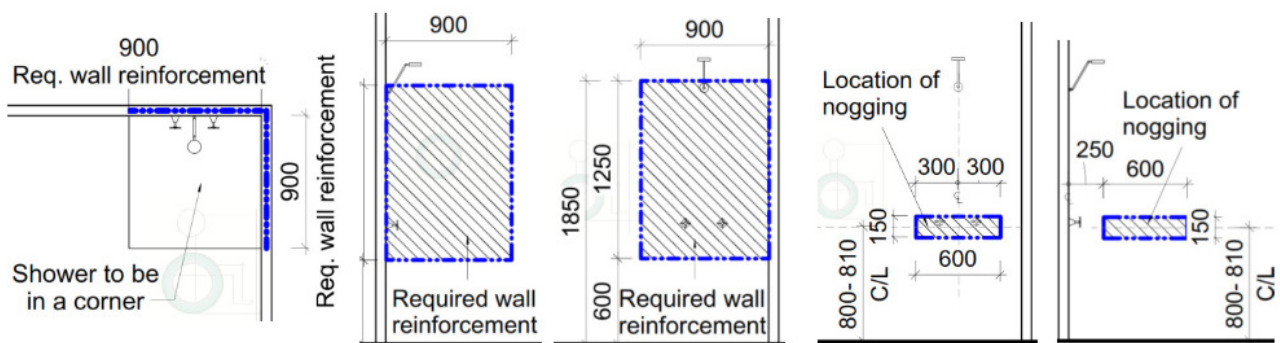
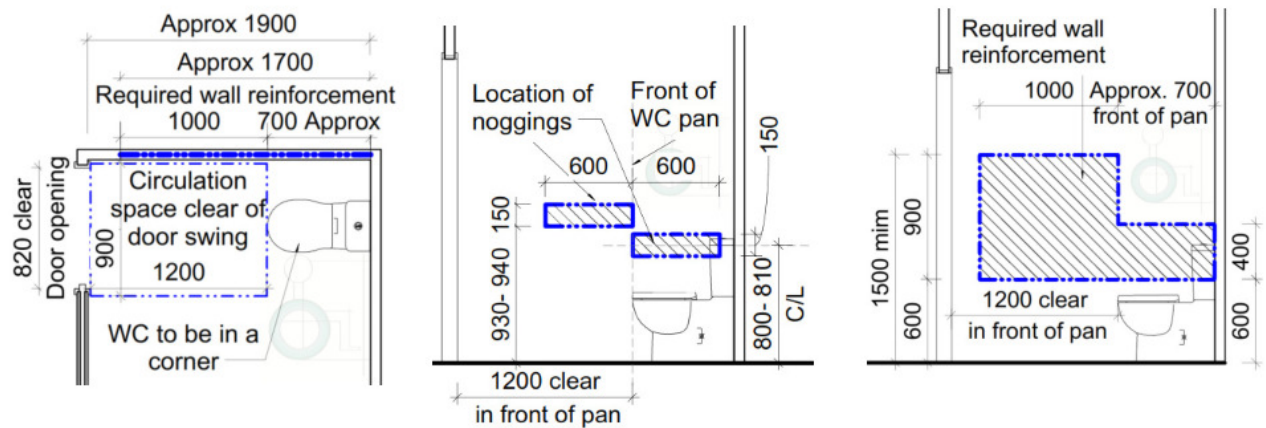
Laundry			
<ul style="list-style-type: none"> - Provision for adequate circulation space in front of or besides appliances (minimum 1550mm depth) - Circulation at doors to comply with AS1428.1 - Provision for automatic washing machine 	✓	✓	Capable of compliance once relocated in post-adaptation. Details to be verified at the CC stage
Other General requirements			
<ul style="list-style-type: none"> - All surfaces to be Slip resistant to AS3661 and AS 4586 - All GPOs and Lighting/ lux requirements as per AS4299 - All waterproofing as per AS4730 	✓	✓	Capable of compliance. Details to be verified at the CC stage
Requirement	<ul style="list-style-type: none"> - Where the location of fixtures such as WC pans, wash basins, sinks, laundry fixtures and any other fixtures are to be relocated post-adaptation to comply with AS1428.1, then the service pipes (waste and water supply pipes) have to be laid in the correct AS1428.1 specified position at pre-adaptation itself and the services to be capped off for future use. 		
General recommendations (Advisory only / not mandatory)	<ul style="list-style-type: none"> - It is recommended that where balconies / outdoor areas have been provided to Adaptable units, provide the sliding doors such that the floor tracks are recessed, so level access can be provided to the balcony / outdoor areas from inside the unit. 		

By incorporating the requirements of the below Checklist in the Specifications of the project, the nominated Livable units can achieve full compliance with Livable Housing Guidelines- Silver Level

Note that in this case the adaptable units are also be counted as Livable / LHA Silver level unit in which case the below requirements apply in addition to the AS4299 requirements.

Design Element	Requirements (All dimensions noted are required to be clear of finishes as required under AS1428.1)	Compliance / Comments
1 Dwelling Access	<ul style="list-style-type: none"> - Provide a safe and continuous 1M clear width pathway from front site boundary to an entry door to the dwelling. - Path including any ramps and walkways to have no steps, even firm, slip-resistant surface, max 1:40 crossfall, max slope of 1:14 with landings of 1.2M every 9M and landings every 15M for 1:20 walkways. 1.2M clear width of ramps are required. 	Complies. Verify at CC
	<ul style="list-style-type: none"> - Pathway may be provided via an associated car parking in which case the car parking space to be - 3200 (width) x5400 (length), - even, firm and slip resistant, level surface of 1:40 max grade and 1:33 max grade for bitumen 	N/A
	<ul style="list-style-type: none"> - Step ramp may be provided at an entrance doorway. The step ramp to be max 190mm height, max 1:10 grade, max 1900mm length. 	N/A
	(e) Level landings of 1200mm are required exclusive of the swing of the door or gate and to be provided at the head and foot of the ramp.	N/A
2 Dwelling entry	<ul style="list-style-type: none"> - Dwelling Entry should provide an entrance door with <ul style="list-style-type: none"> (i) min clear opening width of door to be 820mm (ii) Step free threshold of max 5mm with rounded or bevelled lip (iii) reasonable shelter from the weather 	Capable of compliance. Verify at CC
	<ul style="list-style-type: none"> - Level landing of 1200x1200mm at step-free entrance door on the arrival / external side of the entrance door. 	Complies Verify at CC
	<ul style="list-style-type: none"> - Max permissible threshold is less than 56mm where provided with a 1:8 grade threshold ramp. 	N/A
	<ul style="list-style-type: none"> - Entrance to be connected to a pathway (specified under Element 1) Note: The entrance to incorporate waterproofing and termite management requirements as specified in the NCC 	Complies
3 Internal doors and corridors	<ul style="list-style-type: none"> (a) Doors to rooms on the entry level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartments to be <ul style="list-style-type: none"> (i) 820mm clear opening and (ii) provided with a level threshold of max 5mm between abutting surfaces with rounded or bevelled lip 	Capable of compliance. Verify at CC
	<ul style="list-style-type: none"> (b) Internal corridors and passageways to doorway to be min 1M clear (measured from skirting to skirting) 	Capable of compliance. Verify at CC
4 Toilet	<ul style="list-style-type: none"> (a) One Toilet to be provided on the ground or entry level that provides, <ul style="list-style-type: none"> (i) Min 900mm between walls or amenities (ii) Min 1200mm clear space in forward of the WC pan exclusive of door swing. (iii) The toilet pan to be positioned in the corner of a room to enable handrails 	Complies. Verify at CC
5 Shower	<ul style="list-style-type: none"> (a) One bathroom should feature a slip resistant, hobless shower recess. Shower screens are permitted provided they can be easily removed at a later date. (b) The shower recess should be located in the corner of the room to enable the installation of grabrails at a future date. 	Capable of compliance. Verify at CC
	For hobless specification please see Australian Standard AS3740-3.6. Reinforcement guidelines for walls in bathrooms and toilets are found in element 6	
6	<ul style="list-style-type: none"> (a) Except for walls constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet should be reinforced to provide a fixing surface for the safe installation of grabrails. 	Capable of compliance. Verify at CC

Reinforcement of bathroom & toilet walls		
	<p>(b), (c) and (d) the walls around toilet, bath and shower to be via:</p> <ul style="list-style-type: none"> (i) Noggins with a thickness of at least 25mm (ii) Sheeting with a thickness of at least 12mm <p>Refer to diagrams provided in the Livable Housing Guideline document.</p>	Capable of compliance. Verify at CC



7 Internal Stairways	<p>Stairways in dwellings must feature:</p> <ul style="list-style-type: none"> (i) a continuous handrail on one side of the stairway where there is a rise of more than 1m. a minimum clear width of 1000mm 	N/A No internal stairway in units.
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Disability Discrimination Act

Advisory Only

The Federal Disability Discrimination Act 1992 (DDA) provides protection for everyone in Australia against discrimination based on disability. Section 32 of the DDA focuses on the provision of equitable and dignified access to services and facilities for people with mobility, sensory and cognitive disabilities.

Disability discrimination happens when people with a disability and their relatives, friends, carers, co-workers or associates are treated less fairly than people without a disability.

Compliance with Access to Premises Standards give certainty to building certifiers, building developers and building managers that, if access to (new parts) of buildings is provided in accordance with these Standards, the provision of that access, to the extent covered by these Standards, will not be unlawful under the DDA. This however applies only to the new building or new parts of an existing building and its affected part. All areas outside the scope of these areas are still subject to the DDA. We cannot guarantee or certify for DDA compliance because DDA compliance can only be assessed by the Courts.

Scope of DDA extends beyond the building fabric and also includes furniture and fittings.

For new BBQ areas in residential common use areas, it is suggested that this kitchen could be made partially accessible by providing a width of 900mm next to the sink as vacant space (without cabinetry under the bench top) and a long lever tap with spout and handle within 300mm from the front of the benchtop. The distance in between the benches to be 1550mm. 1 double GPO to be provided within 300mm from the edge of the benchtop. This would allow a person in a wheelchair to independently move within the kitchen and use basic facility, being the sink independently.

Statement of Experience

Farah Madon- Director

ACAA Accredited Access Consultant, NDIS SDA Assessor, Livable Housing Assessor & Changing Places Assessor

- Accredited member of the Association of Consultants in Access Australia (ACAA). Membership no 281
- Architect registered with the NSW Architect's Registration Board. Reg number 6940
- Member of Australian Institute of Architects (RAIA), A+ Practice member. No 49397
- Registered Assessor of Livable Housing Australia. Licence no 10032
- Internationally Certified Access Consultant GAATES ICAC. Membership BE-02-021-20
- Registered Assessor of Changing Places Australia. Registration no CP006

Farah's Educational Profile and Qualifications include:

- Bachelor of Architecture Degree with Honours (B.Arch.)
- International Certification of Accessibility Consultants– Built Environment (ICAC-BE) Program, Level 2 Advanced Accessibility Consultant
- Diploma of Access Consulting CPP50711
- Accredited Specialist Disability Accommodation (SDA) Assessor's Course
- Standards Australia's course on 'Writing Australian Standards'
- OHS Construction Induction Training Certificate
- Changing Places Australia's Training for Assessors

Farah has 20 years of experience of working in the field of Architecture and Access. Farah specialises in access consultancy services, including NDIS SDA Assessments, access related advise, auditing and reporting services, performance solution assessments for access related issues under the BCA.

Farah is the lead author of the NDIS SDA Design Standard. She has been invited as an expert witness for Access related matters in the Land and Environment Court.

Farah currently participates on the following key committees concerning access for people with disabilities, on an honorary basis:

- Committee member of ME-064 Committee of Standards Australia responsible for the AS4299 and AS1428 suite of standards.
- Community Representative Member of the Penrith City Council's Access Committee
- Member of Australian Institute of Architect's (RAIA) National Access Work Group (NAWG)
- Management Committee member of NSW Network of Access Consultants
- Livable Housing Australia's Industry Reference Group (IRG) Member

Farah has previously held the following roles:

- Vice President of ACAA from 2016 to 2019 and Management committee member of ACAA from 2011 till 2019.
- Convener of the ACAA's Access related Practice and Advisory Notes

Meet our team

Vanessa Griffin- ACAA Accredited Access Consultant, NDIS SDA Assessor, Livable Housing Assessor & Changing Places Assessor

- Accredited member of ACAA. Membership no 500
- Registered Assessor of Livable Housing Australia.
- Member of AIBS – Australian Institute of Building Surveyors

Vanessa's Educational Profile and Qualifications include:

- Diploma of Surveying and Diploma of Health and Building Surveying
- Certificate IV in Access Consulting
- OHS Construction Induction Training Certificate
- Changing Places Australia's Training for Assessors
- Accredited Specialist Disability Accommodation (SDA) Assessor's Course

Jenny Desai- ACAA Accredited Access Consultant

- Accredited member of ACAA. Membership no 572

Jenny's Educational Profile and Qualifications include:

- Master of Design (M.Des) from University of Technology, Sydney
- Certificate IV in Access Consulting
- OHS Construction Induction Training Certificate



BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 947968M_03

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

This certificate is a revision of certificate number 947968M lodged with the consent authority or certifier on 09 August 2018 with application DA/18/0792.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environmental Planning and Assessment Regulation 2000

Secretary

Date of issue: Tuesday, 31 August 2021

To be valid, this certificate must be lodged within 3 months of the date of issue.



Planning,
Industry &
Environment

Project summary

Project name	16-24 Hope Street, Penrith _03
Street address	16-24 Hope Street Penrith 2750
Local Government Area	Penrith City Council
Plan type and plan number	deposited 31239
Lot no.	29-33
Section no.	-
No. of residential flat buildings	2
No. of units in residential flat buildings	51
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 35	Target 35

Certificate Prepared by

Name / Company Name: Designview

ABN (if applicable): 81 150 991 478

Description of project

Project address

Project name	16-24 Hope Street, Penrith _03
Street address	16-24 Hope Street Penrith 2750
Local Government Area	Penrith City Council
Plan type and plan number	deposited 31239
Lot no.	29-33
Section no.	-

Project type

No. of residential flat buildings	2
No. of units in residential flat buildings	51
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details

Site area (m²)	3182.0
Roof area (m²)	980.0
Non-residential floor area (m²)	0.0
Residential car spaces	80
Non-residential car spaces	0




Common area landscape

Common area lawn (m²)	238.8
Common area garden (m²)	950.6
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	DMN/12/1475
Certificate number	0004664110
Climate zone	28
Ceiling fan in at least one bedroom	No
Ceiling fan in at least one living room or other conditioned area	No

Project score

Water	 40	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 35	Target 35

Description of project

The tables below describe the dwellings and common areas within the project

Residential flat buildings - Building1, 24 dwellings, 5 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
1	2	76.0	0.0	5.2	-
6	3	98.0	0.0	0.0	-
11	3	98.0	0.0	0.0	-
16	2	78.0	0.0	0.0	-
21	2	75.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
2	1	51.0	0.0	4.8	-
7	2	78.0	0.0	0.0	-
12	3	98.0	0.0	0.0	-
17	3	98.0	0.0	0.0	-
22	2	82.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
3	2	74.0	0.0	0.0	-
8	2	70.0	7.0	0.0	-
13	2	78.0	0.0	0.0	-
18	3	98.0	0.0	0.0	-
23	2	82.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
4	2	78.0	0.0	0.0	-
9	2	74.0	0.0	0.0	-
14	2	70.0	7.0	0.0	-
19	2	78.0	0.0	0.0	-
24	2	75.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
5	3	98.0	0.0	0.0	-
10	2	78.0	0.0	0.0	-
15	2	70.0	0.0	0.0	-
20	2	74.0	2.9	0.0	-

Residential flat buildings - Building2, 27 dwellings, 5 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
25	4 or more bedrooms	123.0	0.0	0.0	-
30	2	74.0	0.0	0.0	-
35	2	70.0	7.0	0.0	-
40	2	78.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
26	2	83.0	0.0	0.0	-
31	2	78.0	0.0	0.0	-
36	2	74.0	0.0	0.0	-
41	2	70.0	7.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
27	2	83.0	0.0	0.0	-
32	3	98.0	0.0	0.0	-
37	2	78.0	0.0	0.0	-
42	2	70.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
28	2	77.0	0.0	4.9	-
33	3	98.0	0.0	0.0	-
38	3	98.0	0.0	0.0	-
43	2	78.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
29	1	51.0	0.0	3.9	-
34	2	78.0	0.0	0.0	-
39	3	98.0	0.0	0.0	-
44	3	98.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
45	3	98.0	0.0	0.0	-
50	2	82.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
46	2	78.0	0.0	0.0	-
51	2	75.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
47	2	74.0	2.9	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
48	2	75.0	0.0	0.0	-

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
49	2	82.0	0.0	0.0	-

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of unit building - Building1

Common area	Floor area (m²)
Lift car (No.1)	-
Ground floor lobby B1	49.5
Level 3 lobby B1	42.7

Common area	Floor area (m²)
Common room	98.9
Level 1 lobby B1	42.7
Level 4 lobby B1	40.3

Common area	Floor area (m²)
Pump / plant room	33.5
Level 2 lobby B1	42.7

Common areas of unit building - Building2

Common area	Floor area (m²)
Lift car (No.2)	-
Level 2 lobby B2	42.7

Common area	Floor area (m²)
Ground floor lobby B2	50.7
level 3 lobby B2	42.7

Common area	Floor area (m²)
Level 1 lobby B2	42.7
Level 4 lobby B2	40.3

Common areas of the development (non-building specific)

Common area	Floor area (m²)
Basement 2	1944.0
Bulky waste	35.0

Common area	Floor area (m²)
Basement 1	1677.0

Common area	Floor area (m²)
Garbage rooms	80.6

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building1

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

2. Commitments for Residential flat buildings - Building2

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

3. Commitments for multi-dwelling houses

4. Commitments for single dwelling houses

5. Commitments for common areas and central systems/facilities for the development (non-building specific)

- (i) Water
- (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for Residential flat buildings - Building1

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	-	-	4 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
None	-	-	-	-	-	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	gas instantaneous 5 star	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
2	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
8, 14, 20	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no
3, 9, 15, 21, 24	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes
5, 6, 11, 12, 17, 18	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	3 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes
All other dwellings	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	no	4.5 star	-	5 star	yes	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
1	18.3	15.4
2	18.5	21.0
3	56.9	25.9
4	43.3	15.2

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
5	40.7	30.3
6	24.4	33.8
7	1.9	16.0
8	10.4	23.5
9	57.0	32.7
10	35.7	16.1
11	23.1	32.5
12	11.8	36.7
13	2.2	16.1
14	8.2	25.2
15	53.6	62.4
16	35.3	16.0
17	35.8	48.6
18	24.1	53.4
19	1.9	16.8
20	22.0	36.6
21	52.4	49.0
22	41.1	55.4
23	29.4	60.7
All other dwellings	32.8	50.3

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lift car (No.1)	-	-	fluorescent	connected to lift call button	No
Common room	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Pump / plant room	ventilation (supply + exhaust)	time clock or BMS controlled	fluorescent	manual on / manual off	No
Ground floor lobby B1	no mechanical ventilation	-	fluorescent	manual on / timer off	No
Level 1 lobby B1	no mechanical ventilation	-	fluorescent	manual on / timer off	No
Level 2 lobby B1	no mechanical ventilation	-	fluorescent	manual on / timer off	No
Level 3 lobby B1	no mechanical ventilation	-	fluorescent	manual on / timer off	No
Level 4 lobby B1	no mechanical ventilation	-	fluorescent	manual on / timer off	No

Central energy systems	Type	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 7

2. Commitments for Residential flat buildings - Building2

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install: (aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and (bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓ ✓	✓ ✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	4 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	-	-	4 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
None	-	-	-	-	-	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	gas instantaneous 5 star	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
25	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	4 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
29	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	1 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
35, 41, 47	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	1	no
32, 33, 38, 39, 44, 45	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	3 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes
26, 27, 30, 36, 42, 48, 51	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes
All other dwellings	1-phase airconditioning EER 3.5 - 4.0	-	1-phase airconditioning EER 3.5 - 4.0	-	2 (dedicated)	2 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	no	4.5 star	-	5 star	yes	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
25	59.9	13.6
26	59.3	15.3
27	39.2	21.8
28	9.8	15.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
29	17.6	22.9
30	62.7	33.1
31	34.1	15.1
32	44.0	22.6
33	17.3	24.0
34	1.3	16.6
35	11.2	20.3
36	53.8	35.8
37	34.8	15.0
38	42.2	26.6
39	17.3	25.8
40	1.5	16.7
41	8.7	21.5
42	40.3	58.0
43	34.8	15.5
44	49.2	42.0
45	43.6	51.3
46	1.5	17.2
47	22.9	30.0
48	53.5	50.1
49	42.0	53.9
50	27.0	56.7
All other dwellings	34.3	55.7

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lift car (No.2)	-	-	fluorescent	connected to lift call button	No
Ground floor lobby B2	no mechanical ventilation	-	fluorescent	manual on / timer off	No
Level 1 lobby B2	no mechanical ventilation	-	fluorescent	manual on / timer off	No
Level 2 lobby B2	no mechanical ventilation	-	fluorescent	manual on / timer off	No
level 3 lobby B2	no mechanical ventilation	-	fluorescent	manual on / timer off	No
Level 4 lobby B2	no mechanical ventilation	-	fluorescent	manual on / timer off	No

Central energy systems	Type	Specification
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 7

5. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Basement 2	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	motion sensors	No
Basement 1	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	motion sensors	No
Garbage rooms	ventilation exhaust only	-	fluorescent	manual on / manual off	No
Bulky waste	no mechanical ventilation	-	fluorescent	manual on / manual off	No

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

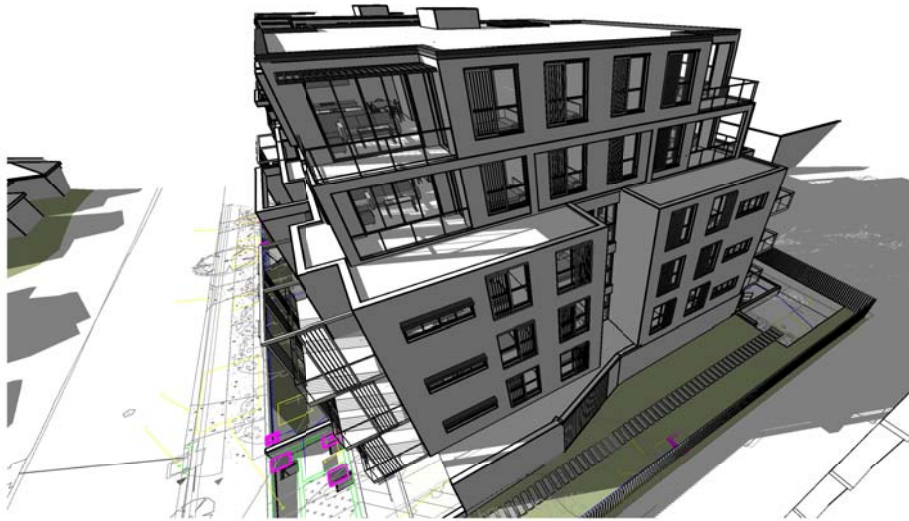
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Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

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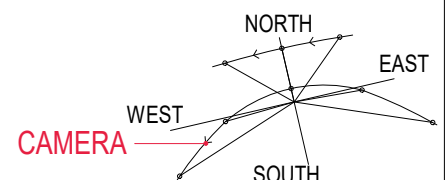
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EYE OF THE SUN - WEST 9AM



EYE OF THE SUN - WEST 10AM



EYE OF THE SUN - WEST

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18006 - PROPOSED RESIDENTIAL DEVELOPMENT

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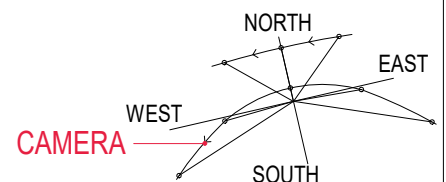
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EYE OF THE SUN - WEST 11AM



EYE OF THE SUN - WEST 12PM



EYE OF THE SUN - WEST

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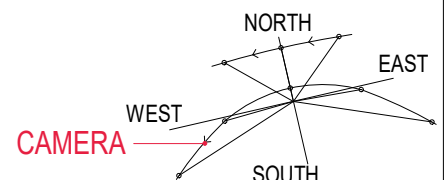
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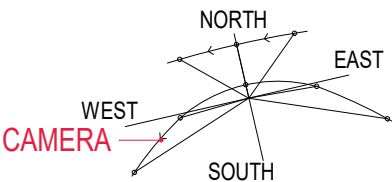
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EYE OF THE SUN - WEST 15PM

EYE OF THE SUN - EAST

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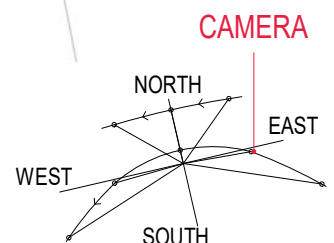
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EYE OF THE SUN - EAST 9AM



EYE OF THE SUN - EAST 10AM



EYE OF THE SUN - EAST

Project

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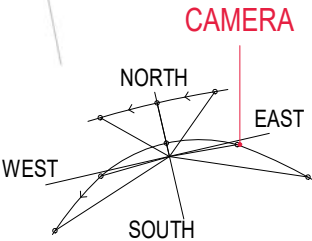
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EYE OF THE SUN - EAST 11AM



EYE OF THE SUN - EAST 12PM



EYE OF THE SUN - EAST

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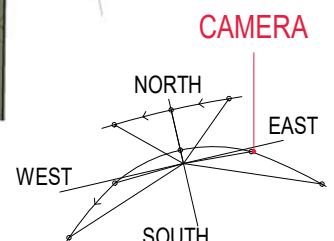
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EYE OF THE SUN - EAST 13PM



EYE OF THE SUN - EAST 14PM



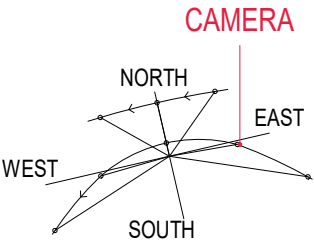
EYE OF THE SUN - EAST

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EYE OF THE SUN - EAST 15PM

EYE OF THE SUN - NORTHEAST BUILDING

Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

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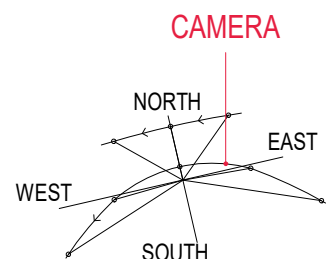
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EYE OF THE SUN - EASTERN BUILDING - NORTH 10AM



EYE OF THE SUN - EASTERN BUILDING - NORTH 11AM



EYE OF THE SUN - NORTHEAST BUILDING

Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

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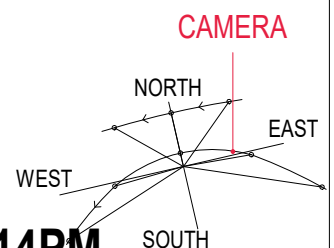
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EYE OF THE SUN - EASTERN BUILDING - NORTH 13PM



EYE OF THE SUN - EASTERN BUILDING - NORTH 14PM



EYE OF THE SUN - NORTHWEST BUILDING

Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

**MORSON
GROUP**

ACN 159 480 056, ABN 41 159 480 056
E: info@morsongroup.com.au P: (02) 9380 4946
P: PO Box 170, Potts Point, NSW, 1335



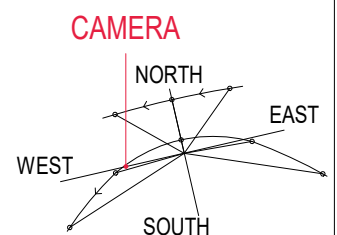
EYE OF THE SUN - NORTHWEST BUILDING - 9AM



EYE OF THE SUN - NORTHWEST BUILDING - 10AM



EYE OF THE SUN - NORTHWEST BUILDING - 11AM



EYE OF THE SUN - NORTHWEST BUILDING

Project

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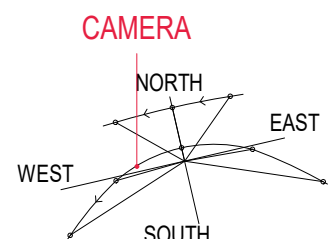
EYE OF THE SUN - NORTHWEST BUILDING - 12PM



EYE OF THE SUN - NORTHWEST BUILDING - 13PM



EYE OF THE SUN - NORTHWEST BUILDING - 14PM



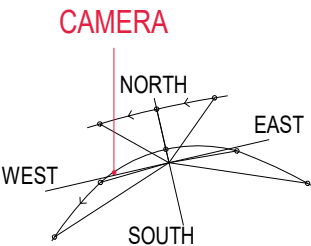
EYE OF THE SUN - NORTHWEST BUILDING

Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT



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EYE OF THE SUN - NORTHWEST BUILDING - 15PM

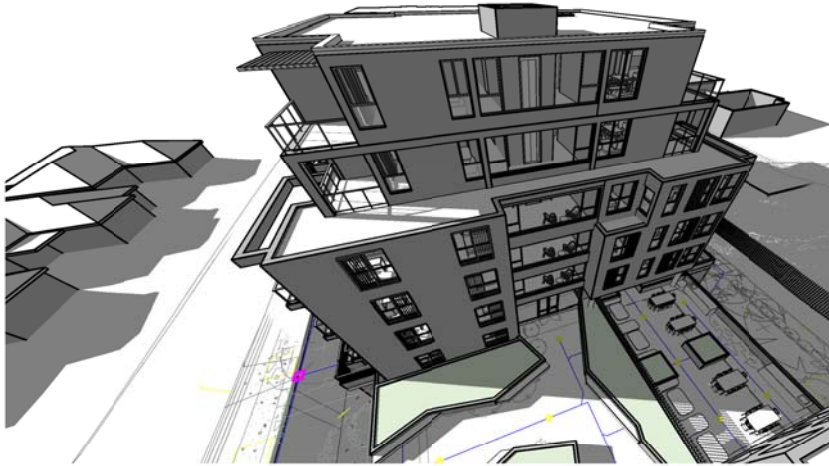
EYE OF THE SUN - WESTERN CENTRAL ELEVATION

Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

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ACN 159 480 056, ABN 41 159 480 056
E: info@morsongroup.com.au P: (02) 9380 4946
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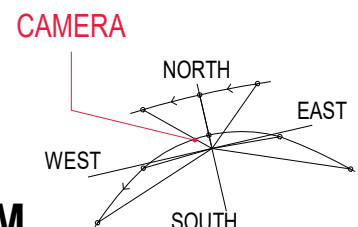
EYE OF THE SUN - INTERNAL WEST - 9AM



EYE OF THE SUN - INTERNAL WEST - 10AM



EYE OF THE SUN - INTERNAL WEST - 11AM



EYE OF THE SUN - WESTERN CENTRAL ELEVATION

Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

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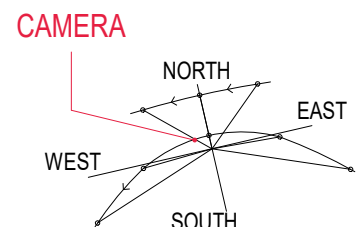
EYE OF THE SUN - INTERNAL WEST - 12PM



EYE OF THE SUN - INTERNAL WEST - 13PM



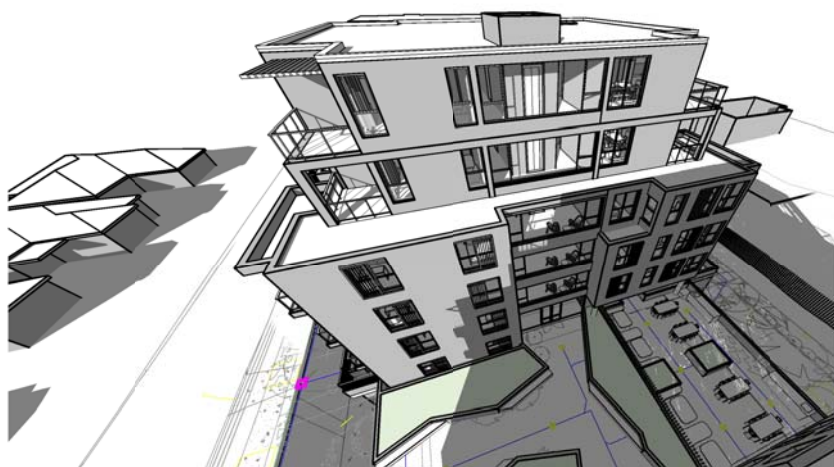
EYE OF THE SUN - INTERNAL WEST - 14PM



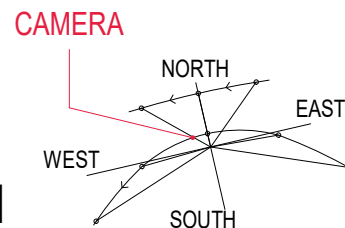
EYE OF THE SUN - WESTERN CENTRAL ELEVATION



ACN 159 480 056, ABN 41 159 480 056
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P: PO Box 170, Potts Point, NSW, 1335



EYE OF THE SUN - INTERNAL WEST - 15PM



EYE OF THE SUN - EASTERN CENTRAL ELEVATION

Project

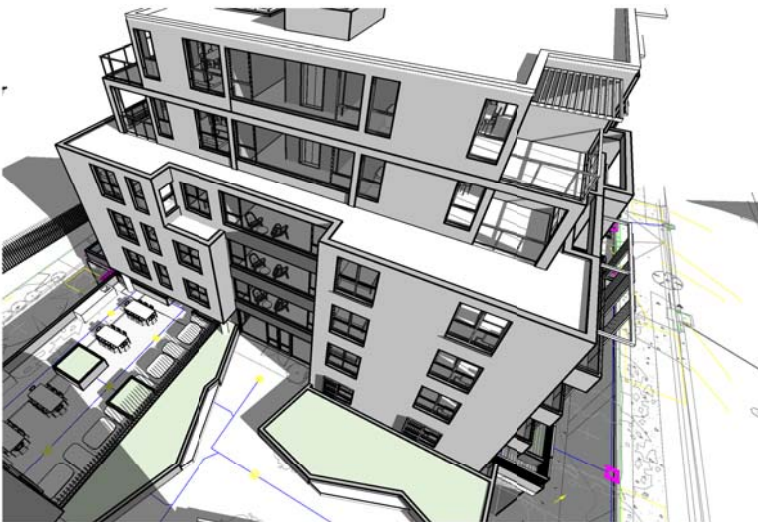
18006 - PROPOSED RESIDENTIAL DEVELOPMENT

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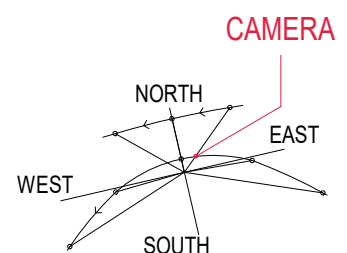
EYE OF THE SUN - INTERNAL EAST - 9AM



EYE OF THE SUN - INTERNAL EAST - 10AM



EYE OF THE SUN - INTERNAL EAST - 11AM



EYE OF THE SUN - EASTERN CENTRAL ELEVATION

Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

**MORSON
GROUP**

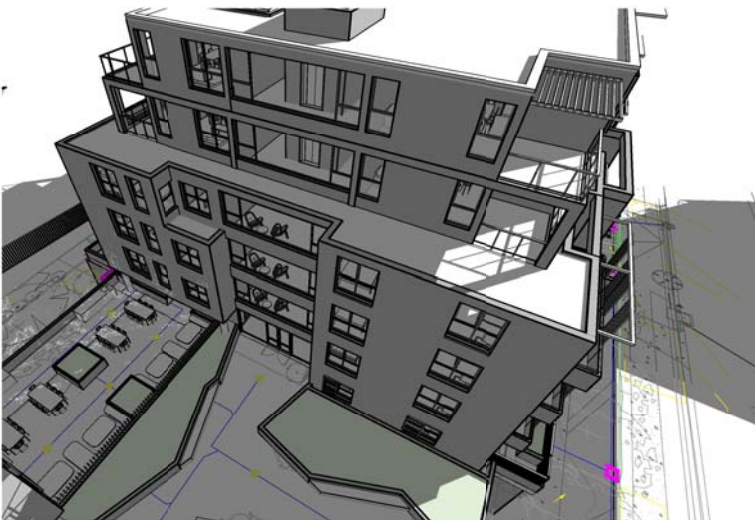
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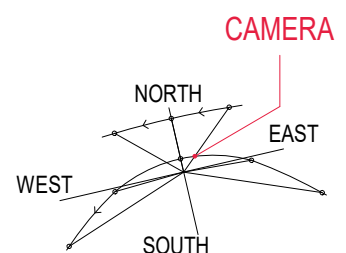
EYE OF THE SUN - INTERNAL EAST - 12PM



EYE OF THE SUN - INTERNAL EAST - 13PM



EYE OF THE SUN - INTERNAL EAST - 14PM



COMPLIANCE TABLE

Project

18006 - PROPOSED RESIDENTIAL DEVELOPMENT



ACN 159 480 056, ABN 41 159 480 056
E: info@morsongroup.com.au P: (02) 9380 4946
P: PO Box 170, Potts Point, NSW, 1335

SEPP 65-COMPLIANCE TABLE

No.	Type	Solar & Daylight Access	Time	Hours
-----	------	-------------------------	------	-------

GROUND LEVEL

01	2 BED	No		0h
02	2 BED	Yes	from 9:00 to 15:00	6h
03	2 BED Adaptable	Yes	from 9:00 to 15:00	6h
30	2 BED	No		0h
31	2 BED	No	from 9:00 to 9:45	45min
32	2 BED	Yes	from 9:00 to 14:30	5h 30min
33	2 BED	Yes	from 9:00 to 14:30	5h 30min
34	2 BED Adaptable	Yes	from 9:00 to 15:00	6h

LEVEL 1

04	2 BED Adaptable	No	from 9:00 to 9:45	45min
05	2 BED	No		0h
06	3 BED	Yes	from 12:15 to 15:00	2h 45min
07	3 BED	Yes	from 9:00 to 15:00	6h
08	2 BED	Yes	from 9:00 to 15:00	6h
09	2 BED Adaptable	Yes	from 9:00 to 15:00	6h
35	2 BED Adaptable	No	from 11:45 to 13:30	1h 45min
36	2 BED	No		0h
37	3 BED	No	from 9:00 to 9:45	45min
38	3 BED	Yes	from 9:00 to 15:00	6h
39	2 BED	Yes	from 9:00 to 15:00	6h
40	2 BED Adaptable	Yes	from 9:00 to 15:00	6h

LEVEL 2

10	2 BED	No	from 9:00 to 9:45	45min
11	2 BED	No		0h
12	3 BED	Yes	from 12:15 to 15:00	2h 45min
13	3 BED	Yes	from 9:00 to 15:00	6h
14	2 BED	Yes	from 9:00 to 15:00	6h
15	2 BED	Yes	from 9:00 to 15:00	6h
41	2 BED	No	from 12:15 to 13:30	1h 15min
42	2 BED	No		0h
43	3 BED	No	from 9:00 to 9:45	45min
44	3 BED	Yes	from 9:00 to 15:00	6h
45	2 BED	Yes	from 9:00 to 15:00	6h
46	2 BED	Yes	from 9:00 to 15:00	6h

SEPP 65-COMPLIANCE TABLE

No.	Type	Solar & Daylight Access	Time	Hours
-----	------	-------------------------	------	-------

LEVEL 3

16	2 BED	Yes	from 9:00 to 11:00	2h
17	2 BED	No		0h
18	3 BED	Yes	from 12:15 to 15:00	2h 45min
19	3 BED	Yes	from 9:00 to 15:00	6h
20	2 BED	Yes	from 9:00 to 15:00	6h
21	2 BED	Yes	from 9:00 to 15:00	6h
47	2 BED	Yes	from 10:45 to 14:15	3h 30min
48	2 BED	No		0h
49	3 BED	No	from 9:00 to 9:45	45min
50	3 BED	Yes	from 9:00 to 15:00	6h
51	2 BED	Yes	from 9:00 to 15:00	6h
52	2 BED	Yes	from 9:00 to 15:00	6h

LEVEL 4

22	2 BED	No	from 9:00 to 9:30	30min
23	2 BED Livable	Yes	from 13:00 to 15:00	2h
24	2 BED Livable	Yes	from 9:00 to 15:00	6h
25	2 BED	Yes	from 9:00 to 13:00	4h
53	2 BED	Yes	from 12:15 to 15:00	2h 45min
54	2 BED Livable	No	from 9:00 to 9:30	30min
55	2 BED Livable	Yes	from 9:00 to 14:30	5h 30min
56	2 BED	Yes	from 9:00 to 15:00	6h

LEVEL 5

26	2 BED	Yes	from 9:00 to 14:00	5h
27	2 BED	Yes	from 13:00 to 15:00	2h
28	2 BED Livable	Yes	from 9:00 to 15:00	6h
29	2 BED	Yes	from 9:00 to 13:00	4h
57	2 BED	Yes	from 12:15 to 15:00	2h 45min
58	2 BED	Yes	from 9:00 to 13:00	4h
59	2 BED Livable	Yes	from 9:00 to 14:30	5h 30min
60	2 BED	Yes	from 9:00 to 15:00	6h

UNITS: 60

16 - 24 HOPE STREET, PENRITH

PROPOSED MULTI-UNIT DEVELOPMENT

STORMWATER CONCEPT PLANS

LEGEND

- +--- PROPOSED STORMWATER
---+--- PIPE OVERCROSSING
MINIMUM 150mm CLEARANCE
○ DP GUTTER DOWNPIPE
○ DP DOWNPIPE WITH VERTICAL BEND
DP100 DOWNPIPE NUMBER AND SIZE
X HP ROOF GUTTER HIGH POINT
→ ROOF SLOPE
● PG PLANTER GRATE
■ FG FLOOR GRATE
RWO ● RAINWATER OUTLET
= BREAK / OPEN VOID IN RAIL /
BALLUSTRADE FOR STORMWATER
EMERGENCY OVERFLOW
→ SURFACE FLOW ARROWS
X RL 47.00 DESIGN SURFACE LEVEL
+ NS 26.45 EXISTING SURFACE LEVEL
IL 47.00 INVERT LEVEL OF PIPE JUNCTION
/ CLOSED STYLE FENCING
PROPOSED OSD STORAGE
UNDERGROUND
RAINWATER TANK
PROPOSED WSUD / BIO-RETENTION
AREA / POND
TILED AREA
TREES TO BE RETAINED
TREES TO BE REMOVED
Ø80 RISER WITH
NON-RETURN VALVE



LOCALITY PLAN

N.T.S

PIPES NOTE:

Ø65 PVC @ MIN 1.0%
Ø90 PVC @ MIN 1.0%
Ø100 PVC @ MIN 1.0%
Ø150 PVC @ MIN 1.0%
Ø225 PVC @ MIN 0.5%
Ø300 PVC @ MIN 0.4%
UNLESS NOTED OTHERWISE



DRAWING INDEX

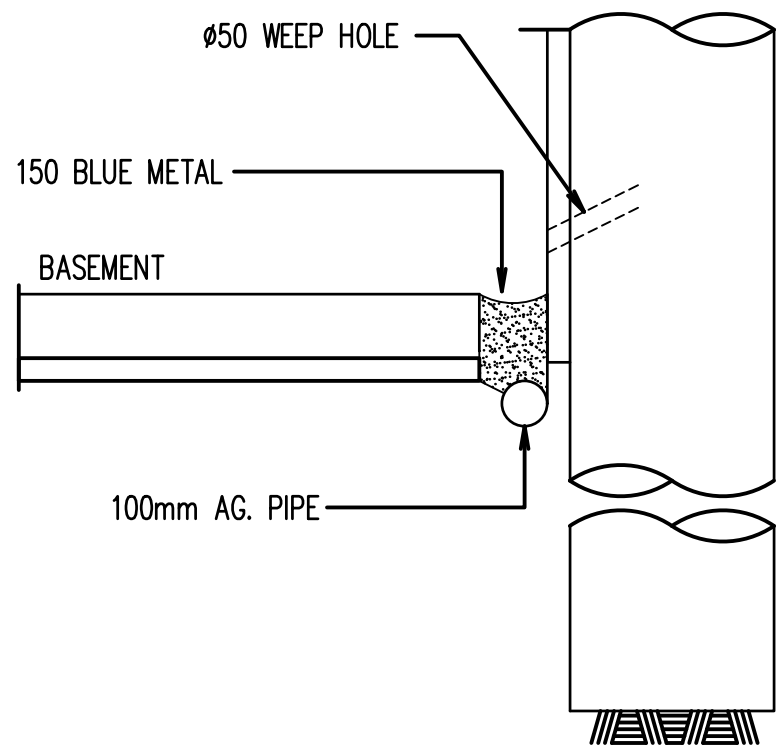
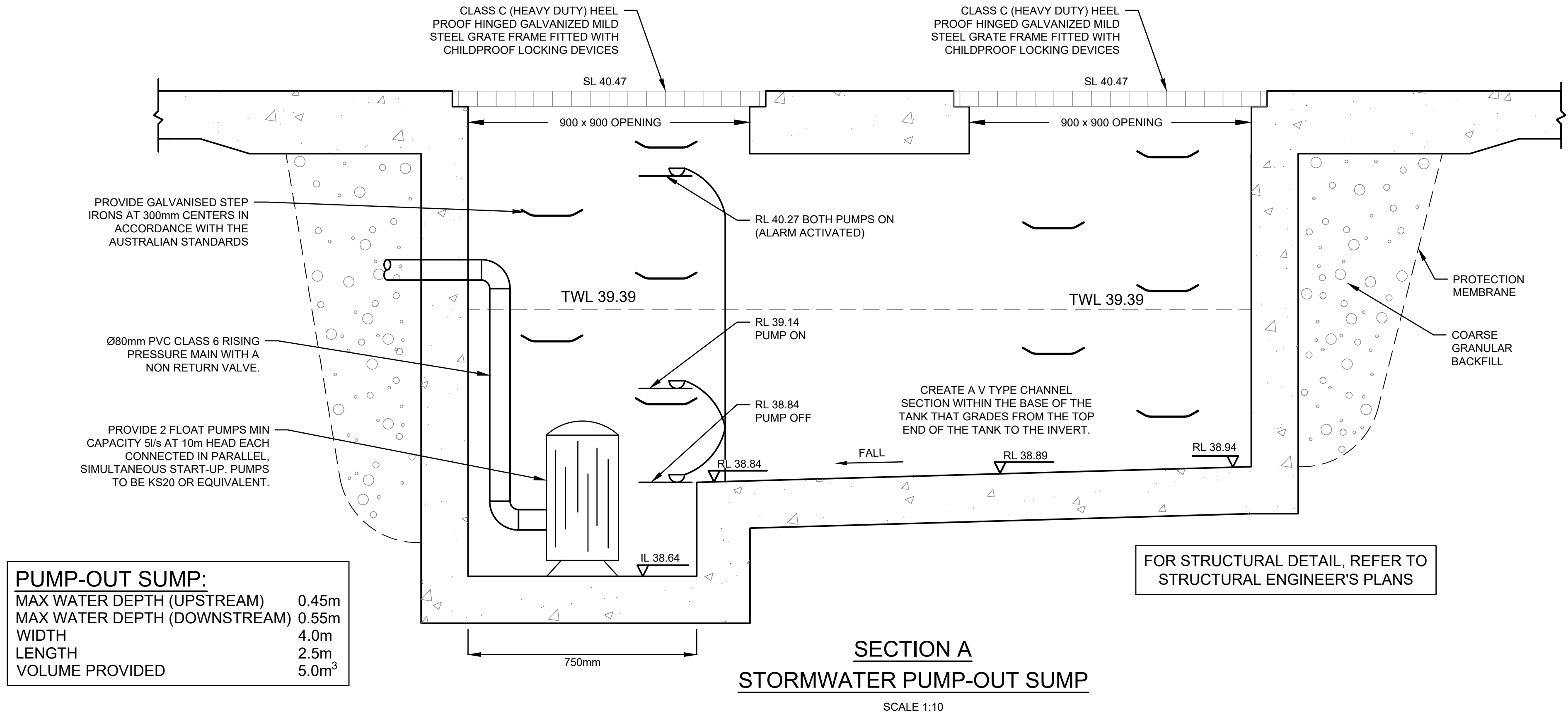
Drawing No.	DESCRIPTION
000	COVER SHEET PLAN
101	STORMWATER CONCEPT PLAN BASEMENT LEVEL 2 SHEET 1 OF 2
102	STORMWATER CONCEPT PLAN BASEMENT LEVEL 2 SHEET 2 OF 2
103	STORMWATER CONCEPT PLAN BASEMENT LEVEL 1
104	STORMWATER CONCEPT PLAN GROUND LEVEL
105	ON-SITE DETENTION DETAILS AND CALCULATION SHEETS SHEET 1 OF 2
105.1	ON-SITE DETENTION DETAILS AND CALCULATION SHEETS SHEET 2 OF 2
106	MISCELLANEOUS DETAILS SHEET

GENERAL NOTES

- ALL LINES ARE TO BE Ø90 uPVC 1.0% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWERGRADE & SEALED.
- EXISTING SERVICES LOCATIONS SHOWN INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS.
- ALL PIPES TO HAVE MIN 150mm COVER IF LOCATED WITHIN PROPERTY.
- ALL PITS IN DRIVEWAYS TO BE 450x450 CONCRETE AND ALL PITS IN LANDSCAPED AREAS TO BE 450x450 PLASTIC.
- PITS LESS THAN 600mm DEEP MAY BE BRICK, PRECAST OR CONCRETE.
- ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
- ALL EXTERNAL SLABS TO BE WATERPROOFED.
- ALL GRATES TO HAVE CHILD PROOF LOCKS.
- ALL DRAINAGE WORKS TO AVOID TREE ROOTS.
- ALL DPs TO HAVE LEAF GUARDS.
- ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
- ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
- COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
- ALL WORK SHALL BE IN ACCORDANCE WITH B.C.A. AND A.S.3500.3.
- REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING.
- CARE TO BE TAKEN AROUND EXISTING SEWER. STRUCTURAL ADVICE IS REQUIRED FOR SEWER PROTECTION AGAINST ADDITIONAL LOADING FROM NEW PITS, PIPES, RETAINING WALLS AND OSD BASIN WATER LEVELS.
- ALL WALLS FORMING THE DETENTION BASINS SHALL BE CONSTRUCTED WHOLLY WITHIN THE PROPERTY BOUNDARIES OF THE SITE BEING DEVELOPED.
- OSD WARNING SIGN AND SAFETY FENCING SHALL BE PROVIDED TO ABOVE GROUND OSD STORAGE AREA IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
- ENSURE THAT NON FLOATABLE MULCH IS USED IN DETENTION BASINS, ie, USE DECORATIVE ROCK MULCH OR EQUIVALENT.
- ALL PIPES IN BALCONIES TO BE Ø65 uPVC CAST IN CONCRETE SLAB. CONTRACTOR TO PROVIDE A BREAK / OPEN VOID IN RAIL / BALLUSTRADE FOR STORMWATER EMERGENCY OVERFLOW. ALL ENCLOSED AREAS/PLANTER BOXES TO BE FITTED WITH FLOOR WASTES & DRAINED TO OSD DOWNPIPES TO BE CHECKED BY ARCHITECT & PLUMBER PRIOR TO CONSTRUCTION
- THE OSD BASIN / TANK IS TO BE BUILT TO THE CORRECT LEVELS & SIZE AS PER THIS DESIGN. ANY VARIATIONS ARE TO BE DONE UNDER CONSULTATION FROM OUR OFFICE ONLY. ANY AMENDMENTS WITHOUT OUR APPROVAL WOULD RESULT IN ADDITIONAL FEES FOR REDESIGN AT OC STAGE OR IF A SOLUTION CANNOT BE FOUND, RECONSTRUCTION IS REQUIRED UNDER THE CONTRACTOR'S EXPENSES.

NOT FOR CONSTRUCTION

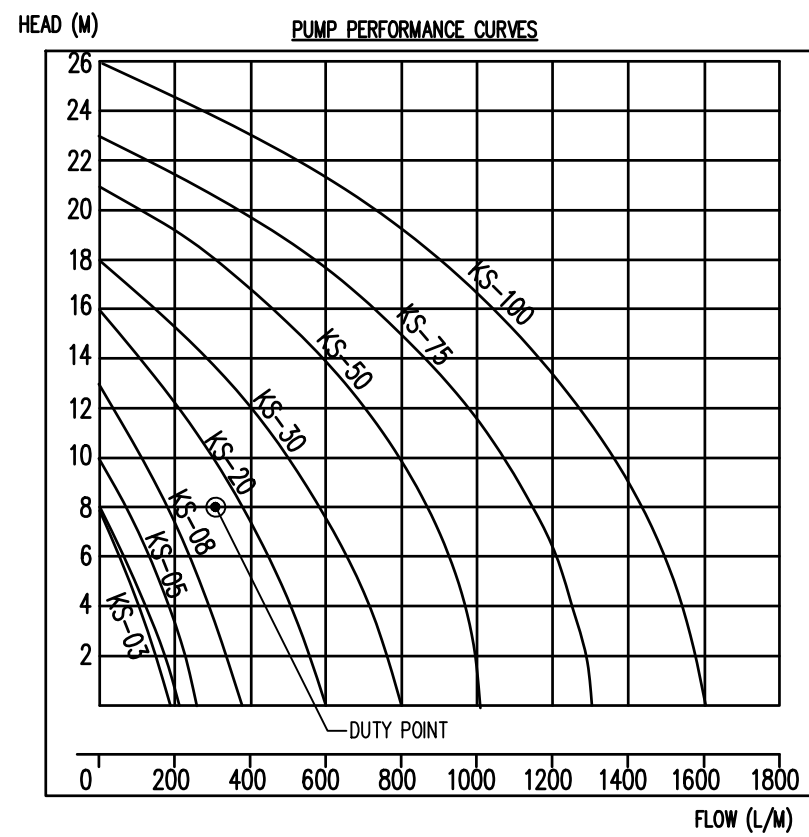
						Architect	Client	Scale	Certification By:	 <div>ACE CIVIL STORMWATER SERVICES PTY LTD ABN: 27 644 422 506 SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137 P:(02) 9763 1500 E:info@aceeng.com.au</div>	Project	Drawing Title				
C	ISSUE FOR DEVELOPMENT APPLICATION	06/03/2020	JMH	OC		Morson Group	Prestige Developments Group (NSW) Pty Ltd		 Anthony Hasham		16 - 24 HOPE STREET, PENRITH PROPOSED MULTI-UNIT DEVELOPMENT STORMWATER CONCEPT PLANS DEVELOPMENT APPLICATION	COVER SHEET PLAN				
B	ISSUE FOR DEVELOPMENT APPLICATION	30/07/2018	JH	OC		P.O Box 170, Potts Point, NSW 1335										
A	ISSUE FOR DEVELOPMENT APPLICATION	27/07/2018	XNT	OC			Council									
Issue	Description	Date	Designed	Engineer	Checked	EMAIL : info@ad-s.com.au PHONE : 02 9380 4946	Penrith City Council									
<div>0 1cm at full size 10mm 20mm</div>												Scale	A1	Project No.	Dwg. No.	Issue
												N.T.S.		180919	000	C



TYPICAL SPOON DRAIN DETAILS

N.T.S.

PUMP-OUT SUMP:
MAX WATER DEPTH (UPSTREAM) 0.45m
MAX WATER DEPTH (DOWNSTREAM) 0.55m
WIDTH 4.0m
LENGTH 2.5m
VOLUME PROVIDED 5.0m³



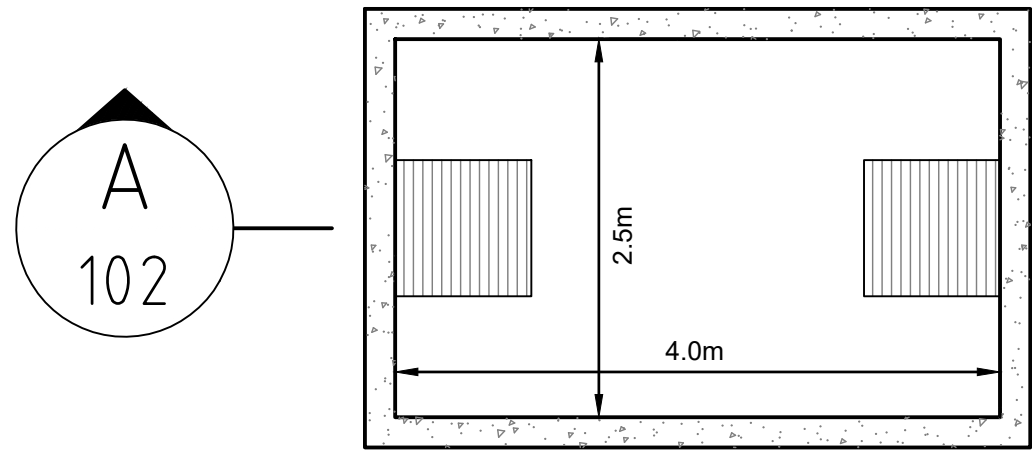
PUMP STORAGE VOLUME CALCULATION

AREA DRAINING TO SUMP= 48.4m²

SUMP SIZE BASED ON 100 YEAR 2 HR STORM, I= 44.4 mm/hr,
Q=CIA/3600= 1X 44.4 X 48.4/3600 = 0.60L/sec
VOLUME REQUIRED = 0.60X(2x60x60) =4320L = 4.32m³
STORAGE PROVIDED 4X2.5X0.5= 5.0m³

PUMP OUT RATE BASED ON 100YR 5MIN STORM, I=220 mm/hr
(MIN RATE REQUIRED AS PER AS3500.3 IS 10 L/sec)
Q=CIA/3600= 1X 220X 48.4/3600 = 2.96 L/sec

DUAL KS-20 PUMP OR EQUIVALENT TO BE INSTALLED IN SUMP AND CONNECTED TO CONTROL PANEL WHICH WILL ALLOW FOR THE PUMP TO OPERATE SIMULTANEOUSLY ON HIGH LEVEL WITH ALARM AT 10 L/sec AT 8m HEAD

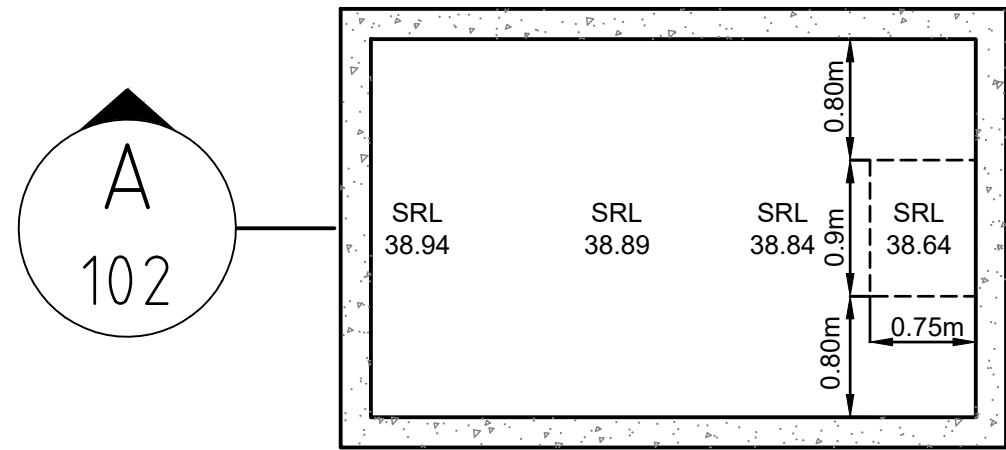


NOTE:
1- FOR ALL THE STRUCTURAL DETAILS, REFER TO STRUCTURAL ENGINEER'S PLAN.
2- ALL THE AG LINES BEHIND BASEMENT WALLS TO BE CONNECTED TO PUMP-OUT SUMP.

PUMP-OUT SUMP DETAIL

PLAN VIEW

SCALE 1:50



PUMP-OUT SUMP DETAIL

SRL

SCALE 1:50

Type	Output		Outlet		Rated		Maximum		Weigh	Dimension		
	HP	kW	mm	Inch	M	LPM	M	LPM		L(mm)	W(mm)	H(mm)
KS-03	1/3	0.25	40	1 1/2"	3	130	8	180	9	188	141	305
KS-04	1/2	0.4	50	2"	5	150	8	220	11	208	140	359
KS-05	1/2	0.4	50	2"	5	160	10	260	14	230	156	375
KS-08	1	0.75	50	2"	6	240	13	380	21	290	180	425
KS-20	2	1.5	80	3"	10	300	16	600	31	278	182	475
KS-30	3	2.2	80	3"	10	500	18	800	42	390	250	450
KS-50	5	3.7	100	4"	10	800	21	1100	48	450	240	530
KS-75	7 1/2	5.6	100	4"	15	800	23	1300	60	550	310	590
KS-100	10	7.5	150	6"	18	900	25	1600	70	550	310	610

NOT FOR CONSTRUCTION

D		ISSUE FOR DEVELOPMENT APPLICATION	18/03/2021	MBM	OC	
C		ISSUE FOR DEVELOPMENT APPLICATION	06/03/2020	JMH	OC	
B		ISSUE FOR DEVELOPMENT APPLICATION	30/07/2018	JH	OC	
A		ISSUE FOR DEVELOPMENT APPLICATION	27/07/2018	XNT	OC	
Issue	Description	Date	Designed	Engineer	Checked	

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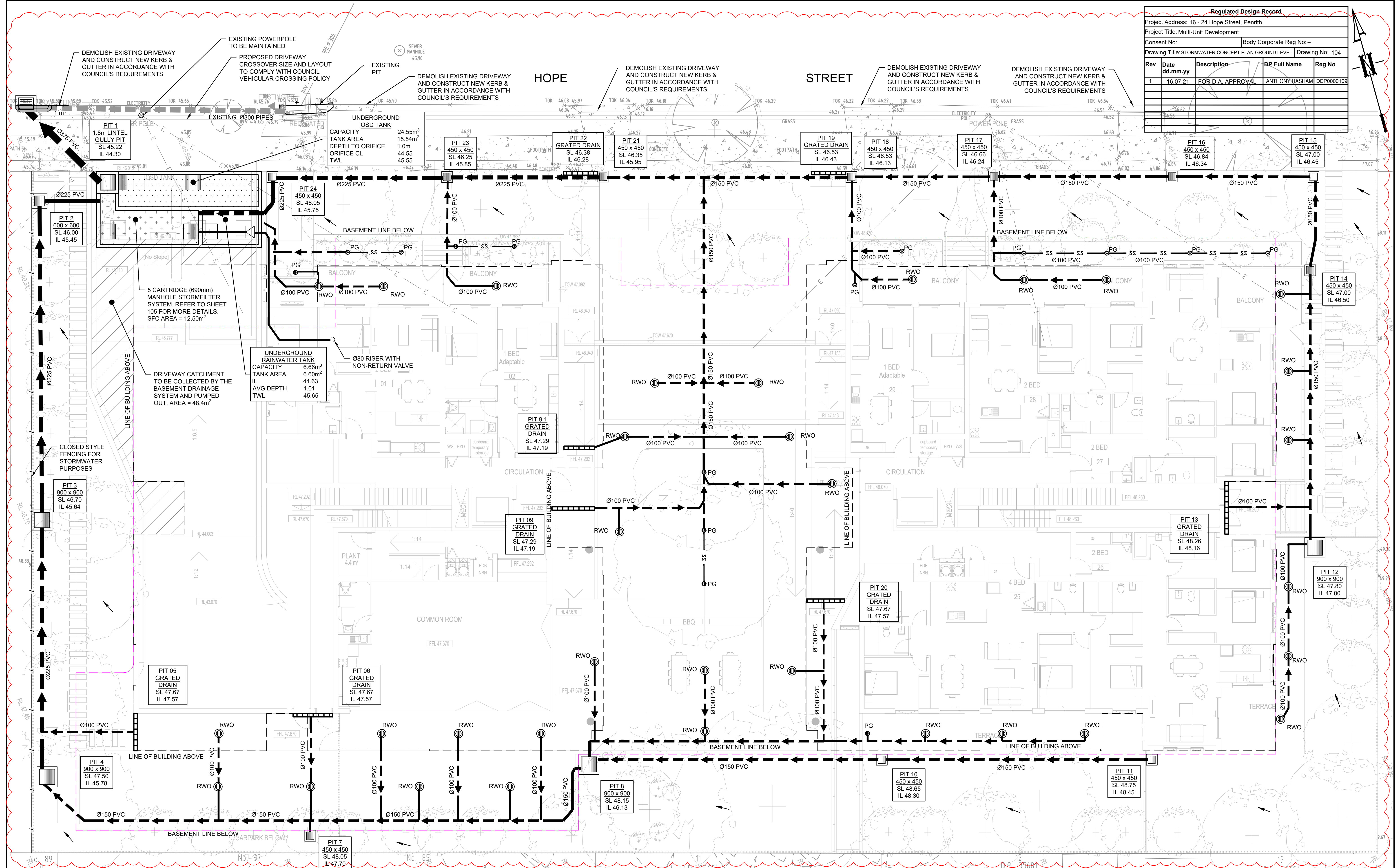
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Project Title: Multi-Unit Development				
Consent No:		Body Corporate Reg No: -		
Drawing Title: STORMWATER CONCEPT PLAN GROUND LEVEL		Drawing No: 104		
Rev	Date dd.mm.yy	Description	BP Full Name	Reg No
1	16.07.21	FOR D.A. APPROVAL	ANTHONY HASHAM	DEP0000109

E	ISSUE FOR DEVELOPMENT APPLICATION	16/07/2021	MBM	OC	OC
D	ISSUE FOR DEVELOPMENT APPLICATION	18/03/2021	MBM	OC	OC
C	ISSUE FOR DEVELOPMENT APPLICATION	06/03/2020	JMH	OC	OC
B	ISSUE FOR DEVELOPMENT APPLICATION	30/07/2018	JH	OC	OC
A	ISSUE FOR DEVELOPMENT APPLICATION	27/07/2018	XNT	OC	OC
Issue	Description	Date	Designed	Engineer	Checked

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Prestige Developments
Group (NSW) Pty Ltd
Council
Penrith City Council

Architect

Scale
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SCALE 1:100 @ A1

Certification By:
Anthony Hasham

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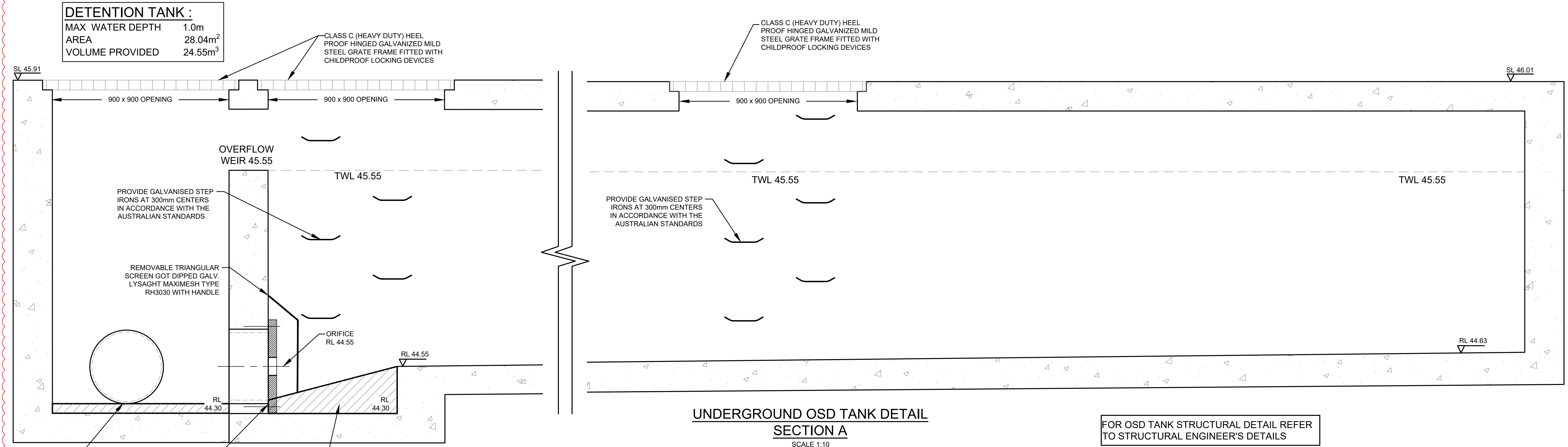
ACE CIVIL STORMWATER
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Project
16 - 24 HOPE STREET, PENRITH
PROPOSED MULTI-UNIT DEVELOPMENT
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title
STORMWATER CONCEPT PLAN
GROUND LEVEL

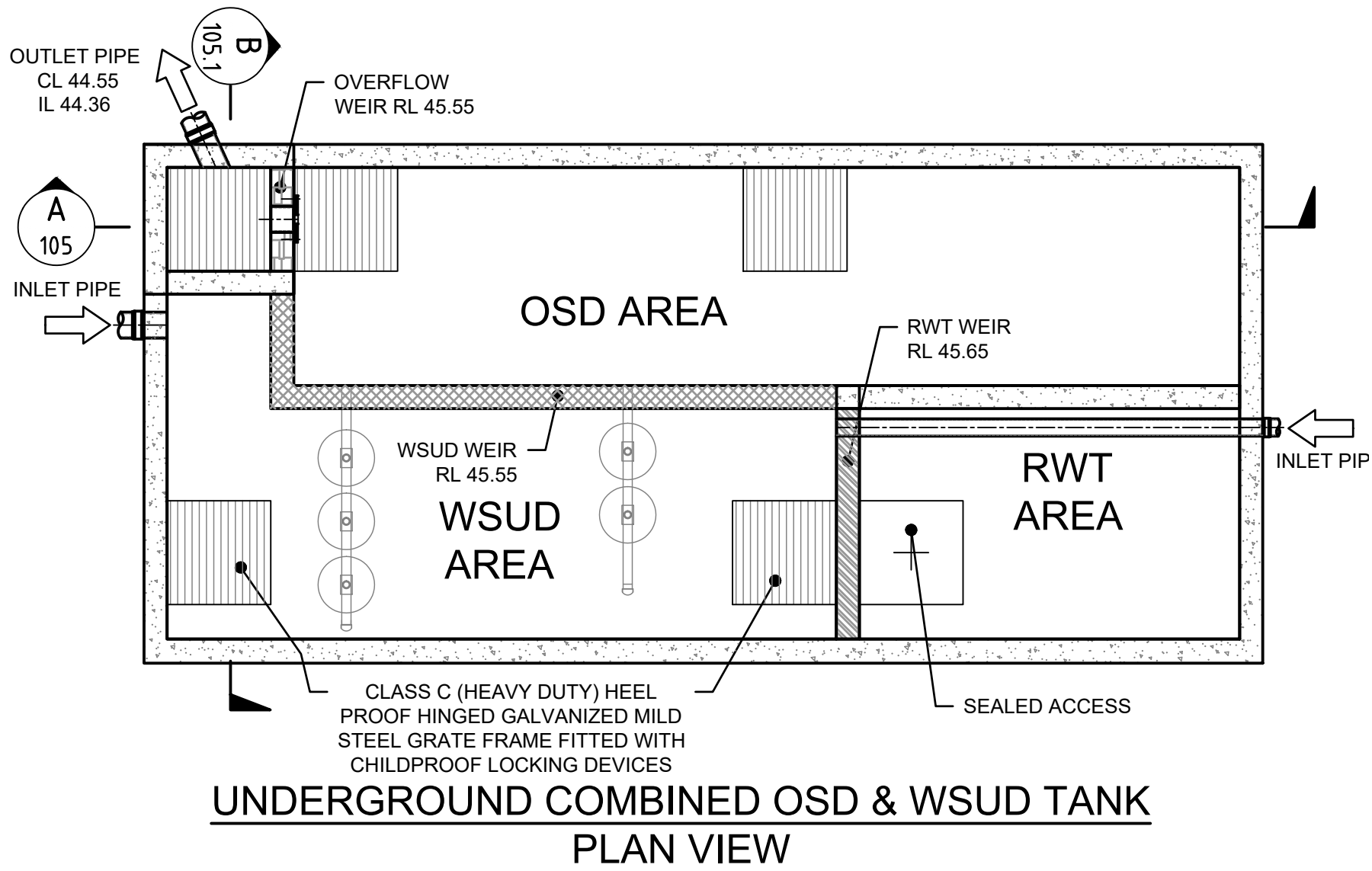
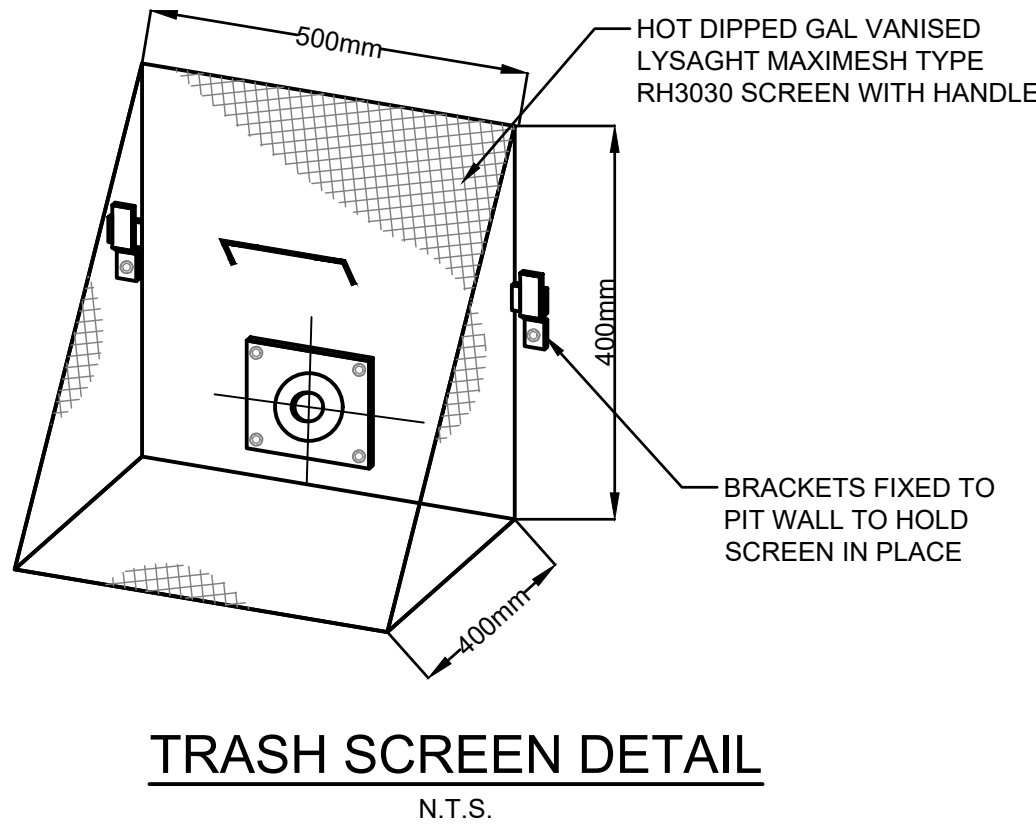
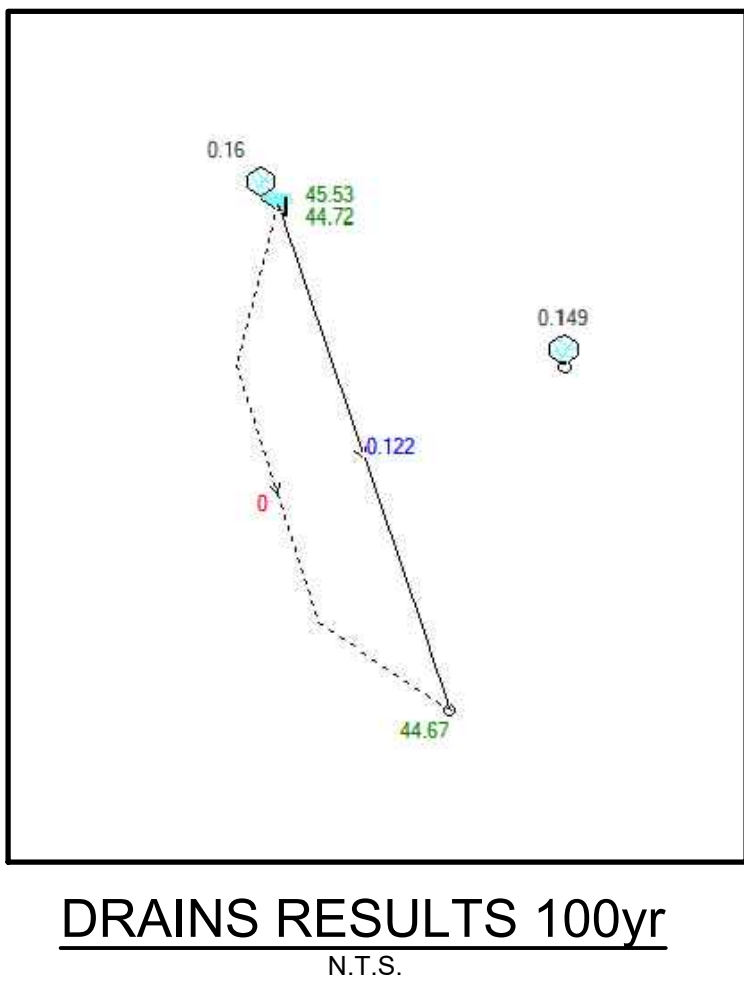
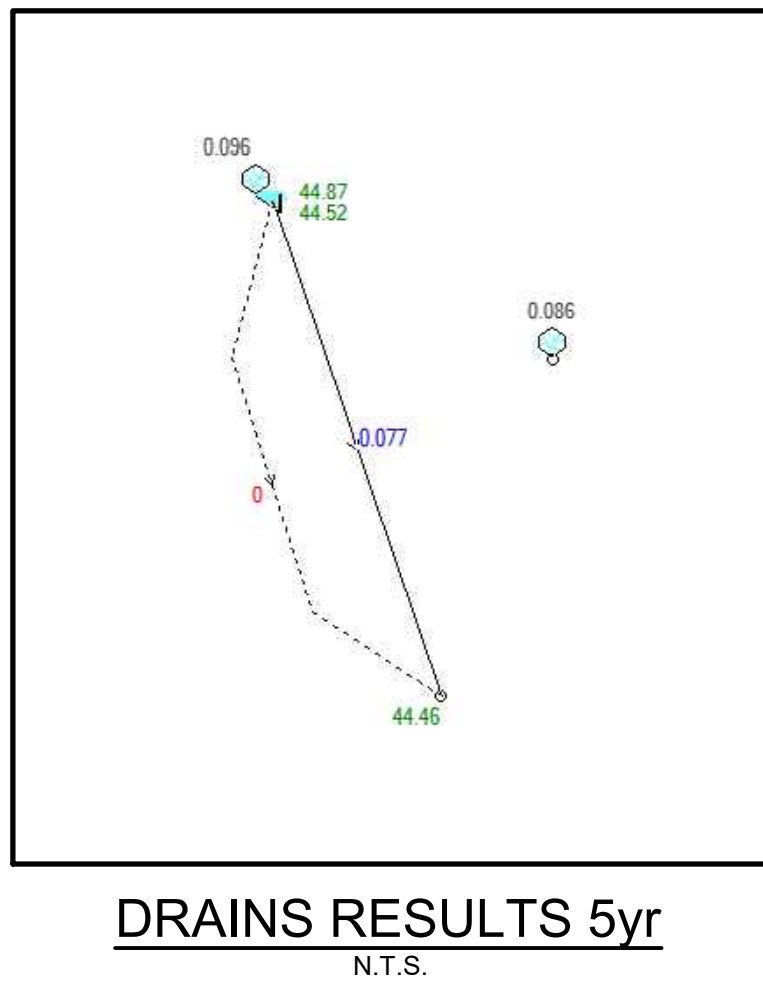
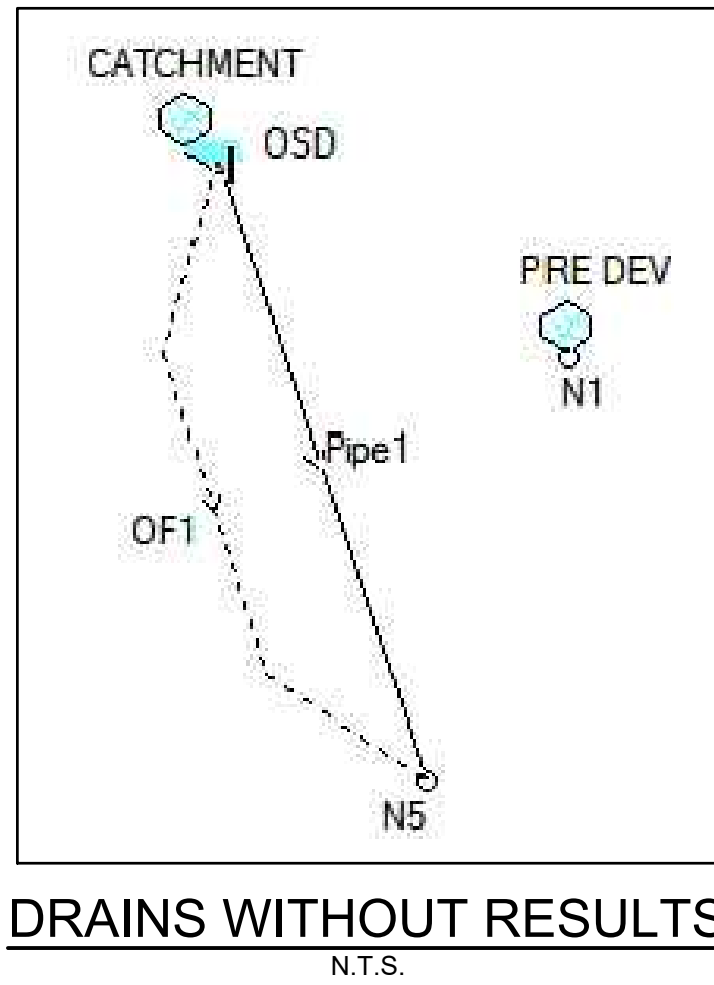
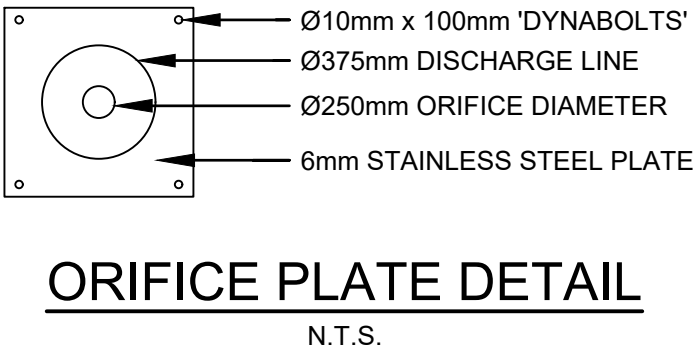
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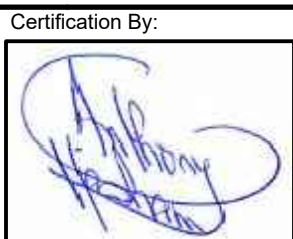

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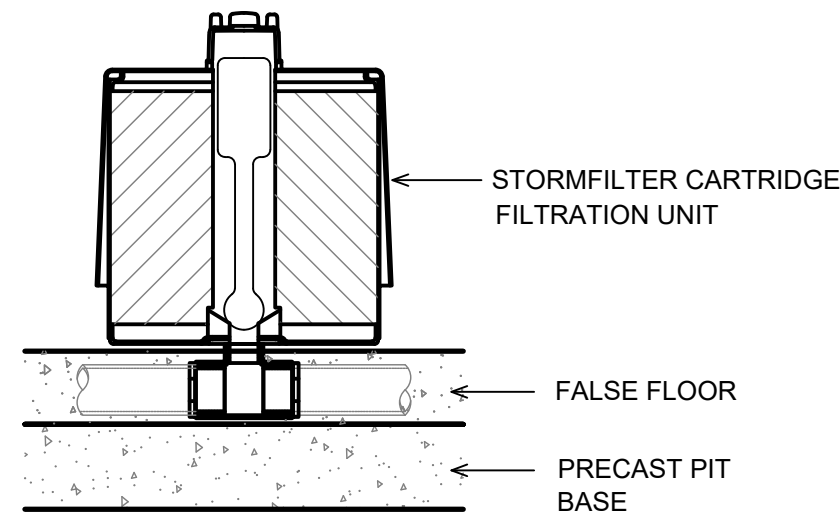
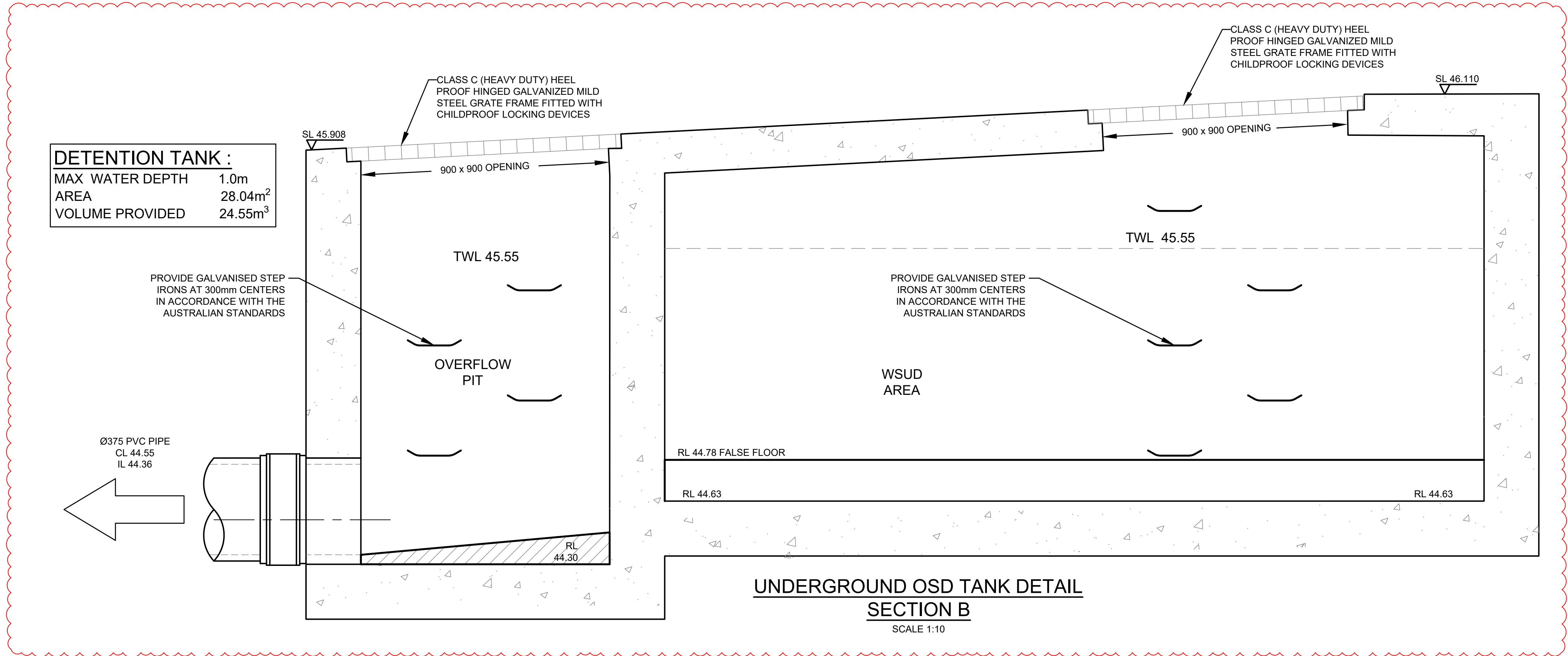


YEAR (event)	PRE DEVELOP FLOWS (l/s)	OSD DISCHRG (l/s)	FLOWS BYPASSING OSD (l/s)	TOTAL SITE DISCHARGE (l/s)	WATER STORAGE LEVEL (m)
5	86	77	0		44.87
10	104	89	0		45.06
20	123	101	0		45.13
50	132	109	0		45.23
100	149	122	0		45.53

Regulated Design Record				
Project Address: 16 - 24 Hope Street, Penrith				
Project Title: Multi-Unit Development				
Consent No:			Body Corporate Reg No: -	
Drawing Title: OSD DETAILS AND CALCULATIONS SHEET 1 OF 2 Drawing No: 105				
Rev	Date dd.mm.yy	Description	DP Full Name	Reg No
1	16.07.21	FOR D.A. APPROVAL	ANTHONY HASHAM	DEP0000109



F						ISSUE FOR DEVELOPMENT APPLICATION		16/07/2021	MBM	OC	OC	Architect Morson Group P.O Box 170, Potts Point, NSW 1335 EMAIL : info@ad-s.com.au PHONE : 02 9380 4946	Client Prestige Developments Group (NSW) Pty Ltd Council Penrith City Council	Scale 0 200 400 600mm SCALE 1:10 @ A1 0 1 2 3 m SCALE 1:50 @ A1	Certification By:  Anthony Hasham	 ACE CIVIL STORMWATER SERVICES PTY LTD ABN: 27 644 422 506 SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137 P:(02) 9763 1500 E:info@aceeng.com.au	Project 16 - 24 HOPE STREET, PENRITH PROPOSED MULTI-UNIT DEVELOPMENT STORMWATER CONCEPT PLANS DEVELOPMENT APPLICATION	Drawing Title ON-SITE DETENTION DETAILS AND CALCULATION SHEETS SHEET 1 OF 2	Scale As Shown	A1 Project No. 180919	Dwg. No. 105	Issue F
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D						ISSUE FOR DEVELOPMENT APPLICATION		12/03/2020	JMH	OC												
C						ISSUE FOR DEVELOPMENT APPLICATION		06/03/2020	JMH	OC												
B						ISSUE FOR DEVELOPMENT APPLICATION		30/07/2018	JH	OC												
Issue						Description		Date	Designed	Engineer	Checked											



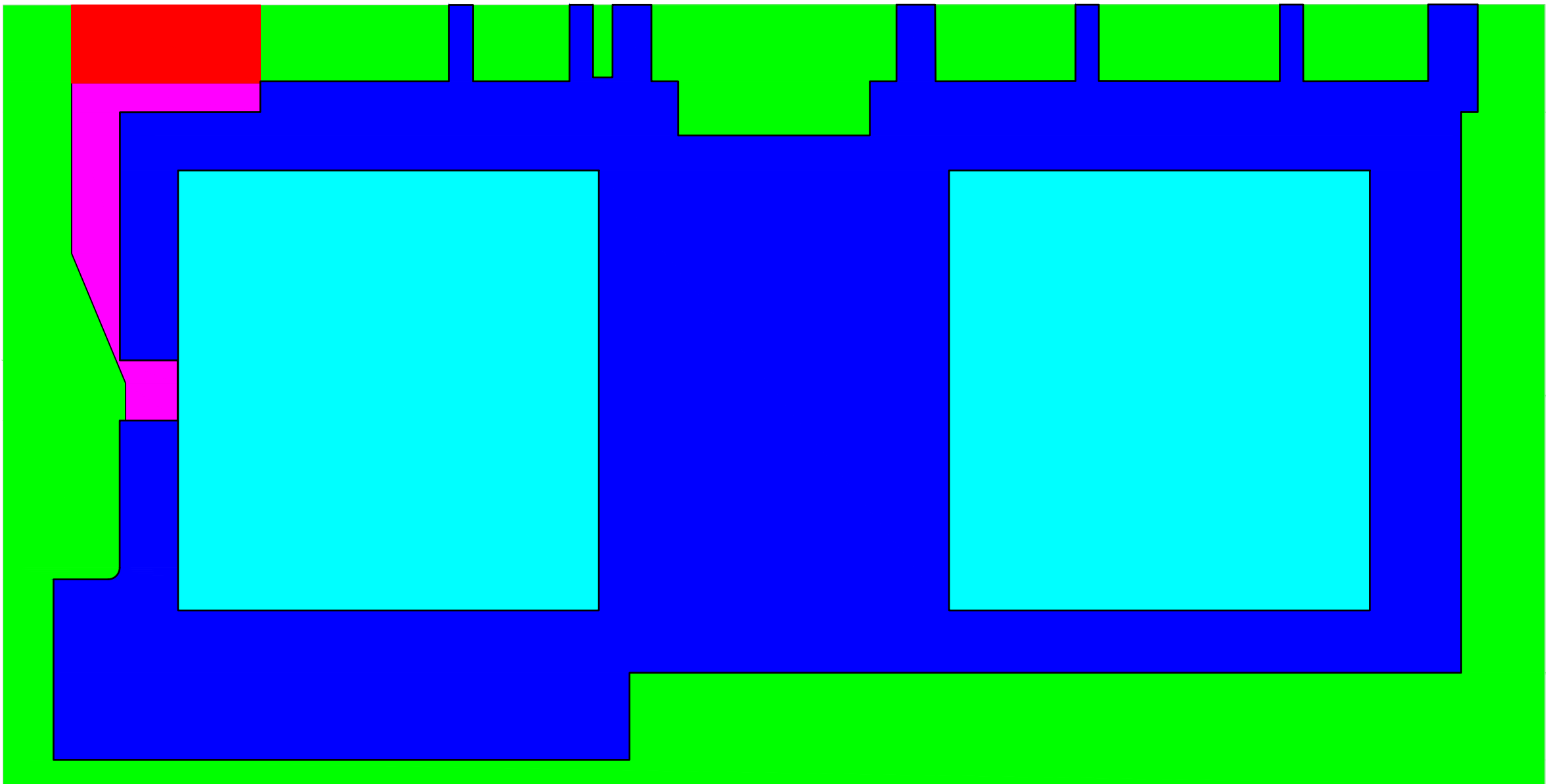
STORMFILTER DESIGN TABLE

- STORMFILTER TREATMENT CAPACITY VARIES BY NUMBER OF FILTER CARTRIDGES INSTALLED AND BY REGION SPECIFIC INTERNAL FLOW CONTROLS. CONVEYANCE CAPACITY IS RATED AT 80L/S.
- ALL PARTS PROVIDED AND INTERNAL ASSEMBLY BY STORMWATER360 AUSTRALIA UNLESS OTHERWISE NOTED.

CARTRIDGE HEIGHT	690	460	310
SYSTEM HYDRAULIC DROP (H - REQ'D. MIN.)	930	700	550
TREATMENT BY MEDIA SURFACE AREA L/S/m ²	1.4	0.7	1.4
CARTRIDGE FLOW RATE (L/s)	1.42	0.71	0.95

GENERAL NOTES

1. INLET AND OUTLET PIPING SHALL BE SPECIFIED BY SITE CIVIL ENGINEER (SEE PLANS) AND PROVIDED BY CONTRACTOR. STORMFILTER IS PROVIDED WITH OPENINGS AT INLET AND OUTLET LOCATIONS.
2. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CIVIL ENGINEER, EXCEEDS THE PEAK HYDRAULIC CAPACITY OF THE PRODUCT, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED. PLEASE CONTACT STORMWATER360 FOR OPTIONS.
3. THE FILTER CARTRIDGE(S) ARE SIPHON-ACTUATED AND SELF-CLEANING. THE STANDARD DETAIL DRAWING SHOWS THE MAXIMUM NUMBER OF CARTRIDGES. THE ACTUAL NUMBER SHALL BE SPECIFIED BY THE SITE CIVIL ENGINEER ON SITE. PLANS OR IN DATA TABLE BELOW. PRECAST STRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH AS3600.
4. FOR SHALLOW, LOW DROP OR SPECIAL DESIGN CONSTRAINTS, CONTACT STORMWATER360 FOR DESIGN OPTIONS.
5. ALL WATER QUALITY PRODUCTS REQUIRE PERIODIC MAINTENANCE AS OUTLINED IN THE O&M GUIDELINES. PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS.
6. STRUCTURE AND ACCESS COVERS DESIGNED TO MEET AUSTRROADS T44 LOAD RATING WITH 0.2m FILL MAXIMUM.
7. THE STRUCTURE THICKNESSES SHOWN ARE FOR REPRESENTATIONAL PURPOSES AND VARY REGIONALLY.
8. ANY BACKFILL DEPTH, SUB-BASE, AND OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY SITE CIVIL ENGINEER.
9. STORMFILTER BY STORMWATER360:
SYDNEY (AU) PHONE: (02) 9525 5833,
BRISBANE (AU) PHONE: (07) 3272 1872.



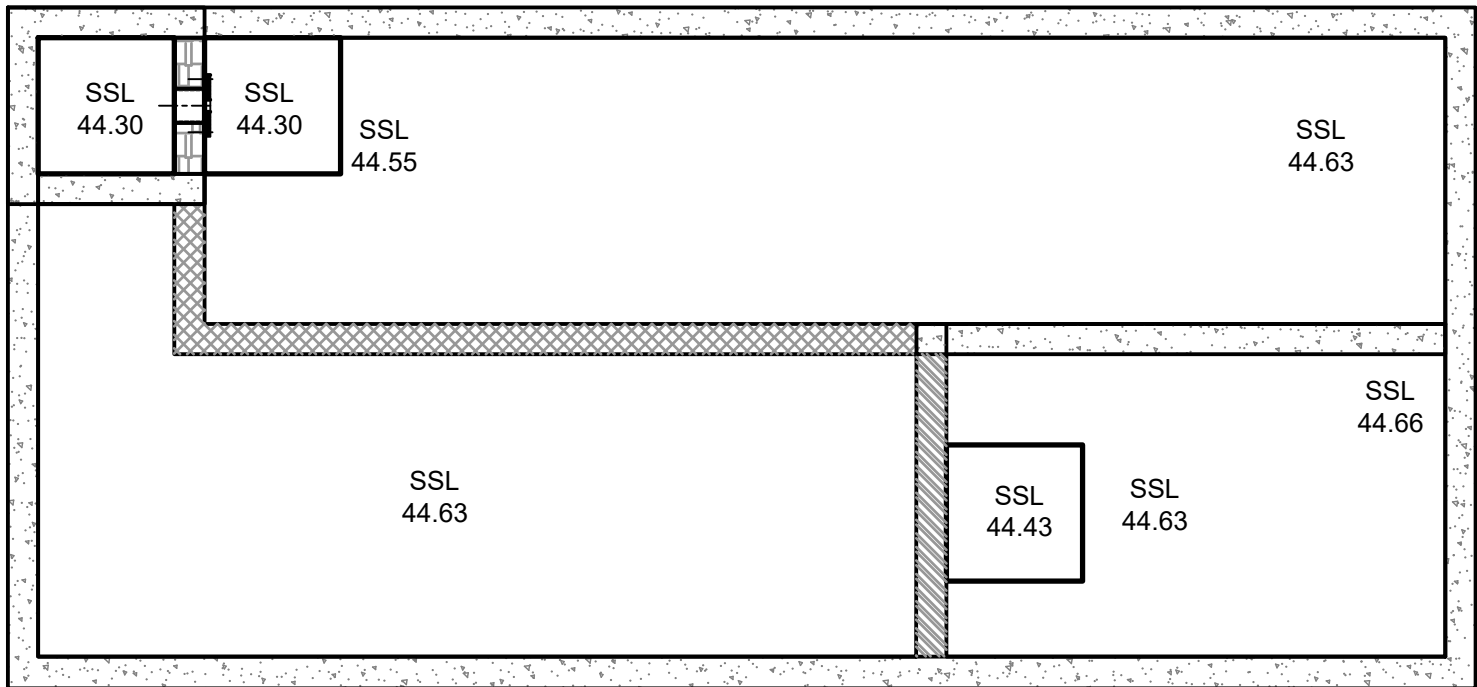
CATCHMENT PLAN

N.T.S.

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Project Title: Multi-Unit Development				
Consent No:		Body Corporate Reg No: –		
Drawing Title: OSD DETAILS AND CALCULATIONS SHEET 2 OF 2 Drawing No: 105.1				
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1	16.07.21	FOR D.A. APPROVAL	ANTHONY HASHAM	DEP0000109

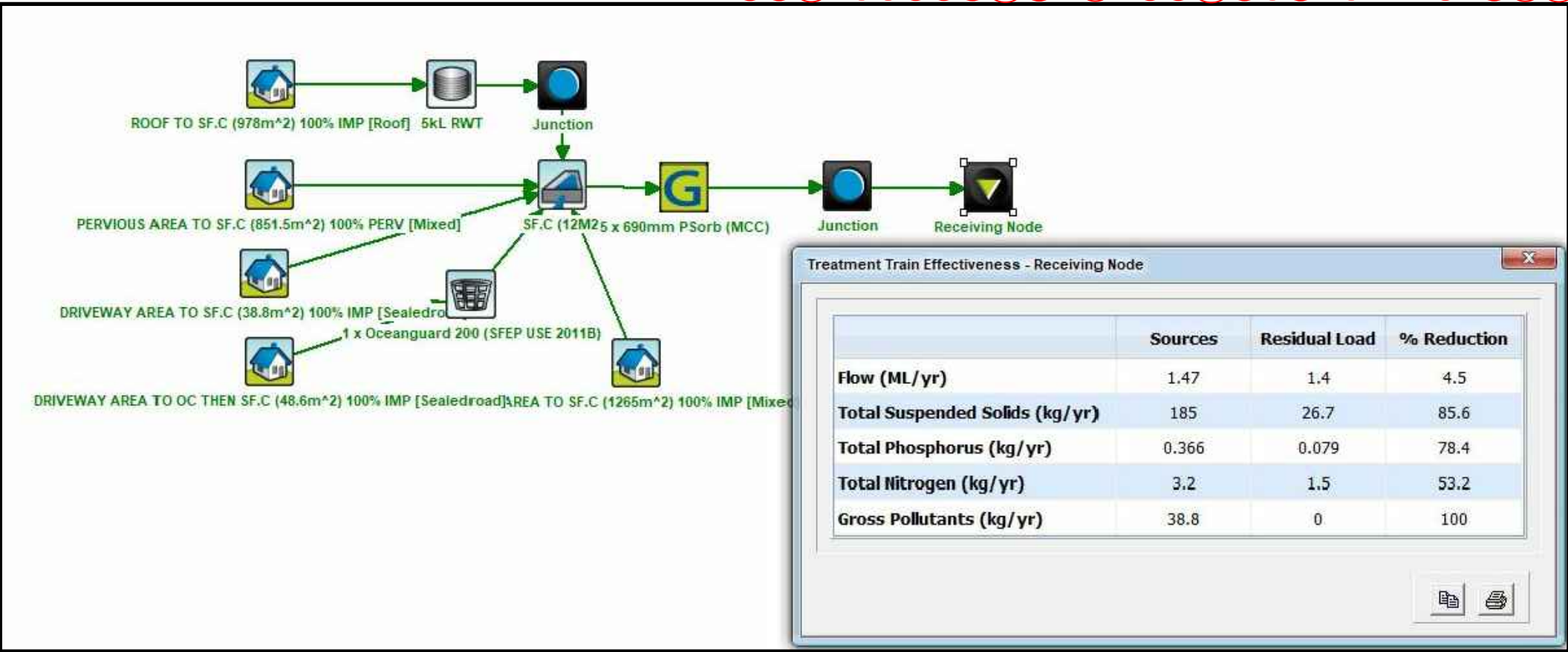
CATCHMENT PLAN LEGEND:

	PERVIOUS AREA TO OSD = 851.5m ²
	ROOF TO RWT THEN WSUD = 978m ²
	ROAD TO BASEMENT = 48.4m ²
	IMPERVIOUS TO OSD = 1265m ²
	ROAD TO OSD = 38.8m ²



UNDERGROUND COMBINED OSD & WSUD TANK
BOTTOM SSL



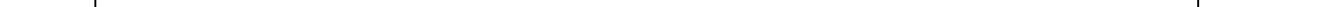
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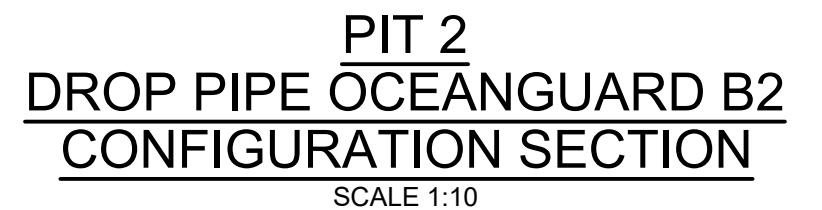
MUSIC MODEL RESULT

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NOT FOR CONSTRUCTION

						Architect			Client			Scale			Certification By:			<div><div>ACE CIVIL STORMWATER SERVICES PTY LTD ABN: 27 644 422 506 SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137 P:(02) 9763 1500 E:info@aceeng.com.au</div></div>			Project 16 - 24 HOPE STREET, PENRITH PROPOSED MULTI-UNIT DEVELOPMENT STORMWATER CONCEPT PLANS DEVELOPMENT APPLICATION			Drawing Title ON-SITE DETENTION DETAILS AND CALCULATION SHEETS SHEET 2 OF 2		
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C	ISSUE FOR DEVELOPMENT APPLICATION	18/03/2021	MBM	OC		P.O Box 170, Potts Point, NSW 1335						0 1 2 3 m SCALE 1:50 @ A1			Anthony Hasham											
B	ISSUE FOR DEVELOPMENT APPLICATION	12/03/2020	JMH	OC		EMAIL : info@ad-s.com.au PHONE : 02 9380 4946			Penrith City Council																	
A	ISSUE FOR DEVELOPMENT APPLICATION	06/03/2020	JMH	OC																						
Issue	Description	Date	Designed	Engineer	Checked																					
																										

1. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO NOMINATE THE LOCATIONS AND TYPES OF SEDIMENT AND EROSION CONTROL MEASURES TO BE ADOPTED. THESE MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CLEARING OR EARTHWORKS AND MAINTAINED UNTIL THE WORKS ARE COMPLETED AND NO LONGER POSE AN EROSION HAZARD, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
2. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO IDENTIFY AND MARK TREES WHICH ARE TO BE PRESERVED. NOTWITHSTANDING THE ABOVE, THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO MINIMISE DISTURBANCE TO EXISTING VEGETATION AND GROUND COVER OUTSIDE THE MINIMUM AREAS REQUIRED TO COMPLETE THE WORKS AND SHALL BE RESPONSIBLE FOR RECTIFICATION, AT ITS OWN COST, OF ANY DISTURBANCE BEYOND THOSE AREAS.
3. PROVIDE GULLY GRATE INLET SEDIMENT TRAPS AT ALL GULLY PITS.
4. PROVIDE SILT FENCING ALONG PROPERTY LINE AS DIRECTED BY SUPERINTENDENT.
5. ADDITIONAL CONTROL DEVICES TO BE PLACED WHERE DIRECTED BY THE PRINCIPLE.
6. ALTERNATIVE DESIGNS TO BE APPROVED BY SUPERINTENDENT PRIOR TO CONSTRUCTION.
7. WASH DOWN/RUMBLE AREA TO BE CONSTRUCTED WITH PROVISIONS RESTRICTING ALL SILT AND TRAFFICED DEBRIS FROM ENTERING THE STORMWATER SYSTEM.
8. NO WORK OR STOCKPILING OF MATERIALS TO BE PLACED OUTSIDE OF SITE WORK BOUNDARY.
9. APPROPRIATE EROSION AND SEDIMENT CONTROLS TO BE USED TO PROTECT STOCKPILES AND MAINTAINED THROUGH OUT CONSTRUCTION.
10. IT IS THE CONTRACTORS RESPONSIBILITY TO TAKE DUE CARE OF NATURAL VEGETATION. NO CLEARING IS TO BE UNDERTAKEN WITHOUT PRIOR APPROVAL FROM THE SUPERINTENDENT.
11. TO AVOID DISTURBANCE TO EXISTING TREES, EARTHWORKS WILL BE MODIFIED AS DIRECTED ON-SITE BY THE SUPERINTENDENT.
12. THE LOCATION OF EROSION AND SEDIMENTATION CONTROLS WILL BE DETERMINED ON SITE BY THE SUPERINTENDENT.
13. ACCESS TRACKS THROUGH THE SITE WILL BE LIMITED TO THOSE DETERMINED BY THE SUPERINTENDENT AND THE CONTRACTOR PRIOR TO ANY WORK COMMENCING.
14. ALL SETTING OUT IS THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO WORKS COMMENCING ON SITE. THE SUPERINTENDENT'S SURVEYOR SHALL PEG ALL ALLOTMENT BOUNDARIES, PROVIDE COORDINATE INFORMATION TO THESE PEGS AND PLACE BENCH MARKS. THE CONTRACTOR SHALL SET OUT THE WORKS FROM AND MAINTAIN THESE PEGS.
15. PLANS ARE MINIMUM REQUIREMENTS AND ARE TO BE USED AS A GUIDE ONLY. EXACT MEASURES USED SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH PROGRAM OF CONTRACTORS WORKS etc.



Drawing Title

MISCELLANEOUS
DETAILS SHEET

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Architect


Morson Group

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EMAIL : info@ad-s.com.au
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Client	Prestige Developments Group (NSW) Pty Ltd
Council	Penrith City Council


Scale



0 200 400 600mm

SCALE 1:10 @ A1

Certification By:



Anthony Hasham



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Project
16 - 24 HOPE STREET, PENRITH
PROPOSED MULTI-UNIT DEVELOPMENT
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION



STANBURY
TRAFFIC PLANNING

TRAFFIC, PARKING & TRANSPORT CONSULTANTS

TRAFFIC & PARKING IMPACT ASSESSMENT

**PROPOSED RESIDENTIAL DEVELOPMENT
16 – 24 HOPE STREET
PENRITH**

**PREPARED FOR PRESTIGE DEVELOPMENT GROUP (NSW) PTY. LTD.
OUR REF: 19-201-2**



APRIL 2021

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- 1. Architectural Plans**
- 2. On-Street Parking Reconfiguration**
- 3. Swept Path Plans**
- 4. SIDRA Output Summaries (Existing Conditions)**

1. INTRODUCTION

1.1 Scope of Assessment

Stanbury Traffic Planning has been commissioned by Prestige Development Group (NSW) 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 five existing residential dwellings and the construction of a residential development containing 51 dwellings, contained within two buildings, each providing six storeys at 16–24 Hope Street, 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, Transport for NSW (TfNSW) 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.

1.2 Reference Documents

Reference is made to the following documents throughout this report:

- TfNSW's *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).

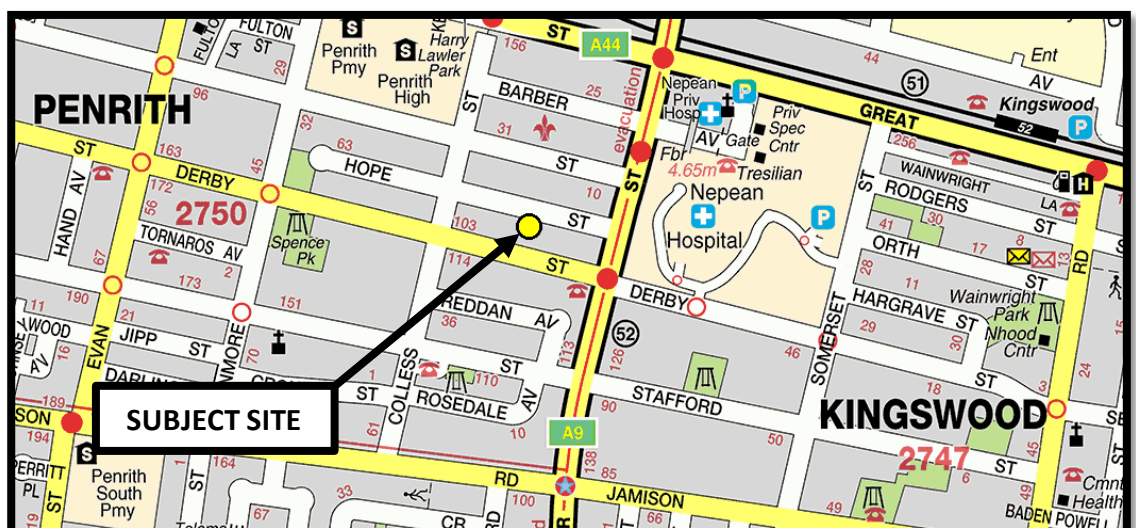
Architectural plans have been prepared by Morson Group and should be read in conjunction with this report, reduced copies of a selection of which (ground and basement plans only) are included as **Appendix 1** for reference.

1.3 Site Details

1.3.1 Site Location

The subject site is situated on the southern side of Hope Street, approximately midway between Parker Street and Colless Street, Penrith. The site location is illustrated below and overlaid within a local and aerial context by **Figure 1** and **Figure 2**, 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: Six Maps (accessed 20/01/20)

1.3.2 Site Description

The site comprises five allotments, providing real property descriptions of Lots 29, 30, 31, 32 and 33 within DP 31239 and a street address of 16 – 24 Hope Street, Penrith. The allotments form a rectangularly shaped parcel of land, providing an approximate frontage of 80m to Hope Street. The site extends to the south away from Hope Street some 40m, providing a total area of approximately 2,400m².

1.3.3 Existing Site Use

The subject site currently accommodates five detached residential dwellings and associated outbuildings. Each dwelling is serviced by a vehicular access driveway connecting with Hope Street in the north-western corner of each lot.

1.3. Surrounding Uses

The site is surrounded by the following:

- Land to the west and south is occupied by single detached residential dwellings similar to that currently contained within the subject site;
- Land to the north of the site, on the opposite side of Hope Street, is largely occupied by detached residential dwellings similar to that currently contained within the subject site, although a multi-level residential flat building is situated to the north-west of the site;
- A multi-level residential flat building adjoins the site directly east; and
- Nepean Hospital is situated to the east.

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 flat building development comprising a total of 51 dwellings, made up of the following:

- 2 one bedroom dwellings;
- 36 two bedroom dwellings;
- 12 three bedroom dwellings; and
- 1 four bedroom dwelling.

The dwellings are proposed to be contained within two buildings, each providing six storeys.

The development is to be serviced by two levels of basement parking accommodating 80 car parking spaces, a dedicated waste collection area and 14 bicycle parking spaces. Vehicular access is proposed via a single combined ingress / egress driveway connecting with Hope Street in the north-western corner of the site.

Pedestrian connectivity is proposed between the development and the southern Hope Street footway to the east and separate from the abovementioned vehicular access driveway.

2.2 Public Domain Works

In conjunction with the on-site works, the proposal involves the following public domain works:

- The removal of five redundant driveway connections to Hope Street, servicing the existing five dwellings situated within the site;
- The construction of the proposed single access driveway connecting with Hope Street in the north-western corner of the site;
- A reconfiguration of the existing marked parallel parking bays adjoining the southern Hope Street kerb alignment, associated with the abovementioned removal of redundant driveways and the construction of a new access driveway, resulting in the provision of three additional parking spaces; and
- The removal of three existing marked parallel parking bays adjoining the northern Hope Street kerb alignment, in order to ensure refuse collection vehicles are able to access / vacate the proposed new site access driveway (see Section 3.4 of this report).

Appendix 2 provides graphical representations of the existing and proposed modified on-street parking arrangements within Hope Street. These figures illustrate that the proposed development is projected to result in a nett neutral on-street parking yield.

3. SITE ACCESS & INTERNAL CIRCULATION

3.1 Vehicular Access

3.1.1 Passenger Vehicle Access

Vehicular access between the development site and Hope Street is proposed to be provided via a 10.0m wide combined ingress / egress driveway located within the north-western corner of the site. The access driveway provides direct connectivity to separated but adjacent 4.4m wide ingress and egress travel lanes divided by a 0.6m wide median.

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 Hope Street, the residential land-use and the on-site passenger vehicle parking provision of less than 100 spaces. The proposed 10.0m wide combined ingress / egress driveway therefore exceeds the minimum AS2890.1-2004 specifications and is accordingly considered to be satisfactory.

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 3**. These swept paths also indicate that all vehicles are able to enter and exit the site in a forward direction.

The safety and efficiency of access / egress movements are also proposed to be assisted by the following:

- The provision of a relatively level (less than 1:20) grade within the first 6m inside the property boundary;
- The consistent horizontal and vertical alignment of Hope Street in the vicinity of the subject site resulting in satisfactory sight distance between the frontage road and the proposed site driveway, based on the prevailing 50km/h speed limit; and
- No obstructions to visibility adjacent to the driveway facilitating appropriate sight distance between exiting motorists and pedestrians along the southern Hope Street footway.

3.1.1 Heavy Vehicle Access

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 a dedicated loading area within Basement Level 1.

Swept path plans demonstrating the movement of Council's 9.7m long waste collection vehicle between Hope Street and the site access driveway are contained within **Appendix 3** for reference. The swept path plans illustrate that the movement of waste collection vehicles to and from the proposed site access driveway is expected to result in the removal of up to three existing marked parallel parking spaces along the northern side of Hope Street. The impact or otherwise of the loss of on-street parking on the northern side of Hope Street is discussed within subsequent sections of this report.

3.2 Pedestrian Access

Pedestrian connectivity is proposed between the development and the southern Hope Street footway to the east and separate from the abovementioned vehicular access driveway.

3.3 On-Site Parking Provision

3.3.1 Vehicular Parking Provision

The development is serviced by a total of 80 off-street passenger vehicle parking spaces provided as follows:

Basement level 1

Visitor spaces	11
Wash spaces	1
Service spaces	2
Resident spaces	37 (including 3 adaptable)

Basement level 2

Resident spaces	29 (including 3 adaptable)
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Total	80 spaces
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3.3.2 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 overleaf 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	38	38
3 or 4 bedroom dwellings	2 space per dwelling	13	26
Service vehicles	1 space per 40 dwellings	51	1.3 (adopt 2)
Visitor Parking	1 space per 5 dwellings	51	10.2 (adopt 11)
Car Washing	1 space per 50 units	51	1.02 (adopt 1)
		Total	78

Table 1 indicates that DCP 2014 requires the development provide a total of 78 passenger vehicle parking spaces, comprising 64 resident, 11 visitor, two service and one car wash space.

The proposed total passenger vehicle parking provision of 80 spaces, comprising 66 resident, 11 visitor, two service and one car wash space, therefore complies with the numerical requirements of DCP 2014.

3.3.3 Bicycle Parking

The subject development is to provide 14 bicycle storage racks capable of accommodating up to 14 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 51 dwellings, the NSW Government's *Planning Guidelines for Walking and Cycling* recommends resident and visitor bicycle parking provision of 11 resident and three visitor parking spaces or a total of 14 spaces.

The proposed provision of 14 on-site bicycle parking spaces therefore exceeds the minimum requirement specified in the NSW Government's guidelines and accordingly, is considered to be satisfactory.

3.4 On-Street Parking Provision

It has previously been presented that the movement of waste collection vehicles to and from the proposed site access driveway is expected to result in the removal of up to three existing marked parallel parking spaces along the northern side of Hope Street (see **Appendices 2 and 3**).

The expected loss of three spaces along the northern kerb alignment of Hope Street are however projected to be off-set by the proposed rationalisation of the

site access driveways, whereby an additional three parallel parking spaces are to be provided along the southern Hope Street kerb alignment adjacent to the site.

Appendix 2 provides graphical representations of the existing and proposed modified on-street parking arrangements within Hope Street. These figures illustrate that the proposed rationalisation development is expected to result in a net-neutral on-street parking supply, thereby ensuring the development does not result in any unreasonable impacts on surrounding on-street parking amenity.

3.5 Internal Circulation and Manoeuvrability

3.5.1 Upper Basement Access Ramp

Passenger vehicles, upon entry to the site via Hope Street, will travel in a forward direction via an internal roadway / ramp running along the western site boundary connecting with the upper basement parking level.

The proposed configuration of the basement access ramp with the upper basement level is such that, under normal circumstances, opposed passenger vehicles are capable of manoeuvring between the development access driveway and the upper basement parking level simultaneously. Swept paths demonstrating this have been prepared and attached as **Appendix 3**.

Notwithstanding this, the development design incorporates an internal traffic signal system in order to govern the traffic flow between the development access driveway, the basement passenger vehicle parking area and the internal waste collection bay, with the intention of ensuring that Council's refuse collection vehicle can manoeuvre to, within and from the subject site, clear of passenger vehicle movements.

The traffic signal system is to utilise passenger vehicle and special truck only red / green traffic lanterns located at the access driveway, facing the waste collection bay and within the upper basement level. The lanterns within the access driveway and basement level one are to be supplemented with 'Stop Here on Red' signage and stop lines.

The default traffic signal position will display a green movements both entering the site from Hope Street and exiting the site from the upper basement parking level. Notwithstanding this, on arrival of Council's waste collection vehicle on site, the operator of the vehicle is to put in a call to the traffic signal system via the intercom contained within the access ramp. Upon activation of the signal system, red lanterns will be displayed to the signals situated within the access ramp and the upper basement parking level. Following a short delay to allow any vehicles already in internal access ramp to complete its journey to the site access driveway, the lantern within the access ramp will then display a special green truck only lantern, whilst the passenger vehicle lanterns within the access ramp and the upper basement parking area will remain red. This will ensure that Council's waste collection vehicle will be able to safely travel from the site access driveway to the dedicated loading bay adjacent to the upper basement parking level clear of any potential passenger vehicle movements.

Swept path plans demonstrating the movement of Council's waste collection vehicle from Hope Street into the site access driveway and thence into the designated waste collection bay, via the development access ramp, are contained within **Appendix 3** for reference.

After Council's waste collection vehicle has completed its reverse entry ingress movement into the upper basement level loading bay, the operating system will thence signal for all of the on-site passenger vehicle lanterns to revert back to the default position, being green.

Following completion of loading / unloading activities, the operator of Council's waste collection vehicle will once again signal to the site operating system via activation of a push button within the waste collection area. Upon activation of this button, the operating system will again display a red to the passenger vehicle lanterns within the access ramp and the basement parking area. Following a short delay to allow a passenger vehicle already within the ramp system to complete its journey between the driveway and the basement parking level, the truck only lantern facing the loading bay will change from red to green thereby allowing Council's waste collection vehicle to safely exit the loading area and travel in an unimpeded fashion towards the site access driveway. Swept path plans demonstrating the movement of Council's waste collection vehicle from the waste collection bay to Hope Street via the development access ramp and driveway are contained within **Appendix 3** for reference.

When the directional sensitive radar unit located at the driveway is activated by the exiting vehicle, the system returns to the default position.

The indicative location of the entrance stop line, vehicle detector, lanterns and push buttons are illustrated on the amended architectural plans.

Traffic signal systems such as that described are typically fitted with a battery powered back up system to ensure that they continue to operate during power black outs.

The specific details of the internal traffic signal system are typically specified by traffic signal contractors at construction certificate stage, the requirement for which could reasonably be imposed by Council as a condition of development consent. Incorporating such an internal traffic signal system, the proposed traffic management measure facilitating the safe ingress and egress movements of Council's waste collection vehicle, is envisaged to be satisfactory.

3.5.2 Passenger Vehicle Parking / Circulation Areas

The basement passenger vehicle areas are proposed to comprise a series of 90 degree angled parking spaces, being serviced by adjoining circulation aisles. The basement parking area has been designed to accord with the minimum requirements of AS2890.1:2004, AS2890.3:2015 and AS2890.6:2009, providing the following minimum dimensions:

- Standard 90 degree passenger vehicle parking space width = 2.5m;

- Disabled vehicular parking space width = 2.5m (with adjoining 2.5m wide shared area);
- Vertically hung and staggered bicycle parking space width = 0.5m;
- Standard and disabled parking space width = 5.4m;
- Vertical bicycle rack depth = 1.2m;
- Aisle width servicing vehicular and bicycle parking spaces = 5.8m;
- Parking aisle extension past dead end 90 degree parking spaces = 1.0m;
- Headroom = 2.2m;
- Headroom above disabled parking spaces and adjoining shared areas = 2.5m;
- One-way straight roadway / ramp width = 4.0m;
- Two-way straight roadway / ramp width = 5.5m;
- Maximum grade = 1:4;
- Maximum change in grade = 1:8; and
- Maximum grade within 6m of the property boundary = 1:20.

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 area, this Practice has prepared a number of swept path plans which are included as **Appendix 3**. The turning paths provided on the plans have been generated using Autoturn software and derived from B99 and B85 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 AS2890.1:2004 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.

3.5.3 Site Servicing

It is expected that the subject development will generate the requirement for minor deliveries and weekly refuse collection.

It is expected that minor deliveries associated with the development are expected to be undertaken by vans and utilities. Such servicing activities are proposed to be accommodated within the designated service bays located within the upper basement parking level.

Waste collection vehicles are proposed to service the site via a single dedicated loading zone situated within the south-western corner of the upper basement parking level. The waste collection area provides the following minimum dimensions, according with Council's waste collection policy:

- Refuse collection bay width = 5.5m;
- Refuse collection bay length = 11.5m; and
- Minimum clearance throughout area required to accommodate refuse collection vehicle = 3.5m.

In order to demonstrate the internal service vehicle manoeuvrability within the amended development design, this Practice has prepared a number of swept path plans which are included as **Appendix 3**. The swept path plans illustrate the following:

- Council's 9.7m long refuse collection vehicle is capable of entering the site from Hope Street via a left turn movement in a forward direction and thence continuing in a forward direction to access the upper basement parking level, with reasonable clearance to public road or private development physical obstructions (incorporating the previously presented removal of three on-street parking spaces along the northern side of Hope Street); and
- Upon accessing the upper basement parking level, the above 9.7m long refuse collection vehicle is thence capable of performing a reverse entry movement into the dedicated loading zone clear of any potential passenger vehicle movements; and
- Following completion of loading / unloading activities, the 9.7m long refuse collection vehicle is capable of exiting the internal formalised servicing area and the site in a forward direction to Hope Street via a left turn, with reasonable clearance to private development or public road physical obstructions (once again, incorporating the previously presented removal of three on-street parking spaces along the northern side of Hope Street).

In consideration of the above, the proposed waste collection arrangements are therefore considered to be satisfactory.

4. EXISTING TRAFFIC CONDITIONS

4.1 Surrounding Road Network

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

- **Hope Street** forms a carriageway width of 7.3m within an overall road reservation in the order of 15m. It provides an east-west alignment and performs a local function in the road hierarchy, primarily serving the adjacent low and medium density residential development. Traffic flow is governed by a speed limit of 50km/h consistent with State Government policy for local residential roads.

Parallel parking along both kerb alignments within Hope Street is formalised through the provision of line marking, in the interest of maintaining access to adjoining driveways and overall traffic management. Observations have indicated that demand for on-street parking is generally considerable, most likely attributed to employee parking associated with Nepean Hospital situated to the east of the subject site.

The prevailing 7.3m carriageway width of Hope Street in conjunction with the abovementioned on-street parallel parking effectively limits traffic flow to one lane at any one time. Traffic flow within Hope Street primarily occurs under curtesy conditions, whereby one vehicle retreats to either an unoccupied parking space or, more likely, momentarily blocks an adjoining driveway to allow oncoming vehicle/s to pass.

Hope Street forms a 'T' intersection with Parker Street at its eastern extremity, operating under 'Give Way' signage control with Parker Street performing the priority route. The provision of a concrete median within Parker Street restricts turning movements at the junction of Parker Street and Hope Street to left in/left out.

To the west, Hope Street forms a cross intersection with Colless Street operating under 'Give Way' signage control with Colless Street performing the priority route.

- **Parker Street** performs an important State Road function under the care and control of TfNSW. Parker Street, with The Northern Road, provides a connection between Windsor in the north and Camden in the south.

Parker Street, in the vicinity of the site, essentially provides a divided carriageway providing three lanes in each direction whilst widening is provided on approach to major junctions such as Great Western Highway, Derby Street and Jamieson Road to accommodate exclusive turning lanes, under traffic signal control. A signalised mid-block pedestrian crossing is provided over Parker Street to the north of Lethbridge Street.

Traffic flow within Parker Street is governed by a sign posted speed limit of 60km/h. Kerb-side parking is prohibited along both the western kerb alignments in the immediate vicinity of the subject site.

- **Colless Street** performs a local access function under the care and control of Penrith City council. It provides a north-south route terminating just south of High Street in the north (movements between Colless Street and High Street are physically restricted) and extends to Jamison Road in the south. Colless Street forms a carriageway width of approximately 13m providing one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments.

Colless Street intersects with Lethbridge Street to the north under 'Stop' sign control with Lethbridge Street performing the priority route. Short channelisation islands (doubling as pedestrian refuges) are provided within all intersection approaches. Colless Street forms similar intersections with Derby Street, Stafford Street and Jamison Road to the south, with Colless Street performing the minority route in each instance.

Traffic flow within Colless Street is governed by a sign posted speed limit of 50km/h however a 40km/h school zone speed limit applies during prescribed school start and finish periods to the north of Lethbridge Street associated with Penrith High School abutting to the west.

4.2 Existing Traffic Volumes

Staff of Stanbury Traffic Planning have undertaken surveys of the junction of Parker Street northbound carriageway and Hope Street to the east of the site in order to accurately ascertain the traffic demands. Surveys were undertaken between 7:00am – 9:00am and 4:00pm – 6:00pm on the 25th of September 2019. **Figure 3** overleaf provides a summary of the surveyed peak hour (8:00am – 9:00am and 4:00pm – 5:00pm) traffic demands, whilst full details are available upon request.

FIGURE 3
EXISTING WEEKDAY COMMUTER PEAK HOUR TRAFFIC VOLUMES
JUNCTION OF PARKER STREET NORTHBOUND CARRIAGEWAY AND HOPE
STREET

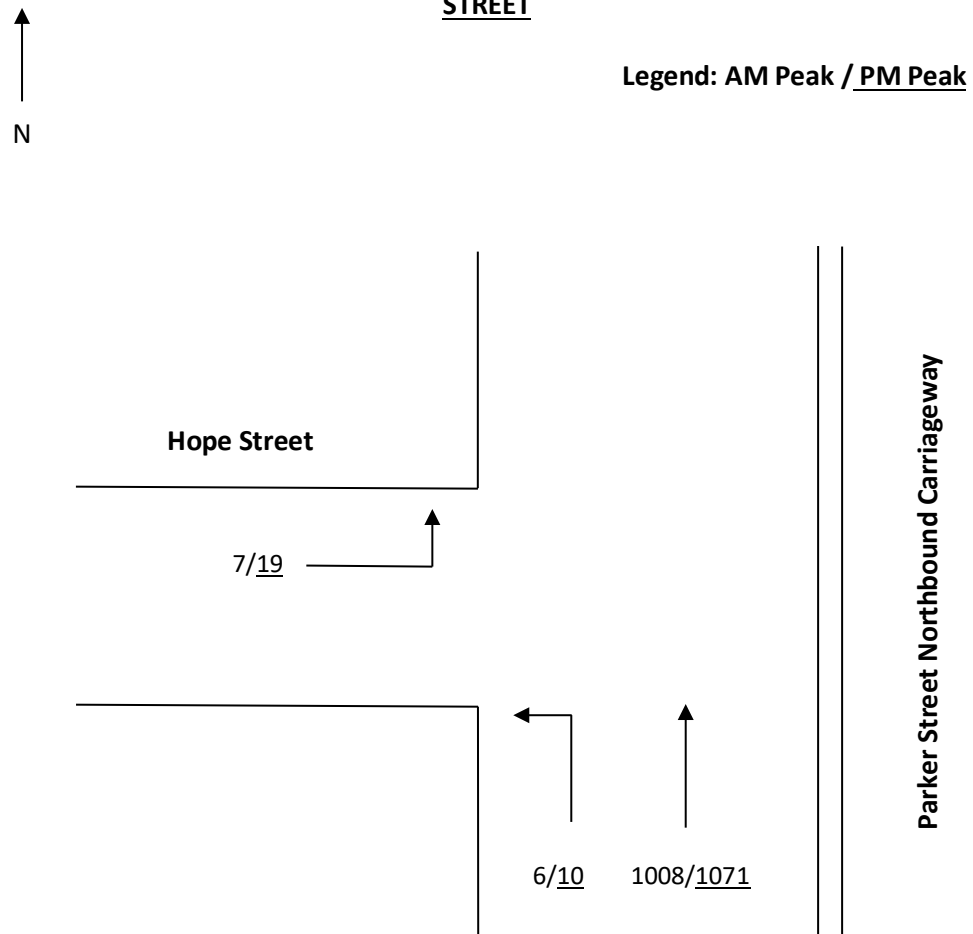


Figure 3 indicates the following:

- Hope Street accommodates two directional peak hour traffic demands of less than 20 vehicles; and
- Parker Street northbound carriageway accommodates peak hour traffic demands in the order of approximately 1,000 – 1,100 vehicles.

4.3 Existing Road Network Operation

4.3.1 Intersection Operation

The surveyed intersection of Parker Street northbound carriageway and Hope 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 TfNSW.

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 TfNSW method of calculation of Level of Service).

TABLE 2 LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS PRIORITY CONTROLLED JUNCTIONS		
Level of Service	Average Delay per Vehicle (secs/veh)	Expected Delay
A	Less than 14	Good
B	15 to 28	Acceptable delays and spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Near capacity
E	57 to 70	At capacity and requires other control mode
F	> 70	Unsatisfactory and requires other control mode

The existing conditions have been modelled utilising the peak hour traffic volumes presented within **Figure 3**. **Table 3** below 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 JUNCTION OF PARKER STREET NORTHBOUND CARRIAGEWAY & HOPE STREET		
	AM	PM
PARKER STREET NORTHBOUND APPROACH		
Delay	5.1	5.1
Degree of Saturation	0.18	0.19
Level of Service	A	A
HOPE STREET APPROACH		
Delay	6.7	6.8
Degree of Saturation	0.01	0.02
Level of Service	A	A
TOTAL INTERSECTION		
Delay	6.7	6.8
Degree of Saturation	0.18	0.19
Level of Service	A	A

Table 3 indicates that the signage controlled junction of the northbound Parker Street carriageway and Hope Street provides a good level of service with spare capacity during weekday commuter peak periods.

Left turn movements to and from Hope Street are significantly assisted by the punctuation of northbound Parker Street traffic flows resulting from the operation of the traffic signals at Derby Street, resulting in regular and extended gaps.

4.3.2 Hope Street Performance

The previous traffic surveys indicates that Hope Street currently accommodates directional traffic demands during weekday commuter peak hours of less than 20 vehicles per hour.

Reference is made to TfNSW's *Guide to Traffic Generating Developments* in order to undertake an assessment of the operational performance of Hope Street. This publication indicates that a two lane two way carriageway accommodating peak hour directional traffic volumes less than 200 vehicles per hour provides a level of service 'A'. Such a level service indicates free flow where drivers are virtually unaffected by others in the traffic stream. Freedom to select desired speeds and to manoeuvre within the traffic stream is high, and the general level of comfort and convenience provided is excellent.

Traffic flow within Hope Street is however highly influenced by the prevalence of on-street parallel parking along both alignments. Two-way traffic flow primarily occurs under cutesy conditions within breaks in kerb-side parking. The low traffic demands however still ensure that motorists are provided with a reasonably good level of service and accordingly, vehicles are able to enter and exit abutting sites with a good level of safety and efficiency.

4.4 Public Transport

4.4.1 Heavy Rail

The subject site is located approximately 1.2km walking distance to the south-west of Kingswood Railway Station. Kingswood Railway Station provides access to train services which operate long the T1 (North Shore, Northern & Western) and T3 (Bankstown) 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.

The T3 Line also links with numerous other lines servicing the greater Sydney metropolitan area and beyond via interchanges at Cabramatta, Sydenham and Redfern.

4.4.2 Buses

Busways operate a number of bus services in the Penrith region, with the following routes in the immediate vicinity of the subject site:

- Route 774 between Mount Druitt and Penrith train station, via Oxley Park;
- Route 775 between Mount Druitt and Penrith train station, via Erskine Park;
- Route 776 between Mount Druitt and Penrith train station, via Colyton; and
- Route 789 between Luddenham and Penrith train station.

Routes 774, 775 and 776 operate along Derby Street located some 180m to the south of Hope Street. Route 789 operates along Lethbridge Street, Parker Street and High Street, which are located in close proximity to the subject site.

4.4.3 Pedestrians / Cyclists

Pedestrians are provided with the following access and mobility infrastructure in the vicinity of the subject site:

- A footpath is provided along the southern side of Hope Street;
- Footpaths are provided along both sides of Colless Street to the south of Hope Street;
- A footpath is provided along the western side of Colless Street to the north of Hope Street;
- Footpaths are provided along both sides of Derby Street;
- Footpaths are provided along both sides of Parker Street;
- Signalised pedestrian crossings are provided over all approaches at the intersection of Parker Street and Derby Street;
- A signalised pedestrian crossing is provided over Parker Street approximately 150m to the north of Hope Street; and
- Pedestrian refuges are provided over the northern, southern and western approaches at the intersection of Derby Street and Colless 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 TfNSW.

5.1.1 Existing Site Uses

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

TfNSW's *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 five peak hour vehicle trip per dwelling has been applied to detached residential dwellings. The current site development is therefore capable of generating up to five 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 51 dwellings.

TfNSW's *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 TfNSW's *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 15 vehicular trips during weekday peak hours.

5.2 Traffic Impacts

The proposed development has been projected to generate up to 15 peak hour trips to and from the site, or 10 peak hour trips over and above that currently capable of being generated by the existing five detached dwellings provided on-site. This equates to approximately one vehicle movement every four minutes during commuter peaks, or one additional vehicle movement every six 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 Hope Street 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.

5.3 Transport Impacts

The proposed site is located within reasonably close walking distance to a number of bus services and Kingswood Railway Station. 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 51 dwellings at 16 – 24 Hope Street, 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 PDGP 2014;
- The proposed site access arrangements are projected to result in a nett neutral on-street parking yield, thereby not resulting in any unreasonable impacts to surrounding on-street parking amenity;
- The internal passenger vehicle circulation arrangements are capable of providing for safe and efficient internal manoeuvring;
- The proposed dedicated refuse collection area within the south-western corner of the upper basement parking level is projected to safely and efficiently accommodate refuse servicing of the site being governed by an internal traffic signal system;
- The surrounding road network operates with a satisfactory level of service during peak periods;
- The subject development has been projected to generate up to 10 peak hour vehicle trips to and from the subject site over and above that capable of being generated by the existing site development; 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.

APPENDIX 1

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

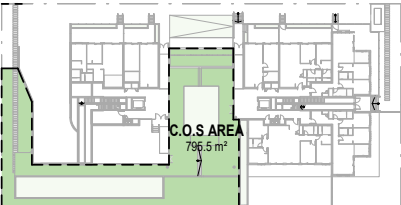
16-24 HOPE STREET, PENRITH 2750



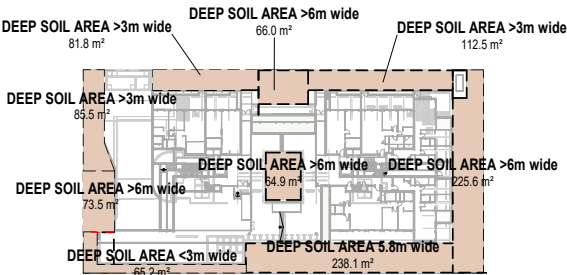
Development Details		
Site Area		3182m ²
Gross Floor Area (GFA)		5247m ²
Zoning		
		R4 High Density Residential
		Allowable Proposed
Floor Space Ratio (FSR)*	N/A	1.65:1
Total Storeys		5

Communal Open Space % of Site Area^	25%	795.5m ² 25%
Deep Soil Zones % of Site Area^	7%	430m ² 14%

*LEP REQUIREMENT
^SEPP 65 REQUIREMENT
REFER SHEET DA02 FOR DETAILS



COS - GROUND
1 : 750



DEEP SOIL DIAGRAM
1 : 750

UNITS TYPES		
Type		Count
1 BED	Adaptable	2
2 BED		32
2 BED	Adaptable	4
3 BED		7
3 BED	Livable	5
4 BED		1
		51

GROSS FLOOR AREA	
Level	Area
GROUND LEVEL (TOWER 2)	876.5 m ²
LEVEL 1 (TOWER 2)	1200.1 m ²
LEVEL 2 (TOWER 2)	1200.1 m ²
LEVEL 3 (TOWER 2)	1192.1 m ²
LEVEL 4 (TOWER 2)	778.1 m ²
Grand total: 10	5247.0 m ²

COMMON OPEN SPACE		
Name	Area	% of Site

C.O.S AREA	795.5 m ²	0.25
------------	----------------------	------

DEEP SOIL AREA		
Name	Area	% of Site

DEEP SOIL AREA 5.8m wide	238.1 m ²	7.48
DEEP SOIL AREA <3m wide	65.2 m ²	2.05
DEEP SOIL AREA >3m wide	279.8 m ²	8.79
DEEP SOIL AREA >6m wide	430.0 m ²	13.51
	1013.1 m ²	31.84

CAR SPACES REQUIRED		
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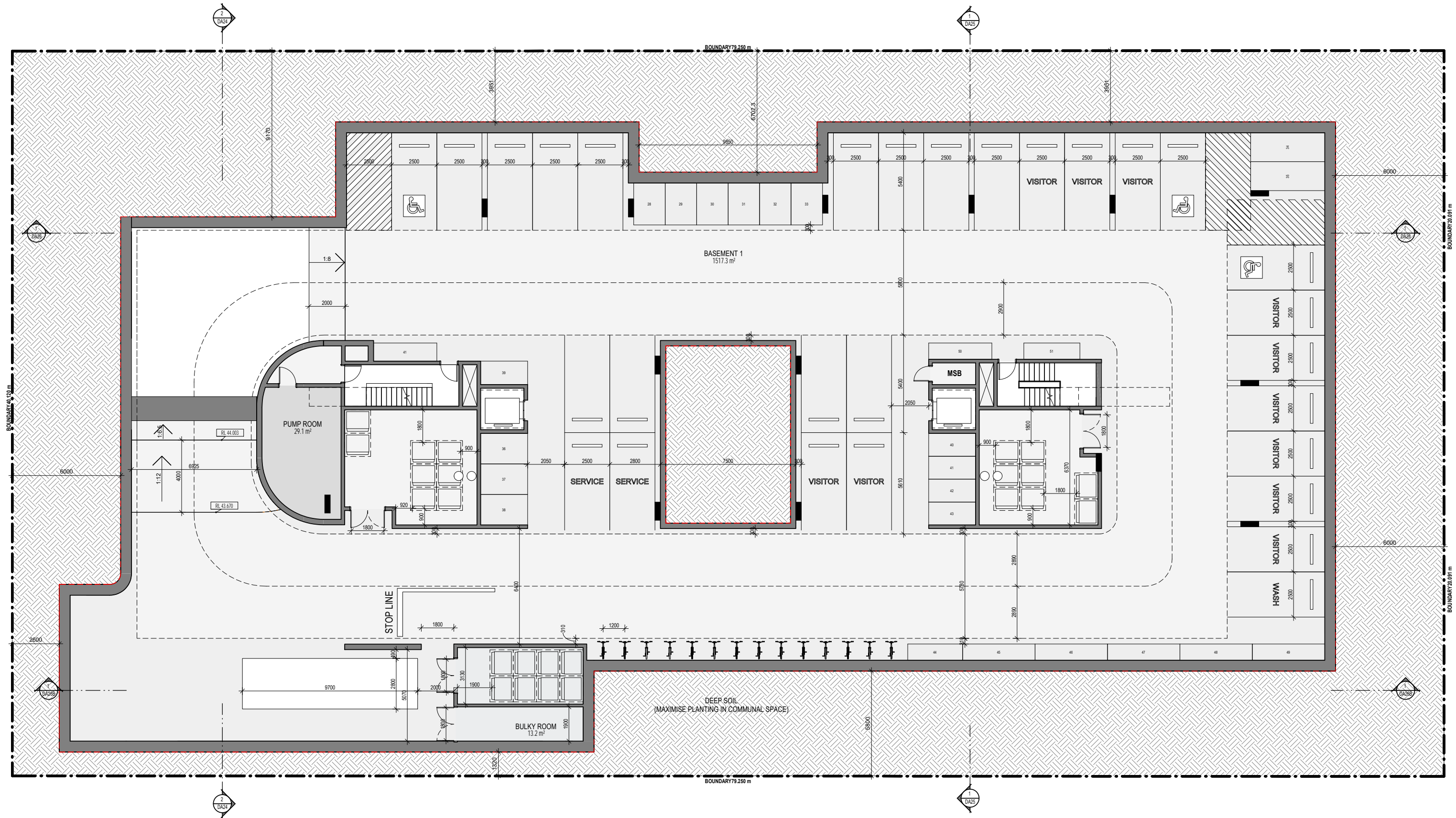
4 Bed units: 1	2
3 Bed units: 12	24
2 Bed units: 32	32
2 Bed units Adaptable: 4	4
1 Bed units Adaptable: 2	2
Visitors (1/5)	10
Service vehicles (1/40)	2
Washing bay (1/50)	1
Grand total	77

CAR SPACES - TYPES	
Type	Number

Disabled - 2500w x 5400d	8
Service - 2500w x 5400d	2
Standard - 2500w x 5400d	60
Visitor - 2500w x 5400d	11
Washing - 3400w x 5400d	1
Grand total: 80	80

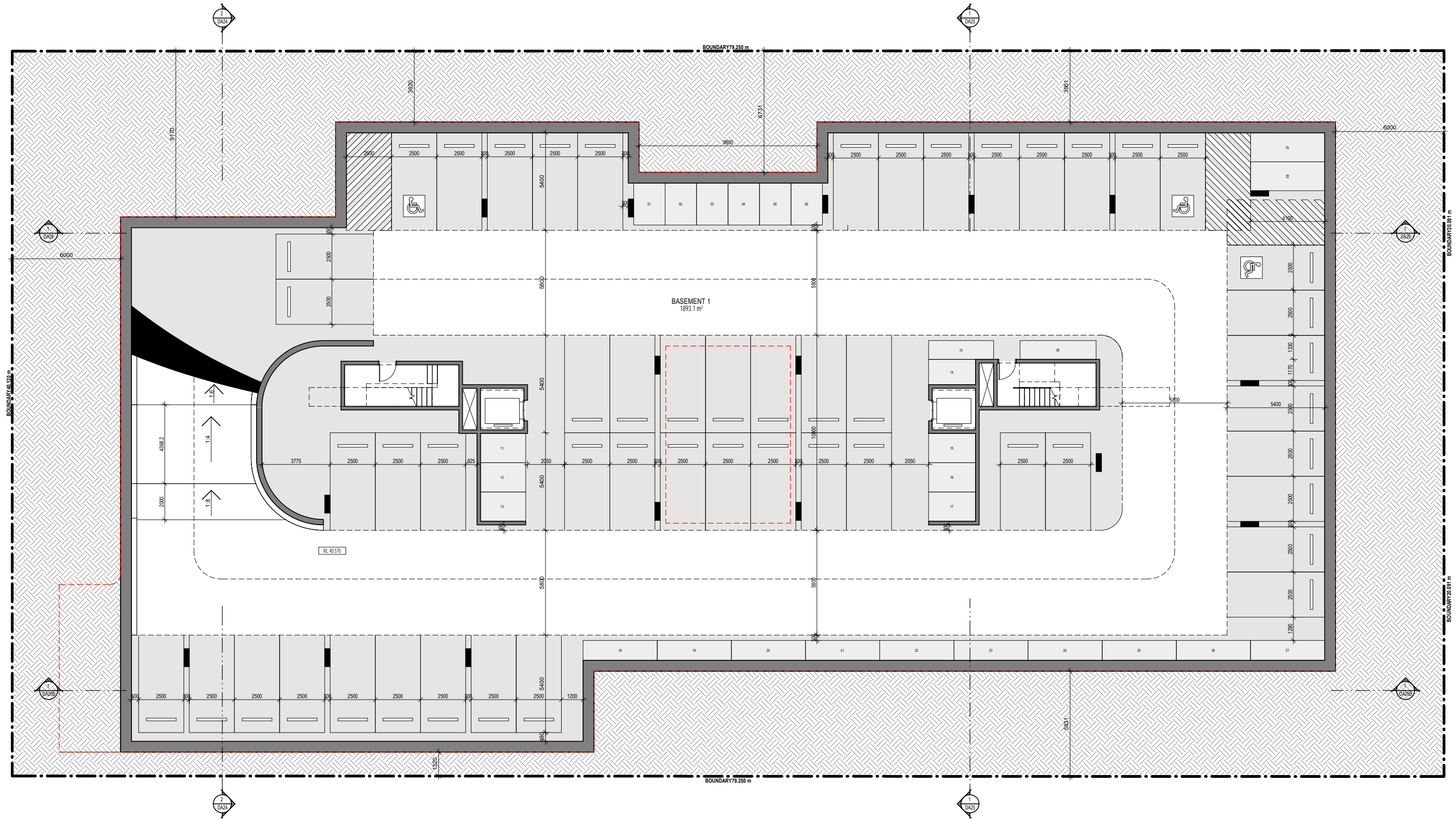
Bike	14
------	----

HOPE STREET



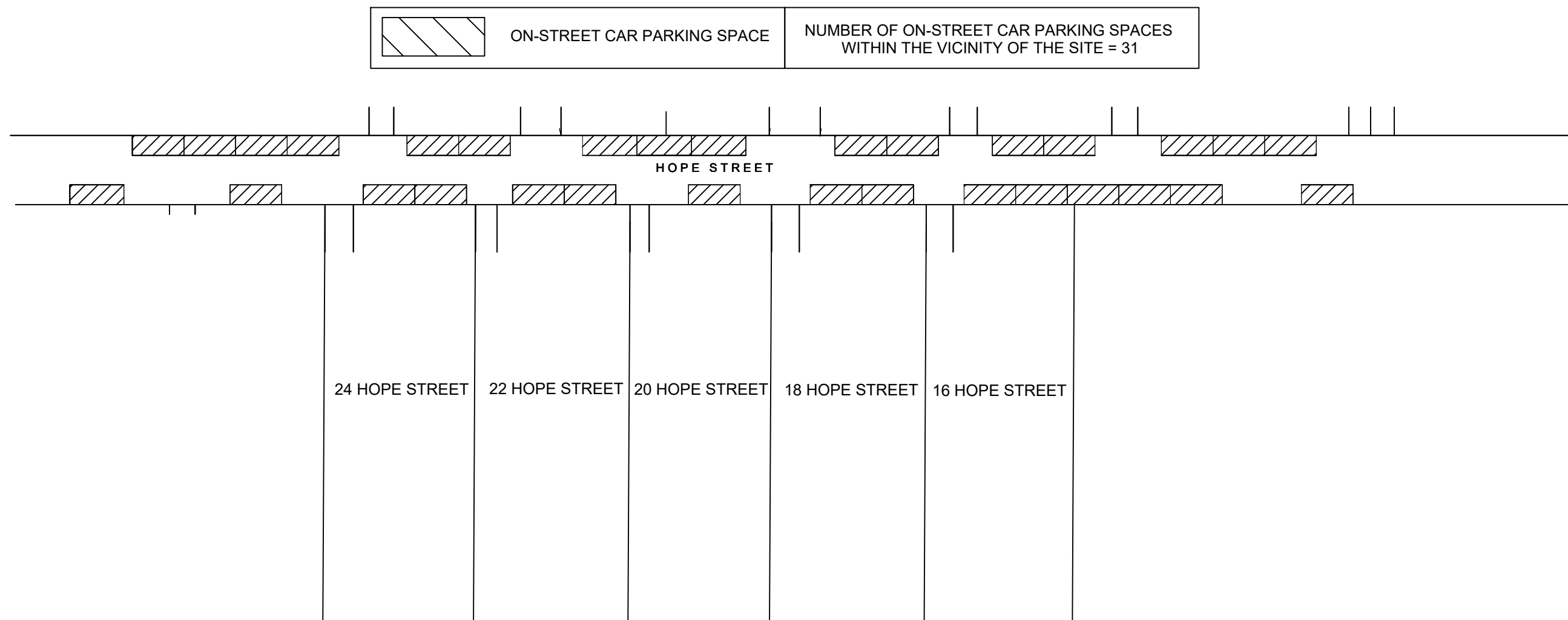
ISSUE	DATE	AMENDMENT	LEGENDS/NOTES	PROJECT	CLIENT	ARCHITECT	SHEET	DRAWING NUMBER
A	17.03.2020	DA SUBMISSION	BR BEDROOM COM COMMS CUPBOARD DP DOWNPIPE E ELECTRICAL CUPBOARD FHR FIRE HOSE REEL	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	MORSON GROUP	FLOOR PLAN - BASEMENT 1	DA11
B	07.04.2021	COUNCIL REVISION	GAS GAS CUPBOARD GO GRATED DRAIN GEX GARBAGE EXHAUST MEX MAILBOX RL RELATIVE LEVEL	ADDRESS 16-24 HOPE STREET, PENRITH 2750				B
			RWO RAINWATER OUTLET SWP STORM WATER PIT TOH TOP OF HOBB TOW TOP OF WALL TTI TACTILE INDICATORS					


HOPE STREET



ISSUE	DATE	AMENDMENT	LEGENDS/NOTES:	PROJECT	CLIENT	MORSON GROUP	SHEET SIZE: A1	SHEET NAME	DRAWING NUMBER
A	17.03.2020	DA SUBMISSION	BR BEDROOM COM COMMS CUPBOARD DP DOWNPIPE E ELECTRICAL CUPBOARD FHR FIRE HOSE REEL	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	PRESTIGE DEVELOPMENTS GROUP (NSW) PTY LTD	NOMINATED ARCHITECT - P.F. ARCHITECTURAL RECORDATION NUMBER 8100 ACR 100 480 004, ACR 41 100 480 004 www.morsongroup.com.au GPO BOX 4786 PO BOX 170, PENRITH, NSW 1505	DATE SCALE 1:100 JULY 2018	FLOOR PLAN - BASEMENT 2	DA10
B	07.04.2021	COUNCIL REVISION	GAS GAS CUPBOARD GO GRATED DRAIN GEX GARBAGE EXHAUST MBX MAILBOX RL RELATIVE LEVEL	ADDRESS 16-24 HOPE STREET, PENRITH 2750					B
			RWO RAINWATER OUTLET SWP STORM WATER PIT TOH TOP OF HOBB TOW TOP OF WALL TTI TACTILE INDICATORS						

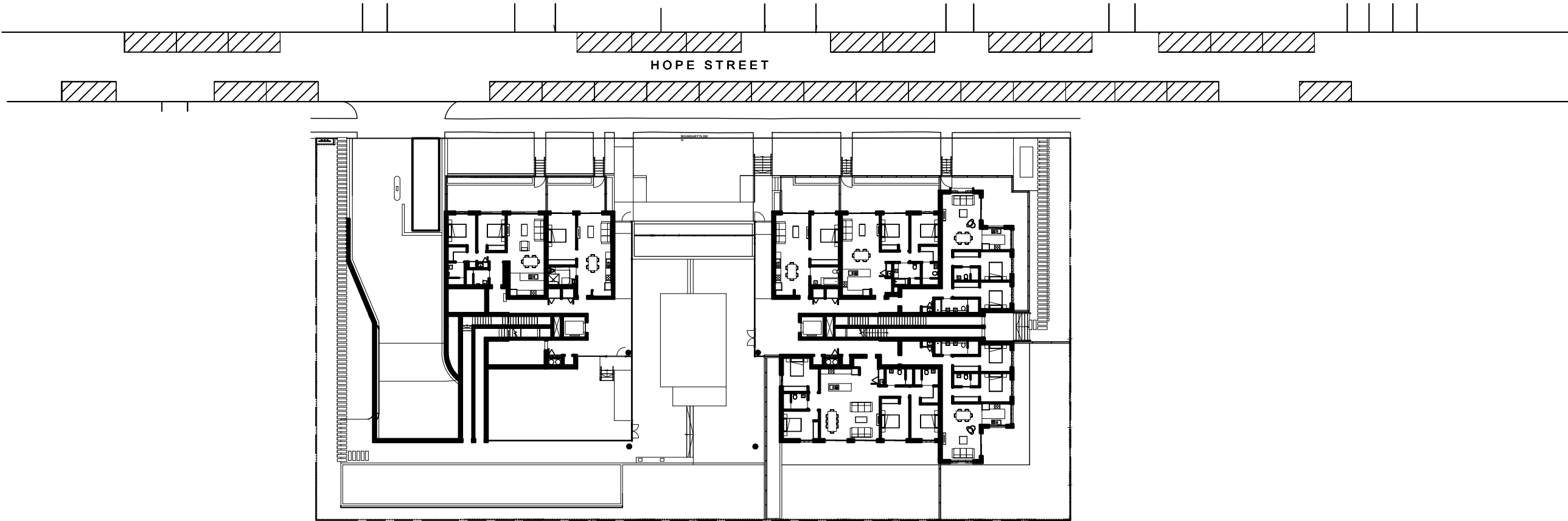
APPENDIX 2





ON-STREET CAR PARKING SPACE

NUMBER OF ON-STREET CAR PARKING SPACES
WITHIN THE VICINITY OF THE SITE = 31



STANBURY TRAFFIC PLANNING
ADDRESS: 302/166 GLEBE POINT RD, GLEBE
PH: (02) 8971 8314
MOB: 0410 561 848
EMAIL: info@stanburytraffic.com.au
WEBSITE: www.stanburytraffic.com.au

NOTES:
1. THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY MORSON GROUP.

STANBURY TRAFFIC PLANNING
PROPOSED ON-STREET PARKING PROVISION ASSOCIATED WITH
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET
PENRITH

SCALE: 1:500 AT A3

FILE: 19-201

DATE: 9/04/2021

SUPERSEDES
SHEET/ISSUE -

ISSUE

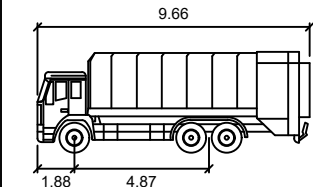
A

SHEET

2

APPENDIX 3

BASEMENT LEVEL 1

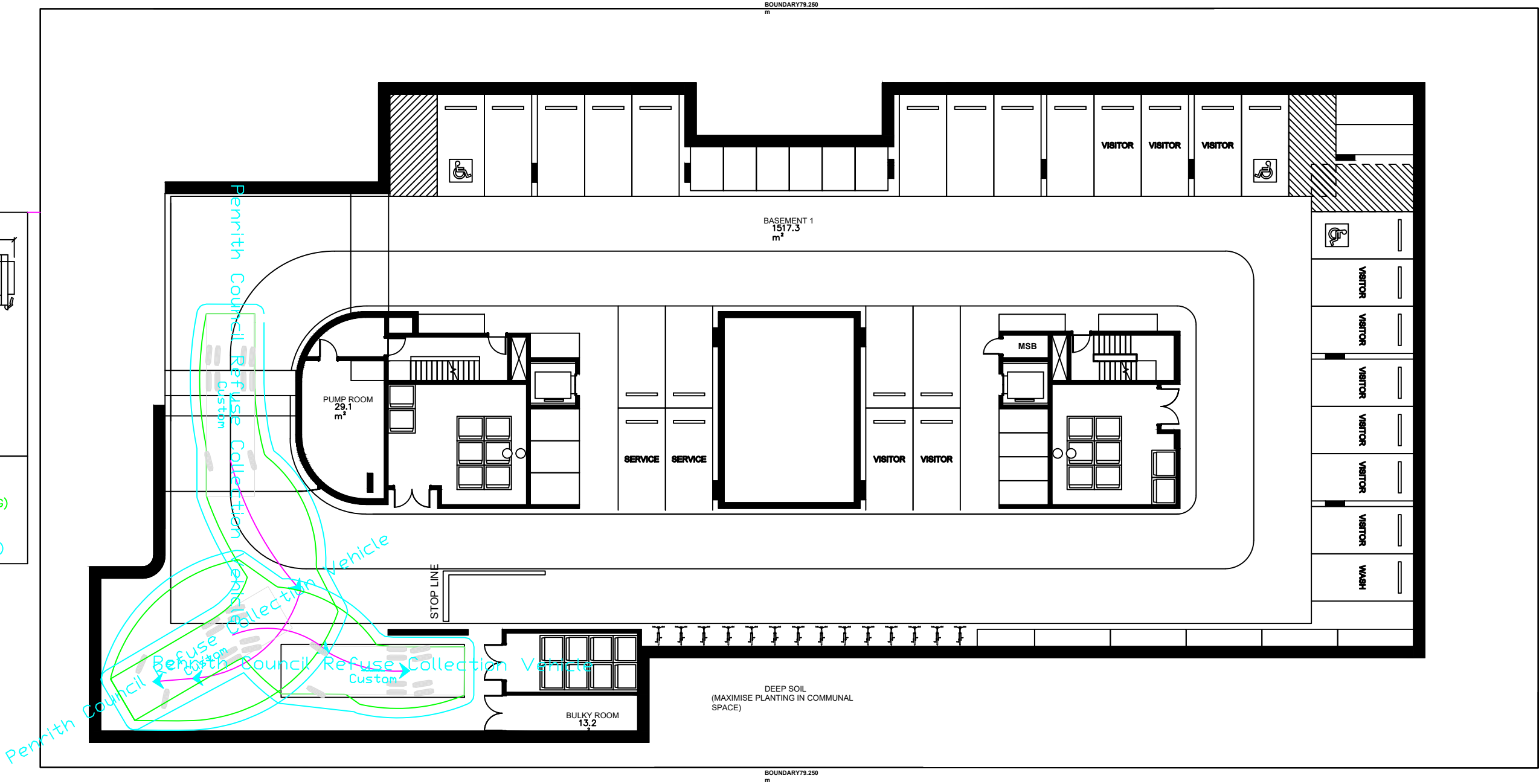


Penrith Council Refuse Collection Vehicle

	meters
Width	: 2.55
Track	: 2.55
Lock to Lock Time	: 6.0
Steering Angle	: 42.0

LEGEND

- VEHICLE BODY PATH (INCLUDING OVERHANG)
- MANOEUVRING CLEARANCE (500mm)



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- NOTES:
- 1. THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY MORSON GROUP.
 - 2. THE SWEEP PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 10 IN CONJUNCTION WITH MANOEUVRING SPECIFICATIONS FOR A 9.7m LONG REFUSE COLLECTION VEHICLE.

STANBURY TRAFFIC PLANNING
10.5m LONG REFUSE COLLECTION VEHICLE SWEEP PATHS
BASEMENT LEVEL 1 INGRESS MOVEMENT TO ON-SITE LOADING AREA
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3	ISSUE
FILE: 19-201	SUPERSEDES SHEET/ISSUE -
DATE: 9/04/2021	SHEET
	3

BASEMENT LEVEL 1

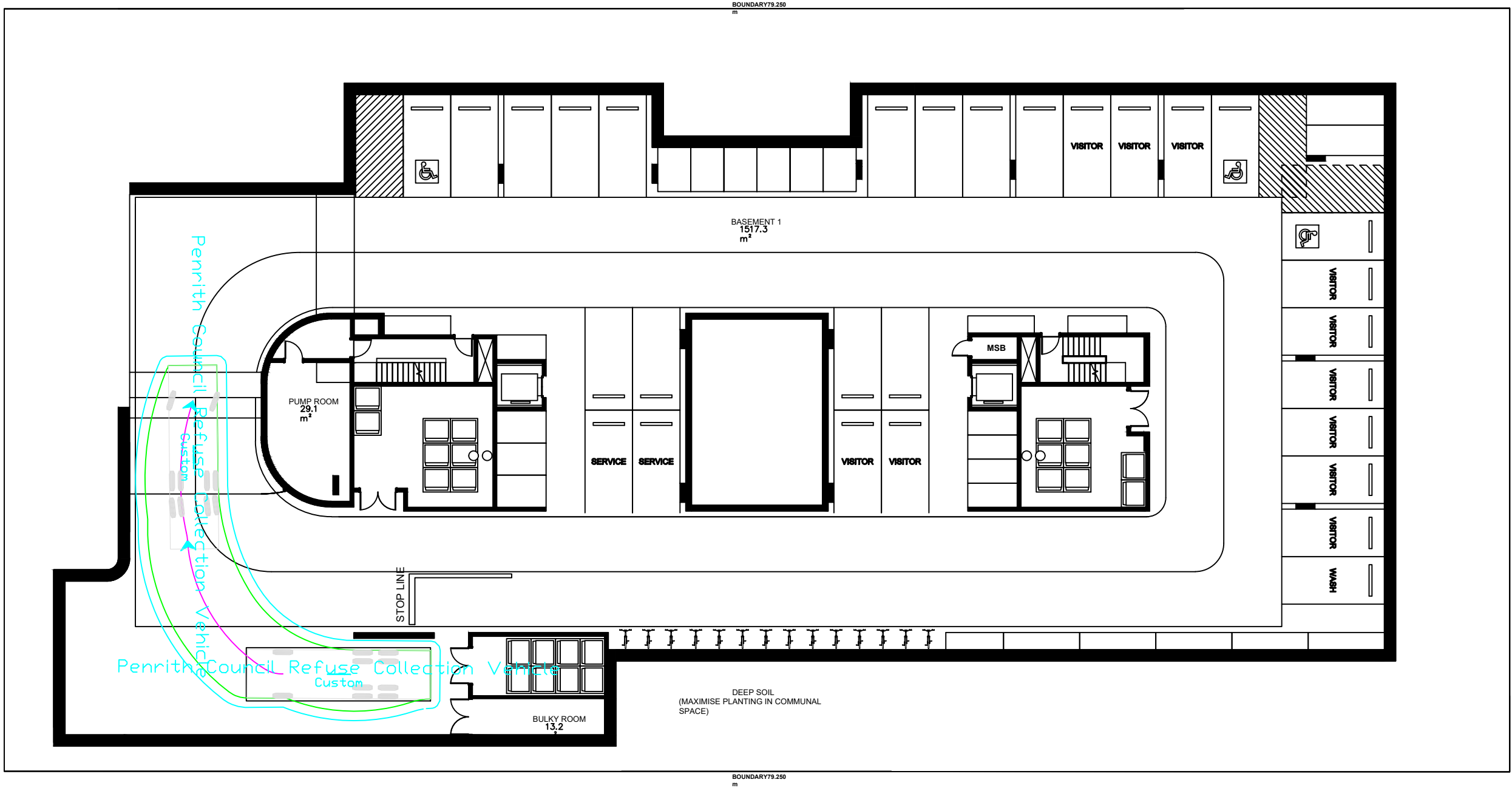
Penrith Council Refuse Collection Vehicle

Width : 2.55
Track : 2.55
Lock to Lock Time : 6.0
Steering Angle : 42.0

LEGEND

— VEHICLE BODY PATH (INCLUDING OVERHANG)

— MANOEUVRING CLEARANCE (500mm)



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STANBURY TRAFFIC PLANNING
10.5m LONG REFUSE COLLECTION VEHICLE SWEEP PATHS
BASEMENT LEVEL 1 EGRESS MOVEMENT FROM ON-SITE LOADING AREA
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3		ISSUE A
FILE: 19-201	SUPERSEDES SHEET/ISSUE -	
DATE: 9/04/2021		SHEET 4

BASEMENT LEVEL 1

B85

meters

Width : 1.87

Track : 1.77

Lock to Lock Time : 6.0

Steering Angle : 34.1

B99

meters

Width : 1.94

Track : 1.84

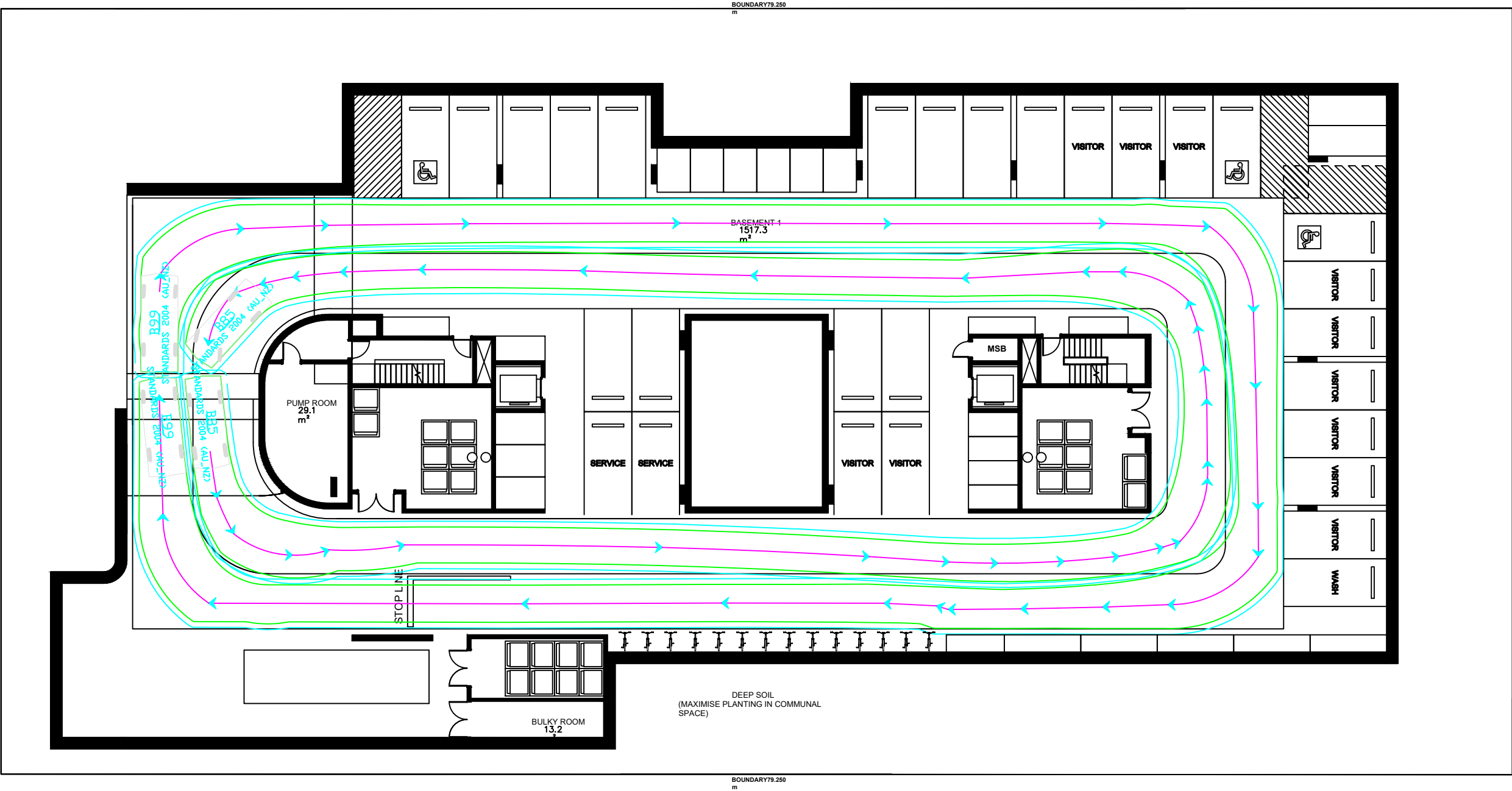
Lock to Lock Time : 6.0

Steering Angle : 33.9

LEGEND

— VEHICLE BODY PATH (INCLUDING OVERHANG)

— MANOEUVRING CLEARANCE (300mm)



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STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
BASEMENT LEVEL 1 INTERNAL MANOEUVRING
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3

FILE: 19-201

DATE: 9/04/2021

SUPERSEDES SHEET/ISSUE -

ISSUE

A

SHEET

6

BASEMENT LEVEL 2

B85

meters

Width : 1.87
Track : 1.77
Lock to Lock Time : 6.0
Steering Angle : 34.1

B99

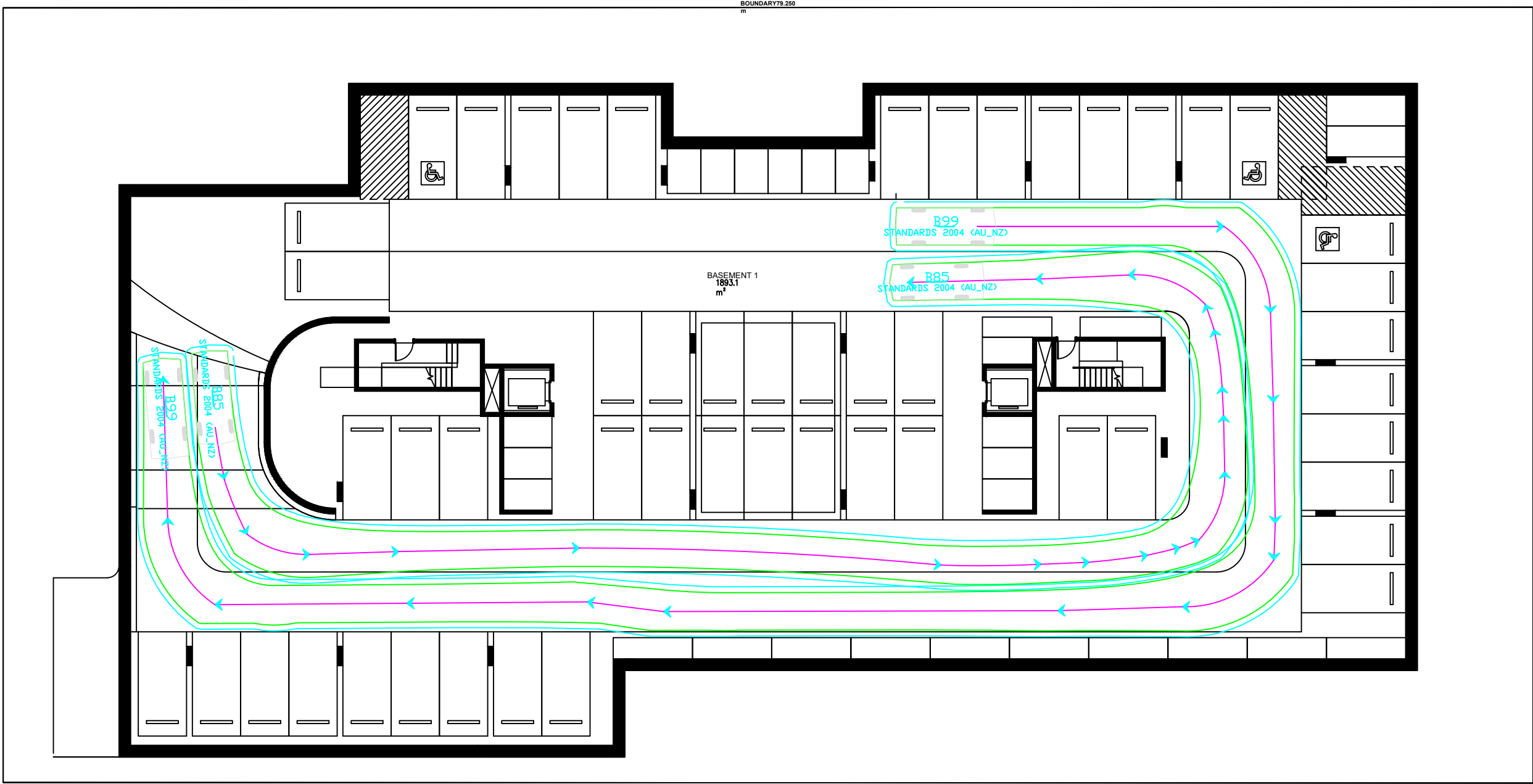
meters

Width : 1.94
Track : 1.84
Lock to Lock Time : 6.0
Steering Angle : 33.9

LEGEND

— VEHICLE BODY PATH (INCLUDING OVERHANG)

— MANOEUVRING CLEARANCE (300mm)



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STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
BASEMENT LEVEL 2 INTERNAL MANOEUVRING
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3

FILE: 19-201

DATE: 9/04/2021

SUPERSEDES SHEET/ISSUE -

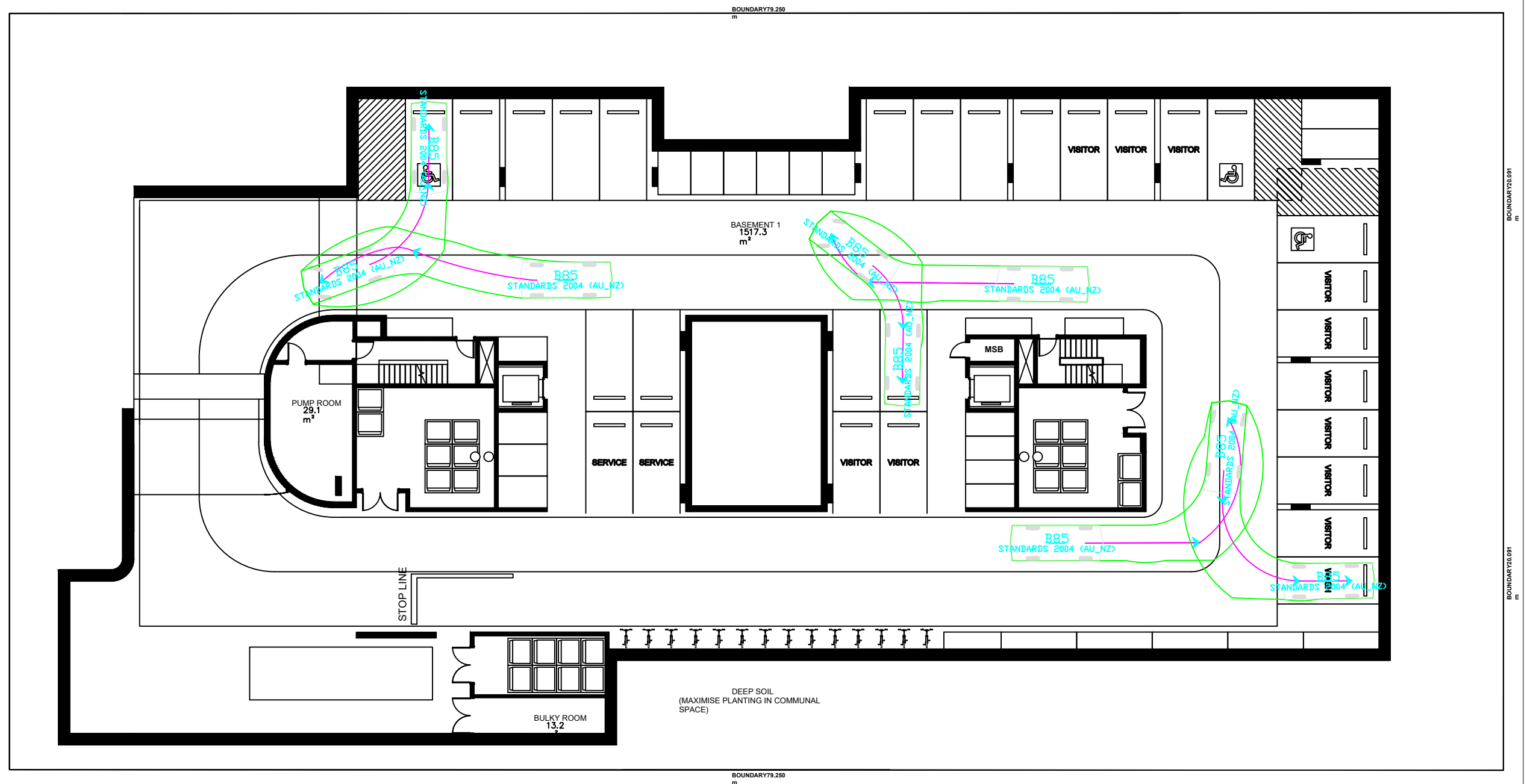
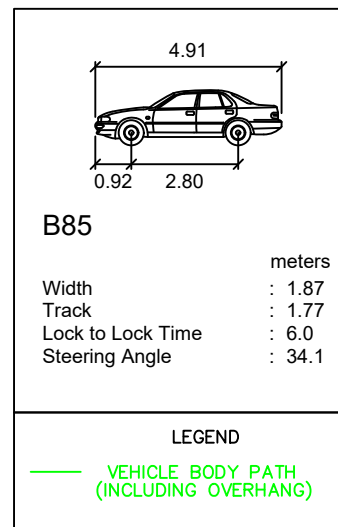
ISSUE

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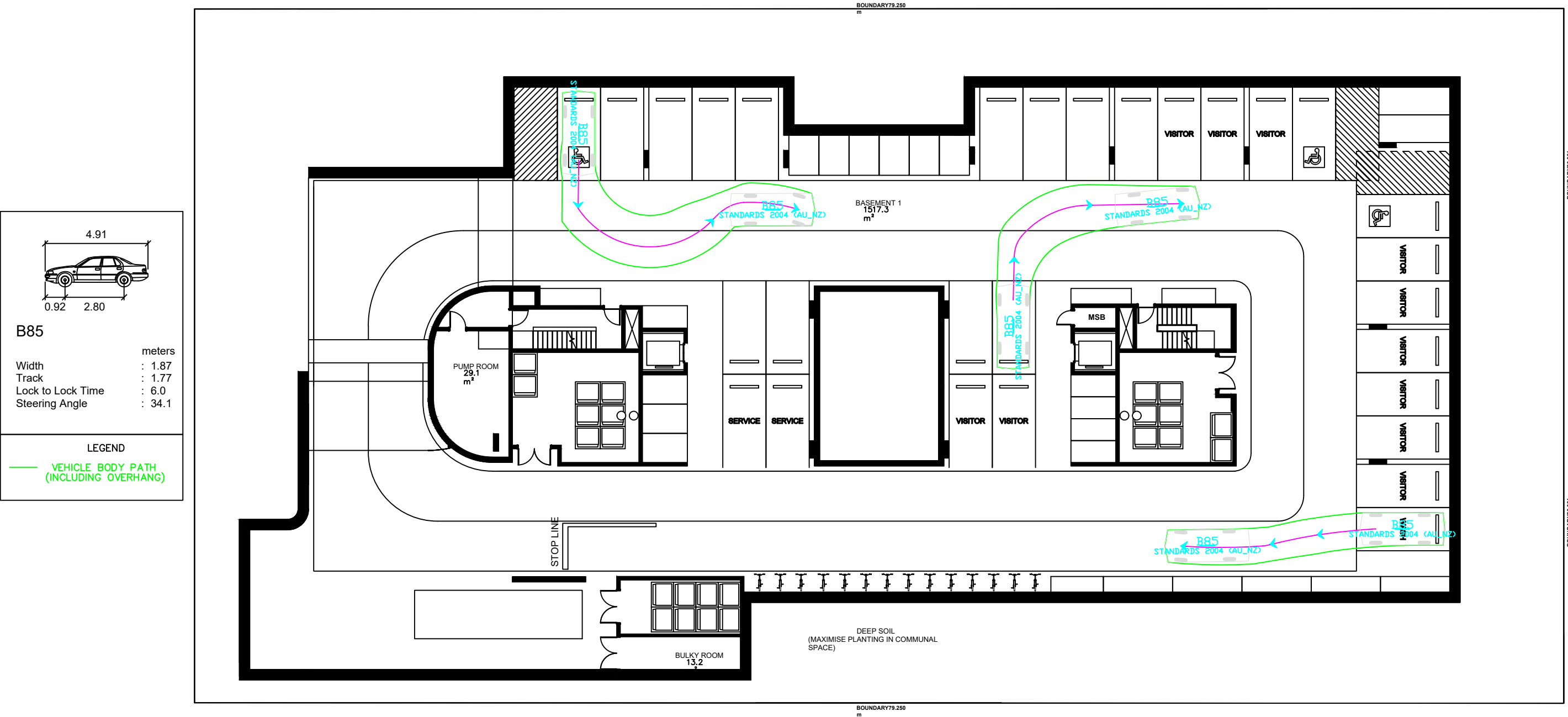
SHEET

7

BASEMENT LEVEL 1



BASEMENT LEVEL 1



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STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
BASEMENT LEVEL 1 INTERNAL PARKING SPACE EGRESS MOVEMENTS
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3

FILE: 19-201

DATE: 9/04/2021

SUPERSEDES
SHEET/ISSUE

ISSUE

A

SHEET

9

BASEMENT LEVEL 2

4.91

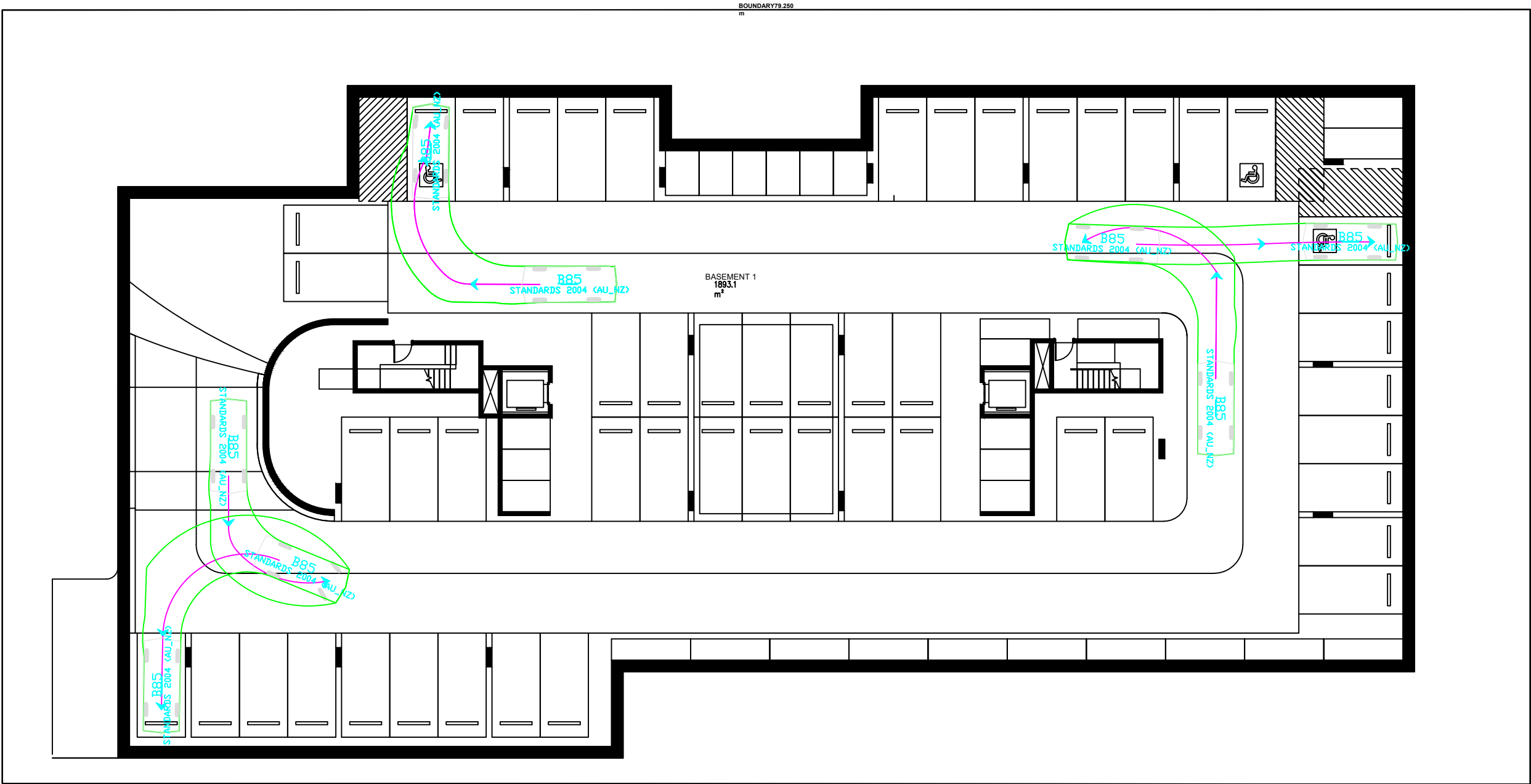
0.92 2.80

B85

Width : 1.87
Track : 1.77
Lock to Lock Time : 6.0
Steering Angle : 34.1

LEGEND

VEHICLE BODY PATH
(INCLUDING OVERHANG)



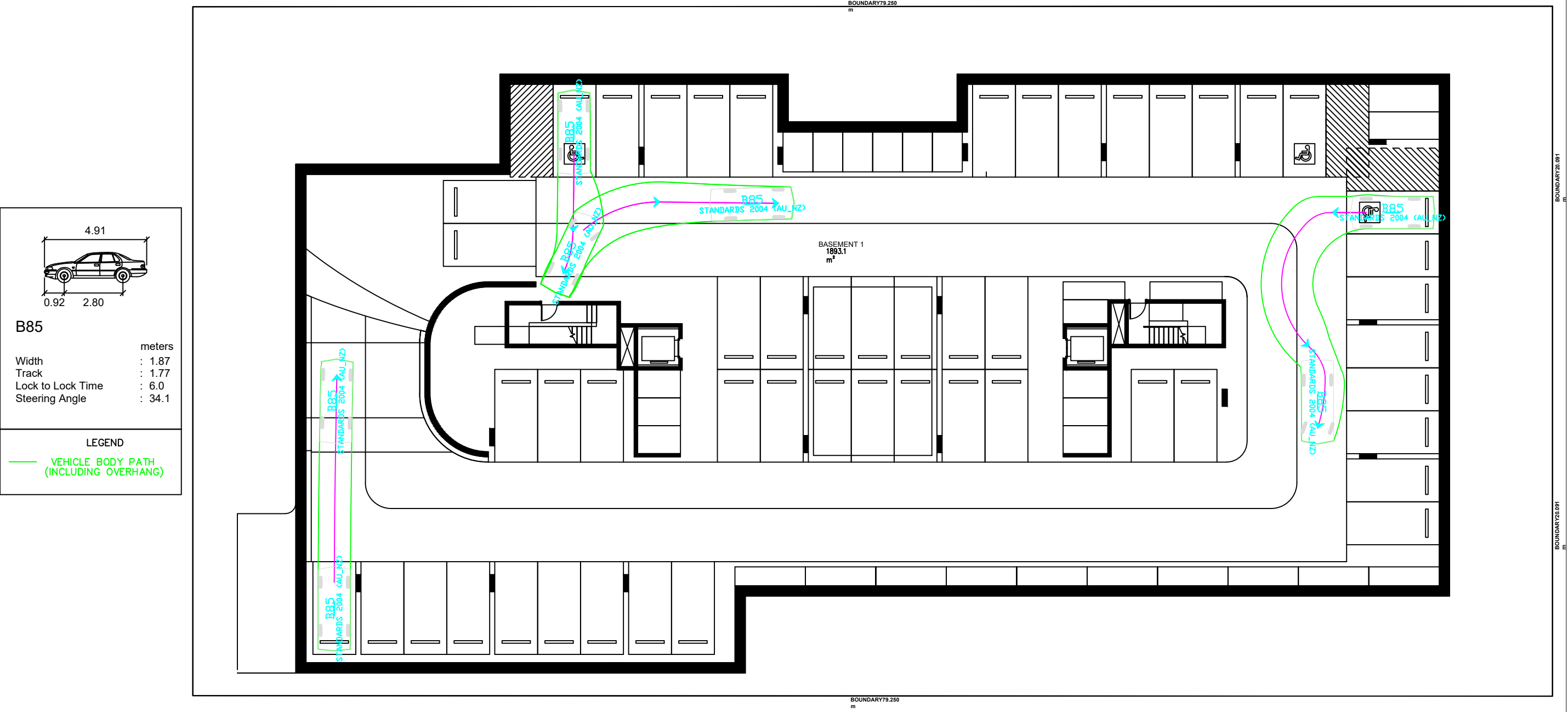
STANBURY TRAFFIC PLANNING
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STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
BASEMENT LEVEL 2 INTERNAL PARKING SPACE INGRESS MOVEMENTS
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3	SUPERSEDES SHEET/ISSUE -	ISSUE
FILE: 19-201		A
DATE: 9/04/2021		SHEET
		10

BASEMENT LEVEL 2



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STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
BASEMENT LEVEL 2 INTERNAL PARKING SPACE EGRESS MOVEMENTS
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3

FILE: 19-201

DATE: 9/04/2021

SUPERSEDES SHEET/ISSUE -

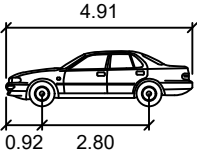
ISSUE

A

SHEET

11

BASEMENT LEVEL 2



B85

meters

Width : 1.87

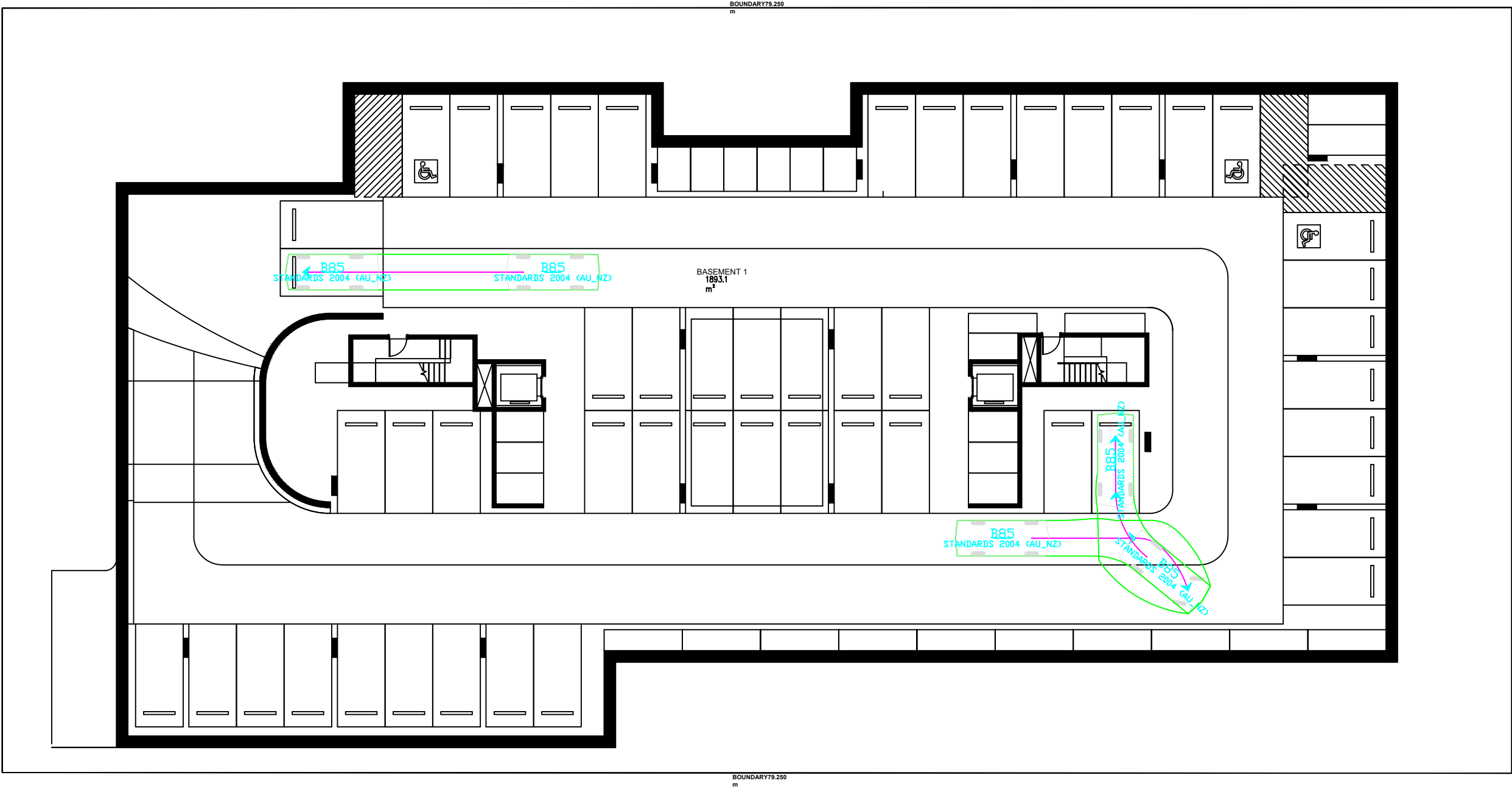
Track : 1.77

Lock to Lock Time : 6.0

Steering Angle : 34.1

LEGEND

— VEHICLE BODY PATH (INCLUDING OVERHANG)



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STANBURY TRAFFIC PLANNING

PASSENGER VEHICLE SWEEP PATHS

BASEMENT LEVEL 2 INTERNAL PARKING SPACE INGRESS MOVEMENTS

PROPOSED RESIDENTIAL DEVELOPMENT

16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3

FILE: 19-201

DATE: 9/04/2021

SUPERSEDES SHEET/ISSUE -

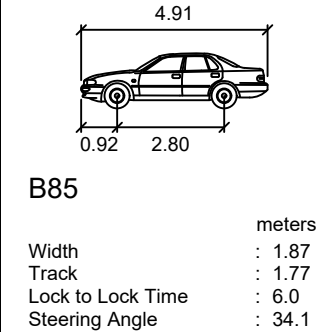
ISSUE

A

SHEET

12

BASEMENT LEVEL 2

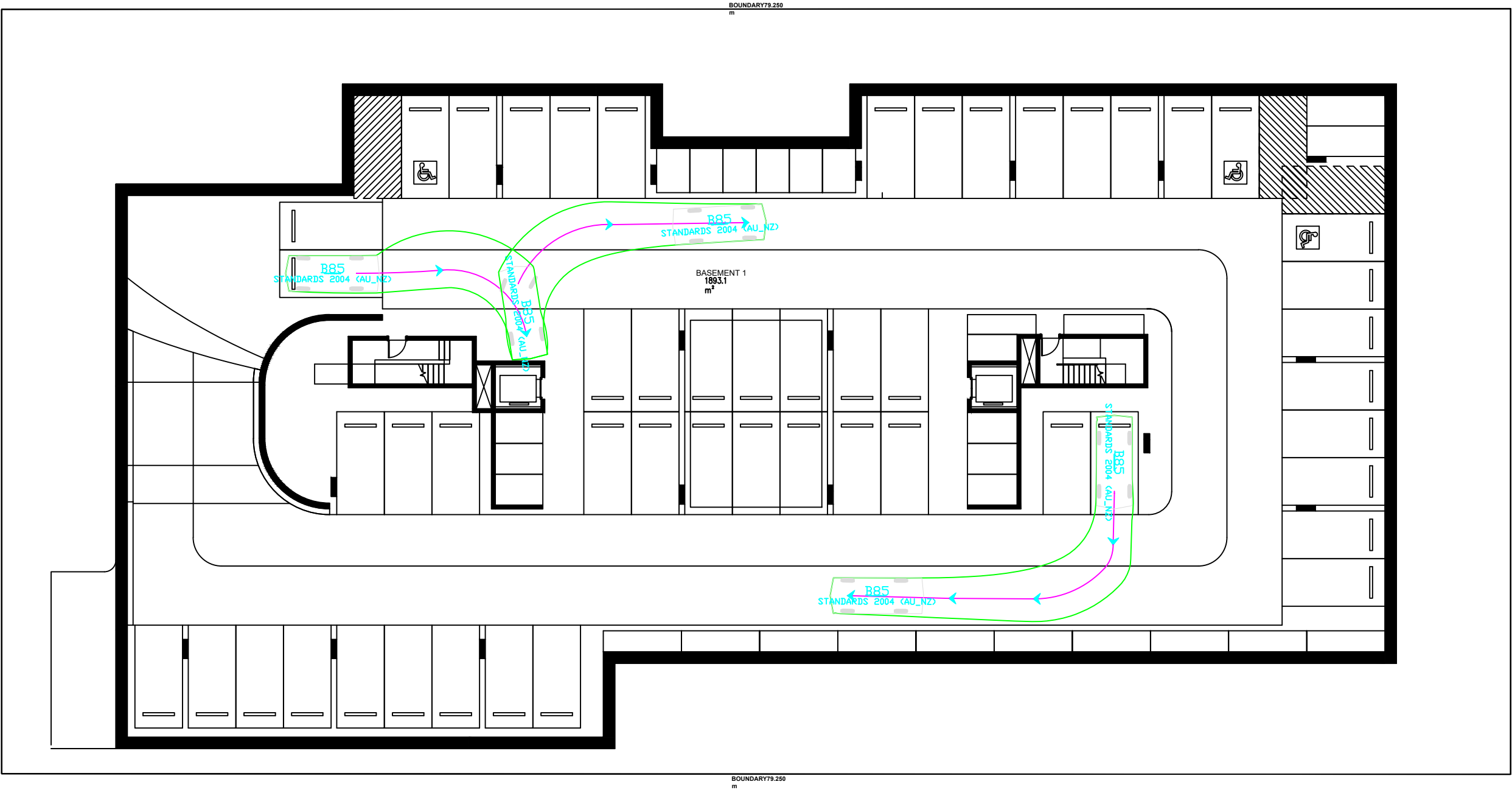


B85

	width	1.87
	track	1.77
	lock to lock time	6.0
	steering angle	34.1

LEGEND

VEHICLE BODY PATH
(INCLUDING OVERHANG)



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STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
BASEMENT LEVEL 2 INTERNAL PARKING SPACE EGRESS MOVEMENTS
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3

FILE: 19-201

DATE: 9/04/2021

SUPERSEDES SHEET/ISSUE

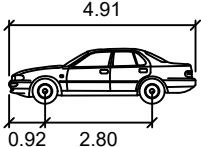
ISSUE

A

SHEET

13

BASEMENT LEVEL 2

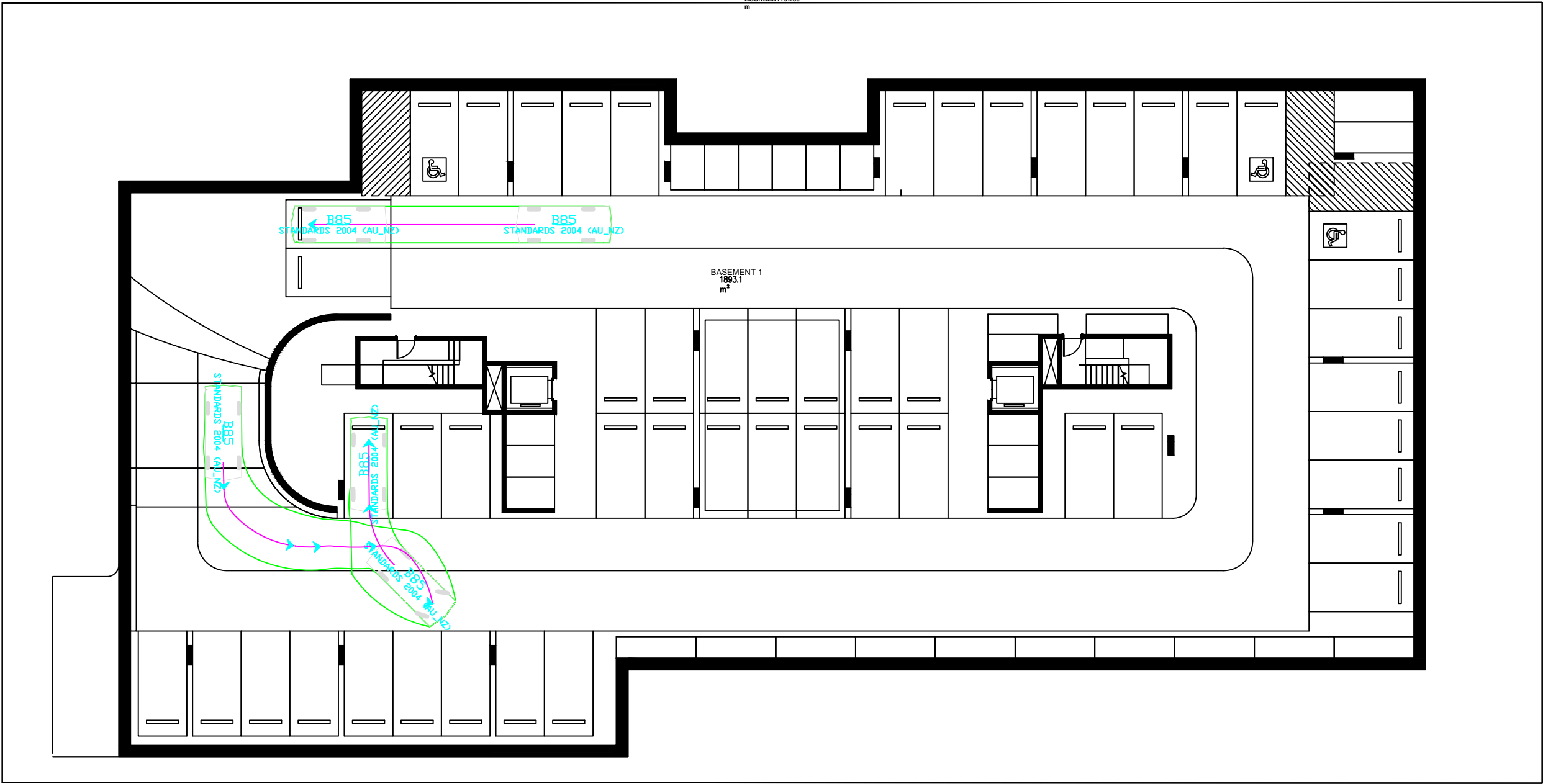


B85

Width : 1.87 meters
Track : 1.77
Lock to Lock Time : 6.0
Steering Angle : 34.1

LEGEND

— VEHICLE BODY PATH (INCLUDING OVERHANG)



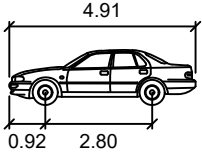
STANBURY TRAFFIC PLANNING
ADDRESS: 302/166 GLEBE POINT RD, GLEBE
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STANBURY TRAFFIC PLANNING
PASSENGER VEHICLE SWEEP PATHS
BASEMENT LEVEL 2 INTERNAL PARKING SPACE INGRESS MOVEMENTS
PROPOSED RESIDENTIAL DEVELOPMENT
16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3		ISSUE A
FILE: 19-201	SUPERSEDES SHEET/ISSUE -	
DATE: 9/04/2021		SHEET 14

BASEMENT LEVEL 2



B85

meters

Width : 1.87

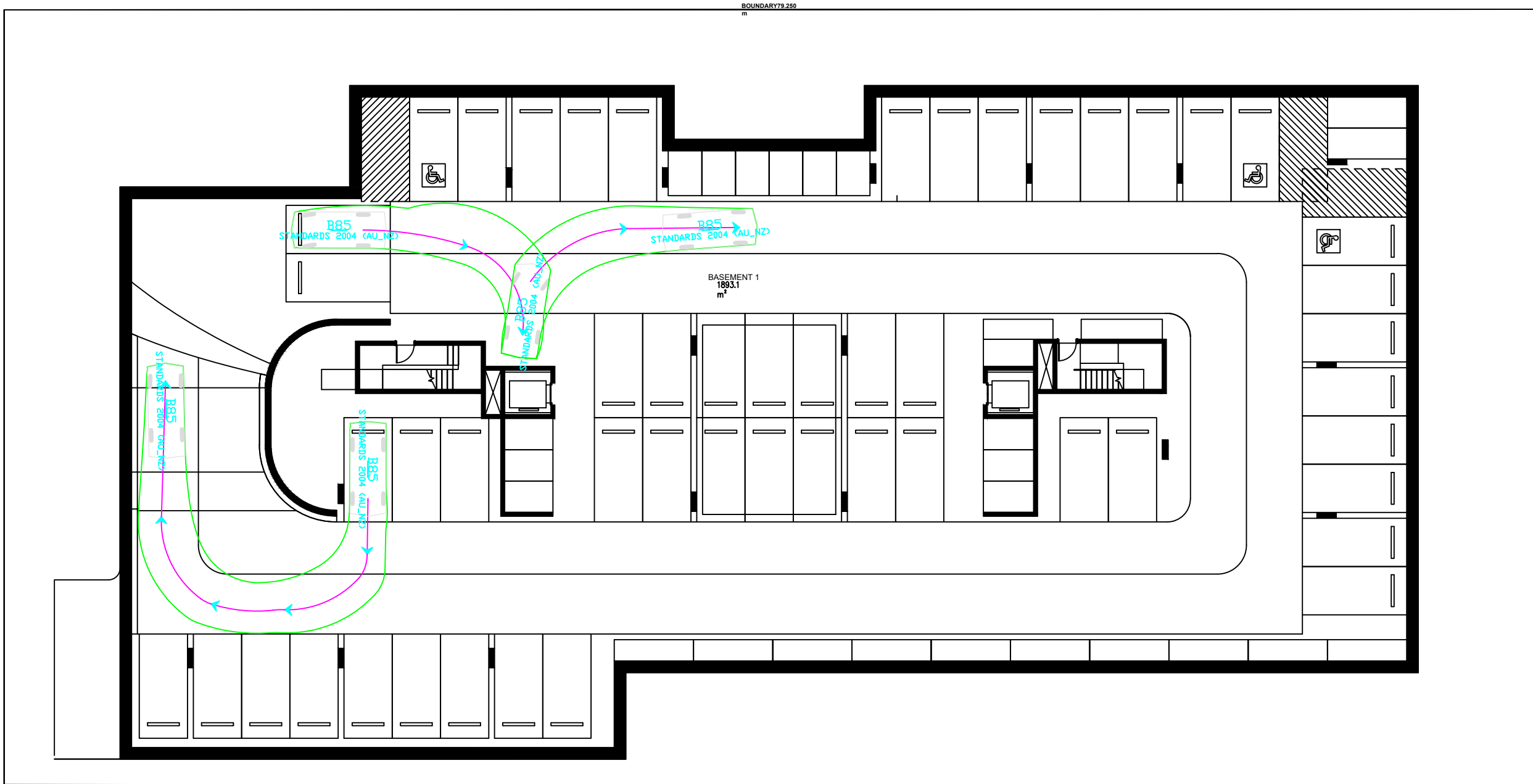
Track : 1.77

Lock to Lock Time : 6.0

Steering Angle : 34.1

LEGEND

— VEHICLE BODY PATH (INCLUDING OVERHANG)



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STANBURY TRAFFIC PLANNING

PASSENGER VEHICLE SWEEP PATHS

BASEMENT LEVEL 2 INTERNAL PARKING SPACE EGRESS MOVEMENTS

PROPOSED RESIDENTIAL DEVELOPMENT

16 - 24 HOPE STREET, PENRITH

SCALE: 1:250 AT A3		ISSUE A
FILE: 19-201	SUPERSEDES SHEET/ISSUE -	
DATE: 9/04/2021		SHEET 15

APPENDIX 4

MOVEMENT SUMMARY

▽ Site: [Parker Street and Hope Street]

EXISTING AM

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Parker Street south												
1	L2	6	5.0	0.179	5.1	LOS A	0.0	0.0	0.00	0.01	0.00	55.3
2	T1	1008	5.0	0.179	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1014	5.0	0.179	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Hope Street west												
10	L2	7	5.0	0.006	6.7	LOS A	0.0	0.2	0.38	0.56	0.38	50.8
Approach		7	5.0	0.006	6.7	LOS A	0.0	0.2	0.38	0.56	0.38	50.8
All Vehicles		1021	5.0	0.179	0.1	NA	0.0	0.2	0.00	0.01	0.00	59.8

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.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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Project: C:\Users\erick\Desktop\Reports\19-015 Hope Street\Parker Hope EXISTING AM.sip8

MOVEMENT SUMMARY

▽ Site: [Parker Street and Hope Street]

EXISTING AM

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Parker Street south												
1	L2	10	5.0	0.191	5.1	LOS A	0.0	0.0	0.00	0.02	0.00	55.2
2	T1	1071	5.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.9
Approach		1081	5.0	0.191	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.8
West: Hope Street west												
10	L2	19	5.0	0.017	6.8	LOS A	0.1	0.5	0.39	0.59	0.39	50.8
Approach		19	5.0	0.017	6.8	LOS A	0.1	0.5	0.39	0.59	0.39	50.8
All Vehicles		1100	5.0	0.191	0.2	NA	0.1	0.5	0.01	0.02	0.01	59.6

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.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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WASTE MANAGEMENT PLAN

DEMOLITION, CONSTRUCTION AND USE OF PREMISES

.....
If you need more space to give details, you are welcome to attach extra pages to this form.

PLEASE COMPLETE ALL PARTS OF THIS FORM THAT ARE RELEVANT TO YOUR DEVELOPMENT APPLICATION (DA).

IF YOU NEED MORE SPACE TO GIVE DETAILS, YOU ARE WELCOME TO ATTACH EXTRA PAGES TO THIS FORM.

Council will assess the information you provide on this form along with your attached plans. We will take into account the types and volumes of waste that could be produced as a result of your proposed development, and how you are planning to:

- minimise the amount of waste produced
- maximise re-use and recycling
- store, transport and dispose of waste safely and thoughtfully.

APPLICANT DETAILS

First name

Peter

Surname

Morson

Postal Address

Street No.

Street name

PO Box 170

Suburb

Potts Point

Post code

1335

Contact phone number

Email address

DETAILS OF YOUR PROPOSED DEVELOPMENT

Street No.

16-24

Street name

Hope

Suburb

Penrith

Post code

2750

What buildings and other structures are currently on the site?

There are five (5) Single Story, detached Residences. There are some garages & similar structures at the rear with a pool in lot 29 only. On-grade driveways & concrete footpaths are present on each lot

Briefly describe your proposed development

Six Storey Residential Flat Building with Seventy Six (60) Apartment & Two (2) Levels of Basement Parking

Applicant Signature

Date

SECTION 1: DEMOLITION

*Please include details on the plans you submit with this form, for example location of on-site storage areas/containers, vehicle access point/s.

Materials		Destination		
		Re-use and recycling		Disposal
Material	Estimated volume (m ² or m ³)	ON-SITE* Specify proposed re-use or on-site recycling	OFF-SITE Specify contractor and recycling facility	Specify contractor and landfill site
Excavation (eg soil, rock)				
Green waste				
Bricks				
Concrete				
Timber (Please specify type/s)				
Plasterboard				
Metals (Please specify type/s)				
Other				

SECTION 2: CONSTRUCTION

*Please include details on the plans you submit with this form, for example location of on-site storage areas/containers, vehicle access point/s.

Materials		Destination		
		Re-use and recycling		Disposal
Material	Estimated volume (m ² or m ³)	ON-SITE* Specify proposed re-use or on-site recycling	OFF-SITE Specify contractor and recycling facility	Specify contractor and landfill site
Excavation (eg soil, rock)				
Green waste				
Bricks				
Concrete				
Timber (Please specify type/s)				
Plasterboard				
Metals (Please specify type/s)				
Other				

SECTION 3: WASTE FROM ON-GOING USE OF PREMISES

If relevant, please list the type/s of waste that may be generated by on-going use of the premises after the development is finished.	Expected volume (average per week)

SECTION 4: ON-GOING MANAGEMENT OF PREMISES

If relevant, please give details of how you intend to manage waste on-site after the development is finished, for example through lease conditions for tenants or an on-site caretaker/manager. Describe any proposed on-site storage and treatment facilities. Please attach plans showing the location of waste storage and collection areas, and access routes for tenants and collection vehicles.

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REPORT ON
PRELIMINARY SITE INVESTIGATION

PROPOSED DEVELOPMENT
16-24 HOPE STREET,
PENRITH NSW

prepared for
PRESTIGE DEVELOPMENT GROUP (NSW) P/L

15th April 2021

Prepared for:
Prestige Development Group (NSW) Pty Limited
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Safework NSW LAA-000105
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This document was prepared for the sole use of Prestige Development Group (NSW) P/L and the regulatory agencies that are directly involved in this project, the only intended beneficiaries of our work. No other party should rely on the information contained herein without the prior written consent of Banksia EnviroSciences P/L and Prestige Development Group (NSW) P/L.

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Abbreviations

ACM	Asbestos Containing Materials
AEC	Area of Environmental Concern
AHD	Australian Height Datum
AST	Aboveground Storage Tank
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
COC	Chemical of Potential Concern
CSM	Conceptual Site Model
NEPM	National Environment Protection (Assessment of Site Contamination) Measure
OCP	Organochloride Pesticide
OPP	Organophosphorus Pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCA	Preliminary Contamination Assessment
TRH	Total Recoverable Hydrocarbons
UST	Underground Storage Tank
VHC	Volatile Halogenated Compounds
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This report describes the methodology and results of a Preliminary Site (Contamination) Investigation conducted by Banksia EnviroSciences Pty Ltd (BES) of the land parcel located at 16-24 Hope St., Penrith NSW (henceforth 'the site'). The work was commissioned by Morson Group Management for Prestige Development Group (NSW) P/L (PDG). The assessment was commissioned to aid in the conceptual design and development of the area for medium density residential housing.

The area of investigation (the site) included the entire grounds of the current properties which is identified by the area of the proposed redevelopment (see red bordered area on **Drawing 2, Appendix B**). The proposed development will include the demolition of existing site buildings and preparation of the land for the construction of a five story medium density residential apartment building with a two level basement carpark area. Relevant construction plans are included in **Appendix E**.

This PSI was required to form part of the development application to Penrith City Council and to assist project planning.

The aim of the investigation was to:

- Identify potential sources of contamination and determine the potential contaminants of concern;
- Identify potential human and ecological receptors;
- Identify potentially affected soil and groundwater;
- Develop a conceptual site model (CSM) and assess potential contamination source – pathway – receptor linkages based on the information and data obtained; and
- Provide a report of the findings of the initial assessment undertaken and to provide advice as to what additional investigation and/or remediation may be applicable in order to determine if the site is suitable or can be made suitable for its intended use.

The aim of the assessment, described herein, is to identify potential sources of contamination and the contaminants of concern resulting from past and present site uses, evaluate the likelihood of contamination in any identified areas of concern and assess the suitability of the site for its intended use for residential occupation and community space associated with the land.

The PSI was conducted and reported in general accordance with the National Environment Protection Council (NEPC) *National Environment Protection (Assessment of Site Contamination) Measure 1999* (amended 2013) (NEPC, 2013) and included a review of desktop information, a site walkover, the development of a CSM and the reporting of any relevant recommendations designed to allow the land to be made suitable for its intended purpose.

2.0 SCOPE OF WORKS

The work carried out by Banksia ES to meet the above objectives included:

- Review of current and historical titles to identify previous owners that may indicate potentially contaminating activities;
- Review of readily available historical aerial photographs to identify previous land uses that may indicate potential contamination;
- Review of Council Section 10.7 Planning Certificate for the site;
- Search of the NSW EPA Register for notices issued under the Contaminated Land Management Act 1997 (CLM Act) and the Protection of the Environment Operations Act 1997;
- Search of the NSW Department of Primary Industries groundwater database for registered groundwater bores in the vicinity of the site;
- Review of published geological, soil landscape and acid sulphate soils (ASS) maps;

- A site walkover to observe current and recent land use and assess the potential for contaminating activities;
- Preparation of this PSI report outlining the methodology and results of the investigation. The report provides comments on the potential nature and subsequent risk for contamination at the site, the suitability of the site for the proposed development and recommendations for any necessary remedial works.

3.0 SUMMARY OF SITE DESCRIPTION

3.1 Site Identification

Site identification details are summarised in **Table 1**.

Table 1: Site Identification Details

Address:	16-24 Hope Street, Penrith NSW 2750
Title Identification:	Lots 29, 30, 31, 32 and 33 DP31239
Area (approx.):	3185 m ² (0.32 ha)
Local Government Area:	Penrith City Council
County:	Cumberland
Parish:	Mulgoa
Zoning:	R4 – High Density Residential

The site currently consists of and spans across five adjacent single residential blocks. The site is rectangularly shaped and borders Hope Street to the north. The site currently contains 5 independent residential dwellings and associated out buildings each with associated rudimentary landscaping and established flora.

The site location is shown on **Drawing 1, Appendix B**, and photographs (1 – 10) of the current conditions of the site are included in **Appendix C**.

3.2 Proposed Development

The area of the proposed development which is currently home to five distinct residential blocks is understood by BES to involve demolition of all site structures and preparation of the grounds for a five-level medium density residential flat block with a two level basement car park, small open communal spaces and associated landscaping treatments. The area requiring assessment to support the DA is to cover the entirety of the site which is approx. 3185 m². Relevant construction plans which were reviewed and considered as part of this PSI are provided in **Appendix E**.

4.0 ENVIRONMENTAL SETTING

4.1 Topography

Based on the *Lotsearch Enviro Professional Report* (Ref: LS019335EP, dated 07 April 2021, **Appendix D**, p. 51), the site is located in a region characterised by low rolling to steep low hills. The region generally slopes from the south east down to the north west.

The ground surface across the site is practically flat and level and sits at approximately 48 m relative to Australian Height Datum (AHD) across the site.

4.2 Site Geology

Reference to the *Lotsearch Report* (**Appendix D**, pp 57-58) indicates that the site is underlain by Middle Triassic age Bringelly shale of the Wianamatta group formation consisting of shale, claystone, laminate and fine to medium grained lithic sandstone.

The *Lotsearch Report* (**Appendix D**, pp. 60-63) indicates the site is located on erosional Luddenham soil landscape group. This soil group is characterised by gently rolling to rounded hilly country with some steep slopes and broad valleys. Chief soils are hard acidic red soils with hard neutral and acidic yellow mottled soils on lower slopes and in valleys.

4.3 Acid Sulphate Soils (ASS)

The *Lotsearch Report* (**Appendix D**, pp. 64-65) indicates that the site is located in an area with an extremely low (Class C; 1-5%) probability for the occurrence of ASS – with possible occurrences in small, localised areas.

4.4 Other Records

In addition to the above information, **Table 2** summarises the results of searches and data, relating to the environmental setting, acquired from the *Lotsearch Report* included in **Appendix D**.

Table 2: Summary of Additional Available Information from *Lotsearch Report*

Record / Source of Information	Comments
Naturally occurring asbestos potential	No naturally occurring asbestos potential is recorded within in the search buffer (p. 59).
Dryland salinity	There is a moderate salinity potential on the site and surrounding search buffer (p. 67-68).
Mining subsidence districts	There are no mining subsidence districts within the search buffer (p. 69).

4.5 Groundwater and Surface Water

The nearest surface water receptor is the Werrington Creek system which is located approximately 780 m to the south-east of the site. The Nepean River is located approx. 2.8 km to the northwest of the site. Based on local topography observed in the regional map information, surface water is likely to flow to the north and captured immediately into the extensive council storm water drainage system. Based on local topography observed in the regional map information, groundwater is anticipated to flow west towards the Nepean River.

The *Lotsearch Report* includes a search of the NSW Department of Primary Industries registered groundwater bore database current on 07 April 2021. The *Lotsearch Report* indicated 19 groundwater bores/wells within 2000 m of the site. These wells are registered principally for monitoring purposes with 1 well recorded as recreational (at 1090m North) and 1 well recorded as general use (at 1855m West). The locations of the groundwater bores are shown in the *Lotsearch Report* (pp. 53-54) in **Appendix D**, with the closest located 824 m south of the site. Most groundwater bores are listed which are anticipated to be hydraulically down-gradient (west and north-west) of the site and registered primarily for monitoring purposes use.

4.6 Salinity

Dryland salinity (under the Potential of Western Sydney Assessment) is listed as Moderate on the site and the majority of the surrounding area (to 1km). Pockets of High salinity are recorded within the 1km search area of the site. Dryland salinity (under the National Assessment) is not recorded within the 1km buffer search of the site (*Lotsearch Report*, **Appendix D**, pp. 67-68).

It is noted that salinity issues are unlikely to impose a significant constraint on the proposed development works as many similar projects have been successfully completed in adjacent areas to the subject site, however, further investigations may be warranted to aid in suitable project design which can bear potential impacts of issues associated with salinity.

5.0 SITE HISTORY

The site history investigation comprised a review of historical title deeds, historical aerial photographs, NSW EPA regulatory notices, Section 10.7 planning certificates and a *Lotsearch Report*. The findings of this review are provided in the following sub-sections and **Section 6**.

5.1 Title Deeds

An historical title deeds search was conducted for the site by *Infotrack Pty Ltd* and was used to obtain former ownership and occupancy information including company names (where available). The title information can assist in the identification of previous land uses by the company names and can therefore assist in establishing whether there were potentially contaminating activities occurring at the site. A summary of the title deeds and possible land uses (with reference to the aerial photographs) is presented in **Tables 3a – 3e**. A copy of the Land Titles search is included in **Appendix D**.

The review of the historic title records did not find or real any relevant additional information regarding potential contaminating activities. The subject site has been convincingly shown to have principal use as residential use with no indicators of tainting or likely polluting.

Table 3a: Historical Title deeds for Lot 29 DP 31239 (16 Hope St., Penrith)

Date of Acquisition and Term Held	Registered Proprietor & Occupation [where available]	Possible Site Use
16.09.1893 (1893 to 1913)	Spencer Alfred Payne (Engine Driver)	Council Allotment – Undeveloped Land
17.10.1913 (1913 to 1927)	Elizabeth Harriot Payne (Widow) (& her deceased estate) (Transmission Application not investigated)	Undeveloped Land
20.04.1927 (1927 to 1942)	Albert Ernest McDougall (Contractor) Amelia McDougall (Married Woman)	Undeveloped Land
08.07.1942 (1942 to 1946)	Amelia McDougall (Widow)	Undeveloped Land
04.11.1946 (1946 to 1959)	William John Ole McDougall (Retired Newsagent)	Undeveloped Land
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Initial Development for Residential Use
17.04.1961 (1961 to 1963)	John Patrick Reddan (Company Manager)	Residential Tenancy
07.03.1963 (1963 to 2007)	Kenneth Wearne White (Salesman) Pamela Dawn White (Married woman)	Residential Tenancy
30.01.2007 (2007 to 2015)	Pamela Dawn White (Widow)	Residential Tenancy
19.05.2015 (2015 to date)	Prestige Development Group (NSW) Pty Limited	Residential Tenancy

Table 3b: Historical Title deeds for Lot 30 DP 31239 (18 Hope St., Penrith)

Date of Acquisition and Term Held	Registered Proprietor & Occupation [where available]	Possible Site Use
16.09.1893 (1893 to 1913)	Spencer Alfred Payne (Engine Driver)	Council Allotment – Undeveloped Land
17.10.1913 (1913 to 1927)	Elizabeth Harriot Payne (Widow) (& her deceased estate) (Transmission Application not investigated)	Undeveloped Land
20.04.1927 (1927 to 1942)	Albert Ernest McDougall (Contractor) Amelia McDougall (Married Woman)	Undeveloped Land
08.07.1942 (1942 to 1946)	Amelia McDougall (Widow)	Undeveloped Land
04.11.1946 (1946 to 1959)	William John Ole McDougall (Retired Newsagent)	Undeveloped Land
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Initial Development for Residential Use
17.04.1961 (1961 to 1962)	John Patrick Reddan (Company Manager)	Residential Tenancy
24.07.1962 (1962 to 1977)	Thelma Olive White (Widow)	Residential Tenancy
20.04.1977 (1977 to 1979)	Francis William Culhane (Retired) Lessie Margaret Culhane (Married Woman)	Residential Tenancy
20.02.1979 (1979 to 1988)	Nancy Ruth Morton (Clerk)	Residential Tenancy
27.01.1988 (1988 to 2016)	Diana Carol Manser	Residential Tenancy
20.01.2016 (2016 to date)	Prestige Development Group (NSW) Pty Limited	Residential Tenancy

Table 3c: Historical Title deeds for Lot 31 DP 31239 (20 Hope St., Penrith)

Date of Acquisition and Term Held	Registered Proprietor & Occupation [where available]	Possible Site Use
16.09.1893 (1893 to 1913)	Spencer Alfred Payne (Engine Driver)	Council Allotment – Undeveloped Land
17.10.1913 (1913 to 1927)	Elizabeth Harriot Payne (Widow) (& her deceased estate) (Transmission Application not investigated)	Undeveloped Land
20.04.1927 (1927 to 1942)	Albert Ernest McDougall (Contractor) Amelia McDougall (Married Woman)	Undeveloped Land
08.07.1942 (1942 to 1946)	Amelia McDougall (Widow)	Undeveloped Land
04.11.1946 (1946 to 1959)	William John Ole McDougall (Retired Newsagent)	Undeveloped Land
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Initial Development for Residential Use
17.02.1961 (1961 to 1970)	Jack Percival Sharpe (Headmaster) Anne Sharpe (Married Woman)	Residential Tenancy
27.01.1970 (1970 to 1973)	Michael Smith (Stereotyper) Beverley Joan Harpley (Clerk)	Residential Tenancy

19.06.1973 (1973 to 1980)	Lawrence Patrick Rowles (Clerk) Kerriann Percy (Shop Assistant)	Residential Tenancy
25.09.1980 (1980 to 2012)	Peter Holmes (Process Worker) Margaret Rose Holmes (Married Woman)	Residential Tenancy
25.09.2012 (2012 to 2016)	Margaret Rose Holmes (Widow)	Residential Tenancy
21.01.2016 (2016 to date)	Prestige Development Group (NSW) Pty Limited	Residential Tenancy

Table 3d: Historical Title deeds for Lot 32 DP 31239 (22 Hope St., Penrith)

Date of Acquisition and Term Held	Registered Proprietor & Occupation [where available]	Possible Site Use
16.09.1893 (1893 to 1913)	Spencer Alfred Payne (Engine Driver)	Council Allotment – Undeveloped Land
17.10.1913 (1913 to 1927)	Elizabeth Harriot Payne (Widow) (& her deceased estate) (Transmission Application not investigated)	Undeveloped Land
20.04.1927 (1927 to 1942)	Albert Ernest McDougall (Contractor) Amelia McDougall (Married Woman)	Undeveloped Land
08.07.1942 (1942 to 1946)	Amelia McDougall (Widow)	Undeveloped Land
04.11.1946 (1946 to 1959)	William John Ole McDougall (Retired Newsagent)	Undeveloped Land
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Initial Development for Residential Use
17.04.1961 (1961 to 1962)	John Patrick Reddan (Company Manager)	Residential Tenancy
27.06.1962 (1962 to 2018)	Darrell Gordon Bewley (Butcher)	Residential Tenancy
29.11.2018 (2018 to 2018)	Penrith Projects Pty Ltd	Residential Tenancy
29.11.2018 (2018 to date)	Prestige Development Group (NSW) Pty Limited	Residential Tenancy

Table 3e: Historical Title deeds for Lot 33 DP 31239 (24 Hope St., Penrith)

Date of Acquisition and Term Held	Registered Proprietor & Occupation [where available]	Possible Site Use
16.09.1893 (1893 to 1913)	Spencer Alfred Payne (Engine Driver)	Council Allotment – Undeveloped Land
17.10.1913 (1913 to 1927)	Elizabeth Harriot Payne (Widow) (& her deceased estate) (Transmission Application not investigated)	Undeveloped Land
20.04.1927 (1927 to 1942)	Albert Ernest McDougall (Contractor) Amelia McDougall (Married Woman)	Undeveloped Land
08.07.1942 (1942 to 1946)	Amelia McDougall (Widow)	Undeveloped Land
04.11.1946 (1946 to 1959)	William John Ole McDougall (Retired Newsagent)	Undeveloped Land

22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Initial Development for Residential Use
17.04.1961 (1961 to 1962)	John Patrick Reddan (Company Manager)	Residential Tenancy
25.05.1962 (1962 to 1981)	Bryan David Huggins (Foreman) Ruth Anne Huggins (Married Woman)	Residential Tenancy
01.12.1981 (1981 to 1997)	Gerald Bede Lynch Zeta Lynch	Residential Tenancy
26.03.1997 (1997 to 1998)	Zeta Lynch	Residential Tenancy
10.06.1998 (1998 to 2010)	Bronwyn Narelle Davies	Residential Tenancy
01.04.2010 (2010 to 2018)	Brent Callaghan Deborah Jacqueline-Lee Callaghan	Residential Tenancy
29.11.2018 (2018 to 2018)	Penrith Projects Pty Ltd	Residential Tenancy
29.11.2018 (2018 to date)	Prestige Development Group (NSW) Pty Limited	Residential Tenancy

5.2 Historical Aerial Photographs

Historical aerial photographs were obtained by Lotsearch from databases held by the NSW Department of Finance, Services, and Innovation for the years 1943, 1949, 1956, 1961, 1965, 1970, 1978, 1982, 1986, 1991, 1994, 2000, 2005, 2009, 2015 and 2020.

Extracts of the aerial photographs are provided on pages 4, and 28 to 41 of the *Lotsearch Report (Appendix D)*, and a summary of features observed for the site and surrounding properties is presented in **Table 4**.

Table 4: Aerial Photograph Review

Year	Site Property Features	Surrounding Features
1943	The site makes up a small portion of a much larger open generally undeveloped space. The site appears level and generally cleared but undeveloped with no obvious land marks or features to the surface with the exception of a minor water course depression which dissects the centre of the lot (flow assumed to the north). A small number of established trees appear to dot the surface of the site.	Undeveloped open pasture lands to the north and west of the site with a rural dwelling and what is now Derby St has been constructed to the south followed by more undeveloped open level lands. Developed cultivation activities appear to exist to the east of the site. The site is widely surrounded by semi-rural properties with preliminary road network becoming established. A water course network appears to exist to the wider surroundings.
1949	A number of small structures or assemblies appear to the southern edge of the site and the tree to the centre of the site has been removed. No other significant changes can be seen cf. the 1943 image.	To the south of the site, low density residential subdivision and properties (with associated rear laneway) have been established to the northern edge of Derby St. and road improvements to Derby St. has been completed. To a lesser extent, low density residential development is beginning to become established to the north of Lethbridge St. (north of the site). An unidentifiable structure (possibly a storage or farm shed) appears to the immediate north-east of the site. Little other significant changes cf. the 1943 image can be identified in this low resolution photograph

1956	It appears that the structures/assemblies noted in the 1949 image have been removed from the site. Otherwise, the site appears unchanged cf. the 1949 image.	No other significant changes to the immediate surrounds to the site. More widely, increased low density residential properties appear to the surrounding (now established) neighbourhood.
1961	A residence at No. 20 which within the site boundary appears completed and includes outbuildings to the north and south of the residence. Footings for the planned dwelling at No. 22 also appear in this image. Possible stockpiled construction materials associated with the construction underway can be made out to the northern edge of this lot. No indications of imported fill is evident as the land is built upon.	A single residential property of similar character appears to the immediate west of the site. North of Hope St. and beyond, low density residential development continues at a moderate pace. Minor changes to residential land continues to the south and west of the site. The structure noted in the 1949 image to the north of Hope St has been removed.
1965	Residences appear to No's. 16, 18 and 24 Hope St and the completion of No. 22 can be seen in this image. Outbuildings appear to all of the 5 backyard spaces of the 5 lots. Road access (oof Hope St.) can be seen to each of the five properties. No other significant details appear in this image.	A large advancement in low density residential properties appear to the west and south with practically all local land being sub-divided and occupied for this purpose. A small open and undeveloped area site immediate north of the site across Hope St which remains largely unchanged since its appearance in the 1943 image.
1970	Some minor advancement in local landscaping and vegetation within the site boundary with some possible additions and/or removal of various smaller structures associated with residential living across the site. No significant changes identifiable in this image cf. the 1965 photograph.	All surrounding land visible in this aerial photograph has been developed into low density residential property with practically all lots being occupied by standard housing. Significant road improvements are noted to the roads surrounding the site.
1978	The site appears to remain mostly unchanged when compared to the 1970 photograph with the exception of the maturation of local domestic vegetation and a domestic swimming pool installed to No. 16 (western end of the site).	Minor incremental upgrades to existing residential grounds and the occupation of previously vacant lots to the surrounding land.
1982	The site appears to remain mostly unchanged when compared to the 1978 photograph with the exception of incremental advancements to local flora associated with landscaping across the 5 lots.	The surrounding area appears to remain generally unchanged when compared to the 1978 photograph.
1986	Some minor additions to the residential dwellings across the site, otherwise the site appears largely unchanged cf. the 1982 image.	No significant alterations to the general surrounding area cf. the 1982 image.
1991	The site appears to remain mostly unchanged when compared to the 1986 photograph.	No significant alterations to the general surrounding area cf. the 1986 image.
1994	The site appears to remain mostly unchanged when compared to the 1991 photograph.	No notable changes since the 1991 image with the exception of the construction of construction of the Nepean Hospital to the east of the site.
2000	An assortment of small structures appear across the 5 lots, otherwise, the site appears to remain mostly unchanged when compared to the 1994 photograph.	Townhouses have been constructed to the west of the site where formerly (approx.) 6 residential lots have been removed for the development. Furthermore, to the north of the site, a section of land which previously housed several residential houses has been stripped and appears to be undergoing development to medium density development.

2005	A minor extension has been added to the rear of the No. 24 property, otherwise, the site appears to remain mostly unchanged when compared to the 2000 photograph.	No significant changes to surrounds cf. 2000 photograph.
2009	The site appears to remain mostly unchanged when compared to the 2005 photograph.	No significant changes to surrounds cf. 2005 photograph.
2015	The site appears to remain mostly unchanged when compared to the 2009.	Clearing of former residential land to the NW of the site has been undertaken. Council sidewalk pavements have been applied to the northern edge of the site (along Hope St.).
2020	The site generally represents the conditions present during the onsite assessment conducted in April 2021.	Demolition of the immediately located residential dwellings and construction of medium density complex to the east of the site has been undertaken. Similar works have been undertaken to the NW (across Hope St.) and to the west of the site (east of Colless St.). The remainder of the surrounding area is in a similar condition to that observed during the site visit in April 2021.

The historical aerial photographs and historical maps from 1929, 1942, 1975 and 2015 (*Lotsearch Report*, pp. 42 - 45) appear to confirm the progressive development of the site and surrounding area, from vacant undeveloped land in a minimally developed area through to use of the property as long term low density residential with mostly similar residential and some medium density structures in the adjacent surrounding locality.

5.3 Historical Business Directories

A review of historical business activities was undertaken as part of the *Lotsearch Report*, by reviewing the UBD Business to Business Directories for 1950 to 1991 (*Lotsearch Report*, pp. 17-25, **Appendix D**). No businesses were recorded on the site. Three former local businesses are reported in the *Lotsearch Report* located nearby are considered to pose a low risk of contamination to the site (**Table 5A**, below). There were also a number of current and former service stations (motor garages) recorded within 500 m of the site, none of which were immediately up-gradient or at a distance from the site to be considered as sources of potential contamination. These are summarised in **Table 5B** below.

Table 5A: Summary of Businesses with Low Risk of Contamination within 150m of the Site

Business Activity	Address	(Most Recent) Year	Distance / Direction
Pest Control	8 Lethbridge St., Penrith	1970	74 m north east
Floor Sanding &/or Polishing Contractors	4 Hope St., Penrith	1986	79 m east
Chain Saws	31 Lethbridge St., Penrith	1970	122 m north

Table 5B: Summary of Dry Cleaners and Service Stations within 500m of the Site

Business Activity	Address	(Most Recent) Year	Distance / Direction
Motor Garages &/or Engineers &/or Service Stations	68 Cox Ave., Kingswood	1982	489 m north east
Motor Service Stations-Petrol, Oil, etc.	645 High St., Penrith	1961	500 m north west

Motor Garages & Engineers	Great Western Hwy., Penrith	1970	330 m
Motor Garage & Service Stations	645 High St., Penrith	1990	361 m

5.4 NSW EPA Records

The EPA publishes records of contaminated sites under section 58 of the *Contaminated Land Management Act* 1997 (CLM Act) on a public database. The notices relate to investigation and/or remediation of sites considered to be significantly contaminated under the definition in the CLM Act. More specifically the notices cover the following:

- Actions taken by the EPA under sections 15, 17, 19, 21, 23, 26 or 28 of the CLM Act;
- Actions taken by the EPA under sections 35 or 36 of the Environmentally Hazardous Chemicals Act 1985; and
- Site audit statements provided to the EPA under section 52 of the CLM Act on sites subject to an in-force remediation order.

The results of a search of the public database provided in the *Lotsearch Report* (p. 5-7) indicated that the site has not been listed as a contaminated site notified to the EPA. There was, however, one site located within the 1 km search buffer which has been notified to the EPA being the '7-Eleven Service Station Penrith' at 30 Henry St., Penrith (691 m north west of the site). However, it is reported that the EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required. Similarly, the search found there were no Record of Notices for the site or any site within the 1 km search buffer (*Lotsearch Report* p. 7).

No former gasworks sites were found within the 1 km search buffer of the site (*Lotsearch Report* p. 7).

The NSW EPA also issues environmental protection licenses under section 308 of the *Protection of the Environment Operations Act* 1997 (POEO Act). The register contains:

- Environmental protection licenses;
- Applications for new licenses and to transfer or vary existing licenses;
- Environment protection and noise control licenses;
- Convictions in prosecutions under the *POEO Act*;
- The result of civil proceedings;
- License review information;
- Exemptions from provisions of the *POEO Act* or Regulations;
- Approvals granted under Clause 9 of the POEO (Control of Burning) Regulation; and
- Approvals granted under Clause 7a of the POEO (Clean Air) Regulation.

The results of a search of the public register provided in the *Lotsearch Report* indicated that there was two de-licensed activities within the search buffer under the POEO Act 1997 (*Lotsearch Report*, pp. 15-16). These were for the Nepean Hospital site at Cnr. Derby and Parker Sts. Kingswood (situated 141 m east of the site) and the Nepean Private Hospital site at 9 Barber Ave., Kingswood (situated 313 m to the north east of the site). Again, these activities were located down gradient and a significant distance from the site.

Former activities (surrendered 2000) of the Luhrmann Environment Management P/L and the Sydney Weed and Pest Management P/L organisations involving Non-Scheduled Activity (Application of Herbicides) was noted to have occurred on the local waterway 750 m to the east of the site.

Other former licensed activities were identified within the 1 km search buffer, however, these activities were also located down gradient and/or a significant distance from the site (*Lotsearch Report*, pp. 15-16).

Additionally, a search of the EPA PFAS Investigation Program found no areas under investigation within the 1 km search buffer (*Lotsearch Report*, p. 10).

The EPA activities search results are presented on pages 5-16 of the *Lotsearch Report*, **Appendix D**.

6.0 PLANNING RECORDS

6.1 Section 10.7 Certificate

The Council Planning Certificates under Section 10.7 of the *Environmental Planning and Assessment Act 1979* were obtained for the site and are provided in **Appendix D**.

The site is zoned as 'R4 High Density Residential'.

The certificate states (under Section 10.7(2)) that, as prescribed by Section 59 (2) of the *Contaminated Land Management Act, 1997*, Council has not been provided with a site audit statement with respect of the site, and the land to which the certificates relate is not:

- Declared to be significantly contaminated land;
- Subject to a management order;
- Subject of an approved voluntary management proposal; or
- Subject of an ongoing maintenance order.

6.2 Other Records

In addition to the above information the following table (**Table 6**) summarises the results of searches and data acquired from the *Lotsearch Report* included in **Appendix D**.

Table 6: Summary of Available Information from Lotsearch Report

Record / Source of Information	Comments
State Environmental Planning	No state environmental planning policy protected areas were located onsite or within the search buffer (p. 73).
Heritage	No Commonwealth, National or State heritage items were identified on site, however, numerous listings of EPI Heritage items were found within the search buffer (pp. 78-80).

7.0 SITE WALKOVER

A walkover of the site was undertaken on 9 April 2021 by Mr. Nik Orr of BES (environmental consultant [EC] specializing in land contamination) to assess visible surface conditions and identify evidence of contaminations or past activities which may cause contamination (if any). Observations of the site and broader surrounding areas, in particular with respect to evidence of the potential for contamination, are summarised below with photographs provided in **Appendix C**.

The site consisted of five separate tenanted residential properties, each containing a stand-alone principal residential dwelling and associated outbuildings such as garages and/or sheds located upon the lots (**Photographs 1 to 10**). The five sites appeared to be generally well maintained.

The five residential lots were each surrounded by low to mid lying semi-established vegetation to the fore and rear yards. The majority of the exposed ground surfaces are covered with maintained grass lawns. Dwelling footprints

generally consisted of barren natural ground soil/clay. Paved driveways and minor paved pathways associated with the residences are present to small areas of the surface across the site.

Visible evidence of materials commonly found to contain asbestos (as asbestos cement sheeting) were identified to some areas of the exterior of most of the structures situated on the site. The potential ACM generally comprised eave sheeting, entrance awning ceiling linings and gable cladding. Further, evidence of materials commonly found to contain lead (as paint systems) were noted to be applied to some areas of a number of the structures located upon the site. These potentially hazardous building material products were generally found to be in good condition in their current states.

No obvious building debris or unnatural or deliberate waste deposits were visible to any accessible areas of the surfaces of the site. No evidence of staining or spillage and no olfactory indicators (such as notable odours) suggestive of site contamination were identified within or surrounding the site.

The site is largely surrounded by a mix of comparable low density residential properties of similar vintage with pockets of more recently constructed land parcels containing medium density apartment complexes all of which are highly unlikely to pose any propensity to contamination of the site.

No other indication of prior occupation of the land was evident during the on site assessment.

No evidence of gross contamination was identified by the environmental consultant conducting the on-ground site assessment.

In summary, the subject property is surrounded by the following:

- **North:** Hope Street followed by low and medium density residential properties;
- **East:** Medium density residential followed by Parker Street and the Nepean Hospital;
- **South:** Low density residential properties followed by Derby Street and,
- **West:** Medium and low density residential properties followed by Collins Street.

8.0 PRELIMINARY CONCEPTUAL SITE MODEL

A CSM is a representation of site-related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM provides the framework for identifying how the site became contaminated and how potential receptors may be exposed to contamination in the present or in the future i.e. it enables an assessment of the potential source – pathway – receptor linkages (complete pathways).

8.1 Potential Contamination Sources and Contaminants of Concern

Based on the current investigation, the following potential sources of contamination and associated contaminants of potential concern (COPC) have been identified:

- S1 Existing and/or former buildings on site** – Construction / demolition / refurbishment and maintenance of site buildings impacting the surficial soils.
COPC: Asbestos, lead based paints, PCB capacitors, synthetic mineral fibres (SMF), OCP.
- S2 Dryland Salinity** – Construction and ecological impacts of moderate to potentially high saline within project scope and boundaries

8.2 Potential Receptors

8.2.1 Human Health Receptors

- R1 End users (including visitors);
- R2 Construction and maintenance workers; and
- R3 Adjacent site users (residential and community).

8.2.2 Environmental Receptors

- R4 Terrestrial ecology.

Surface water was not considered to be a potential environmental receptor given the distance between the Werrington Creek system and the site.

Ground water was not considered to be a potential environmental receptor given the anticipated depth to groundwater being >5 m and the general immobility of the S1 COPC.

8.3 Potential Pathways

Potential pathways for the identified contamination to impact on the receptors include the following:

- P1 Ingestion and dermal contact;
- P2 Inhalation of dust;
- P3 Contact with terrestrial ecology.

8.4 Preliminary CSM

A 'source – pathway – receptor' approach has been used to assess the potential risks of harm being caused to human, water, or environmental receptors from contamination sources on or in the vicinity of the site, via exposure pathways. The possible pathways between the above source (S1) and receptors (R1 to R5) are provided in **Table 7** below.

Table 7: Summary of Potential Complete Pathways

Potential Source and Contaminants of Concern	Pathway	Receptor	Risk Management Action Recommended *
S1 – Existing / Former Site Buildings Asbestos, Lead based paints, PCB capacitors, SMF	P1 – Ingestion and dermal contact P2 – Inhalation of dust	R1 – End users R2 – Construction and maintenance workers	A hazardous materials survey and removal control plan to be conducted and prepared for existing site buildings with removal of all hazardous materials before the issuing of a

	P2 – Inhalation of dust	R3 – Adjacent site users	clearance certificate prior to general demolition of the structures. An Unexpected Finds Protocol (UFP) to be devised to aid in the management of suspect material uncovered or detected during site construction preparation works.
	P3 – Contact with terrestrial ecology	R4 – Terrestrial ecology	Waste Classification of any generated ex-situ soils to be removed from site as part of the development.
S2 – Soil Salinity	P3 – Contact with terrestrial ecology	R4 – Terrestrial ecology	Issues of salinity to be considered as part of Geo-Technical Investigations and results made available for reviewed by EC.

** Recommendations based on the results of this investigation are further outlined in **Section 9**.*

9.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the information available from the site history and site walkover, the site appears to have been vacant land prior to being developed into long term low residential housing lots which remained relatively unchanged to the modern day.

The results of the preliminary investigation indicate a low risk of chemical contamination of any concern across the site.

Because of the inherent limitations of detecting sub-ground contamination in a preliminary site investigation it is recommended that a site-specific 'unexpected finds protocol' (UFP) be developed prior to deliberate disturbance of the general ground surfaces.

It is recommended that the following steps are undertaken prior to or following the final plans to prepare the land for its proposed use (as appropriate):

- **Dryland Salinity:** Investigations into potential salinity issues and its effect on construction and ecological species as part of the developments. Results to be reviewed for comment by the EC.
- **Waste classification:** Any soils requiring offsite disposal will require a formal waste classification to be undertaken to inform the lawful disposal of excess spoil. The waste classification must be undertaken in accordance with the POEO Act (1997), and the NSW EPA Waste Classification Guidelines (2014);
- **Unexpected finds protocol:** An unexpected finds protocol is prepared and implemented during site works to address any potentially impacted fill identified beneath the current ground surfaces; and
- **Hazardous Building Materials Survey:** As many of the buildings on the site are likely to contain hazardous building materials given their age, a hazardous material building survey and subsequent appropriate removal and clearance certification of any identified hazardous materials in accordance with relevant legislation and guidelines is to be undertaken prior to general demolition works.

Based on the desktop and field results and subject to implementation of the above recommendations, it is considered the site is suitable for the proposed redevelopment works associated with the medium density housing and related activities.

10.0 LIMITATIONS

Limited information is available on the early history of the site and therefore, some site activities may not have been identified. In addition, aerial photographs are up to 9 years apart and other site history information available prior to 1943 is limited. We cannot preclude that potentially contaminating activities took place during these periods. Allowances for uncertainties and potential unexpected finds should be made during planning and development phases.

It is the nature of contaminated site investigations that the degree of variability in site conditions cannot be known completely and no visual or sampling and analysis program can eliminate all uncertainty concerning the condition of the site. Professional judgement must be exercised in the collection and interpretation of the data.

In preparing this report, current guidelines for assessment and management of contaminated land were followed. This work has been conducted in good faith in accordance with Banksia ES understanding of the client's brief and general accepted practice for environmental consulting.

This report was prepared for the Client based on the objective and scope of work listed in **Section 2**. No warranty, expressed or implied, is made as to the information and professional advice included in this report. Anyone using this document does so at their own risk and should satisfy themselves concerning its applicability and, where necessary, should seek expert advice in relation to the particular situation.

In preparing this report, Banksia ES has relied on information in reports made available to Banksia ES by the client's representative and prepared by other consultants. Banksia has assumed that these consultants performed the scope of works in general accordance with standard industry procedures and guidance materials at the time and that the information is suitable.

We draw your attention to the attached sheets titled "Important Information about your Banksia ES Environmental Report" which should be read in conjunction with this report. These information sheets are located at the end of this section.

Appendix A – Important Information about your Banksia ES Environmental Report

Introduction

This report has been prepared by Banksia ES for you, as Banksia ES's client, in accordance with our agreed purpose, scope, schedule and budget.

The report has been prepared using accepted procedures and practices of the consulting profession at the time it was prepared, and the opinions, recommendations and conclusions set out in the report are made in accordance with generally accepted principles and practices of that profession.

The report is based on information gained from environmental conditions (including assessment of some or all of soil, groundwater, vapour, and surface water) and supplemented by reported data of the local area and professional experience. Assessment has been scoped with consideration to industry standards, regulations, guidelines, and your specific requirements, including budget and timing. The characterisation of site conditions is an interpretation of information collected during assessment, in accordance with industry practice.

This interpretation is not a complete description of all material on or in the vicinity of the site, due to the inherent variation in spatial and temporal patterns of contaminant presence and impact in the natural environment. Banksia ES may have also relied on data and other information provided by you and other qualified individuals in preparing this report. Banksia ES has not verified the accuracy or completeness of such data or information except as otherwise stated in the report. For these reasons the report must be regarded as interpretative, in accordance with industry standards and practice, rather than being a definitive record.

Your Report has been Written for a Specific Purpose

Your report has been developed for a specific purpose as agreed by us and applies only to the site or area investigated. Unless otherwise stated in the report, this report cannot be applied to an adjacent site or area, nor can it be used when the nature of the specific purpose changes from that which we agreed.

For each purpose, a tailored approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible, quantify, risks that both recognised and potential contamination pose in the context of the agreed purpose. Such risks may be financial (for example, clean-up costs or constraints on site use) and/or physical (for example, potential health risks to users of the site or the general public).

Limitations of the Report

The work was conducted, and the report has been prepared, in response to an agreed purpose and scope, within time and budgetary constraints, and in reliance on certain data and information made available to Banksia ES.

The analyses, evaluations, opinions, and conclusions presented in this report are based on that purpose and scope, requirements, data, or information, and they could change if such requirements or data are inaccurate or incomplete.

This report is valid as of the date of preparation. The condition of the site (including subsurface conditions) and extent or nature of contamination or other environmental hazards can change over time, as a result of either natural processes or human influence. Banksia ES should be kept apprised of any such events and should be consulted for further investigations if any changes are noted, particularly during construction activities where excavations often reveal subsurface conditions.

In addition, advancements in professional practice regarding contaminated land and changes in applicable statutes and/or guidelines may affect the validity of this report. Consequently, the currency of conclusions and recommendations in this report should be verified if you propose to use this report more than 6 months after its date of issue.

The report does not include the evaluation or assessment of potential geotechnical engineering constraints of the site.

Interpretation of Factual Data

Environmental site assessments identify actual conditions only at those points where samples are taken and, on the date, collected. Data derived from indirect field measurements, and sometimes other reports on the site, are interpreted by geologists, engineers, or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions.

Variations in soil and groundwater conditions may occur between test or sample locations and actual conditions may differ from those inferred to exist. No environmental assessment program, no matter how comprehensive, can reveal all subsurface details and anomalies. Similarly, no professional, no matter how well qualified, can reveal what is hidden by earth, rock or changed through time.

The actual interface between different materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site

conditions which exist, but steps can be taken to reduce the impact of unexpected conditions.

For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of a suitably qualified and experienced environmental consultant through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other unrecognised features encountered on site. Banksia ES would be pleased to assist with any investigation or advice in such circumstances.

Recommendations in this Report

This report assumes, in accordance with industry practice, that the site conditions recognised through discrete sampling are representative of actual conditions throughout the investigation area. Recommendations are based on the resulting interpretation.

Should further data be obtained that differs from the data on which the report recommendations are based (such as through excavation or other additional assessment), then the recommendations would need to be reviewed and may need to be revised.

Report for Benefit of Client

Unless otherwise agreed between us, the report has been prepared for your benefit and no other party. Other parties should not rely upon the report or the accuracy or completeness of any recommendation and should make their own enquiries and obtain independent advice in relation to such matters.

Banksia ES assumes no responsibility and will not be liable to any other person or organisation for, or in relation to, any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report.

To avoid misuse of the information presented in your report, we recommend that Banksia ES be consulted before the report is provided to another party who may not be familiar with the background and the purpose of the report. In particular, an environmental disclosure report for a property vendor may not be suitable for satisfying the needs of that property's purchaser. This report should not be applied for any purpose other than that stated in the report.

Interpretation by Other Professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, a suitably qualified and experienced environmental consultant should be retained

to explain the implications of the report to other professionals referring to the report and then review plans and specifications produced to see how other professionals have incorporated the report findings.

Given Banksia ES prepared the report and has familiarity with the site, Banksia ES is well placed to provide such assistance. If another party is engaged to interpret the recommendations of the report, there is a risk that the contents of the report may be misinterpreted, and Banksia ES disowns any responsibility for such misinterpretation.

Data Should Not Be Separated from the Report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists or engineers based on their interpretation of field logs, field testing and laboratory evaluation of samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

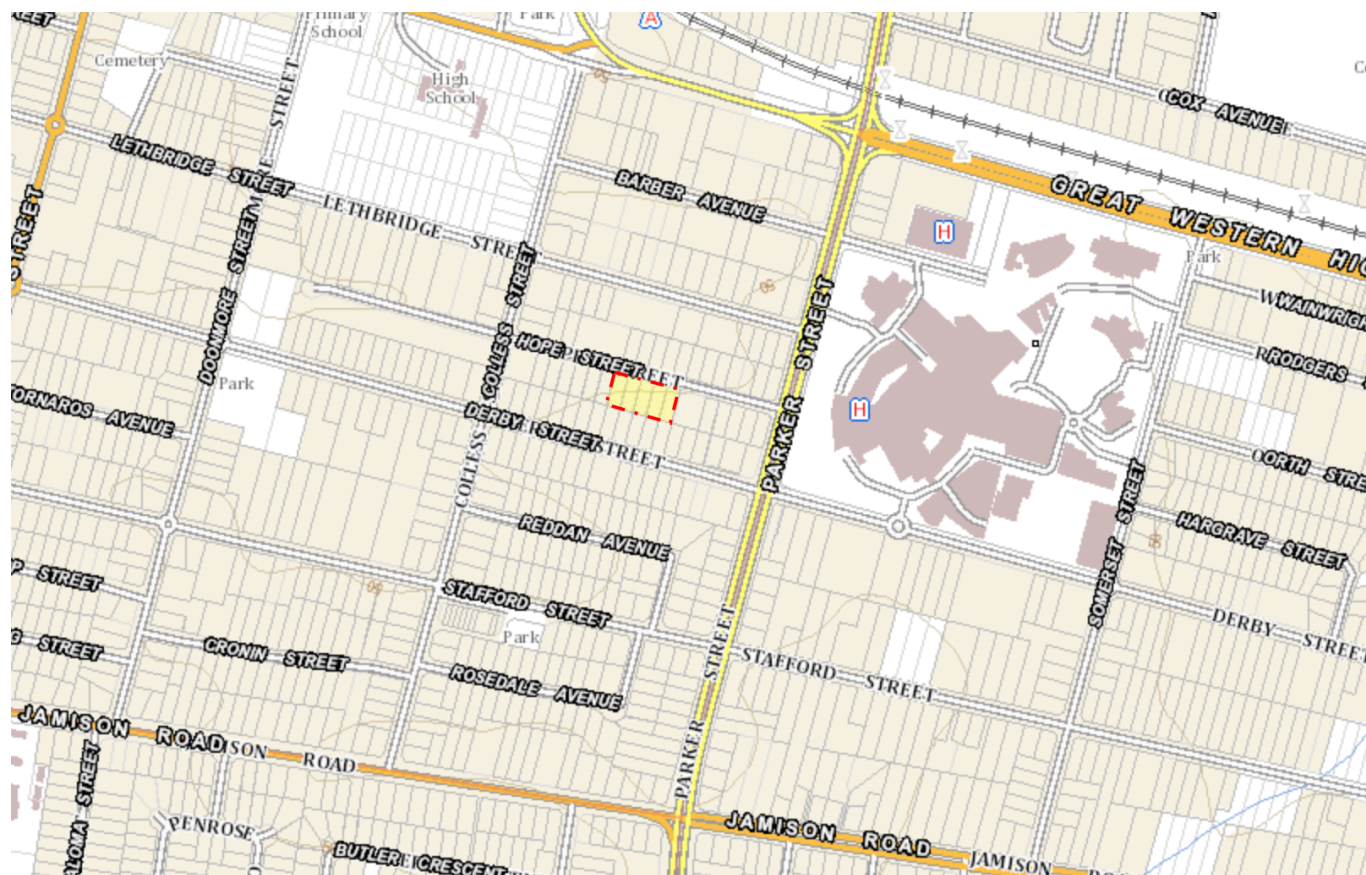
This report should be reproduced in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

Responsibility

Environmental reporting relies on interpretation of factual information using professional judgement and opinion and has a level of uncertainty attached to it, which is much less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. As noted earlier, the recommendations and findings set out in this report should only be regarded as interpretive and should not be taken as accurate and complete information about all environmental media at all depths and locations across the site.

Appendix B – Figures

Drawing 1 – Site Locality: 16-24 Hope St., Penrith NSW



Drawing 2 – Site Boundary: 16-24 Hope St., Penrith NSW



Appendix C – Site Photographs



Photo 1 – Lot 29 – 16 Hope St., Penrith; Front Elevation (View to South off Hope Street); Residential Dwelling on Level Ground with Basic Landscape Treatments to Fore Yard; Hazardous Building Materials Deemed to Exist within Building Fabric of Site Buildings



Photo 2 – Lot 30 – 18 Hope St., Penrith; Front Elevation (View to South off Hope Street); Residential Dwelling on Level Ground with Basic Landscape Treatments to Fore Yard; Hazardous Building Materials Deemed to Exist within Building Fabric of Site Buildings



Photo 3 – Lot 31 – 20 Hope St., Penrith; Front Elevation (View to South off Hope Street); Residential Dwelling on Level Ground with Basic Landscape Treatments to Fore Yard; Hazardous Building Materials Deemed to Exist within Building Fabric of Site Buildings



Photo 4 – Lot 32 – 22 Hope St., Penrith; Front Elevation (View to South off Hope Street); Residential Dwelling on Level Ground with Basic Landscape Treatments to Fore Yard; Hazardous Building Materials Deemed to Exist within Building Fabric of Site Buildings



Photo 5 – Lot 32 – 22 Hope St., Penrith; Rear Elevation (View to North from Lot 34); Residential Dwelling on Level Ground with Basic Landscape Treatments to Rear Yard; Hazardous Building Materials Deemed to Exist within Building Fabric of Site Buildings



Photo 6 – Lot 33 – 24 Hope St., Penrith; Rear Elevation (View to South off Hope Street); Residential Dwelling on Level Ground with Basic Landscape Treatments to Fore Yard; Hazardous Building Materials Deemed to Exist within Building Fabric of Site Buildings



Photo 7 – Lot 33 – 24 Hope St., Penrith; Rear Elevation (View to North); Residential Dwelling on Level Ground with Basic Landscape Treatments to Rear Yard; Hazardous Building Materials Deemed to Exist within Building Fabric of Site Buildings



Photo 8 – Representative Construction Materials Used to Existing Site Buildings; Suspected Asbestos Containing Building Materials (as Fibro Cement Sheeting) Present to Areas of Built Structures at the Site



Photo 9 – Representative Construction Materials Used to Existing Site Buildings; Suspected Lead-Containing Containing Building Materials (as Paint System) Present to Areas of Built Structures at the Site



Photo 10 – Representative Image of Sub-Floor Space to Residential Dwelling at Site; No Evidence of Unnatural Disturbance or Surficial Contamination during Visual Assessment

Appendix D – Site History Search Data



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 07 Apr 2021 10:51:49

Reference: LS019335 EP

Address: 16-24 Hope Street, Penrith, NSW 2750

Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading "LC" or "LocConf". These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Finance, Services & Innovation	19/02/2021	19/02/2021	Quarterly	-	-	-	-
Topographic Data	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	11/03/2021	08/03/2021	Monthly	1000m	0	0	1
Contaminated Land Records of Notice	Environment Protection Authority	07/04/2021	07/04/2021	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority	09/03/2021	11/10/2017	Monthly	1000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	11/02/2021	07/03/2017	Quarterly	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	15/02/2021	13/07/2012	Annually	1000m	0	0	2
EPA PFAS Investigation Program	Environment Protection Authority	12/03/2021	23/11/2020	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	30/03/2021	30/03/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	30/03/2021	30/03/2021	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	29/03/2021	29/03/2021	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	12/03/2021	12/03/2021	Monthly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	02/02/2021	13/12/2018	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	08/03/2021	08/03/2021	Monthly	1000m	0	0	2
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	08/03/2021	08/03/2021	Monthly	1000m	0	0	2
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	08/03/2021	08/03/2021	Monthly	1000m	0	0	3
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	3	4
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	12	17
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	0	3
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	0	81
Points of Interest	NSW Department of Finance, Services & Innovation	18/02/2021	18/02/2021	Quarterly	1000m	0	0	53
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	16/02/2021	16/02/2021	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	16/02/2021	16/02/2021	Quarterly	1000m	0	0	0
Major Easements	NSW Department of Finance, Services & Innovation	17/02/2021	17/02/2021	Quarterly	1000m	0	0	0
State Forest	Forestry Corporation of NSW	25/02/2021	14/02/2021	Annually	1000m	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	22/01/2021	11/12/2020	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000m	1	1	2
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Planning, Industry and Environment	26/10/2020	21/02/2018	Annually	1000m	0	0	0
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000m	0	0	19

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Geological Units 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		Annually	1000m	1	1	2
Geological Structures 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	19/05/2017	17/02/2011	As required	1000m	1	1	2
Soil Landscapes of Central and Eastern NSW	NSW Department of Planning, Industry and Environment	14/10/2020	27/07/2020	Annually	1000m	1	1	1
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	18/03/2021	26/02/2021	Monthly	500m	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	1	1	2
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000m	0	0	0
Dryland Salinity Potential of Western Sydney	NSW Department of Planning, Industry and Environment	12/05/2017	01/01/2002	None planned	1000m	1	1	6
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	16/02/2021	16/02/2021	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Industry	04/03/2021	04/03/2021	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Industry	04/03/2021	04/03/2021	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Industry	04/03/2021	04/03/2021	Monthly	1000m	7	7	7
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	18/03/2021	07/12/2018	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	18/03/2021	12/03/2021	Monthly	1000m	1	2	71
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	23/02/2021	20/11/2019	Quarterly	1000m	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	23/02/2021	20/11/2019	Quarterly	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	15/02/2021	30/11/2020	Quarterly	1000m	0	0	0
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Industry and Environment	18/03/2021	12/03/2021	Monthly	1000m	0	0	22
Bush Fire Prone Land	NSW Rural Fire Service	26/03/2021	11/02/2021	Weekly	1000m	0	0	1
Remnant Vegetation of the Cumberland Plain	NSW Office of Environment & Heritage	07/10/2014	04/08/2011	Unknown	1000m	0	0	7
Ramsar Wetlands of Australia	Australian Government Department of Agriculture, Water and the Environment	24/02/2021	19/03/2020	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Annually	1000m	0	0	1
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000m	0	0	2
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	07/04/2021	07/04/2021	Weekly	10000m	-	-	-

Site Diagram

16-24 Hope Street, Penrith, NSW 2750



Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 3183m²

Total Perimeter: 239m

Disclaimers:

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Scale:

0 10 20
Metres

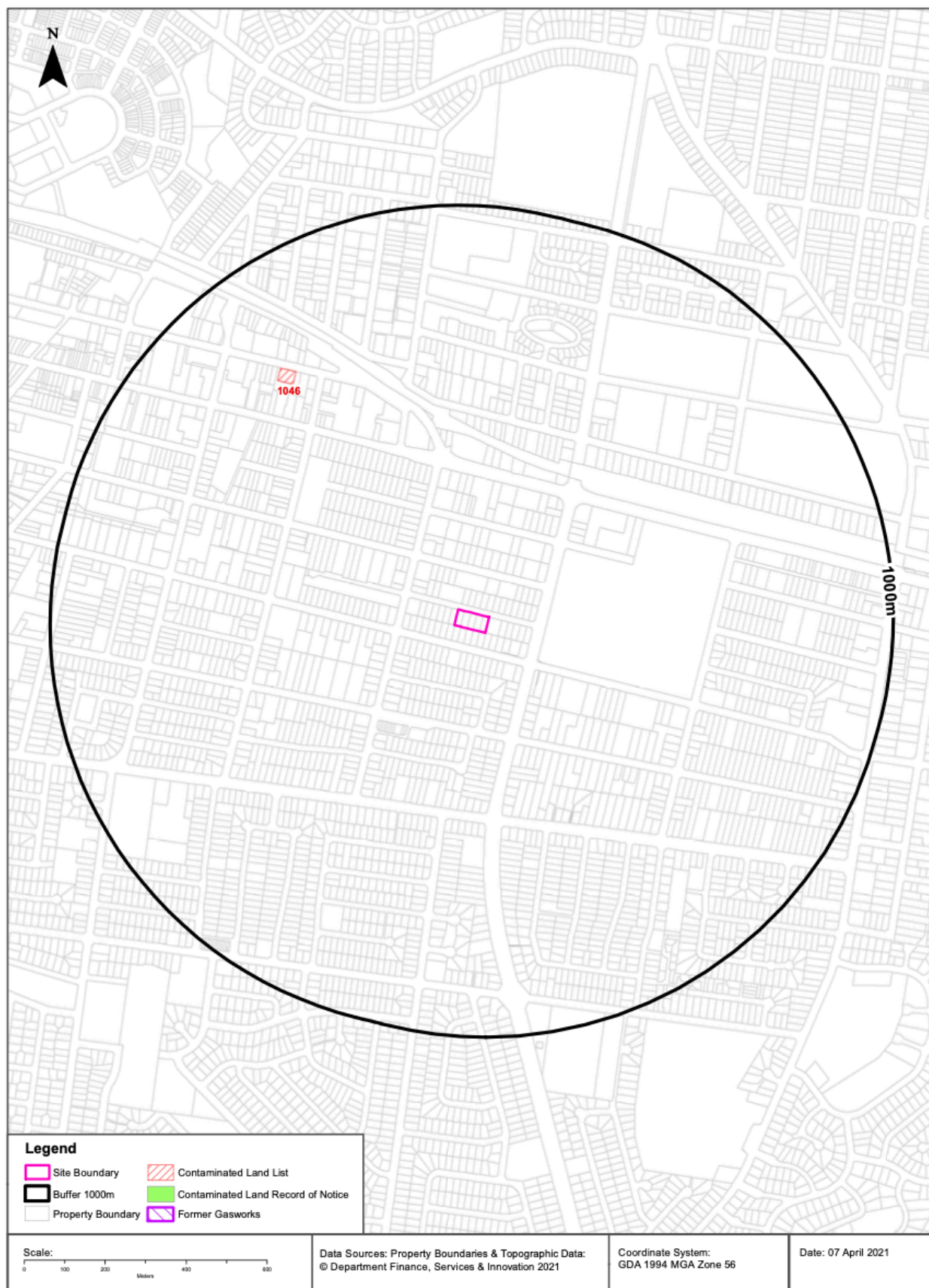
Data Sources: Data Sources: Aerial Imagery:
© Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 56

Date: 07 April 2021

Contaminated Land

16-24 Hope Street, Penrith, NSW 2750



Contaminated Land

16-24 Hope Street, Penrith, NSW 2750

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist	Direction
1046	7-Eleven Service Station Penrith	30 Henry Street	Penrith	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	691m	North West

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Contaminated Land

16-24 Hope Street, Penrith, NSW 2750

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
N/A	No records in buffer							

Contaminated Land Records of Notice Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority
Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit
<http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm>

Former Gasworks

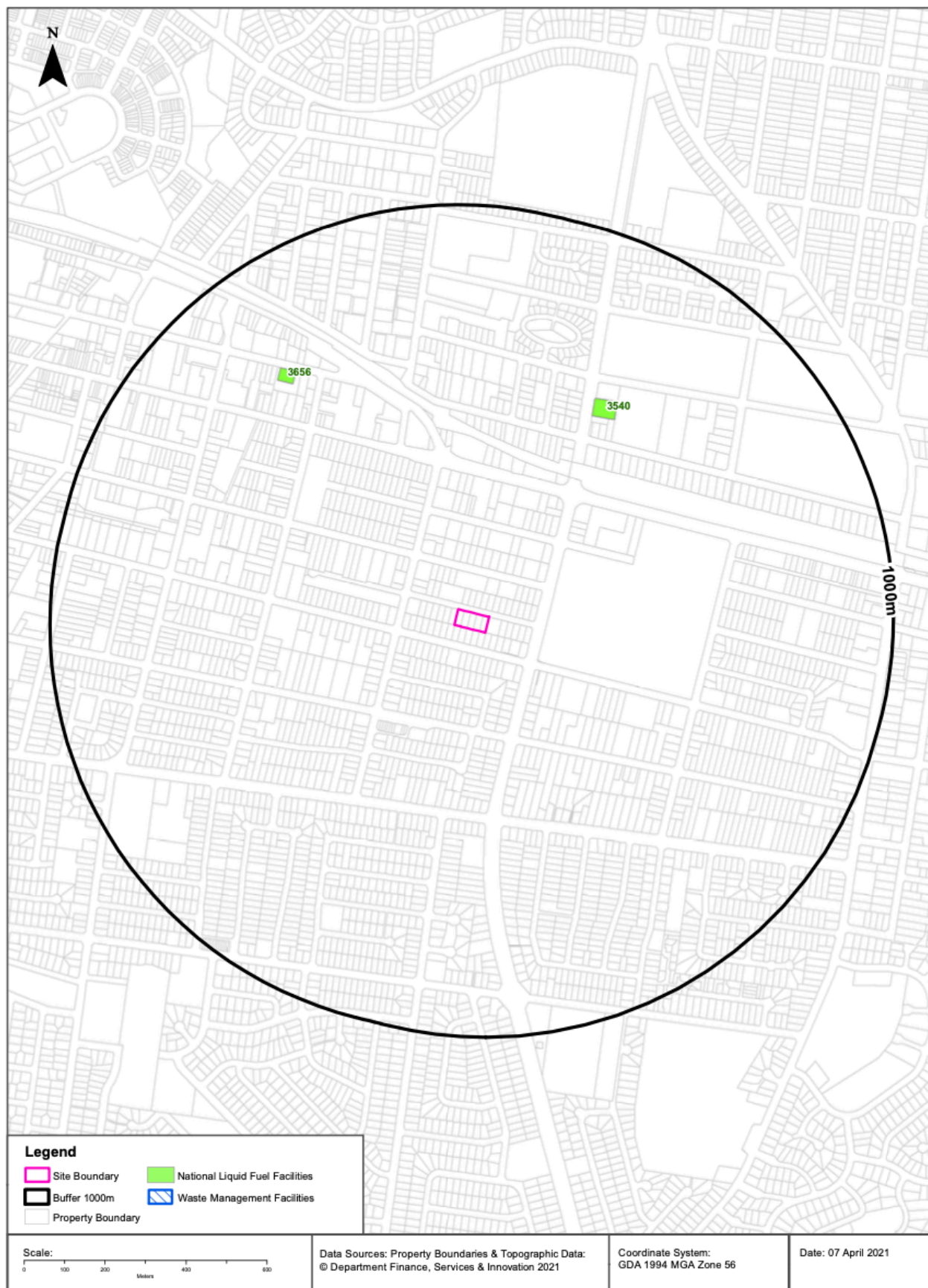
Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Waste Management & Liquid Fuel Facilities

16-24 Hope Street, Penrith, NSW 2750



Waste Management & Liquid Fuel Facilities

16-24 Hope Street, Penrith, NSW 2750

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist	Direction
N/A	No records in buffer											

Waste Management Facilities Data Source: Geoscience Australia

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National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
3540	Caltex	Woolworths Caltex Kingswood	66 Parker Street	Kingswood	Petrol Station	Operational		25/07/2011	Premise Match	559m	North East
3656	7-Eleven Pty Ltd	Penrith	30 Henry Street	Penrith	Petrol Station	Operational		13/07/2012	Premise Match	691m	North West

National Liquid Fuel Facilities Data Source: Geoscience Australia

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PFAS Investigation & Management Programs

16-24 Hope Street, Penrith, NSW 2750

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Map ID	Site	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Defence PFAS Investigation Program

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation Program Data Custodian: Department of Defence, Australian Government

Defence PFAS Management Program

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites

16-24 Hope Street, Penrith, NSW 2750

Defence 3 Year Regional Contamination Investigation Program

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

EPA Other Sites with Contamination Issues

16-24 Hope Street, Penrith, NSW 2750

EPA Other Sites with Contamination Issues

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasminco Lead Abatement Strategy Area

Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Current EPA Licensed Activities

16-24 Hope Street, Penrith, NSW 2750



EPA Activities

16-24 Hope Street, Penrith, NSW 2750

Licensed Activities under the POEO Act 1997

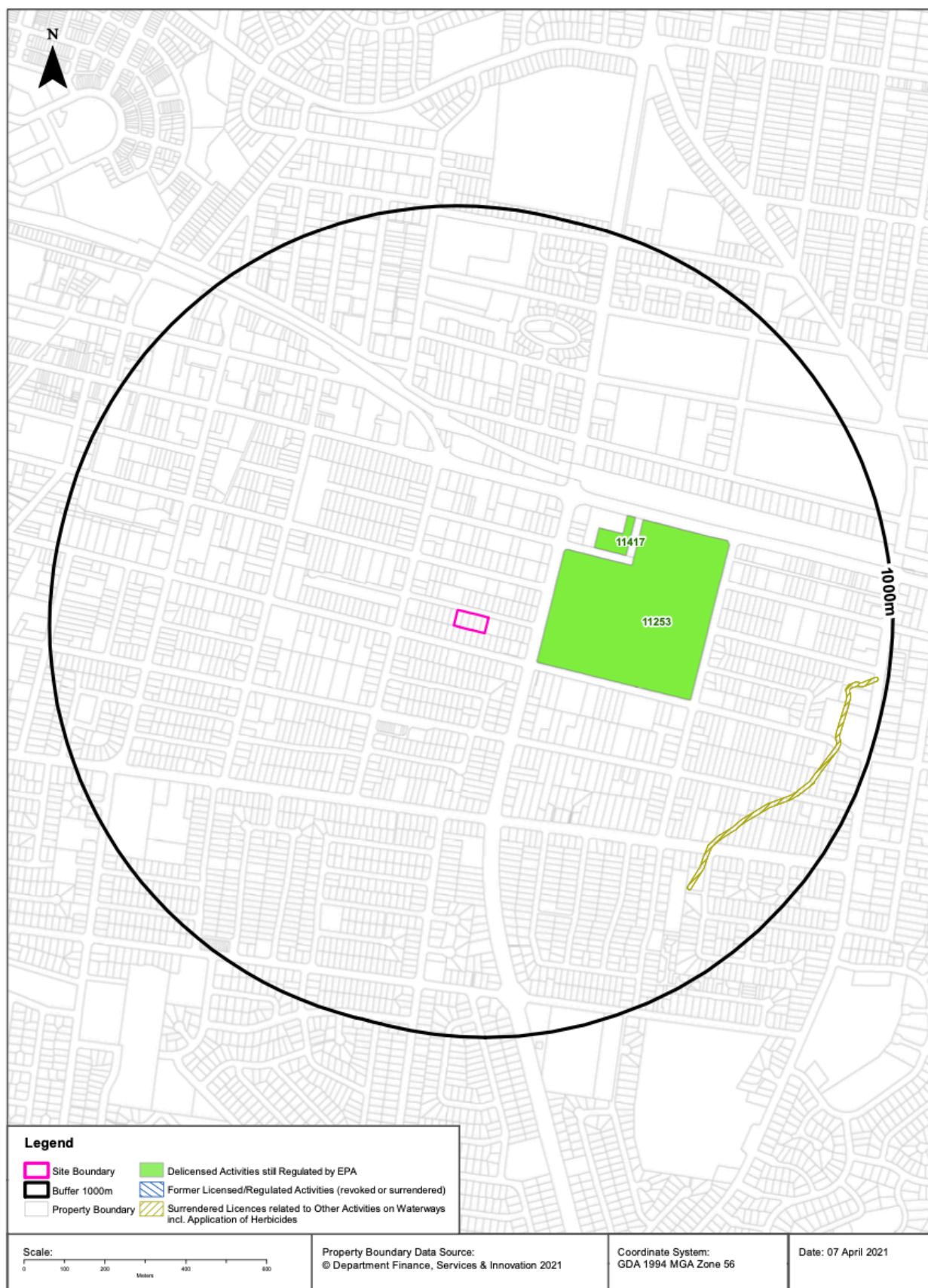
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
12208	SYDNEY TRAINS		SYDNEY TRAINS, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	397m	North
20910	ACCIONA INFRASTRUCTUR E PROJECTS AUSTRALIA PTY LTD		Glenmore Park to Jamison Road, PENRITH SOUTH, NSW 2750		Road construction	Road Match	479m	South

POEO Licence Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Delicensed & Former Licensed EPA Activities

16-24 Hope Street, Penrith, NSW 2750



EPA Activities

16-24 Hope Street, Penrith, NSW 2750

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
11253	SYDNEY WEST AREA HEALTH SERVICE	NEPEAN HOSPITAL	CNR DERBY STREET AND PARKER STREET	KINGSWOOD	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	141m	East
11417	HEALTHSCOPE OPERATIONS PTY LTD	NEPEAN PRIVATE HOSPITAL	9 Barber Avenue	KINGSWOOD	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	313m	North East

Delicensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

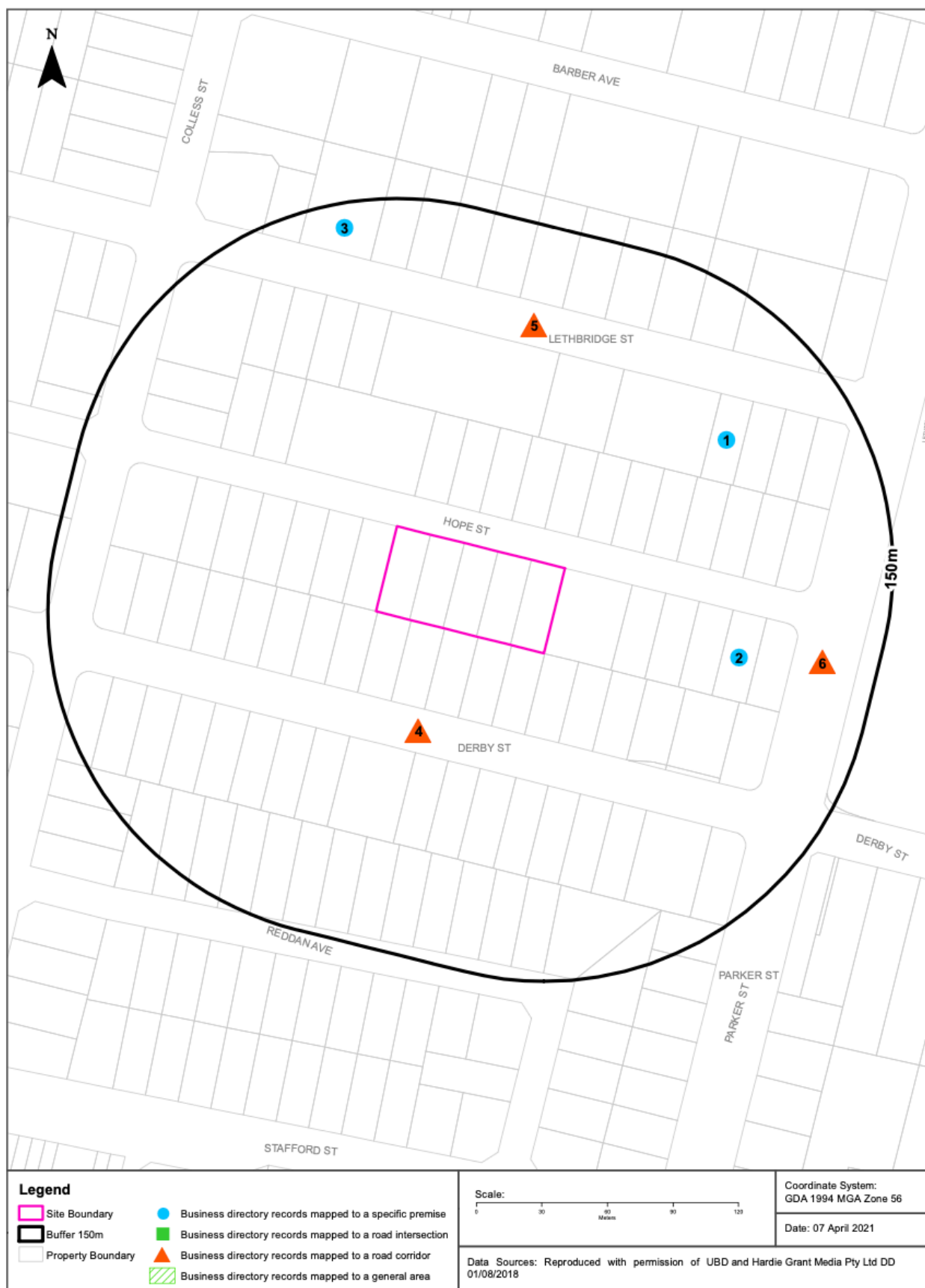
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	762m	South East
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	762m	South East
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	762m	South East

Former Licensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Historical Business Directories

16-24 Hope Street, Penrith, NSW 2750



Historical Business Directories

16-24 Hope Street, Penrith, NSW 2750

Business Directory Records 1950-1991 Premise or Road Intersection Matches

Universal Business Directory records from years 1991, 1986, 1982, 1970, 1961 & 1950, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	PEST CONTROL	Houghton & Byrne Pty. Ltd., 8 Lethbridge St. Penrith	536101	1970	Premise Match	74m	North East
2	FLOOR SANDING &/OR POLISHING CONTRACTORS.	Emu Plains Floor Sanding Service, 4 Hope St., Penrith. 2750	33555	1986	Premise Match	79m	East
	FLOOR SANDING &/OR POLISHING CONTRACTORS. (F3975)	Emu Plains Floor Sanding Service, 4 Hope St., Penrith. 2750.	31311	1982	Premise Match	79m	East
3	CHAIN SAWS	CARNEY D & M., 31 LETHBRIDGE ST., PENRITH, 2750	279052	1970	Premise Match	122m	North

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Business Directory Records 1950-1991 Road or Area Matches

Universal Business Directory records from years 1991, 1986, 1982, 1970, 1961 & 1950, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
4	GRAVEL, SAND & SOIL SUPPLIES	Randell, L. G. and E. J., Derby St. Penrith	535898	1970	Road Match	38m
	GRAVEL, SAND & SOIL SUPPLIES	Randell, L. G. and E. J., Derby St., Penrith	222390	1961	Road Match	38m
	CONCRETE CONTRACTORS	Trask, J. H., Derby St. Penrith	151108	1950	Road Match	38m
	PLASTERERS	Trask, J. H., Derby St. Penrith	151436	1950	Road Match	38m
5	CARRIERS & CARTAGE CONTRACTORS	Fragar, J. D., 189 Lethbridge St., Penrith	222249	1961	Road Match	95m
	FURNITURE & FURNISHINGS-RETAIL	Heavey, J. C., 194 Lethbridge St., Penrith	222374	1961	Road Match	95m
	FURNITURE DEALERS	Heavey, J. C., 194 Lethbridge St. Penrith	151191	1950	Road Match	95m
	BUILDERS & BUILDING CONTRACTORS	Light, J. V., 231 Lethbridge St. Penrith	151005	1950	Road Match	95m
	PAINTERS, PAPERHANGERS & DECORATORS	Peerless, R., Lethbridge St. Penrith	151429	1950	Road Match	95m
	BUILDERS' SUPPLIES	Ritchie, K., 195 Lethbridge St. Penrith	151024	1950	Road Match	95m
	GRAVEL, SAND & SHINGLE MERCHANTS	Ritchie, K., 195 Lethbridge St. Penrith	151205	1950	Road Match	95m
	HAULAGE CONTRACTORS	Ritchie, K., 195 Lethbridge St. Penrith	151245	1950	Road Match	95m
6	MOTOR HIRE SERVICES-DRIVE YOURSELF &/OR RENTAL.	Presketts Car & Truck Rental, Parker St., Penrith. 2750	65898	1986	Road Match	111m
	FURNITURE REMOVALISTS &/OR STORAGE.	Presketts Removal & Storage Pty. Ltd., Parker St., Penrith. 2750	38074	1986	Road Match	111m
	MOTOR HIRE SERVICES - DRIVE YOURSELF &/OR RENTAL. (M6960)	Presketts Car & Truck Rental, Parker St., Penrith. 2750.	57968	1982	Road Match	111m
	FURNITURE REMOVALISTS &/OR STORAGE. (F8900)	Presketts Removal & Storage Pty. Ltd., Parker St., Penrith. 2750.	35486	1982	Road Match	111m
	SCHOOLS & COLLEGES-PRIVATE & PUBLIC	St. Dominic's College (Boys), Parker St. Penrith	536138	1970	Road Match	111m

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Dry Cleaners, Motor Garages & Service Stations

16-24 Hope Street, Penrith, NSW 2750



Historical Business Directories

16-24 Hope Street, Penrith, NSW 2750

Dry Cleaners, Motor Garages & Service Stations 1948-1993 Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Roberts. M., 68 Cox Ave., Kingswood. 2750.	57477	1982	Premise Match	489m	North East
2	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Nepean Tuck Shop, 217 High St., Penrith	222579	1961	Premise Match	500m	North West
	MOTOR SERVICE STATIONS	Ward and Peters, 217 High St. Penrith	151403	1950	Premise Match	500m	North West

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Dry Cleaners, Motor Garages & Service Stations 1948-1993 Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
3	MOTOR GARAGES & ENGINEERS	Ward's Motors Pty. Ltd., Great Western Hwy. Penrith	536052	1970	Road Match	330m
	MOTOR GARAGES & ENGINEERS	Ward's Motors Pty. Ltd., Great Western Highway., Penrith	222561	1961	Road Match	330m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Ward's Motors Pty. Ltd., Great Western Highway., Penrith	222581	1961	Road Match	330m
	MOTOR GARAGES & ENGINEERS	McCleary Motors, Western Rd. Penrith	151376	1950	Road Match	330m
4	MOTOR GARAGES & SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	5967	1990	Road Match	361m
	MOTOR GARAGES & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	11922	1990	Road Match	361m
	MOTOR GARAGE & SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	64464	1989	Road Match	361m
	MOTOR GARAGE & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	5331	1989	Road Match	361m
	MOTOR GARAGES & SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	53567	1988	Road Match	361m
	MOTOR GARAGES & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	59701	1988	Road Match	361m
	MOTOR GARAGES & SERVICE STATIONS.	Barrett, Ron Pty Ltd., 645 High St., Penrith. 2750	64018	1986	Road Match	361m
	MOTOR GARAGES & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	65177	1986	Road Match	361m
	MOTOR GARAGES & SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	39037	1985	Road Match	361m
	MOTOR GARAGES & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	45279	1985	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	27643	1984	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	33854	1984	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith 2750	9004	1983	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Nepean Auto Port., High St., Penrith 2750	15205	1983	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Barrett, Ron Pty. Ltd., 645 High St., Penrith. 2750.	56096	1982	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Nepean Auto Port, High St., Penrith. 2750.	57283	1982	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett, Ron Pty. Ltd., 645 High St., Penrith. 2750	63766	1981	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Nepean Auto Port., High St., Penrith 2750	3840	1981	Road Match	361m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
4	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett, Ron Pty. Ltd., 645 High St., Penrith. 2750	50237	1980	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Nepean Auto Port., High St., Penrith. 2750	58584	1980	Road Match	361m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750.	40865	1979	Road Match	361m
	MOTOR GARAGES & ENGINEERS	Barrett, Ron Pty. Ltd., 645-649 High St. Penrith	536046	1970	Road Match	361m
	MOTOR GARAGES & ENGINEERS	Barrett, Ron Pty. Ltd., 645-649 High St., Penrith	222552	1961	Road Match	361m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Wood, K., High St., Penrith	222583	1961	Road Match	361m
	MOTOR GARAGES & ENGINEERS	Wood, Ken, High St., Penrith	222563	1961	Road Match	361m
5	MOTOR GARAGES & SERVICE STATIONS.	Golden Fleece Kingswood Service Station, Great Western Hwy, Kingswood. 2747	11639	1990	Road Match	366m
	MOTOR GARAGES & SERVICE STATIONS.	Kingswood Auto Port, Great Western Hwy, Kingswood. 2747	11752	1990	Road Match	366m
	MOTOR GARAGE & SERVICE STATIONS.	Golden Fleece Kingswood Service Station, Great Western Hwy, Kingswood. 2750	65114	1989	Road Match	366m
	MOTOR GARAGE & SERVICE STATIONS.	Kingswood Auto Port, Great Western Hwy, Kingswood. 2750	5150	1989	Road Match	366m
	MOTOR GARAGES & SERVICE STATIONS.	Golden Fleece Kingswood Service Station, Great Western Hwy, Kingswood. 2750	59347	1988	Road Match	366m
	MOTOR GARAGES & SERVICE STATIONS.	Kingswood Auto Port, Great Western Hwy, Kingswood. 2750	59500	1988	Road Match	366m
	MOTOR GARAGES & SERVICE STATIONS.	Golden Fleece Kingswood Service Station, Great Western H'way., Kingswood. 2750	64765	1986	Road Match	366m
	MOTOR GARAGES & SERVICE STATIONS.	Kingswood Auto Port, Great Western H'way., Kingswood. 2750	64956	1986	Road Match	366m
	MOTOR GARAGES & SERVICE STATIONS.	Golden Fleece Kingswood Service Station, Great Western Hwy, Kingswood. 2750	39774	1985	Road Match	366m
	MOTOR GARAGES & SERVICE STATIONS.	Kingswood Auto Port, Great Western Hwy, Kingswood. 2750	45058	1985	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Kingswood Service Station, Great Western Hwy, Kingswood. 2750	28352	1984	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kingswood Auto Port, Great Western Hwy, Kingswood. 2750	28557	1984	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Kingswood Service Station., Great Western H'way., Kingswood. 2750	14775	1983	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kingswood Auto Port., Great Western H'way., Kingswood. 2750	14988	1983	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Golden Fleece Kingswood Service Station, Great Western H'way., Kingswood. 2750.	56837	1982	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Golden Fleece Kingswood Service Station, Great Western H'way., Kingswood. 2750.	56836	1982	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Kingswood Auto Port, Great Western H'way., Kingswood. 2750.	57058	1982	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Kingswood Service Station., Great Western H'way., Kingswood 2750	3397	1981	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Kingswood Service Station., Great Western H'way., Kingswood 2750	3396	1981	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Kingswood. Service Station., Great Western H'way., Kingswood 2750	3395	1981	Road Match	366m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
5	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kingswood Auto Port., Great Western H'way., Kingswood 2750	3609	1981	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Kingswood Service Station., Great Western Highway., Kingswood. 2750	58130	1980	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Kingswood Service Station., Great Western Highway., Kingswood. 2750	58129	1980	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kingswood Auto Port., Great Western H'way., Kingswood. 2750	58344	1980	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Service Station., Great Western Highway., Kingswood. 2750.	41599	1979	Road Match	366m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kingswood Auto Port., Great Western Highway., Kingswood. 2750.	41806	1979	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great Western Hghwy., Kingswood	16811	1972	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great Western Hghwy., Kingswood	2275	1971	Road Match	366m
	MOTOR GARAGES & ENGINEERS	Beattie, R. & Co., Great Western Hghwy. Kingswood	535551	1970	Road Match	366m
	MOTOR GARAGES & ENGINEERS	Golden Fleece Service Station, Great Western Hghwy. Kingswood	535552	1970	Road Match	366m
	MOTOR SERVICE STATIONS, PETROL, OILS, Etc.	Kingswood Auto Port, Great Western Hghwy. Kingswood	535557	1970	Road Match	366m
	MOTOR SERVICE STATIONS, PETROL, OILS, Etc.	Kingswood Tyre Service, Great Western Hghwy. Kingswood	535558	1970	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Kingswood Tyre Service., Great Western Hghwy., KINGSWOOD	341256	1970	Road Match	366m
	MOTOR SERVICE STATIONS, PETROL, OILS, Etc.	Towns, L. R., Great Western Hghwy. Kingswood	535559	1970	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great Western Hghwy Kingswood	50361	1969	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great Western Hghwy., Kingswood	31377	1968	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great Western Hghwy., Kingswood	15851	1967	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great Western Hghwy., Kingswood	1425	1966	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great Western Hghwy., Kingswood	52094	1964	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great western Hghwy., Kingswood	65431	1962	Road Match	366m
	MOTOR GARAGES & ENGINEERS	Beattie, R. & Co., Great Western Highway., Kingswood	211435	1961	Road Match	366m
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Kingswood Tyre Service, Great Western Hghwy. Kingswood	350757	1961	Road Match	366m
	MOTOR SERVICE STATIONS, PETROL, Etc.	Towns, L. R., Great Western Highway., Kingswood	211437	1961	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Kingswood Tyre Service., Great Western Hghwy., Kingswood	24272	1959	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Kingswood Tyre Service., Western Hghwy., Kingswood	9625	1958	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Kingswood Tyre Service., Great Western Hghwy., Kingswood	61982	1956	Road Match	366m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
5	MOTOR SERVICE STATIONS-PETROL, ETC.	Kingswood Tyre Service., Western Hghwy., Kingswood	54535	1954	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Kingswood Tyre Service., Western Hghwy., Kingswood	44114	1953	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Kingswood Tyre Service., Western Hghwy., Kingswood	35888	1952	Road Match	366m
	MOTOR SERVICE STATIONS-PETROL, Etc.	Kingswood Tyre Service, Western Highway., Kingswood	86110	1950	Road Match	366m
6	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kingswood Smash Repairs., Cox Ave., Kingswood. 2750.	45862	1979	Road Match	492m
	MOTOR GARAGES & ENGINEERS	Kingswood Smash & Body Repairs, Cox Ave. Kingswood	535554	1970	Road Match	492m

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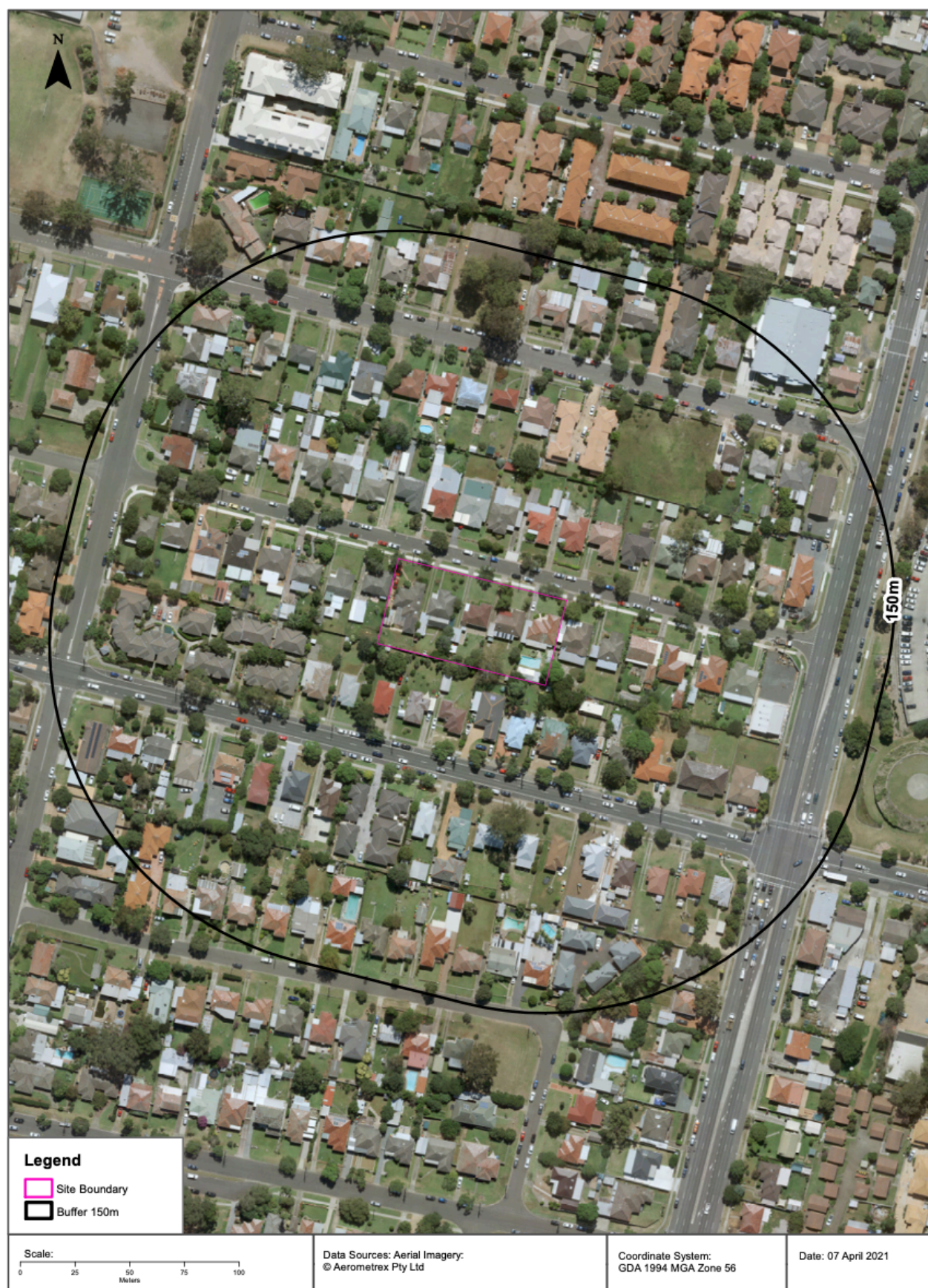
Aerial Imagery 2020

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 2015

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 2009

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 2005

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 2000

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1994

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1991

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1986

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1982

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1978

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1970

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1965

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1961

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1956

16-24 Hope Street, Penrith, NSW 2750



Aerial Imagery 1949

16-24 Hope Street, Penrith, NSW 2750



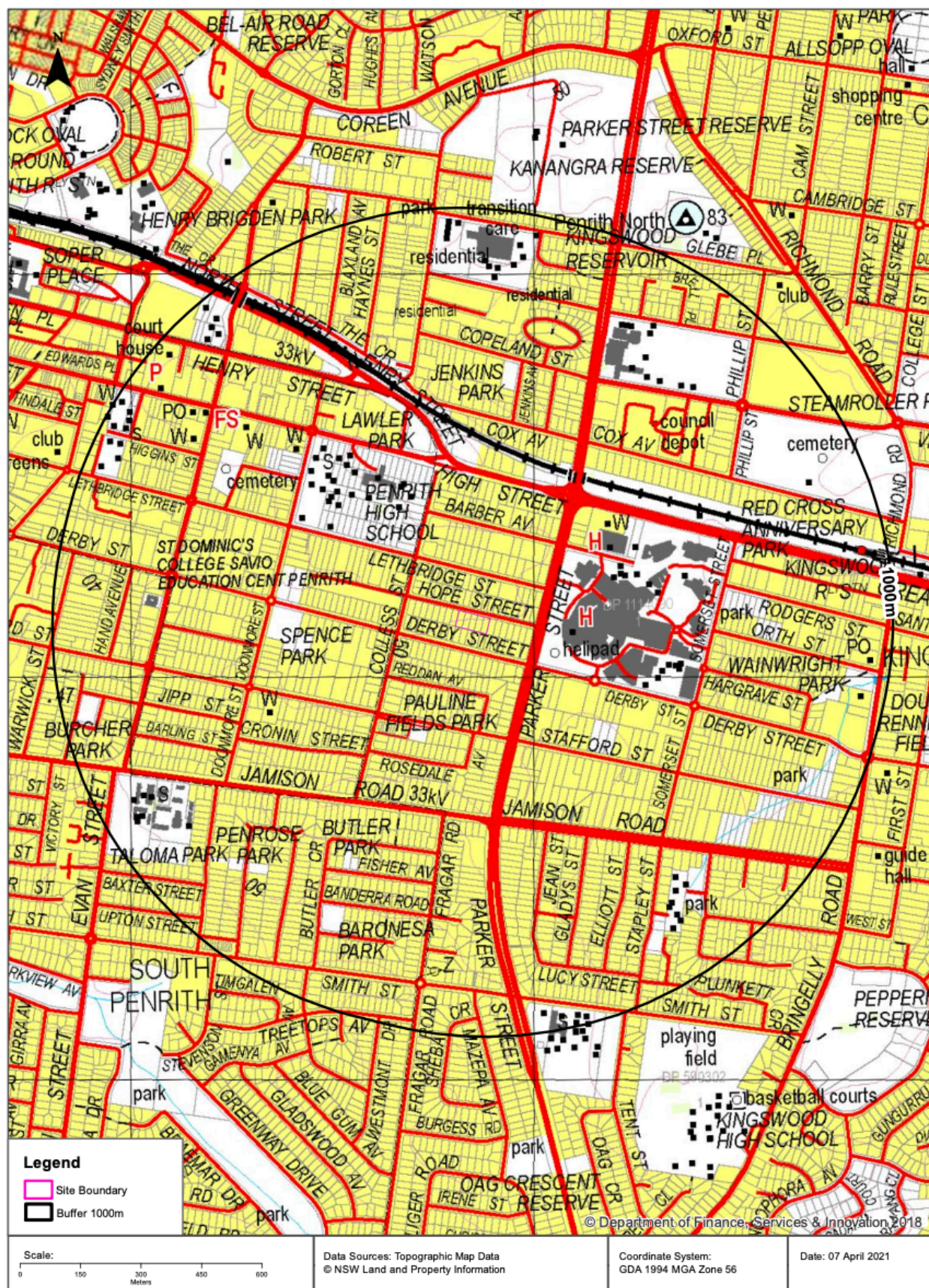
Aerial Imagery 1943

16-24 Hope Street, Penrith, NSW 2750



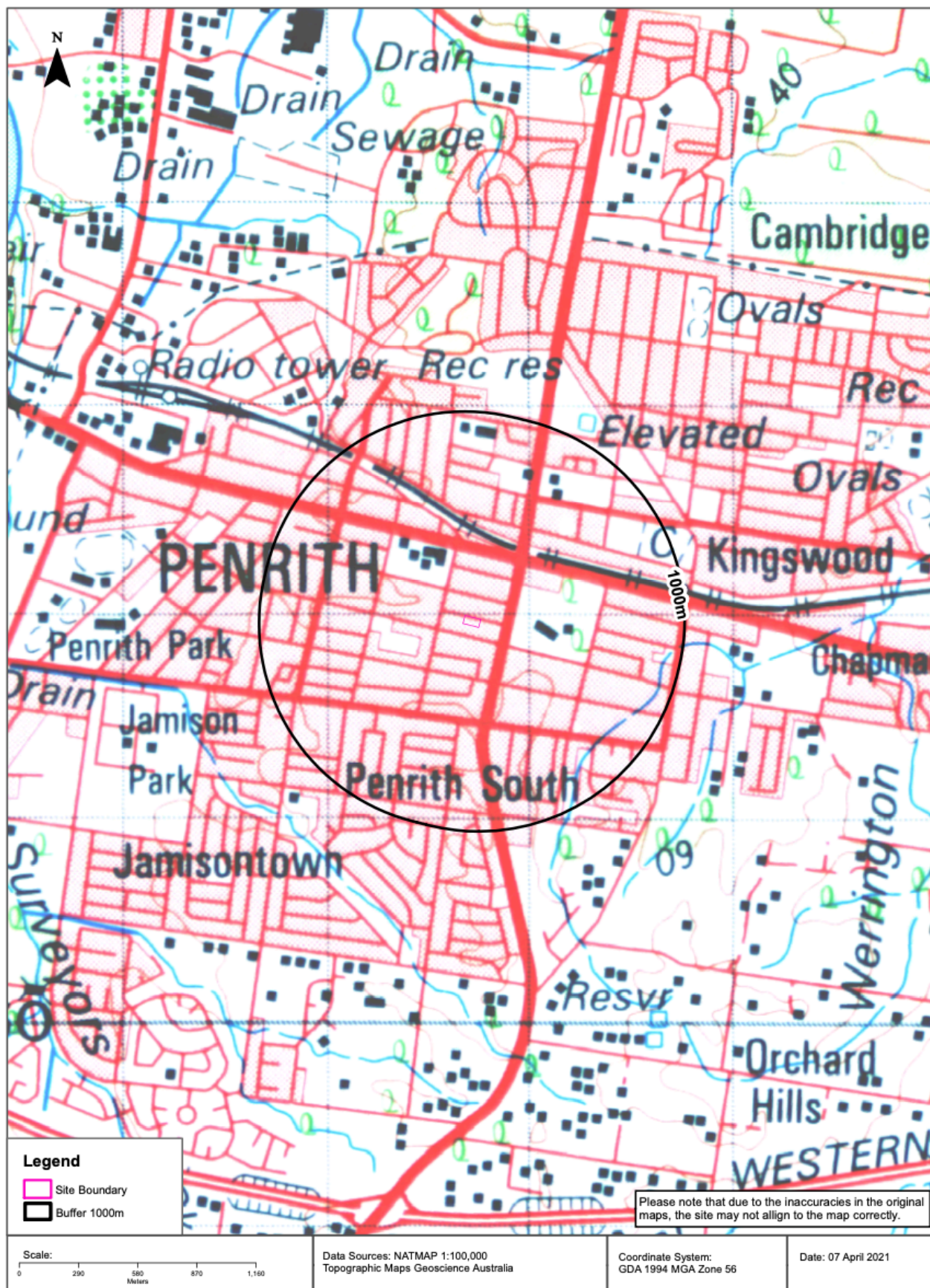
Topographic Map 2015

16-24 Hope Street, Penrith, NSW 2750



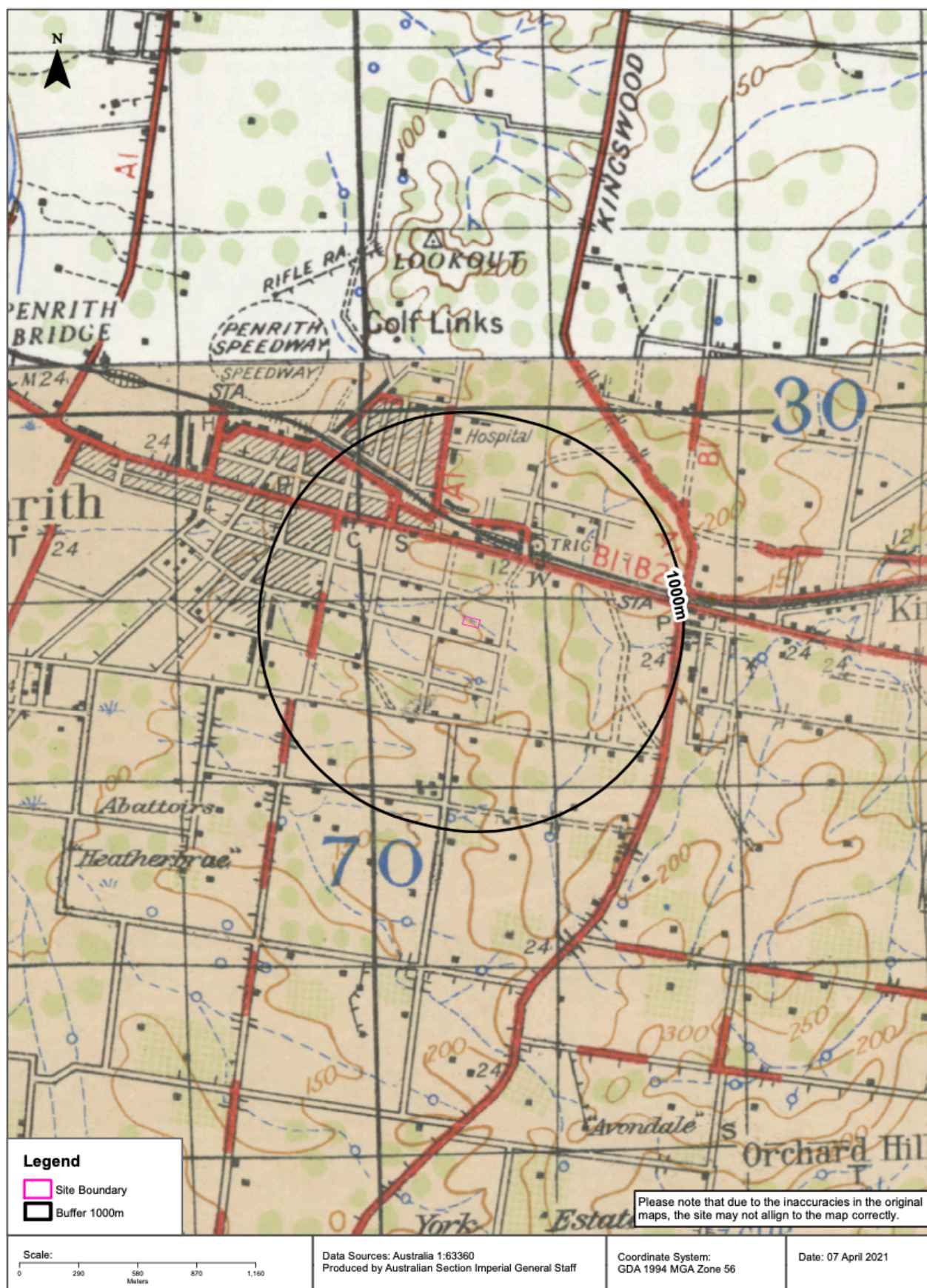
Historical Map 1975

16-24 Hope Street, Penrith, NSW 2750



Historical Map 1942 - 1942

16-24 Hope Street, Penrith, NSW 2750

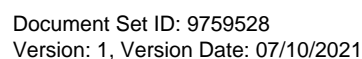


Historical Map 1929 - 1929

16-24 Hope Street, Penrith, NSW 2750



16-24 Hope Street, Penrith, NSW 2750



Topographic Features

16-24 Hope Street, Penrith, NSW 2750

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
93282	Parking Area	Parking Area	166m	East
93540	Helipad	Helipad	177m	East
92794	General Hospital	NEPEAN HOSPITAL	206m	East
93101	Park	PAULINE FIELDS PARK	288m	South West
93654	General Hospital	NEPEAN PRIVATE HOSPITAL	346m	North East
93047	Place Of Worship	BAPTIST CHURCH	374m	North East
93166	High School	PENRITH HIGH SCHOOL	386m	North West
93356	Ambulance Station	PENRITH SUPERSTATION AMBULANCE STATION	401m	North
92862	Park	LAWLER PARK	430m	North
92808	Park	SPENCE PARK	437m	West
93530	Community Medical Centre	TRESILLIAN FAMILY CARE CENTRE KINGSWOOD	460m	East
93283	Parking Area	Parking Area	474m	East
93048	Place Of Worship	CHURCH OF CHRIST	508m	South West
93284	Parking Area	Parking Area	510m	East
93569	Parking Area	Parking Area	517m	East
93119	Primary School	PENRITH PUBLIC SCHOOL	525m	North West
93049	Place Of Worship	PRESBYTERIAN CHURCH	570m	North West
92857	Park	JENKINS PARK	586m	North
93375	Parking Area	Parking Area	611m	East
92931	Park	RED CROSS ANNIVERSARY PARK	635m	East
92858	Park	BUTLER PARK	641m	South West
93359	Park	Park	661m	East
92846	Cemetery	ST STEPHEN THE MARTYR CEMETERY	676m	North West
92944	Place Of Worship	ANGLICAN CHURCH	698m	North West
92798	Combined Primary-Secondary School	ST DOMINIC'S COLLEGE	715m	North East
93637	Nursing Home	UNITING EDINGLASSIE LODGE PENRITH	727m	North
93652	Community Home	LEMONGROVE GARDENS HOSTEL	763m	North
92868	Park	PENROSE PARK	780m	South West
92704	Retirement Village	LEMONGROVE GARDENS	781m	North
92903	Place Of Worship	UNITING CHURCH	786m	North West
92859	Park	BARONESA PARK	796m	South West

Map Id	Feature Type	Label	Distance	Direction
92769	Fire Station	PENRITH FIRE STATION	799m	North West
92867	Park	TALOMA PARK	812m	South West
92852	Park	Park	822m	South East
92896	Post Office	PENRITH POST BUSINESS CENTRE	825m	North West
93117	Primary School	PENRITH SOUTH PUBLIC SCHOOL	865m	South West
92946	Park	Park	890m	South East
93281	Parking Area	Parking Area	901m	North West
92793	Community Home	GOVERNOR PHILLIP MANOR	902m	North
93004	Park	WAINWRIGHT PARK	902m	East
93708	Nursing Home	NEPEAN AGED COMMUNITY BASED TRANSITIONAL AGED CARE	905m	North
92783	Cemetery	PENRITH CEMETERY	917m	North East
93533	Community Medical Centre	LEMONGROVE COMMUNITY HEALTH CENTRE	924m	North
92768	Police Station	PENRITH POLICE STATION	924m	North West
93188	Community Facility	KINGSWOOD NEIGHBOURHOOD CENTRE	939m	East
92760	Railway Station	KINGSWOOD RAILWAY STATION	939m	East
92851	Park	BURCHER PARK	940m	West
93132	Primary School	ST NICHOLAS OF MYRA PRIMARY SCHOOL	944m	North West
92774	Post Office	KINGSWOOD POST OFFICE	949m	East
92894	Court House	PENRITH COURT HOUSE	960m	North West
93217	Park	Park	977m	North
93659	Suburb	KINGSWOOD	978m	East
92895	Place Of Worship	CATHOLIC CHURCH	985m	North West

Topographic Data Source: © Land and Property Information (2015)
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Topographic Features

16-24 Hope Street, Penrith, NSW 2750

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks (Points)

What are the Tank Points located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks Data Source: © Land and Property Information (2015)

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Major Easements

What Major Easements exist within the dataset buffer?

Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
N/A	No records in buffer				

Easements Data Source: © Land and Property Information (2015)

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Topographic Features

16-24 Hope Street, Penrith, NSW 2750

State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018)
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National Parks and Wildlife Service Reserves

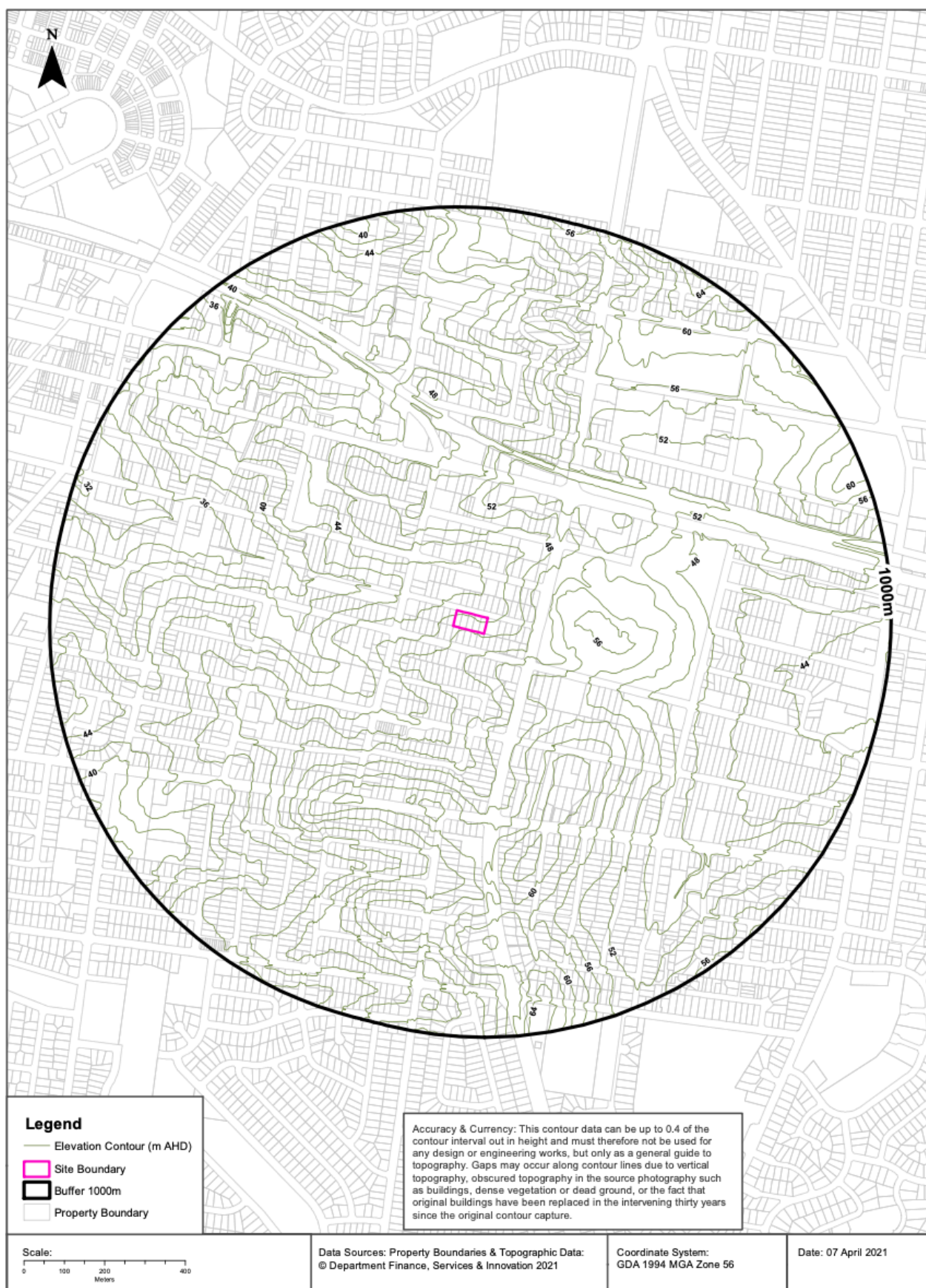
What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

NPWS Data Source: © NSW Department of Finance, Services & Innovation (2018)
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Elevation Contours (m AHD)

16-24 Hope Street, Penrith, NSW 2750



Hydrogeology & Groundwater

16-24 Hope Street, Penrith, NSW 2750

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive highly productive aquifers	0m	On-site
Porous, extensive aquifers of low to moderate productivity	959m	South East

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
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Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

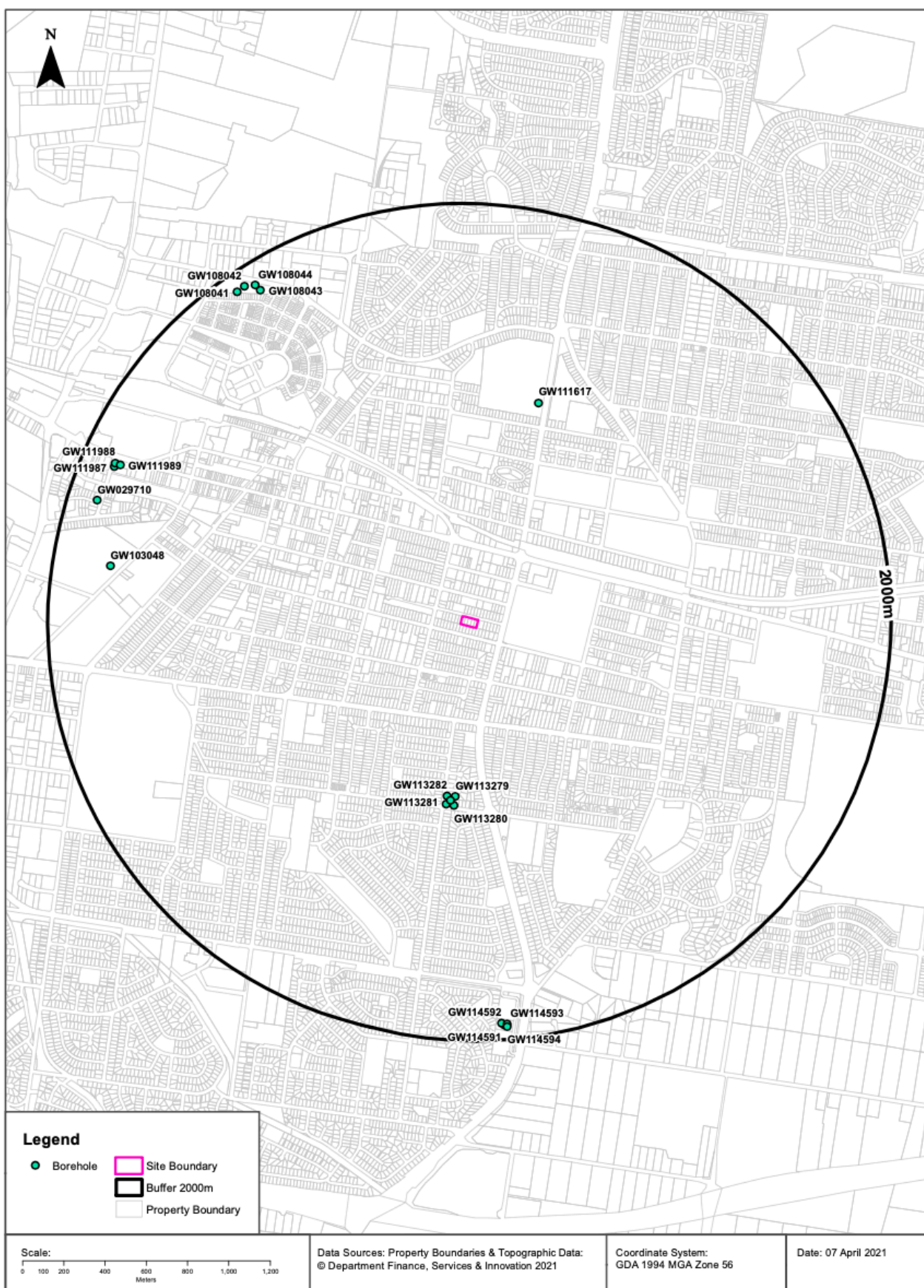
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

Prohibition Area No.	Prohibition	Distance	Direction
N/A	No records in buffer		

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018 Data Source : NSW Department of Primary Industries

Groundwater Boreholes

16-24 Hope Street, Penrith, NSW 2750



Hydrogeology & Groundwater

16-24 Hope Street, Penrith, NSW 2750

Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m bgl)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW113 279	10BL601 835	Bore	Local Govt	Monitoring Bore	Monitoring Bore	The Prospect CC	02/05/2007	7.50	7.50					824m	South
GW113 282	10BL601 835	Bore	Local Govt	Monitoring Bore	Monitoring Bore	The Prospect CC	02/05/2007	7.00	7.00					827m	South
GW113 283	10BL601 835	Bore	Local Govt	Monitoring Bore	Monitoring Bore	The Prospect CC	02/05/2007	2.80	2.80					844m	South
GW113 281	10BL601 835	Bore	Local Govt	Monitoring Bore	Monitoring Bore	The Prospect CC	02/05/2007	2.85	2.85					866m	South
GW113 280	10BL601 835	Bore	Local Govt	Monitoring Bore	Monitoring Bore	The Prospect CC	02/05/2007	8.20	8.20					868m	South
GW111 617	10BL604 801, 10BL604 802, 10WA11 7803	Bore	Local Govt	Recreation (groundwater), Test Bore	Recreation (groundwater)		20/10/2011	210.00	210.00	2600	69.00	1.120		1090m	North
GW103 048	10BL141 316, 10WA11 2767	Bore		Industrial, Recreation (groundwater)	Recreation (groundwater)		01/01/1990	8.00	8.00		6.00	1.000		1718m	West
GW111 989	10BL603 225	Well	Private	Monitoring Bore	Monitoring Bore		24/03/2010	9.00	9.00					1812m	North West
GW111 987	10BL603 225	Well	Private	Monitoring Bore	Monitoring Bore		24/03/2010	9.00	9.00					1833m	North West
GW111 988	10BL603 225	Well	Private	Monitoring Bore	Monitoring Bore		24/03/2010	9.00	9.00					1837m	North West
GW029 710	10BL018 657, 10WA11 2614	Well	Private	Domestic	General Use		01/04/1969	7.90	7.90					1855m	West
GW108 043	10BL600 263	Bore		Monitoring Bore	Monitoring Bore		22/04/2006	9.00	9.00		6.80			1857m	North West
GW108 044	10BL600 263	Bore		Monitoring Bore	Monitoring Bore		22/04/2006	9.50	9.50		6.60			1891m	North West
GW108 041	10BL600 263	Bore		Monitoring Bore	Monitoring Bore		12/04/2006	7.50	7.50		6.70			1912m	North West
GW108 042	10BL600 263	Bore		Monitoring Bore	Monitoring Bore		22/04/2006	8.00	8.00		6.40			1914m	North West
GW114 592	10BL604 457	Bore	Private	Monitoring Bore	Monitoring Bore		12/01/2011	8.00	8.00					1919m	South
GW114 593	10BL604 457	Bore	Private	Monitoring Bore	Monitoring Bore		12/01/2011	7.50	7.50					1925m	South
GW114 591	10BL604 457	Bore	Private	Monitoring Bore	Monitoring Bore		12/01/2011	7.00	7.00					1928m	South
GW114 594	10BL604 457	Bore	Private	Monitoring Bore	Monitoring Bore		12/01/2011	7.00	7.00					1938m	South

Borehole Data Source : NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corporation for all bores prefixed with GW. All other bores © Commonwealth of Australia (Bureau of Meteorology) 2015. Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Hydrogeology & Groundwater

16-24 Hope Street, Penrith, NSW 2750

Driller's Logs

Drill log data relevant to the boreholes within the dataset buffer:

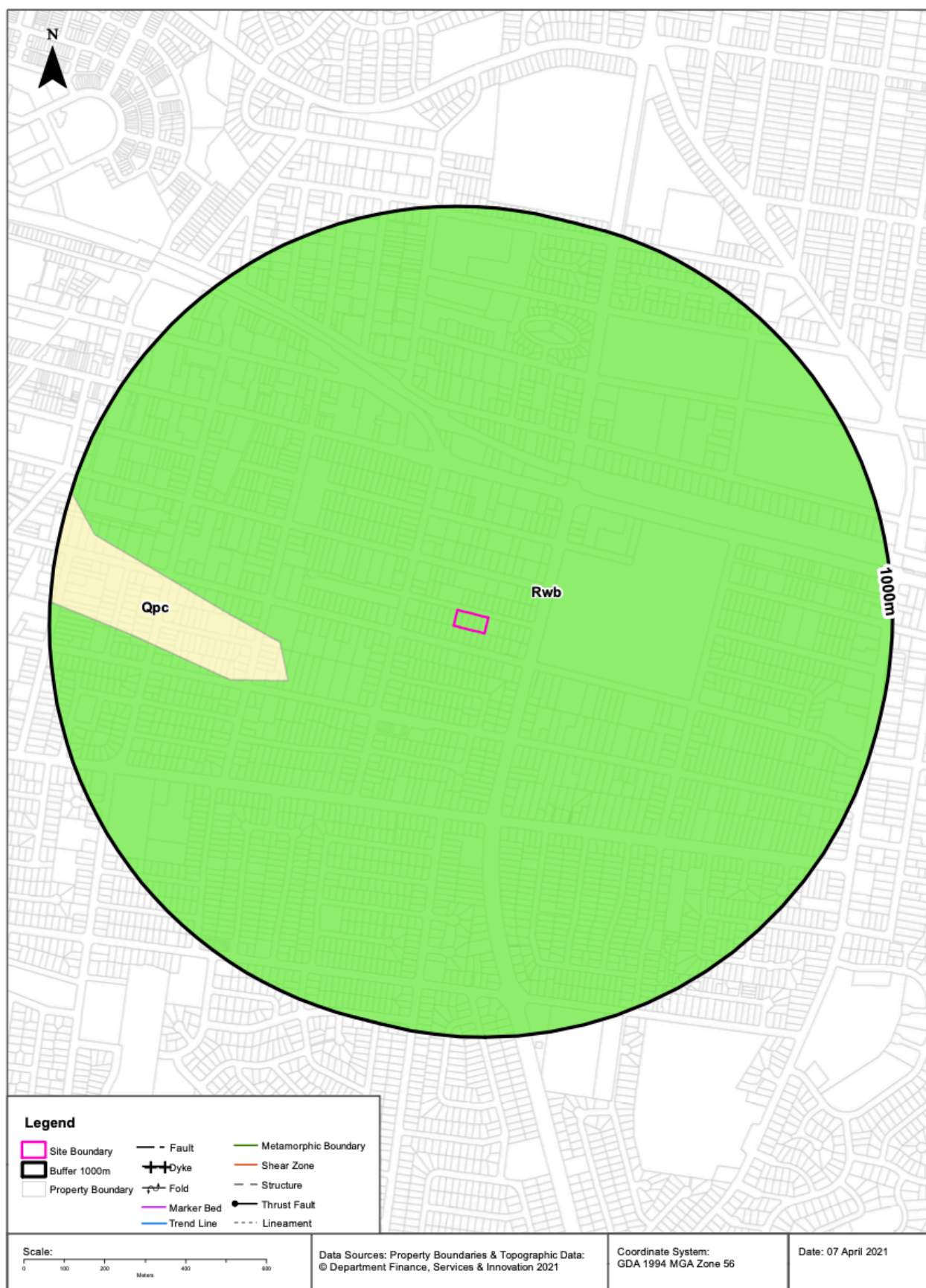
Groundwater No	Drillers Log	Distance	Direction
GW111617	0.00m-0.50m CLAY BROWN 0.50m-1.00m SHALE BROWN 1.00m-113.00m SHALE GREY 113.00m-130.00m SANDSTONE GREY 130.00m-130.20m SANDSTONE GREY QUARTZ 130.20m-141.00m SANDSTONE GREY 141.00m-142.00m SANDSTONE GREY QUARTZ 142.00m-145.00m SANDSTONE GREY 145.00m-149.00m SANDSTONE GREY QUARTZ 149.00m-154.00m SANDSTONE GREY 154.00m-155.00m SANDSTONE GREY ,SILTSTONE BANDS 155.00m-158.50m SANDSTONE GREY 158.50m-160.00m SANDSTONE GREY QUARTZ 160.00m-161.00m SANDSTONE GREY 161.00m-162.00m SANDSTONE GREY ,SILTSTONE BANDS 162.00m-190.00m SANDSTONE GREY 190.00m-192.00m SANDSTONE GREY ,SILTSTONE BANDS 192.00m-198.50m SANDSTONE GREY 198.50m-200.00m SANDSTONE GREY QUARTZ 200.00m-203.00m SANDSTONE GREY 203.00m-209.00m SANDSTONE GREY QUARTZ 209.00m-210.00m SANDSTONE GREY	1090m	North
GW111989	0.00m-3.00m CLAY MINOR SAND RED BROWN 3.00m-9.00m GRAVEL WITH MINOR SAND	1812m	North West
GW111987	0.00m-3.00m CLAY MINOR SAND RED BROWN 3.00m-9.00m GRAVEL WITH MINOR SAND	1833m	North West
GW111988	0.00m-3.00m CLAY MINOR SAND RED BROWN 3.00m-9.00m GRAVEL WITH MINOR SAND	1837m	North West
GW029710	0.00m-2.74m Loam Red 2.74m-7.92m Sand Gravel Water Supply	1855m	West
GW108043	0.00m-4.80m CLAYEY SAND 4.80m-5.40m SAND,BROWN, LOOSE,DDRY 5.40m-9.00m GRAVEL	1857m	North West
GW108044	0.00m-0.20m CONCRETE 0.20m-0.30m FILL,CLAY,GREY 0.30m-6.40m SILTY CLAYEY SAND,ORANGE,BROWN 6.40m-9.50m GRAVELS,WET,MODERATE	1891m	North West
GW108041	0.00m-0.20m CONCRETE 0.20m-0.40m CLAY L/BROWN 0.40m-3.30m CLAY BECOMING ORANGE,BROWN 3.30m-7.50m GRAVEL,BROWN,WELL GRADED	1912m	North West
GW108042	0.00m-0.20m CONCRETE 0.20m-0.30m FILL,CLAY,GREY/BROWN 0.30m-2.50m CLAY,RED/BROWN 2.50m-7.50m GRAVELS,WELL GRADED 7.50m-8.00m COARSE GRAINED SAND BANDS	1914m	North West
GW114592	0.00m-0.20m CONCRETE 0.20m-0.50m SAND,M/GRAINED,MOIST DARK BROWN 0.50m-0.80m SHALE WITH MINOR CLAY 0.80m-6.00m SHALE DRY YELLOW/BROWN 6.00m-8.00m SHALE WHITE	1919m	South
GW114593	0.00m-0.20m CONCRETE 0.20m-0.50m SILTY CLAY ,FIRM,MOIST,M/PLASTICITY 0.50m-0.80m SHALE WEATHERED,VERY HARD 0.80m-4.00m SHALE,VERY HARD,DRY,DARK BROWN 4.00m-7.50m SHALE,VERY HARD ,DRY,WHITE	1925m	South
GW114591	0.00m-0.10m CONCRETE 0.10m-0.50m CLAY WITH MINOR SAND M/GRAINED 0.50m-0.90m CLAY SOFT , MOIST,LOW PLASTICITY 0.90m-1.20m SHALE WEATHERED,VERY HARD,DRY,YELLOWISH BROWN 1.20m-3.50m SHALE VERY HARD DRY,YELLOWISH BROWN 3.50m-7.00m SHALE, VERY HARD,DRY,WHITE	1928m	South

Groundwater No	Drillers Log	Distance	Direction
GW114594	0.00m-0.12m CONCRETE 0.12m-0.50m SAND MINOR CLAY AND SHALE M/GRAINED 0.50m-0.70m SHALE MINOR CLAY MOIST BROWN 0.70m-5.00m SHALE VERY HARD, DRY YELLOW BROWN 5.00m-7.00m SHALE VERY HARD WHITE	1938m	South

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp
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Geology

16-24 Hope Street, Penrith, NSW 2750



Geology

16-24 Hope Street, Penrith, NSW 2750

Geological Units 1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dist	Dir
Rwb	Shale, carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone, rare coal and tuff	Bringelly Shale	Wianamatta Group (undifferentiated)		Middle Triassic		Penrith	0m	On-site
Qpc	Gravel, sand, silt, clay	Cranebrook Formation			Quaternary		Penrith	429m	West

Geological Structures 1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Distance	Direction
N/A	No records in buffer				

Geological Data Source : NSW Department of Industry, Resources & Energy

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Naturally Occurring Asbestos Potential

16-24 Hope Street, Penrith, NSW 2750

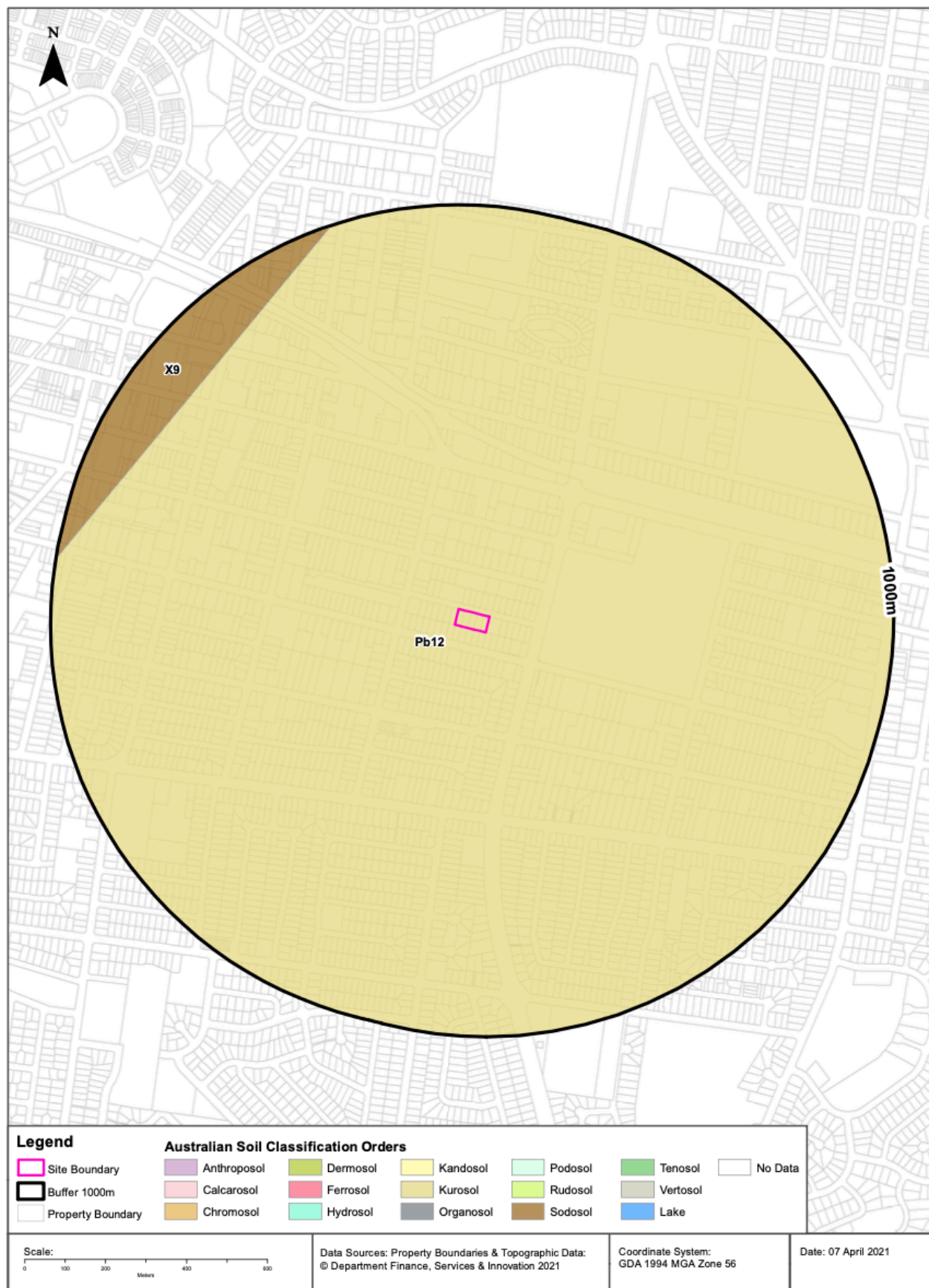
Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Naturally Occurring Asbestos Potential Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

Atlas of Australian Soils
16-24 Hope Street, Penrith, NSW 2750



Soils

16-24 Hope Street, Penrith, NSW 2750

Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

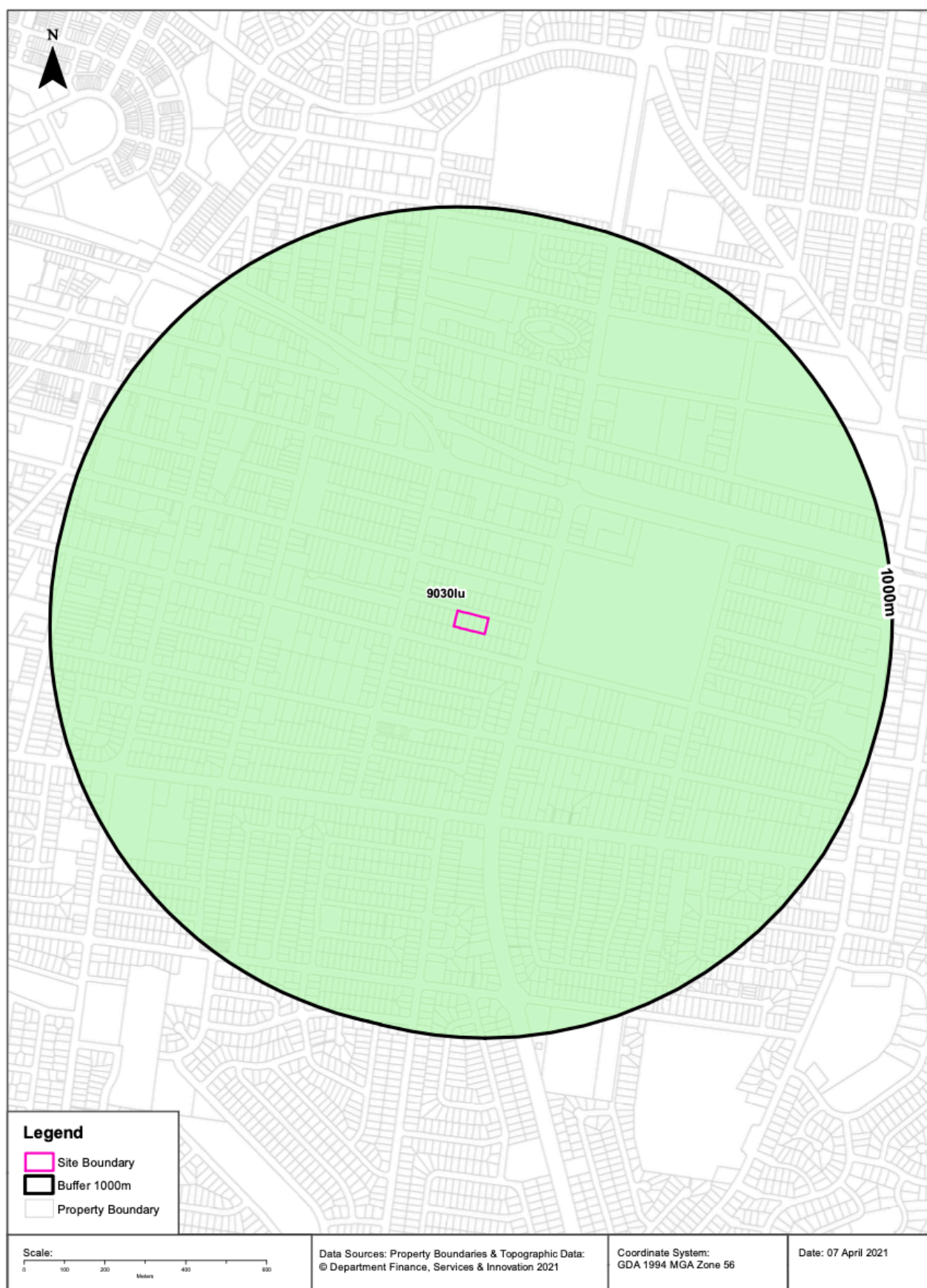
Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Pb12	Kurosol	Gently rolling to rounded hilly country with some steep slopes and broad valleys: chief soils are hard acidic red soils (Dr2.21) with hard neutral and acidic yellow mottled soils (Dy3.42 and Dy3.41) on lower slopes and in valleys. Associated are small areas of various soils including (Gn3.54) on some ridges, (Dr3.31) on some slopes; (Dr2.23) in saddles and some mid-slope positions, and some low-lying swampy areas of (Uf6) soils and (Uc1.2) soils with peaty surfaces. Small areas of other soils such as (Db1.2) are likely throughout.	0m	On-site
X9	Sodosol	Plains--former river terraces and levees: chief soils are sandy neutral yellow mottled soils (Dy5.42) with leached sands (Uc2.3) on the broader plains. Associated are (Dy3.41, Dy3.42, and Dy3.43) soils, some containing ironstone gravels, in relatively low-lying areas and depressions, and (Dr2.2), (Gn2.15), and (Gn2.18) soils on levees. Areas of other soils, possibly including (Um4.31), occur throughout what is a complex unit. As mapped, areas of units Gb6 and Sp1 are included.	848m	North West

Atlas of Australian Soils Data Source: CSIRO

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Soil Landscapes of Central and Eastern NSW

16-24 Hope Street, Penrith, NSW 2750



Soils

16-24 Hope Street, Penrith, NSW 2750

Soil Landscapes of Central and Eastern NSW

Soil Landscapes of Central and Eastern NSW within the dataset buffer:

Soil Code	Name	Distance	Direction
9030lu	Luddenham	0m	On-site

Soil Landscapes of Central and Eastern NSW: NSW Department of Planning, Industry and Environment
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Acid Sulfate Soils

16-24 Hope Street, Penrith, NSW 2750

Environmental Planning Instrument - Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	EPI Name
N/A		

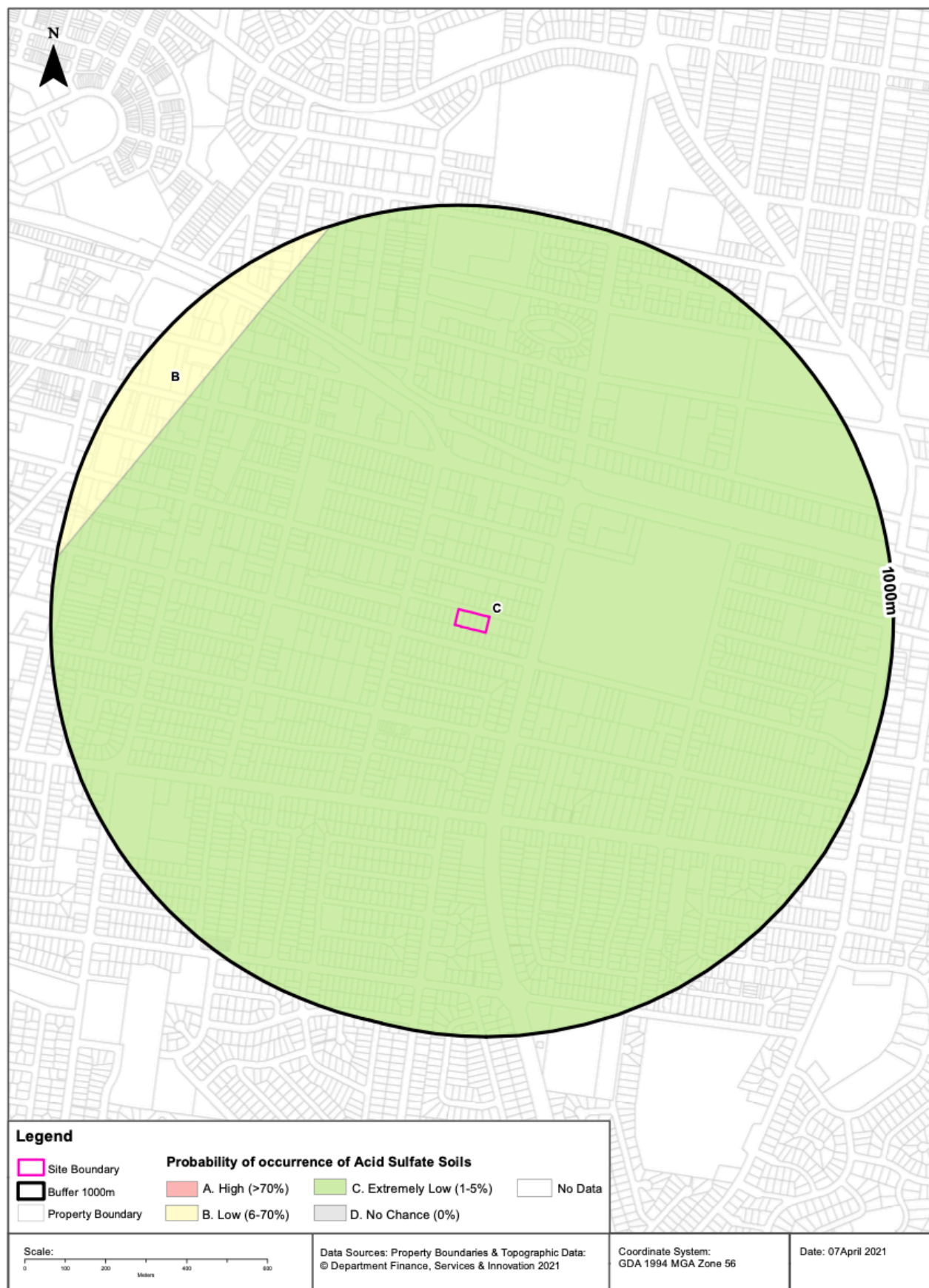
If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
N/A				

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Atlas of Australian Acid Sulfate Soils

16-24 Hope Street, Penrith, NSW 2750



Acid Sulfate Soils

16-24 Hope Street, Penrith, NSW 2750

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

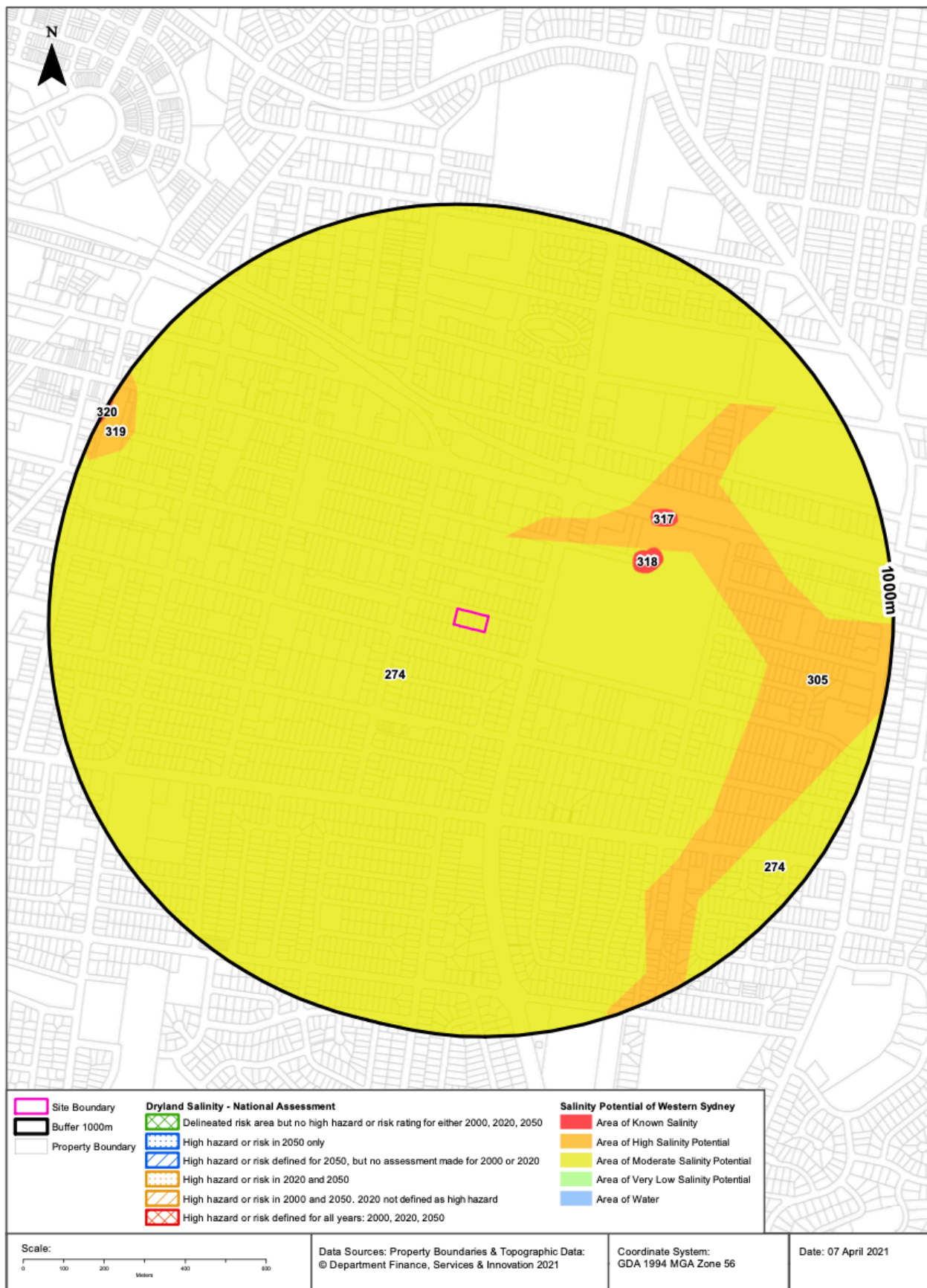
Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
B	Low Probability of occurrence. 6-70% chance of occurrence.	849m	North West

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Dryland Salinity

16-24 Hope Street, Penrith, NSW 2750



Dryland Salinity

16-24 Hope Street, Penrith, NSW 2750

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A		

Dryland Salinity Data Source : National Land and Water Resources Audit

The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.

In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
274	MODERATE	Area of Moderate Salinity Potential	0m	On-site
305	HIGH	Area of High Salinity Potential	200m	East
318	SALT	Area of Known Salinity	377m	East
317	SALT	Area of Known Salinity	465m	North East
319	HIGH	Area of High Salinity Potential	909m	North West
320	SALT	Area of Known Salinity	991m	North West

Dryland Salinity Potential of Western Sydney Data Source : NSW Office of Environment and Heritage

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Mining

16-24 Hope Street, Penrith, NSW 2750

Mining Subsidence Districts

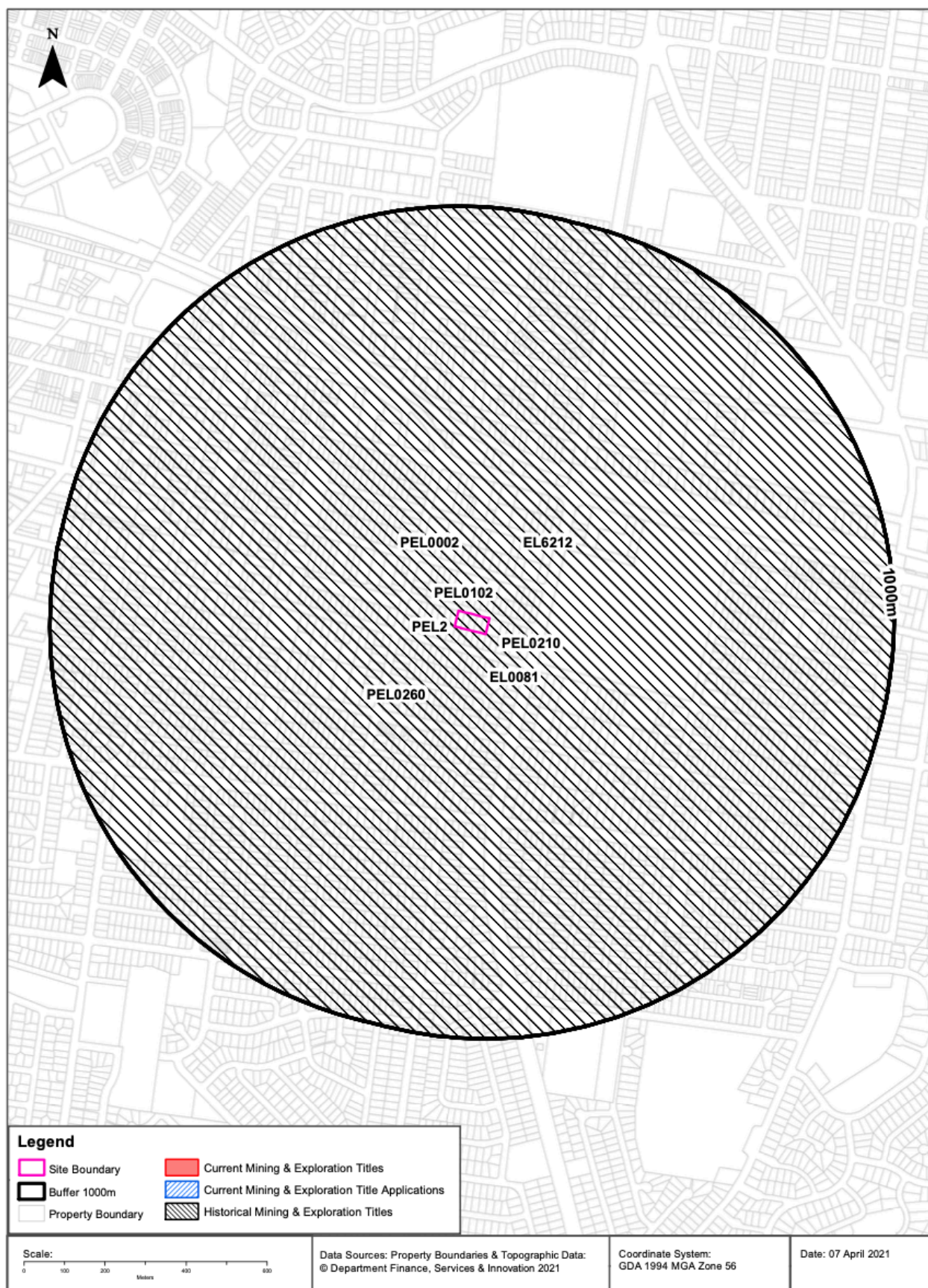
Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)
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Mining & Exploration Titles

16-24 Hope Street, Penrith, NSW 2750



Mining

16-24 Hope Street, Penrith, NSW 2750

Current Mining & Exploration Titles

Current Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Grant Date	Expiry Date	Last Renewed	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer								

Current Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

Current Mining & Exploration Title Applications

Current Mining & Exploration Title Applications within the dataset buffer:

Application Ref	Applicant	Application Date	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer						

Current Mining & Exploration Title Applications Data Source: © State of New South Wales through NSW Department of Industry

Mining

16-24 Hope Street, Penrith, NSW 2750

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL0102	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PEL2	AGL UPSTREAM INVESTMENTS PTY LIMITED			MINERALS		0m	On-site
EL0081	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		0m	On-site
PEL0260	NORTH BULLI COLLIERIES PTY LTD, AGL PETROLEUM OPERATIONS PTY LTD, THE AUSTRALIAN GAS LIGHT CO.	9/09/1981	8/03/1993	PETROLEUM	Petroleum	0m	On-site
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			PETROLEUM	Petroleum	0m	On-site
PEL0002	AGL UPSTREAM INVESTMENTS PTY LIMITED	29/03/1993	6/07/2015	PETROLEUM	Petroleum	0m	On-site
EL6212	HOT ROCK ENERGY PTY LTD, LONGREACH OIL LIMITED	4 Mar 2004	3 Mar 2013	MINERALS	Geothermal	0m	On-site

Historical Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

State Environmental Planning Policy

16-24 Hope Street, Penrith, NSW 2750

State Significant Precincts

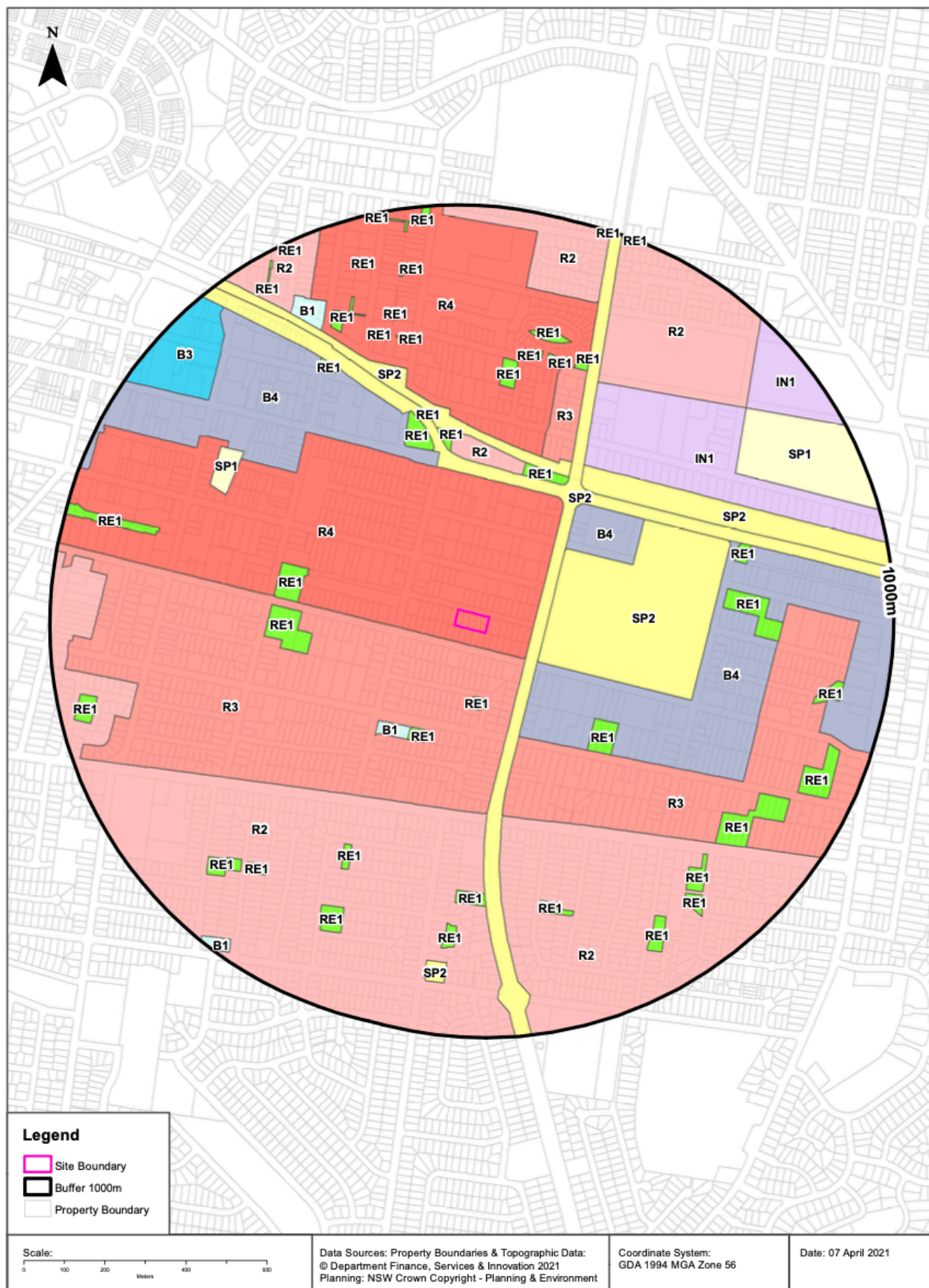
What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
N/A	No records in buffer							

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment
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EPI Planning Zones

16-24 Hope Street, Penrith, NSW 2750



Environmental Planning Instrument

16-24 Hope Street, Penrith, NSW 2750

Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R4	High Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	0m	On-site
R3	Medium Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	38m	West
SP2	Infrastructure	Classified Road	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	111m	North East
SP2	Infrastructure	Health Services Facilities	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	141m	East
B4	Mixed Use		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	146m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	159m	South
B4	Mixed Use		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	248m	North East
R3	Medium Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	266m	South East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	268m	South West
B1	Neighbourhood Centre		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	272m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	342m	South East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	352m	West
B4	Mixed Use		Penrith Local Environmental Plan 2010	26/04/2019	26/04/2019	18/12/2020	Amendment No 15	357m	North West
R2	Low Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	360m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	361m	North East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	380m	West
SP2	Infrastructure	Railway	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	389m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	392m	North
SP2	Infrastructure	Railway	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	394m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	399m	North
R3	Medium Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	416m	North East
R4	High Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	417m	North
R2	Low Density Residential		Penrith Local Environmental Plan 2010	27/09/2019	27/09/2019	18/12/2020	Amendment No 22	441m	South West
IN1	General Industrial		Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	18/12/2020		443m	North East
R2	Low Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	445m	South East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	14/10/2016	14/10/2016	18/12/2020	Amendment No 11	471m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	562m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	578m	East

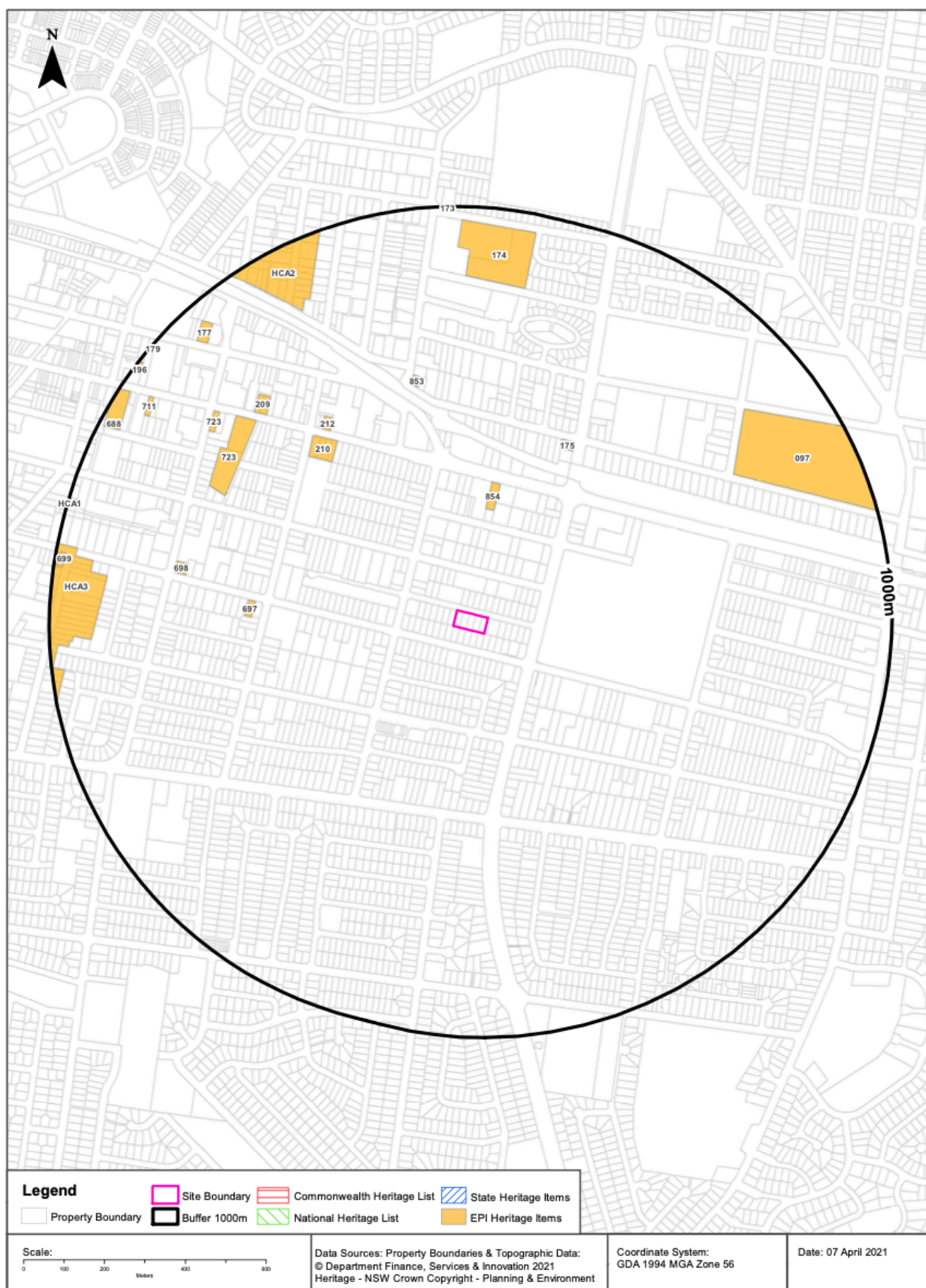
Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	598m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	621m	East
R2	Low Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	638m	North East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	639m	South
SP1	Special Activities	Cemetery	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	640m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	649m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	650m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	651m	North East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	658m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	674m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	679m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	696m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	701m	North
SP1	Special Activities	Cemetery	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	704m	North East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	721m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	731m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	735m	South East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	743m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	748m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	751m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	766m	West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	766m	South East
B1	Neighbourhood Centre		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	769m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	781m	South West
B3	Commercial Core		Penrith Local Environmental Plan 2010	26/04/2019	26/04/2019	18/12/2020	Amendment No 15	805m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	810m	South East
R2	Low Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	813m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	813m	South East
IN1	General Industrial		Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	18/12/2020		818m	North East
SP2	Infrastructure	Electricity Transmission	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	820m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	825m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	835m	North
R2	Low Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	842m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	853m	South East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	874m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	900m	West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	916m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	941m	North
B1	Neighbourhood Centre		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	952m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	975m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	986m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	988m	North
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	18/12/2020	Amendment No 4	993m	North

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Heritage Items

16-24 Hope Street, Penrith, NSW 2750



Heritage

16-24 Hope Street, Penrith, NSW 2750

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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National Heritage List

What are the National Heritage List Items located within the dataset buffer?

Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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State Heritage Register - Curtilages

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage
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Environmental Planning Instrument - Heritage

What are the EPI Heritage Items located within the dataset buffer?

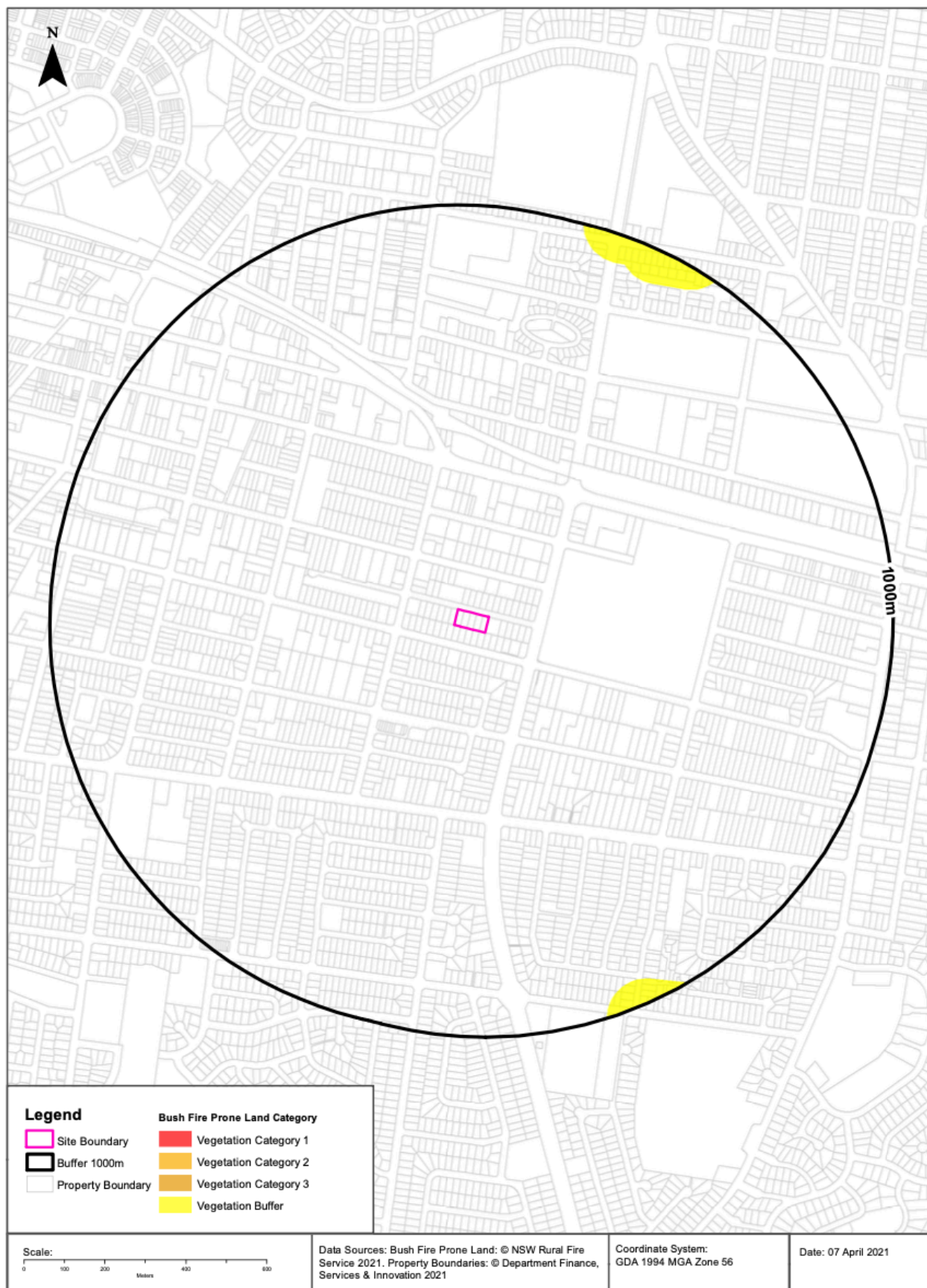
Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
854	Federation house	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	262m	North
175	Cottage	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	458m	North East
210	Penrith Public School and palm trees	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	480m	North West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
697	Presbyterian manse (former)	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	493m	West
212	Victorian terrace and Interwar shop	Item - General	Local	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	11/06/2020	544m	North West
853	Cottage	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	561m	North
723	Cottage	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	640m	North West
698	Victorian cottage	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	674m	West
209	St Aubyn's Terrace	Item - General	Local	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	11/06/2020	675m	North West
097	Penrith General Cemetery	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	704m	North East
723	Cottage	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	745m	North West
174	Governor Phillip Special Hospital - original building	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	814m	North
HCA2	Lemongrove	Conservation Area - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	833m	North West
HCA3	Warwick Street	Conservation Area - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	865m	West
711	Villa	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	901m	North West
177	Penrith Infants Department (1884 building)	Item - General	Local	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	11/06/2020	905m	North West
688	Memorials and lamp stand , St Nicholas of Myra Catholic Church	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	947m	North West
699	Victorian cottage	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	977m	West
HCA1	Hornseywood	Conservation Area - General	Local	Penrith Local Environmental Plan 2010	11/08/2017	11/08/2017	11/06/2020	979m	West
196	Arms of Australia Hotel	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	980m	North West
179	Methodist Church (former)	Item - General	Local	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	11/06/2020	988m	North West
173	Former rectory	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	11/06/2020	992m	North

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Natural Hazards - Bush Fire Prone Land

16-24 Hope Street, Penrith, NSW 2750



Natural Hazards

16-24 Hope Street, Penrith, NSW 2750

Bush Fire Prone Land

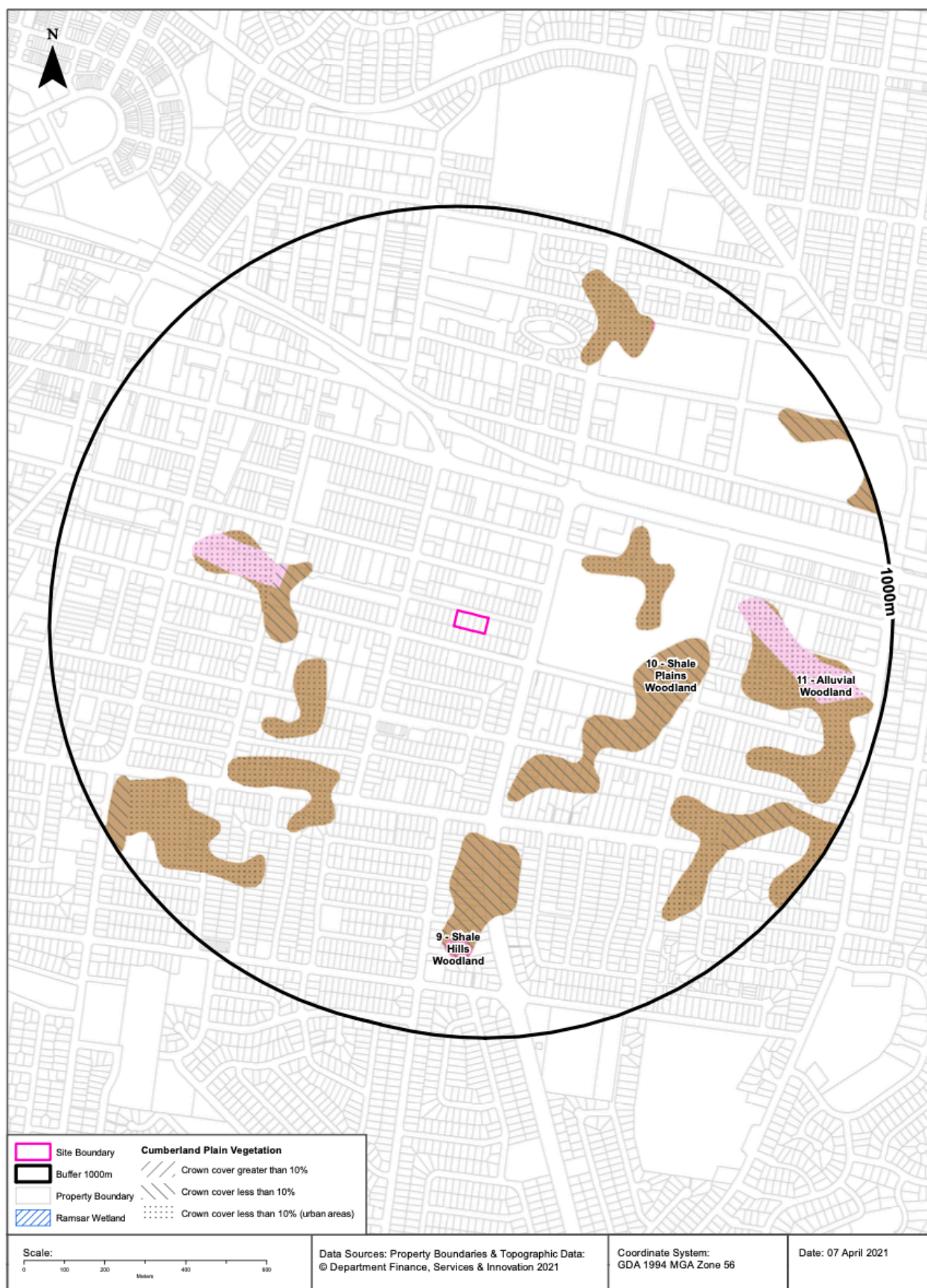
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	914m	North East

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Ecological Constraints - Vegetation & Ramsar Wetlands

16-24 Hope Street, Penrith, NSW 2750



Ecological Constraints

16-24 Hope Street, Penrith, NSW 2750

Remnant Vegetation of the Cumberland Plain

What remnant vegetation of the Cumberland Plain exists within the dataset buffer?

Description	Crown Cover	Distance	Direction
10 - Shale Plains Woodland	Crown cover less than 10% (urban areas)	265m	East
10 - Shale Plains Woodland	Crown cover less than 10%	326m	South East
11 - Alluvial Woodland	Crown cover less than 10%	433m	West
11 - Alluvial Woodland	Crown cover less than 10% (urban areas)	460m	West
9 - Shale Hills Woodland	Crown cover less than 10%	730m	South
9 - Shale Hills Woodland	Crown cover less than 10% (urban areas)	819m	North East
10 - Shale Plains Woodland	Crown cover greater than 10%	995m	North

Remnant Vegetation of the Cumberland Plain : NSW Office of Environment and Heritage
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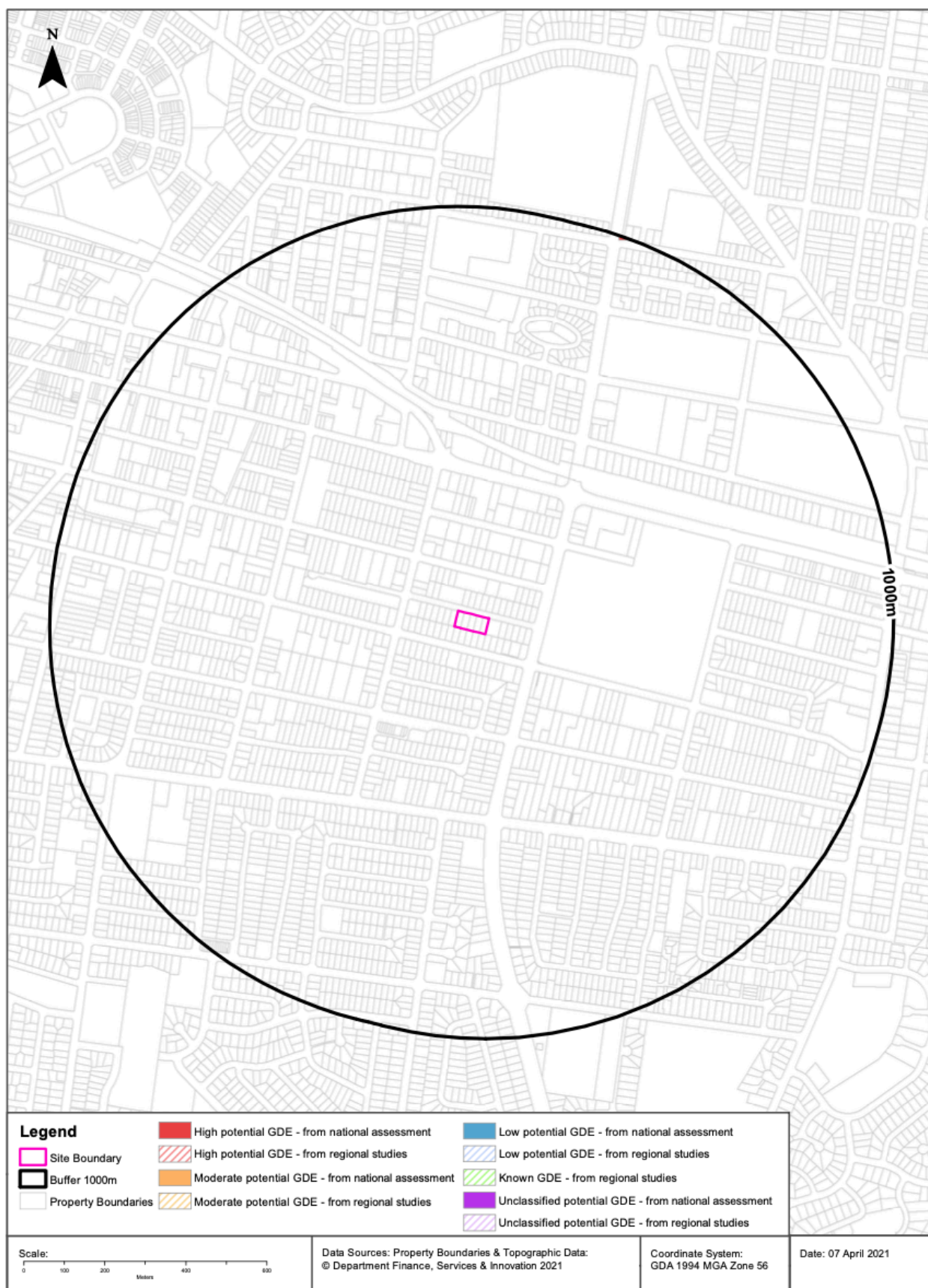
Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

Map Id	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Agriculture, Water and the Environment

Ecological Constraints - Groundwater Dependent Ecosystems Atlas
16-24 Hope Street, Penrith, NSW 2750



Ecological Constraints

16-24 Hope Street, Penrith, NSW 2750

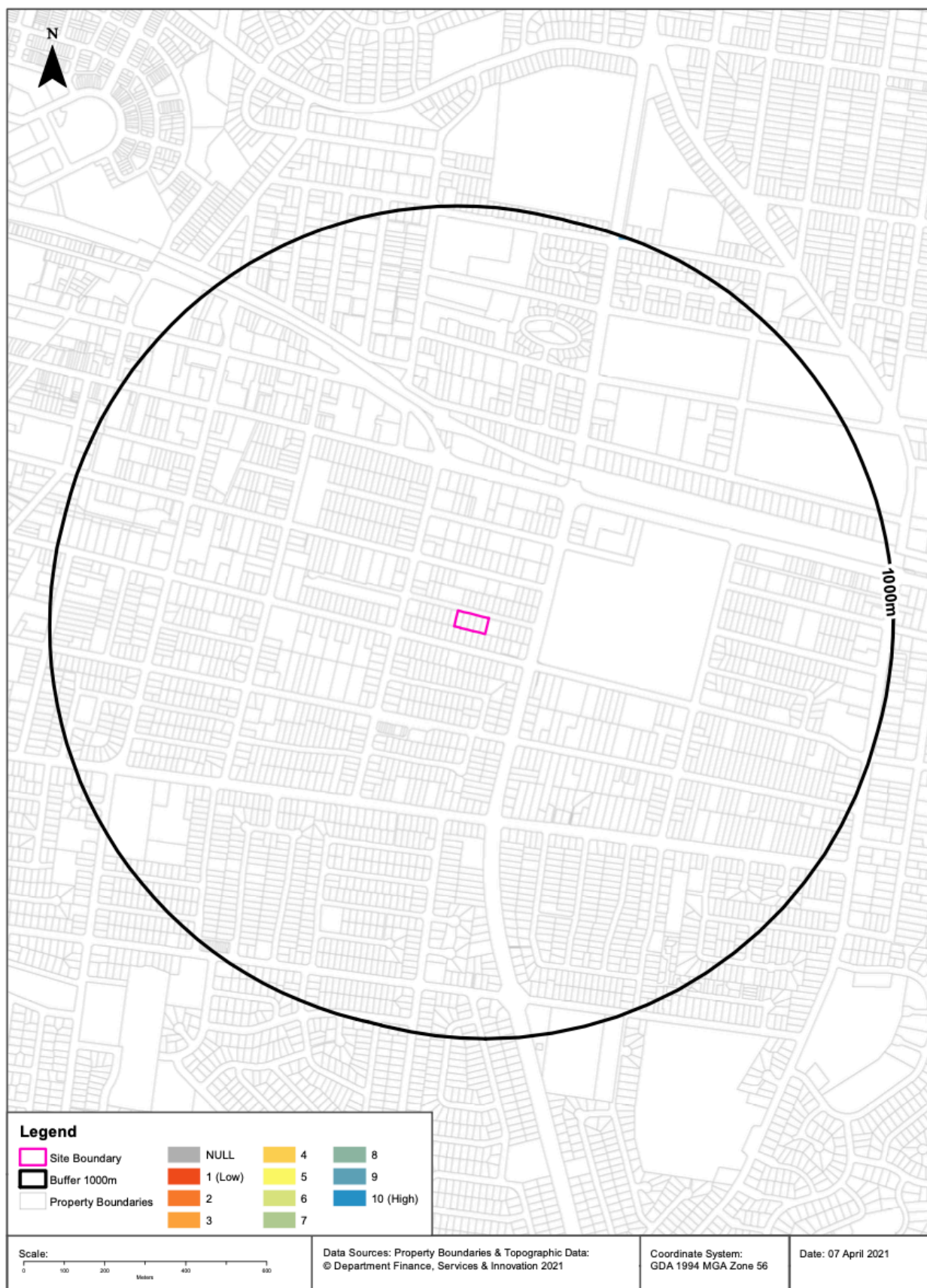
Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	High potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	988m	North

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
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Ecological Constraints - Inflow Dependent Ecosystems Likelihood

16-24 Hope Street, Penrith, NSW 2750



Ecological Constraints

16-24 Hope Street, Penrith, NSW 2750

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	10	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	988m	North
Terrestrial	9	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	997m	North East

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
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Ecological Constraints

16-24 Hope Street, Penrith, NSW 2750

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Amauromis moluccana	Pale-vented Bush-hen	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poeciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone-curlew	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Certhionyx variegatus	Pied Honeyeater	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Grantiella picta	Painted Honeyeater	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pezoporus wallicus wallicus	Eastern Ground Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Rostratula australis	Australian Painted Snipe	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Sterna hirundo	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Tringa glareola	Wood Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto longimembris	Eastern Grass Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Gastropoda	Meridolum comeovirens	Cumberland Plain Land Snail	Endangered	Not Sensitive	Not Listed	
Animalia	Gastropoda	Pommerhelix duralensis	Dural Land Snail	Endangered	Not Sensitive	Endangered	
Animalia	Insecta	Petalura gigantea	Giant Dragonfly	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy-possum	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petauroides volans	Greater Glider	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascogale cinerea	Koala	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Vespadelus troughtoni	Eastern Cave Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Eulamprus leuraensis	Blue Mountains Water Skink	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Hoplocephalus bungaroides	Broad-headed Snake	Endangered	Category 2	Vulnerable	
Animalia	Reptilia	Suta flagellum	Little Whip Snake	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue-tongued Lizard	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia pubescens	Downy Wattle	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Allocasuarina glauca		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Dillwynia tenuifolia		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus benthamii	Camden White Gum	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Grevillea juniperina subsp. juniperina	Juniper-leaved Grevillea	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Grevillea parviflora subsp. parviflora	Small-flower Grevillea	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Hibbertia puberula		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Not Listed	Not Sensitive	Extinct	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Marsdenia viridiflora subsp. viridiflora	Native Pear	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Micromyrtus minutiflora		Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	Persoonia nutans	Nodding Geebung	Endangered	Not Sensitive	Endangered	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Pimelea spicata	Spiked Rice-flower	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Pterostylis saxicola	Sydney Plains Greenhood	Endangered	Category 2	Endangered	
Plantae	Flora	Pultenaea parviflora		Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Senna acclinis	Rainforest Cassia	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Tetraloche glandulosa		Vulnerable	Not Sensitive	Not Listed	

Data does not include NSW category 1 sensitive species.

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Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

Address: - 16 to 24 Hope Street, Penrith

Description: - Lots 29 to 33 D.P. 31239

As regards the whole of the subject land

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
16.09.1893 (1893 to 1913)	Spencer Alfred Payne (Engine Driver)	Vol 1108 Fol 112
17.10.1913 (1913 to 1927)	Elizabeth Harriot Payne (Widow) 9& her deceased estate (Transmission Application not investigated)	Vol 1108 Fol 112
20.04.1927 (1927 to 1942)	Albert Ernest McDougall (Contractor) Amelia McDougall (Married Woman)	Vol 1108 Fol 112
08.07.1942 (1942 to 1946)	Amelia McDougall (Widow)	Vol 1108 Fol 112
04.11.1946 (1946 to 1959)	William John Ole McDougall (Retired Newsagent)	Vol 1108 Fol 112 Now Vol 6759 Fol 219

Continued as regards Lot 29 D.P. 31239

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Vol 6759 Fol 219 Now Vol 8212 Fol 237
17.04.1961 (1961 to 1963)	John Patrick Reddan (Company Manager)	Vol 8212 Fol 237
07.03.1963 (1963 to 2007)	Kenneth Wearne White (Salesman) Pamela Dawn White (Married woman)	Vol 8212 Fol 237 Now 29/31239
30.01.2007 (2007 to 2015)	Pamela Dawn White (Widow)	29/31239
19.05.2015 (2015 to date)	# Prestige Developments Group (NSW) Pty Ltd	29/31239

Denotes current registered proprietor

Leases and Easements: - NIL

Email: mark.groll@infotrack.com.au

1



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Continued as regards Lot 30 D.P. 31239

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Vol 6759 Fol 219 Now Vol 8212 Fol 238
17.04.1961 (1961 to 1962)	John Patrick Reddan (Company Manager)	Vol 8212 Fol 238
24.07.1962 (1962 to 1977)	Thelma Olive White (Widow)	Vol 8212 Fol 238
20.04.1977 (1977 to 1979)	Francis William Culhane (Retired) Lessie Margaret Culhane (Married Woman)	Vol 8212 Fol 238
20.02.1979 (1979 to 1988)	Nancy Ruth Morton (Clerk)	Vol 8212 Fol 238
27.01.1988 (1988 to 2016)	Diana Carol Manser	Vol 8212 Fol 238 Now 30/31239
20.01.2016 (2016 to date)	# Prestige Developments Group (NSW) Pty Ltd	30/31239

Denotes current registered proprietor

Leases and Easements: - NIL

Continued as regards Lot 31 D.P. 31239

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Vol 6759 Fol 219 Now Vol 8212 Fol 239
17.02.1961 (1961 to 1970)	Jack Percival Sharpe (Headmaster) Anne Sharpe (Married Woman)	Vol 8212 Fol 239
27.01.1970 (1970 to 1973)	Michael Smith (Stereotyper) Beverley Joan Harpley (Clerk)	Vol 8212 Fol 239
19.06.1973 (1973 to 1980)	Lawrence Patrick Rowles (Clerk) Kerriann Percy (Shop Assistant)	Vol 8212 Fol 239
25.09.1980 (1980 to 2012)	Peter Holmes (Process Worker) Margaret Rose Holmes (Married Woman)	Vol 8212 Fol 239 Now 31/31239
25.09.2012 (2012 to 2016)	Margaret Rose Holmes (Widow)	31/31239
21.01.2016 (2016 to date)	# Prestige Developments Group (NSW) Pty Ltd	31/31239

Denotes current registered proprietor

Leases and Easements: - NIL

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2



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DX 967 Sydney

Continued as regards Lot 32 D.P. 31239

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Vol 6759 Fol 219 Now Vol 8212 Fol 240
17.04.1961 (1961 to 1962)	John Patrick Reddan (Company Manager)	Vol 8212 Fol 240
27.06.1962 (1962 to 2018)	Darrell Gordon Bewley (Butcher)	Vol 8212 Fol 240 Now 32/31239
29.11.2018 (2018 to 2018)	Penrith Projects Pty Ltd	32/31239
29.11.2018 (2018 to date)	# Prestige Developments Group (NSW) Pty Ltd	32/31239

Denotes current registered proprietor

Leases and Easements: - NIL

Continued as regards Lot 32 D.P. 31239

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
22.12.1959 (1959 to 1961)	Austro-California Pty Limited	Vol 6759 Fol 219 Now Vol 8212 Fol 241
17.04.1961 (1961 to 1962)	John Patrick Reddan (Company Manager)	Vol 8212 Fol 241
25.05.1962 (1962 to 1981)	Bryan David Huggins (Foreman) Ruth Anne Huggins (Married Woman)	Vol 8212 Fol 241
01.12.1981 (1981 to 1997)	Gerald Bede Lynch Zeta Lynch	Vol 8212 Fol 241 Now 33/31239
26.03.1997 (1997 to 1998)	Zeta Lynch	33/31239
10.06.1998 (1998 to 2010)	Bronwyn Narelle Davies	33/31239
01.04.2010 (2010 to 2018)	Brent Callaghan Deborah Jacqueline-Lee Callaghan	33/31239
29.11.2018 (2018 to 2018)	Penrith Projects Pty Ltd	33/31239
29.11.2018 (2018 to date)	# Prestige Developments Group (NSW) Pty Ltd	33/31239

Denotes current registered proprietor

Continued over

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3



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DX 967 Sydney

Leases and Easements: - NIL

Yours Sincerely
Mark Groll
12 April 2021

Email: mark.groll@infotrack.com.au

4



Cadastral Records Enquiry Report : Lot 30 DP 31239

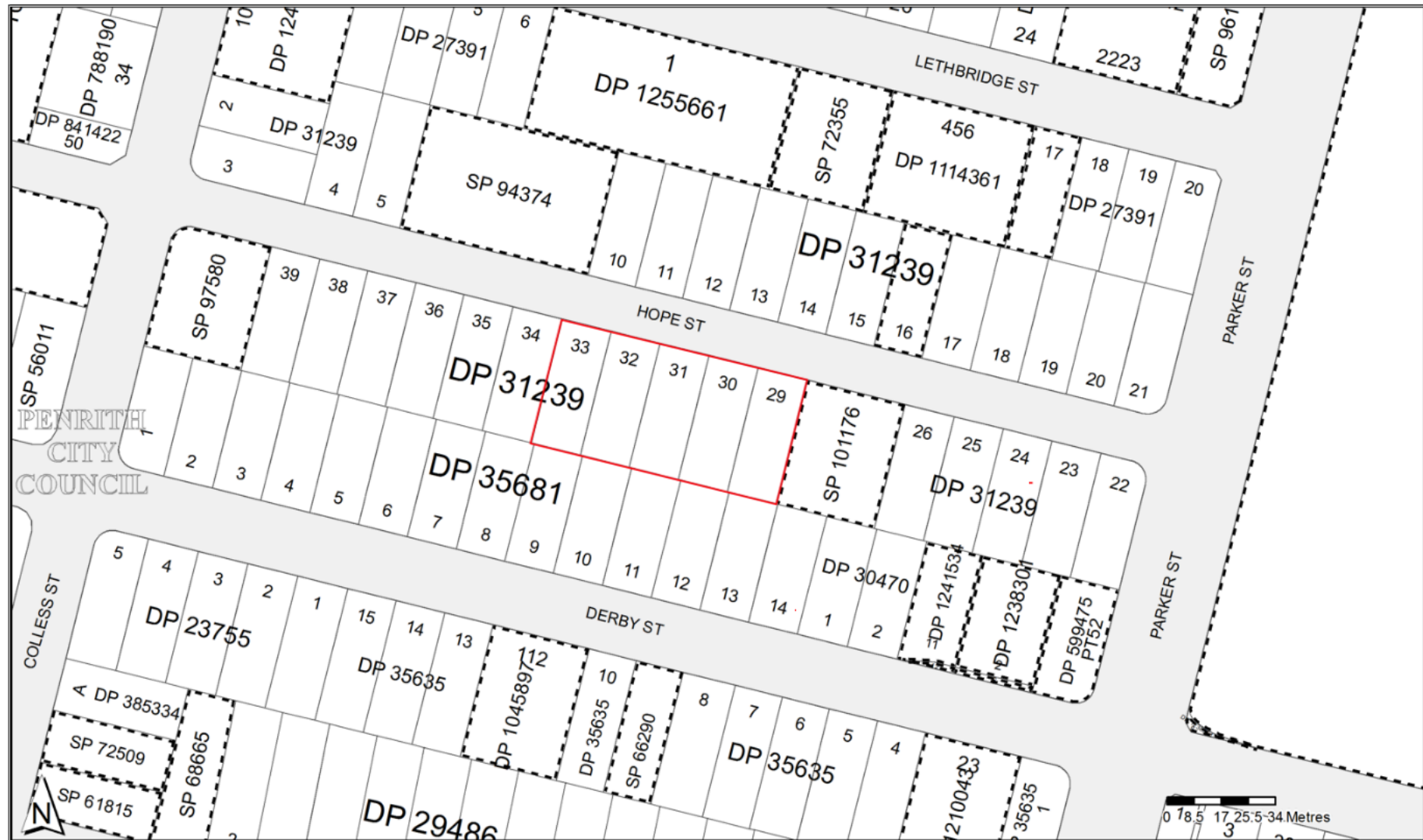
Locality : PENRITH

LGA : PENRITH

Parish : MULGOA

County : CUMBERLAND

Ref : 16-24 Hope Street, Penrith



Report Generated 2:35:51 PM, 12 April, 2021
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Page 1 of 4



CONVERSION TABLE ADDED IN
REGISTRAR GENERAL'S DEPARTMENT

FEET INCHES	METRES
1 3/4	0.044
1 5/8	0.444
1 1/2	0.457
1 1/4	0.777
5 1/2	0.927
5 1/4	1.556
7 6	2.286
8	2.438
8 5	2.515
9 8 1/2	2.959
10	3.048
10 3/4	3.169
10 1/2	3.213
10 11 1/2	3.340
10 11 3/4	3.346
11	3.353
12	3.658
13	4.191
17 3/4	5.302
17 7 1/2	5.372
19 11 3/4	6.096
20	6.096
20 0 1/4	6.102
20 0 3/4	6.115
21 7	6.379
23 0 1/4	7.220
24	7.315
24 1/2	7.353
24 5	7.442
24 11 1/4	7.601
26 5	8.001
26 11	8.204
28 3	8.611
28 3 1/4	8.617
28 3 1/2	8.623
30	9.144
31	9.449
31 3/4	9.564
31 5	9.574
31 11 1/2	9.741
32	9.754
33	10.054
33 8 1/4	10.217
45 5	13.792
46 2	14.661
46 5 1/2	14.770
50	15.240
50 3/4	15.266
50 9 1/2	15.481
50 10 1/2	15.507
51	15.540
51 10 1/2	15.612
52	15.650
52 0 1/2	15.662
52 10 1/4	16.110
53	16.154
53 0 1/4	16.161
54	16.459
54 7 1/4	16.648
56 1 1/4	17.710
66	20.117
69 11 1/4	21.317
72 0 3/4	21.965
99	30.176
109	32.604
109 0 3/4	32.623
111	33.835
111 1/2	33.929
112 1 1/2	34.176
116	35.357
122	37.186
125	38.106
125 0 3/4	38.114
131	39.926
131	40.030
131 1/2	40.043
131 5	40.056

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© Office of the Registrar-General /Src:INFOTRACK /Ref:16-24 Hope Street, Penrith

Plan Form No. 1 (For Deposited Plan)

DP 31239 E

Municipality of
Shire of
City of Penrith

H609683 21-9-60

CONVERSION TABLE ADDED IN
REGISTRAR GENERAL'S DEPARTMENT

FEET INCHES	METRES
131 5 1/2	40.069
131 6	40.081
131 6 1/2	40.094
131 7	40.107
131 7 1/2	40.119
131 8	40.132
131 8 1/2	40.145
131 9	40.157
131 9 1/2	40.170
131 10	40.183
131 10 1/2	40.196
131 11	40.208
131 11 1/2	40.221
132	40.234
132 0 1/2	40.246
132 1	40.259
137 9	41.966
210 0 1/4	64.014
290 1/2	88.506
724 5 1/4	214.715
704 9 1/4	214.614
1006 9	306.857

AC RD P	SQ M
- 24	607
- 24 1/4	613.4
- 24 1/2	619.7
- 24 3/4	626
- 25	632.3

PLAN

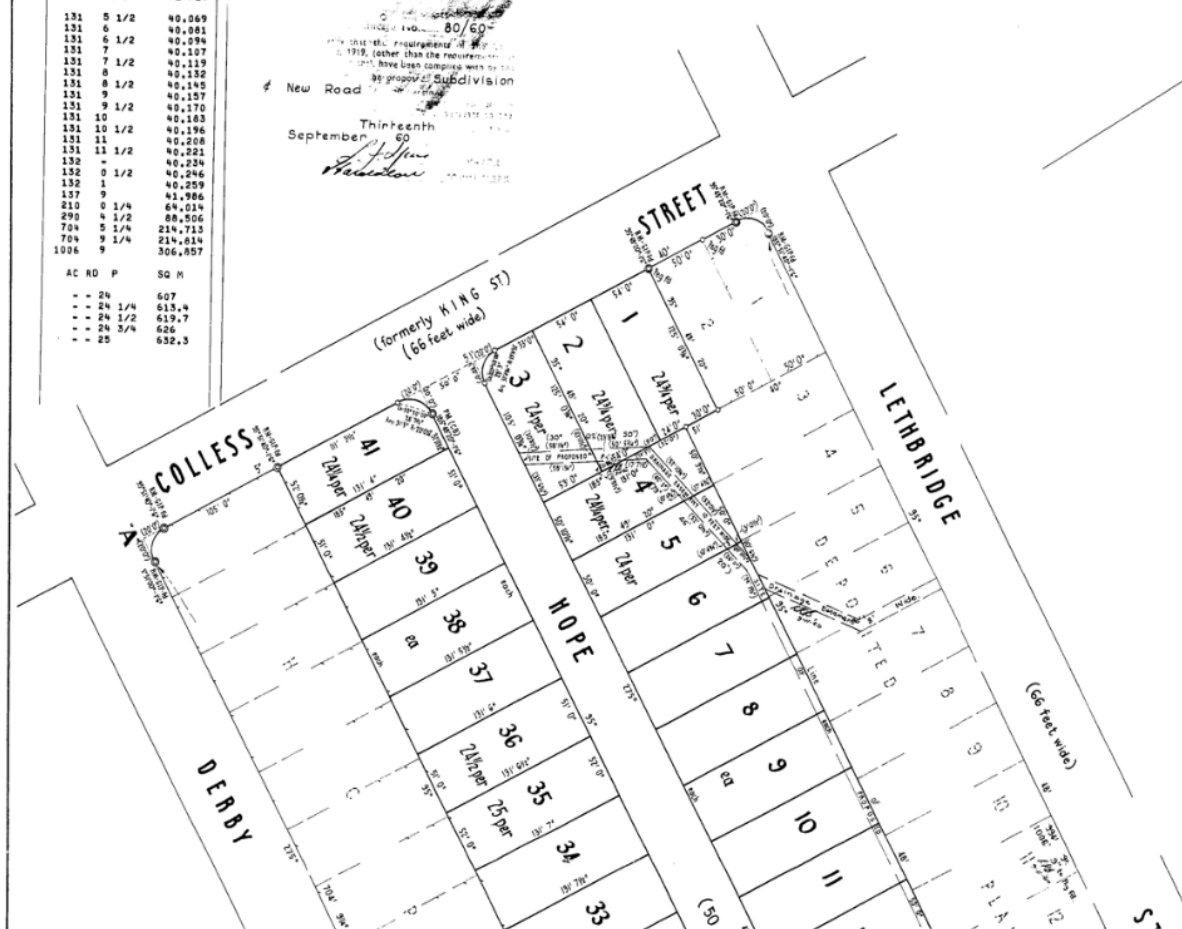
of a subdivision of part of Lots 1 to 20 of Section 24 of Deposited Plan 2296
AT PENRITH.

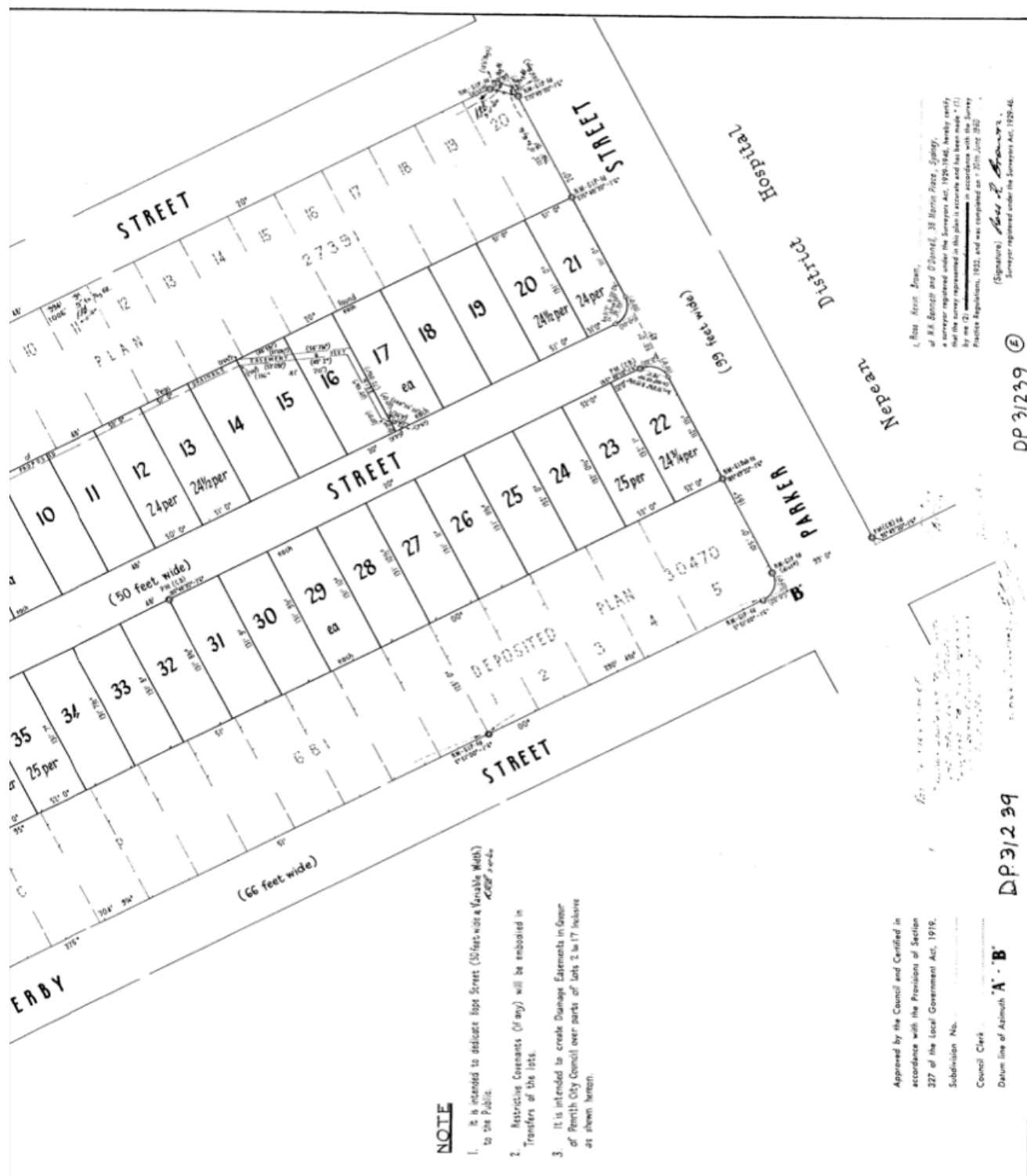
PARISH OF MULGOA

COUNTY OF CUMBERLAND

Scale: 60 feet to an inch

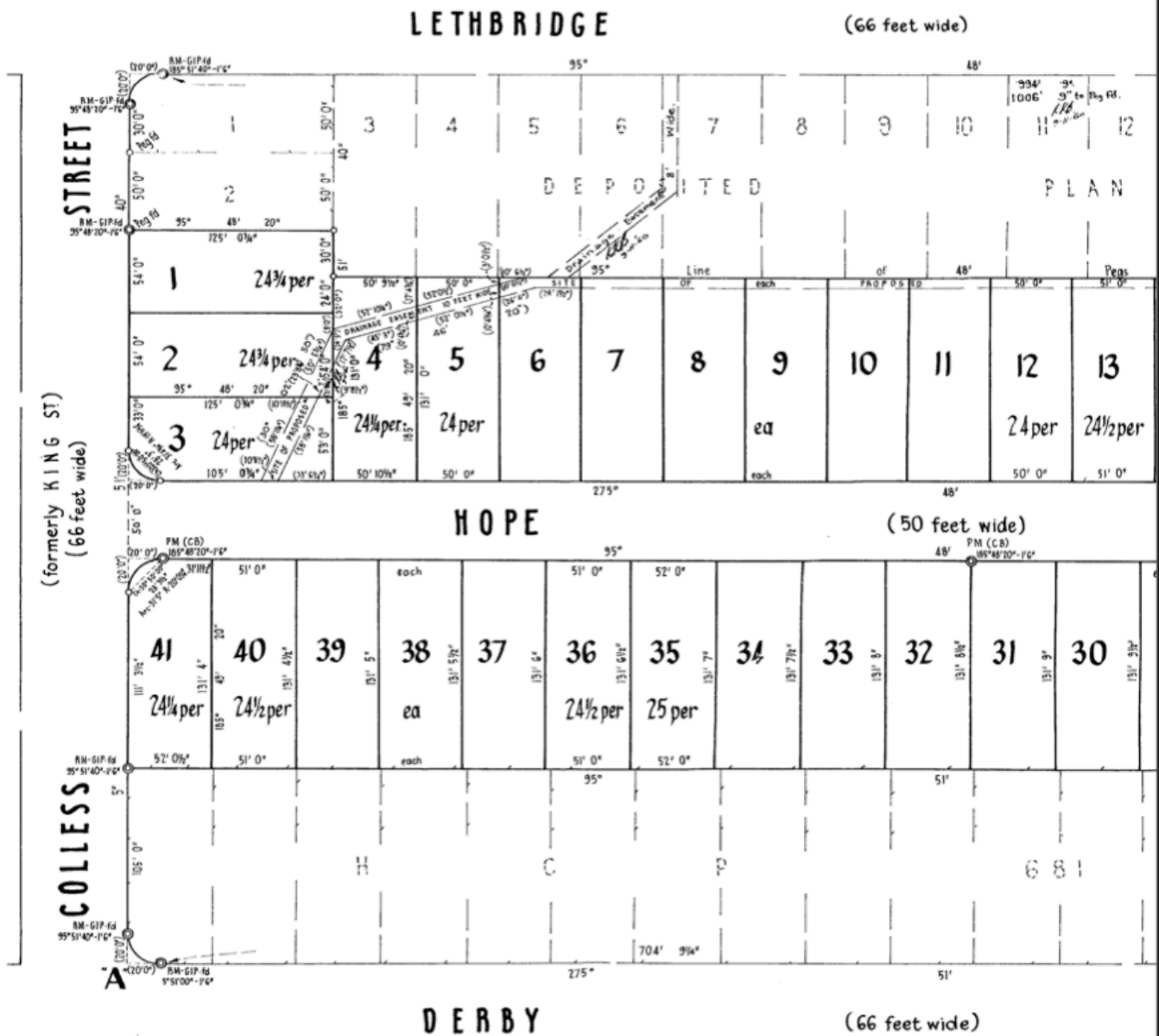
Deposited Plan No 31239 E
21st December 1960





Reg:R557056 /DocID:001239 P /Rev:26-Mar-1998 /NM LRS /Pg:ALL /Pr:12-Apr-2021 14:35 /Seq:2 of 4
© Office of the Registrar-General /SG:INFOBACK /Ref:16-24 Hope Street, Penrith

Req:R657056 /Doc:DP 0031239 P /Rev:26-Mar-1998 /NSW LRS /Pgs:ALL /Prt:12-Apr-2021 14:35 /Seq:3 of 4
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DP 31239 E

To dedicate Hope Street (50 feet wide)
notes (if any)



Appendix E – Relevant Construction Plans (Proposed)

18006 - PROPOSED RESIDENTIAL DEVELOPMENT

16-24 HOPE STREET, PENRITH 2750

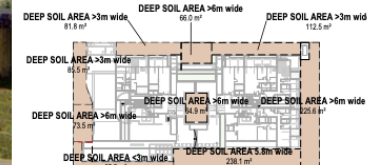


Development Details			
Site Area		3182m²	
Gross Floor Area (GFA)		5247m²	
Zoning		R4 High Density Residential	
		Allowable	Proposed
Floor Space Ratio (FSR)*		N/A	1.65:1
Total Storeys		5	
Communal Open Space		795.5m²	
% of Site Area ^a		25%	25%
Deep Soil Zones		430m²	
% of Site Area ^a		7%	14%

*LEP REQUIREMENT
*SEPP 65 REQUIREMENT
REFER SHEET DA02 FOR DETAILS



COS - GROUND
1 : 750



DEEP SOIL DIAGRAM
1 : 750

UNITS TYPES		
Type		Count
1 BED	Adaptable	2
2 BED		32
2 BED	Adaptable	4
3 BED		7
3 BED	Livable	5
4 BED		1
		51

GROSS FLOOR AREA	
Level	Area
GROUND LEVEL (TOWER 2)	876.5 m ²
LEVEL 1 (TOWER 2)	1200.1 m ²
LEVEL 2 (TOWER 2)	1200.1 m ²
LEVEL 3 (TOWER 2)	1192.1 m ²
LEVEL 4 (TOWER 2)	778.1 m ²
Grand total:	5247.0 m ²

COMMON OPEN SPACE		
Name	Area	% of Site
C.O.S. AREA	795.5 m ²	0.25

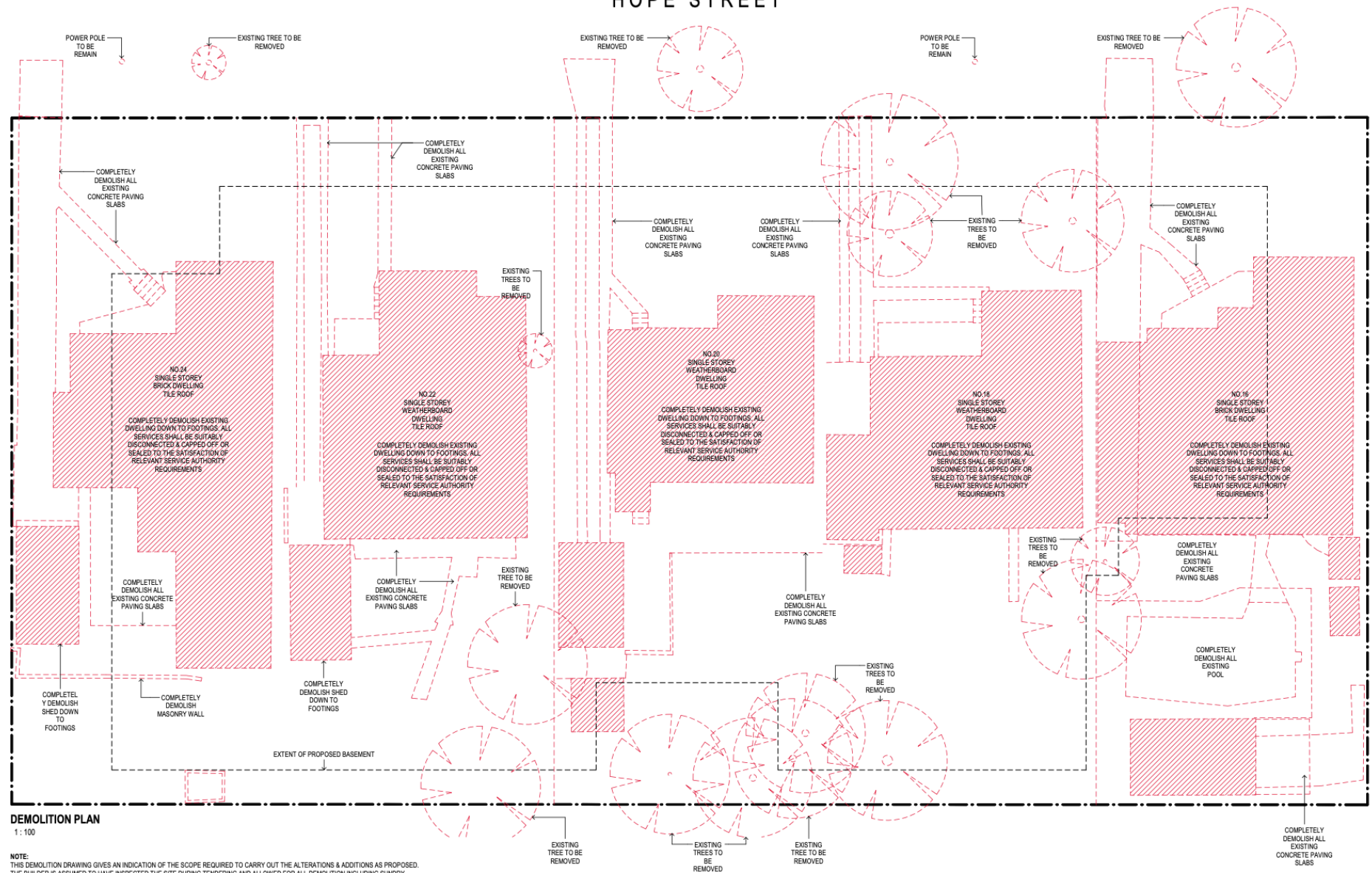
DEEP SOIL AREA		
Name	Area	% of Site
DEEP SOIL AREA 5.8m wide	238.1 m ²	7.48
DEEP SOIL AREA <3m wide	65.2 m ²	2.05
DEEP SOIL AREA >3m wide	279.8 m ²	8.79
DEEP SOIL AREA >6m wide	430.0 m ²	13.51
Grand total:	1013.1 m ²	31.84

CAR SPACES REQUIRED	
4 Bed units: 1	2
3 Bed units: 12	24
2 Bed units: 32	32
2 Bed units Adaptable: 4	4
1 Bed units Adaptable: 2	2
Visitors (1/5)	10
Service vehicles (1/40)	2
Washing bay (1/50)	1
Grand total	77

CAR SPACES - TYPES	
Type	Number
Disabled - 2500w x 5400l	0
Service - 2500w x 5400l	2
Disabled - 2500w x 5400l	0
Visitor - 2500w x 5400l	10
Washing - 3400w x 5400l	1
Grand total	13

Bike	13
------	----

HOPE STREET



REVISION	DATE	AMENDMENT
A	17-09-2020	DA SUBMISSION



PROJECT
18006 - PROPOSED RESIDENTIAL DEVELOPMENT
ADDRESS
16-24 HOPE STREET, PENRITH 2750

CLIENT
PRESTIGE DEVELOPMENTS GROUP (PENDING) LTD



PROJECT NO
18006-2020-001
DATE
17-09-2020
DRAWN BY
JULIA HAYES
CHECKED BY
JULIA HAYES
SCALE
1:100

SHEET NO
1 OF 1
DATE
17-09-2020

SHEET NAME
DEMOLITION PLAN

DRAWING NUMBER
DA09
ISSUE NO
A

The image is a detailed architectural floor plan of a basement level, labeled "BASEMENT 1" with a total area of 1893.1 m². The plan is rectangular with a complex internal layout. It features a large central parking area with numerous stalls, some of which are numbered (e.g., 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). There are also several service areas, including a staircase, restrooms, and a small office or reception area. The plan includes various dimensions and room numbers. A north arrow is located in the top right corner. The plan is labeled "BASEMENT 1" and "1893.1 m²".

1







REVISION	DATE	AMENDMENT	LEGEND/NOTES	PROJECT	CLIENT	DRAWING NUMBER	SHEET NUMBER	SHEET TITLE	SCALE	DATE	ISSUE NO.
A	17-10-2021	DA SUBMISSION	EX. BEDROOM CONCRETE CUPBOARD OF. DOWNHILL F. ELECTRICAL CUPBOARD FIRE PREVENTION REEL	18006 - PROPOSED RESIDENTIAL DEVELOPMENT	16-24 HOPE STREET, PENRITH 2750	DA26	A	EAST-WEST SECTION 1	1:100	JULY 2019	A

