## **Wollongong Local Planning Panel Assessment Report** | 17 October 2018

WLPP No.	Item 2
DA No.	DA-2018/803
Proposal	Residential -demolition of existing structures and construction of a seven (7) storey residential flat building consisting of 38 units over basement parking
Property	12-16 Beatson Street, WOLLONGONG
Applicant	ADM Architects
Responsible Team	Development Assessment and Certification - City Centre Team (NL)

#### ASSESSMENT REPORT AND RECOMMENDATION

#### **Executive Summary**

#### Reason for consideration by Local Planning Panel - Determination

The proposal has been referred to Local Planning Panel for determination pursuant to clause 2.19(1)(a) of the Environmental Planning and Assessment Act 1979. Under Schedule 2 (4) of the Local Planning Panels Direction of 1 March 2018, as the development is sensitive development being more than 4 storeys in height and SEPP 65- Design Quality of Apartment Buildings applies.

#### Proposal

The proposal is for construction of a 7 storey residential flat building with 38 units above a basement with 46 car parking spaces.

#### Permissibility

The site is zoned R1 General Residential pursuant to Wollongong Local Environmental Plan 2009. The proposal is categorised as a residential flat building and is permissible in the zone with development consent.

#### Consultation

The proposal was notified in accordance with Council's Notification Policy and received one objection and one letter of support. Concerns raised are discussed at section 1.3 of the assessment report.

#### **Main Issues**

The main issues arising from the development assessment process are: -

Housing choice and mix: the minimum number of 1-bedroom apartments is exceeded by 8 units, the minimum number of 3-bedroom apartments required falls short by 2 units i.e. the proposal only provides for two 3 bedroom units whereas the DCP requires 4. A condition of consent is recommended that an additional two 3 bedroom units be provided by way of converting a number of the single bedroom units into three bedroom units.

#### **RECOMMENDATION**

It is recommended that the proposal be approved subject to the conditions at Attachment 7.

#### 1.1 PLANNING CONTROLS

The following planning controls apply to the proposal:

#### State Environmental Planning Policies:

- State Environmental Planning Policy No. 55 Remediation of Land
- State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

#### Local Environmental Planning Policies:

Wollongong Local Environmental Plan 2009

#### **Development Control Plans:**

Wollongong Development Control Plan (WDCP) 2009

#### Other policies

- Wollongong Section 94A Development Contributions Plan
- Apartment Design Guide (ADG)

#### 1.2 DETAILED DESCRIPTION OF PROPOSAL

The proposal comprises the following:

#### Site preparation

Demolition of three dwellings and associated outbuildings, removal of a number of small trees, excavation for basement

#### **Building details**

Construction of a 7 storey residential flat building above one level of basement car parking containing 12 x 1 bedroom, 24 x 2 bedroom and 2 x 3 bedroom units and 38 car parking spaces vehicles (including 4 accessible), 8 visitor car parking spaces, 3 motorbike spaces, 18 bicycle spaces.

#### 1.1 BACKGROUND

A Design Review Panel (DRP) meeting (DE-2017/79) was held for a different residential flat building (different architect) over two lots being lots 5 & 6 DP 1389612-14 Beatson Street. A formal prelodgement meeting (PL-2017/63) was held prior to the lodgement of the current application over three lots being lots 5 & 6 DP 13896 & Lot 39 DP 5127, 12-16 Beatson Street.

#### **Customer service actions**

There are no outstanding customer service requests of relevance to the development.

#### 1.2 SITE DESCRIPTION

The site is located at 12-16 Beatson Street, Wollongong and the title references are, Lot 39 DP 5127, Lot 5 & 6 DP 13896.

The site is regular in shape and relatively flat with a depth of approximately 44m and width of approximately 42m. The area of the site is 1,922.4m<sup>2</sup>.

Directly adjoining the development to the north is a 7 storey residential flat building approved under DA-2016/1414 which is currently under construction. To the east is Beatson Street and south is a single storey dwelling, to the west are single storey dwellings.

The locality is in close proximity to the city centre and currently undergoing a transition from primarily low density development to higher density residential.

#### Property constraints

- Council records identify the land as being impacted by class 5 acid sulphate soils. An Acid Sulfate Soil Management Plan has been submitted with the application and the recommendations incorporated into the draft conditions of consent.
- Council records identify the land as being located within a medium flood risk precinct. Council's Stormwater Officer has reviewed the application in this regard provided a satisfactory referral subject to conditions.

There are no restrictions on the title.

#### 1.3 SUBMISSIONS

The application was notified between 19 July and 9 August 2018 in accordance with WDCP 2009 Appendix 1: Public Notification and Advertising. This included a notice in The Advertiser. Two submissions were received being one letter of support from neighbourhood Forum 5 and one objection. The issues identified are discussed below.

**Table 1: Submissions** 

Concern	Comment

The proposal will result in potential privacy concerns with respect to the adjoining development to the north.

The submission was received from the developer currently constructing the building adjoin the site to the north (DA-2016/1414). Both DA-2016/1414 and the subject application have been designed by the same architect and have both been through a design review panel process. The DRP have stated that as the designer of many of the adjacent proposals - now completed or in construction - the architect knows the context well and demonstrates a sound knowledge of its constraints and opportunities. In this regard, the separation distances required under SEPP 65 and setbacks required under the DCP are met or exceeded. Further, the primary orientation of the southern units within the adjoining development (DA-2016/1414) are to the east and west and not towards the subject site.

There are not expected to be any significant privacy issues arising from the development.

#### 1.4 CONSULTATION

#### 1.4.1 INTERNAL CONSULTATION

Council's Stormwater, landscape, traffic, environment and geotechnical officers have reviewed the application and given satisfactory referrals. Conditions of consent were recommended and are included in the consent.

#### 1.4.2 EXTERNAL CONSULTATION

#### **Design Review Panel**

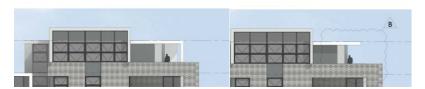
The proposal was reviewed by the DRP post lodgement on the 31 July 2018. The commentary from that meeting is contained at Attachment 6. The panel in its commentary concluded:

The proposal has been well conceived and planned. Its detail resolution and materiality is commended. The proposal does not need to come back to the Panel.

There were some minor alterations that were recommended which have been incorporated into the design. These were as follows:

Built Form and Scale: The Panel believes that the streetscape interface would be improved if
made more solid. Instead of presenting glazed balustrades to the street at ground level for
example, it may be better to introduce solid spandrels with setback louvred screens to the
flooding chamber. In addition, the extent of roof and square columns of the penthouse north
facing roof appears heavy handed. This roof element may be better setback and cantilevered,
with an expressed steel fascia.

**Response**: The columns have been removed and roof cantilevered as recommended as shown below.

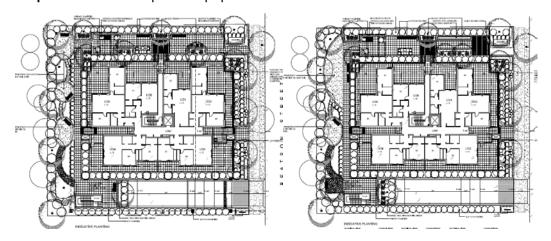


The glazed balustrade and screens to the flooding chamber have not been altered. These elements will be largely screened by the landscaping in the front setback.



• The deep soil landscape along the western boundary is contiguous and well connected to parcels of DSZ in neighbouring developments. The function proposed within the DSZ is acceptable and will allow a contrast to the hardscape courtyards to the north. However, the similarity in size between the three lawns reduces their variety / potential for use. The proponent should reduce the number of lawns and create two distinct sized lawns to allow both passive and semi-active play (young kids / families). The adjoining small paved court at the southern end of the DSZ (adjacent to the fire stair) should be integrated with the DSZ rather than creating a dead end. The planting above the carpark entry could be widened towards the west as a result. All seats should be removed from lawns and placed on the adjacent paved path or deleted.

Response: The landscape concept plan has been amended as recommended as shown below.



#### **Endeavour Energy**

The applicant identified the need for a pad mount substation as the proposed development cannot be serviced by the existing local network. The application was referred to Endeavour Energy who recommended conditions of approval. The main issue arising from the referral is that the substation should not be subject to flood inundation which will require it to be raised to not less than the 1:100-year flood level. At present the area of the substation is at RL 3.35 (approx.) and the RL of the ground floor is 4.9 which includes 0.5m of freeboard above the 1:100 level. This would require the substation to be raised approximately 1.05m above the natural ground level.

#### **2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 – 4.15 EVALUATION**

#### 2.1 SECTION 4.15(1)(A)(1) ANY ENVIRONMENTAL PLANNING INSTRUMENT

#### 2.1.1 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 - REMEDIATION OF LAND

The subject site is zoned for residential and is currently being used to accommodate dwelling houses. A search of the site's history indicates that the sites have been used for residential purposes. There is no previous history of other uses that could be considered to be potentially contaminating.

A Stage 1 Preliminary Site Investigation was prepared in respect of contamination and in accordance with this policy. That report indicates that due to the residential historical land use of the site, there is an overall low risk of significant contamination and the site would be suitable for the proposed residential development with basement carpark subject to recommendations.

The site is considered unlikely to be contaminated and is suitable for the proposed development. No concerns are raised in regard to contamination as relates to the intended use of the land and the requirements of clause 7. Therefore, the proposal is considered to be consistent with SEPP 55.

The imposition of the recommendations as conditions of consent is considered appropriate to ensure that the site is suitable for the intended use of the land. The site is considered to be suitable for the proposed development with regard to clause 7 of this policy.

## 2.1.2 STATE ENVIRONMENTAL PLANNING POLICY NO 65—DESIGN QUALITY OF RESIDENTIAL APARTMENT DEVELOPMENT

SEPP 65 aims to deliver a better living environment for the residents within residential apartment developments and enhance the streetscapes and neighbourhoods in which these buildings are located.

The development meets the definition of a 'residential flat building' as it is more than 3 storeys and comprises more than 4 dwellings. As such, the provisions of SEPP 65 apply. The proposal has been considered by Council's DRP in accordance with Clause 28 and Schedule 1, as reflected at section 1.4.2 above.

A statement has been prepared by a Registered Architect addressing the requirements of SEPP 65 and was submitted with the application accordance with Clauses 50(1A) & 50(1AB) of the Environmental Planning and Environment Regulation 2000.

Schedule 1 of SEPP 65 sets out the design quality principles for residential apartment development. These must be considered in the assessment of the proposal pursuant to Clause28 (2) of the Policy and are discussed below.

#### Principle 1: Context and neighbourhood character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.

Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

The proponent has undertaken a satisfactory analysis of the context. The existing character of development in the locality comprises a variety of building types including one and two storey dwellings and some medium density housing development including walk-up flats and more recent residential flat buildings. This development reflects the desired future character for the area as defined by the planning controls.

#### Principle 2: Built form and scale

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.

Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

The bulk and scale of the development is generally consistent with the applicable planning controls for the area with the locality expected to transition over time, with larger scale developments replacing the original smaller single dwelling houses.

The development is not considered to be out of context with regard to the desired future character of the area and the R1 zone. The potential impacts of the development on the locality and adjoining development are considered to have been addressed through minor redesign as suggested by the DRP.

The design of the development is considered to positively contribute to the public domain and provide amenity for the occupants by way of landscaped areas, private open space, communal open space and dwelling layout

#### **Principle 3: Density**

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

The density of the development complies with the maximum FSR permitted for the land. The development is not of a scale that is expected to place unreasonable pressure on local infrastructure. Service providers including Endeavour Energy have been consulted during the assessment process. The site is well situated with regard to existing public open space, public transport and services. Adequate parking facilities have been provided on site to cater for the number of units proposed. Contributions applicable to the development will go towards local infrastructure and facilities.

#### **Principle 4: Sustainability**

Good design combines positive environmental, social and economic outcomes.

Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.

The proposal is considered acceptable with regard to sustainable design as follows:

- BASIX Certificate provided indicating minimum requirements are met.
- A Site Waste Management and Minimisation Plan have been provided indicating recycling of materials from the demolished structure.
- The proposal does not impact on any heritage items or environmentally sensitive areas
- The proposal is an efficient use of land in a location that is close to services and public open space.
- Units are provided with natural cross ventilation and internal layouts have been designed to provide for good solar access to primary living areas and POS areas.
- The building achieves the minimum cross ventilation and solar access requirements
- The landscaped areas are to be watered from rainwater harvesting
- The proposal is an efficient use of land in a location that is close to services and public open space

#### Principle 5: Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

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

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

The proposal provides suitable landscaped areas and communal open space that will provide for appropriate amenity to the occupants and soften the appearance of the development from adjoining properties and the public domain. The size of the communal open space meets the minimum requirements and the design is considered to provide a high level of amenity to residents

Deep soil planting and a common lawn planting area have been incorporated into the site design. The proposal provides large communal landscaped areas. The design further includes an upgrade to the footpath for the full frontage of the site as well as street tree planting.

#### **Principle 6: Amenity**

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

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

The proposal satisfies the requirements for solar access, private and communal open space, storage, visual and acoustic privacy, access and the like for future occupants of the development. Future occupants of the development are expected to enjoy reasonable amenity and the development will enjoy views towards the ocean and coast to the east and escarpment views to the west.

No unreasonable off-site impacts on nearby property are expected. The development provides for compliant building separation distances and is not of excessive bulk or scale.

In terms of solar access and overshadowing impacts, the shadow diagrams submitted with the application indicate acceptable solar access will be preserved for existing and potential future development on nearby land given the permissible height and FSR.

#### **Principle 7: Safety**

Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

The proposal is satisfactory with regard to safety and security and is generally consistent with the principles of crime prevention through environmental design. The design provides for minimal areas of concealment and entrapment with natural surveillance of common spaces. A clear definition between public and private space has been provided within the design.

#### Principle 8: Housing diversity and social interaction

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.

Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.

The proposal provides a mix of unit sizes and layouts appropriate to the locality. Provision has also been made for 4 adaptable units (U7, U13, U19, U25) as per the requirements of the ADG and Wollongong DCP 2009. All adaptable units are one bedroom. There are opportunities for informal social interaction within common areas including the communal open space, community gardens, lobbies and the like. However, the proposal only provides for two 3 bedroom units whereas the DCP requires 4, along with an oversupply of one bedroom units.

#### **Principle 9: Aesthetics**

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

The proposal is considered to be of a high quality with regard to its appearance. The bulk, scale and form of the development is acceptable for the locality and a mixture of materials and finishes is provided. The bulk of the development is well resolved across the site and the building is suitably articulated and fenestrated. Appropriate treatment of the streetscape is proposed having regard to the desired future character of development in the locality. The proposal has been reviewed by the DRP who are satisfied the development demonstrates design excellence.

#### **Apartment Design Guide**

The proposal is satisfactory with regard to the controls and objectives contained in the Apartment Design Guide (ADG). An assessment of the application against the ADG is contained within Attachment 4 to this report.

#### 2.1.3 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

The proposal is BASIX affected development to which this policy applies. In accordance with Schedule 1, Part 1, 2A of the Environmental Planning and Assessment Regulation 2000, a BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.

#### 2.1.4 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

#### Part 2 Permitted or prohibited development

### Clause 2.2 – zoning of land to which Plan applies

The zoning map identifies the land as being zoned R1 General Residential.

#### Clause 2.3 – Zone objectives and land use table

The objectives of the zone are as follows:

- To provide for the housing needs of the community.
- To provide for a variety of housing types and densities.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

The proposal is satisfactory with regard to the above objectives.

The land use table permits the following uses in the zone.

Attached dwellings; Bed and breakfast accommodation; Boarding houses; Centre-based child care facilities; Community facilities; Dual occupancies; Dwelling houses; Environmental facilities; Exhibition homes; Group homes; Hostels; Multi dwelling housing; Neighbourhood shops; Places of public worship; Recreation areas; Residential flat buildings; Respite day care centres; Roads; Semi-detached dwellings; Seniors housing; Serviced apartments; Shop top housing; Signage

The proposal is categorised as a residential flat building as defined below and is permissible in the zone with development consent.

#### Clause 1.4 Definitions

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

#### Clause 2.7 Demolition requires development consent

The proposed development includes demolition of the existing dwellings and associated structures and is consistent with the requirement of clause 2.7

#### Part 4 Principal development standards

#### Clause 4.3 Height of buildings

The proposed building height does not exceed the maximum of 24m permitted for the site.

#### Clause 4.4 Floor space ratio

Maximum FSR permitted: 1.5:1

Site area: 1,922.4m<sup>2</sup>

Proposed GFA: 2,882.3m<sup>2</sup> (including excess 5 car parking spaces)

Proposed FSR: 1.5:1

Note: The proposal provides an excess of 6 car parking spaces. The additional spaces have been added to the gross floor area calculation.

#### Part 7 Local provisions - general

#### Clause 7.1 Public utility infrastructure

The subject site is serviced by utilities to service the proposal. A condition is proposed requiring approval from the relevant authorities for the connection of electricity, water and sewage to service the site.

#### Clause 7.3 Flood planning area

The site levels are below the flood planning level, that being the level of a 1:100 ARI (average recurrent interval) flood event plus 0.5 metres freeboard. In this instance the flood planning level is RL 3.74 m AHD at upslope (NW) side of building and RL 3.46m AHD at proposed driveway. The proposal has been designed such that all habitable floor levels of the development will be above the flood planning level and flood storage is maintained with no re-direction of overland flows.

The proposal has been reviewed by Council's Stormwater Officer and found to be satisfactory.

#### Clause 7.5 Acid Sulfate Soils

The proposal is identified as being affected by class 5 acid sulphate soils. An acid sulphate soils management plan has been submitted in accordance with this clause and the recommendations contained in that report are reflected in the draft conditions.

#### Clause 7.6 Earthworks

The proposal comprises basement excavation. The earthworks have been considered by Council's Geotechnical and Stormwater officers in relation to site stability and drainage. Draft Conditions are recommended.

#### Clause 7.14 Minimum site width

This Clause requires that development for the purposes of a residential flat building be carried out only on land that has a dimension of 24m. The site has a site width of 42.67m and complies with this Clause.

#### Clause 7.18 Design excellence in Wollongong city centre and at key sites

The proposal is within the Wollongong city centre and clause 7.18 applies.

- (3) Development consent must not be granted to development to which this clause applies unless, in the opinion of the consent authority, the proposed development exhibits design excellence.
- (4) In considering whether development to which this clause applies exhibits design excellence, the consent authority must have regard to the following matters:
  - (a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
    - It is considered that the development provides for a high standard of design, materials and detailing appropriate for the building type and its location
  - (b) whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,
    - It is considered that the form and appearance of the development will improve the quality of the public domain in place of the existing three dwellings.

- (c) whether the proposed development detrimentally impacts on view corridors,
  - the proposal is within the allowable building height and density for the site and generally provides for compliant building setbacks, the impacts on view corridors are not considered to be unreasonable
- (d) whether the proposed development detrimentally overshadows an area shown distinctively coloured and numbered on the Sun Plane Protection Map,

The development will not overshadow any key site on the Map

- (e) how the proposed development addresses the following matters:
  - (i) the suitability of the land for development,
  - (ii) existing and proposed uses and use mix,
  - (iii) heritage issues and streetscape constraints,
  - (iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,
  - (v) bulk, massing and modulation of buildings,
  - (vi) street frontage heights,
  - (vii) environmental impacts such as sustainable design, overshadowing, wind and reflectivity,
  - (viii) the achievement of the principles of ecologically sustainable development,
  - (ix) pedestrian, cycle, vehicular and service access, circulation and requirements,
  - (x) impact on, and any proposed improvements to, the public domain.

The site is considered to be suitable for the development. The height, form and design are considered to appropriately relate to the future desired character. The building is consistent with newer residential flat buildings within the Wollongong City Centre. There are no heritage issues or streetscape constraints. The development achieves compliance with relevant planning controls with regard to setbacks, parking and ESD principles. The proposal achieves the minimum amenity requirements and is not expected to unreasonably impact on the amenity of existing or future development on adjoining land. Overshadowing impact to neighbouring properties will occur due to the height of the development in relation to surrounding properties and the orientation of all allotments. The landscape plan provided with the application makes provision for public domain improvements including street tree planting. It is further noted that the DRP have reviewed the proposal as being satisfactory in regard to the ADG and design excellence.

#### Part 8 Local provisions—Wollongong city centre

Clause 8.1 Objectives for development in Wollongong city centre

The objectives of this Part and (in so far as it relates to the Wollongong city centre) clause 7.18 are as follows:

- (a) to promote the economic revitalisation of the Wollongong city centre,
- (b) to strengthen the regional position of the Wollongong city centre as a multifunctional and innovative centre that encourages employment and economic growth,
- (c) to protect and enhance the vitality, identity and diversity of the Wollongong city centre,
- (d) to promote employment, residential, recreational and tourism opportunities within the Wollongong city centre,

- (e) to facilitate the development of building design excellence appropriate to a regional city,
- (f) to promote housing choice and housing affordability,
- (g) to encourage responsible management, development and conservation of natural and manmade resources and to ensure that the Wollongong city centre achieves sustainable social, economic and environmental outcomes,
- (h) to protect and enhance the environmentally sensitive areas and natural and cultural heritage of the Wollongong city centre for the benefit of present and future generations.

The proposal would contribute to a residential unit mix through the provision of additional housing and employment opportunities during construction albeit non-conforming. The vitality of the city centre is enhanced through living within the centre where residential flat buildings are consistent with the centre identity and diversity. It is considered that the development provides for a standard of design, materials and detailing appropriate for the building type and its location and zoning. The proposal provides a mixture of 1, 2 and 3 bedroom units that are expected to contribute towards housing choice and affordability in Wollongong. However, the proposal only provides for two 3 bedroom units whereas the DCP requires 4.

The proposed residential flat building is considered an efficient use of space in an accessible location that is considered to encourage use of public transport and existing services.

#### 2.2 SECTION 4.15(1)(A)(II) ANY PROPOSED INSTRUMENT

None applicable.

#### 2.3 SECTION 4.15(1)(A)(III) ANY DEVELOPMENT CONTROL PLAN

#### 2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

#### **CHAPTER A1 – INTRODUCTION**

The development has been assessed against the relevant chapters of WDCP2009 and found to be satisfactory. A full compliance table can be found at Attachment 5 to this report; only the variations are discussed below:

#### 8. Variations to development controls in the DCP

The applicant has submitted a variation request in relation to housing choice and mix.

#### Chapter D13 Clause 6.2 Housing Choice and mix

This clause requires that studio and one bedroom units must not be less than 10% of the total mix of units within each development and three or more bedroom units must not be less than 10% of the total mix of units within each development.

The development proposes  $12 \times 1$ -bedroom units (32%) (units 1, 6, 7, 12, 13, 18, 19, 24, 25, 30, 31, 36),  $24 \times 2$ -bedroom units (63%) (units  $2, 3, 4, 5, 8, 9, 10, 11, 14, 15, 16, 17, 20, 21, 22, 23, 26, 27, 28, 29, 32, 33, 34, 35) and <math>2 \times 3$ -bedroom apartments (5%) (units 37, 38). Therefore, the minimum number of 1-bedroom apartments is exceeded; however, the minimum number of three bedroom apartments falls short.

The objectives of the Clause are:

- a) Ensure that residential development provides a mix of dwelling types and sizes to cater for a range of household types.
- b) Ensure that dwelling layout is sufficiently flexible for residents' changing needs over time.
- c) Ensure a sufficient proportion of dwellings include accessible layouts and features to accommodate changing requirements of residents.

d) Ensure the provision of housing that will, in its adaptable features, meet the access and mobility needs of any occupant.

#### Applicant's submission

The submission is based on the following summarised rational:

The subject site is located within easy walking distance to the Wollongong central business district which has a demand for 1 and 2-bedroom units. It is therefore considered that the requirement for 10% of apartments to be 3 bedrooms is an arbitrary figure which does not consider the varied characteristics in the northern and southern sectors of the Wollongong City Centre

Demographics for the Wollongong Statistical area (ABS Census 2016) indicate that this area contains smaller families, with an average of 1.6 children per family, reduced from the typical 1.8 - 1.9 children per family in surrounding statistical areas such as Figtree/Keiraville and Fairy Meadow/Balgownie. This reduced average number of children in Wollongong supports lesser bedroom numbers in this location suggesting that demand for 3-bedroom units is likely to be lower in this location.

Further, 53.0% of families in the Wollongong statistical area were couple families without children, significantly higher than the 37.2% in Fairy Meadow/Balgownie and 35.4% ion Figtree/Keiraville (ABS Census 2016). This suggests a lesser level of demand for larger units within the Wollongong area due to reduced family sizes.

#### Comment

The objectives of 6.2.1 have been considered.

In relation to a) the minimum number of 1-bedroom apartments is exceeded by 8 units, the minimum number of 3-bedroom apartments required falls short by 2 units.

In relation to b) the application proposes 4 adaptable units (U7, U13, U19, U25) all being one bedroom.

With regard to c), each unit is of a sufficient size and layout to allow for changing resident needs over time.

In relation to d) units U7, U13, U19, U25 are adaptable.

In summary, it is considered that the objectives of this Clause have not been met and the proposed variations have not been reasonably justified given the excessive number of 1 bedroom units. It is possible for a number of the single bedroom units could either be converted into three bedroom units or dual key.

A condition of consent is recommended that an additional two 3 bedroom units be provided by way of converting a number of the single bedroom units into three bedroom units. This would appear possible with minimal, if any change to the external façade.

#### 2.3.2 WOLLONGONG SECTION 94A DEVELOPMENT CONTRIBUTIONS PLAN

The estimated cost of works is \$8.9 million and a levy of 2% is applicable under this plan as the threshold value is \$100,000.

# 2.4 SECTION 4.15(1)(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 7.4, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 7.4

There are no planning agreements entered into or any draft agreement offered to enter into under S7.4 which affect the development.

## 2.5 SECTION 4.15(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)

## <u>92</u> What additional matters must a consent authority take into consideration in determining a development application?

Conditions of consent are recommended with regard to demolition.

The Government Coastal Policy only applies to the offshore component of the coastal zone, extending three nautical miles seaward from the open coast high water mark.

#### 2.6 SECTION 4.15(1)(B) THE LIKELY IMPACTS OF DEVELOPMENT

There are not expected to be any adverse social or economic impacts in the locality nor is the proposal likely to result in any adverse environmental impacts on the built environment. The proposal is satisfactory with regard to the applicable planning controls as detailed in the body of this report. The issues raised in the submissions received following notification are not considered sufficient to warrant refusal of the application as outlined in this report. Internal and external referrals are satisfactory. The proposed development is permissible within the zone and provides for a form of housing which is generally considered to be compatible with the character of the immediate residential environment.

#### 2.7 SECTION 4.15(1)(C) THE SUITABILITY OF THE SITE FOR DEVELOPMENT

#### Does the proposal fit in the locality?

The proposal is considered appropriate with regard to the zoning of the site and the desired future character of the neighbourhood as reflected in the relevant development controls and is not expected to have any unreasonably deleterious impacts on the amenity of the locality or adjoining developments. Consideration has been given to potential amenity impacts arising from the proposed development and no concerns are raised that cannot be managed by conditions where appropriate

#### Are the site attributes conducive to development?

There are no site constraints that would prevent the proposal.

## 2.8 SECTION 4.15(1)(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

One submission was received as discussed at section 1.3 of this report.

#### 2.9 SECTION 4.15(1)(E) THE PUBLIC INTEREST

The application is not expected to have any unreasonable impacts on the environment or the amenity of the locality. It is considered appropriate with consideration to the zoning and the character of the area and is therefore considered to be in the public interest.

#### **3 CONCLUSION**

This application has been assessed as satisfactory having regard to the Heads of Consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, The proposed development is permissible with consent and has regard to the objectives of the zone and is consistent with the applicable provisions of the relevant planning instruments including Wollongong LEP 2009 and SEPP 65, ADG, Wollongong DCP 2009, Codes and Policies.

The design of the development is appropriate with regard to the controls outlined in these instruments. The proposal involves minor variations to housing choice and mix under WDCP2009. Variation request statements and justification have been provided for the non-compliances in accordance with Chapter A1 of WDCP2009. The variation has been considered and is not supported in this instance. A condition of consent is recommended that an additional two 3 bedroom units be

provided by way of converting a number of the single bedroom units into three bedroom units. Internal referrals are satisfactory and submissions have been considered in the assessment.

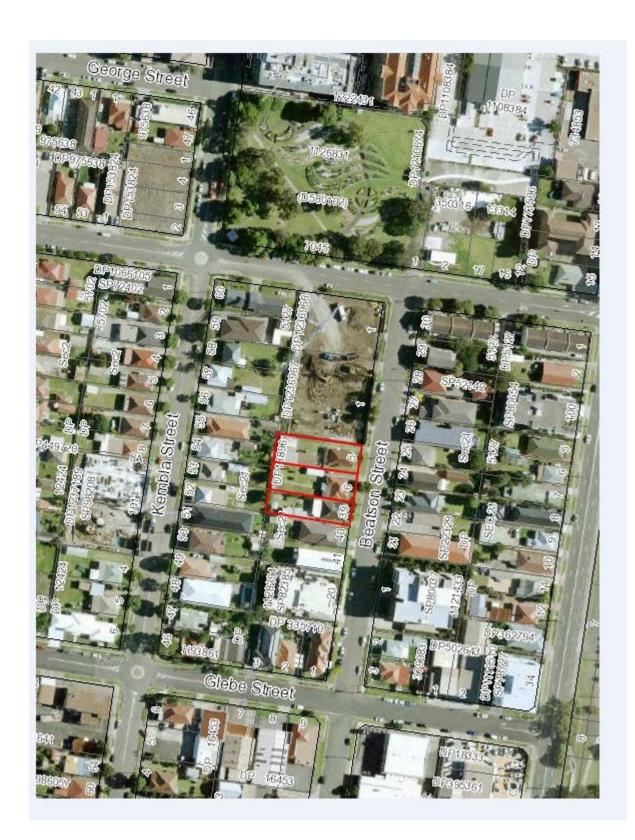
It is considered that the proposed development has otherwise been designed appropriately given the nature and characteristics of the site and is unlikely to result in significant adverse impacts on the character or amenity of the surrounding area. Recommendations of the Design Review Panel have been incorporated into revised plans

#### **4 RECOMMENDATION**

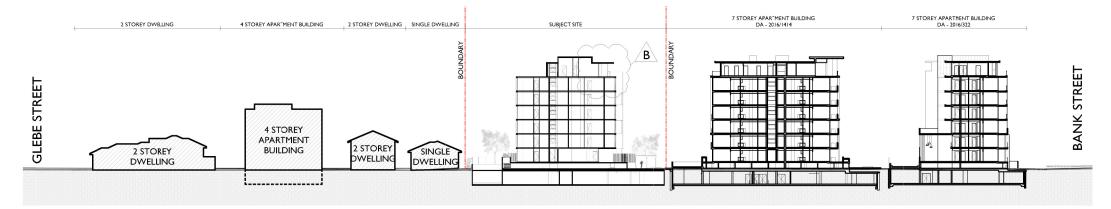
It is recommended that the development application DA-2018/803 be approved subject to the draft conditions at Attachment 7.

#### **5 ATTACHMENTS**

- 1. Aerial photograph
- 2. WLEP 2009 zoning map
- 3. Architectural plans
- 4. ADG compliance table
- 5. WDCP 2009 compliance table
- 6. Design Review Panel commentary
- 7. Draft consent

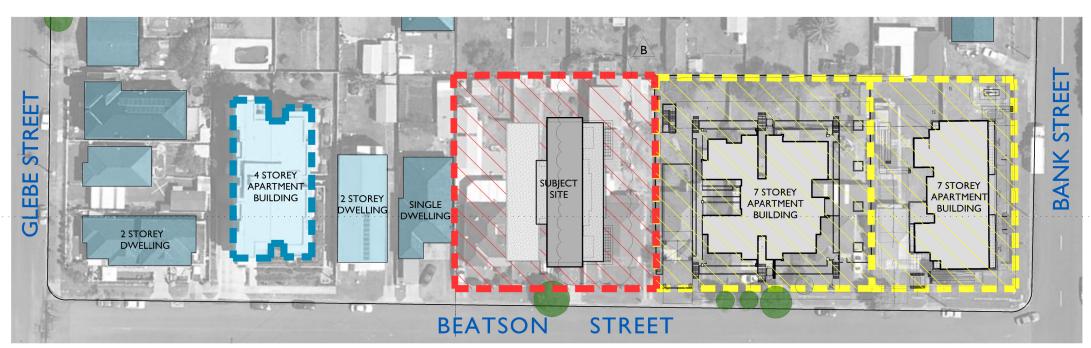






## **LONG SECTION**

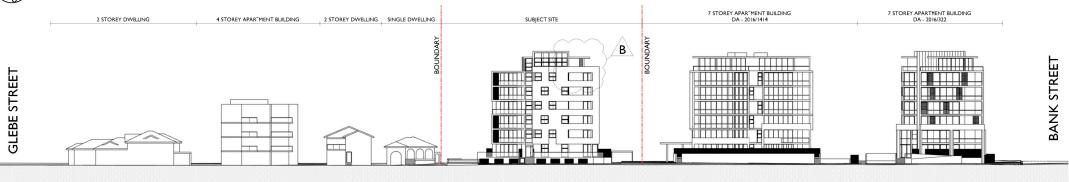
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LONG SECTION LOOKING WEST



### **AERIAL MAP**



#### STREETSCAPE ELEVATION BEATSON STREET ASPECT



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4 STOREY APARTMENT BUILDING



2 STOREY DWELLING



SINGLE DWELLING



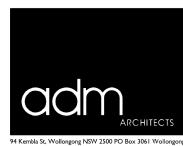
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## **LEGEND**







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PROPOSED RESIDENTIAL APARTMENT BUILDING CONSISTING OF 38 UNITS OVER BASEMENT PARKING

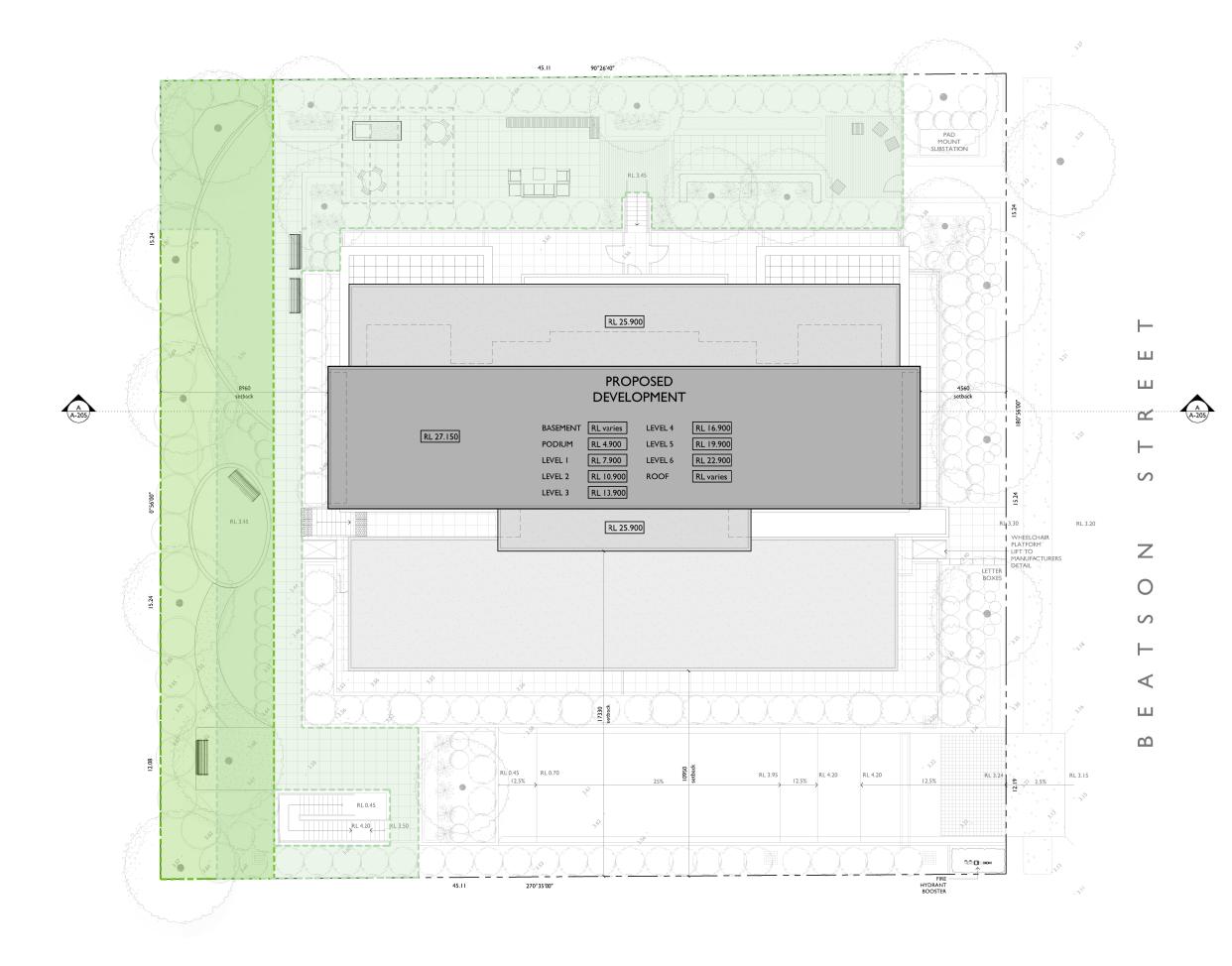
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## ND| Holdings Pty Ltd

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COS (508m<sup>2</sup>) 26.4%



DSZ (257m<sup>2</sup>) 13.3%



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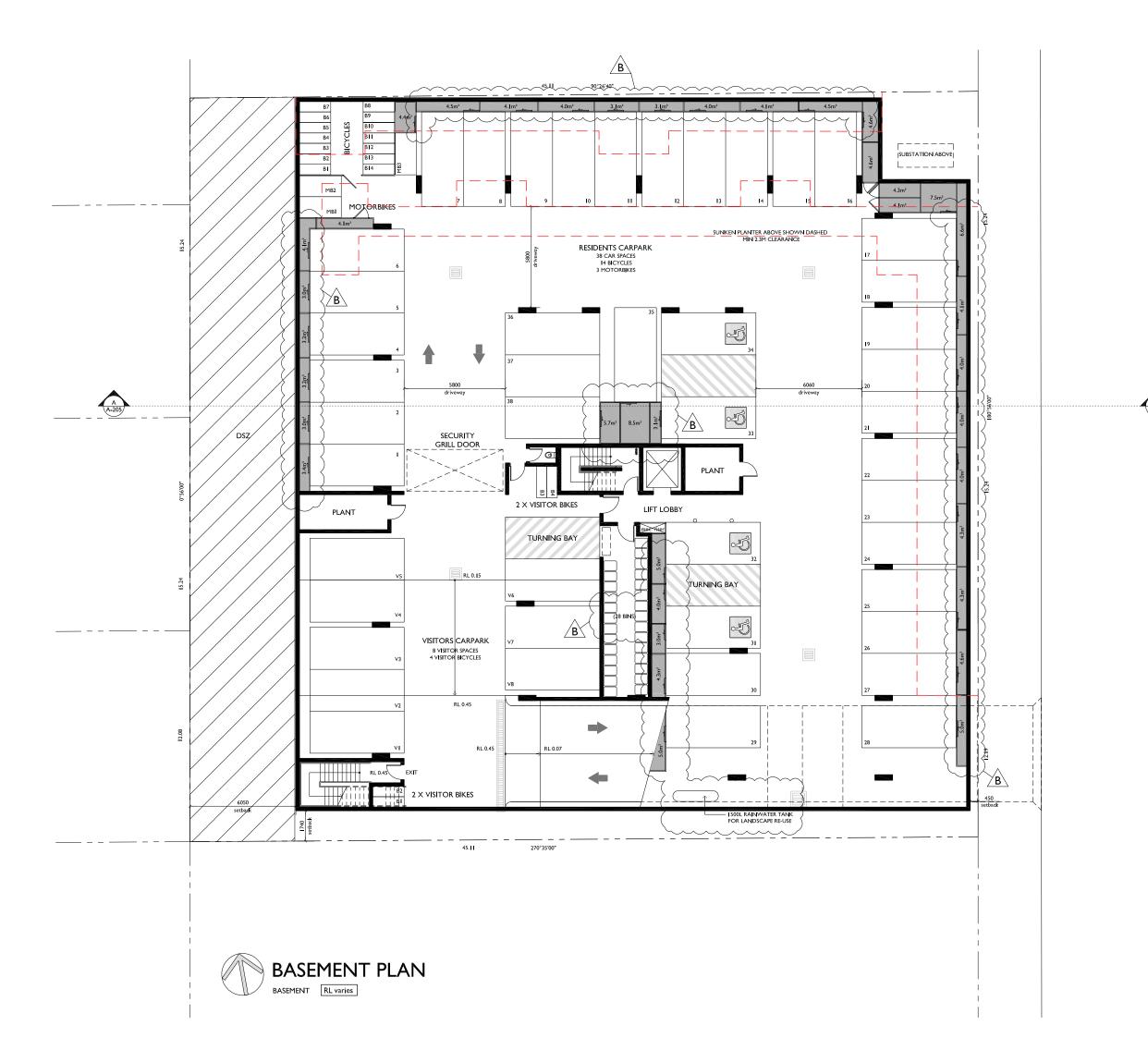
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DEVELOPMENT APPLICATION SITE & ROOF PLAN

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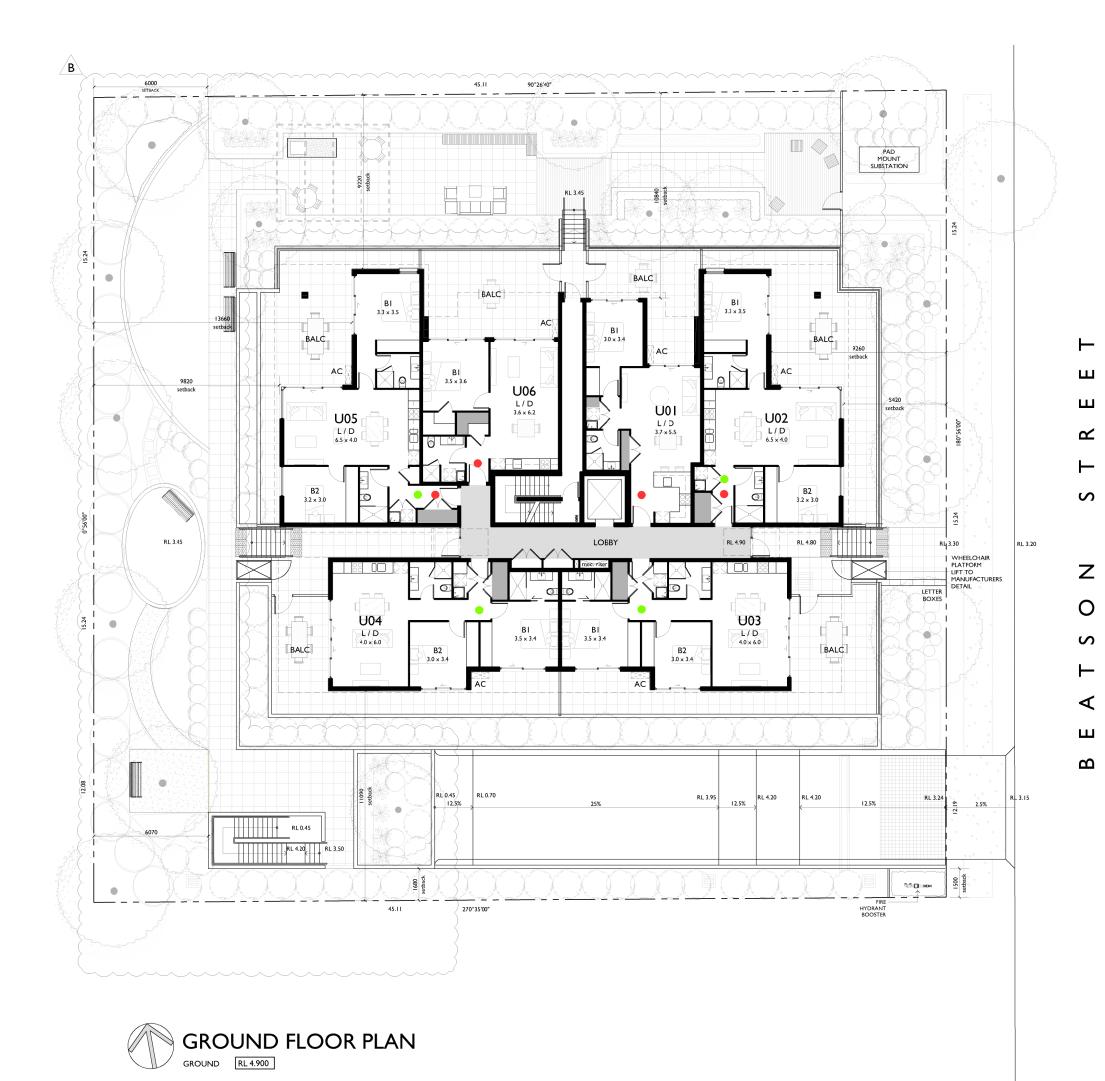
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DEVELOPMENT APPLICATION BASEMENT FLOOR PLAN

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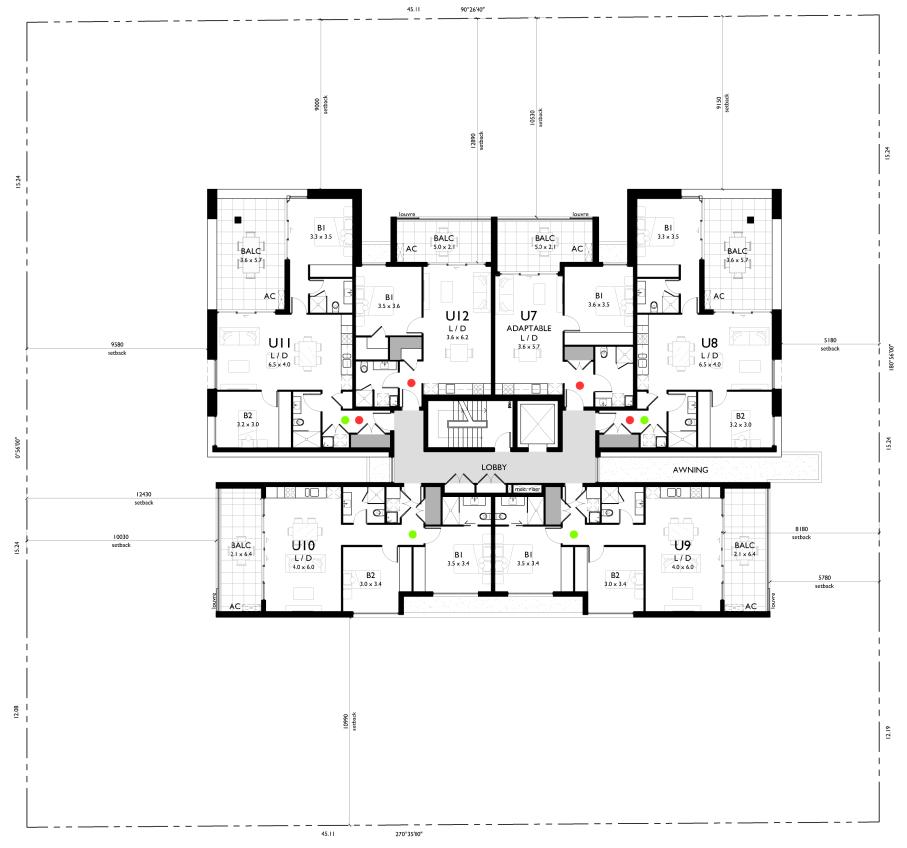
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DEVELOPMENT APPLICATION GROUND FLOOR PLAN

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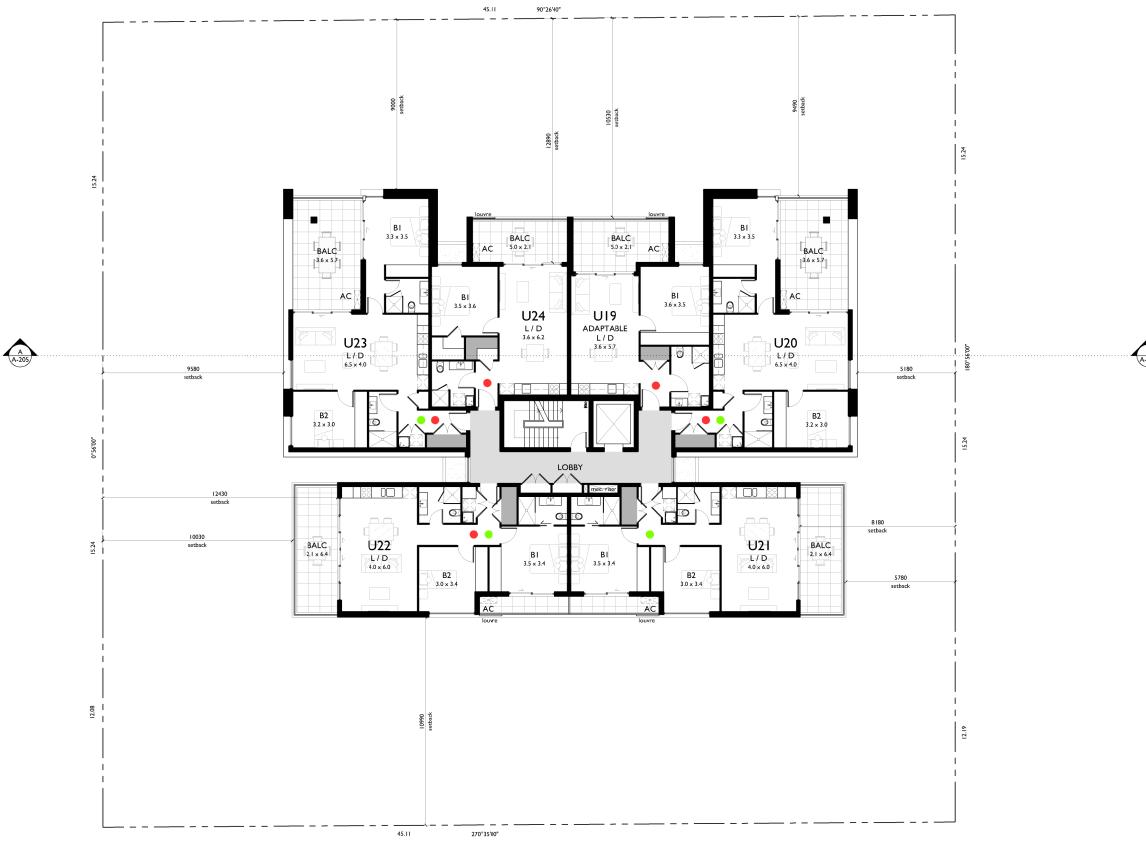
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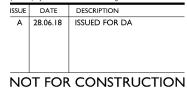
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**LEVEL 3 FLOOR PLAN** LEVEL 3 RL 13.900



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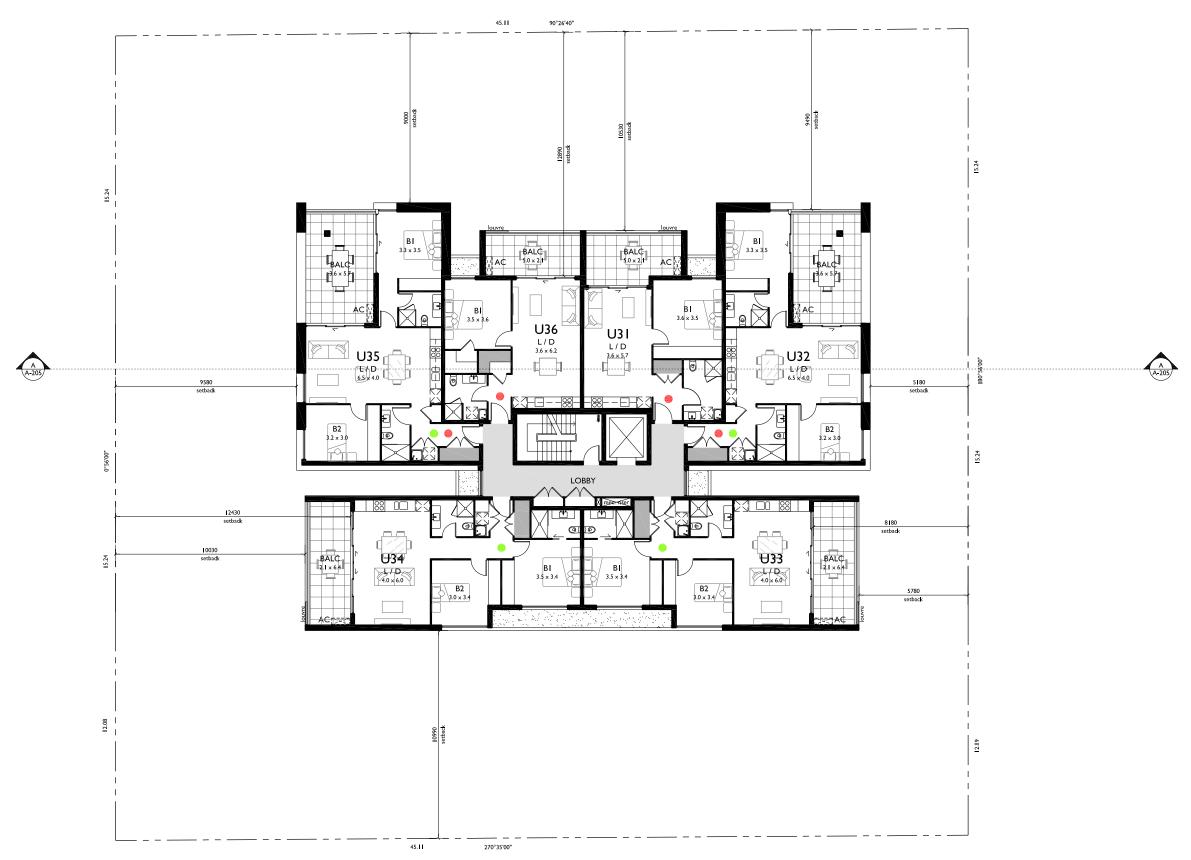
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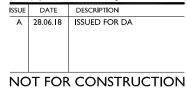
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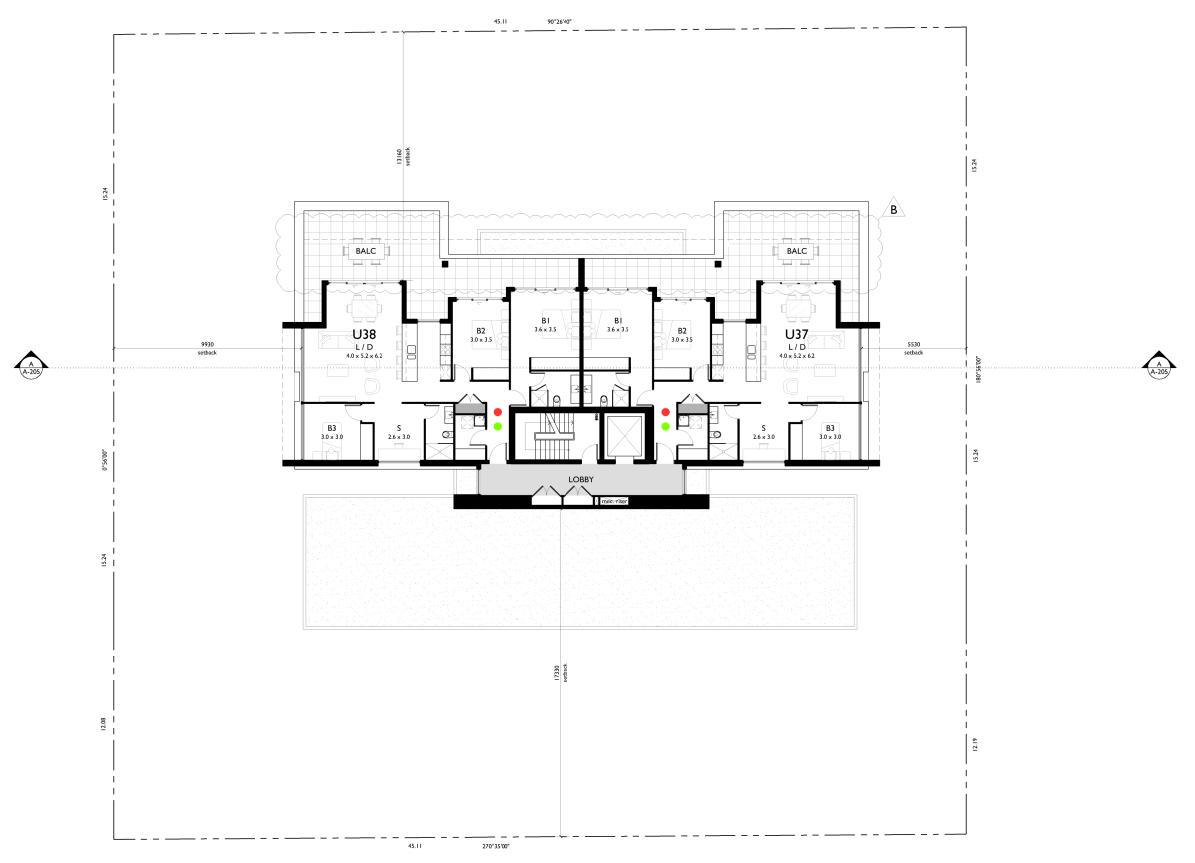
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**EAST ELEVATION** BEATSON STREET ASPECT

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NORTH ELEVATION

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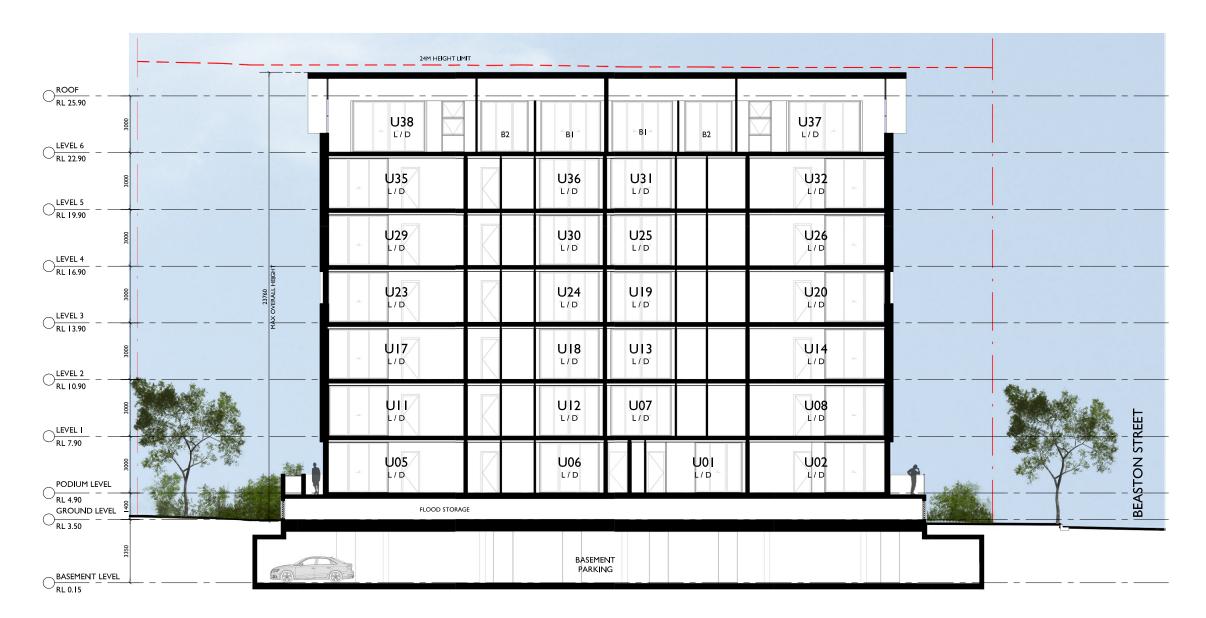
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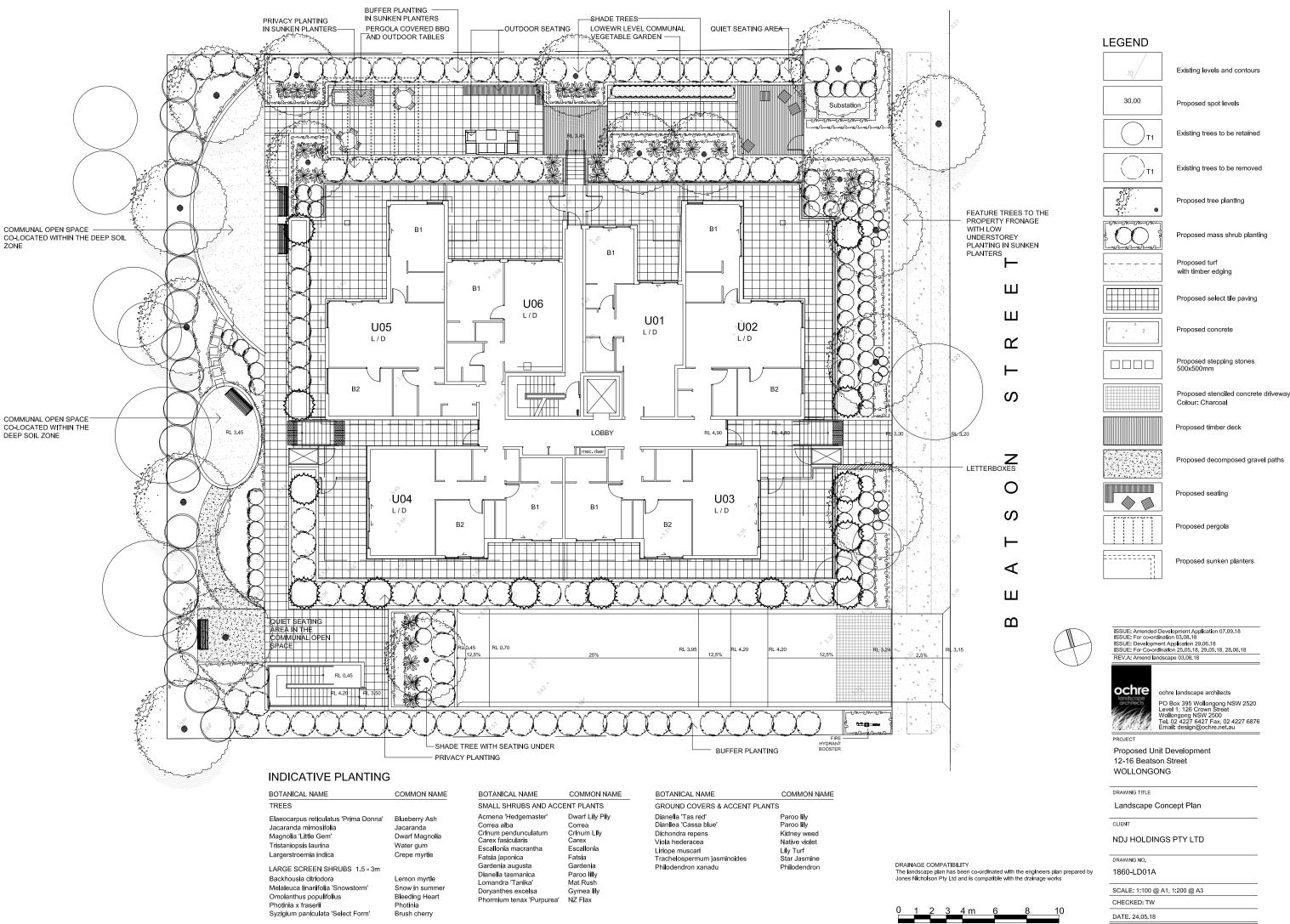
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DEVELOPMENT APPLICATION SECTION AA

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Existing levels and contours

Existing trees to be retained

Existing trees to be removed

Proposed tree planting

Proposed mass shrub planting

with timber edging

Proposed select tile paving

Proposed concrete

Proposed stepping stones 500x500mm

Proposed sunken planters

ISSUE: Amended Development Application 07.09.18 ISSUE: For co-ordination 03.08.18 ISSUE: Development Application 29.06.18 ISSUE: For Co-ordination 25.05.18, 29.05.18, 28.06.18

ochre landscape architects

PO Box 395 Wollongong NSW 2520 Level 1, 126 Crown Street Wollongong NSW 2500
Tel. 02 4227 6427 Fax. 02 4227 6876
Email: design@ochre.net.au

## Attachment 4: Apartment Design Guide assessment table

Standard/control Comment

Part 1 – Identifying the context	
Part 1 is informative for strategic planning matte and not specifically applicable to development applications.	rs
Part 2 – Developing the controls	
2E Building depth	
12-18m maximum	Complies
2F Building separation	
Up to four storeys (approximately 12m):	Complies
12m between habitable rooms/balconies	
9m between habitable and non-habitable ro	poms
6m between non-habitable rooms	
Five to eight storeys (approximately 25m):	Complies
18m between habitable rooms/balconies	
<ul> <li>12m between habitable and non-habitable rooms</li> </ul>	
9m between non-habitable rooms	
2G Street setbacks	
Complies with DCP requirements	
2H Side and rear setbacks	
Test side and rear setbacks with height controls overshadowing of the site, adjoining properties a open spaces	
Test side and rear setbacks with the requirement for:	nts
building separation and visual privacy	
communal and private open space	
deep soil zone requirements	
Part 3 – Siting the development	
3A Site analysis	
Site analysis to include the following:	Suitable analysis of the site and surrounds
Site location plan	has been provided in regard to the suitability of the site for the proposal.
Aerial photograph	or the one for the proposal.
Local context plan	
Site context and survey plan	
Streetscape elevations and sections	
Analysis	

#### Comment

#### 3B Orientation

Objective 3B-1

Building types and layouts respond to the streetscape and site while optimising solar access within the development

Objective 3B-2

Overshadowing of neighbouring properties is minimised during mid-winter

#### 3C Public domain interface

Objective 3C-1

Transition between private and public domain is achieved without compromising safety and security

#### Objective 3C-2

Amenity of the public domain is retained and enhanced

#### 3D Communal and public open space

Objective 3D-1

An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping

The proposal provides compliant solar access to the units within the development. Generous setbacks are provided to adjoining land and the overshadowing impacts are considered acceptable given the permitted height and FSR for the locality.

As noted above, overshadowing impacts are considered acceptable. It is noted that land to the south of the site is either underdeveloped. The proposal is not considered to compromise future development of adjoining land given the building separation requirements are satisfied.

The development is considered to provide an acceptable interface with the public domain as follows:

- Stairs and a wheelchair platform lift are provided to address access to the elevated podium.
- Entries are clear and legible.
- There are no significant concealment opportunities.
- Planting provided to screen elevated podium walls
- Street trees are to be provided
- The footpath for the entire frontage will be renewed.
- The substation is suitably located and does not detract from aesthetic of the building
- Mailboxes are located in the lobby

A communal open space is provided on ground level in excess of 25% of the site area with a north and west orientation to maximise solar access. A wheelchair platform lift is provided to ensure equitable access to that space.

Standard/control	Comment
Objective 3D-2	
Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting	The communal open space is generous in size and proportions and provides a variety of spaces including seating and barbeque facilities.
Objective 3D-3	
Communal open space is designed to maximise safety	Passive surveillance of the communal open space is provided and suitably lit.
Objective 3D-4	
Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood	N/A
3E Deep soil zones	
Objective 3E-1	
Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality	A 6m wide deep soil area is provided along the rear boundary of the site (~13% of site area)
3F Visual privacy	
Objective 3F-1	
Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy	Suitable separation distances are provided between the building and adjoining development.
Objective 3F-2	
Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and	Communal open space, common areas and access paths are separated from private open space and windows into apartments.
private open space	Balconies and private terraces are located in front of living rooms to increase internal privacy.
	Recessed balconies and vertical fins are provided between adjacent balconies.
3G Pedestrian access and entries	
Objective 3G-1	
Building entries and pedestrian access connects to and addresses the public domain	Building entries are clearly identifiable.
Objective 2C 2	

Objective 3G-2

Access, entries and pathways are accessible and easy to identify

Objective 3G-3

Large sites provide pedestrian links for access to streets and connection to destinations

Entries are clearly visible from the public domain.

Level changes are suitably addressed

N/A

Standard/control	Comment
3H Vehicle access	
Objective 3H-1	
Vehicle access points are designed and located to	The car park entry is suitably located.
achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes	Clear sight lines are provided at the vehicle crossing.
3J Bicycle and car parking	
Objective 3J-1	
Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	The minimum car parking requirement applicable for residents and visitors is that set out in the RMS Guide to Traffic Generating Developments. The development complies in this regard.
Objective 3J-2	
Parking and facilities are provided for other modes of transport	Motorbike parking complies with the RMS guide.
	Secure undercover bicycle parking is provided.
Objective 3J-3	
Car park design and access is safe and secure	Satisfactory
Objective 3J-4	
Visual and environmental impacts of underground car parking are minimised	The section of elevated podium is suitably screened with landscaping.
	Detail is provided of ventilation of the car parking.
Objective 3J-5	
Visual and environmental impacts of on-grade car parking are minimised	N/A
Objective 3J-6	
Visual and environmental impacts of above ground enclosed car parking are minimised	N/A
Part 4	
4A Solar and daylight access	
Objective 4A-1	
To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	Living rooms and private open spaces of at least 70% of apartments within the building receive the requisite minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter. View from the sun diagrams have been provided demonstrating compliance in this regard.
Objective 4A-2	
Daylight access is maximised where sunlight is limited	Glazed areas are maximised for units that do not have northerly orientation.

Standard/control	Comment
Objective 4A-3	
Design incorporates shading and glare control, particularly for warmer months	The east and west elevation have smaller windows and recessed balcony areas to minimise heat gain.
4B Natural ventilation	
Objective 4B-1	
All habitable rooms are naturally ventilated	Satisfactory
Objective 4B-2	
The layout and design of single aspect apartments maximises natural ventilation	Single aspect units comply with the maximum depth controls.
Objective 4B-3	
The number of apartments with natural cross ventilation is maximised to create a comfortable	A minimum of 60% of the apartments are naturally cross ventilated.
indoor environment for residents	Floor to ceiling heights and depths of units are satisfactory.
4C Ceiling heights	
Objective 4C-1	
Ceiling height achieves sufficient natural ventilation and daylight access	The floor to ceiling heights are a minimum of 2.7m.
Objective 4C-2	
Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms	Satisfactory
Objective 4C-3	
Ceiling heights contribute to the flexibility of building use over the life of the building	N/A
4D Apartment size and layout	
Objective 4D-1	
The layout of rooms within an apartment is	Apartments meet the minimum dimensions.
functional, well organised and provides a high standard of amenity	Habitable rooms have windows in external walls of a minimum of 10% of the floor area of the rooms.
	Windows are visible from all points within habitable rooms.
	Kitchens are not located in the main circulation space of larger apartments.
Objective 4D-2	
Environmental performance of the apartment is maximised	Habitable room depths are limited to a maximum of 2.5 x the ceiling height (~7m).
	maximum habitable room depth in open plan layouts is 8m from a window.

Standard/control Comment

## Objective 4D-3

Apartment layouts are designed to accommodate a variety of household activities and needs

Master bedrooms have a minimum area of 10m<sup>2</sup> and other bedrooms 9m<sup>2</sup> (excluding wardrobe space)

Bedrooms have a minimum dimension of 3m (excluding wardrobe space)

Living rooms or combined living/dining rooms have a minimum width of:

- 3.6m for studio and 1 bedroom apartments
- 4m for 2 and 3 bedroom apartments

Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas

All bedrooms allow a minimum length of 1.5m for robes The main bedrooms are provided with wardrobes a minimum of 1.8m long, 0.6m deep and 2.1m high.

The apartment layouts are considered acceptable in terms of flexibility over time.

#### 4E Private open space and balconies

Objective 4E-1

Apartments provide appropriately sized private open space and balconies to enhance residential amenity

Objective 4E-2

Primary private open space and balconies are appropriately located to enhance liveability for residents

## Objective 4E-3

Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building

Objective 4E-4

Private open space and balcony design maximises safety

## 4F Common circulation and spaces

Objective 4F-1

Common circulation spaces achieve good amenity and properly service the number of apartments

Primary balconies meet the minimum 2m dimension and minimum area requirements.

- Primary open space and balconies are located adjacent to the living rooms, dining rooms or kitchens
- Private open spaces and balconies oriented to maximise solar access.

## Satisfactory

- A maximum of 6 apartments access off a circulation core.
- The maximum number of apartments sharing a single lift is does not exceed 40.
- Natural light is provided to hallways.

Standard/control	Comment
Objective 4F-2	
Common circulation spaces promote safety and provide for social interaction between residents	Satisfactory
4G Storage	
Adequate, well designed storage is provided in each apartment	Provided.
Objective 4G-2	
Additional storage is conveniently located, accessible and nominated for individual apartments	Secure storage areas are provided for units within the basement.
4H Acoustic privacy	
Objective 4H-1	
Noise transfer is minimised through the siting of buildings and building layout	Adequate separation from adjoining buildings is provided.
	Noisy areas are located next to or above each other and quieter areas next to or above quieter areas.
	Noise sources are separated from bedrooms.
Objective 4H-2	
Noise impacts are mitigated within apartments through layout and acoustic treatments	Internal layout designed to minimise noise transference between units.
4J Noise and pollution	
Objective 4J-1	
In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings	Satisfactory
Objective 4J-2	
Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission	N/A
4K Apartment mix	
Objective 4K-1	
A range of apartment types and sizes is provided to cater for different household types now and into the future	A suitable mix of unit sizes is provided.
Objective 4K-2	
The apartment mix is distributed to suitable locations within the building	Satisfactory
4L Ground floor apartments	
Objective 4L-1	
Street frontage activity is maximised where ground floor apartments are located.	Passive surveillance of the street is provided from private open space areas of ground floor units.

Standard/control	Comment
Staridard/Coritror	Comment

#### 4M Facades

Objective 4M-1

Building facades provide visual interest along the street while respecting the character of the local area The building façade incorporates a mixture of materials.

Building services are integrated into the building.

The facades of the building are split through the use of solid elements, glazing and vertical louvres.

Objective 4M-2

Building functions are expressed by the façade

The building entry is clearly defined.

The apartment layout is expressed externally

4N Roof design

Objective 4N-1

Roof treatments are integrated into the building design and positively respond to the street

Objective 4N-2

Opportunities to use roof space for residential accommodation and open space are maximised

Objective 4N-3

Roof design incorporates sustainability features

Satisfactory

N/A

Roof design maximises solar access to apartments during winter and provides shade during summer.

40 Landscape design

Objective 40-1

Landscape design is viable and sustainable

Acceptable landscaped areas have been provided. Council's Landscape Officer has reviewed the proposal in respect of the type and nature of the planting and has provided a satisfactory referral subject to conditions of consent.

Objective 40-2

Landscape design contributes to the streetscape and amenity

Street trees are to be provided along the frontage and new footpath which will improve the amenity of the public domain.

4P Planting on structures

Objective 4P-1

Appropriate soil profiles are provided

Objective 4P-2

Plant growth is optimised with appropriate selection and maintenance

Objective 4P-3

Planting on structures contributes to the quality and amenity of communal and public open spaces

The planting on structure is considered to be of a type and scale which provides amenity to residents of the building. Council's Landscape Officer has reviewed the proposal in respect of the type and nature of the planting and has provided conditions of consent.

Standard/control	Comment
4Q Universal design	
Objective 4Q-1	
Universal design features are included in apartment design to promote flexible housing for all community members	20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features
Objective 4Q-2	
A variety of apartments with adaptable designs are provided	Satisfactory
Objective 4Q-3	
Apartment layouts are flexible and accommodate a range of lifestyle needs	Satisfactory
4R Adaptive reuse	
N/A	
4S Mixed use	
N/A	

4T Awnings and signage

4U Energy efficiency

Objective 4U-3

4V Water management and conservation

N/A

Objective 4U-1

Development incorporates passive environmental design

Satisfactory natural light is provided to habitable rooms.

Suitable areas for clothes drying provided.

Objective 4U-2

Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer

A BASIX Certificate has been provided which outlines mechanisms to achieve the minimum thermal comfort targets.

Balconies are recessed providing shade to adjacent living spaces during hotter periods of the day.

The layout of units provides satisfactory orientation to achieve solar access in cooler months.

Adequate natural ventilation minimises the need for mechanical ventilation

The development meets the minimum natural ventilation requirements.

Objective 4V-1

Potable water use is minimised

The development will comply with BASIX

Runoff is collected for reuse in landscaped areas.

requirements with regard to water use.

Standard/control	Comment
Objective 4V-2	
Urban stormwater is treated on site before being discharged to receiving waters	N/A
Objective 4V-3	
Flood management systems are integrated into site design	N/A
4W Waste management	
Objective 4W-1	
Waste storage facilities are designed to minimise	Waste storage is within the basement.
impacts on the streetscape, building entry and amenity of residents	The waste storage area is of a suitable size to accommodate expected waste generation for the development.
	Kerbside collection proposed and the bins can be stored in less than half the frontage in accordance with Council requirements.
Objective 4W-2	
Domestic waste is minimised by providing safe and convenient source separation and recycling	<ul> <li>Kitchens are considered large enough to accommodate waste and recycling cupboard or temporary storage area of sufficient size to hold two days' worth of waste and recycling.</li> </ul>
	<ul> <li>Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core.</li> </ul>
	Alternative waste disposal methods such as composting are provided
4X Building maintenance	
Objective 4X-1	
Building design detail provides protection from weathering	Satisfactory
Objective 4X-2	
Systems and access enable ease of maintenance	Satisfactory
Objective 4X-3	
Material selection reduces ongoing maintenance costs	Satisfactory

# ATTACHMENT 5 - WOLLONGONG DEVELOPMENT CONTROL PLAN 2009 COMPLIANCE TABLES

#### **CHAPTER A2 – ECOLOGICALLY SUSTAINABLE DEVELOPMENT**

Development controls to improve the sustainability of development throughout Wollongong are integrated into the relevant chapters of this DCP.

Generally speaking, the proposal is considered to be consistent with the principles of Ecologically Sustainable Development as follows:

- The building achieves the minimum cross ventilation and solar access requirements.
- The landscaped areas are to be watered from rainwater harvesting.
- BASIX targets are met.
- A Site Waste Management and Minimisation Plan has been provided indicating appropriate management and disposal of any excavated materials.
- The proposal will not have an unreasonable impact on any heritage items or environmentally sensitive areas.
- The proposal is an efficient use of land in a location that is close to services and public open space.

#### **CHAPTER D13 – WOLLONGONG CITY CENTRE**

2 Building form	
Objectives/controls	Comment
2.2 Building to street alignment and street setbacks	
4m setback	Complies
2.3 Street frontage heights in commercial core	
N/A	
2.4 Building depth and bulk	
900m² maximum floor plate	Complies
Maximum 18m building depth	
2.5 Side and rear building setbacks and building separation	
Residential uses up to 12m in height	
• habitable rooms with openings and balconies: side 6m / rear 6m	Complies
<ul> <li>non-habitable rooms and habitable rooms without openings: side 3m / rear 4.5m</li> </ul>	Complies
Residential uses between 12m & 24m	
• habitable rooms with openings and balconies: side 9m / rear 9m	Complies
<ul> <li>-non-habitable rooms and habitable rooms without openings: side 4.5m / rear 4.5m</li> </ul>	Complies
2.6 Mixed used buildings	
N/A	
2.7 Deep soil zone	
15% of site with minimum 6m dimension and clear of structures	Provided
2.8 Landscape design	
The objectives of this control are as follows:	Substantial landscaping is

Objectives/controls Comment provided around the base of To ensure landscaping is integrated into the design of the building and on the development. podium and is considered to b) To add value and quality of life for residents and occupants achieve the objectives of this within a development in terms of privacy, outlook, views and control. This has been recreational opportunities. reviewed as being satisfactory To improve stormwater quality and control run-off. by Council's Landscape c) Officer who. To improve the microclimate and solar performance within the d) development. To improve urban air quality and contribute to biodiversity. e) 2.9 Green roofs, green walls and planting on structures N/A 2.10 Sun access planes N/A 2.11 Development on classified roads N/A 3 Pedestrian amenity Objectives/controls Comment 3.2 Permeability N/A 3.3 Active street frontages N/A 3.4 Safety and security Ensure that the building design allows for casual surveillance of Υ access ways, entries and driveways. Avoid creating blind corners and dark alcoves that provide Satisfactory b) concealment opportunities in pathways, stairwells, hallways and carparks. Υ Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering. Where private open space is located within the front building Satisfactory d) alignment any front fencing must be of a design and/or height which allows for passive surveillance of the street. Provide adequate lighting of all pedestrian access ways, parking Satisfactory areas and building entries. Such lighting should be on a timer or movement detector to reduce energy consumption and glare

Υ

N/A

nuisance.

development.

casual surveillance of the pathway.

accordance with the CPTED principles.

f)

Provide clear lines of sight and well-lit routes throughout the

over 5,000m<sup>2</sup>, provide a 'safety by design' assessment in

Where a pedestrian pathway is provided from the street, allow for N/A

For large scale retail and commercial development with a GFA of

Ob	iectives/controls	Comment
i)	Provide security access controls where appropriate.	Υ
j)	Ensure building entrance(s) including pathways, lanes and arcades for larger scale retail and commercial developments are directed to signalised intersections rather than mid-block in the Commercial zone, Mixed Use (city edge) and Enterprise Corridor zones.	N/A
3.5	<u>Awnings</u>	
N/A		
<u>3.6</u>	Vehicular footpath crossings	
•	one vehicle access point only	Υ
•	double lane crossing permitted where circumstances need it	Υ
•	Doors to vehicle access points are to be roller shutters	Υ
•	Vehicle entries are to have high quality finishes to walls and ceilings as well as high standard detailing. No service ducts or pipes are to be visible from the street.	Satisfactory
<u>3.7</u>	Pedestrian overpasses, underpasses and encroachments	
N/A		
3.8	Building exteriors	
	Adjoining buildings (particularly heritage buildings) are to be sidered in the design of new buildings in terms of:	Satisfactory
i) A	ppropriate alignment and street frontage heights.	
ii) S	Setbacks above street frontage heights.	
iii) <i>I</i>	Appropriate materials and finishes selection.	
iv) l	Façade proportions including horizontal or vertical emphasis.	
v) 1	The provision of enclosed corners at street intersections.	
buil	Balconies and terraces should be provided, particularly where dings overlook parks and on low rise parts of buildings. Gardens the top of setback areas of buildings are encouraged.	Y
	Articulate facades so that they address the street and add visual erest.	Υ
ma	External walls should be constructed of high quality and durable terials and finishes with 'self-cleaning' attributes, such as face kwork, rendered brickwork, stone, concrete and glass.	Y
deg finis	Finishes with high maintenance costs, those susceptible to gradation or corrosion from a coastal or industrial environment or shes that result in unacceptable amenity impacts, such as ective glass, are to be avoided.	Satisfactory
•	o assist articulation and visual interest, avoid expanses of any gle material.	Satisfactory
	Limit opaque or blank walls for ground floor uses to 30% of the eet frontage.	Satisfactory
	Maximise glazing for retail uses, but break glazing into sections to id large expanses of glass.	Satisfactory
	ighly reflective finishes and curtain wall glazing are not permitted ove ground floor level.	Satisfactory

j) A materials sample board and schedule is required to be submitted Provided.

y) A materials sample board and schedule is required to be submitted with applications for development over \$1 million or for that part of any development built to the street edge.

k) Minor projections up to 450mm from building walls in accordance with those permitted by the Building Code of Australia may extend into the public space providing it does not fall within the definition of gross floor area and there is a public benefit, such as:

N/A

- i) Expressed cornice lines that assist in enhancing the streetscape,
- ii) Projections such as entry canopies that add visual interest and amenity, and
- iii) Provided that the projections do not detract from significant views and vistas (see Figure 3.12).
- I) The design of roof plant rooms and lift overruns is to be integrated into the overall architecture of the building.

Y

#### 3.9 Advertising and signage

N/A

#### 3.10 Views and view corridors

- a) Existing views shown in Figure 3.12 are to be protected to the extent that is practical in the planning and design of development.
- b) The redevelopment of sites with potential to open a blocked view shown in Figure 3.12 must take into account the restoration of that view.
- c) Align buildings to maximise view corridors between buildings.
- d) Remove or avoid installation of built elements that obstruct significant views.

from all public roads and spaces as well as unimpeded internal

- e) Carefully consider tree selection to provide views along streets in Figure 3.12 and keep under storey planting low where possible.
- f) Site analysis must address views with the planning and design of building forms taking into account existing topography, vegetation and surrounding development.

Satisfactory

#### 4 Access, parking and servicing

3 3	
Objectives/controls	Comment
4.2 Pedestrian access and mobility	
<ul> <li>a) Main building entry points should be clearly visible from primary street frontages and enhanced as appropriate with awnings, building signage or high quality architectural features that improve clarity of building address and contribute to visitor and occupant amenity.</li> </ul>	Y
b) The design of facilities (including car parking requirements) for disabled persons must comply with the relevant Australian Standard (AS 1428 Pt 1 and 2, AS 2890 Pt 1, or as amended) and the Disability Discrimination Act 1992 (as amended).	Y
c) The development must provide at least one main pedestrian entrance with convenient barrier free access in all developments to at least the ground floor.	Υ
d) The development must provide continuous access paths of travel	Υ

Objectives/controls	Comment
access.	
e) Pedestrian access ways, entry paths and lobbies must use durable materials commensurate with the standard of the adjoining public domain (street) with appropriate slip resistant materials, tactile surfaces and contrasting colours in accordance with Council's Public Domain Technical Manual.	Y
f) Building entrance levels and footpaths must comply with the longitudinal and cross grades specified in AS 1428.1:2001, AS/NZS 2890.1:2004 and the Disability Discrimination Act.	Y
4.3 Vehicular driveways and manoeuvring areas	
a) Driveways should be:	Satisfactory
i) Provided from lanes and secondary streets rather than the primary street, wherever practical.	
ii) Located taking into account any services within the road reserve, such as power poles, drainage pits and existing street trees.	
iii) Located a minimum of 6 metres from the perpendicular of any intersection of any two roads.	
iv) If adjacent to a residential development setback a minimum of 1.5m from the relevant side property boundary.	
b) Vehicle access is to be designed to:	Y
i) Minimise the impact on the street, site layout and the building façade design; and	
ii) If located off a primary street frontage, integrated into the building design.	
c) All vehicles must be able to enter and leave the site in a forward direction without the need to make more than a three point turn.	Υ
d) Design of driveway crossings must be in accordance with Council's standard Vehicle Entrance Designs, with any works within the footpath and road reserve subject to a s138 Roads Act approval.	Y
e) Driveway widths must comply with the relevant Australian Standards.	Y
f) Car space dimensions must comply with the relevant Australian Standards.	Y
g) Driveway grades, vehicular ramp width/grades and passing bays must be in accordance with the relevant Australian Standard, (AS 2990.1).	Y
h) Vehicular ramps less than 20m long within developments and parking stations must have a maximum grade of 1 in 5 (20%). Ramp widths and design must be in accordance with AS 2890.1.	Y
j) For residential development in the General Residential zone, use semi-pervious materials for all uncovered parts of driveways/spaces to provide for some stormwater infiltration.	N/A
4.4 On-site parking	
a) On-site parking must meet the relevant Australian Standard (AS2890.1 2004 – Parking facilities, or as amended).	Complies
b) Council may require the provision of a supporting geotechnical report prepared by an appropriately qualified professional as	Provided

information to accompany a development application to Council.

- c) Car parking and associated internal manoeuvring areas which are surplus to Council's specified parking requirements will count towards the gross floor area, but not for the purpose of determining the necessary parking.
- d) Any car parking provided in a building above ground level is to have a minimum floor to ceiling height of 2.8m so it can be adapted to another use in the future.
- e) On-site vehicle, motorcycle and bicycle parking is to be provided in accordance with Part E of this DCP.
- a) On-site parking is to be accommodated underground, or otherwise integrated into the design of the building

#### 4.5 Site facilities and services

#### Mail boxes

- a) Provide letterboxes for residential building and/or commercial tenancies in one accessible location adjacent to the main entrance to the development.
- b) They should be integrated into a wall where possible and be constructed of materials consistent with the appearance of the building.
- c) Letterboxes shall be secure and large enough to accommodate articles such as newspapers.

Communication structures, air conditioners and service vents

- a) Locate satellite dish and telecommunication antennae, air conditioning units, ventilation stacks and any ancillary structures:
- i) Away from the street frontage.
- ii) Integrated into the roof scape design and in a position where such facilities will not become a skyline feature at the top of any building, and
- iii) Adequately setback from the perimeter wall or roof edge of buildings.
- b) A master antennae must be provided for residential apartment buildings. This antenna shall be sited to minimise its visibility from surrounding public areas.

Additional parking spaces have been included in GFA calculations.

N/A

Υ

Υ

Complies

Waste (garbage) storage and collection

General (all development)

- a) All development is to adequately accommodate waste handling and storage on-site. The size, location and handling procedures for all waste, including recyclables, is to be determined in accordance with Council waste policies and advice from relevant waste handling contractors.
- b) Access for waste collection and storage is preferred from rear lanes, side streets or rights of ways.
- c) Waste storage areas are to be designed to:
- i) Ensure adequate driveway access and manoeuvrability for any required service vehicles,
- ii) Located so as not to create any adverse noise impacts on the existing developments or sensitive noise receptors such as habitable rooms of residential developments, and
- iii) Screened from the public way and adjacent development that may overlook the area.
- d) The storage facility must be well lit, easily accessible on grade for movement of bins, free of obstructions that may restrict movement and servicing of bins or containers and designed to minimise noise impacts.

Location requirements for Waste Storage Areas and Access

- a) Where waste volumes require a common collection, storage and handling area, this is to be located:
- i) For residential flat buildings, enclosed within a basement or enclosed carpark,
- ii) For multi-housing, at ground behind the main building setback and façade, or within a basement or enclosed carpark,
- iii) For commercial, retail and other development, on-site in basements or at ground within discrete service areas not visible from main street frontages.
- b) Where above ground garbage collection is prohibitive or impractical due to limited street frontage, or would create an unsafe environment, an on-site basement storage area must be provided.
- c) Where a mobile compaction vehicle is required to enter the site, the access and circulation area shall be designed to accommodate a vehicle with the following dimensions:

Service docks and loading/unloading areas

- a) Provide adequate space within any new development for the loading and unloading of service/delivery vehicles.
- b) Preferably locate service access off rear lanes, side streets or rights of way.
- c) Screen all service doors and loading docks from street frontages and from active overlooking from existing developments.
- d) Design circulation and access in accordance with AS2890.1.

Satisfactory

Satisfactory

Objectives/controls	Comment

Fire service and emergency vehicles

- a) For developments where a fire brigade vehicle is required to enter the site, vehicular access, egress and manoeuvring must be provided to, from and on the site in accordance with the NSW Fire Brigades Code of Practice Building Construction NSWFB Vehicle Requirements.
- b) Generally, provision must be made for NSW Fire Brigade vehicles to enter and leave the site in a forward direction where:
- i) NSW Fire Brigade cannot park their vehicles within the road reserve due to the distance of hydrants from the building or restricted vehicular access to hydrants; or
- ii) The site has an access driveway longer than 15m.

**Utility Services** 

The provision of utility services and access for regular servicing and maintenance must be considered at the concept stage of site development.

- a) Development must ensure that adequate provision has been made for all essential services including water, sewerage, electricity and telecommunications and stormwater drainage to the satisfaction of all relevant authorities.
- b) The applicant must liaise with the relevant power authority with regard to the need for a conduit to be installed within the foot way area for the future provision of an underground power supply and extension of the conduit up to the wall of the existing or proposed building.
- c) The development must ensure that ready connection of the building(s) can be made in future when underground power is installed and the overhead connection is replaced with a connection to the underground line.
- d) The applicant must liaise with the power authority with regard to the retention, relocation, or removal of any existing power pole.

Satisfactory

Satisfactory

#### 5 Environmental management

Objectives/controls Comment

#### 5.2 Energy efficiency and conservation

New dwellings, including multi-unit development within a mixed use building and serviced apartments intended or capable of being strata titled, are to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX). Council encourages all applicants to go beyond minimum BASIX requirements incorporating passive solar design and energy efficiency measures for residential development.

#### 5.3 Water conservation

New dwellings, including a residential component within a mixed use building and serviced apartments intended or capable of being strata titled, are to demonstrate compliance with State Environmental Planning Policy – Building Sustainability Index (BASIX). Council encourages all residential development to go beyond the minimum BASIX requirements and enhance the water efficiency for their development.

#### Satisfactory

#### 5.4 Reflectivity

- a) New buildings and facades should not result in glare that causes discomfort or threatens safety of pedestrians or drivers.
- b) Visible light reflectivity from building materials used on facades of new buildings should not exceed 20%.
- c) Subject to the extent and nature of glazing and reflective materials used, a Reflectivity Report that analyses potential solar glare from the proposed development on pedestrians or motorists may be required.

The building does not have large glazed areas.

#### 5.5 Wind mitigation

- a) To ensure that new developments satisfy nominated wind standards and maintain comfortable conditions for pedestrians.
- b) To ensure that the moderate breezes are able to penetrate the streets of Wollongong city centre.

#### 5.6 Waste and recycling

Provision must be made for the following waste generation:

- a) In developments not exceeding six dwellings, individual waste storage facilities may be permitted.
- b) In development of more than six units or dwellings, or where the topography or distance to the street collection point makes access difficult for individual occupants, a collection and storage area is required. The storage area must be located in a position which is;
- i) Not visible from the street,
- ii) Easily accessible to dwelling occupants,
- iii) Accessible by collection vehicles (or adequately managed by the body corporate to permit relocation of bins to the approved collection point).
- iv) Has water and drainage facilities for cleaning and maintenance, and
- v) Does not immediately adjoin private open space, windows or clothes drying areas.
- c) Subject to Council collection policy, common garbage storage areas must be sized to either accommodate the number of individual bins required or to accommodate sufficient larger bins

The building is not of a height which requires the preparation of a wind impacts assessment.

A communal waste bin enclosure is provided in an accessible area within the basement with bins being 240L in size. These will be wheeled to the street for collection. This arrangement has been reviewed by Council Traffic Officer who has provided a satisfactory referral subject to conditions of consent.

#### 6 Residential development standards

Obiectives/controls

## 6.2 Housing choice and mix

To achieve a mix of living styles, sizes and layouts within each residential development, comply with the following mix and size:

- i) Studio and one bedroom units must not be less than 10% of the total mix of units within each development,
- ii) Three or more bedroom units must not be less than 10% of the total mix of units within each development, and
- iii) For smaller developments (less than six dwellings) achieve a mix appropriate to locality.

For residential apartment buildings and multi-unit housing, 10% of all dwellings (or at least one dwelling) must be designed to be capable of adaptation for disabled or elderly residents. Dwellings must be designed in accordance with the Australian Adaptable Housing Standard (AS 4299-1995), which includes "pre-adaptation" design details to ensure visitability is achieved.

Where possible, adaptable dwellings shall be located on the ground floor, for ease of access. Dwellings located above the ground level of a building may only be provided as adaptable dwellings where lift access is available within the building. The lift access must provide access from the basement to allow access for people with disabilities.

The development application must be accompanied by certification from an accredited Access Consultant confirming that the adaptable dwellings are capable of being modified, when required by the occupant, to comply with the Australian Adaptable Housing Standard (AS 4299-1995).

Car parking and garages allocated to adaptable dwellings must comply with the requirements of the relevant Australian Standard for disabled parking spaces.

For all residential apartment / flat buildings, 10% of all dwellings (or at least 1 dwelling) must be designed to achieve the Silver Standards of the Livable Housing Design Guideline (Livable Housing Australia 2015). All proposed livable dwellings must be clearly identified on the submitted DA plans.

#### Comment

Studio/1 bed: 12/38 (31.5%)

Only two three bedroom units are provided which equates to 5% of the total. A variation request has been submitted in this regard however is not supported in this instance. Having three bedroom units provides greater flexibility in living arrangements. The location would be desirable for people with a larger family unit, or grandparents downsizing but wanting space to look after grandchildren for example. It is in an accessible location and readily walkable to services.

It is recommended that a number of one bedroom units be converted into 3 bedroom units.

This would maintain a compliant ratio of 1 bed units and would appear possible without having to amend elevations.

4/38 = 10.5%

Complies

Provided

Complies

Satisfied

Ceiling heights of apartments must be selected to encourage the penetration of natural sunlight into all areas of the building. Provide the following minimum floor to ceiling heights, for residential zones, as required by the Residential Flat Design Code:

i) 2.7m minimum for all habitable rooms on all floors;

6.3 Dwelling houses

N/A

6.4 Multi dwelling housing

N/A

6.5 Dual occupancy

N/A

6.6 Basement Carparks

The scale and siting of the basement car park must not impact upon the ability of the development to satisfy minimum landscaping and deep soil zone requirements.

The roof of any basement podium, measured to the top of any solid wall located on the podium, must not be greater than 1.2m above natural or finished ground level, when measured at any point on the outside walls of the building. On sloping sites, a change in level in the basement must be provided to achieve this maximum 1.2m height.

Generally variation to this 1.2m height will not be supported however Council recognises that there may be occasions where this standard cannot be achieved. Should such a circumstance arise, the additional portion of the basement podium above 1.2m height must be included in the total gross floor area calculation for the development.

Landscaped terraces are provided in front of the basement podium to reduce the overall visual impact;

The height of the basement does not result in the building having a bulk and scale which dominates the streetscape; and

The main pedestrian entry to the building is identifiable and readily accessible from the street frontage.

Any portion of the basement which exceeds 1.2m above natural or finished ground level (whichever distance is greater) must be setback from the property boundaries by a ratio 1:1 (height: setback). A minimum setback of 1.5m applies in this instance, with this area to be landscaped. For the purpose of determining the height of the basement, any solid walls located on the podium shall be included in the overall height calculation.

Provided

Satisfactory

The podium is approximately 1.5m above natural ground level. This is required to achieve the necessary flood levels.

The higher podium is considered acceptable in the circumstances. The podium is set back from the street and side boundaries and screened with landscaping.

The LEP excludes parking required by Council from FSR calculations and it is not considered reasonable or necessary to include the podium as FSR in this instance.

Complies

Complies

Objectives/controls	Comment
Where parking is provided in a basement, ventilation structures for the basement parking and air conditioning units must be orientated away from windows of habitable rooms and private open space areas. Ventilation grills must be integrated into the design of the façade of the building to minimise their visual impact.	Satisfactory
The visual impact of all basement walls must be minimised through the use of various design techniques including well-proportioned ground level articulation and relief, mixed finishes and materials, terracing and/or dense landscaping.	Satisfactory
Basements must be protected from inundation from 100-year ARI flood levels (or greater).	Complies
6.7 Communal open space	
Developments with more than 10 dwellings must incorporate communal open space. The minimum size of this open space is to be calculated at 5m2 per dwelling. Any area to be included in the communal open space calculations must have a minimum dimension of 5m.	Complies
he communal open space must be easily accessible and within a reasonable distance from apartments, be integrated with site landscaping, allow for casual social interaction and be capable of accommodating recreational activities	Satisfactory
Where a minimum of 15% of the site is provided as a deep soil zone, combined use of part of the deep soil zone as communal open space may occur. The combined communal open space/deep soil area may be grassed but must not contain significant shade trees. A maximum of 1/3 of the required communal open space area may be combined with the deep soil zone.	Satisfactory
Areas of the communal open space which are to be paved or which will contain shade structures, swimming pools or the like cannot be located within the deep soil zone.	Satisfactory
The communal open space area must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21.	Complies
6.8 Private open space	
The courtyard/terrace for the ground level dwellings must have a minimum area of 25m2 and a width of 2 metres. This area must be separated from boundaries by at least 1.5m with a vegetated landscaping bed and must not encroach upon deep soil zone landscaping areas.	Complies
Private open space areas (courtyards) must not extend forward to the front building setback by greater than 900mm.	Complies
Private open space should be sited in a location which provides privacy, solar access, and pleasing outlook and has a limited impact on neighbours.	Complies
Design private open spaces so that they act as direct extensions of the living areas of the dwellings they serve.	Complies
Clearly define private open space through use of planting, fencing or landscaping features.	Complies
Screen private open space where appropriate to ensure privacy.	Satisfactory
Provide balconies with operable screens or similar in locations where noise or high winds prohibit reasonable outdoor use (i.e. next to rail	Satisfactory

corridors, busy roads and tall towers)

Avoid locating the primary balconies where they address side setbacks.

Balconies must have a minimum area of 12m2 open space a minimum depth of 2.4 metres.

At least 70% of the POS areas shall receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.

Balconies must be designed and positioned to ensure sufficient light can penetrate into the building at lower levels.

Individual balcony enclosures are not supported. Balcony enclosures must form part of an overall building façade design treatment and should not compromise the functionality of a balcony as a private open space area.

#### 6.9 Overshadowing

The design of the development must have regard to the existing and proposed level of sunlight which is received by living areas and private open space areas of adjacent dwellings. Sensitive design must aim to retain the maximum amount of sunlight for adjacent residents. Council will place greatest emphasis on the retention of sunlight within the lower density residential areas

Adjacent residential buildings and their public spaces must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.

In determining access to sunlight, overshadowing by fences, roof overhangs and changes in level must be taken into consideration. Overshadowing by vegetation should also be considered, where dense vegetation appears as a solid fence. Refer to Land and Environment Court Planning Principles – Parsonage vs Ku-Rin-Gai Council (2004).

In areas undergoing change, the impact of overshadowing on development likely to be built on adjoining sites must be considered, in addition to the impacts on existing development.

#### 6.10 Solar access

Residential apartment buildings must aim to maximise their level of northern exposure to optimise the number of dwellings having a northern aspect. Where a northern aspect is available, the living spaces and balconies of such apartments must typically be orientated towards the north.

The development must maximise the number of apartments with a dual orientation. Single aspect, single storey apartments should preferably have a northerly or easterly aspect and a reduced depth to allow for access of natural light to all habitable spaces.

Shading devices should be utilised where necessary, particularly where windows of habitable rooms are located on the western elevation.

The living rooms and private open space of at least 70% of apartments should receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm.

Complies

Complies with minimum requirements under the ADG.

Complies with minimum requirements under the ADG.

Complies

N/A

Satisfactory

Satisfactory

Satisfactory

The setbacks and bulk of the building are considered to provide suitable access to sun for future development on adjoining land.

Satisfactory

Complies

Operable louvres are provided to the eastern and western elevations.

Complies with ADG requirements.

Objectives/controls	Comment
The number of single aspect apartments with a southerly aspect (south-westerly to south-easterly) is limited to a maximum of 10% of the total number of apartments proposed.	N/A
Provide vertical shading to eastern and western windows. Shading can take the form of eaves, awnings, colonnades, balconies, pergolas, external louvres and planting.	Operable louvres are provided to the eastern and western elevations.
6.11 Natural ventilation	
Provide residential apartment buildings with a building depth of between 10 and 18m. The depth is measured across the shortest dimension of the building. Dwellings should be a maximum depth of 21m measured from the outside of the balcony.	Complies
A minimum of sixty percent (60%) of all residential apartments shall be naturally cross ventilated.	Complies
Twenty five percent (25%) of kitchens within a development must have access to natural ventilation. Where kitchens do not have direct access to a window, the back of the kitchen must be no more than 8m from a window.	Complies
Single aspect apartments must be limited in depth to 8m from a window.	Complies
6.12 Visual privacy	
New buildings should be sited and oriented to maximise visual privacy between buildings through compliance with minimum front, side and rear setback / building separation requirements.	Complies
The internal layout of buildings should be designed to minimise any direct overlooking impacts occurring upon habitable rooms and private balcony / open space courtyards, wherever possible by separating communal open space and public domain areas from windows of rooms, particularly sleeping room and living room areas.	Complies
Buildings are to be designed to increase privacy without compromising access to sunlight and natural ventilation through the following measures:	Complies
(a) Off-setting of windows in new buildings from windows in existing adjoining building(s).	
(b) Recessed balconies and / or vertical fin elements between adjoining balconies to improve visual privacy.	
(c) Provision of solid, semi-solid or dark tinted glazed balustrading to balconies.	
(d) Provision of louvers or screen panels to windows and / or balconies.	
(e) Provision of perimeter landscaped screen / deep soil planting.	
(f) Incorporating planter boxes onto apartment balconies to improve visual separation between apartments within the development and adjoining buildings.	
(g) Provision of pergolas or shading devices to limit overlooking of lower apartments or private open space courtyards / balconies.	
6.13 Acoustic Privacy	
Residential apartments should be arranged in a mixed use building, to minimise noise transition between apartments by:	Complies

(a) Locating busy, noisy areas next to each other and quieter areas, next to other quieter areas (e.g living rooms with living rooms and bedrooms with bedrooms);

- (b) Using storage or circulation zones within an apartment to buffer noise from adjacent apartments, mechanical services or corridors and lobby areas; and
- (c) Minimising the amount of party (shared) walls with other apartments.

Noise transmission from common corridors or outside the building is to be minimised by providing seals at entry doors.

In order to assist acoustic control of impact noise between units:

- (a) A floor shall have an Impact Isolation Class (IIC) of not less than 50 if it separates;
- (i) Habitable rooms of sole occupancy units
- (ii) A sole occupancy unit from a plant room, stairway, public corridor, hallway or the like.
- (b) A floor separating a bathroom, sanitary compartment, laundry or kitchen in one sole occupancy unit from a habitable room (other than a kitchen) in an adjoining unit, shall have an FSTC of not less than 55.
- (c) Walls between sole occupancy units shall comply with the impact sound resistance standards specified in the BCA.

All residential buildings and serviced apartments are to be constructed so that the repeatable maximum L Aeq (1 hour) level not does exceed the following levels:

- (a) In a naturally ventilated windows closed condition:
- (i) Sleeping areas (night time only: Hours 2200-0700) 35dB
- (ii) Living areas (24 hours) 45dB
- (b) In a naturally ventilated windows open condition, (i.e., windows open up to 5% of the floor area, or attenuated natural ventilation open to 5% of the floor area):
- (i) Sleeping areas (night time only: Hours 2200-0700) 45dB
- (ii) Living areas (24 hours) 55dB
- (c) Where a naturally ventilated windows open condition cannot be achieved, it is necessary to incorporate mechanical ventilation or air conditioning.
- (d) The following repeatable maximum L Aeq (1 hour) levels shall not be exceeded when doors and windows are shut and mechanical ventilation or air conditioning is operating:
- (i) Sleeping areas (night time only: Hours 2200-0700) 38dB
- (ii) Living areas (24 hours) 46dB

Note: These levels correspond to the combined measured level of external sources and the ventilation system operating normally.

Satisfactory

These requirements are covered in general construction requirements under the BCA.

Objectives/controls	Comment
6.14 Storage	
One bedroom apartments 3m <sup>2</sup> / 3m <sup>3</sup>	Complies
Two bedroom apartments 4m <sup>2</sup> / 8m <sup>3</sup>	
Three or more bedroom apartments 5m <sup>2</sup> / 10m <sup>3</sup>	

## 7 Planning controls for special areas

The site is not located within a special area.

#### 8 Works in the public domain

The proposal involves an upgrade to the footpath and new street trees in accordance with Council's Public Domain Technical Manual.

## **CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY**

- Accessible units and parking spaces are provided in accordance with DCP requirements.
- A wheelchair platform lift is provided at the entry and to the rear communal open space area to provide access to and from the podium.

## **CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN**

The proposal is considered to be designed to address the principles of CPTED as they apply to this type of development.

## CHAPTER E3: CAR PARKING, ACCESS, SERVICING/LOADING FACILITIES AND TRAFFIC MANAGEMENT

#### Traffic impact assessment and public transport studies

A traffic impact assessment was not required for the proposal.

## Parking demand and servicing requirements

	Rate (RMS Guide)	Calculation	Required	Provided
Car parking				
Resident:	0.6 per 1 bed	12 x 0.6	7.2	
	0.9 per 2 bed	24 x 0.9	21.6	
	1.4 per 3 bed	2 x 1.4	2.8	
			31.6(32	38
Visitor:	0.2. per unit	0.2 x 38	7.6 (8)	8
TOTAL				
Bicycle parking				
Resident:	1 / 3 dwellings	38/3	13	14
Visitors:	1 / 12 dwellings	38/12	3	4
TOTAL				
Motorbike	1 / 15 dwellings	38/15	2.5 (3)	

The proposal provides an excess of 6 car parking spaces. The additional spaces have been added to the gross floor area calculations.

#### Vehicular access

Driveway grades and sight distances comply.

#### Loading / unloading facilities and service vehicle maneuvering

The development complies with AS 2890.2.

Waste servicing will occur from the kerb.

#### **Pedestrian access**

The proposal is satisfactory with regard to pedestrian access into the site and along the frontage.

## Safety & security (Crime Prevention through Environmental Design) measures for car parking areas

The proposal is satisfactory with regard to the principles of CPTED.

#### **CHAPTER E6: LANDSCAPING**

A landscape concept plan has been provided which was prepared by a Registered Landscape Architect or eligible for registration with the Australian Institute of Landscape Architects.

The proposed landscaping has been reviewed by Council's Landscape Officer and found to be satisfactory subject to conditions of consent.

#### **CHAPTER E7: WASTE MANAGEMENT**

A Site Waste Minimisation and Management Plan has been provided.

A communal waste storage room is provided in the basement.

Kerbside collection is proposed and the bins will not take up over 50% of the frontage.

There are 38 units within the development. The EPA "Better Practice Guide for Waste Management in Multi-Unit Dwellings" rule of thumb for multi-unit development is as follows:

- 80L/unit/week garbage
- 40L/unit/week recycling

The equates to 3,040L/week garbage and 2,660L recycling

The development provides 27 x 240L bins comprising 6,480L of waste storage capacity.

13 are general waste, 13 are recycling, 1 green waste and 1 compostable waste bin.

#### **CHAPTER E9 HOARDINGS AND CRANES**

Conditions of consent are recommended in regard to use of any hoarding or crane.

#### **CHAPTER E12 GEOTECHNICAL ASSESSMENT**

The application has been reviewed by Council's Geotechnical Engineer in relation to site stability and the suitability of the site for the development. Appropriate conditions have been recommended.

#### **CHAPTER E13 FLOODPLAIN MANAGEMENT**

Council's stormwater officer has reviewed the proposal in respect of the applicable controls in this chapter and has recommended conditions of consent.

#### **CHAPTER E14 STORMWATER MANAGEMENT**

Council's stormwater officer has reviewed the proposal in respect of the applicable controls in this chapter and has recommended conditions of consent.

#### **CHAPTER E15 WATER SENSITIVE URBAN DESIGN**

A WSUD Treatment Measures Report has been provided which outlines the specifications and requirements for the storm water treatment device to be incorporated into the development.

#### **CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)**

The excavation proposed by the development is satisfactory with regard to this chapter.

#### CHAPTER E21 DEMOLITION AND HAZARDOUS BUILDING MATERIALS MANAGEMENT

Conditions of consent are recommended in regard to demolition.

#### **CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL**

Conditions of consent are recommended in regard to appropriate sediment and erosion control measures to be in place during works.

## Attachment 6 - Design Review Panel commentary

## Wollongong Design Review Panel Meeting minutes and recommendations DA-2018-803

Date	31 July 2018
Meeting location	Wollongong City Council Administration Offices
Panel members	(Chair) Brendan Randles
	(Member) Tony Quinn
	(Member) Marc Deuschle
Apologies	Nil
Council staff	Mark Riordan – Manager Development Assessment & Certification
	Pier Panozzo – City Centre & Major Development Manager
	Nigel Lamb - Development Project Officer
Guests/ representatives of	Angelo Di Martino – ADM Architect
the applicant	
Declarations of Interest	Nil
Item number	2
DA number	DA-2018/803
Reason for consideration by DRP	Clause 28 SEPP 65, Clause 7.18 WLEP 2009
Determination pathway	Wollongong Local Planning Panel Section 4(b) of Schedule 2 of the
-	Local Planning Panels Direction of 1 March 2018, as the
	Development is sensitive development
Property address	12-16 Beatson Street Wollongong
Proposal	Residential -demolition of existing structures and construction of a
	seven (7) storey residential flat building consisting of 38 units over
	basement parking
Applicant or applicant's	
representative address to the	
design review panel	The site was beneated by the Denel on 24 July 2010
Background	The site was Inspected by the Panel on 31 July 2018
Design quality principals SEPF	P65
Context and Neighbourhood Character	The subject site is located in an evolving medium density context in the block directly south of Pioneer Park. With close proximity to cultural and sporting facilities such as Win Stadium, it is also conveniently located within a short walk to the Wollongong City Centre and Wollongong Station.
	Beatson Street is rapidly evolving from a streetscape of single detached dwellings to seven storey buildings similar in scale and character to this proposal. As the designer of many of the adjacent proposals - now completed or in construction - the architect knows the context well and demonstrates a sound knowledge of its constraints and opportunities.
Built Form and Scale	Like its approved adjoining buildings to the north, the proposal is a freestanding building with centralised entry and core, car park entry on the south, six metre street setback and roughly equal rear and side setbacks to north and south. As is typical, the building is raised off the ground to allow the site to flood in periodic events and soft landscape confined to the ground plane. This is producing a pattern of built form and regular landscaped gaps and an urban character that is amenable and consistent.
	The proposal comprises five apartments per floor, bisected by a circulation slot, which extends right through the building. Unlike its neighbours, this proposal employs more solidity in its façade treatment and introduces tensions between a rendered northern section of the building and a framed southern portion with an

	asymmetrical penthouse level clad in metal above. This is a welcome departure from the simple framed type and will complement and enrich the emerging streetscape.
	The Panel believes that the streetscape interface would be improved if made more solid. Instead of presenting glazed balustrades to the street at ground level for example, it may be better to introduce solid spandrels with setback louvred screens to the flooding chamber.
	In addition, the extent of roof and square columns of the penthouse north facing roof appears heavy handed. This roof element may be better setback and cantilevered, with an expressed steel fascia.
Density	Acceptable
Sustainability	The proposal achieves high levels of compliance with the ADG's requirements for mid winter solar access, cross ventilation and deep soil, which is commendable. The proposal should also incorporate water collection and reuse for irrigation. In addition, a raft of well-considered sustainability measures should be considered, such as the use of solar panels, and efficient fittings.
Landscape	The COS consists of a series of similarly sized and treated courtyards and lawns with gardens between. The panel feels that to address the ADG's requirements that spaces and facilities cater to a variety of ages and uses, more consideration should be given to these spaces.
	The two paved courtyards to the northern part of the site are suitably located to take advantage of solar access and show outdoor eating and sitting areas. Unfortunately the similarity in scale of these two spaces limits their potential use. Therefore, it is recommended to break the eastern courtyard into smaller spaces, perhaps changing the feel of these by altering the ground treatment and/or density of the surrounding planting. Consider the arrangement of space – threshold – space to enclose some of these smaller spaces as more intimate gardens rooms. The spatial and furniture arrangement in the western courtyard needs more consideration with regards to circulation and function.
	The deep soil landscape along the western boundary is contiguous and well connected to parcels of DSZ in neighbouring developments. The function proposed within the DSZ is acceptable and will allow a contrast to the hardscape courtyards to the north. However, the similarity in size between the three lawns reduces their variety / potential for use. The proponent should reduce the number of lawns and create two distinct sized lawns to allow both passive and semi-active play (young kids / families). The adjoining small paved court at the southern end of the DSZ (adjacent to the fire stair) should be integrated with the DSZ rather than creating a dead end. The planting above the carpark entry could be widened towards the west as a result.
	All seats should be removed from lawns and placed on the adjacent paved path or deleted.
Amenity	The building is well planned with clear circulation, comfortable units and high levels of internal amenity.

Safety	Acceptable
Housing Diversity and Social Interaction	The proposal comprises a well-considered mix of apartment types.
Aesthetics	As noted above in built form, the solidity expressed in the perspectives, integrating brick and clearly articulated concrete frames was well received by the panel. The composition and materiality of the proposal has been well handled.
Design Excellence WLEP2009	
Whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved	Yes
Whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,	Yes
Whether the proposed development detrimentally impacts on view corridors,	No
Whether the proposed development detrimentally overshadows an area shown distinctively coloured and numbered on the Sun Plane Protection Map	N/A
How the development addresses the following:	
the suitability of the land for development,	Yes
existing and proposed uses and use mix	Yes
heritage issues and streetscape constraints,	N/A
the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,	N/A
bulk, massing and modulation of buildings	Yes
street frontage heights	N/A
environmental impacts such	Yes

as sustainable design, overshadowing, wind and reflectivity	
the achievement of the principles of ecologically sustainable development	Yes
pedestrian, cycle, vehicular and service access, circulation and requirements	Yes
impact on, and any proposed improvements to, the public domain	Yes
Key issues, further Comments & Recommendations	The proposal has been well conceived and planned. Its detail resolution and materiality is commended.  The proposal does not need to come back to the Panel.

## Attachment 7 – Draft conditions

## Approved Plans and Specifications

The development shall be implemented substantially in accordance with the details and specifications set out on:

Site & Roof Plan A-100-B dated 13 August 2018 prepared by ADM Architects
Basement Floor Plan A-101-B dated 5 September 2018 prepared by ADM Architects
Ground Floor Plan A-102-B dated 13 August 2018 prepared by ADM Architects
Level 1 Floor Plan A-103-A dated 28 June 2018 prepared by ADM Architects
Level 2 & 4 Floor Plan A-104-A dated 28 June 2018 prepared by ADM Architects
Level 3 Floor Plan A-105-A dated 28 June 2018 prepared by ADM Architects
Level 5 Floor Plan A-106-A dated 28 June 2018 prepared by ADM Architects
Level 6 Floor Plan A-107-B dated 13 August 2018 prepared by ADM Architects
East Elevation A-201-B dated 13 August 2018 prepared by ADM Architects
North Elevation A-202-B dated 13 August 2018 prepared by ADM Architects
West Elevation A-203-B dated 13 August 2018 prepared by ADM Architects
South Elevation A-204-A 28 June 2018 prepared by ADM Architects

Section AA A-205-A dated 28 June 2018 prepared by ADM Architects

and any details on the application form, and with any supporting information received, except as amended by the conditions specified and imposed hereunder.

#### **General Matters**

#### 2 Water Sensitive Urban Design (WSUD)

Stormwater quality improvement devices (one [1] Enviropod and five [5] Stormfilter cartridges) are to be installed as per the Proposed Residential Development WSUD Treatment Measures Report dated 28 June 2018 prepared by Jones Nicholson Consulting Engineers. The devices are to be monitored and maintained in accordance with the recommendations in that report.

#### 3 Geotechnical

- a A dilapidation report is required for all structures located within the zone of influence of the proposed earthworks as determined by the geotechnical consultant.
- b All work is to be in accordance with the geotechnical recommendations contained in the report dated 28 June 2018 by Construction Sciences and any subsequent geotechnical report required to address unanticipated conditions encountered during construction.
- c All excavations need to be supported during and after construction particularly to protect adjoining property with nearby existing development.
- d Retaining wall design is not to include anchors extending on to adjoining property without the written consent of the adjoining property owner.
- e No disturbance of ground is to occur beyond site boundaries. A minimum buffer between site boundaries and the construction of retaining structures is to be recommended by the geotechnical consultant to ensure adjoining property is not adversely impacted upon by this development.
- All earthworks including drainage and retaining wall construction is to be subject to Level 1 geotechnical supervision as defined in Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Developments. Where necessary amendments are to be made to the designs during construction based on supplementary geotechnical advice given during the supervision to ensure that the completed works accommodates all encountered geotechnical constraints.
- g At the completion of the site preparation earthworks, the geotechnical consultant is to prepare a works-as-executed report detailing encountered geotechnical conditions and how the works addressed these conditions so that the residual geotechnical constraints

can be accommodated within the structural designs for the developmnt. These structural designs are to be confirmed or amended by the structural engineer based on the works-as-executed geotechnical report.

## 4 Building Work - Compliance with the Building Code of Australia

All building work must be carried out in compliance with the provisions of the Building Code of Australia.

#### 5 Construction Certificate

A Construction Certificate must be obtained from Council or an Accredited Certifier prior to work commencing.

A Construction Certificate certifies that the provisions of Clauses 139-148 of the Environmental Planning and Assessment Amendment Regulations, 2000 have been satisfied, including compliance with all relevant conditions of Development Consent and the Building Code of Australia.

**Note**: The submission to Council of two (2) copies of all stamped Construction Certificate plans and supporting documentation is required within **two (2)** days from the date of issue of the Construction Certificate, in the event that the Construction Certificate is not issued by Council.

#### 6 Occupation Certificate

An Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of section 6.9 of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

#### 7 Tree Retention

The developer shall retain the existing street tree indicated on the Landscape Concept Plan by Ochre Landscape Architects dated 29 June 2018.

Any branch pruning, which has been given approval, must be carried out by a qualified arborist in accordance with Australian Standard AS4373-2007.

All tree protection measures are to be installed in accordance with Australian standard AS4790-2009 Protection of Trees on development Sites.

#### Prior to the Issue of the Construction Certificate

## 8 Pump System

A pump system shall be provided in association with the detailed drainage design for the site to cater for stormwater from a prolonged/extreme storm event entering the basement. The pump system shall be designed by a suitably qualified and experienced civil engineer and reflected on the Construction Certificate plans and supporting documentation.

### 9 Basement Waterproofing

Full engineering details of the proposed wall around the basement car park shall be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate. These shall include construction details indicating that no ingress of stormwater is possible into the basement levels. This applies to any proposed opening such as doors or ventilation louvres.

#### 10 Flows from Adjoining Properties

Stormwater flows from adjoining properties shall be accepted, contained and directed to the proposed stormwater management system on site. Finished ground/surface levels (incl. structures such as kerbs, walls, retaining walls, planter beds/edges, etc.) shall be no higher than the existing upslope adjacent ground levels. Overflow paths shall be maintained to cater for flows in excess of the capacity of the underground stormwater system.

## 11 Maintenance of Flood Storage/Conveyance

The detailed design of the development shall ensure no net loss of existing flood storage and/or conveyance on the site in any storm event. Construction details of the proposed finished surface

levels across the site and flood void space between the basement and podium level shall be prepared by a suitably qualified civil engineer and reflected on the Construction Certificate plans. The details shall be generally in accordance with the SLAB FOLD TO FLOOD VOID plan by Jones Nicholson Consulting Engineers, Drawing No. 18020001 C05, Revision P1 dated 28 June 2018. The plans must include details of proposed finished surface levels across the site and within the proposed flood void, details of the floodwater entry/exit points for the flood void, details of any proposed louvres/screening at the floodwater entry/exit points, and flood storage volume provided for pre and post development conditions. Certification from a suitably qualified civil engineer verifying that these requirements have been met shall be submitted to the Principal Certifying Authority prior to the release of the Construction Certificate.

#### 12 Unit Mix

An additional two 3 bedroom units must be provided by way of converting a number of the single bedroom units into three bedroom units. This should be achieved whilst maintaining the external appearance of the building.

#### 13 Present Plans to Sydney Water

Approved plans must be submitted online using Sydney Water Tap, available through <a href="www.sydneywater.com.au">www.sydneywater.com.au</a> to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met.

The Certifying Authority must ensure that Sydney Water has issued an approval receipt prior to the issue of a Construction Certificate.

Visit www.sydneywater.com.au or telephone 13 20 92 for further information.

#### 14 Car Parking and Access

The development shall make provision for a total of 46 car parking spaces (including 4 spaces capable of adaption for people with disabilities), 3 motorcycle parking spaces, 14 secure (Class B) residential bicycle spaces and 4 visitor bicycle spaces (Class C). This requirement shall be reflected on the Construction Certificate plans. Any change in the above parking numbers shown on the approved DA plans shall be dealt with via a section 96 modification to the development. The approved parking spaces shall be maintained to the satisfaction of Council, at all times.

- The parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking areas are to be in conformity with the current relevant Australian Standard AS2890.1, except where amended by other conditions of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.
- The depth and location of all services (ie gas, water, sewer, electricity, telephone, traffic lights, etc) must be ascertained and reflected on the Construction Certificate plans and supporting documentation.

#### 16 Landscaping

The submission of a final Landscape Plan will be required in accordance with the requirements of Wollongong City Council DCP 2009 Chapter E6 and the Landscape Plan 1860-LD01A dated 3 August 2018 prepared by Ochre Landscape Architects for the approval by the Principal Certifying Authority, prior to the release of the Construction Certificate.

- The submission of certification from a suitably qualified and experienced landscape designer and drainage consultant to the Principal Certifying Authority prior to the release of the Construction Certificate, confirming that the landscape plan and the drainage plan are compatible.
- The implementation of a landscape maintenance program in accordance with the approved Landscape Plan for a minimum period of 12 months to ensure that all landscape work becomes well established by regular maintenance. Details of the program must be submitted with the Landscape Plan to the Principal Certifying Authority prior to release of the Construction Certificate.

#### 19 Tree Protection and Management

The existing trees are to be retained upon the subject property and any trees on adjoining properties shall not be impacted upon during the excavation or construction phases of the development. This will require the installation and maintenance of appropriate tree protection measures, including (but not necessarily limited to) the following:

- a Installation of Tree Protection Fencing Protective fencing shall be 1.8 metre cyclone chainmesh fence, with posts and portable concrete footings. Details and location of protective fencing must be indicated on the architectural and engineering plans to be submitted to the Principal Certifying Authority prior to release of the Construction Certificate
- Installation of Tree Protection Fencing A one (1) metre high exclusion fence must be installed around the extremity of the dripline of the tree/trees to be retained prior to any site works commencing. The minimum acceptable standard is a 3 strand wire fence with star pickets at 1.8 metre centres. This fence must be maintained throughout the period of construction to prevent any access within the tree protection area. Details of tree protection and its locations must be indicated on the architectural and engineering plans to be submitted to the Principal Certifying Authority prior to release of the Construction Certificate
- c Mulch Tree Protection Zone: Areas within a Tree Protection Zone are to be mulched with minimum 75 mm thick 100% recycled hardwood chip/leaf litter mulch.
- d Irrigate: Areas within the Tree Protection Zone are to be regularly watered in accordance with the arborist's recommendations.

# 20 Engineering Plans and Specifications - Retaining Wall Structures Greater than One (1) Metre

The submission of engineering plans and supporting documentation of all proposed retaining walls greater than 1m to the Principal Certifying Authority for approval prior to the issue of the Construction Certificate. The retaining walls shall be designed by a suitably qualified and experienced civil and/or structural engineer. The required engineering plans and supporting documentation shall include the following:

- a A plan of the wall showing location and proximity to property boundaries;
- b An elevation of the wall showing ground levels, maximum height of the wall, materials to be used and details of the footing design and longitudinal steps that may be required along the length of the wall;
- c Details of fencing or handrails to be erected on top of the wall;
- d Sections of the wall showing wall and footing design, property boundaries and backfill material. Sections shall be provided at sufficient intervals to determine the impact of the wall on existing ground levels. The developer shall note that the retaining wall and footing structure must be contained wholly within the subject property;
- e The proposed method of subsurface and surface drainage, including water disposal;
- f Reinforcing and joining details of any bend in the wall;
- g The assumed loading used by the engineer for the wall design.
- h Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing upslope adjacent ground levels.
- Bicycle parking facilities must have adequate weather protection and provide the appropriate level of security as required by the current relevant Australian Standard AS2890.3 Bicycle Parking Facilities. This requirement shall be reflected on the Construction Certificate plans.

#### 22 Property Addressing Policy Compliance

Prior to the issue of any construction certificate, the developer must ensure that any site addressing complies with Council's **Property Addressing Policy** (as amended). Where appropriate, the developer must also lodge a written request to Council's **Infrastructure** Systems & Support — Property Addressing (propertyaddressing@wollongong.nsw.gov.au), for the site addressing prior to the issue of

the construction certificate. Enquiries regarding property addressing may be made by calling 4227 8660.

## 23 Footpath Paving City Centre

The developer is responsible for the construction of footpath paving for the entire frontage of the development for the full width of the verge. The type of paving for this development shall be in accordance with the Wollongong City Council Public Domain Technical Manual. – Residential Street.

A nominal two percent (2%) minimum one percent (1%), maximum two and a half percent (2.5%) cross fall to be provided from property line to back of kerb. Any changes of level, ramps or stairs and associated tactile markers and handrails are to be contained with the property boundary.

The driveway entry threshold from the property boundary line to the face of kerb is to match the footpath material and be designed to withstand predicted traffic loadings.

The driveway threshold finish within property boundary line is to contrast with driveway entry.

The footpath and driveway entry on the council property must be installed to the satisfaction of WCC Manager of Works.

A Landscape Plan is to be submitted to Council for approval prior to the issue of the Construction Certificate showing proposed paving, footpath design levels, street tree details and location of all services.

## 24 Street Trees City Centre

The developer must address the street frontage by installing street tree planting. The number and species for this development is one *Glochidion ferdinandii*, 200 litre container size in accordance with AS 2303:2015 Tree stock for landscape use. Tree pit detailing is to be in accordance with the Wollongong City Council Public Domain Technical Manual. Dial Before You Dig must be consulted prior to any excavation on site. Pot holing must be carried out to determine service location. Location of street tree plantings to be sited to ensure no conflict occurs with street light poles. The developer will be responsible for the establishment of the street tree for a period of 12 months from the issue of Occupation Certificate.

Tree pits must be adequately mulched, plants installed and tree guard/staking/tree grille/edging installed to the satisfaction of WCC Manager of Development Engineering.

These requirements shall be reflected on the Construction Certificate plans and any supporting documentation.

#### 25 Stormwater Drainage Design

A detailed drainage design for the development must be submitted to and approved by the Principal Certifying Authority prior to the release of the Construction Certificate. The detailed drainage design must satisfy the following requirements:

- a Be prepared by a suitably qualified civil engineer in accordance with Chapter E14 of Wollongong City Council's Development Control Plan 2009, Subdivision Policy, conditions listed under this consent, and generally in accordance with the concept stormwater plan lodged for development approval, prepared by Jones Nicholson, Drawing Reference No. 18020001 C02, issue P1 dated 28 June 2018.
- Include details of the method of stormwater disposal. Stormwater from the development must be piped to Council's existing stormwater drainage system. Each stormwater connection to the kerb shall be by means of a maximum of two 150mm x 100mm hot dipped galvanised steel pipes with the 150mm dimension being parallel to the road surface to suit the kerb profile. Where greater capacity is required, multiple stormwater connections may be made along the property frontage with a minimum six (6) metre spacing between connection points.
- c Engineering plans and supporting calculations for the stormwater drainage system are to be prepared by a suitably qualified engineer and be designed to ensure that stormwater runoff from upstream properties is conveyed through the site without adverse impact on

- the development or adjoining properties. The plan must indicate the method of disposal of all stormwater and must include rainwater tanks, existing ground levels, finished surface levels on all paved areas, estimated flow rates, invert levels and sizes of all pipelines.
- d Overflow paths shall be provided to allow for flows of water in excess of the capacity of the pipe/drainage system draining the land, as well as from any detention storage on the land. Blocked pipe situations with 1 in 100 year ARI events shall be incorporated in the design. Overflow paths shall also be provided in low points and depressions. Each overflow path shall be designed to ensure no entry of surface water flows into any building and no concentration of surface water flows onto any adjoining property. Details of each overflow path shall be shown on the detailed drainage design.

## **Flood Level Requirements**

The following requirements shall be reflected on the Construction Certificate plans, prior to the release of the Construction Certificate:

- a Habitable floor levels must be constructed at a minimum of RL 4.70 metres AHD.
- Any portion of the building or structure below RL 4.24 metres AHD should be built from flood compatible materials. Where materials are proposed and not listed in Appendix B of Chapter E13 of the Wollongong DCP2009, relevant documentation from the manufacturer shall be provided demonstrating that the materials satisfy the definition of 'flood compatible materials' as stated in Chapter E13 of the Wollongong DCP2009.
- c The proposed building shall be designed to withstand the forces of floodwater, debris and buoyancy up to and including the PMF plus freeboard being RL 5.20 metres AHD.

## 27 On-Site Stormwater Detention (OSD) Design

The developer must provide on-site stormwater detention (OSD) storage for stormwater runoff from the development. The design and details of the OSD system must be provided in conjunction with the detailed drainage design and approved by the Principal Certifying Authority prior to the release of the Construction Certificate. The OSD design and details must satisfy the following requirements:

- a Must be prepared by a suitable qualified engineer in accordance with Chapter E14 of the Wollongong DCP 2009.
- b Must include details of the Site Storage Requirement (SSR) and Permissible Site Discharge (PSD) values for the site in accordance with Section 12.2.4 of Chapter E14 of the Wollongong DCP2009.
- The OSD facility must be designed to withstand the maximum loadings occurring from any combination of traffic (with consideration to residential and heavy vehicles), hydrostatic, earth, and buoyancy forces. Details must be provided demonstrating these requirements have been achieved.
- d The OSD facility shall incorporate a minimum 900mm x 900mm square lockable grate for access and maintenance purposes, provision for safety, debris control screen, and a suitably graded invert to the outlet to prevent ponding.
- e Must include discharge control calculations (i.e. orifice/weir calculations) generally in accordance with Section 12.2.6 and 12.5.4 of Chapter E14 of the Wollongong DCP2009.
- f Details of the orifice plate including diameter of orifice and method of fixing shall be provided.
- g Must include details of a corrosion resistant identification plaque for location on or close to the OSD facility. The plaque shall include the following information and shall be installed prior to the issue of the occupation certificate:
  - The structure is an OSD facility, being part of the stormwater drainage network, and is not to be tampered with.
  - Identification number DA-2018/803;
  - Any specialist maintenance requirements.
- h Must include a maintenance schedule for the OSD system, generally in accordance with Chapter E14 of the Wollongong DCP2009.

#### 28 Council Footpath Reserve Works

All redundant vehicular crossings and laybacks rendered unnecessary by this development must be reconstructed to normal kerb and gutter or existing edge of carriageway treatment to match the existing. The verge from the back of kerb to the boundary must be removed and the area appropriately graded, topsoiled and turfed in a manner that conforms with adjoining road reserve. The area forward of the front boundary must be kept smooth, even and free from any trip hazards. All alterations of public infrastructure where necessary are at the developer's expense.

All new driveway laybacks and driveway crossings must be designed in accordance with Wollongong City Council Standards. Details and locations are to be shown on the Construction Certificate Plans.

## 29 **Dilapidation Survey**

A dilapidation survey and report shall be submitted to the Principal Certifying Authority.

The dilapidation survey and report shall accurately reflect the condition of existing public and private infrastructure in the adjacent street(s) fronting the lots.

The report shall outline measures for the protection of existing public and private infrastructure during the works.

Any damage to infrastructure items and relics which is caused by the developer shall be repaired to the satisfaction of the Principal Certifying Authority prior to the issue of a Certificate of Practical Completion for Subdivision works.

#### 30 **Development Contributions**

Pursuant to Section 4.17 of the Environmental Planning and Assessment Act 1979 and the Wollongong City-Wide Development Contributions Plan (2018), a monetary contribution of \$89,500.00 (subject to indexation) must be paid to Council towards the provision of public amenities and services, prior to the release of any associated Construction Certificate.

This amount has been calculated based on the estimated cost of development and the applicable percentage rate.

The contribution amount will be subject to indexation until the date of payment. The formula for indexing the contribution is:

## Contribution at time of payment = $C \times (CP2/CP1)$

Where:

**\$C** is the original contribution as set out in the Consent

**CP1** is the Consumer Price Index; All Groups CPI; Sydney at the time the consent was issued

**CP2** is the Consumer Price Index; All Groups CPI; Sydney at the time of payment

Details of CP1 and CP2 can be found in the Australian Bureau of Statistics website – Catalogue No. 6401.0 - Consumer Price Index, Australia.

The following payment methods are available:

METHOD	HOW	PAYMENT TYPE
Online	http://www.wollongong.nsw.gov.au/applicationpayments Your Payment Reference: 1005462	Credit Card
In Person	Wollongong City Council Administration Building - Customer Service Centre Ground Floor 41 Burelli Street, WOLLONGONG	<ul><li>Cash</li><li>Credit Card</li><li>Bank Cheque</li></ul>
PLEASE MAKE BANK CHEQUE PAYABLE TO: Wollongong City Council (Personal or company cheques are not accepted)		

A copy of the Wollongong City-Wide Development Contributions Plan (2018) and accompanying Fact Sheet may be inspected or obtained from the Wollongong City Council Administration Building, 41 Burelli Street, Wollongong during business hours or on Council's web site at www.wollongong.nsw.gov.au

#### Prior to the Commencement of Works

#### 31 Construction Environmental Management Plan

A Construction Environmental Management Plan is to be submitted to the PCA prior to the commencement of works. The plan shall address as a minimum, the vehicle traffic, odour and vapour, dust, plant and machinery noise, water and sediment management, surface water, subsurface seepage and accumulated excavation water, sediment from equipment and cleaning operations, site security, working hours, contact information, incident response and contingency management.

## 32 Unexpected Finds Protocol

An unexpected finds protocol (UFP) should be implemented as part of the site environmental management procedures for future works at the site to deal with any potential future discovery of potentially contaminated material.

#### 33 Appointment of Principal Certifying Authority

Prior to commencement of work, the person having the benefit of the Development Consent and a Construction Certificate must:

- a Appoint a Principal Certifying Authority (PCA) and notify Council in writing of the appointment irrespective of whether Council or an accredited private certifier is appointed; and
- b notify Council in writing of their intention to commence work (at least two days notice is required).

The Principal Certifying Authority must determine when inspections and compliance certificates are required.

#### 34 Sign – Supervisor Contact Details

Before commencement of any work, a sign must be erected in a prominent, visible position:

- a stating that unauthorised entry to the work site is not permitted;
- b showing the name, address and telephone number of the Principal Certifying Authority for the work; and
- c showing the name and address of the principal contractor in charge of the work site and a telephone number at which that person can be contacted at any time for business purposes.

This sign shall be maintained while the work is being carried out and removed upon the completion of the construction works.

#### 35 Temporary Toilet/Closet Facilities

Toilet facilities are to be provided at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out 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 a standard flushing toilet; and
- b connected to either:
  - i the Sydney Water Corporation Ltd sewerage system or
  - ii an accredited sewage management facility or
  - iii an approved chemical closet.

The toilet facilities shall be provided on-site, prior to the commencement of any works.

#### 36 Enclosure of the Site

The site must be enclosed with a suitable security fence to prohibit unauthorised access, to be approved by the Principal Certifying Authority. No building work is to commence until the fence is erected.

#### 37 **Demolition Works**

The demolition of the existing structures shall be carried out in accordance with Australian Standard AS2601 (2001): The Demolition of Structures or any other subsequent relevant Australian Standard and the requirements of the SafeWork NSW.

No demolition materials shall be burnt or buried on-site. The person responsible for the demolition works shall ensure that all vehicles leaving the site carrying demolition materials have their loads covered and do not track soil or waste materials onto the road. Any unforeseen hazardous and/or intractable wastes shall be disposed of to the satisfaction of the Principal Certifying Authority. In the event that the demolition works may involve the obstruction of any road reserve/footpath or other Council owned land, a separate application shall be made to Council to enclose the public place with a hoarding or fence over the footpath or other Council owned land.

#### 38 Demolition Notification to Surrounding Residents

Demolition must not commence unless at least 2 days written notice has been given to adjoining residents of the date on which demolition works will commence.

#### 39 Hazardous Material Survey

At least one week prior to demolition, the applicant must prepare a hazardous materials survey of the site and submit to Council a report of the results of the survey. **Hazardous materials** includes, but are not limited to, asbestos materials, synthetic mineral fibre, roof dust, PCB materials and lead based paint. The report must include at least the following information:

- a the location of hazardous materials throughout the site;
- b a description of the hazardous material;
- c the form in which the hazardous material is found, eg AC sheeting, transformers, contaminated soil, roof dust;
- d an estimation (where possible) of the quantity of each particular hazardous material by volume, number, surface area or weight;
- e a brief description of the method for removal, handling, on-site storage and transportation of the hazardous materials, and where appropriate, reference to relevant legislation, standards and guidelines;
- f identification of the disposal sites to which the hazardous materials will be taken.

## 40 Asbestos Hazard Management Strategy

An appropriate hazard management strategy shall be prepared by a suitably qualified and experienced licensed asbestos assessor pertaining to the removal of contaminated soil, encapsulation or enclosure of any asbestos material. This strategy shall ensure any such proposed demolition works involving asbestos are carried out in accordance with SafeWork NSW requirements (<a href="http://www.safework.nsw.gov.au">http://www.safework.nsw.gov.au</a>). The strategy shall be submitted to the Principal Certifying Authority and Council (in the event that Council is not the Principal Certifying Authority), prior to the commencement of any works.

The approved strategy shall be implemented and a clearance report for the site shall be prepared by a licensed asbestos assessor and submitted to the Principal Certifying Authority and Council (in the event that Council is not the Principal Certifying Authority), prior to the issue of an Occupation Certificate or commencement of the development. The report shall confirm that the asbestos material has been removed or is appropriately encapsulated based on visual inspection plus sampling if required and/or air monitoring results and that the site is rendered suitable for the development.

#### 41 Consultation with SafeWork NSW – Prior to Asbestos Removal

A licensed asbestos removalist must give written notice to SafeWork NSW at least five (5) days before licensed asbestos removal work is commenced.

#### 42 Contaminated Roof Dust

Any existing accumulations of dust in ceiling voids and wall cavities must be removed prior to any demolition work commencing. Removal must take place by the use of an industrial vacuum fitted with a high efficiency particulate air (HEPA) filter.

## 43 Support for Neighbouring Buildings

This consent requires the preservation and protection of neighbouring buildings from any damage and if necessary, requires the underpinning and support of any neighbouring building in an approved manner. The applicant or the contractor carrying out the work must at least seven days in advance of any excavation works below the level of the base of the footings of a building on an adjoining allotment, including a public road or place, give written notice of intention to carry out such works to the property owner of the affected adjoining building and furnish specific written details and supporting plans or other documentation of the proposed work.

The adjoining property owner 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.

#### 44 Supervising Arborist – Tree Inspection and Installation of Tree Protection Measures

Prior to the commencement of any demolition, excavation or construction works, the supervising arborist must certify in writing that tree protection measures have been inspected and installed in accordance with the arborist's recommendations and relevant conditions of this consent.

## 45 Certification from Arborist - Adequate Protection of Trees to be Retained

A qualified arborist is required to be engaged for the supervision of all on-site excavation or land clearing works. The submission of appropriate certification from the appointed arborist to the Principal Certifying Authority is required which confirms that all trees and other vegetation to be retained are protected by fencing and other measures, prior to the commencement of any such excavation or land clearing works.

## 46 Application for Occupation, Use, Disturbance or Work on Footpath/Roadway

Any occupation, use, disturbance or work on the footpath or road reserve for construction purposes, which is likely to cause an interruption to existing pedestrian and/or vehicular traffic flows requires Council consent under Section 138 of the Roads Act 1993. An application must be submitted and approved by Council prior to the works commencing where it is proposed to carry out activities such as, but not limited to, the following:

- a Digging or disruption to footpath/road reserve surface;
- b Loading or unloading machinery/equipment/deliveries;
- c Installation of a fence or hoarding;
- d Stand mobile crane/plant/concrete pump/materials/waste storage containers;
- e Pumping stormwater from the site to Council's stormwater drains;
- f Installation of services, including water, sewer, gas, stormwater, telecommunications and power;
- g Construction of new vehicular crossings or footpaths;
- h Removal of street trees;
- i Carrying out demolition works.

## 47 Works in Road Reserve - Minor Works

Approval, under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.

The application form for Works within the Road Reserve – Section 138 Roads Act can be found on Council's website. The form outlines the requirements to be submitted with the application, to give approval to commence works under the roads act. It is advised that all applications are submitted and fees paid, 5 days prior to the works within the road reserve are intended to commence. The Applicant is responsible for the restoration of all Council assets within the road

reserve which are impacted by the works/occupation. Restoration must be in accordance with the following requirements:

- a All restorations are at the cost of the Applicant and must be undertaken in accordance with Council's standard document, "Specification for work within Council's Road reserve".
- b Any existing damage within the immediate work area or caused as a result of the work/occupation, must also be restored with the final works.

## During Demolition, Excavation or Construction

#### 48 Waste Classification of Excavated Soils

Prior to off-site disposal of soils from the site, appropriate waste classification should be conducted in accordance with the NSW EPA Waste Classification Guidelines Part 1: Classifying Waste, including chemical testing. Classified waste must then be disposed accordingly to an approved landfill facility.

## 49 Survey Report for Floor Levels

A Survey Report must be submitted to the Principal Certifying Authority verifying that the ground floor level and driveway crest level accords with the plans and levels as approved under this consent. The survey shall be undertaken after the formwork has been completed and prior to the pouring of concrete for the respective component of the building. All levels shall relate to Australian Height Datum.

## 50 Supervision of Engineering Works

All engineering works associated with the development are to be carried out under the supervision of a practicing engineer.

## 51 Piping of Stormwater to Existing Stormwater Drainage System

Stormwater for the land must be piped to the street kerb and gutter.

## No Adverse Run-off Impacts on Adjoining Properties

The construction of the development shall ensure there are no adverse effects to adjoining properties as a result of flood or stormwater run-off. Attention must be paid to ensure adequate protection for buildings against the ingress of surface run-off.

Allowance must be made for surface run-off from adjoining properties. Any redirection or treatment of that run-off must not adversely affect any other property.

## 53 **Provision of Waste Receptacle**

The developer must provide an adequate receptacle to store all waste generated by the development, pending disposal. The receptacle must be regularly emptied and waste must not be allowed to lie or accumulate on the property other than in the receptacle. Consideration should be given to the source separation of recyclable and re-usable materials.

## 54 Copy of Consent to be in Possession of Person carrying out Tree Removal

The applicant/developer must ensure that any person carrying out tree removal/vegetation clearance is in possession of this development consent and/or the approved landscape plan, in respect to the trees/vegetation which have/has been given approval to be removed in accordance with this consent.

#### 55 BASIX

All the commitments listed in each relevant BASIX Certificate for the development must be fulfilled in accordance with Clause 97A(2) of the Environmental Planning & Assessment Regulation 2000.

A relevant BASIX Certificate means:

- A BASIX Certificate that was applicable to the development when this development consent was granted (or, if the development consent is modified under section 4.55 of the Environmental Planning & Assessment Act 1979, a BASIX Certificate that is applicable to the development when this development consent is modified); or
- if a replacement BASIX Certificate accompanies any subsequent application for a

construction certificate, the replacement BASIX Certificate; and

• BASIX Certificate has the meaning given to that term in the Environmental Planning & Assessment Regulation 2000."

#### 56 Restricted Hours of Construction Work

The developer must not carry out any work, other than emergency procedures, to control dust or sediment laden runoff outside the normal working hours, namely, 7.00 am to 5.00 pm, Monday to Saturday, without the prior written consent of the Principal Certifying Authority and Council. No work is permitted on public holidays or Sundays.

Any request to vary these hours shall be submitted to the **Council** in writing detailing:

- a the variation in hours required (length of duration);
- b the reason for that variation (scope of works);
- c the type of work and machinery to be used;
- d method of neighbour notification;
- e supervisor contact number;
- f any proposed measures required to mitigate the impacts of the works.

Note: The developer is advised that other legislation may control the activities for which Council has granted consent, including but not limited to, the Protection of the Environment Operations Act 1997.

# Asbestos – Removal, Handling and Disposal Measures/Requirements Asbestos Removal by a Licensed Asbestos Removalist

The removal of any asbestos material must be carried out by a licensed asbestos removalist if over 10 square metres in area of non-friable asbestos, or if any type of friable asbestos in strict accordance with SafeWork NSW requirements (<a href="http://www.safework.nsw.gov.au">http://www.safework.nsw.gov.au</a>).

#### 58 Asbestos Clearance Certificate

The internal floor area affected or likely to be affected, by scattering of asbestos pieces, particles or fibres during demolition or cutting into the building, is to be cleaned by vacuuming by a contractor approved by SafeWork NSW. A Clearance Certificate to certify that the site area is free of asbestos is to be submitted to Council by a licensed asbestos assessor within fourteen (14) days of the completion of renovations (or prior to the Occupation Certificate being issued).

### 59 Asbestos Waste Collection, Transportation and Disposal

Asbestos waste must be prepared, contained, transported and disposed of in accordance with SafeWork NSW and NSW Environment Protection Authority requirements. Asbestos waste must only be disposed of at a landfill site that can lawfully receive this this type of waste. A receipt must be retained and submitted to the Principal Certifying Authority, and a copy submitted to Council (in the event that Council is not the Principal Certifying Authority), prior to commencement of the construction works.

## 60 Acid Sulfate Soils

The Wollongong Local Environmental Plan 2009 Acid Sulfate Soils Map as well as Network geotechnic report has identified that this property may be affected by classes 3, 4 or 5 Acid Sulfate Soils. Acid Sulfate Soils contain iron sulfides which, when exposed to air due to drainage or disturbance, may produce sulfuric acid and release toxic quantities of iron, aluminium and heavy metals. The Acid Sulfate Soils Map is an indication only and you are advised that you may encounter acid sulfate soils during the excavation for the proposed development.

Any spoil material extracted or excavated from the foundations must be neutralised with commercial lime (calcium bicarbonate) be the addition of 10 kilograms of lime per 1 cubic metre of spoil material before it is disposed of or re-used on-site. Lime is to be added by evenly distributing over all exposed surface areas, drilled piers and footing trenches on the site, prior to pouring concrete.

Council suggests the applicant refer to the Acid Sulfate Soils Assessment Guidelines contained in the Acid Sulfate Soils Manual, prepared by NSW Acid Sulfate Management Advisory Committee, August 1998 for further information.

#### 61 Provision of Waste Receptacle

The developer must provide an adequate receptacle to store all waste generated by the development, pending disposal. The receptacle must be regularly emptied and waste must not be allowed to lie or accumulate on the property other than in the receptacle. Consideration should be given to the source separation of recyclable and re-usable materials.

#### 62 Provision of Taps/Irrigation System

The provision of common taps and/or an irrigation system is required to guarantee that all landscape works are adequately watered. The location of common taps and/or irrigation system must be implemented in accordance with the approved Landscape Plan.

#### 63 **Podium Planting**

All podium planting areas are to have a waterproofing membrane that can provide a minimum 10 year warranty on product. Protective boarding is to be installed to protect membrane from damage.

All podium planting areas to be provided with an adequate drainage system connected to the stormwater drainage system. The planter box is to be backfilled with free draining planter box soil mix

If selected mulch is decorative pebbles/gravel, the maximum gravel pebble size is 10mm diameter

#### 64 Flood Compatible Materials – Electrical

All power service (metering) equipment, power outlets, switches etc. shall be located above RL 4.24 metres AHD. All electrical wiring installed below this level should be suitable for continuous underwater immersion and should contain no fibrous components. Earth leakage circuit breakers shall also be installed. Any equipment installed below or partially below RL 4.24 metres AHD should be capable of disconnection by a single plug and socket assembly.

#### 65 Fences

Any new fences constructed on the site and located in the flood plain shall be of a type that will not obstruct the free flow of floodwaters and not cause damage to surrounding land in the event of a flood.

## Prior to the Issue of the Occupation Certificate

#### 66 BASIX

A final occupation certificate must not be issued unless accompanied by the BASIX Certificate applicable to the development. The Principal Certifying Authority must not issue the final occupation certificate unless satisfied that selected commitments have been complied with as specified in the relevant BASIX Certificate. NOTE: Clause 154B of the Environmental Planning and Assessment Regulation 2000 provides for independent verification of compliance in relation to certain BASIX commitments.

# A Section 73 Certificate must be submitted to the Principal Certifying Authority prior to occupation of the development.

#### 68 **Drainage**

The developer must obtain a certificate of Hydraulic Compliance (using Council's M19 form) from a suitably qualified civil engineer, to confirm that all stormwater drainage and on-site detention works have been constructed in accordance with the approved plans. In addition, full works-as-executed plans, prepared and signed by a Registered Surveyor must be submitted. These plans and certification must satisfy all the stormwater requirements stated in Chapter E14 of the Wollongong DCP2009. This information must be submitted to the Principal Certifying Authority prior to the issue of the final Occupation Certificate.

## 69 Restriction on Use – On-site Detention System

The applicant must create a restriction on use under the Conveyancing Act 1919 over the on-site detention system. The following terms must be included in an appropriate instrument created under the Conveyancing Act 1919 for approval of Council:

"The registered proprietor of the lot burdened must not make or permit or suffer the making of any alterations to any on-site stormwater detention system on the lot(s) burdened without the prior consent in writing of the authority benefited. The expression 'on-site stormwater detention system' shall include all ancillary gutters, pipes, drains, walls, kerbs, pits, grates, tanks, chambers, basins and surfaces designed to temporarily detain stormwater as well as all surfaces graded to direct stormwater to those structures.

Name of the authority having the power to release, vary or modify the restriction referred to is Wollongong City Council."

The instrument, showing the restriction, must be submitted to the Principal Certifying Authority for endorsement prior to the issue of the final Occupation Certificate and the use of the development.

#### 70 Retaining Wall Certification

The submission of a certificate from a suitably qualified and experienced structural engineer or civil engineer to the Principal Certifying Authority is required, prior to the issue of the Occupation Certificate or commencement of the use. This certification is required to verify the structural adequacy of the retaining walls and that the retaining walls have been constructed in accordance with plans approved by the Principal Certifying Authority.

#### 71 Positive Covenant – On-Site Detention Maintenance Schedule

A positive covenant shall be created under the Conveyancing Act 1919, requiring the property owner(s) to undertake maintenance in accordance with the Construction Certificate approved On-Site Stormwater Detention System and Maintenance Schedule (application number to be referenced).

The instrument, showing the positive covenant must be submitted to the Principal Certifying Authority for endorsement prior to the issue of the final Occupation Certificate and the use of the development.

## 72 On-Site Detention – Structural Certification

The submission of a certificate from a suitably qualified practising civil and/or structural engineer to the Principal Certifying Authority is required prior to the issue of the final Occupation Certificate. This certification is required to verify the structural adequacy of the on-site detention facility and that the facility has been constructed in accordance with the approved Construction Certificate plans.

## 73 Completion of Landscape Works

The completion of the landscaping works as per the final approved Landscape Plan is required prior to the issue of Occupation Certificate.

#### 74 Structural Soundness Certification

The submission of a report from a suitably qualified and experienced structural engineer to the Principal Certifying Authority is required, prior to the issue of the final Occupation Certificate and commencement of use. This report is required to verify that the building can withstand the forces of floodwater, debris and buoyancy up to and including the Probable Maximum Flood (PMF) level plus freeboard being RL 5.20 metres AHD.

## 75 Flood Affectation Certification

The submission of a report from a suitably qualified and experienced civil (hydrology) engineer to the Principal Certifying Authority is required, prior to the issue of the final Occupation Certificate and commencement of use. This report is required to certify that the 'as-constructed' development will not have any detrimental effects to adjoining properties or upon the subject land with respect to the loss of flood storage, changes in flood levels and alteration of flood conveyance, as a result of flooding or stormwater run-off.

## 76 Drainage and Flood Void WAE

The developer shall obtain written verification from a suitably qualified civil engineer, stating that all stormwater drainage and related work, and flood void area, have been constructed in accordance with the approved Construction Certificate plans. In addition, full works-as-executed

plans, prepared and signed by a Registered Surveyor shall be submitted. These plans shall include levels and location for all drainage structures and works, buildings (including floor levels), finished ground and pavement surface levels, flood void area finished surface levels and dimensions/details of floodwater entry/exit points. This information shall be submitted to the Principal Certifying Authority prior to the issue of the final occupation certificate.