

PENRITH CITY COUNCIL

MAJOR ASSESSMENT REPORT

Application number:	DA17/0336
Proposed development:	Demolition of Existing Structures & Construction of Three (3) Storey Residential Flat Building containing 20 Apartments & Basement Car Parking
Property address:	108 Lethbridge Street, PENRITH NSW 2750 104 Lethbridge Street, PENRITH NSW 2750
Property description:	Lot 4 DP 19440 Lot 5A DP 355610 Lot 11 DP 545304
Date received:	27 April 2017
Assessing officer	Paul Anzellotti
Zoning:	Zone R4 High Density Residential - LEP 2010
Class of building:	Class 2 , Class 7a
Recommendations:	Approve

Executive Summary

Reason for Determination by Penrith Local Planning Panel: *The development application is for a residential flat building under the Provisions of State Environmental Planning Policy No. 65 Design Quality of Residential Apartment Development*

Council is in receipt of a development application which proposes a residential flat building development comprising 20 units with associated basement car parking, landscaping and drainage works at No's. 104-108 Lethbridge Street, Penrith.

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

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

The proposed development was advertised in the local newspaper and notified to the owners and occupiers of adjoining and nearby properties. The public exhibition period for the proposal was from between 12 May 2017 to 26 May 2017. One (1) public submission was received in relation to the proposal, primarily relating to concerns regarding the existing infrastructure being in adequate, increase in noise and traffic and lack of parking.

The key issues relating to this application include overland flows, amenity, visual impact, waste and basement design. The applicant has amended the plans to address the concerns and provided additional information.

An assessment of the proposed development under the Environmental Planning and Assessment Act 1979 has been undertaken and the proposal has been found to be generally satisfactory. The proposed development is unlikely to have a negative impact on the surrounding environment. While so, it is considered that the application does maintain a number of urban design concerns in addition to a lack of appropriate landscaping to its front setback area fronting both Lethbridge and Evan Street. In this regard, it is considered that this can be addressed to the satisfaction of Council prior to an operational consent being granted via a 'deferred commencement' consent.

Site & Surrounds

The site is identified as Lot 4, DP 19440, Lot 5A, DP 355610 and Lot 11, DP 545304, being No's. 104-108 Lethbridge Street, Penrith and is situated on the corner of Lethbridge Street and Evan Street. The site has an area of 1843m² and is on the southern side of Lethbridge Street and western side of Evan Street. No. 104 Lethbridge street is currently vacant while No. 108 Lethbridge Street maintains a dwelling house and detached garage.

Immediately to the south of the site and transecting the southern corner, is a drainage channel. Adjacent to the south is a driveway and hard stand car parking area.

The area is transitioning as it changes to higher density due to its excellent location to services and transport and connections to the main roads via the existing road network.

The site is located to the south-east of the Penrith CBD, however is still within walking distance of the CBD, shopping facilities and transport including railway station. In vicinity of the site are various schools, churches, parks, bowling club, Police Station and public swimming pool.

Proposal

The development proposes the construction of a residential flat building. Specifically, the proposed development includes the following key aspects:

- 20 apartments comprising 3 residential levels (Ground, Level 1 and Level 2) and a semi basement car park, accommodating 24 resident spaces and 4 visitors' spaces.
- Mix of apartment types and sizes comprising 2 x 1 bedroom units, 15 x 2 bedroom units and 3 x 3 bedroom units. A total of 2 adaptable apartments are also provided.
- 3 storey building with a contemporary architectural character with landscaped areas to Lethbridge & Evan Streets. The colours comprise a mixture of greys and creams, with accent colours.
- Drainage is proposed via a network of pipes and swales, with a bioretention basin proposed on the southern side of the building, adjacent to the common open space.
- Common open space is provided primarily along the southern portion of the site, which allows for landscaping and seating areas for the residents. The proposed drainage connects into the existing drainage network.
- Provision has been made in the north-western frontage of the site for an identified future substation.
- Vehicular access to the car parking is via Evans Street, away from the intersection.
- Courtyards are provided within the front setback for the ground floor units, with landscaping proposed in front of the fencing to provide screening. Balconies are provided to the units on Levels 1 and 2.
- The existing footpaths to both frontages will be retained.
- The development is clear of the existing drainage channel through the site.

The following table provides a breakdown of the units:

Unit	Level	Bedrooms	Size (approx.)
1	Ground	1 - adaptable	65m ²
2	Ground	1 - adaptable	58m ²
3	Ground	3	120m ²
4	Ground & Level 1	2	93m ²
5	Ground & Level 1	2	93m ²
6	Ground	2	101m ²
7	Ground	2	88m ²
8	Level 1	2	85m ²
9	Level 1	2	98m ²
10	Level 1	2	91m ²
11	Level 1	2	88m ²
12	Level 1	3	101m ²
13	Level 1	2	88m ²
14	Level 2	2	85m ²
15	Level 2	2	98m ²
16	Level 2	2	91m ²
17	Level 2	2	88m ²
18	Level 2	2	104m ²
19	Level 2	3	101m ²
20	Level 2	2	88m ²

Plans that apply

- Local Environmental Plan 2010 (Amendment 4)
- Development Control Plan 2014
- 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 79C - Evaluation

The development has been assessed in accordance with the matters for consideration under Section 4.15 (previously Section 79C) of the Environmental Planning and Assessment Act 1979, and having regard to those matters, the following issues have been identified for further consideration:

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

State Environmental Planning Policy No 55—Remediation of Land

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

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

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

A review of Council's records does not identify that the site has been occupied by any potentially contaminating developments or uses. In this regard, the proposal is considered to satisfy the requirements of the Policy and Council can be satisfied that the land concerned is suitable for the development as proposed.

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

State Environmental Planning Policy No.65 - Design Quality of Residential Flat Development (SEPP 65) aims to improve the design quality of residential flat development. SEPP 65 does not contain numerical standards, but refers to "Apartment Design Guide" (ADG). The ADG provides additional detail and guidance for applying the design quality principles outlined in SEPP 65.

Under the provisions of SEPP No.65 – Design Quality of Residential Flat Development (SEPP 65), the proposal is defined as a Residential Flat Building as it comprises of a building of 3 or more storeys that includes 4 or more self-contained dwellings.

An assessment of the proposed building has been undertaken in accordance with the Design Quality Principles of SEPP 65 and is briefly discussed as follows:

(i) Design Quality Principle 1: Context & Neighbourhood Character

The site is located within an area zoned for high density residential and is a vacant site with minimal constraints. Penrith as a whole is undergoing transition to multi-unit housing. The site is located in proximity to Penrith Railway Station and Central Business District. This development is within an area zoned for higher density development. The development has responded to the topography of the land and is free of significant trees within its vicinity.

The existing area consists of a mix of older style residential dwellings and new medium and high density developments. The building responds to the desired future character of the area rather than the bulk and scale of the existing single or two storey dwellings. The size and scale of the proposed built form is considered compatible with existing developments directly adjoining to the west along Lethbridge Street (being two level town houses) and to its south along Evan Street (being a four level residential flat building).

The proposed development provides for outdoor communal areas at the rear of the development and has had regard to the amenity of the adjoining properties, providing a suitable setback to the side and rear boundaries. The presence of a drainage channel, car parking and driveway to the south has provided opportunity for greater separation to the southern adjoining buildings.

(ii) Design Quality Principle 2: Built Form & Scale

The proposed building will present as a maximum height of three storeys to both Lethbridge Street and Evan Street which is considered to be in keeping with the height controls and future likely development in the area. While the basement level will provide for a additional storey in accordance with the definition of a storey under SEPP 65, as this is maintained to the southern elevation, no direct visual impact is created to its immediate public surrounds. The proposal includes balconies, awnings and a range of materials to create depth and shade to the façade. Accordingly, it is considered that the proposal would be of a scale that is in keeping with the future development of the surrounding built environment and provides a gradual transition of building height to surrounding development.

The proposed building has been designed to reduce the overall bulk and scale of the development and provide a continual progression of the built form. Suitable side and rear setbacks, plus building articulation all assist in integrating the proposed built form into the existing locality and desired future character for this immediate area. The proposed setbacks are sufficient to allow outlook of the internal open spaces to encourage passive surveillance and safety whilst allowing for visual privacy to the proposed buildings.

The proposed building achieves an appropriate built form for its location, use and context. The rear common courtyard for the residents enhances the internal amenity of the development. The building masses are articulated and massing within the prescribed envelope aims to reduce the building bulk. A mix of building materials and colour further enhances the presentation of the building and in order to ensure the final choices are suitable, an updated schedule is to be submitted with the construction certificate.

(iii) Design Quality Principle 3: Density

The proposed accommodation seeks to cater for future demand and desired future densities identified by the zoning of the site. The density responds to the site opportunities and constraints and provides a range of floor space yields and apartment mixes. The density of the development is governed by the height of the building and the required setbacks. The proposed density is considered to be sustainable as it responds to the regional context, availability of infrastructure, public transport, community facilities and environmental quality and is acceptable in terms of density. The site is appropriate for higher densities given its location.

(v) Design Quality Principle 4: Sustainability

The code recommends that 70% of apartments in a development should receive a minimum of three hours direct sunlight between 9am and 3pm mid winter into the living rooms and private open space. The layout of the proposed units has ensured maximum solar access with only 3 out of 20 units having a southern aspect only. The proposal is compliant with 17 units receiving at least 2 hours solar access, which equates to 85% of the units receiving the required solar access consistent with the code.

The application includes good sustainable design including the use of natural cross ventilation and sunlight for amenity, liveability of residents. The applicant has submitted a BASIX Certificate for the proposed development. In achieving the required BASIX targets for sustainable water use, thermal comfort and energy efficiency, the proposed development would achieve efficient use of natural resources, energy and water throughout its full life cycle, including demolition and construction. Passive solar design principles have been incorporated through a high level of solar access and natural ventilation of units as well as effective thermal massing. The design responds to environmental concerns by focusing on natural ventilation, and light. Appropriate water efficiency and energy saving measures have been incorporated into

the development.

(vi) Design Quality Principle 5: Landscape

The landscape strategy includes a communal area which has a formal terraced area, seating and grassed areas which are accessed via the common hallways. Deep planting is provided both internally and to the public domain and is also proposed within all setbacks. The accompanying landscape plan is not considered to provide for an appropriate species of vegetation to both the Lethbridge and Evan Street façades to allow for appropriate screening of the ground floor terrace areas. In this regard, it is considered that an improved landscaping design may be provided for which will allow for an improved streetscape character.

This is also considered appropriate to the intersection of Evan Street and Lethbridge Street where a reconsideration of provided setbacks to this corner are considered necessary to allow for additional canopy trees. The absence of appropriate landscaping to the perimeter of the subject site is therefore considered to require reconsideration with an improved planting schedule considered to assist in integrating the overall built form with its surrounds. Noting this design concern, it is considered appropriate that an amended landscaping scheme be provided to the satisfaction of Council as part of a 'Deferred Commencement' approval prior to the operation of any formal consent.

(vii) Design Quality Principle 6: Amenity

Main living spaces in each of the proposed units are open plan and located directly adjacent to their main private open space. This is intended to promote an extension of the living space. The balconies are functional and promote indoor/outdoor living. The proposal provides a high level of amenity for all of the units including layout, natural ventilation, solar access and private open space. Room sizes are generous throughout as are ceiling heights, maximising fresh air and light and a mix of units is proposed.

There are communal recreation facilities for the development at the rear of the site. The design of the ground level is not considered to allow for a direct line of sight for instance from the lift lobby to the communal open space. In addition, it is considered that irregular access points from the internal lobby to the outdoor terrace associated with the garden aspect of the communal open space are provided for. This feature is considered to create an inappropriate safety and security concern which would be unlikely to be used and therefore also not considered to generate social interaction. In this regard, the layout of the ground floor level is considered to require reconsideration and should approval be granted, it is considered that this be as a 'Deferred Commencement' approval to allow for resolution of these concerns to the satisfaction of Council prior to the issuing of any formal operational consent.

There is ample car parking provision on the site itself, which minimises any potential impact of the development on local traffic conditions. The site is served by public transport with Penrith Train Station nearby.

Two units have been designed as adaptable in its design and a lift has been provided to all units.

(viii) Design Quality Principle 7: Safety

The proposed units are oriented to allow windows for passive surveillance of the communal open spaces and the main entrance. The main entry entrance to the building is considered to be highly visible, in highly trafficked area and have good sight lines across the site. While so, as previously discussed, the connection between the internal lobby and external communal open space area is considered to require reconsideration with the current design and it is therefore considered appropriate to require amendments via a 'Deferred Commencement' approval to the ground floor level to the satisfaction of Council. In addition, it is considered appropriate to also treat the areas to the front of openings for units fronting the communal open space on the ground floor to provide for a buffer and assist in maintaining privacy for future occupants.

The proposed development design was altered since lodgement to minimise amenity impacts by introducing privacy screens or minor changes to ensure no overlooking of other units in the development occurs, as well as changes to the materials and finishes, such as the introduction of vertical metal cladding in lieu of render on the north-eastern portion and south-eastern corner. The window proportions were also adjusted to create further visual interest.

(ix) Design Quality Principle 8: Housing Diversity & Social Interaction

The proposal incorporates a range of bedroom numbers and floor sizes, as well as providing two adaptable units. The proposal incorporates a range of unit sizes to cater for different demographics, living needs and household budgets. The development addresses housing choice by providing a component of adaptable housing and a mix of 1, 2 and 3 bedroom dwellings. The proposal responds to the social context in terms of providing a range of dwelling sizes with good access to social facilities and services as the site is located in close proximity to Penrith Railway Station and existing retail / commercial centre. The communal open space at the rear with barbeque, seating arrangements and lawn areas provide opportunities for social interaction amongst residents.

(x) Design Quality Principle 9: Aesthetics

The architectural style is contemporary and is sympathetic to its surroundings. The design reduces building bulk and the landscaped setting will ensure they are integrated into their surroundings. The proposal uses cladding, punctuating framed window and balcony elements and highlight colours and textures to achieve a modern finish and visual appeal. The proposal is designed to appear lightweight with defined entry points. Balconies are common external areas that create active edges for the proposed buildings both functionally and aesthetically.

The table below provides an assessment against the applicable provisions of the accompanying Apartment Design Guide (ADG).

Assessment Against the Apartment Design Guide (ADG)			
Part 3	Required	Discussion	Complies
3A-1	Each element in the Site Analysis Checklist should be assessed.	A Site Analysis plan was submitted with the application and identifies applicable elements as required within the Checklist. A written description of the proposal and subject site are also included in the submitted Statement of Environmental Effects and accompanying plans and reports.	Yes.
3B-1	Buildings to address street frontages.	Proposed elevations adequately addresses both streets. The common entry and foyer areas are of an appropriate design and location. The reduced secondary street setback is acceptable given the surrounding context and landscaping to be provided as part of the identified amended landscape scheme will assist in softening the building.	Yes.
3B-2	Living areas, Private Open Space (POS) and Communal Open Space (COS) to receive compliant levels of solar access.	Refer discussion under Parts 3D and 4A.	N/A.
	Solar access to living spaces and POS of neighbours to be considered.	Due to the orientation of the site, acceptable levels of solar access can be maintained to the open spaces and living zones of neighbouring properties. Additional setback is proposed to the south which minimises the impacts of over shadowing.	Yes.

	If the proposal will significantly reduce the solar access of neighbours, building separation should be increased.	Acceptable levels of solar access is achieved between the primary daylight hours at the winter solstice. An increase in building separation is not required.	Yes.
3C-1	Courtyard apartments should have direct street access.	The ground floor apartments and associated courtyards have direct access to the street.	Yes.
	Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings.	The fencing and landscaped area provided reduces the visual impact and protecting unit privacy.	Yes.
	Upper level balconies and windows to overlook the street.	Most apartments are provided with balconies and living areas overlooking either Lethbridge or Evan Street.	Yes.
	Length of solid walls should be limited along street frontages.	The majority of walls are located behind landscaping which will provide a visual barrier.	Yes.
	Opportunity for concealment to be minimised.	Entryways are wide, straight and located to reduce opportunity for crime and concealment.	Yes.
3C-2	Ramping for accessibility should be minimised.	Ramping is proposed relative to the street.	Yes.
3D-1	Communal Open Space (COS) to have minimum area of 25% of site.	490m ² of communal open space (COS) is proposed to be provided at the rear of the building which complies with the ADG requirement for 25% of site (being 26%) to be provided as COS. The area of COS is large and due to the irregular boundary shape, will provide opportunity for solar access to varying parts throughout the day.	Yes.
3D-4	Boundaries should be clearly defined between public open space and private areas.	The private open space areas of the development are clearly defined by the use of landscaping, walls, fencing and paving elements.	Yes.
3E-1	Deep soil is to be provided at a rate of 7% of site area with a min. dimension of 3m.	The site has a large amount of deep soil planting area which exceeds the ADG minimum requirement of 7%.	Yes.

3F-1	<p>1-4 Storeys – 6m habitable to habitable and 3m for non-habitable.</p> <p>5-8 storeys – 9m habitable to habitable and 4.5m for non-habitable.</p>	<p>The development complies with the guideline separation distances as provided by the ADG. The subject site adjoins</p> <p>The following separation distances are provided:</p> <ul style="list-style-type: none"> - 12m to the three storey RFB; and - 8m to the two storey townhouse development (noting 6m are proposed to the western boundary as per the ADG). <p>The following assessment is against the developments 'share' of the separation requirements, i.e. measured to the property boundary.</p> <p><i>Northern Separation</i></p> <p>A setback of between 5.5m and 6.5m provided to the street frontage for ground floor level to level. No concern as provided to a street frontage.</p> <p><i>South Separation</i></p> <p>A setback of 7.17m is provided to the boundary. A driveway adjoins the southern boundary.</p> <p><i>Western Separation</i></p> <p>The application is provided with a setback of 5.995m to the boundary for each level. Balconies to units 6, 12 and 19 respectively on the ground, 1st and 2nd floor are provided with a setback of 5m but as they are enclosed no concern is raised. The encroachment relates to minor portions of the balcony only and not for the full façade.</p> <p><i>East Separation</i></p> <p>Minimum setback of 3.66m, which increases to 5.5m, is provided. No concern is raised as provided to a street frontage and given the reduced setbacks of other buildings in the vicinity. Further, the stepping of this setback provides an improved presentation to the street.</p>	Yes.
3G-1	Building entries to be clearly identifiable.	Building entryways are visible from the street.	Yes.
3G-2	Building access ways and lift lobbies to be clearly visible from the public domain and communal spaces.	The main pedestrian entryways to the lobbies are visible from Lethbridge Street.	Yes.
	Steps and ramps to be integrated into the overall building and landscape design.	Steps and ramps are integrated into the design and landscaping.	Yes.

3H-1	Carpark access should be integrated with the building's overall façade.	The car parking is adequately integrated into the design with the car park entry (off Evan Street) setback from the building façade.	Yes.
	Clear sight lines to be provided for drivers and pedestrians.	Adequate sight lines are provided for drivers and pedestrians at the street frontage.	Yes.
	Garbage collection, loading and servicing areas are screened.	The waste collection, loading and servicing areas are contained within the basement.	Yes.
3J-1	The site is located within 800m of a railway station and as such car parking rates are set by the RMS (formerly RTA) Guide to Traffic Generating Developments document.	N/A	N/A.
3J-3	A clearly defined and visible lobby area or waiting area should be provided to lifts and stairs.	Lobby areas are clearly defined and appropriately located with sufficient safe manoeuvring areas provided. While so, as discussed within this report, it is considered that improved sight lines may be provided to the rear communal open space area	Yes, subject to appropriate conditions
	Car park design and access is safe and secure.	A security shutter shall be designed to the basement.	Yes. Condition recommended.
	Supporting facilities within car parks, including garbage, plant and switch rooms, storage areas, and car wash bays can be accessed without crossing car parking spaces.	The basement area is provided with appropriate storage and a car wash / service vehicle parking space that are accessed from common areas.	Yes.
3J-6	Positive street address and active frontages to be provided at ground floor.	Wide and direct pedestrian access pathways are provided to the communal entries and lift lobby areas via Lethbridge Street.	Yes.
4A-1	Living rooms and private open spaces of at least 70% of apartments to receive 2 hours direct sunlight between 9am and 3pm mid-winter.	Submitted documentation confirms that 85% of apartments are provided with compliant levels of solar access.	Yes.
	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.	A total of 3 units will not receive any solar access, which complies.	Yes.
4A-3	Sun shading devices are to be utilised.	Balconies are proposed to be covered by the levels over. Submitted elevations include sun shading devices and louvres.	Yes.

4B-3	60% (12 units) of apartments are to be naturally ventilated and overall depth of cross-through apartments 18m maximum glass-to-glass line.	Submitted documentation confirms that 13 units receive natural cross flow ventilation.	Yes.
4C-1	Finished floor to finished ceiling levels are to be 2.7m for habitable rooms, 2.4m for non-habitable rooms.	The proposal is for a minimum floor to ceiling height of 2.7m measured from finished floor to finished ceiling level.	Yes.
4D-1	Apartments are to have the following min. internal floor areas: 1 bed – 50sqm 2 bed – 70sqm 3 bed – 90sqm Additional bedroom areas increase minimum area by 5sqm.	All proposed apartment sizes comply with the ADG requirements.	Yes.
4D-2	In open plan layouts the maximum habitable room depth is 8m from a window.	All units comply with this requirement.	Yes
4D-3	Master bedrooms to be 10sqm's and other rooms 9sqm's.	All units comply with this requirement.	Yes.
	Bedrooms to have a minimum dimension of 3m.	All units comply with this requirement.	Yes
	Living rooms to have minimum width of 3.6m for a 1 bedroom unit and 4m for 2 & 3 bedrooms.	All units comply with this requirement.	Yes
4E-1	All units to have the following primary balcony areas: 1 bed – 8sqm (2m deep) 2 bed – 10sqm (2m deep) 3 bed – 12sqm (2.4m deep)	All units comply with this requirement.	Yes.
4E-3	Downpipes and balcony drainage are integrated with the overall facade and building design.	A condition of consent is recommended in this regard.	Yes. Condition recommended.
	Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design.	A condition of consent is recommended in this regard.	Yes. Condition recommended.
4F-1	Daylight and natural ventilation to be provided to all common circulation spaces.	Natural light is provided to the central lobby via glazing on the front door.	Yes.

4G-1	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is to be provided: 1 bed – 4m ³ 2 bed – 6m ³ 3 bed – 10m ³ With 50% of the above to be provided within the Units.	Adequate storage is provided within each unit.	Yes.
4K-1	Flexible apartment configurations are provided to support diverse household types.	The development proposes a range of unit sizes, configurations and number of bedrooms to accommodate change over time and cater for differing households. The application was accompanied by a Access Report confirming that the two adaptable units can comply with the spatial requirements of AS 4299 for Adaptable Housing. Adaptable apartments are to be allocated an accessible car parking space.	Yes. Conditions recommended.
4L-1	Direct street access should be provided to ground floor apartments.	Complies.	Yes.
4M-1	Building facades to be well resolved with an appropriate scale and proportion to the streetscape and human scale.	Varying ground, mid and upper level elements are provided to the proposal which are considered to assist in breaking up the bulk and scale of the building and provide elements of contrast. In this regard, the provision of window framed glass elements a mixture of vertical and horizontal featured cladding and rendered balcony frames are considered to provide depth to the buildings façade and provide for an appropriate inclusion to this Evan and Lethbridge Street intersection.	Yes.
4O-1	Landscape design to be sustainable and enhance environmental performance.	The submitted landscape plan indicates a selection of trees, shrubs and ground covers appropriate for the site. As discussed within this report, to allow for an improved visual presentation of the building an amended landscape scheme incorporating mature planting in the deep soil areas as well as landscape maintenance is to be provided as part of a 'Deferred Commencement' recommendation.	Yes. Conditions recommended.
4Q-2	Adaptable housing is to be provided in accordance with the relevant Council Policy.	Two (2) units are provided as adaptable.	Yes.
4U-1	Adequate natural light is provided to habitable rooms.	All habitable rooms are provided with appropriate levels of natural light. Apartment depths and open floor plan arrangements allow light into kitchens, dining and living areas.	Yes.

4V-2	Water sensitive urban design systems to be designed by suitably qualified professional.	The application has been referred to Council's internal Environmental Waterways Unit with no objections raised. The proposed development can comply with Council's WSUD Policy requirements with the use of enviropods and stormfilter cartridges and water conservation managed with the installation of rainwater tanks.	Yes.
4W-1	A Waste Management Plan is to be provided.	A Waste Management Plan has been submitted.	Yes.
	Circulation design allows bins to be easily manoeuvred between storage and collection points.	The waste collection area is located off Evan Street. Council's Waste Department have confirmed that the design is adequate and has the ability to accommodate the number of bins required to service the site and manoeuvring area.	Yes. Conditions recommended.

In consideration of the detailed information above and subject to appropriate conditions, it is considered that the subject proposal can reasonably satisfy the design quality principles of SEPP 65 and the guidelines contained within the associated Apartment Design Guide.

Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997) (SREP 20) integrates planning with catchment management to protect the Hawkesbury-Nepean river system, requiring the impact of future land use to be considered in a regional context. The plan covers water quality and quantity, environmentally sensitive areas, riverine scenic quality, agriculture and urban and rural-residential development. It controls development that has the potential to impact on the river environment. The plan applies to all parts of the catchment in the Sydney region (15 local government areas, including Penrith), except for land covered by *Sydney Regional Environmental Plan No. 11 - Penrith Lakes Scheme*. SREP 20 is supported by an Action Plan which includes actions necessary to improve existing conditions.

The development proposal is in accordance with the general planning considerations set out in Clause 5 of SREP 20 and the relevant specific planning policies and related recommended strategies set out in Clause 6. In particular, provision will be made for adequate erosion and sediment control measures. Council's Development Engineers have reviewed the application and subject to recommended conditions of consent relating to stormwater, erosion and sediment controls have no objections to the proposal.

Local Environmental Plan 2010 (Amendment 4)

Provision	Compliance
Clause 1.2 Aims of the plan	Complies
Clause 2.3 Permissibility	Complies - See discussion
Clause 2.3 Zone objectives	Complies - See discussion
Clause 4.3 Height of buildings	Complies
Clause 4.4 Floor Space Ratio	N/A
Clause 5.9 Preservation of trees or vegetation	Complies
Clause 5.10 Heritage conservation	Complies - See discussion
Clause 7.2 Flood planning	Complies - See discussion
Clause 7.6 Salinity	Complies - See discussion
Clause 7.7 Servicing	Complies

Clause 2.3 Permissibility

The proposal is for a residential flat building comprising twenty (20) residential apartments.

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

Clause 2.3 Zone objectives

Objectives of the R4 High Density Residential zone include the following:

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

The proposed development is compatible with the objectives of the R4 High Density Residential zone, in that it will provide for a variety of housing types within a high density residential environment.

The development proposal is also not in conflict with built form character expressed for the site within the applicable development controls plans as further detailed within this report.

Clause 5.10 Heritage conservation

The subject site is located 100m north of an existing heritage item on the corner of Derby Street and Evans Street (163 Derby Street, Penrith - Victorian Cottage - Heritage Significance No. 698 under Schedule 5 of the Penrith Local Environmental Plan 2010). Taking into consideration the separation provided between the subject site and the existing heritage item, it is considered that the proposal will create no impact upon its significance.

Clause 7.2 Flood planning

To address the flooding requirements of the site, the applicant has provided an amended overland flow flood study and has 'blocked out' the basement access ramp in accordance with Council's requirements. This flood modelling is a worst case scenario as the architectural plans still propose to have an open sub floor area under the basement ramp. Figure 7 and Table 1 of the report shows a minor increase in the flood level of 70mm is expected along the western boundary in Evan Street with no increase in the level along eastern side of Evan Street. The 70mm increase is generally within the confines of the property frontage in Evan Street with an increase of 20mm at the southern end at the adjoining property. Section 5 taken at the frontage to the building to the south in Evan Street shows no increase in flood levels, with Sections showing no increases in flood levels adjoining the building to the south-west.

Habitable floor levels and basement entry levels are satisfactory.

Accordingly, the proposal is acceptable with respect to Clause 7.2 of the LEP.

Clause 7.6 Salinity

The subject site is affected by moderate salinity. While so, it is considered that appropriate measures can be taken to avoid or reduce any undesirable effects that may be created as a consequence of the proposed development via appropriate conditions of consent.

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

There are no draft environmental planning instruments applicable to the subject site or to the proposed development.

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

Development Control Plan 2014

Provision	Compliance
C3 Water Management	Complies - see Appendix - Development Control Plan Compliance
C4 Land Management	Complies - see Appendix - Development Control Plan Compliance
C7 Culture and Heritage	N/A
C8 Public Domain	Complies - see Appendix - Development Control Plan Compliance
C9 Advertising and Signage	N/A
C10 Transport, Access and Parking	Complies - see Appendix - Development Control Plan Compliance
C11 Subdivision	N/A
C12 Noise and Vibration	Complies - see Appendix - Development Control Plan Compliance
C13 Infrastructure and Services	Complies - see Appendix - Development Control Plan Compliance
D2.1 Single Dwellings	N/A
D2.2. Dual Occupancies	N/A
D2.5 Residential Flat Buildings	Complies - see Appendix - Development Control Plan Compliance
D2.6 Non Residential Developments	N/A

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

There are no planning agreements applying to this proposal.

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

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

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

Context and Setting

The subject site will provide for a significant transformation of this corner block via the introduction of a built form in line with the desired objectives of the subject site's R4 zone. The application is provide for a compliant overall building height and is considered to allow for adequate setbacks to the boundary noting an adjoining existing residential flat building along Evan Street and the adjoining townhouse development along Lethbridge Street directly to the west of the subject site. While the design is considered to maintain an acceptable bulk and scale and its positioning which is not considered to create an immediate visual impact on its surrounds, it is considered that the presentation of the building may be improved via additional landscaping to the perimeter of the site as previously discussed with this report as part of a 'Deferred Commencement' approval..

Solar Access

Of the overall 20 apartments proposed, 85% of the total units are provided with eastern, northern and western perspectives which are considered to allow for an appropriate level of solar access throughout the day. The requirements of State Environmental Planning Policy No. 65 - Design Quality of Residential Flat Development and accompanying Apartment Design Guide requires a minimum of 70% of units to receive a minimum of 2 hours solar access throughout the day. In this regard, the location of proposed apartments is

considered to provide for an overall appropriate amenity for a majority of future occupants of the building.

Overshadowing

The location of the proposed built form on the subject corner allotment is considered to maintain an acceptable restriction on the amount of overshadowing created to surrounding properties. The application was accompanied by an analysis of overshadowing created to adjoining properties. This analysis has identified that there will be no significant solar access loss to any surrounding residential uses. The design has ensured that a greater southern setback is provided due to the existing drainage channel, which has assisted greatly in reducing shadowing impacts, as to has the existing driveway and parking area immediately adjoining the site to the south.

Noise

It is expected that proposed mechanical services (such as air conditioners) may potentially create disturbances to either occupants of the building or adjoining properties. In this regard, any determination granted will be provided with an appropriate condition regulating offensive noise in accordance with the provisions of the Protection of the Environment Operations Act 1997.

Landscaping

The application has provided for a significant amount of deep soil zone around the building, which provides opportunity to provide for a number of new trees as well as shrubs and other forms of vegetation. To allow for an improved presentation to both street frontages, it is considered appropriate that a reconsideration of the vegetation species proposed be provided for as part of a 'Deferred Commencement' approval. This would allow for an improved relationship between vegetation and the built form. In addition, additional planting to the perimeter of courtyard areas to both street frontages is considered will soften the built form appearance and allow for improved amenity for users.

Noting the above and subject to appropriate conditioning, it is considered that the subject site will allow for an appropriate mix of planting species.

Accessibility

The application was accompanied by an Accessibility Assessment Report which outlines that the proposal either complies with, or can comply with, the relevant accessibility provisions within the Building Code of Australia, Disability (Access to Premises) Standards (2010).

Geotechnical

Due to existing structures on site, a geotechnical report is not required at the development application stage and appropriate conditions have been imposed for submission prior to Construction Certificate.

Water Sensitive Urban Design

The proposed the development will comply with Council's WSUD Policy by using a 15m² raingarden combined with 2 x vegetated swales, 1 x Enviropod and a 5KL rainwater tank and associated reuse. Appropriate conditions have been recommended requiring maintenance access details for the raingarden to be detailed prior to Construction Certificate, as well as details on the vegetation planting and density for the raingarden to be specified prior to Construction Certificate.

The proposed stormwater treatment measures broadly comply with the requirements of the WSUD Policy.

Overland Flow Study

The overland flow flood study has been amended and satisfies Council's requirements.

Traffic Circulation and car parking

All internal car parking and manoeuvring is considered satisfactory noting comments returned from Council's Traffic Engineering Section who have raised no objection to the proposal subject to the provision of appropriate conditions with any determination granted. It is noted that the required car parking spaces is compliant by one (1) space while the estimated traffic generation of four (4) peak hour vehicle trips will not create an inappropriate impact upon the existing road network.

Access and circulation

Vehicular access is via Evan Street at the existing site driveway location, with a two way ramp to the basement level car parking. "No Stopping" restrictions apply at the intersection of Lethbridge/Evan

Streets in association with the existing roundabout. The precinct has a high level of on-street parking within the unrestricted parking lanes.

On-street waste collection is possible for this proposal (based on height and unit numbers) which will need to occur in the parking lane of Evan Street separate from the driveway crossing and within the unrestricted parking zones. Generally, this form of street collection/garbage servicing is standard and specific parking restrictions to allow the collection/servicing at this site is not considered necessary at this stage, particularly given precedent for all other garbage servicing in all other streets.

Building Design

The subject site sits within an area comprising a mix of housing forms and is generally older style housing. The area has been identified as being suitable for high density development. The scale and layout of the buildings is considered to be appropriate in relation to the future massing and size likely to occur in the area. The buildings have been designed such that sufficient solar access is available to the rooms, and the location of one building does not impact the solar access of another.

The proposal ensures that principles of Crime Prevention Through Environmental Design (CPTED) is incorporated into the design with living zones facing the street, driveway and common open space to provide passive surveillance, building articulation to inhibit hiding or enclosed spaces and landscaping to provide an attractive streetscape without compromising safety and security.

Environmental Sustainability

The proposed development will incorporate a number of sustainability initiatives for reduced water and energy consumption. These include passive solar design and orientation of all buildings and primary living spaces to minimise heating requirements in winter and cooling requirements in summer. The proposal incorporates rainwater retention and re-use system for stormwater collection.

The proposed development will incorporate a number of sustainability initiatives for reduced water and energy consumption. These include passive solar design and orientation of all buildings and primary living spaces to minimise heating requirements in winter and cooling requirements in summer. The proposal incorporates rainwater retention and re-use system for stormwater collection.

The proposal will generate an increase in traffic volume, however this has been considered in the rezoning of the area and the local road network has capacity to cater for the development. Off-street parking spaces are provided in excess of the SEPP requirements and this arrangement will reduce the incidence of off-street parking. Sight distances of the proposed driveway would be clear when in view from the street and vehicles can enter and leave in a forward direction.

Social

The provision of quality housing, close to the Penrith Town Centre, is supported from a social planning perspective.

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

The proposal is considered to have addressed the constraints of the subject site, in particular with the interface with the surrounding development and the appearance to the street. Overall, the subject site is deemed suitable for the development for the following reasons:

- The site is zoned to permit the proposed use;
- The use is considered compatible with surrounding and future adjoining land uses;
- The proposed development is considered to be compatible with the future desired character of the surrounding area and the R4 zoning for high density housing.
- The site is generally cleared of vegetation and does not contain constraints which preclude development.
- Stormwater from the site is able to drain to Council's satisfaction and overland flow has been satisfactorily addressed;
- The grade and area of the site is capable of providing for, or connecting to the infrastructure required to service and maintain the development; and
- The proposal aligns with the desired future character of the high density area in proximity of the Penrith CBD.
- The design is considered to maintain existing infrastructure services on the subject site.

Section 79C(1)(d) Any Submissions

Community Consultation

In accordance with the Act and Regulations, consideration has been given to any necessary referrals and any submissions made.

Community consultation

In accordance with Chapter 2.7 of the Penrith Development Control Plan the application was exhibited and notified for 14 days between 12 May 2017 to 26 May 2017. One submission was received during this period. The following issues were raised in the submission received and have formed part of the assessment.

Issue Raised	Comment
<p>Parking problems and insufficient parking proposed.</p> <p>Increase in traffic.</p> <p>Increase in accidents.</p>	<p>Council's Traffic Officer reviewed the proposal and has advised that the local road network can cater for the additional traffic generated by this proposal. This area was determined suitable for development with higher densities and able to withstand the additional traffic generation and zoned R4.</p> <p>Car parking is provided in excess of the requirements.</p> <p>Traffic measures such as a round-a-bout and signs with restrictions for stopping are already in place.</p>
<p>Existing infrastructure, in particular roads, is inadequate for more development. Should be fixed before development allowed.</p>	<p>The development collects contributions from the applicant, which is then utilised by Council for improvements locally such as to roads.</p>
<p>Noise.</p>	<p>A certain level of noise is expected from medium and high density developments given the increase in people on the site. The noise levels for this site, or any other site, is governed by the Protection of the Environment Operations Act 1997.</p>
<p>Concrete jungle.</p>	<p>Landscaping is proposed around all sides of the building. Appropriate conditions are recommended regarding landscape design, species and provision of a detailed landscape plan as part of a 'Deferred Commencement' approval as discussed within this report..</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 - Waterways	No objections - subject to conditions
Waste Services	No objections - subject to conditions
Traffic Engineer	No objection subject to conditions

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

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant planning regime and in accordance with the prevailing planning controls. In this regard, the proposed works are considered to be consistent with the relevant planning provisions.

The proposed development is in keeping with the desired built environment and is consistent with the relevant planning instruments and future plans applicable to the site. The proposal is therefore considered to be in the general interest of the public, and will not conflict with the character or amenity of the surrounding region.

The proposal involves the construction of residential units, which would contribute to the local demands for housing. The area consists of a variety of housing types and the proposed development would provide opportunity for more choice of housing in the market.

In view of the above, it is considered that development of the site as proposed would create public benefit.

Subject to compliance with conditions of any development consent and modifications to the development design as outlined within this report, the proposal is considered worthy of support.

Section 94 - Developer Contributions Plans

Section 7.11 (previously Section 94) contributions are applicable to the proposed development. In this regard, the following development contributions apply to the proposed development;

- Cultural Facilities = \$7,014.00
- District Open Space = \$66,045.00
- Local Open Space = \$23,897.00

The total Section 7.11 contributions applicable to the proposal is \$96,956.00. In this regard, appropriate conditions of consent will be provided with any Development Consent granted.

Conclusion

The proposed development has been assessed against the relevant heads of consideration contained in Section 4.15 (previously 79C) of the Environmental Planning and Assessment Act 1979 and Regulations 2000 and has been found to be satisfactory. While the site is considered suitable for the provision of a residential flat building as identified within this report it is considered that modifications to the design are considered appropriate, in particular to the landscaping to be provided and the layout of the ground floor and its relationship with the communal open space area.

The proposal is therefore worthy of support subject to the provision of appropriate conditions.

Recommendation

1. That DA17/0336 for an Residential-New Multi Unit - Demolition of Existing Structures & Construction of Three (3) Storey Residential Flat Building containing 20 Apartments & Basement Car Parking on 108 Lethbridge Street PENRITH be approved subject to the attached conditions.
2. That those making submissions are notified of the determination.

CONDITIONS

General

1 A001

The development must be implemented substantially in accordance with the following plans approved by the Penrith Local Planning Panel, the application form and any supporting information received with the application, except as may be amended in red on the approved plans and by the following conditions.

Doc No.	Issue	Title	Prepared By	Date
Architectural Plans all Project No. 0316 as amended to satisfy Schedule 'A' conditions				
DA2	H	Site Plan	Building Environments Pty Ltd	11 September, 2018
DA3	H	Basement	Building Environments Pty Ltd	11 September, 2018
DA4	H	Ground Level	Building Environments Pty Ltd	11 September, 2018
DA5	H	Level 1	Building Environments Pty Ltd	11 September, 2018
DA6	H	Level 2	Building Environments Pty Ltd	11 September, 2018
DA7	H	Roof Level	Building Environments Pty Ltd	11 September, 2018
DA8	H	North Elevation, East Elevation	Building Environments Pty Ltd	11 September, 2018
DA9	H	West Elevation, South Elevation	Building Environments Pty Ltd	11 September, 2018
DA12	H	Section A, Section B	Building Environments Pty Ltd	11 September, 2018
Stormwater Plans all Drawing No. E293145				
D1	D	Details, Notes & Legend	Donovan Associates	5 June, 2018
D2	D	Stormwater Management Plan Basement Level	Donovan Associates	5 June, 2018
D3	D	Stormwater Management Plan Site Plan	Donovan Associates	5 June, 2018
D4	D	Roof Plan	Donovan Associates	5 June, 2018
D5	D	Stormwater Details and WSUD Analysis	Donovan Associates	5 June, 2018
D6	D	Sediment Control Plan and Details	Donovan Associates	5 June, 2018
Landscape Plan as amended to satisfy Schedule 'A' conditions				
002032/TM	C	Landscape Concept	Urban Landscape Planners	5 April, 2017

- Access / Compliance Report prepared by Peter Simpson, dated 9 April, 2017;
- Overland Flow Assessment prepared by Donovan Associates, Reference No. E293145, Issue G, dated 10 August, 2018;
- Water Quality Devices (WSUD) Maintenance Schedule prepared by Donovan Associates, Job Reference No. E293145, dated 20 April, 2017;
- Water Sensitive Urban Design Strategy prepared by Donovan Associates, Job Reference No. E293145, Issue A, dated 20 April, 2017;
- BASIX Certificate, Document No. 806066M, dated 29 March, 2017;
- Waste Management Plan (undated) accompanying the application; and
- External Colour Selection (undated) accompanying the application.

2 A014 - LOT CONSOLIDATION

Lot 4 in Deposit Plan 19440, Lot 5A in Deposit Plan 355610 and Lot 11 in Deposit Plan 545304 are to be consolidated as one lot.

A copy of the registered plan of consolidation from Land and Property Information division of the Department of Lands 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.

3 A019 - OCCUPATION CERTIFICATE (ALWAYS APPLY)

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

4 **A038 - LIGHTING LOCATIONS**

Prior to the issue of an Occupation Certificate, a lighting system shall be installed for the development to provide uniform lighting across common areas and driveways. Exterior lighting shall be located and directed in such a manner so as not to create a nuisance to surrounding land uses. The lighting shall be the minimum level of illumination necessary for safe operation. The lighting shall be in accordance with AS 4282 "Control of the obtrusive effects of outdoor lighting" (1997).

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

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

6 **A Special (BLANK)**

Prior to the issue of an Occupation Certificate, a security roller shutter door is to be provided to the car parking entry to the basement level from Evan Street.

7 **A Special (BLANK)**

Construction and demolition works will 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 construction work is permitted on Sundays and Public Holidays.

In the event that the construction relates to works inside the building and do not involve external walls or the roof, and do not involve the use of equipment that emits noise then the construction 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.

8 **A Special (BLANK)**

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.).
- Position and orientation of boom/jib and counterboom/jib.
- 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 both ends of the boom/jib and counterboom/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 night, should be positioned so that when displayed it is visible from all directions.
- When a crane is unattended for an extended period of time ensure the crane's boom is retracted and lowered as far as possible.
- No part of the crane or structure shall extend beyond the boundaries of the subject development site unless approved by Penrith City Council in consultation with the Nepean Blue Mountains Local Health District. Any encroachment beyond the boundaries of the subject site shall be the minimum amount required to facilitate construction and access all parts of the construction site.

9 **A Special (BLANK)**

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 claddings such as synthetic or aluminium composite panels comply with the relevant requirements of the NCC; an

(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.

10 **A Special (BLANK)**

In the event that a hydrant booster is necessary to service the development, the booster shall be integrated into the design of the development. **Prior to the issue of a Construction Certificate**, Council shall be consulted regarding the proposed location of the booster, as the location of the booster may impact on other services and buildings, driveway or landscape design. Confirmation will also be required with regard to any heat shield or other such structures required.

11 **A Special (BLANK)**

Prior to the issue of a Construction Certificate, plans and details of all required boundary fencing, courtyard fencing and retaining walls shall be submitted to Council for approval. The fencing type(s) shall be consistent with the controls for fencing for residential flat buildings as outlined in Penrith Development Control Plan 2014. Timber retaining walls are not permitted.

Prior to the issue of an Occupation Certificate, all required boundary fencing, courtyard fencing and retaining walls shall be constructed at full cost to the applicant/developer.

12 **A Special (BLANK)**

All pedestrian access points into the development from Lethbridge Street shall have access restricted to residents only by way of security gates with intercom, code or card locks.

13 **A Special (BLANK)**

A user/sensor electronic security system, including intercom/swipe card access or alternative access control measures, shall be installed to vehicular entry/exit points to the basement car park as well to lifts, stair wells and garbage and storage areas, to limit unauthorised access to these areas.

14 **A Special (BLANK)**

All barriers along pathways throughout the development should be permeable including fencing, landscaping, etc to eliminate entrapment spots and blind corners.

15 **A Special (BLANK)**

Entrances to the development shall be easily recognisable through design features and directional signage and be clearly visible and legible to users.

16 **A Special (BLANK)**

Prior to the issue of a Construction Certificate, a design verification statement from a qualified designer shall be submitted. The design verification statement shall verify that the Construction Certificate plans and specifications achieve or improve the design quality of the development for which development consent was granted, having regard to the design quality principles set out in Part 2 of State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development.

17 **A Special (BLANK)**

Prior to the issue of an Occupation Certificate, a design verification statement from a qualified designer shall be submitted. The design verification statement shall verify that the development achieves the design quality shown in the approved Construction Certificate plans and specifications, having regard to the design quality principles set out in Part 2 of State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development.

18 **A Special (BLANK)**

Graffiti resistant coatings shall be used to external surfaces including blank walls, fences and outdoor furniture throughout the development.

19 **A Special Condition (BLANK)**

Prior to the issue of a Construction Certificate further details regarding access for the maintenance of the raingarden is to be provided to Council for review. Access for the raingarden must provide for the ongoing operation and maintenance of the treatment measure, including future renewal of the filter media.

20 [A Special Condition \(BLANK\)](#)

Prior to the issue of a Construction Certificate further details regarding the vegetation for the raingarden is to be provided to Council for review. This must include details of plant type and density and must be in accordance with the WSUD Technical Guideline requirements.

Demolition

21 [B002 - AS FOR DEMOLITION AND DISPOSAL TO APPROVED LANDFILL SITE](#)

All demolition works are to be conducted in accordance with the provisions of AS 2601-1991 "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**.

22 [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 Environmental Protection Authority to receive asbestos wastes.

23 [B004 - Dust](#)

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

24 [B005 - Mud/Soil](#)

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

Environmental Matters

25 [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 and the Department of Housing's "Managing Urban Stormwater: Soils and Construction" 2004.

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 demolition and construction associated with the development.

26 **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 Contaminated Land 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.

An appropriately qualified person/s (as defined in the Penrith Development Control Plan 2014) shall:

- Supervise the filling works,
- (On completion of filling works) carry out an independent review of all documentation relating to the filling of the site, and shall submit a review findings report to Council and any Principal Certifying Authority,
- Certify by way of a Compliance Certificate or other written documentation that fill materials have been placed on the site in accordance with all conditions of this consent and that the site will not pose an unacceptable risk to human health or the environment. A copy of the Compliance Certificate or other documentation shall be submitted to Council and any Principal Certifying Authority.

The contact details of any appropriately qualified person/s engaged for the works shall be provided with the Notice of Commencement.

{Note: Penrith Development Control Plan 2014 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.

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 **D Special BLANK**

The Waste Collection Area and Bulky Households Goods Area are each to provide wash facilities through the use of a centralised mixing valve and hose cock. Water proofing and drainage infrastructure are to be implemented within each room to support the use of the hose facilities.

29 **D Special BLANK**

Councils bin infrastructure and collection service will be provided to the development upon completion of all on-site waste collection infrastructure and the attainment of an Occupation Certificate.

30 **D Special BLANK**

Prior to the issue of an Occupation Certificate, the On-site Waste Collection Application is to be signed and submitted to Councils Waste Service Department.

31 **D Special BLANK**

The waste infrastructure provided within the development is to be built in accordance with configurations specified in the architectural plan, prepared by Building Environments Pty. Ltd, Project No. 0316, Drawing No. DA4, Issue H dated 11 September, 2018. On-site waste infrastructure is permissible to change only in accordance with conditions stipulated by Councils Waste Service department.

32 **D Special BLANK**

The Waste Collection Area and Bulky Households Goods Area is to replace the roller doors with 1.8m wide dual doors, lockable through Council's Abloy Key System (Olympic Locksmiths system 5OL092). Waste Collection Area doors are to be inwards opening and Bulky Households Goods Area doors are to be outwards opening.

BCA Issues

33 **E009 - Annual fire safety-essential fire safety (Class 2-9 buildings)**

The owner of a building, to which an essential fire safety measure is applicable, shall provide Penrith City Council with an annual fire safety statement for the building. The annual fire safety statement for a building must:

(a) deal with each essential fire safety measure in the building premises, and

(b) be given:

- within 12 months after the last such statement was given, or
- if no such statement has previously been given, within 12 months after a final fire safety certificate was first issued for the building.

As soon as practicable after the annual fire safety statement is issued, the owner of the building to which the statement relates:

- must also provide a copy of the statement (together with a copy of the current fire safety schedule) to the Commissioner of New South Wales Fire Brigades, and
- prominently display a copy of the statement (together with a copy of the current fire safety schedule) in the building.

34 **E01A - BCA compliance for Class 2-9**

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).

It is the owner's responsibility to place on display, in a prominent position within the building at all times, a copy of the latest fire safety schedule and fire safety certificate/ statement for the building.

Utility Services

35 **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.sydneywater.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 an Occupation Certificate.

36 [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 (as identified on the provided architectural and landscaping plans), 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. Confirmation is to be provided that a blast wall or other protective structure is/is not required.

37 [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

38 [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 are to be erected:

- at the commencement of, and for the full length of the, construction works onsite, 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.

39 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 the 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.

Engineering

40 K101 - Works at no cost to Council

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

41 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 the issue of any Construction Certificate or prior to the commencement of any works on site - 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 City Works Department on (02) 4732 7777 or visit Penrith City Council's website for more information.

42 [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 applications, including payment of application and inspection fees, 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) Vehicular crossings (including kerb reinstatement of redundant vehicular crossings)
- b) Concrete footpaths and or cycleways
- c) Road opening for utilities and stormwater (including stormwater connection to Penrith City Council roads and other Penrith City Council owned drainage)
- d) Road occupancy or road closures
- e) The placement of hoardings, structures, containers, waste skips, signs etc. in the road reserve
- f) Temporary construction access

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 City Works Department on (02) 4732 7777 or visit Penrith City Council's website for more information.

Note:

- a) 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.
- b) All works associated with the Roads Act approval must be completed prior to the issue of any Occupation Certificate.

43 [K209 - Stormwater Concept Plan](#)

The stormwater management system shall be provided generally in accordance with the concept plan/s lodged for development approval, prepared by Donovan Associates, Reference No. E293145, Drawing No's. D1 to D6, All Issue D, all dated 5 June 2018.

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 a Construction Certificate, the Certifying Authority shall ensure that the stormwater management system has been designed in accordance with Council's Stormwater Drainage for Building Developments and Water Sensitive Urban Design Policy.

44 [K209 - Stormwater Discharge – Minor Development](#)

Stormwater drainage from the site shall be discharged to the:

- a) Penrith City Council's trunk drainage system within the property

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

The proposed method of stormwater discharge shall be detailed in the Construction Certificate issued by the Certifying Authority.

45 [K211 - Stormwater Discharge – Basement Car parks](#)

Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that the stormwater drainage system for the basement car park has been designed in accordance with the requirements for pumped systems in AS3500.3 (or as amended) (Plumbing and Drainage – Stormwater Drainage).

46 [K212 - No loading on easements](#)

Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that the foundations of proposed structures adjoining the drainage and/ or services easement have been designed clear of the zone of influence.

47 **K214 - Flooding – Floor levels**

Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that all habitable floor levels are in accordance with the stamped approved plans with a minimum floor level of RL 35.5m AHD (standard flood level + 0.5m freeboard).

48 **K216 - Flooding – Garage Levels**

Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that the crest of the basement entry level ramp is a minimum of RL 34.8m AHD.

49 **K220 - Overland Flow Report Recommendations**

Prior to the issue of any Construction Certificate, the Certifying Authority shall ensure that the proposed development is compatible with the recommendations of the Overland Flow Flood Report prepared by Donovan Associates, Reference No. E293145, Revision G, dated 10 August, 2018.

50 **K221 - Overland Flow - General**

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

- a) All new fencing within the overland flowpath is open style to allow the free passage of overland flows. The fencing shall be of an open style for a minimum height of 300mm above the top water level of the overland flow flooding. Full details are to be shown on Construction Certificate drawings.
- b) All proposed penetrations and access points into the basement carpark area minimum of 300mm above the top water level adopted for the flooding.

Details prepared by a qualified person, demonstrating compliance with these requirements, shall form part of any Construction Certificate issued.

51 **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 Australian Standard's AS 2890.1, AS 2890.2, AS 2890.6 and Penrith City Council's Development Control Plan 2014.

52 **K224 - Construction Traffic Management Plan**

Prior to the issue of a Construction Certificate, the Certifying Authority shall ensure that a Construction Traffic Management Plan (CTMP) has been submitted to and approved by Penrith City Council. Approval of the CTMP may require endorsement from the Local Traffic Committee. The CTMP shall include, but not limited to the following: vehicle routes, number of construction vehicles, hours of operation, access arrangements, pedestrian management, turning templates for narrow streets and intersections and parking management for workers. The CTMP shall be certified by an appropriately accredited person and/or Roads and Traffic Authority Traffic Controller. for patrons. The CTMP shall be certified by an appropriately accredited person and/or Roads and Traffic Authority Traffic Controller. The CTMP shall ensure that adequate parking is provided for the development and not severely impacted by the construction of this development.

The TMP shall be supported by a traffic control plan, designed in accordance with the requirements of the Roads and Traffic Authority's Manual, Traffic Control at Work Sites Version 2, and the current Australian Standards, Manual of Uniform Traffic Control Devices Part 3, 'Traffic Control Devices for Works on Roads'.

The traffic control plan must be prepared by a suitably qualified and RTA accredited Work Site Traffic Controller.

53 **K302 - Traffic Control Plan**

Prior to commencement of any works associated with the development, a Traffic Control Plan, including details for pedestrian management, shall be prepared in accordance with AS1742.3 "Traffic Control Devices for Works on Roads" and the Roads and Maritime Services' publication "Traffic Control at Worksites" and certified by an appropriately accredited Roads and Maritime Services Traffic Controller.

Traffic control measures shall be implemented during the construction phase of the development in accordance with the certified plan. A copy of the plan shall be available on site at all times.

Note:

- a) A copy of the Traffic Control Plan shall accompany the Notice of Commencement to Penrith City Council.
- b) Traffic control measures may require road occupancy / road closure approvals issued under Section 138 of the Roads Act by Penrith City Council prior to the issue of a Construction Certificate.

54 **K401 - Flooding – Surveyor Verification of floor levels**

A certificate by a registered surveyor verifying that all habitable floor levels are at or above RL 35.5m AHD (standard flood level + 0.5m freeboard) shall be submitted upon completion of the building to that level. No further construction of the building is to be carried out until approval to proceed is issued by the Principal Certifying Authority.

55 **K403 - Major Filling/ Earthworks**

All earthworks shall be undertaken in accordance with AS 3798 and Penrith City Council's Design Guidelines for Engineering Works for Subdivisions and Developments and Engineering Construction Specification for Civil Works.

The level of testing shall be determined by the Geotechnical Testing Authority/ Superintendent in consultation with the Principal Certifying Authority.

56 **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.

57 **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 authorities regulations and standards.

58 **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 or Section 68 Local Government Act approval have been inspected and signed off by Penrith City Council.

59 **K502 - 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.

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 Council is not the Principal Certifying Authority.

60 **K503 - Stormwater Compliance**

Prior to the issue of any Occupation Certificate, the Principal Certifying Authority shall ensure that the stormwater management system (including water sensitive urban design measures):

- 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 system/s shall be provided as part of the works-as-executed drawings.

61 **K504 - Restriction as to User and Positive Covenant**

Prior to the issue of an Occupation Certificate, a restriction as to user and positive covenant relating to the stormwater management systems (including water sensitive urban design measures) 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 Development Policy.

62 **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.

63 **K Special (BLANK)**

All car spaces are to be dedicated for the parking of vehicles only and not be used for storage of materials/waste materials etc

64 **K Special (BLANK)**

Subleasing of car parking spaces is not permitted by this Consent.

65 **K Special (BLANK)**

Signage indicating the location of visitor parking is required at the driveway entrance.

66 **K Special (BLANK)**

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

67 **K Special (BLANK)**

Prior to the issue of an Occupation Certificate, secure bicycle parking is to be provided at convenient location(s) in accordance with *AS2890.3:2015 Bicycle Parking Facilities*

68 **K Special Condition BLANK**

Prior to the commencement of any works upon the site, CCTV footage and report of the existing covered concrete drainage channel within the site is to be undertaken and submitted to Council. The CCTV and accompanying report is to undertake an assessment of the existing condition of the drainage channel prior to the commencement of any works. The CCTV footage shall be undertaken in SEWRAT format and submitted to Council seven (7) days prior to the commencement of any works.

69 **K Special Condition BLANK**

Prior to the issue of any Occupation Certificate, additional post-construction CCTV footage and report is to be undertaken of the existing covered concrete drainage channel within the site and submitted to Council for approval. The CCTV and accompanying report is to undertake an assessment of the condition of the drainage channel post construction of any building works. Any damage identified by Council is to be rectified by the applicant to the satisfaction of Council and at no cost to Council prior to the issue of any Occupation Certificate.

Landscaping

70 **L001 - General**

All landscape works are to be constructed in accordance with the stamped approved plans as amended by the applicable conditions of this Development Consent and Sections C2 'Vegetation Management' and C6 'Landscape Design' of Penrith Development Control Plan 2014.

Landscaping shall be maintained:

- in accordance with the approved plans, and
- 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.

71 **L002 - Landscape construction**

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

72 L003 - Report requirement

The following series of reports relating to landscaping are to be submitted to the nominated consent 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

Upon completion of the landscape works associated with the development and **prior to the issue of an Occupation Certificate** for the development, an Implementation Report must be submitted to the Principal Certifying Authority 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 Principal 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.

73 L005 - Planting of plant

All plant material associated with the construction of approved landscaping is to be planted in accordance with the Tree Planting Specifications prescribed in Penrith Development Control Plan 2014.

74 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.

75 L007 - Tree protection measures—no TMP with 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 Section C6 'Landscape Design' of Penrith Development Control Plan 2014.

76 L008 - Tree Preservation Order

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.

77 L Special (BLANK)

All trees and landscaping must be maintained in perpetuity to enable maturity to their full potential in healthy growing conditions. This includes mature height, spread and form, consistent with the tree species. Pruning must not alter the natural form and height of trees.

Development Contributions

78 N001 - Section 94 contribution (apply separate condition for each Contribution Plan)

This condition is imposed in accordance with Penrith City Council's Section 94 Contributions Plan(s) for Cultural Facilities. Based on the current rates detailed in the accompanying schedule attached to this Notice, \$7,014.00 is to be paid to Council prior to a Construction Certificate being 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 94 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 S94 invoice accompanying this consent should accompany the contribution payment. The Section 94 Contributions Plan for Cultural Facilities may be inspected at Council's Civic Centre, 601 High Street, Penrith.

79 **N001 - Section 94 contribution (apply separate condition for each Contribution Plan)**

This condition is imposed in accordance with Penrith City Council's Section 94 Contributions Plan(s) for District Local Space. Based on the current rates detailed in the accompanying schedule attached to this Notice, \$66,045.00 is to be paid to Council prior to a Construction Certificate being 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 94 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 S94 invoice accompanying this consent should accompany the contribution payment. The Section 94 Contributions Plan for District Local Space may be inspected at Council's Civic Centre, 601 High Street, Penrith.

80 **N001 - Section 94 contribution (apply separate condition for each Contribution Plan)**

This condition is imposed in accordance with Penrith City Council's Section 94 Contributions Plan(s) for Local Open Space. Based on the current rates detailed in the accompanying schedule attached to this Notice, \$23,897.00 is to be paid to Council prior to a Construction Certificate being 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 94 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 S94 invoice accompanying this consent should accompany the contribution payment. The Section 94 Contributions Plan for Local Open Space may be inspected at Council's Civic Centre, 601 High Street, Penrith.

Payment of Fees

81 **P001 - Costs**

All roadworks, dedications and drainage works are to be carried out at the applicant's cost.

82 **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

83 **Q006 - Occupation Certificate (Class 2 - 9)**

An Occupation Certificate is to be obtained from the Principal Certifying Authority on completion of all works and prior to the occupation of the building and commencement of the approved use. The Occupation Certificate shall not be issued if any conditions of this consent, but not the conditions relating to the operation of the development, are outstanding, and the development does not comply with the provisions of the Environmental Planning and Assessment Act and Regulation.

Before the Occupation Certificate can be issued for the development, Fire Safety Certificates issued for the building are to be submitted to Penrith City Council and the New South Wales Fire Brigades.

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

84 **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 Certifying Authority 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 Certifying Authority shall submit to Council an "Appointment of Principal Certifying Authority" in accordance with Section 81A 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 81A of the Environmental Planning and Assessment Act 1979.

Schedule 1 (Deferred Commencement)

85 S Specia (BLANK)

Landscaping

A revised landscape plan is to be submitted and approved by Penrith City Council prior to this consent becoming operational providing for the following modifications:

- (a) The inclusion of mature tree planting and landscaping with appropriate spacing to the deep soil area within the front setback area along the Lethbridge and Evan Street frontages;
- (b) The location of mature canopy trees to the intersection of Lethbridge Street and Evan Street;
- (c) Planter box landscaping is to be provided for apartments 1 to 6 of an appropriate width to the edge of each terrace area; and
- (d) Details are to be provided of the proposed water management for landscaping and plant establishment period.

86 S Specia (BLANK)

Building Layout

Plans are to be amended to the satisfaction of Penrith City Council prior to this consent becoming operational so as to provide for the following modifications to the residential flat building design:

- (a) The provision of an appropriate connectivity between the internal lobby area on the ground floor and the communal open space. In this regard, consideration should be given to the location of the main entry for the building from Lethbridge Street to allow for a clearer means of access and sight lines to the internal lift and rear communal open space area;
- (b) Any access points from the lobby area to the communal open space should provide for appropriate door widths to maintain clear lines of sight from the internal to external living area;
- (c) The positioning of the lift servicing the building is to be clearly identifiable from the main building entry fronting Lethbridge Street and provide for clear access to the communal open space area;
- (d) Appropriate buffers are to be provided between private open space areas and window openings to units facing the communal open space to allow for improved privacy and safety for these occupants;
- (e) Details are to be provided identifying equitable access for a person with a disability from the terraced portion of the communal open space to the turfed portion of the communal open space. In addition, details are to be provided displaying that all persons may access items of interest within the communal open space area.

Appendix - Development Control Plan Compliance

Development Control Plan 2014

Part C - City-wide Controls

The proposed development has been assessed in accordance with the requirements of the DCP and a summary of the key issues are demonstrated in the following table:

REQUIREMENT	COMMENT	COMPLIES
Part C		
Site Planning & Design Principles	The design is considered appropriate for the site and has had regard to the constraints and the adjoining properties in the design.	Yes
Vegetation Management	The site is generally cleared, however does contain some insignificant vegetation. Landscaping is proposed which will include replacement planting with the front, side and rear setbacks. Subject to an updated landscape plan to be provided to Council's satisfaction prior to the formal operational commencement of any approval granted, it is considered that landscaping provided to deep soiled areas is acceptable.	Yes
Water Management	The site is proposed to be drained by way of on-site detention and WSUD measures have also been incorporated. Further, BASIX commitments have been made with respect to provision of water saving devices and water tanks.	Yes
Land Management	Conditions of consent are recommended regarding the disposal of fill and implementation of erosion and sedimentation control measures, as well as Geotechnical review.	Yes
Waste Management	A waste management plan has been prepared in support of the subject proposal and addresses space, access, amenity, construction and management. Bin storage bays are proposed at the front of the site, within the ground floor adjacent to the vehicular entry to the basement. Council's Waste Officer has reviewed the proposal and raises no objection.	Yes
Landscape Design	The proposal provides an opportunity for a high level of landscaping within the front, rear and side setbacks. The deep soil zone exceeds the SEPP requirements and subject to appropriate landscaping provided is considered to allow for an appropriate relationship with the proposed built form.	Yes
Public Domain	The development has been designed to provide an acceptable interface with the public domain. Clear entries are provided to the development, as well as landscaping along the front setback to screen the requires services such as bin bays and electrical substation.	Yes
Transport, Access & Parking	The existing road network can withstand the additional traffic generation. The car parking rates for residential flat buildings under the DCP vary from the SEPP, which overrides in the event of an inconsistency. Refer to car parking has comment below.	Yes
Noise & Vibration	The site is not located within immediate proximity of the station or railway lines and as such noise and vibration from those services is not applicable. There is no other source of noise in the immediate vicinity. There will be an increase in noise as a result of 20 new units on the site. However, the area is appropriate for this form of development and noise restrictions under the Protection of the Environment Operations Act apply.	Yes

Infrastructure & Services	The site is already serviced and no new infrastructure is required to facilitate the development.	Yes
Part D – 2.5 Residential Flat Buildings		
Residential Character & Urban Form	The area is commencing transition from single and two storey dwellings to residential flat buildings. Already there is a mix of housing forms and styles and as such there is no consistent design to incorporate. The proposed urban form of the building is acceptable.	Yes
Landscaped Area	The SEPP overrides the DCP. The proposed development will have sufficient open space and landscaped areas surrounding the residential and communal facilities.	Yes
Front & Rear Setbacks	The building is setback 3.66m to 6.5m from the front boundaries to the streets. Given the area is changing and other development has provided a varied setback with portions close to the boundary, a varying setback as proposed is deemed suitable.	Yes
Side Setbacks	The side setbacks meet the DCP requirements. Cut and fill is proposed to 800mm in part, which exceeds the 500mm control. However, this is acceptable due to the sloping terrain and does not result in an elevated development.	Yes
Visual & Acoustic Privacy	The accommodation of 20 units within a 3 storey building on the site will result in some loss of privacy for adjoining properties. However, the area has been identified as being suitable for re-development for high density housing. The design has included compliant setbacks which will be landscaped, and privacy screens to balconies, all aiding to reduce amenity impacts.	Yes
Solar Planning	The SEPP contains solar access requirements which are satisfied by the proposed development.	Yes
Building Design	A variety of materials and architectural features have been incorporated into the development. The basement does not extend more than 1.5m out of the ground, in accordance with the DCP.	Yes
Energy Efficiency	A BASIX Certificate has been lodged which includes energy efficiency measures to be incorporated into the development.	Yes
Design of Dwellings & Courtyards	Balconies have been provided to each unit, in excess of 10m ² in size which are considered generous.	Yes

C10 Transport, Access and Parking

The proposal requires the following on-site parking provision:

Land Use Element	Parking Rate	Required
Residential Flat Buildings	1 space per 1 or 2 bedrooms (17 units)	17
	2 spaces per 3 or more bedrooms (3 units)	6
	1 space per 40 units for service vehicles	1
	Visitor parking: 1 space per 5 dwellings	4
	1 space for car washing for every 50 units	1

Total Required		<i>23 residential spaces 4 visitor spaces 1 service 1 car wash bay</i>
Total Proposed		<i>23 residential spaces 4 visitor spaces 1 combined service / car wash bay</i>

The proposal has generally satisfied the provisions of the Penrith Development Control Plan 2014.

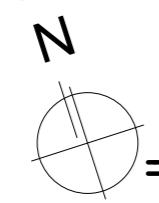
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RL35.629 (A.H.D.) (ORIGIN)

LETHBRIDGE

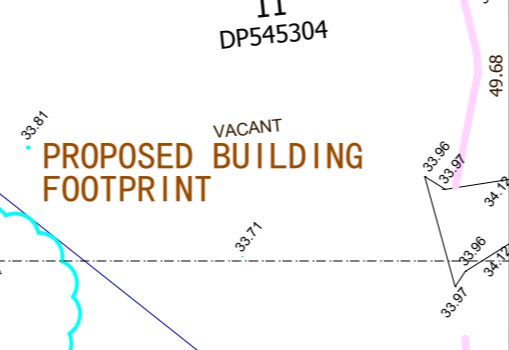
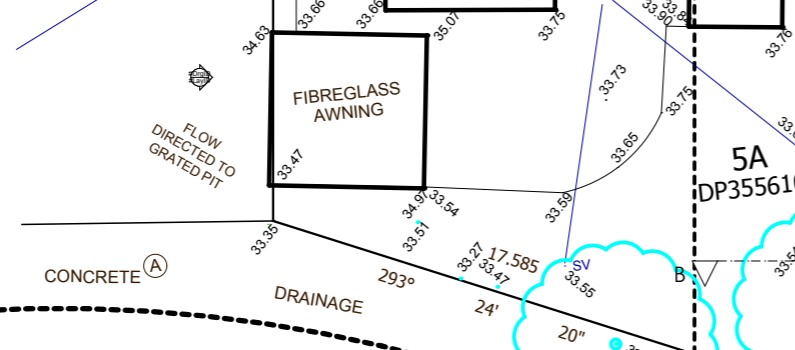
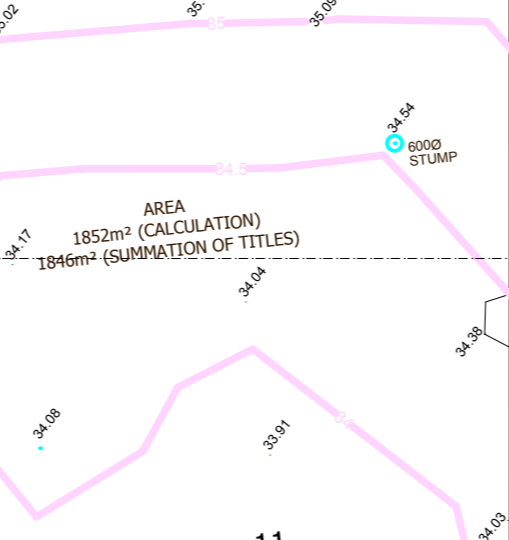
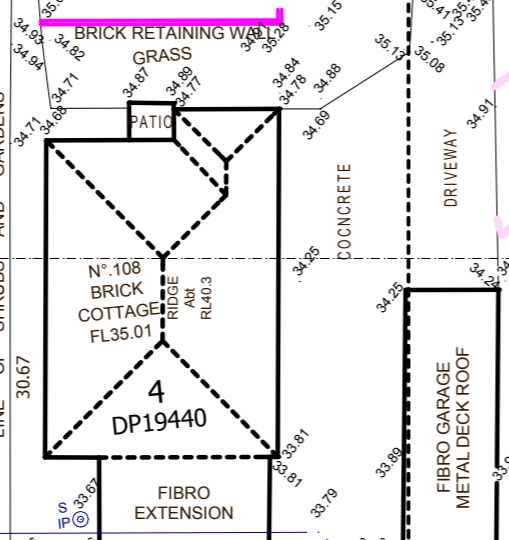
STREET

SOLAR PATH

CONCRETE MOUNTABLE ROUND-A-BOUT



3
DP19440
N° .110
RENDERED
COTTAGE
& EXTENSION
"BRIAN PHILLIPS
DENTAL
SURGERY"
ELEVATED
MOUNTAIN
VIEWS



PREVAILING
SOUTHERLY
BREEZES

EVAN

SURVEY
1:300

BUILDING ENVIRONMENTS PTY.LTD

PO BOX 34 EMU PLAINS NSW 2750
PH 0428 505 900

ARVI RANNASTE ARCHITECT REG.NO, 7085
email: arvi@buildingenvironments.com.au

ISSUE H 11.09.18
ADJUST BASEMENT SPLAYED WALL
AS REQUESTED BY COUNCIL

ISSUE G 24.06.18
ADDRESS COUNCILS COMMENTS
DATED 06.06.18

ISSUE F 21.05.18
ADJUST GARBAGE ROOM RL
AND RAMP LOCATION
ADJUST BASEMENT CARPARKING
DIMENSIONS

ISSUE E 09.03.18
ADJUST RAMP CROSS SECTION
DETAIL BASEMENT CAR PARK

ISSUE D 17.01.18
RELOCATE RAMP AND
BASEMENT T UNIT 3 AND WASTE
ROOM RE DESIGN

ISSUE C 23.10.17
PROVIDE RAMP SECTIONS
AND AMEND WASTE STORAGE
AREAS

ISSUE B 08.09.17
ADDRESS COUNCILS COMMENTS
REQUESTED 4 AUGUST 2017

ISSUE A 19.06.17
ADDRESS COUNCILS
COMMENTS

REVISIONS

The builder shall check and verify all dimensions and verify all errors and omissions to the Architect. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Architect for construction.

Client
NOR-SIDE INVESTMENTS PTY LTD
Project Name
LETHBRIDGE APARTMENTS
104-108 LETHBRIDGE STREET PENRITH
2750

Drawing Title:
**Council Submission DA -1- SURVEY/SITE
SURVEY
ANALYSIS**

Scale: as noted Date:
Status: PRELIMINARY Checked By:

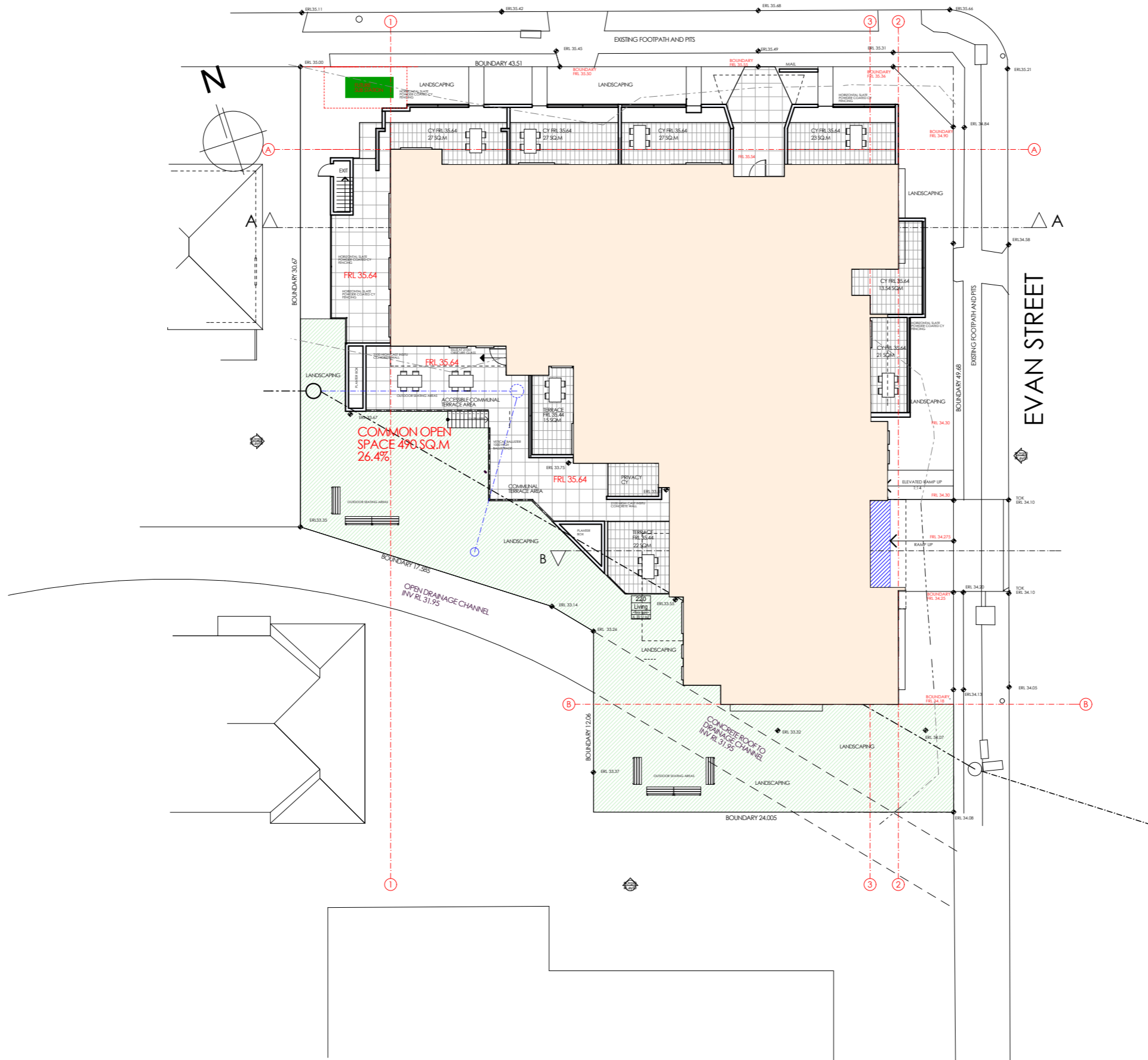
Project No:
0316 Drawing No.:
DA1

Plot Date: 11/09/2018

LETHBRIDGE STREET

200
150
100
50
30
20
10

length in millimeters at full size



COMMON OPEN SPACE 490 SQ.M
26.4%

SITE PLAN

BUILDING ENVIRONMENTS PTY.LTD

1:300
34 EMU PLAINS
PH 0428 505 900

NSW 2750

ARVI RANNASTE ARCHITECT REG.NO, 7085
email: arvi@buildingenvironments.com.au

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ADDRESS COUNCILS COMMENTS
REQUESTED 4 AUGUST 2017

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ADDRESS COUNCILS
COMMENTS

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Client
NOR-SIDE INVESTMENTS PTY LTD
Project Name
LETHBRIDGE APARTMENTS
104-108 LETHBRIDGE STREET PENRITH
2750

Drawing Title:
Council Submission DA - 3. SITE PLAN
SITE PLAN

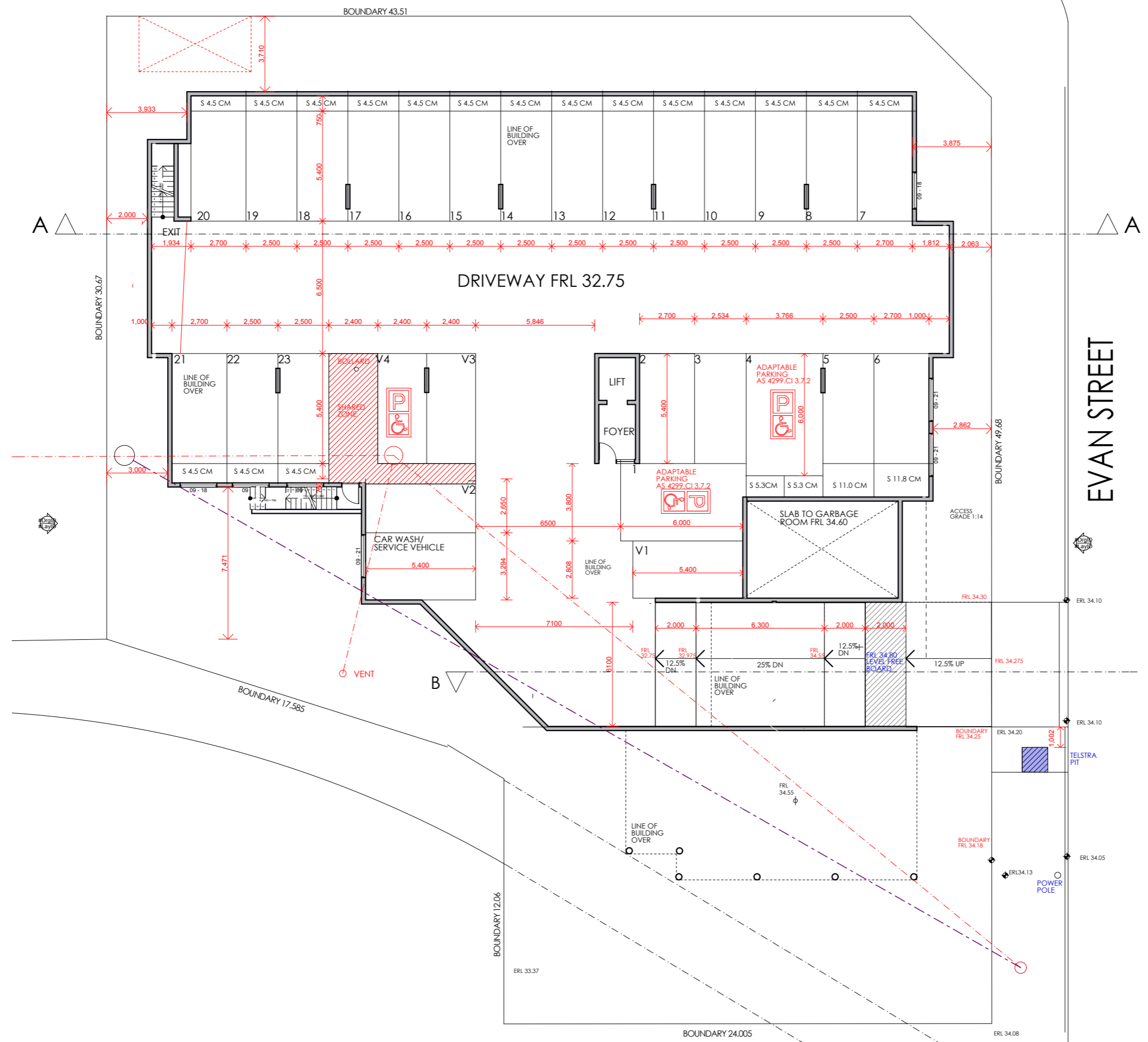
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Status: PRELIMINARY Checked By:

Project No:
0316 Drawing No.:
DA2

Plot Date: 11/09/2018

3



ISSUE H 11.09.18
ADJUST BASEMENT SPLAYED WALL
AS REQUESTED BY COUNCIL

ISSUE G 24.06.18
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DATED 06.06.18

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ADJUST GARBAGE ROOM RL
AND RAMP LOCATION
ADJUST BASEMENT CARPARKING
DIMENSIONS

ISSUE E 09.03.18
ADJUST RAMP CROSS SECTION
DETAIL BASEMENT CAR PARK

ISSUE D 17.01.18
RELOCATED RAMP AND
BASEMENT T. UNIT 3 AND WASTE
ROOM RE DESIGN

ISSUE C 23.10.17
PROVIDE RAMP SECTIONS
AND AMEND WASTE STORAGE
AREAS

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ADDRESS COUNCILS COMMENTS
REQUESTED 4 AUGUST 2017

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COMMENTS

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Client
NOR-SIDE INVESTMENTS PTY LTD
 Project Name
LETHBRIDGE APARTMENTS
 104-108 LETHBRIDGE STREET PENRITH
 2750

Drawing Title:
**Council Submission DA - 2. BASEMENT
 BASEMENT**

Scale: as noted Date:

Status: PRELIMINARY Checked By:

Project No:
0316 Drawing No.:
DA3

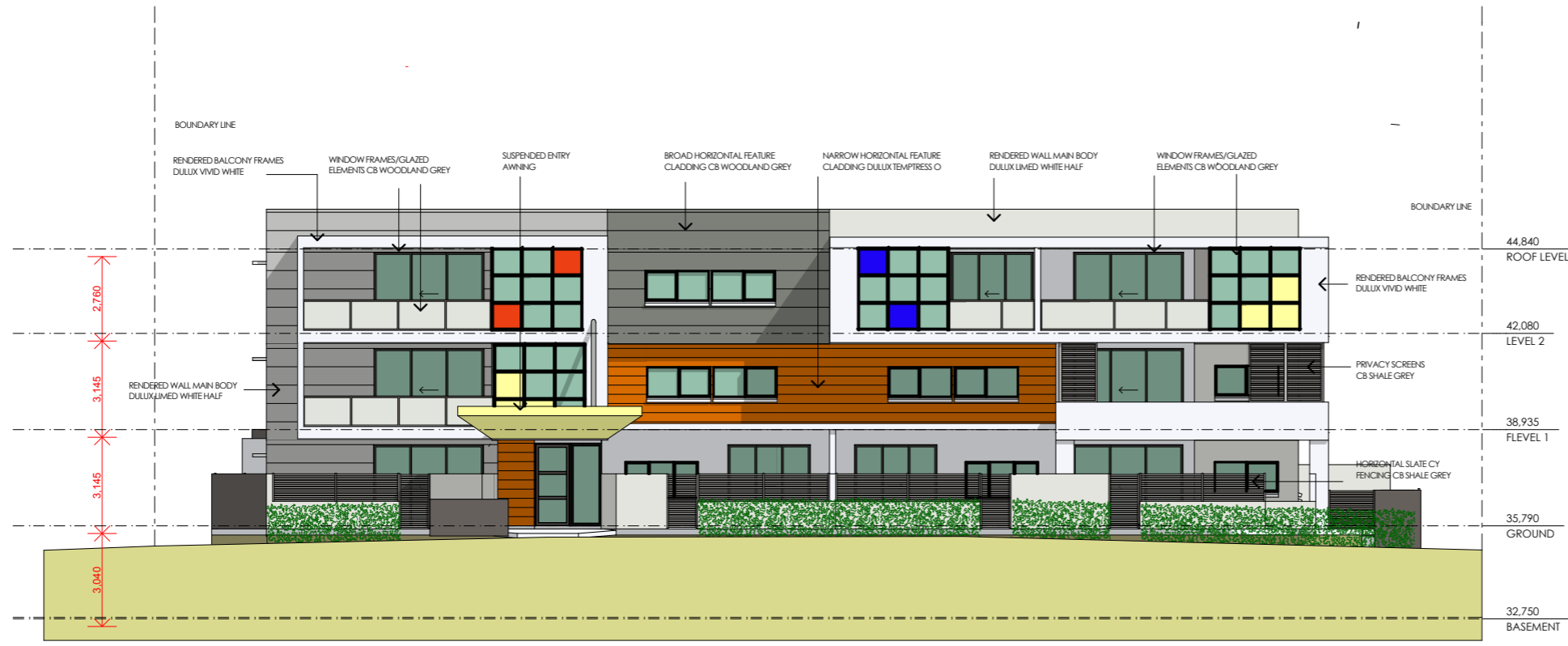
Plot Date: 12/09/2018

BUILDING ENVIRONMENTS PTY LTD
BASEMENT

PO BOX 34 EMU PLAINS
 NSW 2750
 PH 0428 505 900

ARVI RANNASTE ARCHITECT REG.NO, 7085
 email: arvi@buildingenvironments.com.au

3



1 NORTH ELEVATION 1:200



3 EAST ELEVATION 1:200

ISSUE H 11.09.18
ADJUST BASEMENT SPLAYED WALL AS REQUESTED BY COUNCIL

ISSUE G 24.06.18
ADDRESS COUNCILS COMMENTS DATED 06.06.18

ISSUE F 21.05.18
ADJUST GARBAGE ROOM RL AND RAMP LOCATION
ADJUST BASEMENT CARPARKING DIMENSIONS

ISSUE E 09.03.18
ADJUST RAMP CROSS SECTION
DETAIL BASEMENT CAR PARK

ISSUE D 17.01.18
RELOCATED RAMP AND BASEMENT T, UNIT 3 AND WASTE ROOM RE DESIGN

ISSUE C 23.10.17
PROVIDE RAMP SECTIONS AND AMEND WASTE STORAGE AREAS

ISSUE B 08.09.17
ADDRESS COUNCILS COMMENTS REQUESTED 4 AUGUST 2017

ISSUE A 19.06.17
ADDRESS COUNCILS COMMENTS

REVISIONS

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Client
NOR-SIDE INVESTMENTS PTY LTD
Project Name
LETHBRIDGE APARTMENTS
104-108 LETHBRIDGE STREET PENRITH
2750

Drawing Title:
- E 1 NORTH ELEVATION
NORTH ELEVATION, EAST ELEVATION

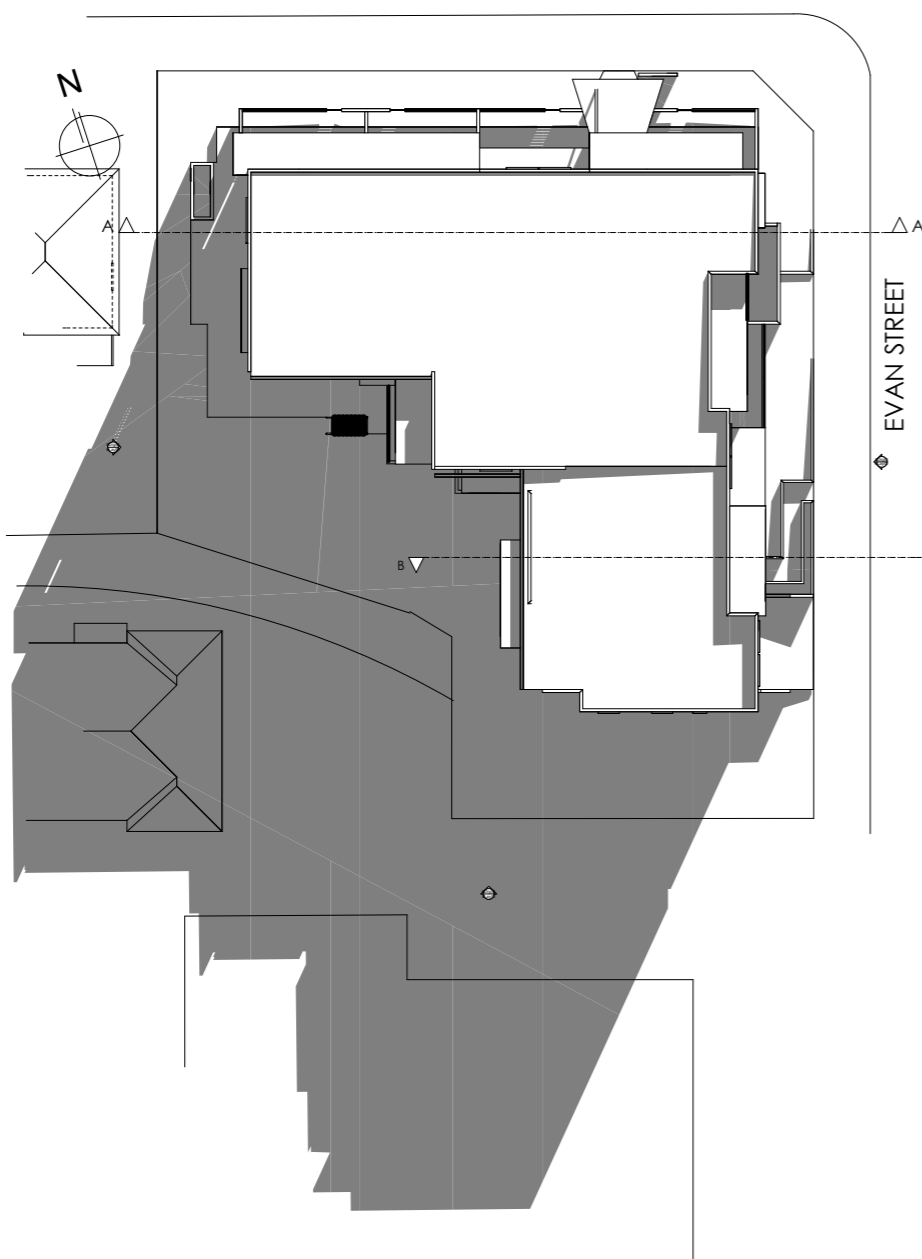
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Project No: **0316** Drawing No.: **DA 8**

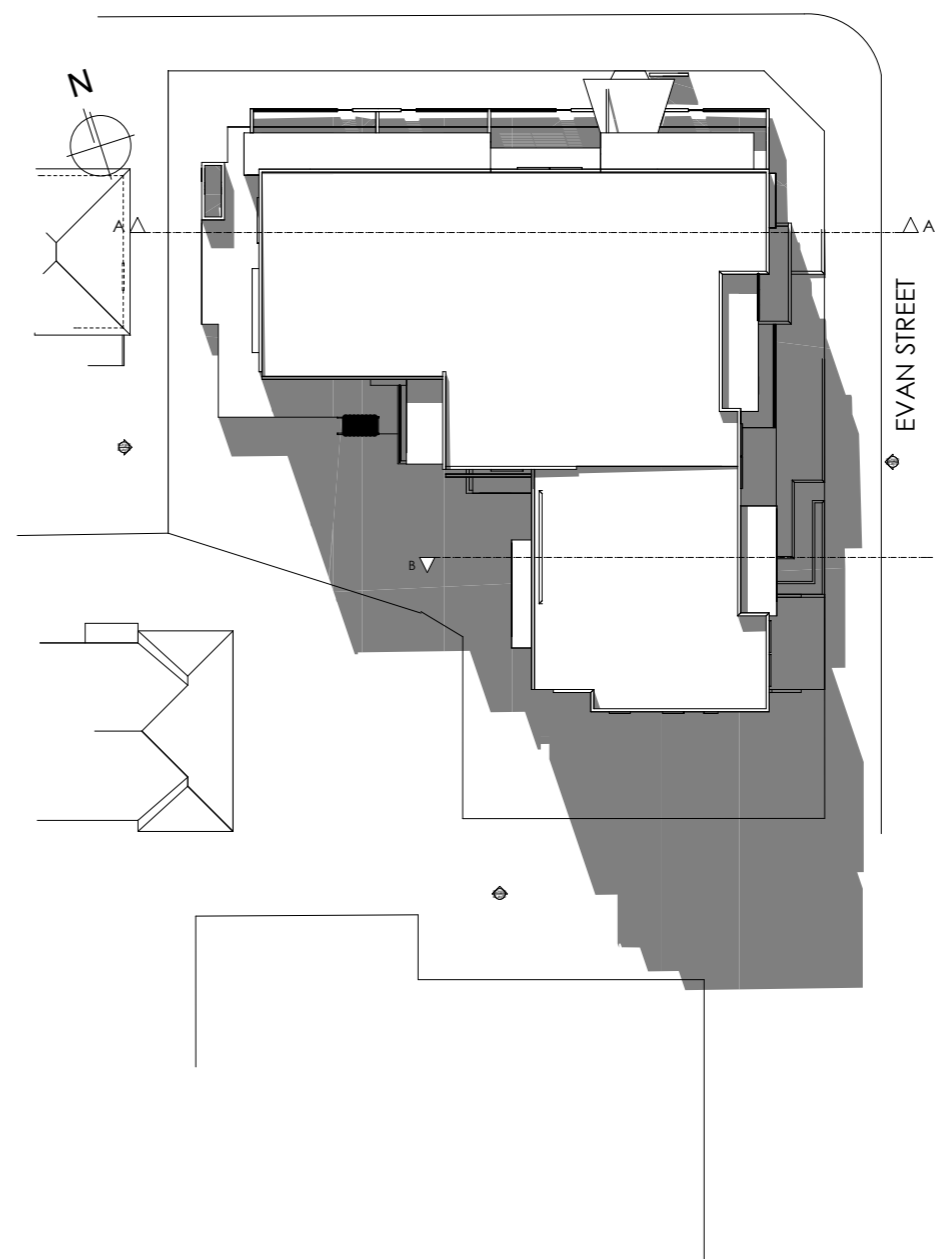
Plot Date: 11/09/2018

length in millimeters at full size

length in millimeters at full size



3 9am June Shadow 1:500



4 12 midday June Shadow 1:500

ISSUE H 11.09.18
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Client
NOR-SIDE INVESTMENTS PTY LTD
Project Name
LETHBRIDGE APARTMENTS
104-108 LETHBRIDGE STREET PENRITH
2750

Drawing Title:
- 11. 9am June Shadow
9am June Shadow, 12 midday June Shadow

Scale: as noted Date:

Status: PRELIMINARY Checked By:

Project No:
0316 Drawing No.:
DA 10

Plot Date: 11/09/2018

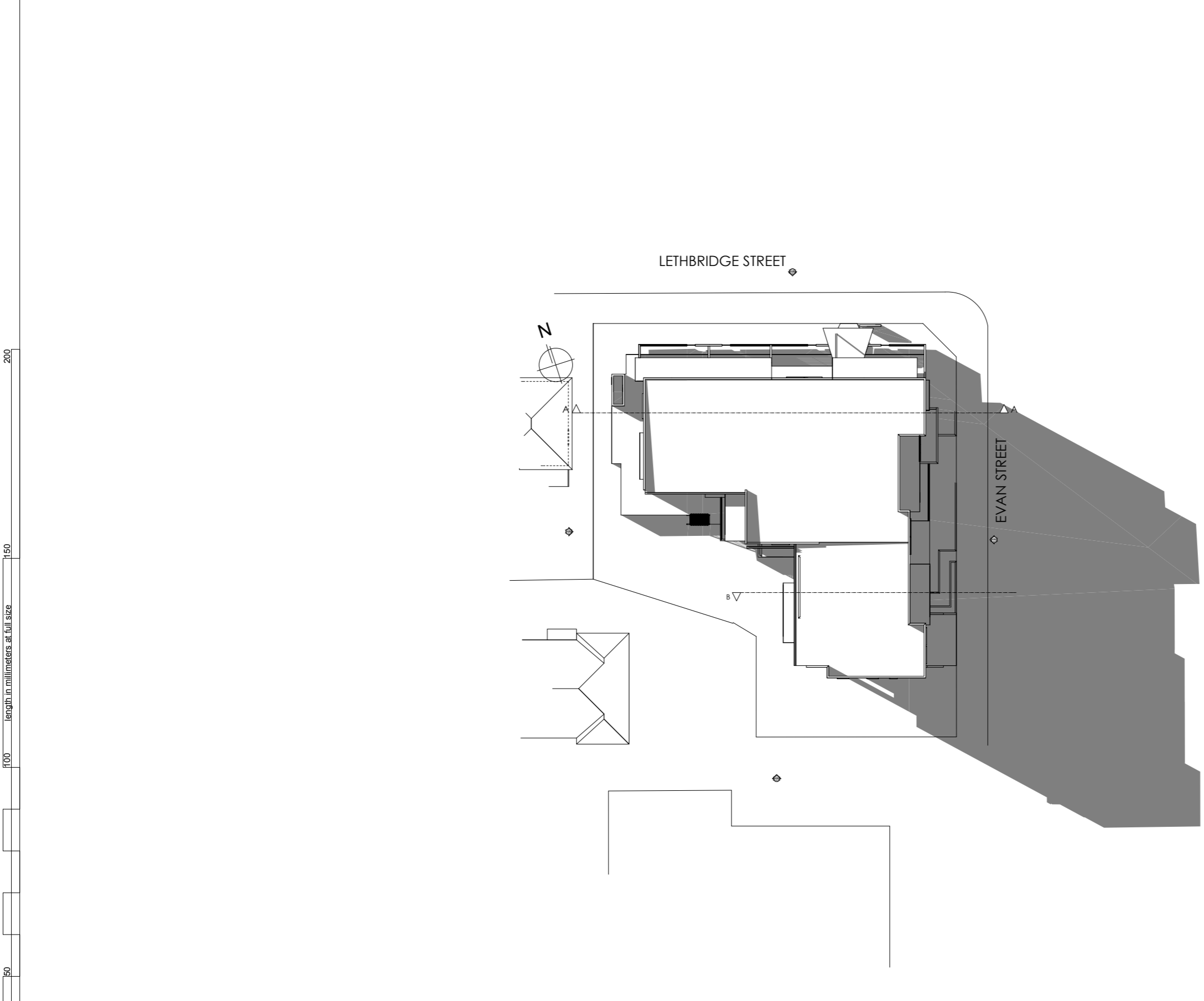
BUILDING ENVIRONMENTS PTY.LTD

PO BOX 34 EMU PLAINS
PH 0428 505 900 NSW 2750

ARVI RANNASTE ARCHITECT REG.NO, 7085
email: arvi@buildingenvironments.com.au

200
150
100
50
40
30
20
10
length in millimeters at full size

30 40 50 100 150 200 length in millimeters at full size



3 3pm June Shadow 1:500

ISSUE H 11.09.18
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AS REQUESTED BY COUNCIL

ISSUE G 24.06.18
ADDRESS COUNCILS COMMENTS
DATED 06.06.18

ISSUE F 21.05.18
ADJUST GARBAGE ROOM RL
AND RAMP LOCATION
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DIMENSIONS

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Client
NOR-SIDE INVESTMENTS PTY LTD
Project Name
LETHBRIDGE APARTMENTS
104-108 LETHBRIDGE STREET PENRITH
2750

Drawing Title:
- 13. 3pm June Shadow
3pm June Shadow

Scale: as noted Date:
Status: PRELIMINARY Checked By:

Project No: **0316** Drawing No.: **DA 11** **H**

Plot Date: 11/09/2018



200
150
100
50
40
30
20
10
length in millimeters at full size

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Client
NOR-SIDE INVESTMENTS PTY LTD
Project Name
LETHBRIDGE APARTMENTS
104-108 LETHBRIDGE STREET PENRITH
2750

Drawing Title:
- 3D VIEWS
A 24.06.18. LETHBRIDGE NEW AMENDE, B
24.06.18. LETHBRIDGE NEW AMENDE

Scale: as noted Date:
Status: PRELIMINARY Checked By:

Project No:
0316
Drawing No.:
DA 13 **H**

Plot Date: 11/09/2018

BUILDING ENVIRONMENTS PTY.LTD

PO BOX 34 EMU PLAINS
PH 0428 505 900

NSW 2750

ARVI RANNASTE ARCHITECT REG.NO, 7085
email: arvi@buildingenvironments.com.au

STORMWATER MANAGEMENT PLAN (FOR DA)

PROPOSED APARTMENTS

Lot 4, 5A & 11, No.104-108 LETHBRIDGE STREET, PENRITH

GENERAL NOTES

1. FINAL LOCATION OF NEW DOWNPIPES TO BE DETERMINED BY BUILDER/ARCHITECT AT TIME OF CONSTRUCTION.
2. THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTS AND OTHER CONSULTANTS DRAWINGS. ANY DISCREPANCIES TO BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH WORK.
3. ALL MATERIALS AND WORKMANSHIP TO BE IN ACCORDANCE WITH AS/NZS 3500.3:2003 STORMWATER DRAINAGE, BCA AND LOCAL COUNCIL POLICY/CONSENT/REQUIREMENTS.
4. ALL DIMENSIONS AND LEVELS TO BE VERIFIED BY BUILDER ON-SITE PRIOR TO COMMENCEMENT OF WORKS. THESE DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS NOR TO BE USED FOR SETOUT PURPOSES.
5. ALL SURVEY INFORMATION AND PROPOSED BUILDING AND FINISHED SURFACE LEVELS SHOWN IN THESE DRAWINGS ARE BASED ON LEVELS OBTAINED FROM DRAWINGS BY OTHERS.
6. ALL STORMWATER DRAINAGE PIPES ARE TO BE uPVC AT MINIMUM 1% GRADE UNLESS NOTED OTHERWISE.
7. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND LEVEL ALL EXISTING SERVICES OR OTHER STRUCTURES WHICH MAY AFFECT/BE AFFECTED BY THIS DESIGN PRIOR TO COMMENCEMENT OF WORKS.
8. ALL PITS WITHIN DRIVEWAYS TO BE 150mm THICK CONCRETE OR EQUAL.
9. THIS PLAN IS THE PROPERTY OF DONOVAN ASSOCIATES AND MAY NOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION FROM DONOVAN ASSOCIATES.

PLAN SPECIFIC NOTES

1. **ROOF DRAINAGE NOTE:** AS 3500 ROOF DRAINAGE REQUIRES EAVES GUTTERS TO BE SIZED FOR 20 YEAR 5 MIN. STORM = 205mm/hr. FOR EAVES GUTTERS, AS 3500.3:2003 THEN HAS THE FOLLOWING REQUIREMENTS:
 - i) FOR TYPICAL STANDARD QUAD GUTTER WITH $A_e = 6000\text{mm}^2$ AND GUTTER SLOPE 1:500 AND STEEPER, THIS REQUIRES ONE DOWNPIPE PER 30m^2 ROOF AREA.
 - ii) DOWNPIPES TO BE MINIMUM 90mm DIA. OR 100 x 50mm FOR GUTTERS SLOPE 1:500 AND STEEPER.
 - iii) OVERFLOW METHOD TO FIGURE G1 OF AS 3500.3:2003 IT IS THE RESPONSIBILITY OF THE PLUMBER AND / OR BUILDER TO COMPLY WITH THIS. THIS DRAWING SHOWS PRELIMINARY LOCATIONS / NUMBERS OF DOWNPIPES ONLY WHICH ARE TO BE VERIFIED BY BUILDER / PLUMBER
2. **TREE PRESERVATION:** IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PRIOR APPROVAL REQUIRED FROM COUNCIL WITH RESPECT TO POTENTIAL IMPACT ON TREES FOR ANY WORKS SHOWN ON THIS DRAWING PRIOR TO THE COMMENCEMENT OF THOSE WORKS
3. ALL ROOF GUTTERS TO HAVE OVERFLOW PROVISION IN ACCORDANCE WITH AS 3500.3:2003 AND SECTIONS 3.5.3, 3.7.5 AND APPENDIX G OF AS 3500.3:2003
4. THIS DRAWING IS NOT TO BE USED FOR SET-OUT PURPOSES - REFER TO ARCHITECTURAL DRAWINGS
5. LOCATION OF SURFACE STORMWATER GRATED INLET PITS MAY BE VARIED OR NEW PITS INSTALLED AT THE CONSTRUCTION STAGE PROVIDED DESIGN INTENT OF THIS DRAWING IS MAINTAINED

DRAINAGE NOTES

PIPE SIZE:
THE MINIMUM PIPE SIZE SHALL BE:

- 90mm DIA WHERE THE LINE ONLY RECEIVES ROOFWATER RUNOFF; OR
- 100mm DIA WHERE THE LINE RECEIVES RUNOFF FROM PAVED OR UNPAVED AREAS ON THE PROPERTY

THE MINIMUM PIPE VELOCITY SHOULD BE 0.6 m/s AND A MAXIMUM PIPE VELOCITY OF 6.0 m/s DURING THE DESIGN STORM.

PIPE GRADE:
THE MINIMUM PIPE GRADE SHALL BE:

- 1.0% FOR PIPES LESS THAN 225mm DIA (UNO)
- 0.5% FOR ALL LARGER PIPES (UNO)

PIPES WITH A GRADIENT GREATER THAN 20% WILL REQUIRE ANCHOR BLOCKS AT THE TOP AND BOTTOM OF THE INCLINED SECTION; AND AT INTERVALS NOT EXCEEDING 3.0m

ANCHOR BLOCKS ARE DESIGNED ACCORDING TO *CLAUSE 3.5.3 OF AS3500.3-1990*

DEPTH OF COVER FOR PVC PIPES:
MINIMUM PIPE COVER SHALL BE AS FOLLOWS:

LOCATION	MINIMUM COVER
NOT SUBJECT TO VEHICLE LOADING	100mm SINGLE RESIDENTIAL 300mm ALL OTHER DEVELOPMENTS
SUBJECT TO VEHICLE LOADING UNDER A SEALED ROAD	450mm WHERE NOT IN A ROAD 600mm
UNSEALED ROAD	750mm
PAVED DRIVEWAY	100mm PLUS DEPTH OF CONCRETE

SEE AS2032 INSTALLATION OF UPVC PIPES FOR FURTHER INFORMATION.

CONCRETE PIPE COVER SHALL BE IN ACCORDANCE WITH *AS3725-1989 LOADS ON BURIED CONCRETE PIPES*, HOWEVER A MINIMUM COVER OF 450mm WILL APPLY.

WHERE INSUFFICIENT COVER IS PROVIDED, THE PIPE SHALL BE COVERED AT LEAST 50mm THICK OVERLAY AND SHALL THEN BE PAVED WITH AT LEAST:

- 150mm REINFORCED CONCRETE WHERE SUBJECT TO HEAVY VEHICLE TRAFFIC;
- 75mm THICKNESS OF BRICK OR 100mm OF CONCRETE PAVING WHERE SUBJECT TO LIGHT VEHICLE TRAFFIC; OR
- 50mm THICK BRICK OR CONCRETE PAVING WHERE NOT SUBJECT TO VEHICLE TRAFFIC.

CONNECTIONS TO STORMWATER DRAINS UNDER BUILDINGS:
SHALL BE CARRIED OUT IN ACCORDANCE WITH *SECTION 3.10 OF AS3500.3-1990*

CONNECTIONS TO COUNCIL SYSTEM:
IF PROPOSED DRAINAGE SYSTEM IS DESIGNED TO CONNECT TO COUNCIL'S DRAINAGE SYSTEM, IT IS ADVISED THAT A 'WORKS PERMIT' IS OBTAINED FROM THE RESPECTIVE COUNCIL PRIOR TO COMMENCEMENT OF WORKS

ABOVE GROUND PIPEWORK:
SHALL BE CARRIED OUT IN ACCORDANCE WITH *SECTION 6 OF AS3500.3-1990*

PIT SIZES AND DESIGN:

DEPTH (mm)	MINIMUM PIT SIZE (mm)
UP TO 450mm	450 x 450
450mm TO 600mm	600 x 600
600mm TO 900mm	600 x 900
900mm TO 1500mm	900 x 900 (WITH STEP IRONS)
1500mm TO 2000mm	1200 x 1200 (WITH STEP IRONS)

ALL PIPES SHOULD BE CUT FLUSH WITH THE WALL OF THE PIT.

PITS GREATER THAN 600mm DEEP SHALL HAVE A MINIMUM ACCESS OPENING OF 600 x 600mm

THE GRATED COVERS OF PITS LARGER THAN 600 x 600mm ARE TO BE HINGED TO PREVENT THE GRATE FROM FALLING INTO THE PIT.

THE BASE OF THE DRAINAGE PITS SHOULD BE AT THE SAME LEVEL AS THE INVERT OF THE OUTLET PIPE. RAINWATER SHOULD NOT BE PERMITTED TO POND WITHIN THE STORMWATER SYSTEM

- **TRENCH DRAINS:**
CONTINUOUS TRENCH DRAINS ARE TO BE OF WIDTH NOT LESS THAN 150mm AND DEPTH NOT LESS THAN 100mm. THE BARS OF THE GRATING ARE TO BE PARALLEL TO THE DIRECTION OF SURFACE FLOW.
- **STEP IRONS:**
PITS BETWEEN 1.2m AND 6m ARE TO HAVE STEP IRONS IN ACCORDANCE WITH AS1657. FOR PITS GREATER THAN 6m OTHER MEANS OF ACCESS MUST BE PROVIDED.
- **PVC PITS:**
PVC PITS WILL ONLY BE PERMITTED IF THEY ARE NOT A GREATER SIZE THAN 450 x 450mm (MAXIMUM DEPTH 450mm) AND ARE HEAVY DUTY
- **IN-SITU PITS:**
IN-SITU PITS ARE TO BE CONSTRUCTED ON A CONCRETE BED OF AT LEAST 150mm THICK. THE WALLS ARE TO BE DESIGNED TO MEET THE MINIMUM REQUIREMENTS OF *CLAUSE 4.6.3 OF AS3500.4-1990*. PITS DEEPER THAN 1.8m SHALL BE CONSTRUCTED WITH REINFORCED CONCRETE.
- **GRATES:**
GRATES ARE TO BE GALVANISED STEEL GRID TYPE. GRATES ARE TO BE OF HEAVY-DUTY TYPE IN AREAS WHERE THEY MAY BE SUBJECT TO VEHICLE LOADING.

LEGEND

<p>SURFACE INLET PIT (WITH ENVIROPOD 200 MICRON)</p> <p>ACCESS GRATE (WITH ENVIROPOD 200 MICRON)</p> <p>450 SQUARE INTERVAL</p> <p>GRATE LEVEL = 75.50</p> <p>INVERT LEVEL = RL 75.20</p> <p>PROPOSED DOWNPIPE 90mm DIA. OR 100mm x 50mm MIN.</p> <p>NATURAL GROUND FINISHED DESIGN LEVEL</p>	<p>450 X 450</p> <p>SL 75.50</p> <p>IL 75.20</p> <p>DP 90</p> <p>× 10.00</p>	<p>LEGEND</p> <p>GRATED TRENCH DRAIN</p> <p>ABSORPTION TRENCH</p> <p>PROPOSED ROOF GUTTER FALL</p> <p>PROPOSED DOWNPIPE SPREADER</p> <p>STORMWATER PIPE 100mm DIA. MIN. UNO</p> <p>SUBSOIL PIPE</p> <p>EXISTING STORMWATER PIPE</p> <p>INSPECTION RISER</p> <p>RAINWATER HEAD</p>	<p>→</p> <p>⊙ (SP)</p> <p>-----</p> <p>-----</p> <p>○ IR</p> <p>■ RWH</p>
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DRAWING TITLE:	DRAWN	DATE	DESCRIPTION	ISSUE	FOR	APPROVED BY:	DESIGNED BY:	YR	ISSUE
	S.SINGH	14.06.2017	ARCHITECTURALS AMENDED	B	SITE ADDRESS:	SCALE	-		
	S.SINGH	06.02.2018	ARCHITECTURALS AMENDED	C	LOT 4, 5A & 11, No. 104-108	SHEET SIZE	A1	SHEET No.	
	S.SINGH	05.06.2018	ARCHITECTURALS AMENDED	D	LETHBRIDGE STREET PENRITH	CLIENT REF.	DRAWING No.		
			PROJECT		PROPOSED APARTMENTS		E293145		D1



CONFINED SPACE DANGER SIGN

COLOURS: "DANGER" AND BACKGROUND - WHITE
 ELLIPTICAL AREA - RED
 RECTANGLE CONTAINING ELLIPSE - BLACK
 OTHER LETTERING AND BORDER - BLACK

- A) A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANKS CONFINED SPACE.
- B) MINIMUM DIMENSIONS OF THE SIGN
 - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS)
 - 250mm x 180mm (SMALL ENTRIES SUCH AS GRATES AND MANHOLES)
- C) THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINIUM OR POLYPROPYLENE.
- D) SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN.

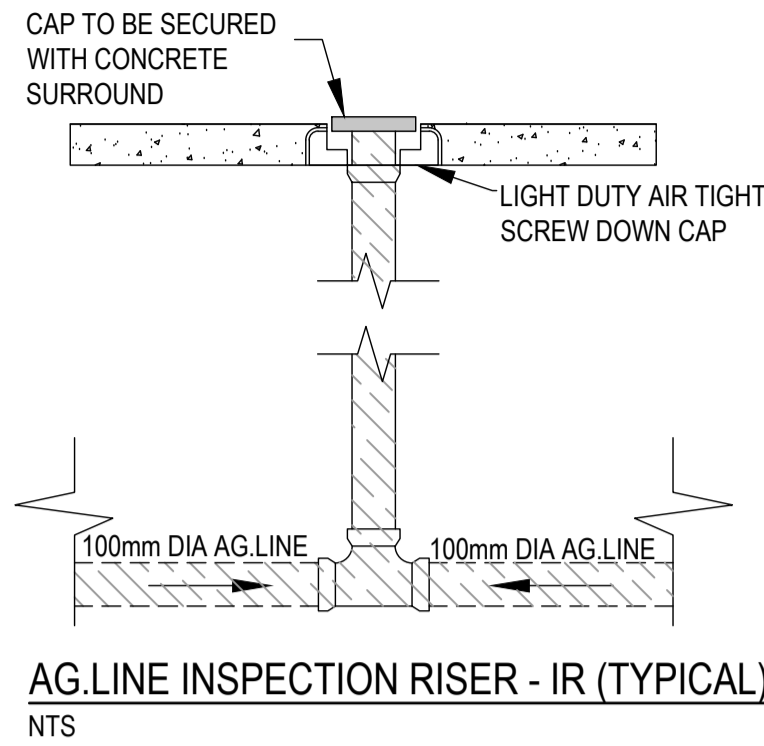


BASEMENT PUMP-OUT FAILURE WARNING SIGN

NOTE: 1. SIGN SHALL BE IN CLEAR AND VISIBLE LOCATION WHERE VEHICLES ENTER THE BASEMENT

COLOURS: WARNING - RED
 ALL OTHERS - BLACK

NOTE: ALL PROPOSED GRATED DRAINS IN BASEMENT TO BE 150mm WIDE



PUMP-OUT CALCULATIONS

PROPOSED RISING MAIN PIPE DIAMETER:
 50mm DIA uPVC 'PRESSURE PIPE' CLASS '12'

HEAD LOSS

- STATIC = 2.4 m
- PIPE FRICTION = 1.1 m
- FITTINGS = 0.6 m
- TOTAL = 4.1 m

PUMP DUTY:
 8 L/s AT 4.1 m HEAD

PUMP TYPE:
 SUBMERSIBLE EQUAL TO DAVEY D150 2.2 KW, 240 V, OR EQUIVALENT.
USE TWO (2) x PUMPS TO OPERATE

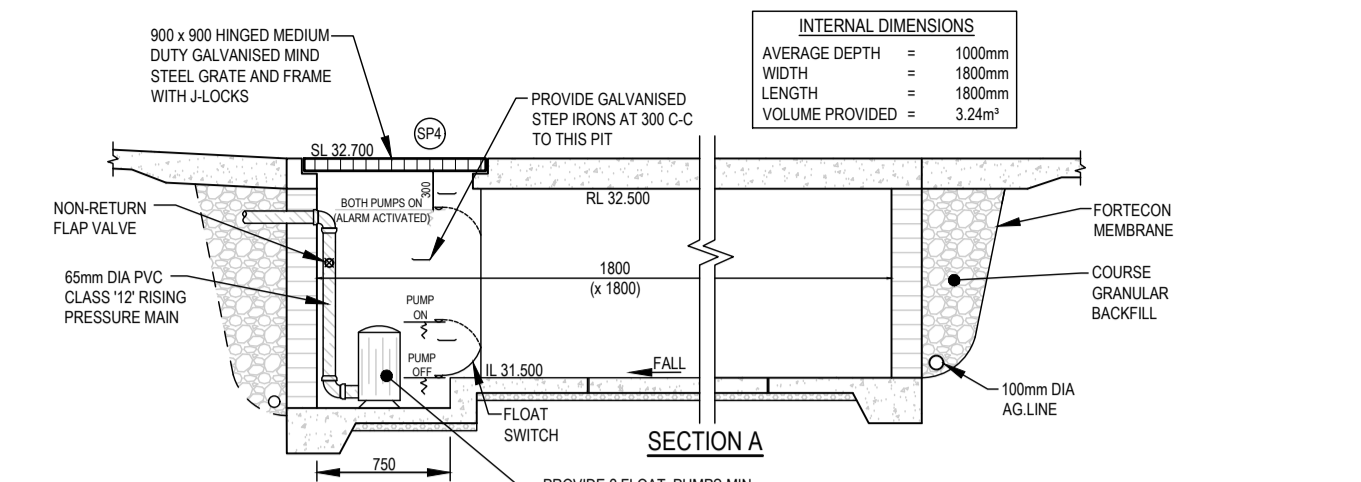
ALTERNATIVELY
AS PER AS3500.3.

PUMP CONTROL:
 AUTOMATIC WITH FLOAT SWITCHES

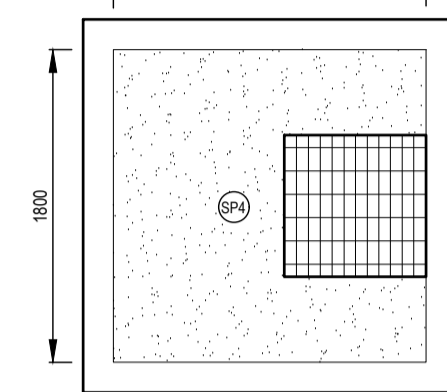
STANDARD PUMP OUT DESIGN NOTES:

THE PUMP OUT SYSTEM SHALL BE DESIGNED TO OPERATE IN THE FOLLOWING MANNER:

- THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
- A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THE FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS.
- A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE AND DRAIN THE TANK TO THE LEVEL OF THE LOW-LEVEL FLOAT.
- A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.
- AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT AND A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.

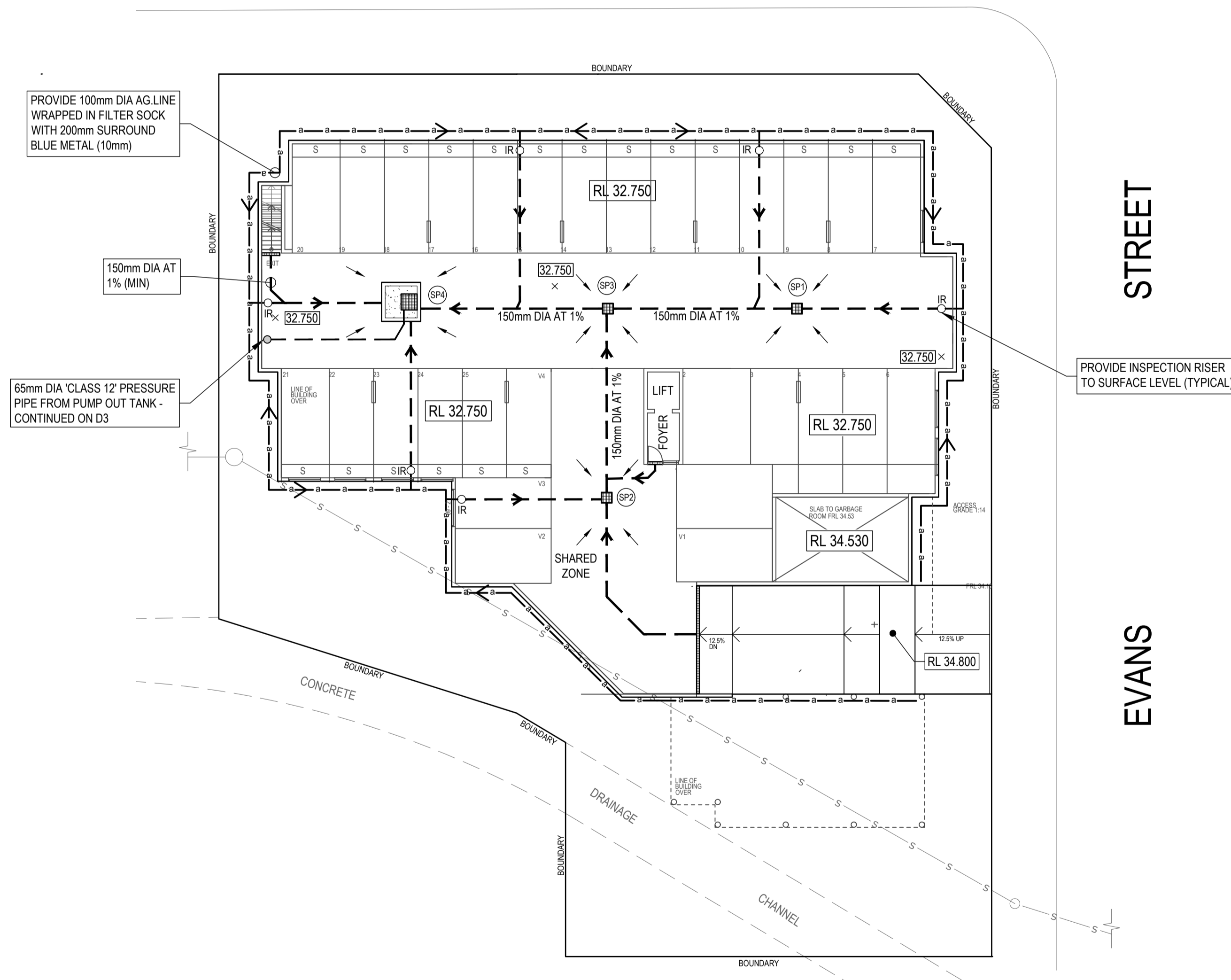


NOTE:
 1. PUMP SHALL BE CONSTRUCTED TO THE STRUCTURAL ENGINEERS DETAILS
 2. ALL THE A.G.LINES BEHIND THE BASEMENT WALLS ARE TO BE CONNECTED TO PUMP-OUT SYSTEM



PUMP HOLDING TANK
 NTS

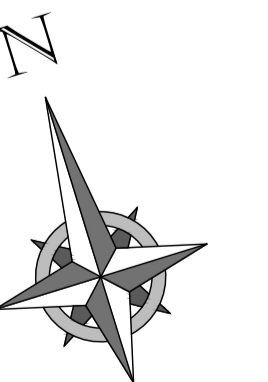
LETHBRIDGE STREET



BASEMENT FLOOR PLAN
 1:200

PIT SCHEDULE (U.N.O)				
PIT No.	PIT TYPE	PIT SIZE	SURFACE LEVEL	INVERT LEVEL
SP1	GRATED INLET	600 X 600	32.70	32.25
SP2	GRATED INLET	600 X 600	32.70	32.25
SP3	GRATED INLET	600 X 600	32.70	32.15
SP4	PUMP OUT PIT	900 X 900	32.45	31.25
SP5	GRATED INLET	300 X 300	34.00	33.70
SP6	SURCHARGE PIT	300 X 300	33.20	32.90
SP7	OVERFLOW PIT	600 X 600	33.50	32.55
SP8*	GRATED INLET	900 X 900	33.15	32.40

* INDICATES 200 MICRON ENVIPOD REQUIRED



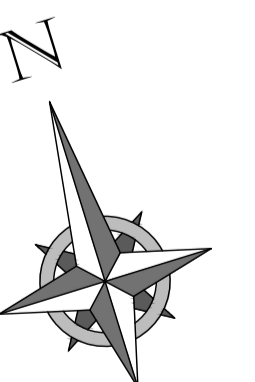
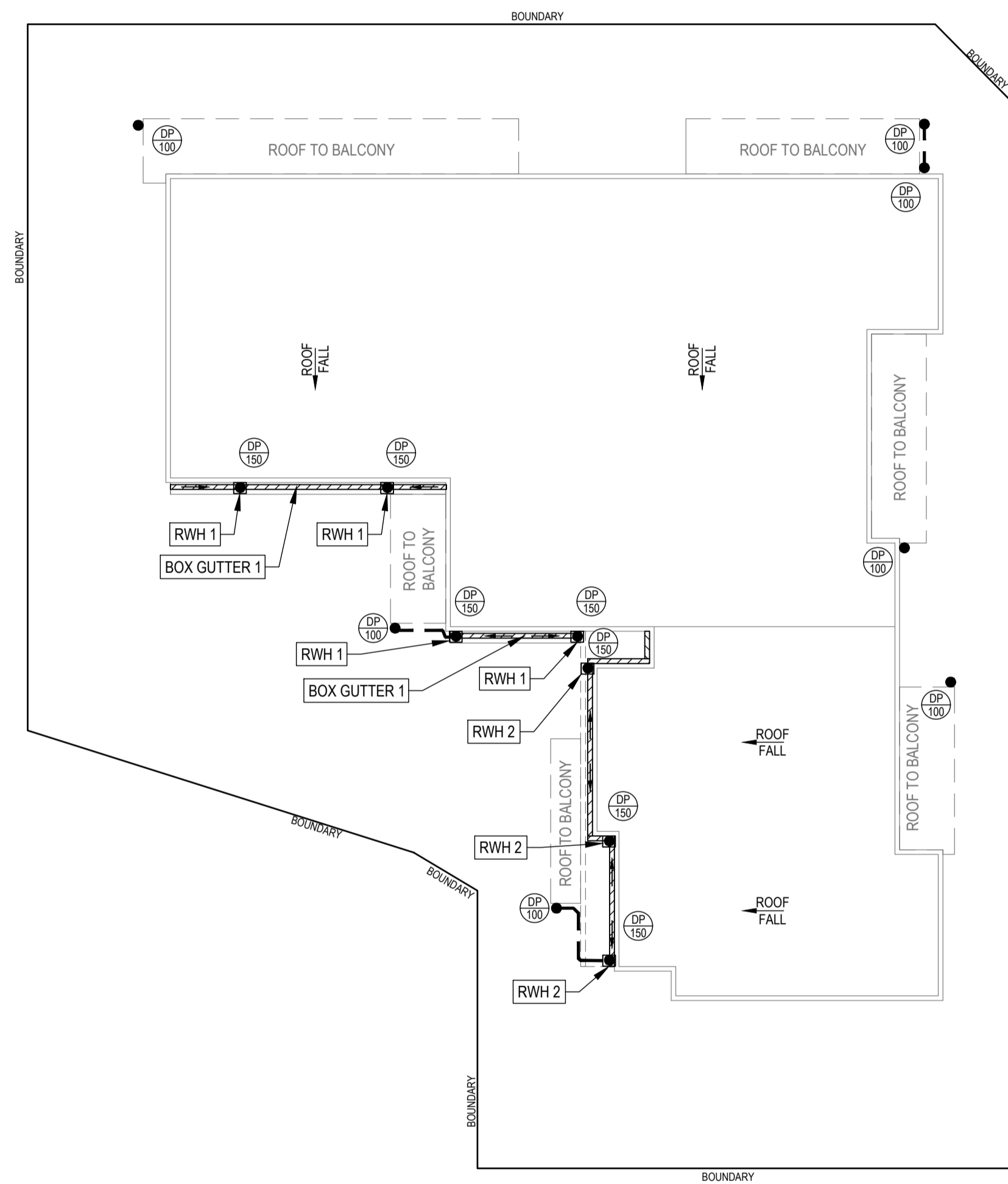
STORMWATER MANAGEMENT PLAN BASEMENT LEVEL

DRAWN	DATE	DESCRIPTION	ISSUE	FOR
S.SINGH	20.04.2017	ISSUED FOR DA	A	COLPANI CONSTRUCTION CO PTY LTD
S.SINGH	14.06.2017	ARCHITECTURALS AMENDED	B	SITE ADDRESS:
S.SINGH	06.02.2018	ARCHITECTURALS AMENDED	C	LOT 4, 5A & 11, No. 104-108
S.SINGH	05.06.2018	ARCHITECTURALS AMENDED	D	LETHBRIDGE STREET PENRITH

DESIGNED BY:	YR	ISSUE
Checked by: SS	SS	D
SCALE	AS NOTED	
SHEET SIZE	A1	SHEET No.
CLIENT REF.	DRAWING No.	
E293145		D2

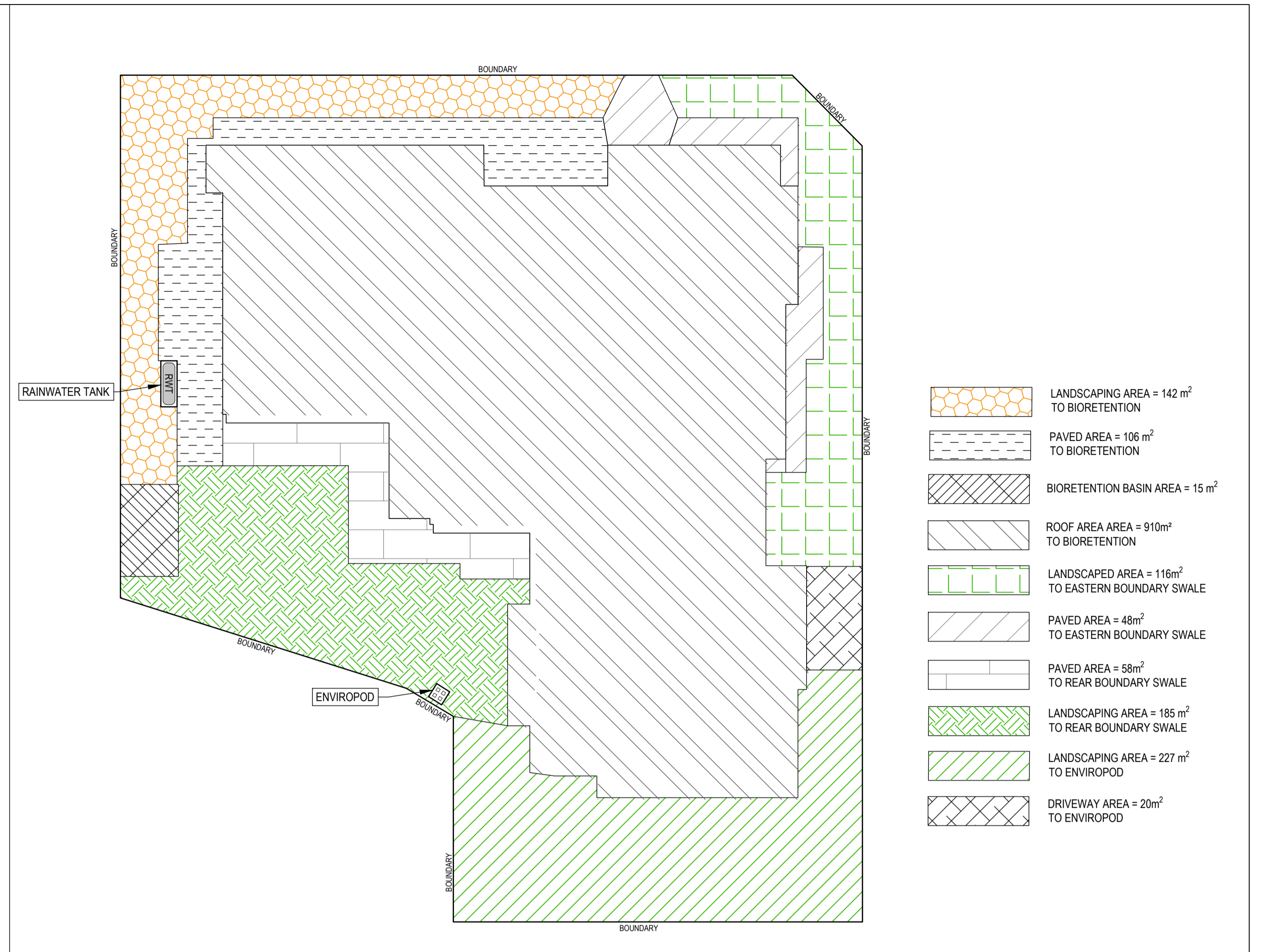
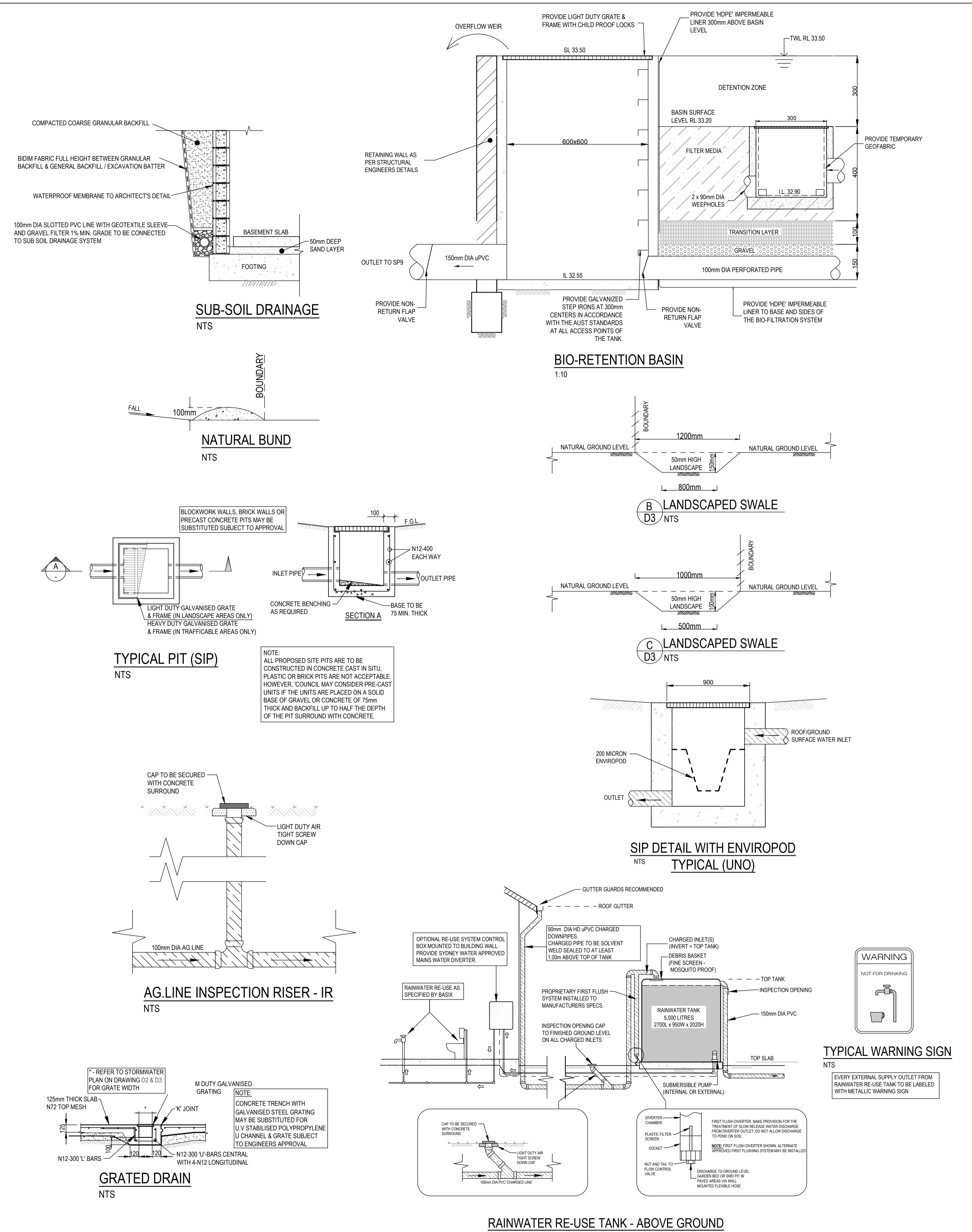
ROOF DRAINAGE

- BOX GUTTER #1 - 200mm WIDE x 200mm HIGH
 - RAINWATER HEAD SUMP #1 - 250mm SQUARE x 250mm DEEP
NOTE: DOWNPIPES TO BE 150mm DIA PVC OR 100x100 COLORBOND
 - BOX GUTTER #2 - 350mm WIDE x 200mm HIGH
 - RAINWATER HEAD SUMP #2 - 350mm SQUARE x 250mm DEEP
NOTE: DOWNPIPES TO BE 150mm DIA PVC OR 150x150 COLORBOND
- RWH (EXTERNAL)
- NOTE: ALL RAINHEADS TO HAVE OVERFLOW SLOT 50mm LOWER THAN TOP OF BOX GUTTER

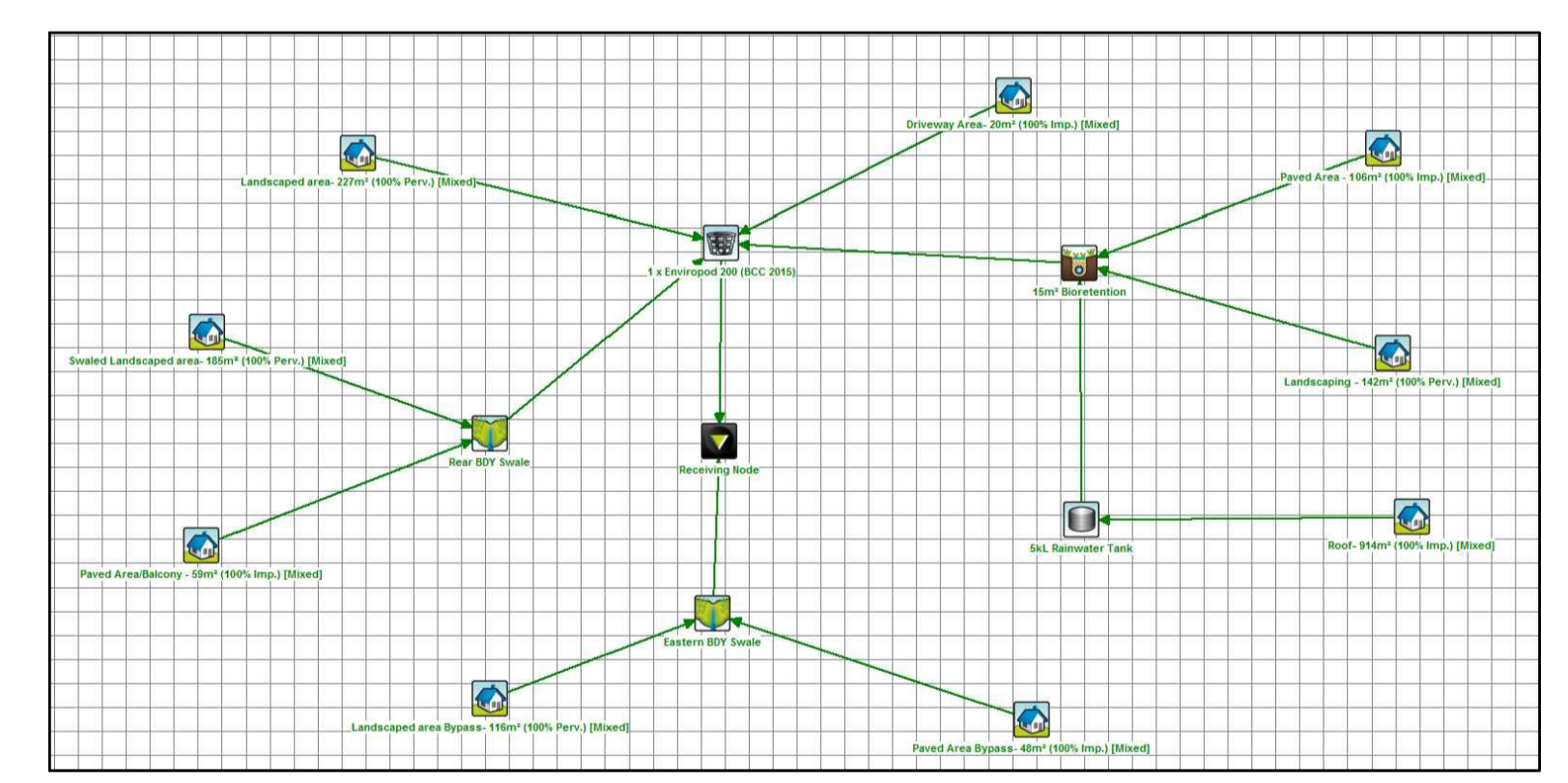


DRAWING TITLE:	DRAWN	DATE	DESCRIPTION	ISSUE	FOR
ROOF PLAN	S.SINGH	20.04.2017	ISSUED FOR DA	A	COLPANI CONSTRUCTION CO PTY LTD
	S.SINGH	14.06.2017	ARCHITECTURALS AMENDED	B	SITE ADDRESS:
	S.SINGH	06.02.2018	ARCHITECTURALS AMENDED	C	LOT 4, 5A & 11, No. 104-108
	S.SINGH	05.06.2018	ARCHITECTURALS AMENDED	D	LETHBRIDGE STREET
PROJECT			PROPOSED APARTMENTS	PENRITH	

APPROVED BY:	DESIGNED BY:	YR	ISSUE
<i>Scott Sharma</i>	SS		D
	CHECKED BY:	SS	
	SCALE	1:200	
	SHEET SIZE	A1	SHEET No.
	CLIENT REF.	DRAWING No.	
	E293145		D4



- LANDSCAPING AREA = 142 m² TO BIORETENTION
- PAVED AREA = 106 m² TO BIORETENTION
- BIORETENTION BASIN AREA = 15 m²
- ROOF AREA = 910m² TO BIORETENTION
- LANDSCAPED AREA = 116m² TO EASTERN BOUNDARY SWALE
- PAVED AREA = 48m² TO EASTERN BOUNDARY SWALE
- PAVED AREA = 58m² TO REAR BOUNDARY SWALE
- LANDSCAPING AREA = 185 m² TO REAR BOUNDARY SWALE
- LANDSCAPING AREA = 227 m² TO ENVIROPOD
- DRIVEWAY AREA = 20m² TO ENVIROPOD



	SOURCES	RESIDUAL LOAD	% REDUCTION
TOTAL SUSPENDED SOLIDS (kg/yr)	75.3	7.52	90.0
TOTAL PHOSPHORUS (kg/yr)	0.187	0.0527	71.8
TOTAL NITROGEN (kg/yr)	1.66	0.647	61.0
GROSS POLLUTANTS (kg/yr)	19.1	0.000559	100

MUSIC RESULTS

WSUD ANALYSIS

DONOVAN ASSOCIATES

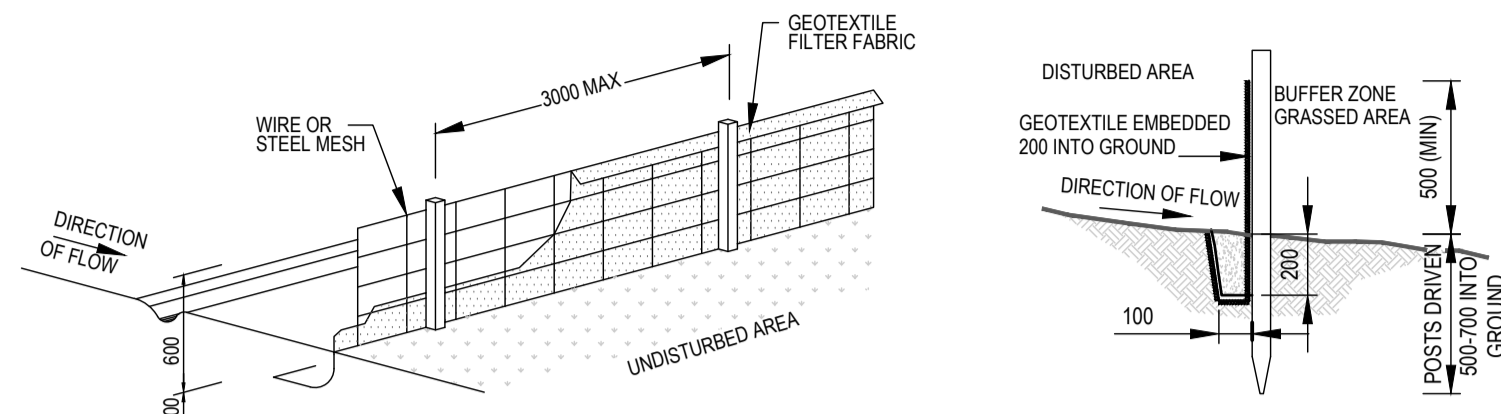
STORMWATER DETAILS AND WSUD ANALYSIS

INCORPORATED ENVIRONMENTAL PTY LTD. ABN 64 132 515 575
 PH 02 9806 3000 FX 02 9891 2006 E1 admin@donovanassociates.com.au
 15 PARKS STREET PARRAMATTA NSW 2150

DRAWN	DATE	DESCRIPTION	ISSUE	FOR
S.SINGH	20.04.2017	ISSUED FOR DA	A	COLPANI CONSTRUCTION CO PTY LTD
S.SINGH	14.06.2017	ARCHITECTURALS AMENDED	B	SITE ADDRESS:
S.SINGH	06.02.2018	ARCHITECTURALS AMENDED	C	LOT 4, 5A & 11, No. 104-108
S.SINGH	05.06.2018	ARCHITECTURALS AMENDED	D	LETHBRIDGE STREET PENRITH

APPROVED BY: *Scott Sharma*
SCOTT SHARMA, M.I.E. Aust.

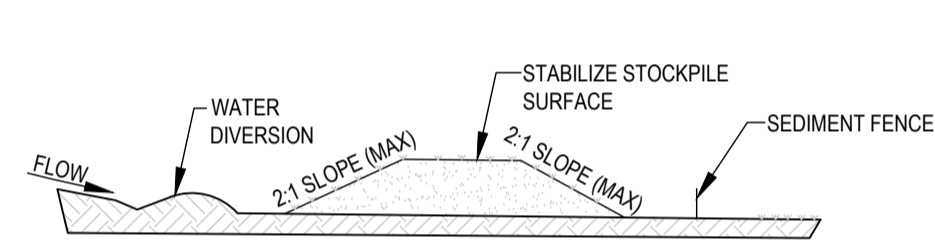
DESIGNED BY:	YR	ISSUE
SS		D
AS NOTED		
A1		
E293145		D5



SEDIMENT FENCE DETAIL
NTS

CONSTRUCTION NOTES:

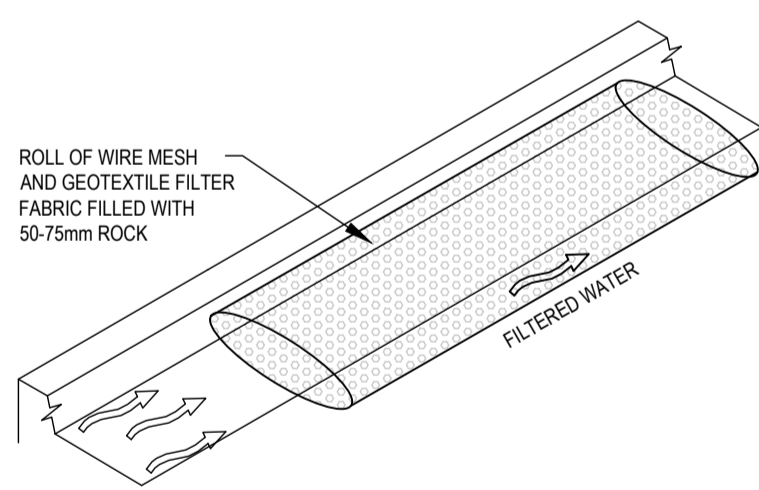
1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENTS AREA OF ANY ONE SECTION. THE CATCHMENTS AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND AT 2.5m INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



STOCKPILE
NTS

NOTE:

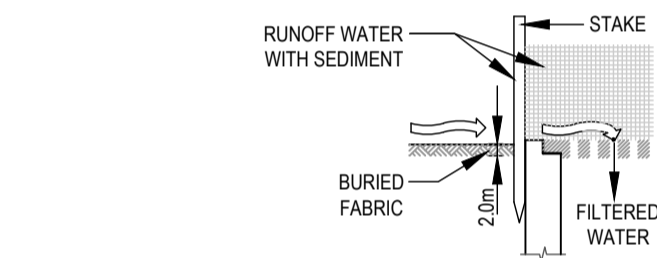
1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARDOUS AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILIZE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS (LOW FLOW) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES ON THE DOWNSLOPE.



MESH AND GRAVEL FILTER
NTS

CONSTRUCTION NOTES:

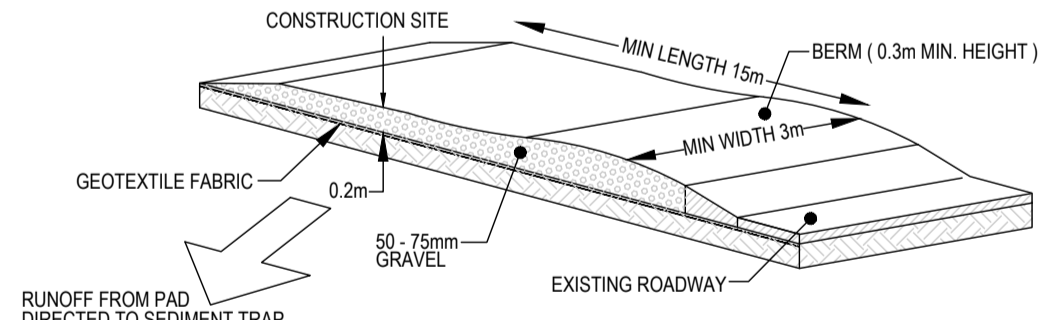
1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS
2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm(h) x 400mm(w).
4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.



SEDIMENT BARRIER AROUND PIT
NTS

CONSTRUCTION NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW STRAW FILTER AND SEDIMENT FENCE FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.



STABILIZED SITE ACCESS
NTS

CONSTRUCTION NOTES:

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASED OR 30mm AGGREGATE
4. ENSURE THE STRUCTURE IS AT LEAST 15m LONG OR TO BUILD ALIGNMENT AND AT LEAST 3 METRES WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILIZED ACCESS, CONSTRUCT A HUMP IN THE STABILIZED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

SEDIMENT CONTROL DETAILS

DUST CONTROL:

- NOTE: DURING EXCAVATION, DEMOLITION AND CONSTRUCTION, ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT DUST FROM AFFECTING THE AMENITY OF THE NEIGHBORHOOD.

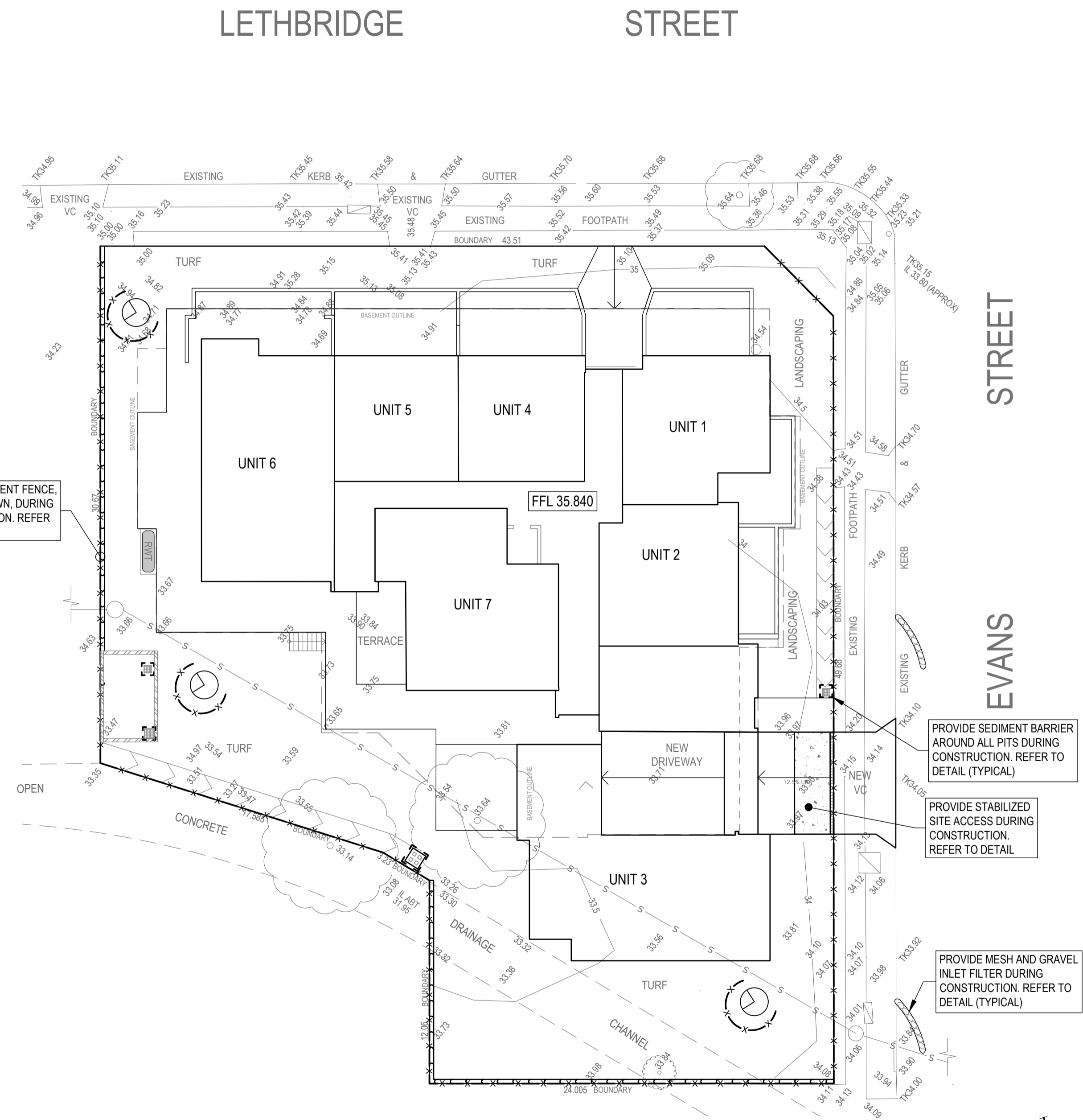
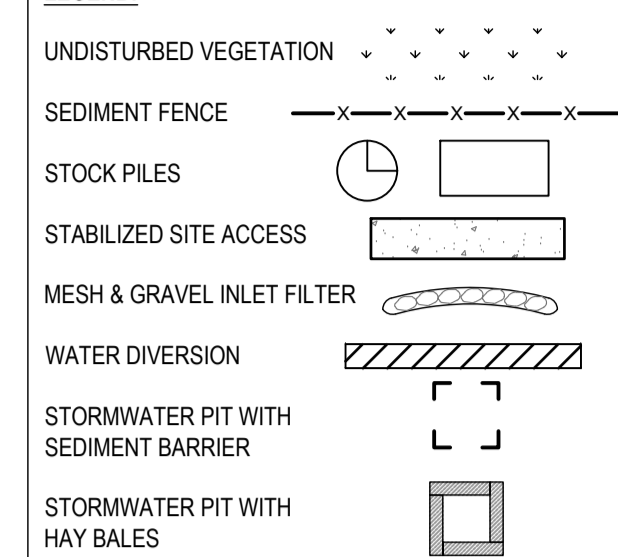
THE FOLLOWING MEASURES MUST BE ADOPTED:

1. PHYSICAL BARRIERS SHALL BE ERECTED AT RIGHT ANGLES TO PREVENT WIND DIRECTION OR SHALL BE PLACED AROUND OR OVER DUST SOURCES TO PREVENT WIND OR ACTIVITY FROM GENERATING DUST.
2. EARTHWORKS AND SCHEDULING ACTIVITIES SHALL BE MANAGED TO COINCIDE WITH THE NEXT STAGE OF DEVELOPMENT TO MINIMISE THE AMOUNT OF TIME THE SITE IS LEFT TO CUT OR EXPOSED.
3. ALL MATERIALS SHALL BE STORED OR STOCKPILED AT THE BEST LOCATIONS.
4. THE GROUND SURFACE SHOULD BE DAMPENED SLIGHTLY TO PREVENT DUST FROM BECOMING AIRBORNE BUT SHOULD NOT BE WET TO THE EXTENT THAT RUN-OFF OCCURS.
5. ALL VEHICLES CARRYING SOIL OR RUBBLE TO OR FROM THE SITE SHALL AT ALL TIMES BE COVERED TO PREVENT THE ESCAPE OF DUST.
6. ALL EQUIPMENT WHEELS SHALL BE WASHED BEFORE EXISTING THE SITE USING MANUAL OR AUTOMATED SPRAYERS AND DRIVE - THROUGH WASHING BAYS.
7. GATES SHALL BE CLOSED BETWEEN VEHICLE MOVEMENTS SHALL BE FITTED WITH SHADE CLOTH.
8. CLEANING OF FOOTPATHS AND ROADWAYS SHALL CARRIED OUT DAILY.
9. ALL BUILDERS REFUSE, SPOIL AND/OR MATERIAL UNSUITABLE FOR USE IN LANDSCAPE AREAS SHALL BE REMOVED FROM SITE ON COMPLETION OF THE BUILDING WORKS.

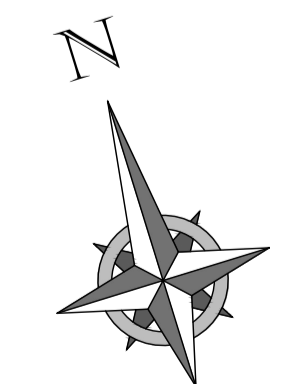
NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
2. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
3. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
4. ROADS AND FOOTPATH TO BE SWEEP DAILY AS REQUIRED BY COUNCIL.
5. IF YOU DO NOT COMPLY WITH COUNCIL REQUIREMENTS & DOCUMENTATION, YOU MAY BE LIABLE TO PROSECUTION FROM GOVERNMENT AUTHORITIES.

LEGEND:



SEDIMENT CONTROL PLAN
1:200



DRAWING TITLE:	SEDIMENT CONTROL PLAN AND DETAILS
DRAWN:	S.SINGH
DATE:	20.04.2017
DESCRIPTION:	ISSUED FOR DA
ISSUE:	A
FOR:	COLPANI CONSTRUCTION CO PTY LTD
SCALE:	AS NOTED
SHEET SIZE:	A1
SHEET No.:	D6
CLIENT REF.:	E293145
DRAWING No.:	
PROJECT:	PROPOSED APARTMENTS
ISSUE FOR:	B ARCHITECTURALS AMENDED
ISSUE FOR:	C ARCHITECTURALS AMENDED
ISSUE FOR:	D ARCHITECTURALS AMENDED
APPROVED BY:	Scott Sharma, M.E. Eng.
DESIGNED BY:	
YR:	SS
CHECKED BY:	
AS NOTED:	D
SHEET No.:	
D6:	