

Wollongong Local Planning Panel Assessment Report | 7 June 2022

WPP No.	Item No. 4
DA No.	DA-2021/1117
Proposal	Residential - demolition of existing structures and construction of a residential flat building
Property	1-3 Church Street, WOLLONGONG
Applicant	PRD Architects
Responsible Team	Development Assessment and Certification – City Centre Planning Team (NL)
Prior WLPP meeting	NA

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 Clauses Clause 2(b) and 4(b) of Schedule 2 of the Local Planning Panels Direction of 30 June 2020, the proposal received over 10 unique submissions by way of objection and is development to which State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development applies.

Proposal

The proposal is for a 9 storey residential flat building located above basement car parking.

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 received 34 objections and 6 letters of support which are discussed at section 2.8 of the assessment report.

Main issues

- Isolated lot (5 Church Street)
- Non-compliant setbacks at the upper levels of the tower
- Surplus accessible car spaces (2 required and 5 proposed, do not contribute to GFA)

RECOMMENDATION

It is recommended that the proposal be approved subject to the draft conditions at **Attachment 9**.

1.1 PLANNING CONTROLS

The following planning controls apply to the development:

State Environmental Planning Policies:

- SEPP Resilience and Hazards 2021
- SEPP BASIX
- SEPP 65 Design Quality of Residential Development.

Local Environmental Planning Policies:

- Wollongong Local Environmental Plan (WLEP) 2009

Development Control Plans:

- Wollongong Development Control Plan (WDCP) 2009

Other policies

- Wollongong City Wide Development Contributions Plan 2020
- Wollongong Community Participation Plan

1.2 DETAILED DESCRIPTION OF PROPOSAL

The proposal comprises the following:

- Demolition of two dwelling houses
- Removal of 10 trees
- Construction of a 9 storey residential flat building comprising 12 units (2 x 1 bed, 1 x 2 bed, and 9 x 3 bed), a communal open space and deep soil landscaped area, two basement levels accommodating 14 residential car spaces and three visitor spaces, 1 motorbike space and 4 bicycle spaces.
- Vehicle access from Church Street via a new 5.5m wide driveway
- Waste servicing is proposed from the kerb

1.3 BACKGROUND

A voluntary pre-lodgement Design Review Panel (DRP) meeting was held on 24 May 2021 (DE-2021/64).

A further DRP meeting was held following lodgement of the application on 15 November 2021. The notes from this meeting are at **Attachment 4**.

No pre-lodgement meeting was held for the proposal.

Customer service actions

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

1.4 SITE DESCRIPTION

The site is located at 1-3 Church Street, Wollongong and the title references are Lot 33 DP 6920 and Lot 34 DP 6920.

The site is regular in shape with a cross-fall of approximately 2m cross fall from south to north.

Adjoining the site to the south is a single storey dwelling house. Beyond that is a 4-6 storey residential flat building at 7-9 Church Street approved under DA-2002/1697/C.

Adjoining the site to the east are 6 storey residential flat building at 4-6 Ocean Street approved under DA-1997/753/A and a two storey dwelling house at 2 Ocean Street.

To the north of the site is a 5 storey residential flat building at 29 Burke Street approved under DA-1989/833 and a single storey residential dwelling at 27 Burke Street. Of note is that 23 (single storey residential dwelling), 25 (single storey residential dwelling) and 27 are in the same ownership.

The locality is characterised by mixture of low and high density residential development.

Property constraints

Council records identify the land as being impacted by the following constraints:

- Acid Sulfate Soils (class 5): Conditions of consent are recommended with respect to acid sulfate soils.
- Flooding (Flood Affected-Uncategorised Flood Risk Precinct): Council's Stormwater Officer has reviewed the proposal with regard to flooding and has recommended conditions of consent.

A sewer line has been identified as running parallel to and approximately 2m off the rear boundary roughly 2m below ground. The sewer line is not impacted by the built form however is located within the rear deep soil zone. Conditions of consent are recommended with regard to root barriers being installed to protect this piece of infrastructure.

1.5 SUBMISSIONS

The application was notified in accordance with Council's Community Participation Plan 2019 between 12-27 October 2021. 34 objections and 6 letters of support were received. The concerns raised are discussed below.



Figure 1: Notification map

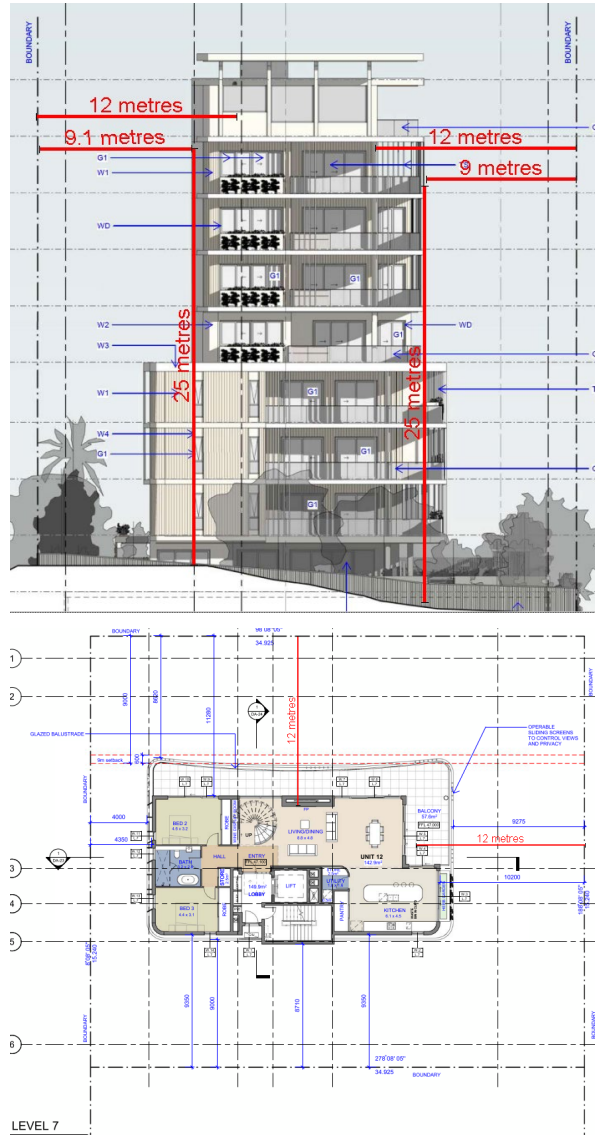
Table 1: Submissions

Concern	Comment
The proposed height is out of context.	<p>The proposal complies with the maximum 32m height limit applicable to the land.</p> <p>It is noted that the proposal will be of a larger scale than other buildings nearby however the area will see gradual transition towards higher density development in line with the permitted density and heights.</p> <p>Maintaining equitable balance between existing development and development anticipated by the planning controls is discussed in this report.</p>
Impact to on-street parking and increased traffic safety issues.	<p>The proposal meets Council requirements for car parking including for visitor spaces.</p> <p>The development is not of a scale that requires a traffic impact assessment to be prepared.</p> <p>In developing the planning controls these impacts have been accounted for.</p>
A more terraced approach should be considered with the height of the building being lower.	<p>The controls for building setbacks do recommend increasing of setbacks as the height increases. It is noted that the proposal seeks a variation to side setbacks at the upper levels of the tower. This is discussed at Chapter A1 and is supported in this instance.</p>
Adverse impacts to views from adjoining properties and requirement for a view impact analysis from affected properties.	<p>The proposal will impact on the outlook from adjoining properties, given the subject sites only contain single dwellings houses currently. These impacts are however not considered unreasonable in the context of the heights and density anticipated by the planning controls. Non-compliant setbacks at the upper two levels whilst resulting in a bulkier top to the building than might otherwise be achieved, are not considered to significantly add to view impacts.</p>
Kerbside garbage collection will adversely impact the street with regard to street parking	<p>Council controls permit kerbside collection where bins do not occupy greater than 50% of the street frontage and the development satisfies this requirement.</p>

Overshadowing impacts to adjoining residences

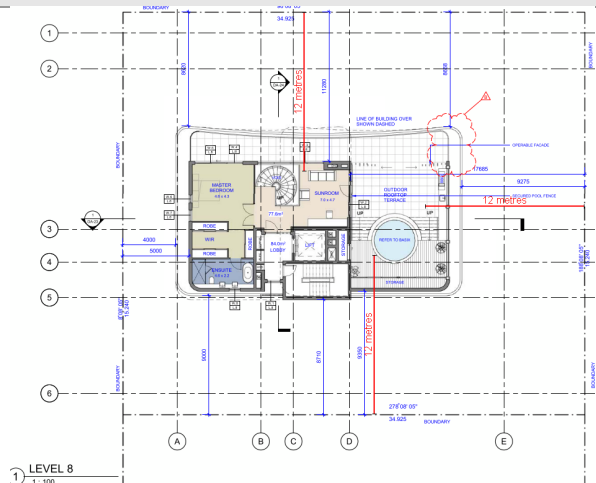
Whilst there is overshadowing from the proposal, it is not unreasonable with regard to the height and density envisaged by the planning controls.

A non-compliant setback occurs at level 7 and 8, being 9m where 12m is recommended as illustrated below.



Concern

Comment



The non-compliant element is not considered to result in overshadowing impacts significantly different from a compliant form.

Impacts to housing affordability / lack of affordable housing.

The application does not propose affordable housing nor are there controls that require this. Housing affordability is beyond the scope of this application.

The development is purely profit driven.

The height and density is reflective of that anticipated under the planning controls. Being profit driven is not a matter for consideration.

Privacy impacts

The non-compliant setback occurs at Level 7 and 8 as shown above.

In the building's existing context, the DRP were of the view that this non-compliance does not appear to be creating privacy issues with neighbours.

In higher density areas, some degree of overlooking is unavoidable with this kind of redevelopment. The primary controls in place that seek to mitigate privacy concerns are building separation requirements. The proposal otherwise generally complies with the building separation requirements as discussed in the body of this report.

Impacts to property values

This is not a matter for consideration.

Potential heritage significance of dwelling at 1 Church St

The dwelling on 1 Church Street is not identified as a heritage item under WLEP2009.

Concern	Comment
Removal of several well-established trees and on council property including a Coastal Banksia that is over 9 metres in height at 1 Church Street.	<p>An arborist report has been provided with the application and the proposed tree removal and landscaping has been reviewed by Council's Landscape Officer and found to be generally satisfactory subject to conditions.</p> <p>It is noted that removal of the trees on the site and the street tree is challenging given the zoning, and densities anticipated under the planning controls. The garage entry is proposed at the low point in the site which facilitates a better built form outcome. Retention of the street tree would compromise that. Compensatory street tree planting is proposed.</p>
Council should host a development planning meeting, including residents' opinions, before the development is fully considered.	<p>This is not a legislative requirement.</p> <p>The application has been placed on public exhibition in accordance with Council policy in order to allow public comment.</p> <p>The application is also to be determined by the Wollongong Local Planning Panel at a public meeting at which objectors can make their representations directly to the Panel.</p>
The top level unit is composed of two levels and the upper roof of the complex is extremely bulky and impacts solar access and escarpment views.	<p>There is a non-compliant setback which occurs at level 7 and 8 as shown above. In the building's existing context, the DRP were of the view that this non-compliance does not appear to be creating privacy issues with neighbours.</p> <p>The building complies with the maximum height permitted for the land however the upper two levels are bulkier than would be permitted with full compliance with the setback controls.</p>
Wind tunnelling impacts	The DCP requires preparation of a wind impacts report for buildings exceeding 32m in height.
Impacts to adjoining properties from basement excavation. A detailed geotechnical report should be provided.	The proposal was reviewed by Council's Geotechnical Officer who has advised that specialist geotechnical supervision would be required for the excavation works however that this could be managed via conditions of consent.

1.6 CONSULTATION

1.6.1 INTERNAL CONSULTATION

Council's Geotechnical, Stormwater, Traffic, Environment and Landscape have reviewed the proposal and conditions of consent have been recommended. Council's In-House Architect also reviewed the proposal and considered all matters to have been addressed in amended plans.

1.6.2 EXTERNAL CONSULTATION

Design Review Panel

The application was reviewed by the Design Review Panel both via a voluntary DRP prior to lodgement and a second meeting following lodgement on the 15 November, the notes of which are contained at **Attachment 4**. The Panel advised that they were satisfied the proposal exhibits design excellence subject to minor amendments which have been incorporated into the final design.

A summary of the DRP comments and response from the applicant is provided below.

DRP comment	Comment
<p>A single residential dwelling is located on the neighbouring site to the south (5 Church Street). This site will be isolated if the subject site is developed as currently proposed. A study has been provided (as requested by the Panel) to demonstrate the proposal's impact upon the neighbouring site and ascertain the sites development potential. The study consists of floor plans documenting a three-storey dual occupancy on the neighbouring site (5 Church Street). The applicant advised that the site is too constrained to accommodate an RFB. No information was provided to accurately determine the extent to which the dual occupancy would be overshadowed by the proposed development and no information was provided to confirm the potential FSR of the dual occupancy.</p>	<p>The conceptual plan of redevelopment of 5 Church Street for a two unit development with basement parking is provided at Attachment 6.</p> <p>There are a number of shortcomings with that design which include:</p> <ul style="list-style-type: none">• Non-compliant side setbacks• Greater than required front setback• Units over multiple levels• The concept would seem to be well under the allowable height and FSR which is contrary to the efficient use of the land. <p>Notwithstanding the above, whilst the development potential of no. 5 is compromised by being developed in isolation, it is considered no. 5 could be redeveloped to realise a higher yield with careful consideration to the site opportunities.</p> <p>Single units per floor could capture morning and afternoon sun mid-winter and reduced separation from the subject site could be achieved knowing the layout of the development on this site.</p> <p>Further, the lot isolation test does not require that the impacted land must be able to achieve development to the full potential of the controls, rather that a reasonable offer to incorporate the land has been made and declined.</p>
<p>From the information provided by the applicant it appears that 5 Church Street will not be capable of realising its full development potential if developed in isolation. Shadow diagrams provided by the applicant also demonstrate that solar access to the existing single dwelling to the south (5 Church Street) will be severely impacted.</p>	<p>An offer to purchase number 5 Church Street based on a valuation of the property was declined by the owner (as at Attachment 5). Lot isolation is further discussed under the Chapter B1 at section 2.3.1 of this report. Overshadowing of the single dwelling at 5 Church Street is unavoidable.</p>

DRP comment

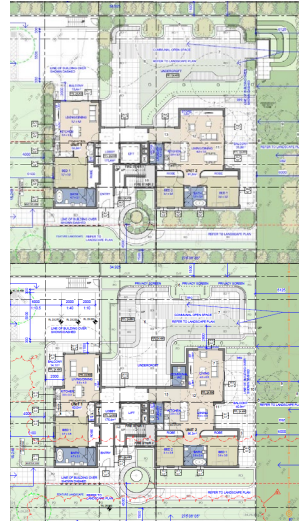
Comment

The deletion of the sub-station is noted; confirmation from the relevant authority that it is no longer a requirement should be provided with the DA.

The applicant has noted that a substation is not required and supporting documentation from Endeavour Energy has been provided.

The depth of the northern portion of the undercroft is now a little excessive, restricting direct sunlight into the communal open space. Consideration should be given to refining the layout of unit 2 to reduce the extent of the northern undercroft. The introduction of an accessible wc to service the communal open space may also assist in reducing the depth of the undercroft. A maximum undercroft depth of 3m is recommended.

Unit 2 has been amended to extend the floor plan further to the north and an accessible toilet has been added to the communal open space. The scallop in the building has been increased to reduce the extent of undercroft to the communal open space.



Unit 1 has been developed with a north facing balcony and living room. However, the balcony directly abuts the vehicular ramp to the basement and the living room window is setback in excess of 4m from the edge of the balcony above. Given these constraints the Panel questions the level of amenity the unit's northern orientation will provide, both outlook and solar access appear to be compromised. It is suggested that the unit plan be developed to better address the street. The balcony could wrap around the western face of the unit and more generously proportioned windows doors provided to address the street. Given that the unit is approximately 1m above street level in this location, careful detailing of the interface between the balcony and street could maintain privacy within the unit. The applicant's suggested modification of the Level 1 slab over (less overhang, deeper curved recess) should be pursued to assist resolution of these concerns.

The POS area for unit 1 has been relocated to the front façade as shown above.

DRP comment

Comment

The applicant is requested to provide a clear perspective of the entrance to demonstrate that the pedestrian entry is clear and legible from the street and presents as a neighbourly address in the streetscape.

See below.



The northern edge of the ground floor communal open space is elevated approximately 2m above natural ground level, creating potential privacy issues with the adjoining neighbour and a deep narrow setback between the boundary fence and the building base. Detail resolution should seek to minimise potential privacy issues and ensure a serviceable landscaped interface is provided adjacent to the northern boundary.

The edge to the COS area is provided with a setback landscape bed and privacy screen as illustrated below.



The podium is set back 1.5m from the boundary and is readily accessible.

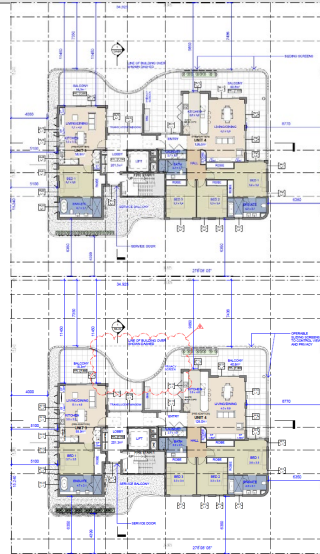
The setback will be planted with a hedge (suggested species are *Acmena smithii* & *Camellia japonica*)

The requirement for an adequate overland flow path to the street for stormwater from the south and east needs to be addressed. The physical dimensions, and allowable obstructions, will likely impact on setbacks, planting plans and layout of communal open space.

The compatibility of the landscaping and stormwater plans has been reviewed by Council's Landscape and Stormwater Officers as being satisfactory.

Level 1 balconies appear to be excessively deep in places (up to 6m from the face of the balcony above) limiting solar access to the private open space. Further development should seek to improve / demonstrate the quality of level 1 balconies and the amenity of ground floor uses below.

The scallop in the northern elevation has been increased to provide better light penetration to the floor area within the dwellings as shown below.



The tower steps from two units per level, to a single unit at level 4. To maintain compliance with ADG setback objectives, the north facing balconies have been setback approximately 2m from the edge of the slab, creating an awkward transition between balcony and roof slab. An image has been provided outlining the intent to provide planting that is level with the slab in the zone between the balcony and roof edge. However, it is unclear how the depth of the slab as depicted in sections and perspectives can accommodate the proposed planting. Further detail resolution of this interface is required. Perhaps the north face of the slab could be contoured / curved to limit the extent of ADG noncompliance, allowing the balcony to extend to the northern edge of the slab. Areas of the balcony that sit within the 9m setback zone could be treated with screens or planters to limit potential privacy issues and maintain consistency with ADG objectives. This strategy should be considered as part of a wholistic response to the northern façade that builds upon the curved recess proposed at level 2 to provide a more organic, curved façade that alters slightly at each level.

Planters are shown in numerous locations on the façade. They will potentially provide a positive contribution to the building aesthetic. However, further detail development is required to integrate the planters into the building form. In particular, it should be clarified how the planters

This continuous floor slab occurs at level 4 only, it is dedicated to follow the form of Levels 2-3 below. This creates emphasis to Levels Ground - 3 and creates a podium for the tower above.

The planter systems have been detailed in the documentation for the applications on various levels. The depth of slab profiling to accommodate this is also shown on the documents which have been submitted to council.

It is important to maintain levels 2 – 3 balcony areas and profiles to maintain compliance. Expanding further into the northern setback is not considered desirable as it create more over shadowing to the lower apartments, currently the building complies with solar access. As typified floor plates the emphasis of ground floor and Level 1 relate together. The curved form profile at level 1 has been increased with the DRP's advice to make this a more dynamic space and has brought more light into the Communal space below.

The information for planters have been provided on the documents and are in harmony with the requirements of the Landscape Architect.

DRP comment

Comment

are irrigated, drained, maintained and integrated with the balcony balustrades.

The proposal is largely compliant with ADG (part 3F) setback objectives. However, the level 8 terrace intrudes into the required 12m setback zone on its northern and eastern edges. In the building's existing context, this non-compliance does not appear to be creating privacy issues with neighbours. However, neighbouring sites to the east and north may be impacted when / if developed in the future.

The potential redevelopment sites are indicated with a cross below.

It is reasonable to expect that a building that reached the maximum 32m height might eventuate to either the north or east (or both) of the site.



The reduced separation at the upper levels is not considered to compromise future development or to result in potential adverse impacts to the proposal from future development.

The positioning of the tower and rear setbacks are considered to be sufficient such that development to the north east could be readily designed to avoid direct conflict.

Primary aspect is towards the north, east and west and units would likely be oriented in that direction away from the proposed building.

Basement (and all) wall setbacks should be modified to indicate clear dimensions to the outside face of walls, to ensure measurable compliance on completion.

The plans are appropriately dimensioned.

Opportunities to harvest rainwater for use in maintaining any plantings established on the building or the site should be explored. Other water minimization measures (reuse of rainwater for toilet flushing and washing machines) should also be considered.

Whilst use of water in toilet flushing and washing machines would present a more sustainable outcome, there are no particular controls that require this.

DRP comment	Comment
The use of solar power and water heating is strongly encouraged, particularly to service communal circulation and parking areas.	Whilst this would provide obvious sustainability benefits, there is no Council or other legislative control that currently requires this.
Low embodied energy should be a consideration in material and finish selections.	As above.
Landscape plantings should address aims for biodiversity protection, weed minimisation and low water use.	Suitable landscape treatments are proposed and have been reviewed by Council's Landscape Officer as satisfactory subject to conditions.
The Panel does not support the use of pebbles for mulch or 'decoration' of roofs due to impacts of their extraction on natural systems and the extremely high level of maintenance required to maintain them free of weeds, litter and pollutants.	Loose pebbles will not be used, it will be a Terra-bond adhesive which is nontoxic / non-flammable acrylic resin / pebble finish mix.
The landscape plan will need to be included in the amended documentation required to address issues raised above in this report. The following concerns should be addressed in the redesign:	Suitable amended landscaping documentation has been provided.
The architectural and landscape plans should be coordinated to ensure all proposed built works, key finished hardstand and soil levels are shown on the architectural and landscape plans. This includes all works from the street kerb to the street boundary.	Suitable amended landscaping documentation has been provided or can be readily conditioned.
The constraints imposed by the sewer line must be addressed in a manner that is both acceptable to council's engineer and that achieves the high level of amenity (such as privacy, shade, screening and functional space) envisaged for deep soil zones on developments of this nature.	This matter has been satisfactorily addressed through species selection and provision of root barriers.
The overland stormwater flow path must satisfy the requirements of council's engineers (eg in terms of dimensions and plantings relation). This has implications for the siting of the driveway ramp, fire stair egress points, retaining walls etc. but it also raises further questions about the proposed privacy plantings in the setback to the northern neighbour. The Panel is not convinced that the proposed narrow setback lying below the retaining wall to the driveway ramp is suitable in terms of plant establishment or access for maintenance. The redesign needs to ensure that high quality plantings can be established to achieve a desirable level of screening for privacy and amenity.	Stormwater and landscape plans are now compatible.

DRP comment	Comment
<p>A more considered approach to planting locations (and mounding) needs to be taken in relation to the ground floor units whose windows are expected to provide cross ventilation: dense shrub/tree plantings will limit airflow, access to daylight and outlook.</p>	<p>It is not considered that landscaping will compromise cross ventilation targets being met for the development.</p>
<p>- The extensive area of compacted gravel in the southeastern corner of the communal open space defeats the purpose of the deep soil zone; the option to have a curved path for access via the southern setback should be explored.</p>	<p>This aspect has been removed.</p>
<p>- The interface between the ground floor units and the communal open space needs better resolution. While privacy is a concern, it should not be at the expense of amenity. The landscape designer needs to work closely with the architect to better resolve the problems that remain once the building overhang has been realigned to reduce the depth of the undercroft. The building columns need to be considered as part of this.</p>	<p>The interface between the ground floor units is considered to be acceptable. Unit 2 has a high sill window where it adjoins the COS area. The POS for unit 2 has a landscape bed and privacy screen. Whilst this does impact somewhat on the degree of solar access to that unit, the development as a whole exceeds the solar access requirements of the ADG.</p> <p>Unit 1 has minimal interface with the COS area and screening is provided where there is any.</p>
<p>- The residential address is too weak; the high gate set among dense, large shrubs is a poor approach.</p>	<p>A secure, readily identifiable and accessible entry to the building is provided.</p>
<p>- The current scheme includes extensive retaining walls. Options should be explored to reduce them where possible. The planting plan should ensure that they are largely screened and that the development presents as a building set among trees and greenery. Hedges planted between fences/buildings and trees that will overshadow them are not recommended.</p> <p>- There appears to be an opportunity to establish several – rather than just one – street trees at the front of this site. Council should be consulted in this regard.</p> <p>- The Panel strongly encourages the planting of locally indigenous canopy trees for all plantings (including street trees) in the development’s landscape.</p> <p>- The Panel recommends that the level 4 roof terrace be reconfigured to reduce the expanse of non-trafficable area.</p>	<p>The basement of the proposal extends above ground at the lower side of the site. This is set back from the boundary and screened with landscaping. The front setback is suitably landscaped also.</p> <p>Two street trees are proposed.</p> <p>Council’s Landscape Officer has reviewed the proposal and provided conditions regarding species selection.</p> <p>The non-trafficable area is aligned with the walls of the level below and provides separation from adjoining neighbours. There are no considered to be any notable adverse impacts arising from the non-trafficable space.</p>

DRP comment	Comment
The solar access study should be extended to tabulate the full extent of the impact upon the neighbour to the south for both the existing dwelling and potential built form on 5 Church Street.	Whilst the concept built form provided for 5 Church Street has shortcomings as identified above, units within a redevelopment of land to the south could be oriented generally east and/or west, with less reliance on direct northern aspect to achieve solar compliance.
The Panel suggested relocating the living areas of units 5 and 7 to the north-west corner of the building to provide more natural light and outlook to living areas.	This change has not been incorporated however does not appear necessary in order to achieve suitable amenity to those units.
The extension of Unit 2 private open space around to the north under croft as proposed results in functional problems and poor amenity for both the unit and the adjacent communal open space. As discussed at the meeting, pulling back the overhang to reduce the depth of the under croft and taking into account the locations of supporting columns should inform the layout of the spaces and how privacy issues, access to natural light and viability of plantings can be resolved. It may be that the northern portion of unit 2's terrace should be deleted and/or translucent glass used at the entry to the unit.	A suitable resolution of the interface between unit 2 and the communal open space that addresses privacy and acoustic impacts is provided.
It is strongly recommended that a NCC BCA report accompany any DA, confirming compliance with core access, egress, separation and fire-fighting equipment requirements. The proposed extensive use of aluminium facade cladding warrants particular attention.	As Registered Design practitioners, the applicant believes they comply. An Access report has also been provided. A BCA report is not required at this stage.
External AC condenser positions should be indicated on all floors demonstrating that safety and private open space area compliance is not jeopardised	The units have balconies that exceed the minimums required under the ADG and can readily accommodate AC condensers without compromising the aesthetic of the building or the functionality of the balconies.
Further development of the ground floor communal open space is recommended to encourage social interaction between residents.	The communal open space provides a variety of seating, a barbeque area with opportunities for shade and sun within a landscaped surround. This is considered to provide a space that offers suitable amenity and opportunity for interaction.
Further detail information is required to ensure that the design intent is realized. A larger scale detail section would assist in providing a better understanding of the quality of finish being proposed and also help to ensure that the architect's design intent is realised.	The elevations include a finishes schedule and there is considered to be sufficient detail to be confident the presentation of the scheme in the DA documents can be realised in the constructed product.

DRP comment	Comment
<p>Care should be taken to ensure that clearly identified functions are addressed, and screens are not simply superficial decorative elements. For example:</p> <ul style="list-style-type: none"> - Are the screens shown on the north-eastern corner of the building restricting outlook? - What is the purpose of the vertical screens on the northern façade, directly in front of the dining rooms of units 5 and 7? - Are screens fixed or operable? <p>Further detail information / clarification is required.</p>	<p>Screens are interspersed with open areas which ensures generous outlook for occupants whilst providing some shade from western sun.</p> <p>Screens on the northern façade are primarily aesthetic. They do not comprise a large extent of the elevation and do not compromise solar access or outlook.</p> <p>Screens are identified as being operable where applicable.</p>
<p>Consideration should also be given to incorporating high quality finishes, eg white brick, into the lower levels of the building. All materials and finishes must be clearly documented, including type of brick selected, type of glazing (material, finish and colour) type of cladding, type of balustrade (frameless / semi frameless / handrail / material finish) treatment of soffit, detail of louvres etc. Information should include built landscape elements, garden walls, edgings, fences, paving.</p>	<p>See refence above to materials schedule.</p>
<p>The colorbond fencing proposed to side and rear boundaries is not supported. The panel favours a discreet open mesh type fence form in a recessive colour for security with reliance on shrub and climber planting for screening.</p>	<p>There is no reference to colorbond fencing. This matter can readily be addressed via a condition of consent.</p>
<p>Servicing of the building must be considered at this stage of the design process. The location of service risers, car park exhausts, AC condensers, down pipes and fire hydrant boosters should be accommodated. It must also be determined if a sub-station is required.</p>	<p>All building consultants and services have been considered and are noted on the documents.</p>

Endeavour Energy

The application was referred to Endeavour Energy who has an advisory role and provided comment as to future servicing requirements. This advice was referred to the applicant

2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

1.7 Application of Part 7 of Biodiversity Conservation Act 2016 and Part 7A of Fisheries Management Act 1994

N/A

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

2.1.1 STATE ENVIRONMENTAL PLANNING POLICY (RESILIENCE AND HAZARDS) 2021

Chapter 2 Coastal management

The site is located on land within the Coastal Environment and Coastal Use areas under the maps to this policy.

Division 3 Coastal environment area

2.10 Development on land within the coastal environment area

No concerns are raised with regard to this clause.

Division 4 Coastal use area

2.11 Development on land within the coastal use area

No concerns are raised with regard to this clause.

Division 5 General

2.12 Development in coastal zone generally—development not to increase risk of coastal hazards

The proposed development will not cause increased risk of coastal hazards on that land or other land.

2.13 Development in coastal zone generally—coastal management programs to be considered

The land is not identified in Council's Coastal Zone Management Plan as being impacted by coastal hazards.

Chapter 4 Remediation of land

4.6 Contamination and remediation to be considered in determining development application

The site is not identified as potentially contaminated in the land constraints in Intramaps. The development history on Council records does not indicate any prior contaminating land uses. The land is not registered under the Contaminated Land Management Act 1997. A preliminary site investigation is not required.

Council's Environment Officer has reviewed the site history and documentation and has recommended conditions of consent with respect to unexpected finds.

The proposal is satisfactory with regard to clause 4.6 and considered suitable for the proposed land use without remediation.

2.1.2 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.

The BASIX certificate was issued no earlier than 3 months before the date on which the development application was lodged.

2.1.3 STATE ENVIRONMENTAL PLANNING POLICY 65 – DESIGN QUALITY OF RESIDENTIAL APARTMENT DEVELOPMENT

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 above.

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

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 clause 30(2)(a) of the Policy and are discussed below

Principle 1: Context and neighbourhood character

The proposal is consistent with the bulk and scale of development identified under the LEP and is generally consistent with the applicable controls of the DCP. Whilst the building will be substantially taller than buildings immediately adjoining the site, the area is undergoing some transition towards higher density development which will likely continue into the future. The disparity between the proposed building and adjoining ones in terms of scale is not uncommon in the locality and this is not considered to result in unreasonable impacts.

Principle 2: Built form and scale

Whilst the development is significantly larger than adjoining developments and some others in the locality, the bulk and scale of the development is consistent with the applicable planning controls for the area. The development is not considered to be out of context with regard to the desired future character of the area and the likely impacts of the development on the locality and adjoining development. Remaining dwelling houses and older residential flat buildings are expected to transition over time and be redeveloped into higher density residential development. The development would not create an isolated allotment

The design of the development is considered to positively contribute to the public domain and provide high level of amenity for the occupants by way of landscaped areas, private open space and the like.

Principle 3: Density

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 strain on local infrastructure. Contributions applicable to the development will go towards local infrastructure and facilities. The site is well situated with regard to existing public open space and services.

Principle 4: Sustainability

Measures to address sustainable design include:

- BASIX Certificates provided indicating minimum requirements are met.
- A Site Waste Management and Minimisation Plan has been provided indicating recycling of materials from the demolished dwellings.
- Louvres have been provided to the western elevation to shield from the units from harsh western sun.
- 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.
- Compensatory planting of trees to address vegetation removal.

Principle 5: Landscape

The proposal provides suitable landscaped areas and communal open space that will improve the amenity of the occupants and soften the appearance of the development from adjoining properties and the public domain. The developer will be required to plant street trees and replace the footpath for the frontage to the site.

Principle 6: Amenity

Internal amenity has been addressed in response to concerns raised by the DRP and staff. The proposal meets the minimum requirements for solar access, private and communal open space, storage, visual and acoustic privacy and access.

Principle 7: Safety

The proposal is satisfactory with regard to safety and security.

Principle 8: Housing diversity and social interaction

The proposal provides a mix of unit sizes and layouts appropriate to the locality.

Principle 9: Aesthetics

Improvements have been made in response to DRP meetings and the revised design is satisfactory. The proposal is considered to be of a high quality with regard to its appearance. A mixture of materials and finishes is provided and the bulk of the development is suitably articulated.

Apartment Design Guide (ADG)

An assessment of the application against the ADG is contained at Attachment 7

2.1.4 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

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.

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; Home businesses; Home industries; Hostels; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Pond-based aquaculture; Recreation areas; **Residential flat buildings**; Respite day care centres; Roads; Semi-detached dwellings; Seniors housing; Serviced apartments; Shop top housing; Signage; Tank-based aquaculture*

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

Part 4 Principal development standards

Clause 4.3 Height of buildings

The proposed building height of 32m does not exceed the maximum of 32m permitted for the site.

Clause 4.4A Floor space ratio – Wollongong city centre

Maximum permitted FSR: 1.5:1

Site area: 1,064m²

Maximum GFA: 1,596m² (it is noted there are additional accessible spaces above what is required by Council. The overall number of parking spaces however complies and therefore there is no resultant additional FSR).

Maximum GFA proposed: 1,596m²

Part 5 Miscellaneous provisions

Clause 5.21 Flood planning

The land is identified as being within an Uncategorised Flood Risk Precinct. Council's Stormwater Officer has reviewed the proposal in regard to this clause and has recommended conditions of consent.

Part 7 Local provisions – general

Clause 7.1 Public utility infrastructure

The land is located in an established urban area. It is recommended that a condition of consent is applied requiring approval from the relevant authorities for the connection of electricity, water and sewage to service the site.

Clause 7.5 Acid Sulfate Soils

The site is identified as being potentially affected by class 5 acid sulphate soils. An acid sulphate soils management plan is not required as the proposal is not considered to involve works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

Clause 7.14 Minimum site width

A 24m minimum site width is required for residential flat developments and the site has a width of 30m.

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

The proposal is considered to be consistent with the provisions for design excellence as follows:

- The site is suitable for the development;
- The use is compatible with the existing and likely future uses in the locality;
- There are no heritage impacts,
- The proposal is not expected to result in any adverse environmental impacts;
- The proposal is satisfactory with regard to access, servicing and parking;
- No adverse impacts are expected on the public domain.

The proposal has been reviewed by both the Design Review Panel and Council's in house architect and found to be generally satisfactory. Matters of concern have been addressed in the revised plans and documentation.

Part 8 Local provisions—Wollongong city centre

Clause 8.1 Objectives for development in Wollongong city centre

The proposal would contribute to a residential apartment mix through the provision of additional housing and employment opportunities during construction. 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 apartments including adaptable.

The proposed residential flat building is an efficient use of space in an accessible location that is serviced by existing public transport.

The proposal is not expected to adversely impact on natural or cultural heritage values.

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

None applicable to the proposal.

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

2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

Variations to controls contained in the DCP are addressed below. Full compliance tables for the DCP are contained in Attachment 8.

CHAPTER A1 – INTRODUCTION

8 Variations to development controls in the DCP

Lot isolation

(a) The control being varied;

2. Chapter B1, Section 6.2 Minimum Site Width Requirement: Within the R1 General Residential, R3 Medium Density Residential and R4 High Density Residential zones, development for the purpose of a residential flat building must not result in the creation of an “isolated lot”. An “isolated lot” is a lot which is bounded on both sides by properties (or a property and a second street frontage) which comprise existing development other than a single dwelling house and redevelopment of such adjoining properties is unlikely. This includes cases where there is high separation of ownership of dwelling ownership in the adjoining developments. Amalgamation of allotments will be required in the circumstance where an isolated allotment would otherwise be created.

3. Council will only allow development which would result in the creation of an “isolated lot”, where it is demonstrated that:

(a) The “isolated lot” achieves a site width of 24 metres or more and is capable of accommodating the proposed residential flat building, taking into account other relevant development controls..

(b) The following planning principles as outlined in the NSW Land and Environment Court judgment in Melissa Grech v Auburn Council[2004] NSWLEC 40 are met:

(i) Where a property will be “isolated” by a proposed development and that property cannot satisfy the minimum lot width requirements then negotiations between the owners of the properties should commence at an early stage and prior to the lodgement of the Development Application.

(ii) Where no satisfactory result is achieved from the negotiations, the Development Application should include details of the negotiations between the owners of the properties. These details should include offers to the owner of the isolated lot. A reasonable offer for the purposes of determining the Development Application and addressing the planning implications of an “isolated lot”, is to be based at least on one recent independent valuation report and may

include other reasonable expenses likely to be incurred by the owner of the "isolated lot" in the sale of that property.

(iii) The level of negotiation and any offers made for the "isolated lot" are matters that will be given weight in the consideration of the Development Application. The amount of weight will depend on the level of negotiation, whether any offers are deemed reasonable or unreasonable, any relevant planning requirements and the "matters for consideration" under Section 79C of the Environmental Planning & Assessment Act 1979.

(b) The extent of the proposed variation and the unique circumstances as to why the variation is requested;

Number 5 Church Street immediately to the south of the site would become an isolated lot as a result of the proposal. The isolated lot has a width of 15.5m.

An offer to purchase number 5 Church Street for \$2,100,000 was declined by the owner (as at **Attachment 5**) on 30 January 2021.

It is noted that in *Grech v Auburn Council*, the applicable LEP (Auburn LEP 2000) contained a clause requiring that "*The consent authority must not consent to development in Zone No 2 (a), 2 (b), 2 (c), 3 (a), 3 (b), 4 (a), 4 (b), 4 (c) or 4 (d) if it considers that the development will prevent the surrounding lots from being developed in accordance with this plan*". The merit of the isolated lot in that instance was assessed against whether this clause could be satisfied. In WLEP 2009, there is no such clause however it should be noted that single residential dwellings are permissible in the R1 zone. The merit of an isolated lot case in this instance then would rely on assessment against the objectives of this clause of the DCP which are detailed below.

(c) Demonstrate how the objectives are met with the proposed variations; and

The objectives of the control are:

- (a) To allow for development of sites, which are of sufficient width to accommodate the required building envelope, car parking and landscaping requirements.*
- (b) To promote the efficient utilisation of land.*
- (c) To encourage amalgamation of allotments to provide for improved design outcomes including greater solar access and amenity.*

A concept design has been prepared by the applicant for 5 Church Street. Whilst that design is rudimentary, it would seem likely that a building envelope with basement car parking and landscaping could be achieved on that site.

With respect to the efficient utilisation of land, the development potential of 5 Church Street would be constrained such that the maximum 32m height and 1.5:1 FSR would not be achievable. 5 Church Street further has a width of 15.5m and would not meet the site width requirements under clause 7.14 of the LEP (18m for multi-dwelling and 24m for residential flat buildings). If that form of development was sought, a clause 4.6 variation request would be required.

As to whether the proposal results in an acceptable design outcome, the concept plan prepared by the applicant is of dual occupancy form with two units split over three levels with basement parking beneath. It is not clear that this would be an optimum design. A potential alternate layout that might afford better amenity for occupants would be one unit per floor with both eastern and western outlook/orientation to capture greater solar access. As mentioned above the zoning permits single residential dwellings which could also be developed.

The proposed tower is considered to have been designed to mitigate amenity impacts to that site through compliant front (west) and rear (east) setbacks (with the exception of the upper level, which

would not impact on overshadowing to this property) along with orientation of units towards the north away from number 5 Church Street.

Developing number 5 in isolation will result in a streetscape with a lack of uniformity of building scale however the locality is currently already characterised by this to some degree.

(d) Demonstrate that the development will not have additional adverse impacts as a result of the variation.

See discussion above.

Setbacks

(a) The control being varied;

Chapter D13, 2.5 Side and rear building setbacks and building separation.

(b) The extent of the proposed variation and the unique circumstances as to why the variation is requested;

between 12m & 24m (levels 3-6)	Required	
- side and rear setback to habitable rooms with openings and balconies	9m	7.35m (side) 6.35m (rear)
- side and rear setbacks to non-habitable rooms and habitable rooms without openings	4.5m	
above 24m (levels 7-8)		
habitable rooms with openings and balconies	12m	9m



Figure 2: East elevation identifying non-compliant setback

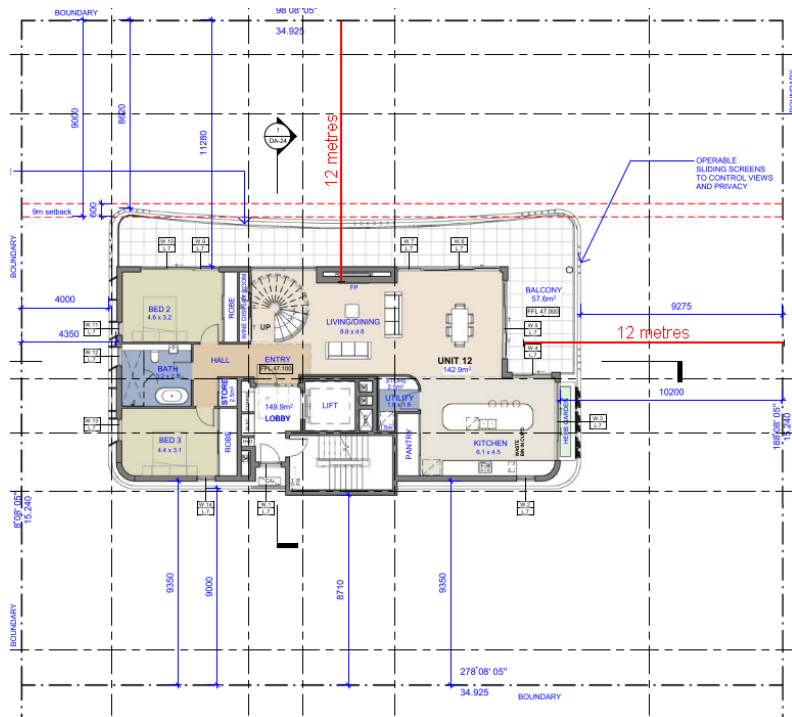


Figure 3: Level 7 non-compliant setbacks

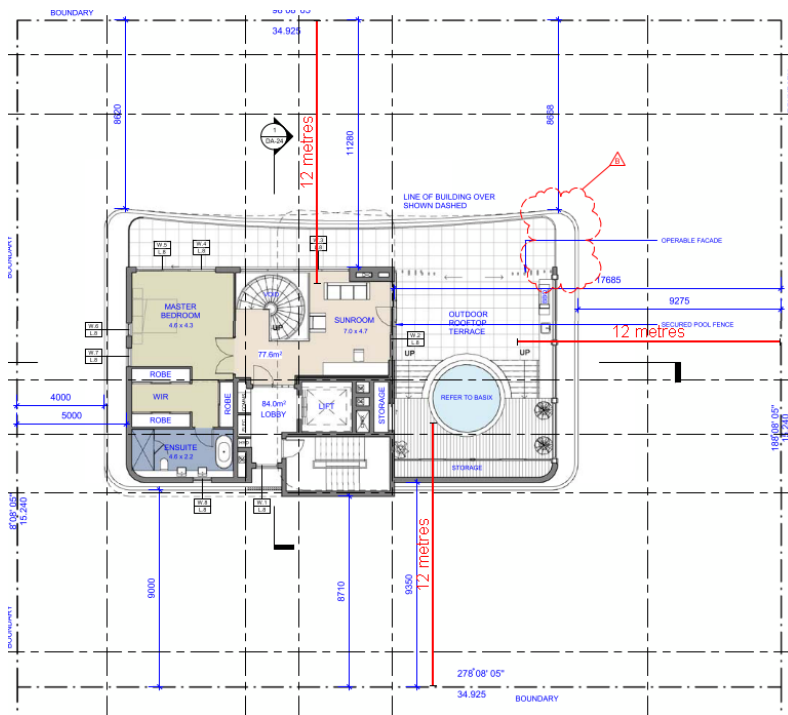


Figure 4: Level 8 non-compliant setbacks

(c) Demonstrate how the objectives are met with the proposed variations; and

The objectives of the control are as follows:

- a) *To ensure an appropriate level of amenity for building occupants in terms of daylight, outlook, view sharing, ventilation, wind mitigation, and privacy.*
- b) *To achieve usable and pleasant streets and public domain areas in terms of wind mitigation and daylight access.*

The amenity for the occupants of the building is considered to be suitable in terms of daylight, outlook, views, ventilation, wind mitigation and privacy. Whilst there will be impacts to residents on adjoining properties with regard to the same, those impacts are not considered unacceptable given the height and density permitted for the locality under the planning controls.

The architectural form is considered to positively contribute to the streetscape. The public domain will be improved through upgrade to the footpath and provision of street trees and a suitable landscaped surround to the building. Separation between the building and adjacent buildings preserves a suitable level of daylight access to the street.

(d) Demonstrate that the development will not have additional adverse impacts as a result of the variation.

Impacts are discussed above. In addition, on the floors at which the side setbacks do not comply, there are no corresponding buildings in the same height plane, being existing, lower residential flat buildings to the north and east. To site to the south contains a single dwelling house and is not of a sufficient size to accommodate a building of the same height as the proposal. In this regard, impacts on visual privacy in the areas of non-compliance is minimal.

Above ground extent of basement

(a) The control being varied;

Chapter D13, 6.6 Basement Carparks: 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.

(b) The extent of the proposed variation and the unique circumstances as to why the variation is requested;

Due to the sloping nature of the site, the basement is fully underground at the southern end however at the northern low side of the site it extends above ground by approximately 1.5m.

(c) Demonstrate how the objectives are met with the proposed variations; and

The objective of this control is to integrate the siting, scale and design of basement parking into the site and building design.

The design does not compromise the development or have adverse impacts. Landscaped setbacks and planting on structure should ensure the exposed part of the basement wall is generally screened from view.

(d) Demonstrate that the development will not have additional adverse impacts as a result of the variation.

See above.

2.3.2 WOLLONGONG CITY WIDE DEVELOPMENT CONTRIBUTIONS PLAN

Contributions are applied for development exceeding \$100,000. A 1% levy is payable.

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)

92 What additional matters must a consent authority take into consideration in determining a development application?

Conditions of consent are recommended with regard to demolition.

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

The proposal is considered acceptable with regard to the likely impacts.

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

Does the proposal fit in the locality?

The proposal is considered appropriate with regard to the zoning of the site and relevant planning controls. Impacts are not unacceptable. The proposal is considered to be a suitable fit.

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

See discussion at section 1.5.

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

The application is not expected to result in significant adverse 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 is satisfactory with regard to the applicable planning controls. Submissions raised following notification do not warrant any redesign and internal and external referrals are satisfactory subject to appropriate conditions of consent. Approval of the proposal is consistent with the public interest.

3 CONCLUSION

This application has been assessed as having regard to the Heads of Consideration under Section 4.15 (1) of the Environmental Planning and Assessment Act 1979 including the provisions of Wollongong LEP 2009 and relevant SEPPs, DCPs, Codes and Policies

The proposed development is permissible with consent and has regard to the objectives of the zone. Variation requests in regard to lot isolation, side and rear setbacks, and basement protrusion have been made under WDCP2009. These variations have been assessed in this report as satisfactory.

Comments of the DRP and Councils Architect have been considered in the revised proposal. The design is considered to demonstrate design excellence and is supportable in its current form. Internal referrals are satisfactory, and submissions have been considered.

It is considered that the proposed development has been designed appropriately given the nature and characteristics of the site.

4 RECOMMENDATION

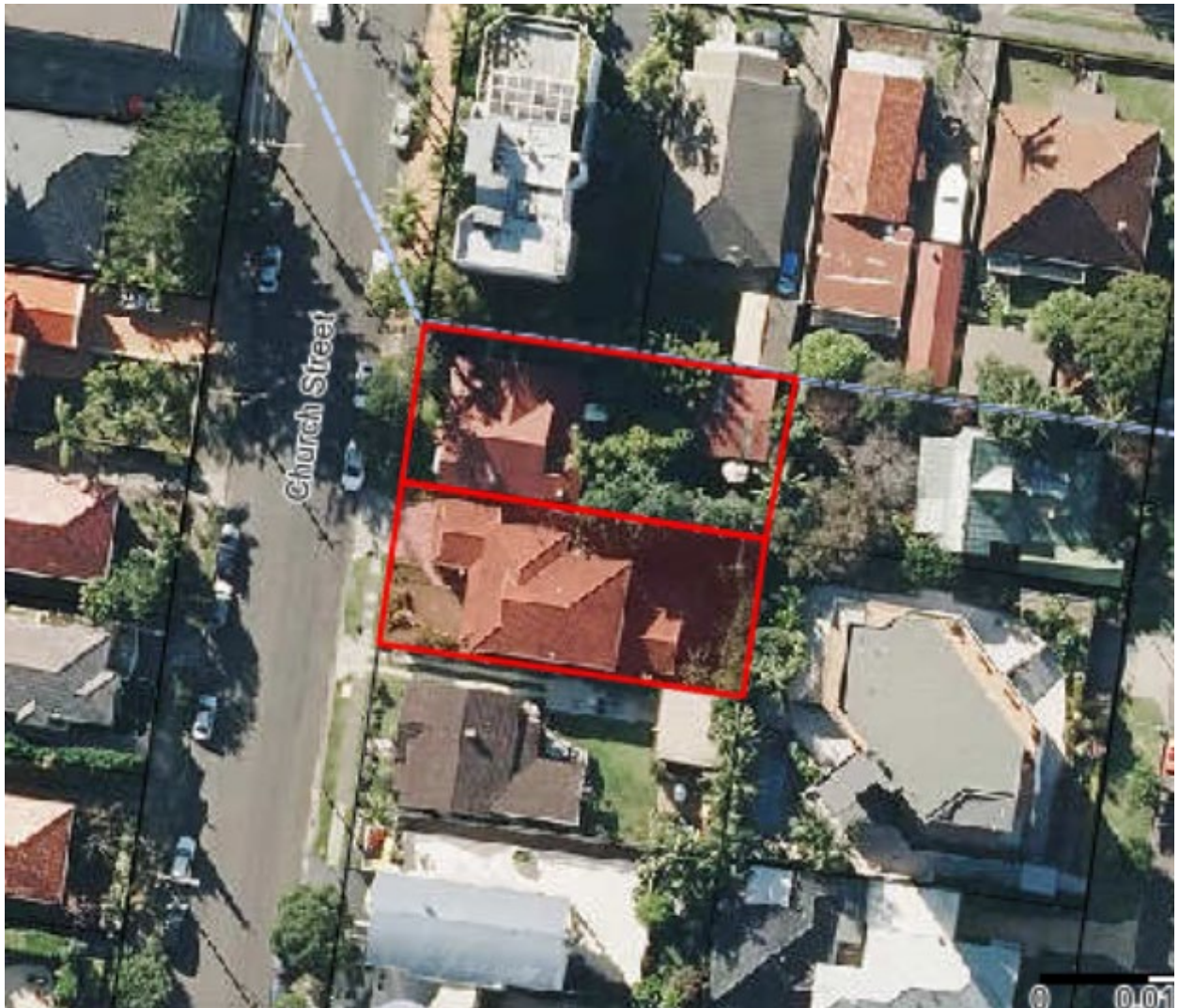
It is recommended that the development application be approved subject to the draft conditions at **Attachment 9**.

5 ATTACHMENTS

- 1 Aerial photograph
- 5 WLEP zoning map
- 3 Plans
- 4 DRP commentary
- 5 Letter of offer
- 6 Concept Plans 5 Church Street
- 7 ADG compliance table
- 8 WDCP2009 compliance table
- 9 Draft conditions of consent

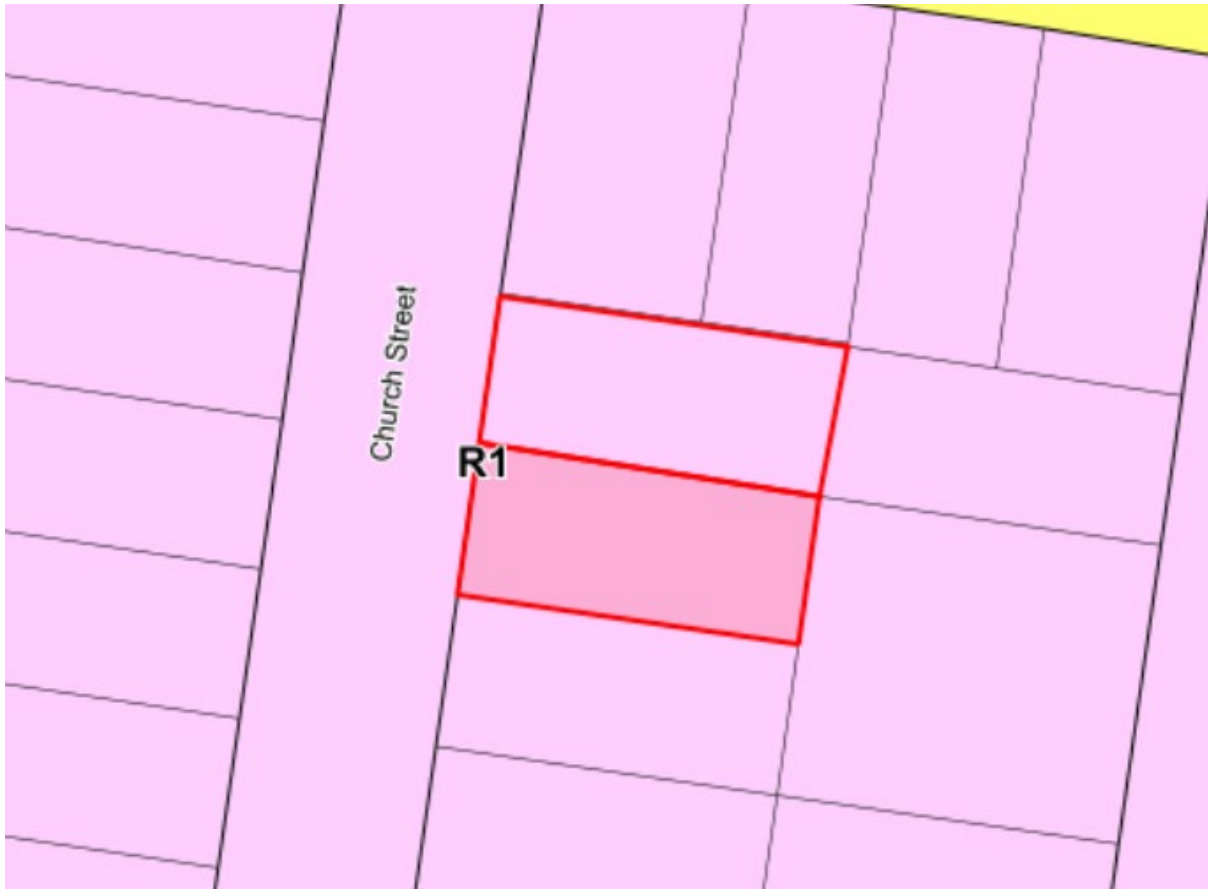
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Attachment 1 – Aerial photograph



DA-2021/1117

Attachment 2 – WLEP 2009 zoning map



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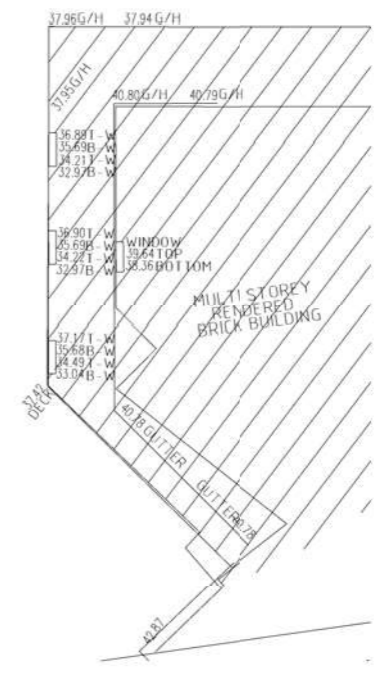
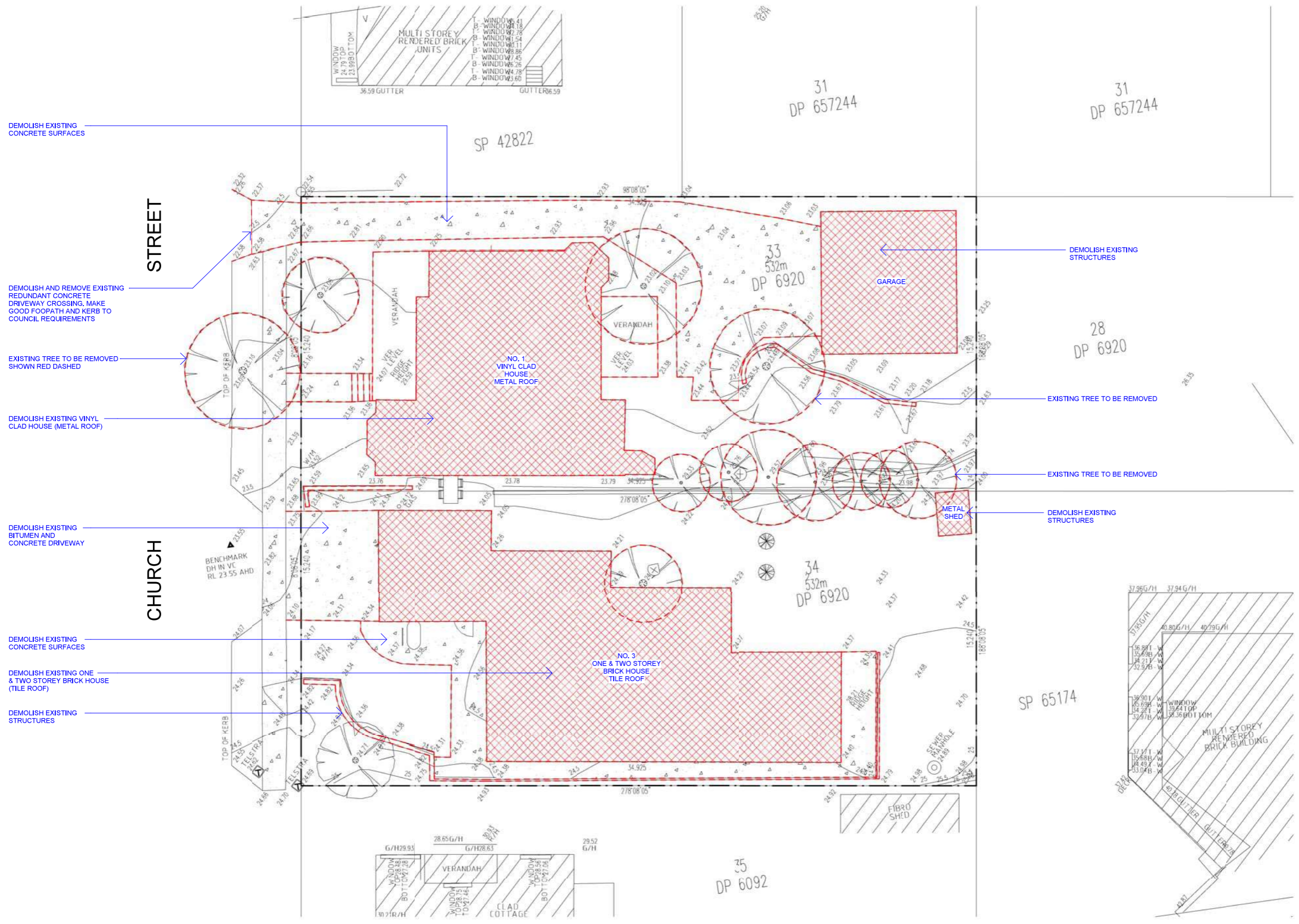
NOT FOR CONSTRUCTION
 DEVELOPMENT APPLICATION



AMENDMENTS	No.	Revision Description	Date	BY:
	A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ

0006444190 08 Sep 2021

Assessor Tracey Coles
 Accreditation No. HERA10033
 Address Church Street, Wollongong, NSW 2500
 006444190 CHURCH
 hstar.com.au



1 EXISTING AND DEMOLITION PLAN
 1: 100

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6920
 Client:
MIND PROPERTY GROUP

PRD ARCHITECTS
 72 Market Street
 Wollongong NSW 2500
 P: 4228 5699 F: 4229 1145
 E: office@prdashitects.com

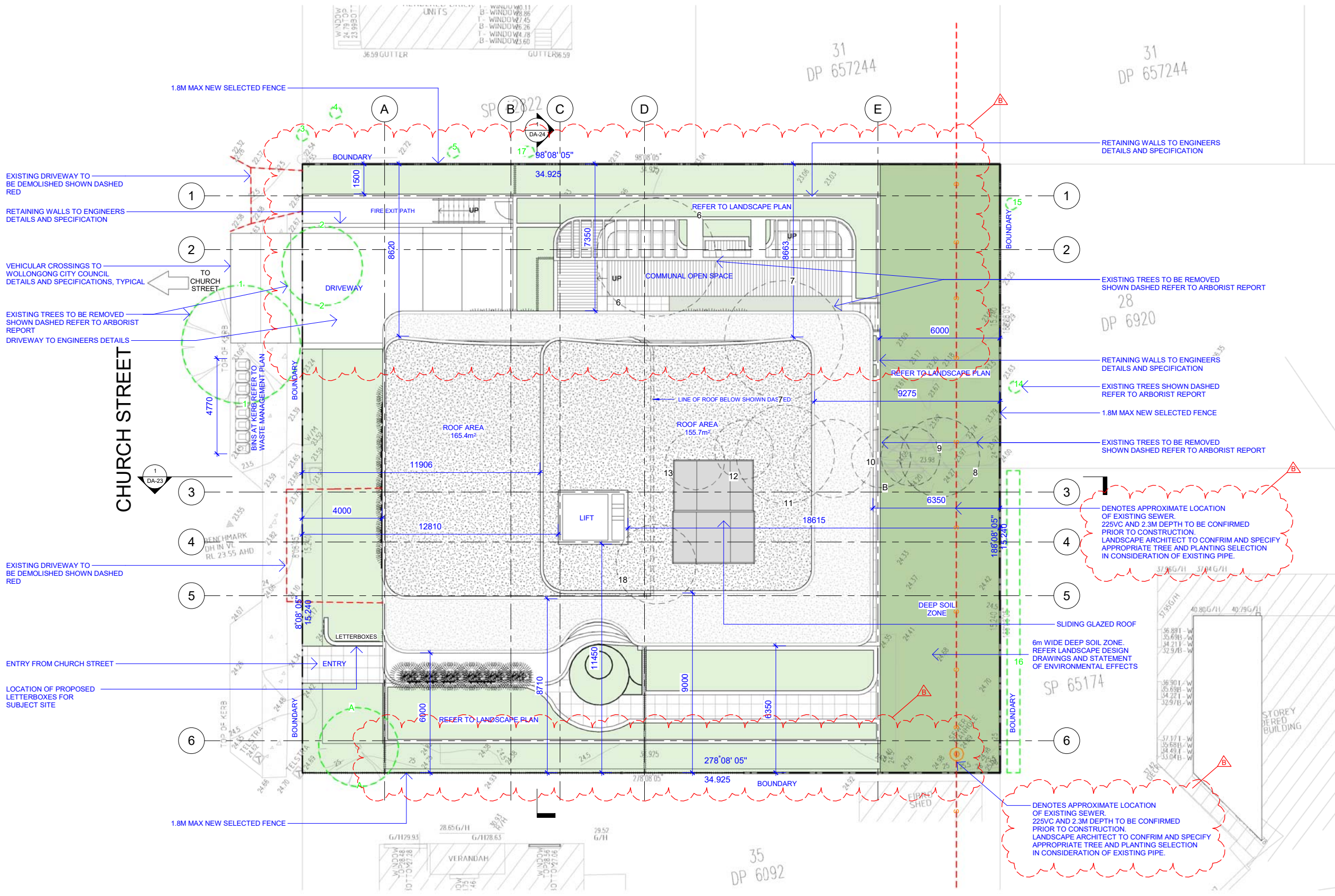
Title:
EXISTING AND DEMOLITION PLAN

Date: 17.09.2021	Job No: 20-59	Dwg: DA-05	Rev:
Scale: 1: 100			

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AMENDMENTS	No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DO	
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DO	



1 SITE/ROOF PLAN
 1 : 100

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6920
 Client:
MIND PROPERTY GROUP

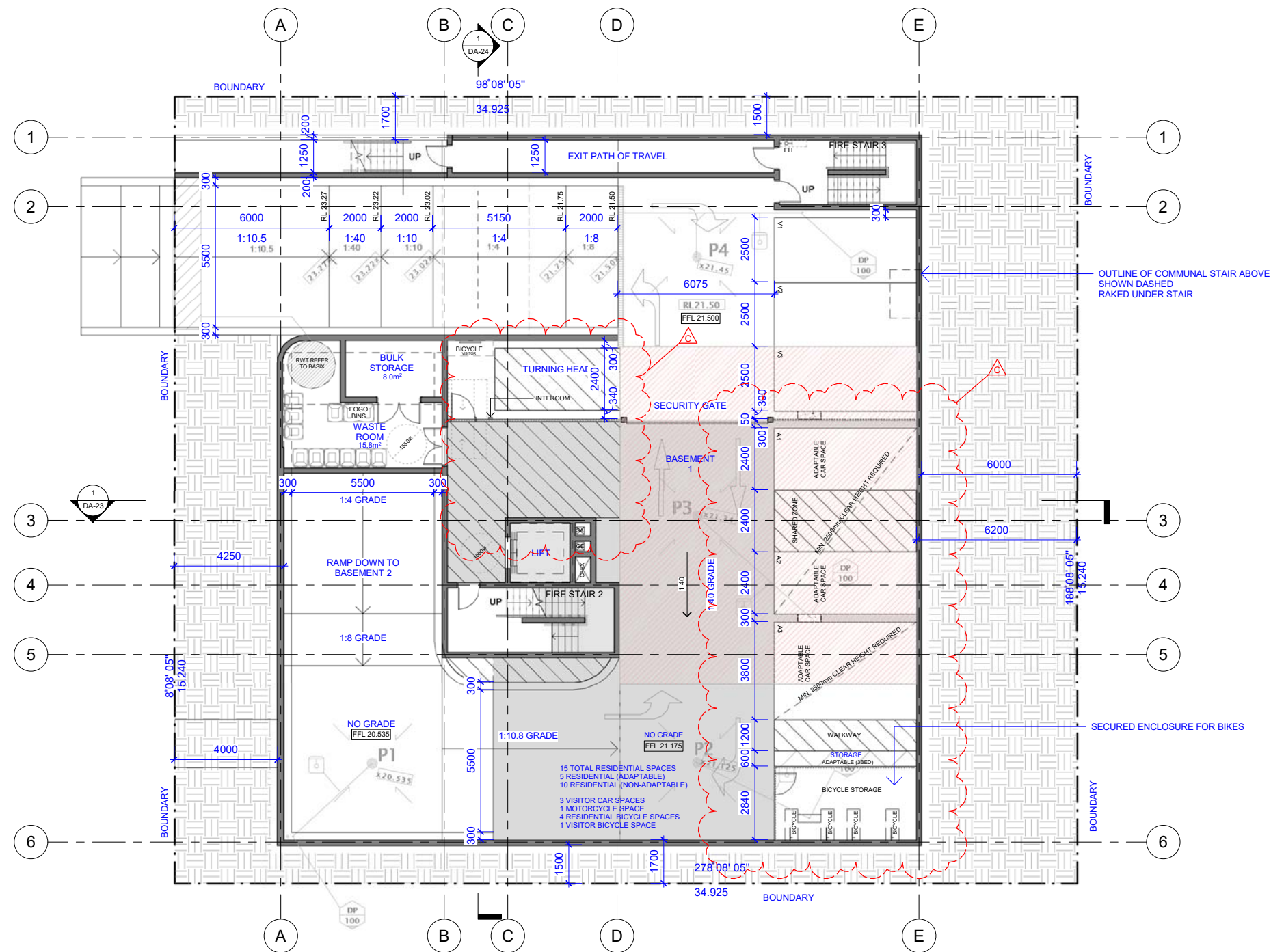


Title:
SITE/ROOF PLAN

Date: 13.12.2021	Job No: 20-59	Dwg: DA-10	Rev:
Scale: 1 : 100			

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No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DO
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DO
C	ISSUED FOR ADDITIONAL INFORMATION	14.02.2022	DO



1 BASEMENT 1
 1 : 100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS.

BASIX/NaHERS
 THIS DRAWING TO BE READ IN CONJUNCTION WITH BASIX/NaHERS REPORT PREPARED BY EFFICIENT LIVING

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6920
 Client:
MIND PROPERTY GROUP



Title:
BASEMENT 1

Date: 14.02.2022	Job No: 20-59	Dwg: DA-11	Rev:
Scale: 1 : 100			

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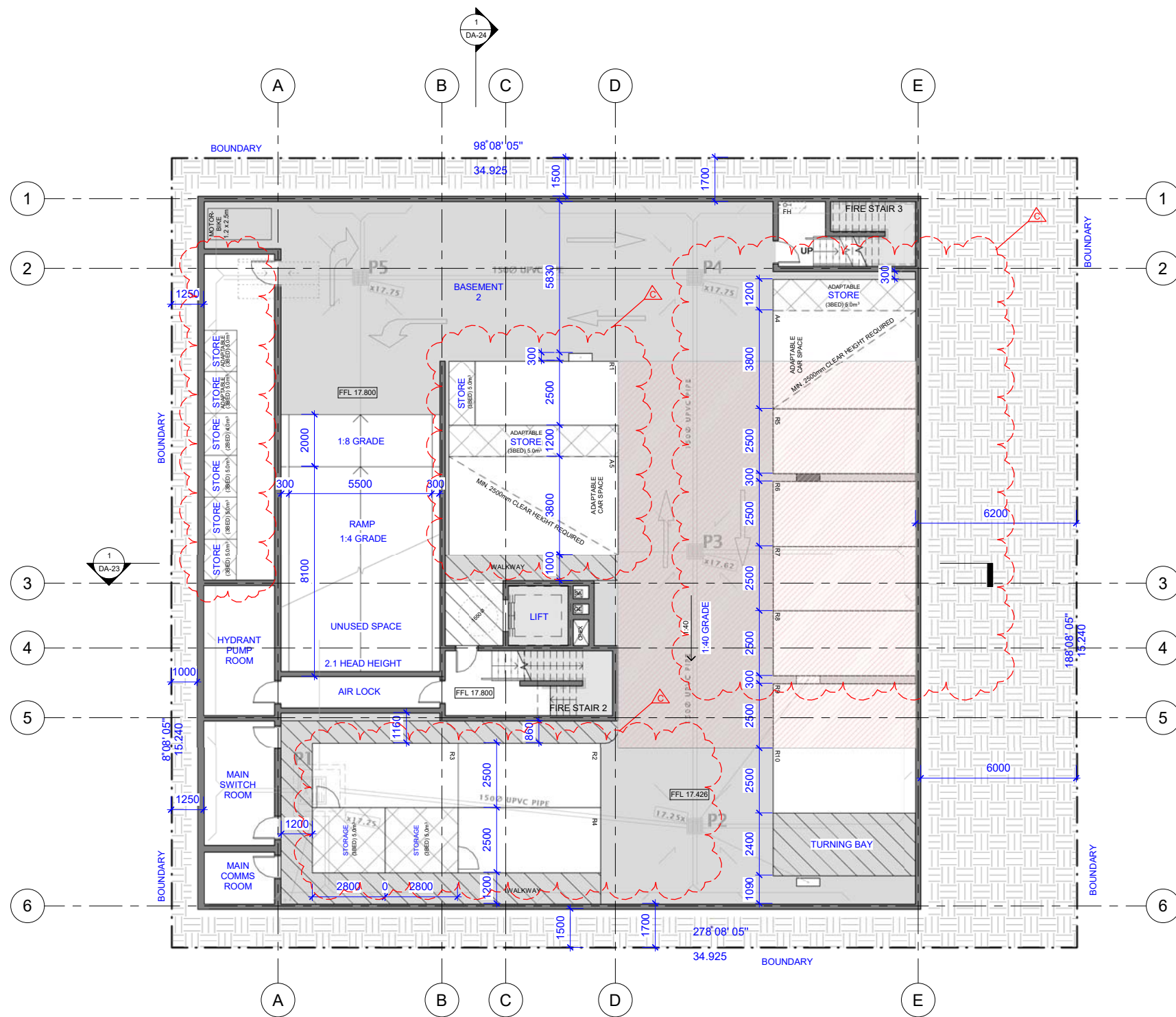
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NOT FOR CONSTRUCTION

DEVELOPMENT APPLICATION



No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DO
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DO
C	ISSUED FOR ADDITIONAL INFORMATION	14.02.2022	DO



1 BASEMENT 2
1 : 100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS.

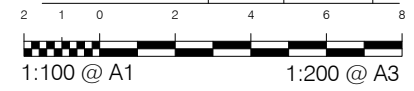
BASIX/NaHERS
 THIS DRAWING TO BE READ IN CONJUNCTION WITH BASIX/NaHERS REPORT PREPARED BY EFFICIENT LIVING

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6920
 Client:
MIND PROPERTY GROUP



Title:
BASEMENT 2

Date: 14.02.2022	Job No: 20-59	Dwg: DA-12	Rev:
Scale: 1 : 100			



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AMENDMENTS	Revision Description	Date	BY
No. A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ

PROJECT INFORMATION

SITE AREA	1064m ²
ZONING	R1
HEIGHT LIMIT	32m
NUMBER OF STOREYS	8 Storeys
FSR	1.5:1

PERMISSIBLE FSR	1.5:1
PERMISSIBLE GROSS FLOOR AREA	1596m ²

GROUND FLOOR	179.1m ²
LEVEL 1	201.5m ²
LEVEL 2	256.5m ²
LEVEL 3	256.5m ²
LEVEL 4	153.0m ²
LEVEL 5	158.9m ²
LEVEL 6	158.9m ²
LEVEL 7	148.0m ²
LEVEL 8	83.3m ²
TOTAL	1595.7m²

PROPOSED FSR	1.5:1
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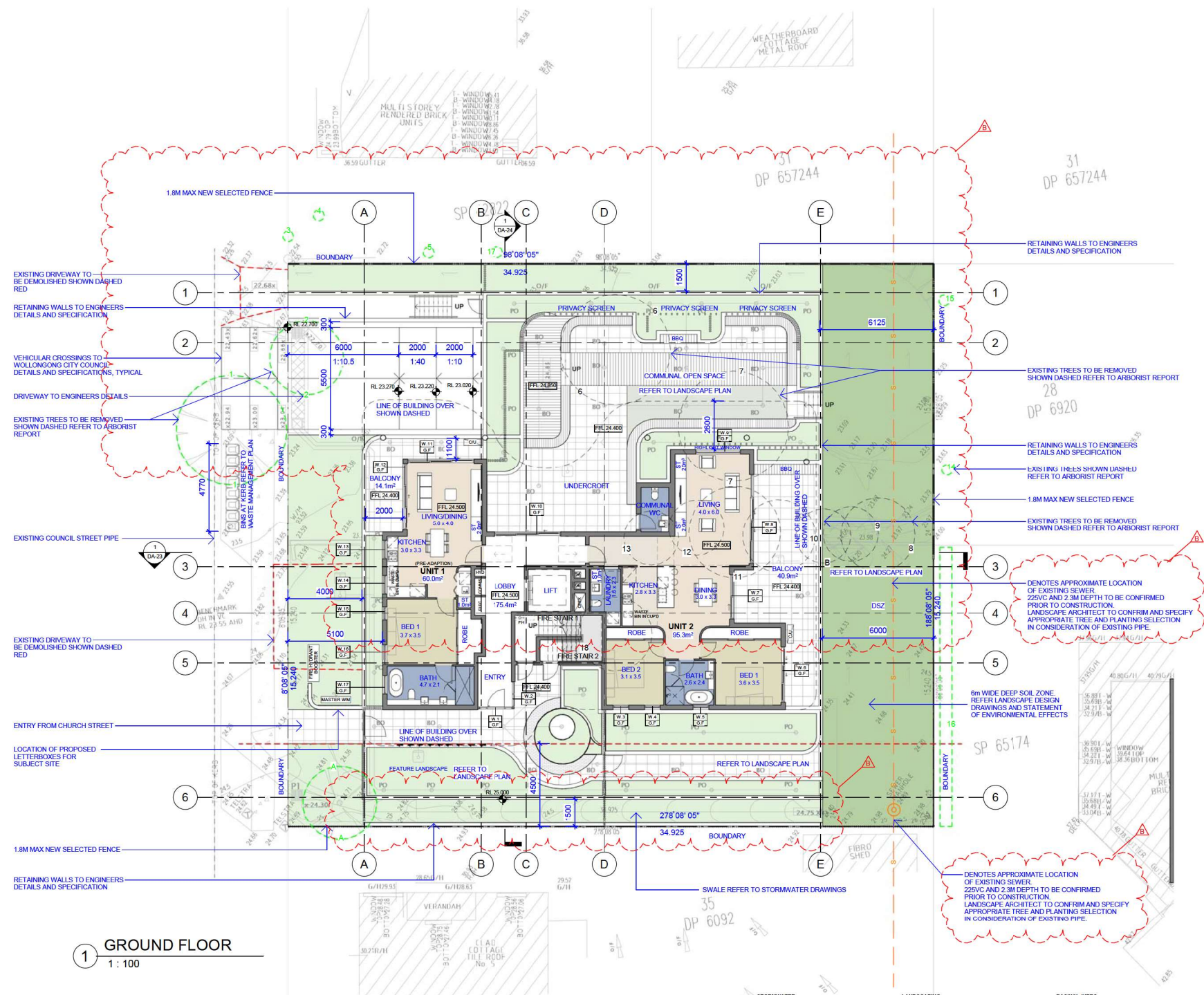
UNITS (UNIT MIX)

GROUND FLOOR	- UNIT 1 (1 BED), UNIT 2 (2-BED)
LEVEL 1	- UNIT 3 (1 BED) & UNIT 4 (3 BED)
LEVEL 2	- UNIT 5 (3 BED) & UNIT 6 (3 BED)
LEVEL 3	- UNIT 7 (3 BED) & UNIT 8 (3 BED)
LEVEL 4	- UNIT 9 (3 BED)
LEVEL 5	- UNIT 10 (3 BED)
LEVEL 6	- UNIT 11 (3 BED)
LEVEL 7	- UNIT 12 (3 BED) 2 STOREY PENTHOUSE

TOTAL

- 2 X 1 BED
- 1 X 2 BED
- 9 X 3 BED
12 UNITS

1 GROUND FLOOR
1 : 100



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6m WIDE DEEP SOIL ZONE.
REFER LANDSCAPE DESIGN
DRAWINGS AND STATEMENT
OF ENVIRONMENTAL EFFECTS

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Project:
RESIDENTIAL APARTMENT BUILDING
1 & 3 CHURCH STREET, WOLLONGONG
LOTS 53 & 54 IN DP 6520
Client:
MIND PROPERTY GROUP



Title:
GROUND FLOOR PLAN

Date:	13.12.2021	Job No:	20-59	Dwg:	DA-13	Rev:	
Scale:	1 : 100						

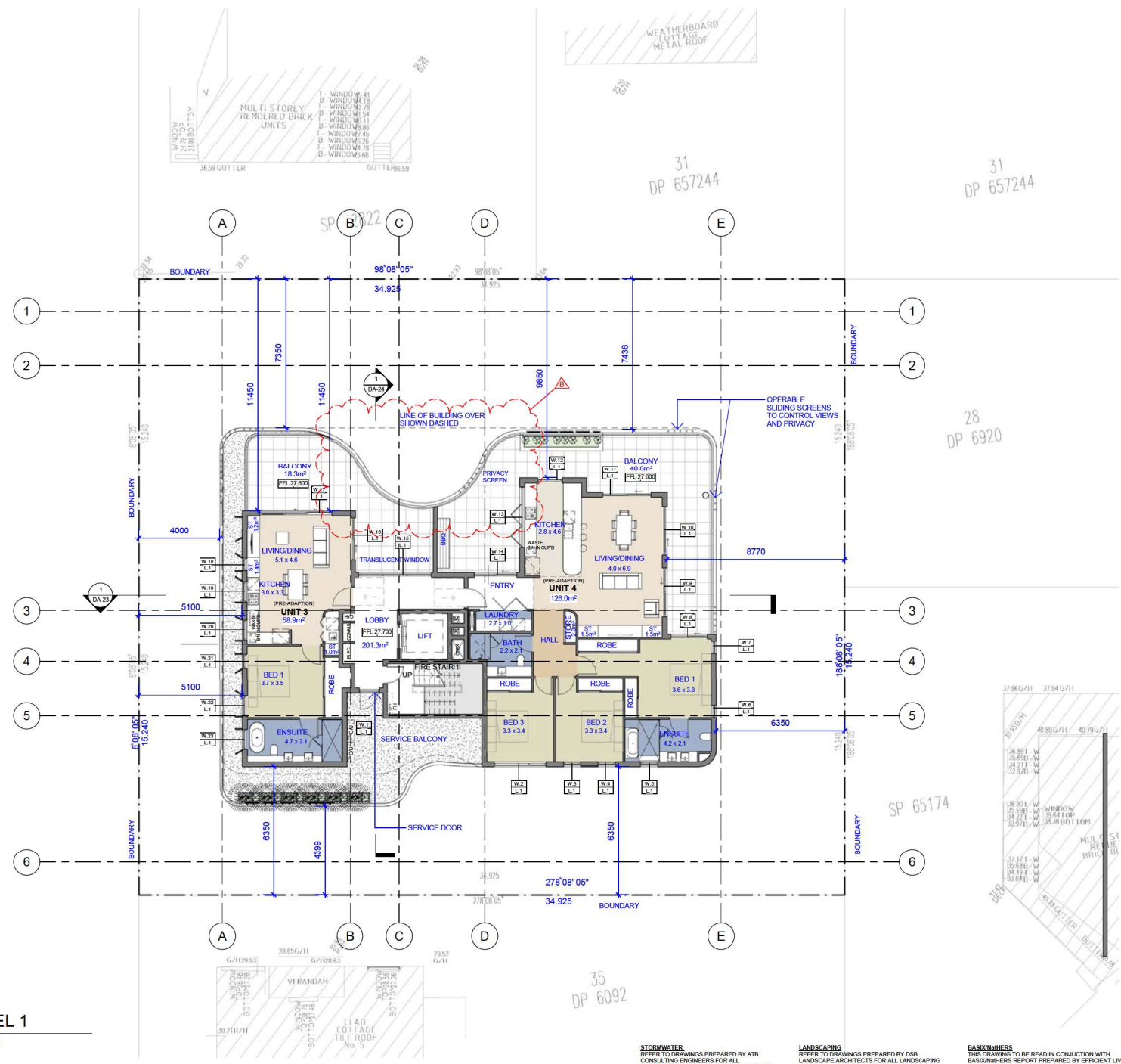
2 1 0 0 2 4 6 8
1:100 @ A1 1:200 @ A3

STORMWATER
REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS.

LANDSCAPING
REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS.

BASIX/WEATHER REPORT
REFER TO DRAWINGS PREPARED BY EFFICIENT LIVING BASIX/WEATHER REPORT PREPARED BY EFFICIENT LIVING

AMENDMENTS	Revision Description	Date	BY
No.			
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ



Project:

RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6520

Client:

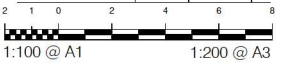
MIND PROPERTY GROUP



Title:

LEVEL 1 PLAN

Date:	13.12.2021	Job No.:	20-59	Dwg.:	DA-14	Rev:	
Scale:	1:100						



1 LEVEL 1
 1:100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB
 CONSULTING ENGINEERS FOR ALL
 STORMWATER DETAILS AND SPECIFICATIONS

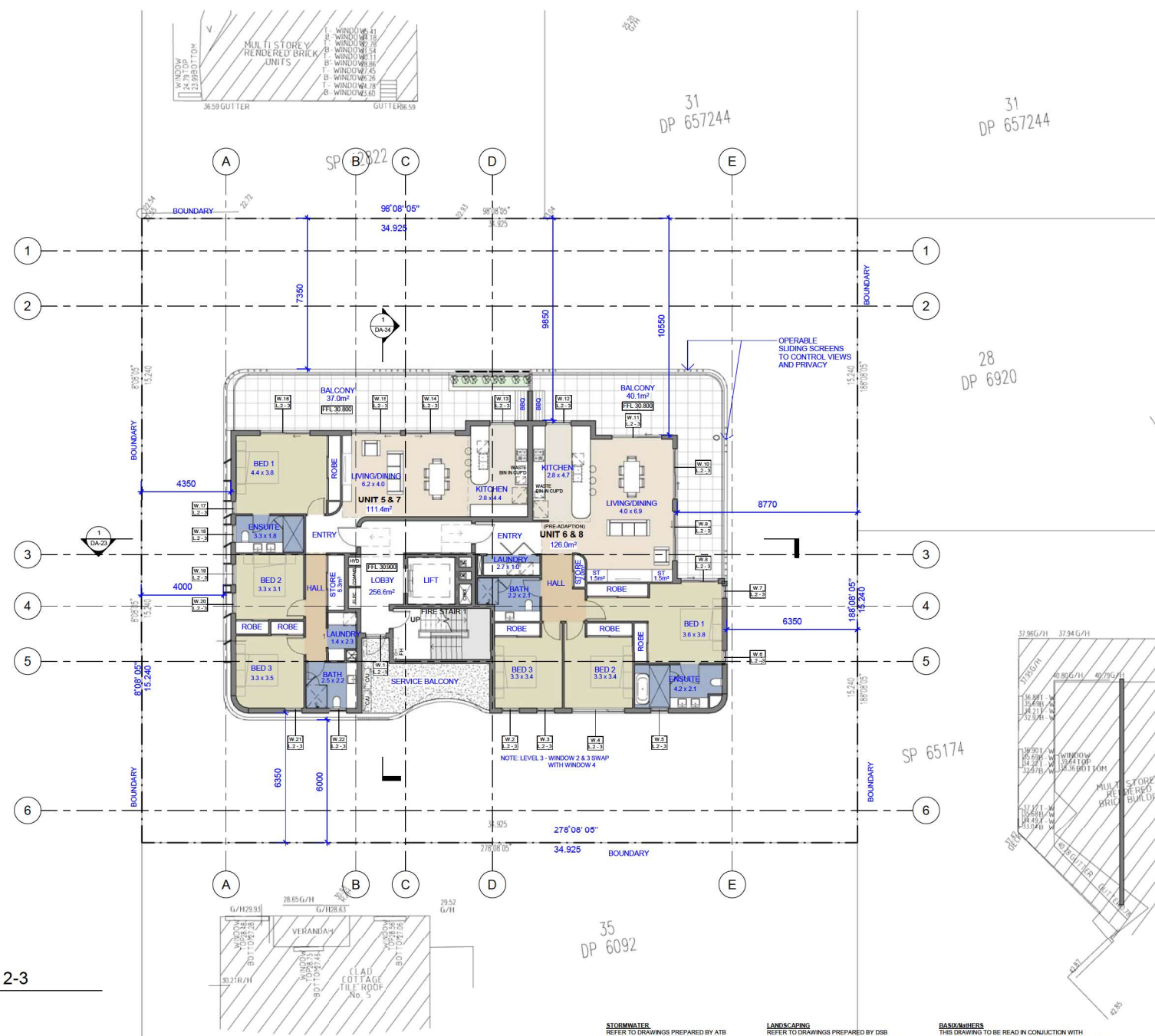
LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB
 LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING
 DETAILS AND SPECIFICATIONS

BASIX#N#ERS
 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH
 BASIX#N#ERS REPORT PREPARED BY EFFICIENT LIVING

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NOT FOR CONSTRUCTION
 DEVELOPMENT APPLICATION

AMENDMENTS	Revision Description	Date	BY
No.			
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ



1 LEVEL 2-3
 1 : 100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB
 CONSULTING ENGINEERS FOR ALL
 STORMWATER DETAILS & SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB
 LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING
 DETAILS & SPECIFICATIONS

BASIN/WATERS
 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH
 BASIN/WATERS REPORT PREPARED BY EFFICIENT LIVING

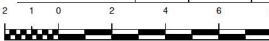
Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6520

Client:
MIND PROPERTY GROUP



Title:
LEVELS 2-3 PLAN

Date: 13.12.2021	Job No: 20-59	Dwg: DA-15	Rev:
Scale: 1:100			

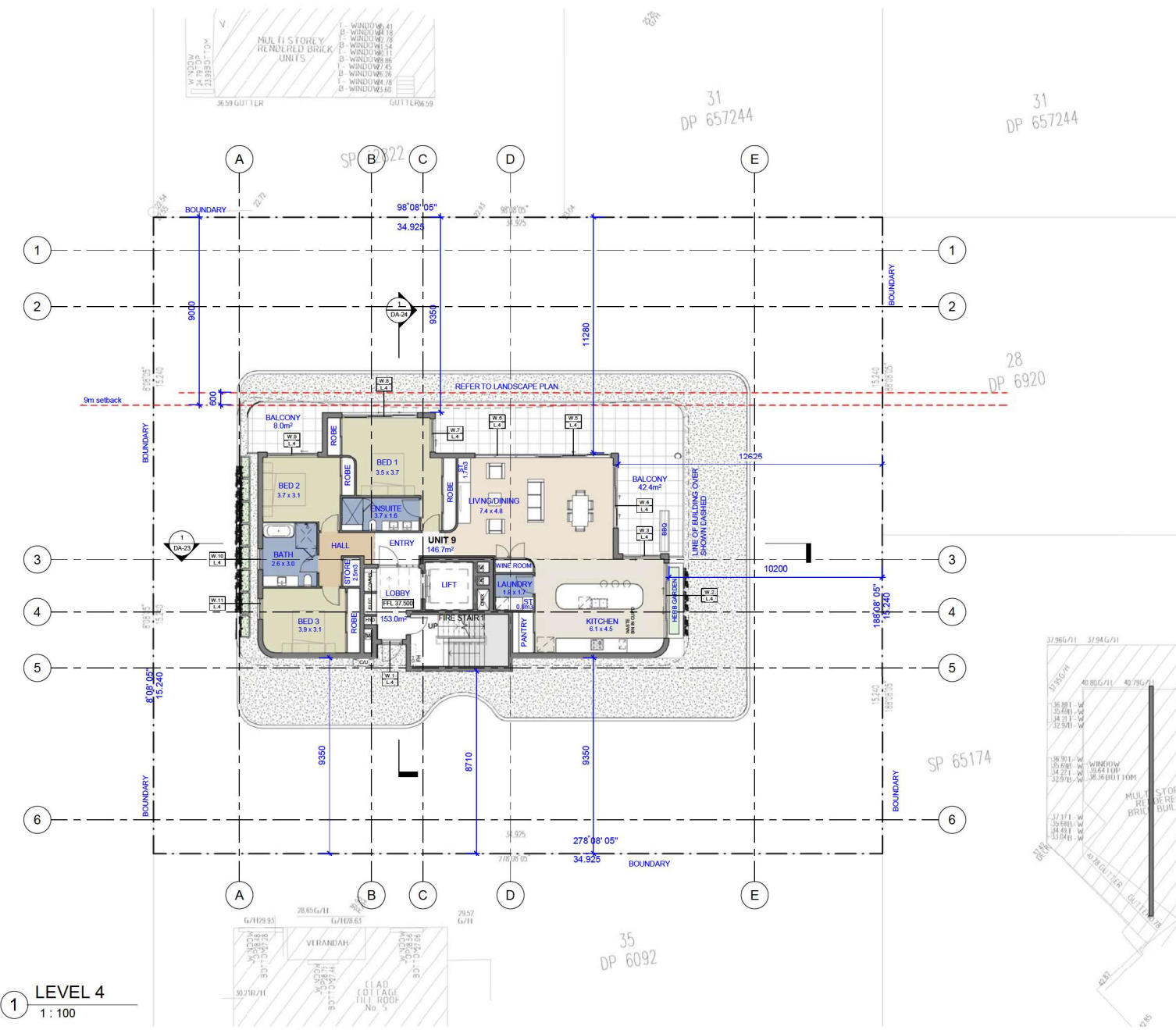


13/12/2021 12:30:04 PM

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 DEVELOPMENT APPLICATION

AMENDMENTS	No.	Revision Description	Date	BY
A	ISSUED FOR DEVELOPMENT APPLICATION		17.09.2021	DQ
B	ISSUED FOR ADDITIONAL INFORMATION		13.12.2021	DQ



1 LEVEL 4
 1:100



STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB
 CONSULTING ENGINEERS FOR ALL
 STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB
 LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING
 DETAILS AND SPECIFICATIONS

BASIX NUMBERS
 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH
 BASIX NUMBERS REPORT PREPARED BY EFFICIENT LIVING

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 53 & 54 IN DP 6520
 Client:
MIND PROPERTY GROUP



Title:
LEVEL 4 PLAN

Date:	Job No.:	Dwg.:	Rev.:
13.12.2021	20-59	DA-16	

Scale:	1:100
1:100	

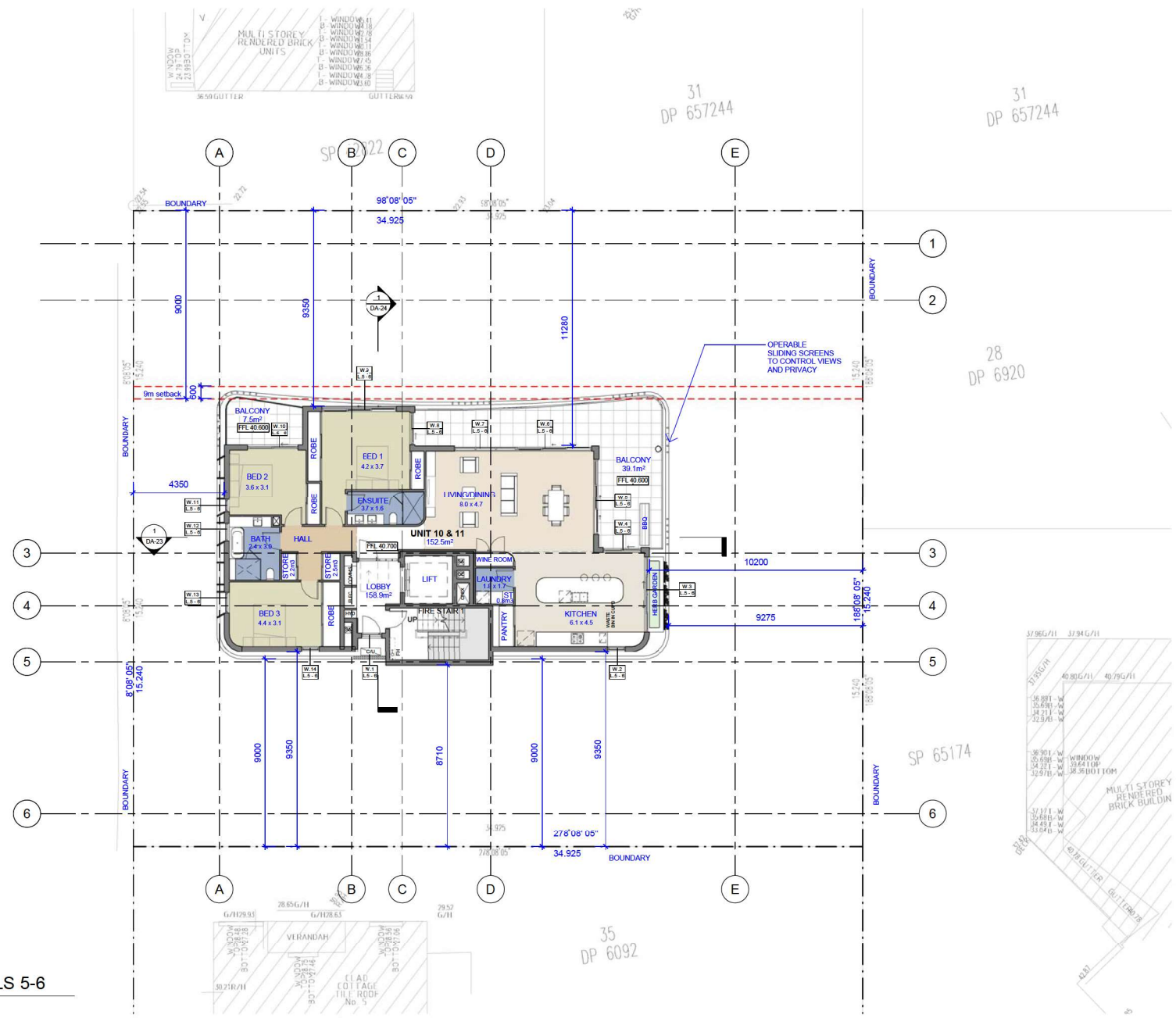


13/12/2021 12:30:28 PM

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 DEVELOPMENT APPLICATION

AMENDMENTS	No.	Revision Description	Date	BY
A	ISSUED FOR DEVELOPMENT APPLICATION		17.09.2021	DQ
B	ISSUED FOR ADDITIONAL INFORMATION		13.12.2021	DQ



1 LEVELS 5-6
 1 : 100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS

BASIX/NHERS
 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BASIX/NHERS REPORT PREPARED BY EFFICIENT LIVING

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6520
 Client:
MIND PROPERTY GROUP



Title:
LEVELS 5 & 6 PLANS

Date: 13.12.2021	Job No: 20-59	Dwg: DA-17	Rev:
Scale: 1:100			



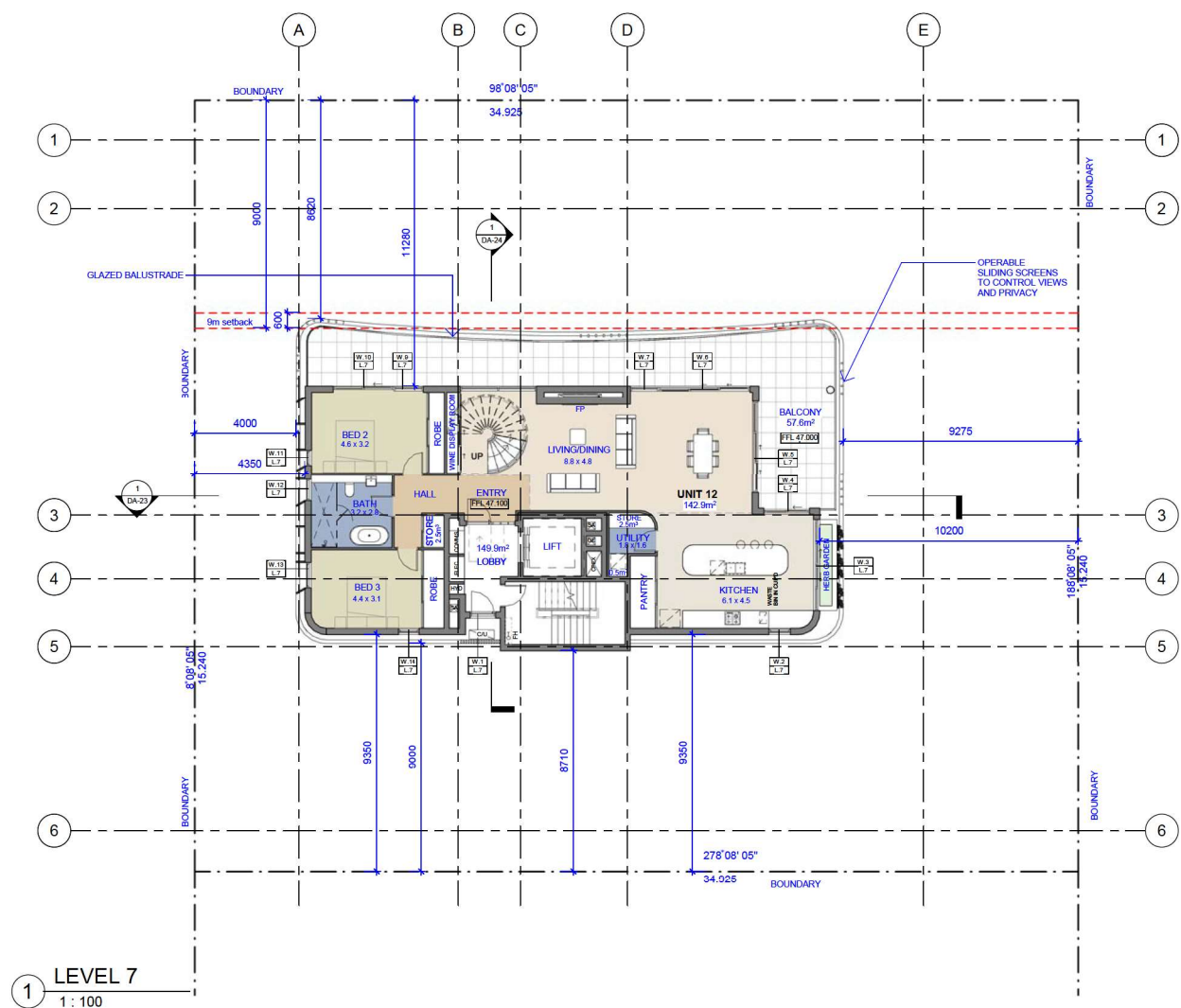
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 DEVELOPMENT APPLICATION



AMENDMENTS	Revision Description	Date	BY
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ



1 LEVEL 7
 1:100

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6520
 Client:
MIND PROPERTY GROUP



Title:
LEVEL 7 PLAN

Date: 13.12.2021	Job No: 20-59	Dwg: DA-18	Rev:
Scale: 1:100			



STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB
 CONSULTING ENGINEERS FOR ALL
 STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB
 LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING
 DETAILS AND SPECIFICATIONS

BASIN#ERS
 THIS DRAWING TO BE READ IN CONJUNCTION WITH
 BASIN#ERS REPORT PREPARED BY EFFICIENT LIVING

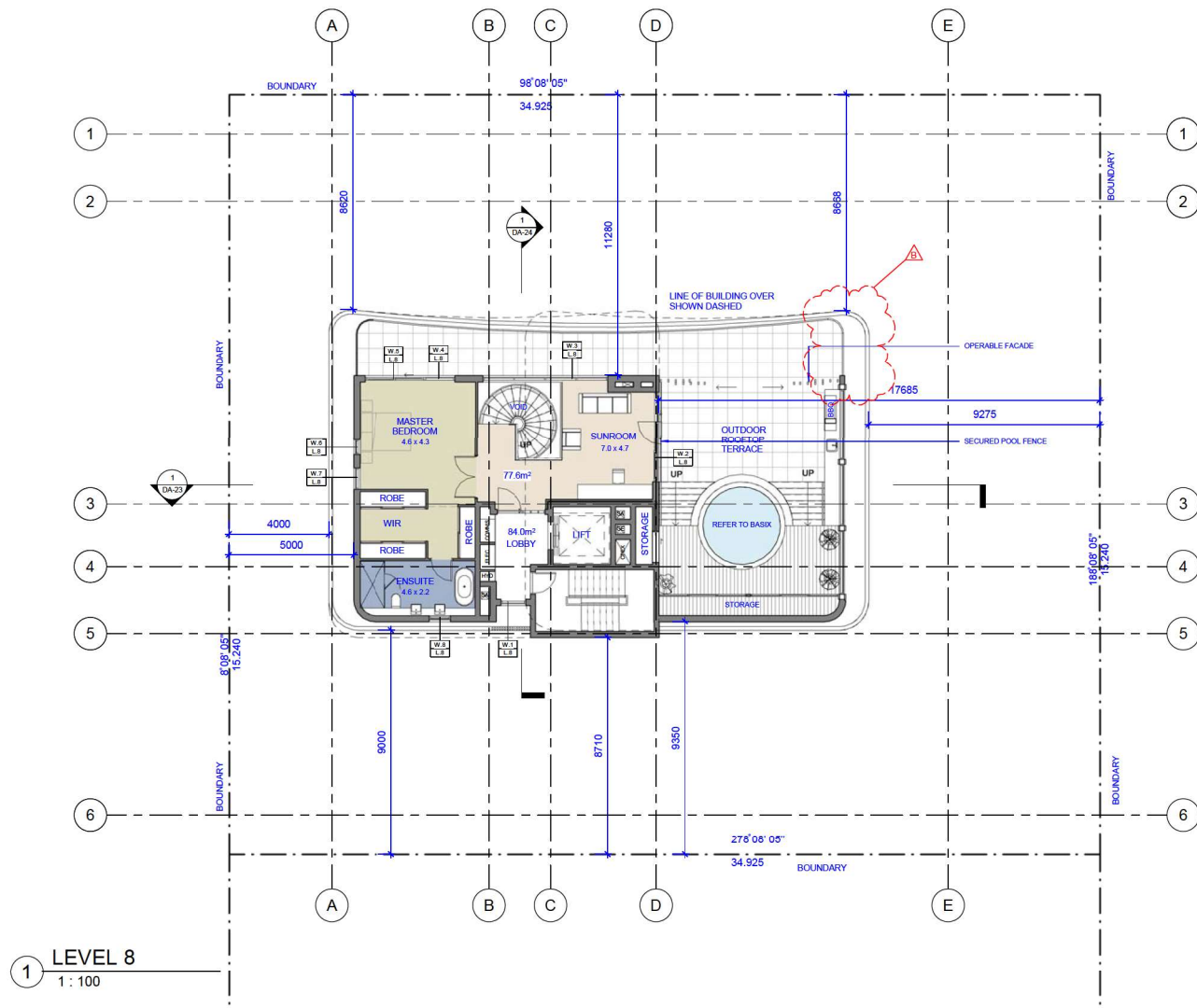
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 DEVELOPMENT APPLICATION



AMENDMENTS	No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ	
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ	



1 LEVEL 8
 1:100

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6520
 Client:
MIND PROPERTY GROUP



Title:
LEVEL 8 PLAN

Date: 13.12.2021	Job No: 20-59	Dwg: DA-19	Rev: 1
Scale: 1:100			



STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB
 CONSULTING ENGINEERS FOR ALL
 STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB
 LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING
 DETAILS AND SPECIFICATIONS

BASIN#N#ERS
 THIS DRAWING TO BE READ IN CONJUNCTION WITH
 BASIN#N#ERS REPORT PREPARED BY EFFICIENT LIVING

16/12/2021 9:41:45 AM

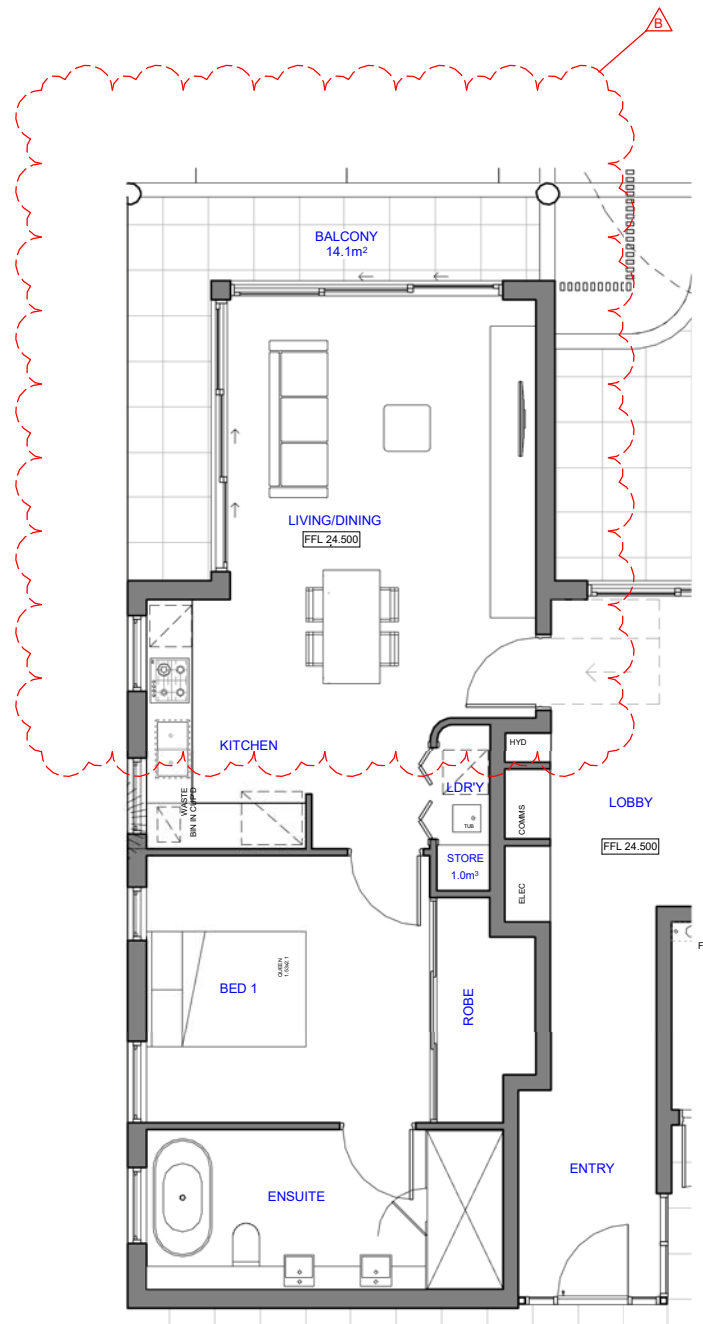
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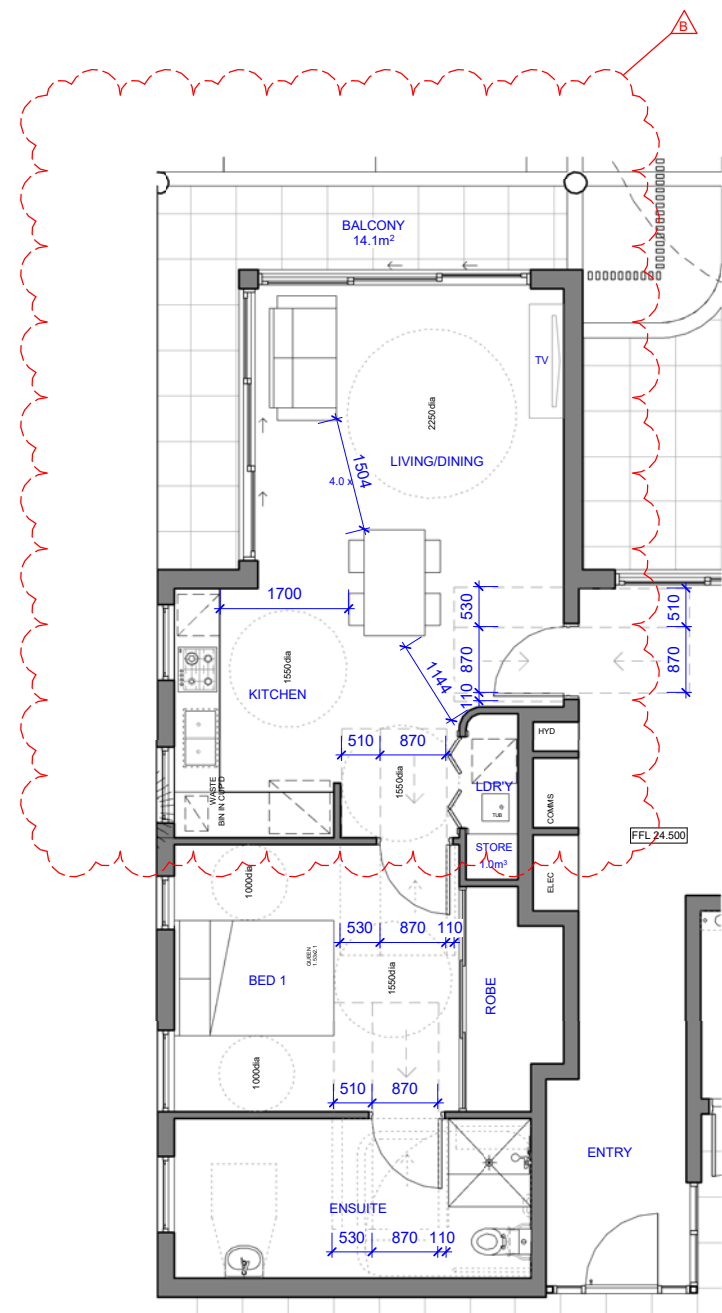
DEVELOPMENT APPLICATION



AMENDMENTS	No.	Revision Description	Date	BY:
	A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DO
	B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DO



1 PRE - ADAPTABLE UNIT 1 & 3
1 : 50



2 POST - ADAPTABLE UNIT 1 & 3
1 : 50

ADAPTABLE UNITS

GROUND FLOOR	UNIT 1
LEVEL 1	UNIT 3,4
LEVEL 2	UNIT 6
LEVEL 3	UNIT 8

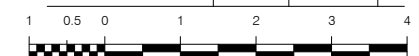
TOTAL 5 UNITS

Project:
 RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6920
 Client:
 MIND PROPERTY GROUP



Title:
 PRE AND POST - ADAPTABLE PLANS

Date: 13.12.2021	Job No:	Dwg:	Rev:
Scale: As indicated	20-59	DA-20	



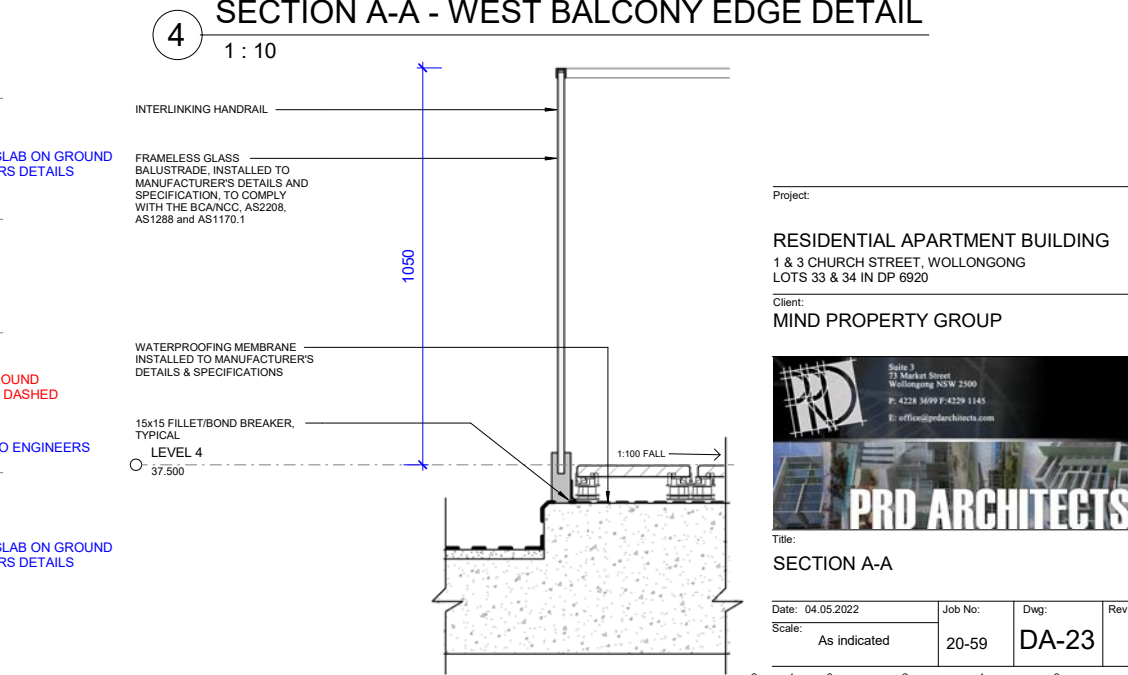
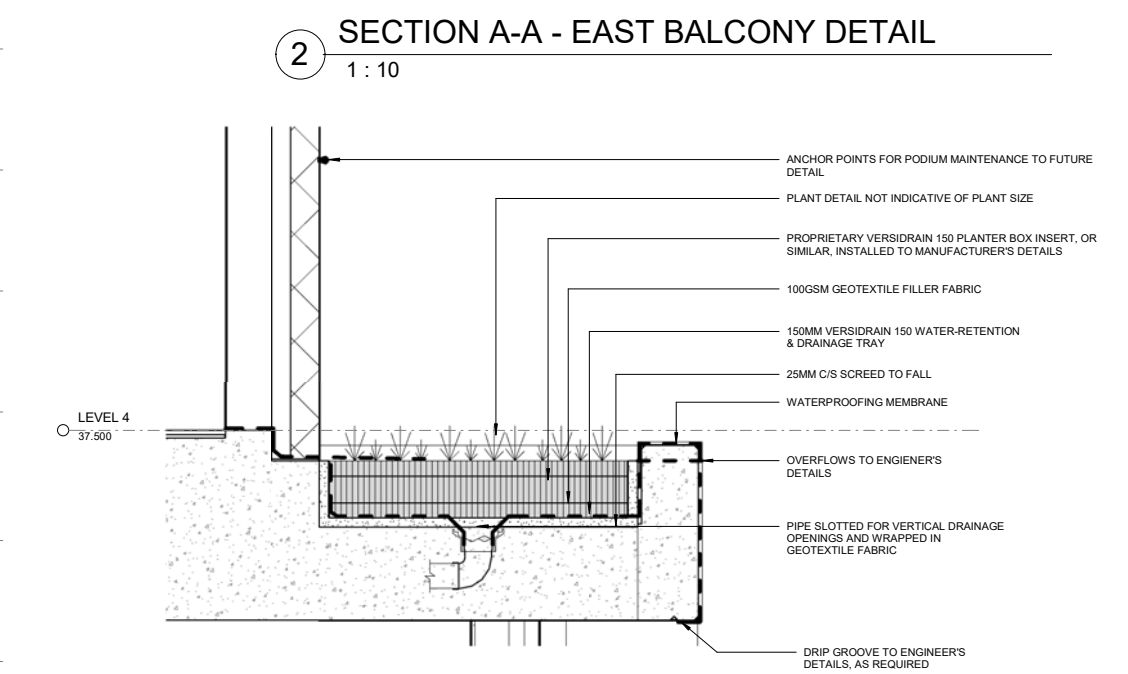
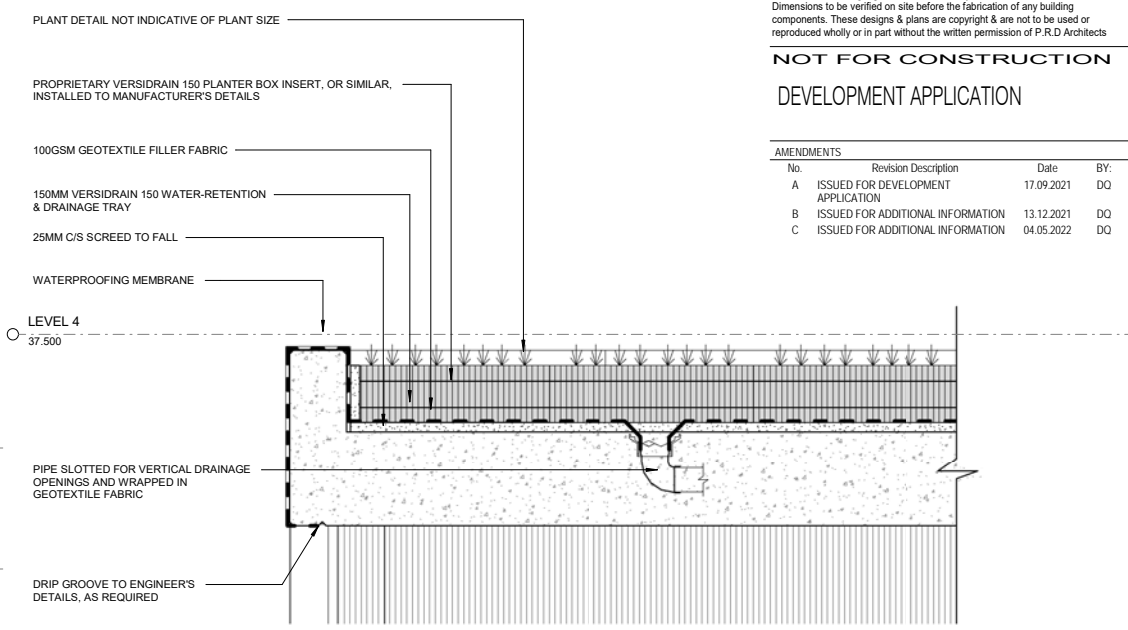
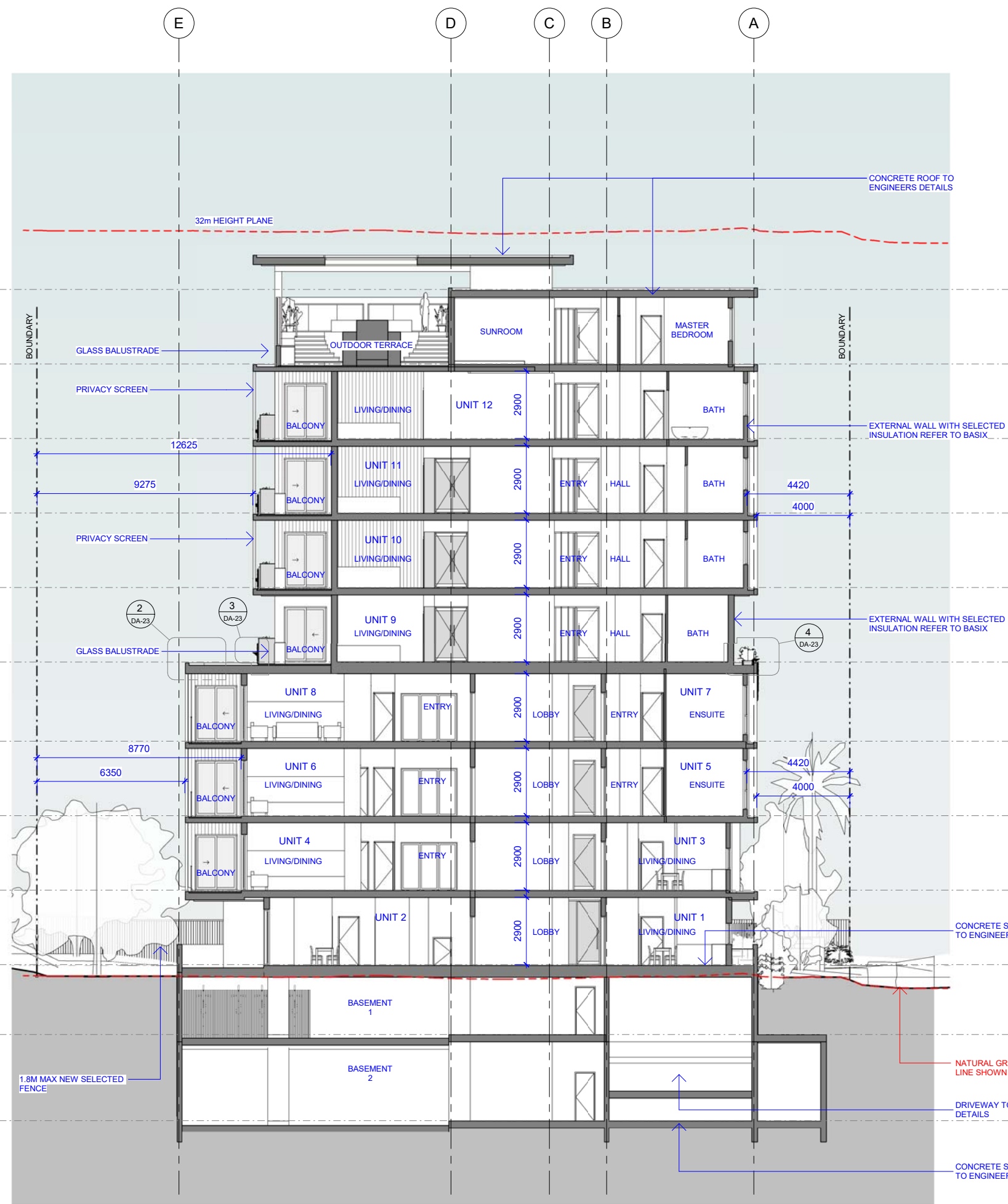
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13/12/2021 1:56:55 PM

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DEVELOPMENT APPLICATION

AMENDMENTS	No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DO	
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DO	
C	ISSUED FOR ADDITIONAL INFORMATION	04.05.2022	DO	



Project:
RESIDENTIAL APARTMENT BUILDING
1 & 3 CHURCH STREET, WOLLONGONG
LOTS 33 & 34 IN DP 6920
Client:
MIND PROPERTY GROUP



Title:
SECTION A-A

Date: 04.05.2022 Job No: 20-59 Dwg: DA-23 Rev: 2

Scale: As indicated

1:100 @ A1 1:200 @ A3

STORMWATER
REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS.

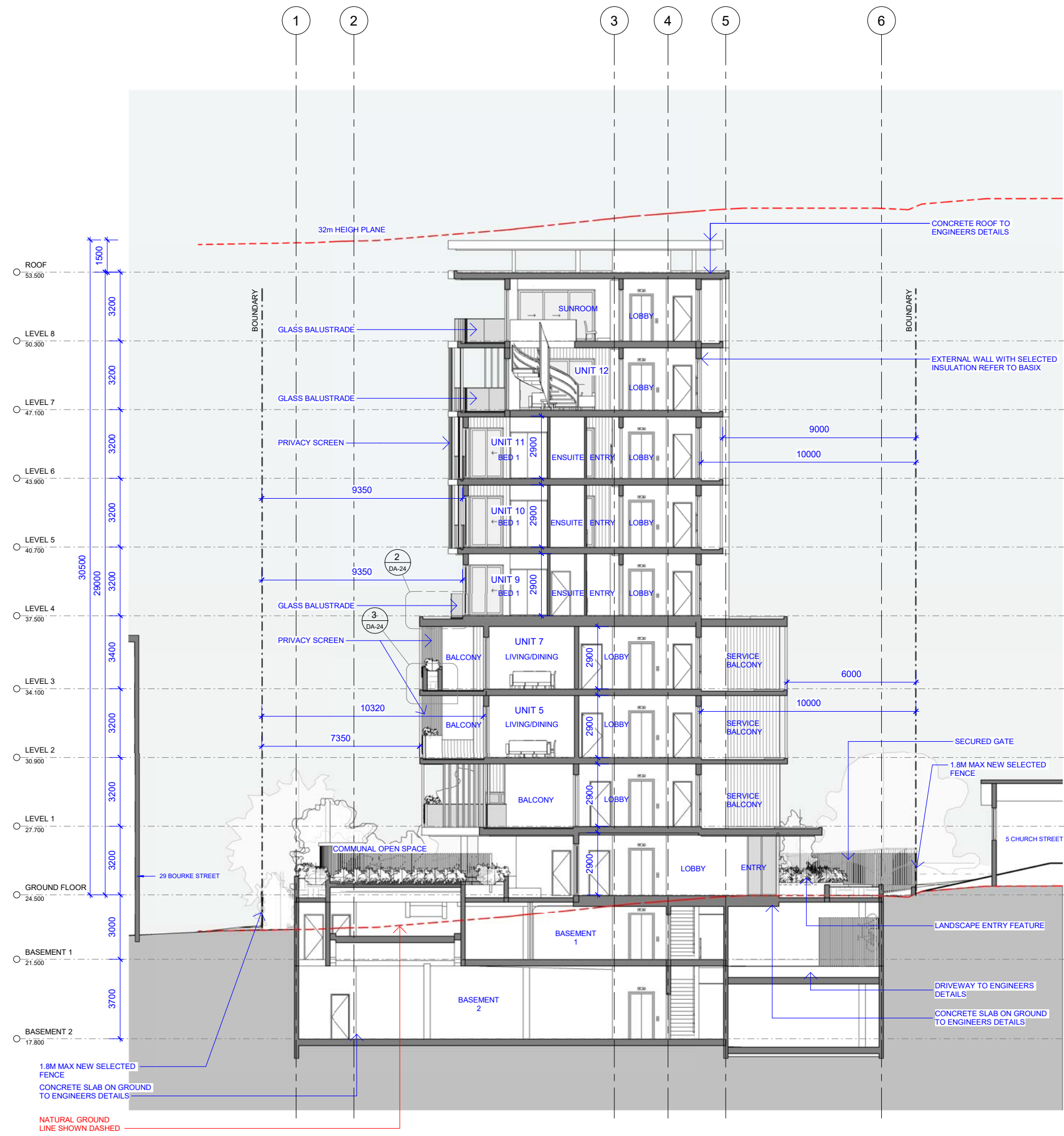
BASIX/NATHERS
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BASIX/NATHERS REPORT PREPARED BY EFFICIENT LIVING

6/05/2022 9:14:31 AM

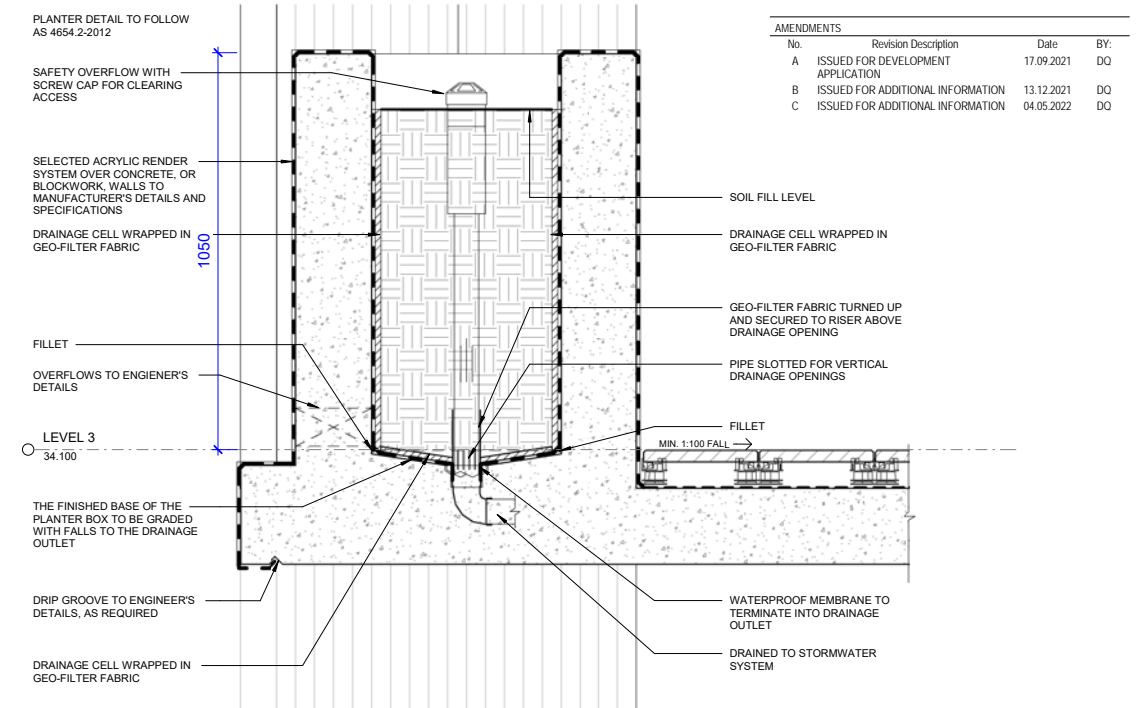
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 DEVELOPMENT APPLICATION

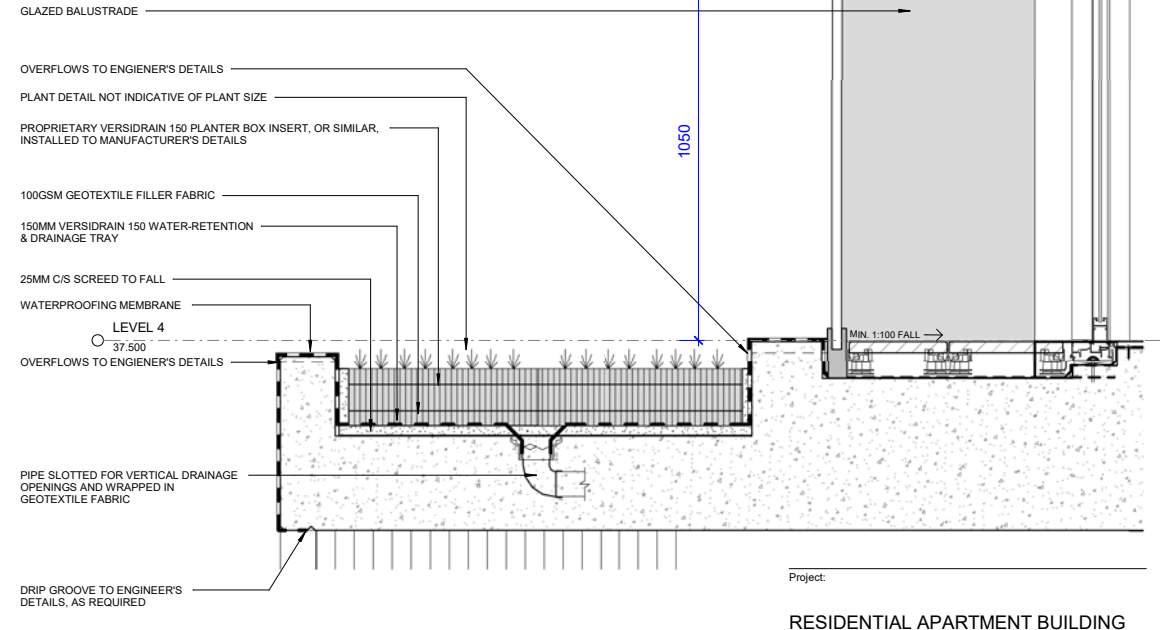
AMENDMENTS			
No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DO
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DO
C	ISSUED FOR ADDITIONAL INFORMATION	04.05.2022	DO



1 SECTION B-B
 1 : 100



3 SECTION B-B - PLANTER DETAIL
 1 : 10



2 SECTION B-B - NORTH BALCONY DETAIL
 1 : 10

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS.

BASIX/NaHERS
 THIS DRAWING TO BE READ IN CONJUNCTION WITH BASIX/NaHERS REPORT PREPARED BY EFFICIENT LIVING

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6920
 Client:
MIND PROPERTY GROUP



Title:
SECTION B-B

Date: 04.05.2022	Job No: 20-59	Dwg: DA-24	Rev:
Scale: As indicated			

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DEVELOPMENT APPLICATION

AMENDMENTS	No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ	
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ	



FINISHES SCHEDULE:

EXTERNAL

W1 SCULPTIFORM ALUMINIUM CLADDING "WHITEWASH OAK" OR SIMILAR	W2 DULUX "VIVID WHITE" OR SIMILAR
W3 DULUX "VIVID WHITE" OR SIMILAR	W4 DULUX "VIVID WHITE" OR SIMILAR
TS POWDERCOATED ALUMINIUM BATTEN FACADE (TS) COLOUR: ZEUS "ATYLLANIC" WHITE SATIN OR SIMILAR	WD WINDOWS & DOORS POWDERCOATED (PC) - ZEUS APPLIANCE WHITE OR SIMILAR GLAZING: CLEAR
S CORTEN / BRONZE FEATURE PANEL OR SIMILAR	G1 CLEAR GLASS

PROPOSED STEEL FENCING
 COLOUR: SHALE GREY OR SIMILAR

1 NORTH ELEVATION
 1 : 100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS

BASIX#BERS
 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BASIX#BERS REPORT PREPARED BY EFFICIENT LIVING

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6620
 Client:
MIND PROPERTY GROUP



Title:
NORTH ELEVATION

Date: 13.12.2021	Job No: 20-59	Dwg: DA-25	Rev:
Scale: As indicated			

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DEVELOPMENT APPLICATION

AMENDMENTS	No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ	
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ	



FINISHES SCHEDULE:

EXTERNAL

W1 SCULPTIFORM ALUMINIUM CLADDING OR SIMILAR	W2 DULUX "VIVID WHITE" OR SIMILAR
W3 DULUX "VIVID WHITE" OR SIMILAR	W4 DULUX "VIVID WHITE" OR SIMILAR
TS POWDERCOATED ALUMINIUM BATTEN FACADE (TS) COLOUR: ZEUS MATTE LANCE WHITE SATIN OR SIMILAR	WD WINDOWS & DOORS POWDERCOATED (PC) - ZEUS APPLIANCE WHITE OR SIMILAR GLAZING: CLEAR
S CORTEN / BRONZE FEATURE PANEL OR SIMILAR	G1 CLEAR GLASS

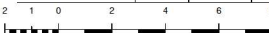
PROPOSED STEEL FENCING
 COLOUR: SHALE GREY OR SIMILAR

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6520
 Client:
MIND PROPERTY GROUP



Title:
EAST ELEVATION

Date: 13.12.2021	Job No: 20-59	Dwg: DA-26	Rev:
Scale: As indicated			



1 EAST ELEVATION
 1 : 100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB
 CONSULTING ENGINEERS FOR ALL
 STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB
 LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING
 DETAILS AND SPECIFICATIONS

BASIN/RSERS
 THESE DRAWINGS TO BE READ IN CONJUNCTION WITH
 BASIN/RSERS REPORT PREPARED BY EFFICIENT LIVING

13/12/2021 12:36:14 PM

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DEVELOPMENT APPLICATION

AMENDMENTS	No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ	
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ	



FINISHES SCHEDULE:

EXTERNAL

W1 SCULPTIFORM ALUMINIUM CLADDING 'WHITEWASH OAK' OR SIMILAR	W2 DULUX 'IVYD WHITE' OR SIMILAR
W3 DULUX 'IVYD WHITE' OR SIMILAR	W4 DULUX 'IVYD WHITE' OR SIMILAR
TS POWDERCOATED ALUMINIUM BATTEN FACADE (TS) OR SIMILAR. COLOUR: ZEUS 'MY LANCIE' WHITE SATIN OR SIMILAR.	WD WINDOWS & DOORS POWDERCOATED (PC) - ZEUS APPLIANCE WHITE SATIN OR SIMILAR. GLAZING: CLEAR
S CORTEN / BRONZE FEATURE PANEL OR SIMILAR	G1 CLEAR GLASS

PROPOSED STEEL FENCING
 COLOUR: SHALE GREY OR SIMILAR

1 SOUTH ELEVATION
 1 : 100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS

BASIX#BERS
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Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6520
 Client:
MIND PROPERTY GROUP



Title:
SOUTH ELEVATION

Date: 13.12.2021	Job No: 20-59	Dwg: DA-27	Rev:
Scale: As indicated			

2 1 0 2 4 6 8
 1:100 @ A1 1:200 @ A3

13/12/2021 12:37:45 PM

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DEVELOPMENT APPLICATION

AMENDMENTS	No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DQ	
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DQ	



FINISHES SCHEDULE:

EXTERNAL	
W1 SCULPTIFORM ALUMINIUM CLADDING "WHITEWASH OAK" OR SIMILAR	W2 DULUX "VIVID WHITE" OR SIMILAR
W3 DULUX "VIVID WHITE" OR SIMILAR	W4 DULUX "VIVID WHITE" OR SIMILAR
TS POWDERCOATED ALUMINIUM BATTEN FACADE (TS) COLOUR: ZEUS "MYLANE" WHITE SATIN OR SIMILAR	WD WINDOWS & DOORS POWDERCOATED (PC) - ZEUS APPLIANCE WHITE OR SIMILAR GLAZING: CLEAR
S CORTEN / BRONZE FEATURE PANEL OR SIMILAR	G1 CLEAR GLASS
	PROPOSED STEEL FENCING COLOUR: SHALE GREY OR SIMILAR

1 WEST ELEVATION
 1 : 100

STORMWATER
 REFER TO DRAWINGS PREPARED BY ATB CONSULTING ENGINEERS FOR ALL STORMWATER DETAILS AND SPECIFICATIONS

LANDSCAPING
 REFER TO DRAWINGS PREPARED BY DSB LANDSCAPE ARCHITECTS FOR ALL LANDSCAPING DETAILS AND SPECIFICATIONS

BASIN/NUMBERS
 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BASIN/NUMBERS REPORT PREPARED BY EFFICIENT LIVING

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 53 & 54 IN DP 6520

Client:
MIND PROPERTY GROUP

PRD ARCHITECTS
 Level 3
 11 Market Street
 Wollongong NSW 2500
 P: 422 3899 F: 422 1145
 E: info@prdarchitects.com

Title:
WEST ELEVATION

Date: 13.12.2021	Job No: 20-59	Dwg: DA-28	Rev:
Scale: As indicated			

2 1 0 2 4 6 8
 1:100 @ A1 1:200 @ A3

13/12/2021 12:38:10 PM

LEGEND

SURFACES

- P1** PAVEMENT 1 - UNIT PAVERS
Large Format, Natural Stone Finish
Pedestal System Over Podium
- P2** PAVEMENT 2 - CONCRETE DRIVEWAY
Exposed Aggregate Concrete
- P3** PAVEMENT 3 - DECKING BOARDWALK
Composite Decking Over Podium Slab
- P4** PAVEMENT 4 - OFF-FORM CONCRETE
Honed Concrete Stairs
- G1** GRASS 1 - TURF
Turf Roll With Steel Edging
- G** GRAVEL PATH
With Steel Edging

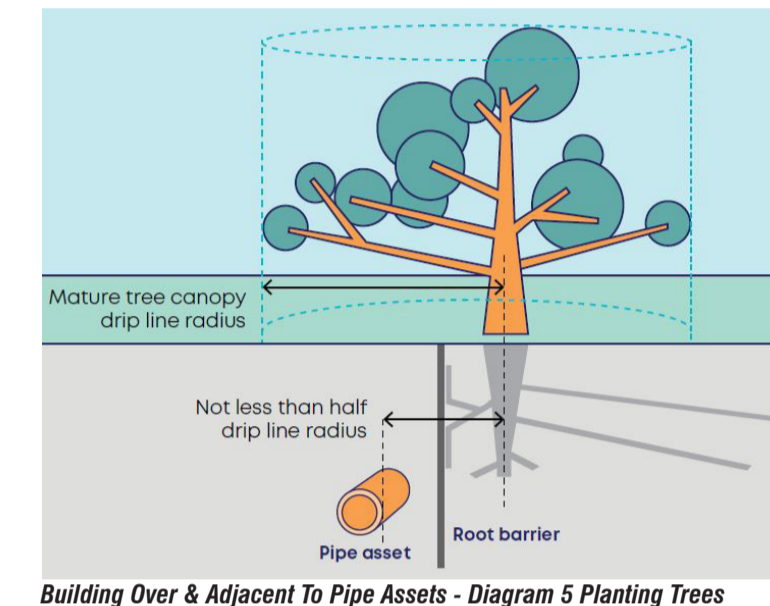
WALLS / STRUCTURES

- W1** RAISED PLANTER WALL
Off-Form Concrete Or Rendered Block/Brick
- W2** COURTYARD WALL
1800 High Wall For Screening & Enclosing The Communal Open Space
- W3** RAISED PLANTER - STEEL
Painted Steel
- PG** PERGOLA & VERTICAL BATTEN SCREEN
Designed To Mimic Building Facade
- F1** ENTRY GATE / FENCE
1500 High Steel Gated Entry With Feature Steel Intercom Panel

FURNITURE

- SB** SEATING BENCH
Timber Decking Seating Bench
To Future Specification
- DT** DINING TABLE
To Future Specification
- CT** CAFE TABLE
Integrated With Seating Bench
To Future Specification

- K** OUTDOOR KITCHEN / BBQ
To Future Specification
- DP** DECORATIVE PLANTER POT
Off-Shell Decorative Planter Pots
Planted With Lemon Tree & Kitchen Herbs



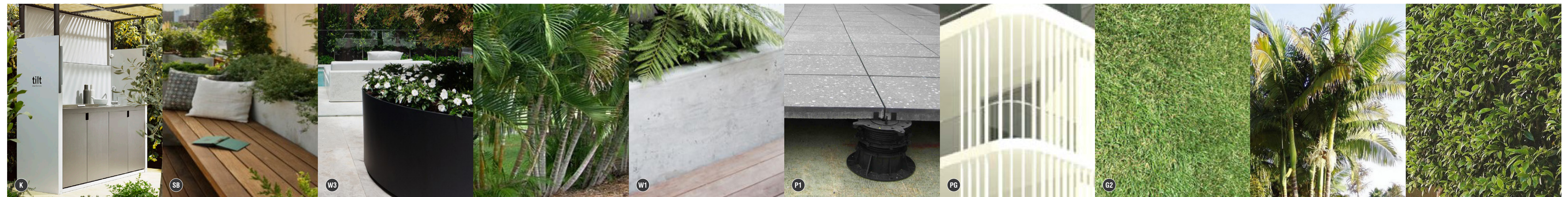
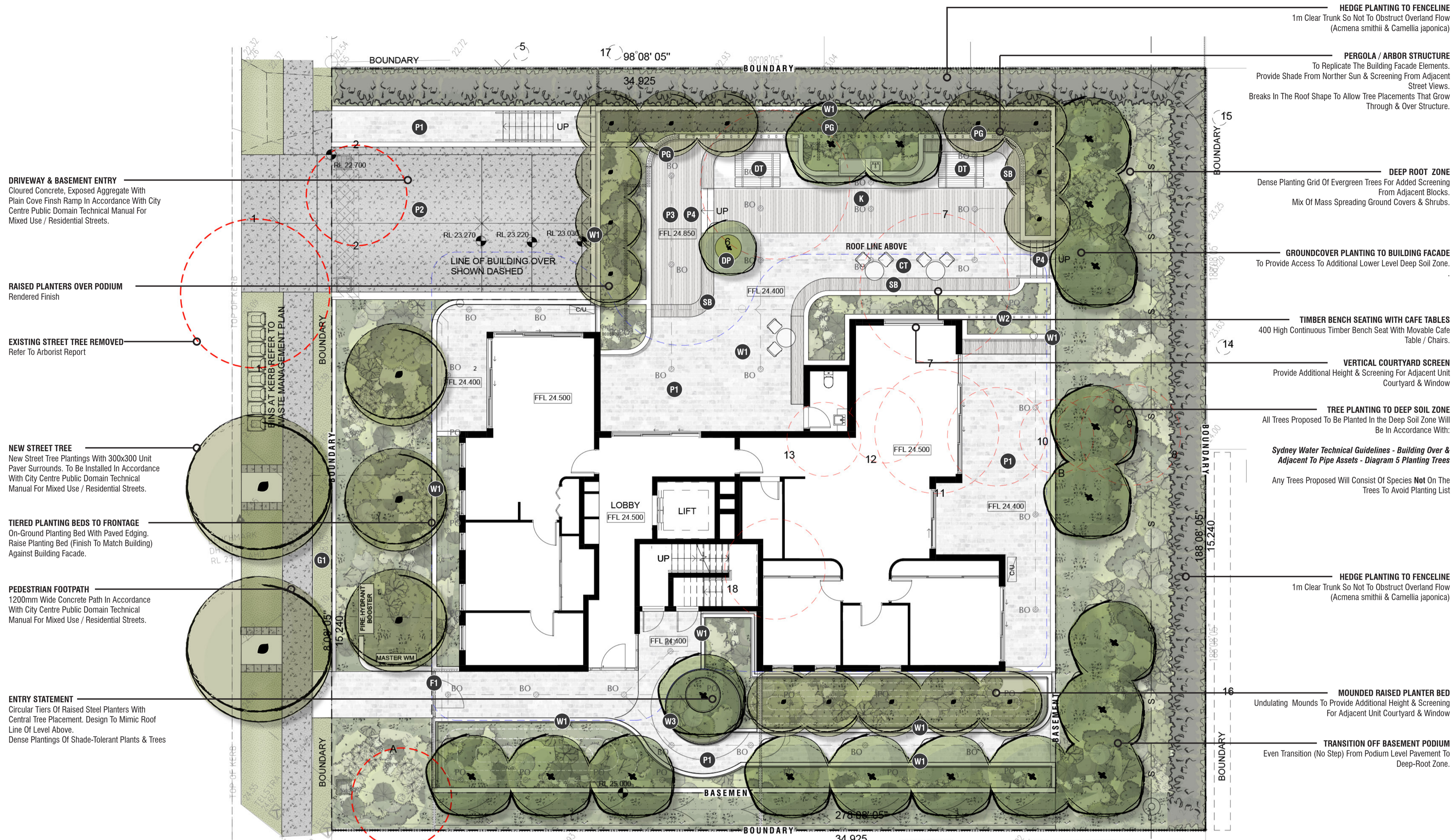
SYDNEY WATER BUILDING OVER & ADJACENT TO PIPE ASSETS

Technical Requirements:

1. Obtain a service location diagram.
2. Locate the pipe asset on-site and determine its depth.
3. Maintain tree and full access.
4. Don't alter the existing ground level without our acceptance.
5. Consult us or a tree specialist for suitable species and how far to plant them from pipe asset. Further information is available on our website.
6. Don't plant trees closer than half the mature tree canopy drip line radius to the pipe.
7. Provide a tree root barrier if the pipe is under the future mature tree canopy. Install the barrier along the length of the pipe to the full extent of the canopy drip line.

SPECIES LIST

CODE	BOTANICAL NAME	COMMON NAME	MIN. SIZE	MATURE SIZE
TREE SPECIES				
ARc	<i>Archontophoenix cunninghamiana</i>	Bangalow Palm	100L	10.0m / 3.0m
CPa	<i>Cupaniopsis anacardioides</i>	Tuckeroo	200L	10.0m / 4.0m
DY1	<i>Dyopsis lutescens</i>	Golden Cane Palm (Multi-Stem)	45L	6.0m / 4.0m
LAB	<i>Lagerstroemia indica</i> x <i>L. lauriei</i> 'Bilox'	Crepe Myrtle (Pink)	45L	8.0m / 4.0m
TRI	<i>Tristania laurina</i> 'uscious'	Kanoaka, Water Gum	100L	7.0m / 6.0m
WAL	<i>Waterhousea floribunda</i>	Weeping Lily Pilly	100L	8.0m / 5.0m
Note: Trees shall be grown, containerised and supplied in accordance with MITS 09C and AS 2303.				
SHRUB SPECIES - LARGE (>1.0m) - Mix Native & Exotic				
ACS	<i>Acmena smithii</i>	Lily Pilly	300mm	5.0m / 3.0m
CAJ	<i>Camellia japonica</i>	Camellia	300mm	4.0m / 2.0m
CRA	<i>Correa alba</i>	White Correa	300mm	1.0m / 2.0 m
ACm	<i>Asphodelos excelsa</i>	Lady Palm	300mm	3.0m / 2.0 m
RSO	<i>Rosmarinus officinalis</i>	Rosemary	200mm	1.5m / 1.5m
SHRUB SPECIES - MEDIUM (0.6m-1.0m) - Mix Native & Exotic				
ARc	<i>Arthropodium cirratum</i>	New Zealand Rock Lily	140mm	0.9m / 1.0m
BAV	<i>Babingtonia virgata</i> 'Howie's Sweet Midget'	Heath Myrtle	140mm	0.8m / 0.8m
BL	<i>Blechnum</i> 'Silver Lady'	Fishbone Water Fern	140mm	0.8m / 0.6m
SAC	<i>Santolina chamaecyparissus</i>	Cotton Lavender	200mm	0.7m / 0.7m
SHRUB SPECIES - SMALL (<0.6m) - Mix Native & Exotic				
WEG	<i>Westringia 'Grey Box'</i>	Coastal Rosemary	140mm	0.5m / 0.5m
GRASS / STRAPPY SPECIES - LARGE (>0.7m) - Mix Native & Exotic				
DYE	<i>Doryanthes excelsa</i>	Gymea Lily	300mm	2.0m / 2.0m
LDip	<i>Lomandra 'Little Pal'</i>	Lomandra 'Little Pal'	140mm	0.8m / 0.5m
GRASS / STRAPPY SPECIES - SMALL/MEDIUM (<0.7m) - Mix Native & Exotic				
DLCb	<i>Dianella 'Cassa Blue'</i>	Flax Lily	140mm	0.5m / 0.4m
DTg	<i>Dietes grandiflora</i> 'Grand Star'	Dietes	140mm	0.7m / 0.6m
FEg	<i>Festuca glauca</i>	Blue Fescue	140mm	0.3m / 0.3m
IMc	<i>Imperata cylindrica</i>	Blady Grass	140mm	0.3m / 0.3m
LD	<i>Lomandra 'Lime Tuff'</i>	Mat-Rush	140mm	0.5m / 0.6m
LDc	<i>Lomandra conchilifolia</i> ssp. <i>rubiginosa</i>	'Mist' Mat-Rush	140mm	0.3m / 0.3m
GROUND COVER & CLIMBER SPECIES - Mix Native & Exotic				
CAS	<i>Casuarina glauca</i> 'Cousin It'	She-oak	140mm	0.3m / 1.2m
MYp	<i>Myoporum parvifolium</i> 'Yareena'	Creeping boobialla	140mm	0.1m / 1.0 m
PAP	<i>Pandorea pandorana</i>	Wonga Wonga Vine	140mm	3.0m / 2.0m
RSO	<i>Rosmarinus officinalis</i> 'Prostratus'	Creeping Rosemary	140mm	0.5m / 1.2m
TRA	<i>Trachelospermum asiaticum</i> 'Flat Mat'	Asiatic Jasmine	140mm	0.3m / 1.5m



Attachment 4

Wollongong Design Review Panel MS Teams Meeting Meeting minutes and recommendations

Date	15 November 2021
Meeting location	Wollongong City Council Administration Offices
Panel members	(Chair) David Jarvis (Member) Tony Tribe (Member) Sue Hobley
Apologies	Pier Panozzo – Development Assessment & Certification Manager (Acting)
Council staff	Nigel Lamb – City Centre & Major Projects Manager (Acting) Alexandra McRobert – City Architect
Guests/ representatives of the applicant	Peter Rasa – PRD Architects Diego Quinones – PRD Architects David Pearce – DSB Landscapes Lauren Turner – MMJ Wollongong
Declarations of Interest	None
Item number	1
DA number	DA-2021/1117
Reason for consideration by DRP	SEPP 65 WLEP 2009 –Design Excellence (Wollongong City Centre)
Determination pathway	Wollongong Local Planning Panel
Property address	1-3- Church Street, Wollongong
Proposal	Demolition of existing structures and construction of a residential flat building
Applicant or applicant's representative address to the design review panel	The meeting was conducted by video link between the Panel (remote) and the Applicant's team (remote)
Background	The site was Inspected by the Panel on 24 May 2021. The Panel previously reviewed the proposal as a pre DA application on the 24 th May 2021.
Design quality principals SEPP 65	
Context and Neighbourhood Character	<p>The proposal is located in a high-density residential neighbourhood. Several sites have been developed to realise the full development potential of council's controls, whilst some sites still contain lower density residential buildings yet to be developed.</p> <p>Council's current controls allow an FSR of 1.5:1 and a height of 32m (9 storeys). This combination can potentially provide tall slender buildings in a landscape setting.</p> <p>A single residential dwelling is located on the neighbouring site to the south (5 Church Street). This site will be isolated if the subject site is developed as currently proposed. A study has been provided (as requested by the Panel) to demonstrate the proposal's impact upon the neighbouring site and ascertain the sites development potential. The study consists of floor plans documenting a three-storey dual occupancy on the neighbouring site (5 Church Street). The applicant advised that the site is too constrained to accommodate an RFB. No information was provided to accurately determine the extent to which the dual occupancy would be overshadowed by the proposed development and no information was provided to confirm the potential FSR of the dual occupancy.</p>

	<p>From the information provided by the applicant it appears that 5 Church Street will not be capable of realising its full development potential if developed in isolation. Shadow diagrams provided by the applicant also demonstrate that solar access to the existing single dwelling to the south (5 Church Street) will be severely impacted.</p> <p>Survey, Site and Context Analysis Plans omit reference to other significant issues impacting on site planning, building and landscape design. Notably lacking is information about the constraints of the sewer main to the rear of the site, and the need to cater for stormwater overland flow. In the absence of such information, this was not flagged at the previous Panel meeting for this matter. Council has now advised that the sewer line runs centrally through the proposed deep soil zone and that significant stormwater constraints have not been satisfactorily addressed</p> <p>The deletion of the sub-station is noted; confirmation from the relevant authority that it is no longer a requirement should be provided with the DA.</p>
<p>Built Form and Scale</p>	<p>In response to the Panel's previous comments the ground floor plan has been developed to contain two residential units (3 units were previously proposed) and provide an increased area of communal open space. This is a positive development that is endorsed by the Panel. However, the depth of the northern portion of the undercroft is now a little excessive, restricting direct sunlight into the communal open space. Consideration should be given to refining the layout of unit 2 to reduce the extent of the northern undercroft. The introduction of an accessible wc to service the communal open space may also assist in reducing the depth of the undercroft. A maximum undercroft depth of 3m is recommended.</p> <p>Unit 1 has been developed with a north facing balcony and living room. However, the balcony directly abuts the vehicular ramp to the basement and the living room window is setback in excess of 4m from the edge of the balcony above. Given these constraints the Panel questions the level of amenity the unit's northern orientation will provide, both outlook and solar access appear to be compromised. It is suggested that the unit plan be developed to better address the street. The balcony could wrap around the western face of the unit and more generously proportioned windows doors provided to address the street. Given that the unit is approximately 1m above street level in this location, careful detailing of the interface between the balcony and street could maintain privacy within the unit. The applicant's suggested modification of the Level 1 slab over (less overhang, deeper curved recess) should be pursued to assist resolution of these concerns.</p> <p>The street entry has been rationalized (in response to the Panel's previous comments) to provide improved opportunity for landscaping adjacent to the southern boundary. The applicant is requested to provide a clear perspective of the entrance to demonstrate that the pedestrian entry is clear and legible from the street and presents as a neighbourly address in the streetscape.</p>

The northern edge of the ground floor communal open space is elevated approximately 2m above natural ground level, creating potential privacy issues with the adjoining neighbour and a deep narrow setback between the boundary fence and the building base. Detail resolution should seek to minimise potential privacy issues and ensure a serviceable landscaped interface is provided adjacent to the northern boundary.

The requirement for an adequate overland flow path to the street for stormwater from the south and east needs to be addressed. The physical dimensions, and allowable obstructions, will likely impact on setbacks, planting plans and layout of communal open space.

Level 1 balconies appear to be excessively deep in places (up to 6m from the face of the balcony above) limiting solar access to the private open space. Further development should seek to improve / demonstrate the quality of level 1 balconies and the amenity of ground floor uses below.

The tower steps from two units per level, to a single unit at level 4. To maintain compliance with ADG setback objectives, the north facing balconies have been setback approximately 2m from the edge of the slab, creating an awkward transition between balcony and roof slab. An image has been provided outlining the intent to provide planting that is level with the slab in the zone between the balcony and roof edge. However, it is unclear how the depth of the slab as depicted in sections and perspectives can accommodate the proposed planting. Further detail resolution of this interface is required. Perhaps the north face of the slab could be contoured / curved to limit the extent of ADG noncompliance, allowing the balcony to extend to the northern edge of the slab. Areas of the balcony that sit within the 9m setback zone could be treated with screens or planters to limit potential privacy issues and maintain consistency with ADG objectives. This strategy should be considered as part of a holistic response to the northern façade that builds upon the curved recess proposed at level 2 to provide a more organic, curved façade that alters slightly at each level.

Planters are shown in numerous locations on the façade. They will potentially provide a positive contribution to the building aesthetic. However, further detail development is required to integrate the planters into the building form. In particular, it should be clarified how the planters are irrigated, drained, maintained and integrated with the balcony balustrades.

The proposal is largely compliant with ADG (part 3F) setback objectives. However, the level 8 terrace intrudes into the required 12m setback zone on its northern and eastern edges. In the building's existing context, this non-compliance does not appear to be creating privacy issues with neighbours. However, neighbouring sites to the east and north may be impacted when / if developed in the future.

	<p>Basement (and all) wall setbacks should be modified to indicate clear dimensions to the <u>outside</u> face of walls, to ensure measurable compliance on completion.</p>
Density	<p>The proposal appears to be consistent with council's FSR control and future desired character of this precinct.</p>
Sustainability	<p>Opportunities to harvest rainwater for use in maintaining any plantings established on the building or the site should be explored. Other water minimization measures (reuse of rainwater for toilet flushing and washing machines) should also be considered.</p> <p>The use of solar power and water heating is strongly encouraged, particularly to service communal circulation and parking areas.</p> <p>Low embodied energy should be a consideration in material and finish selections.</p> <p>Landscape plantings should address aims for biodiversity protection, weed minimisation and low water use.</p> <p>The Panel does not support the use of pebbles for mulch or 'decoration' of roofs due to impacts of their extraction on natural systems and the extremely high level of maintenance required to maintain them free of weeds, litter and pollutants.</p>
Landscape	<p>The landscape plan will need to be included in the amended documentation required to address issues raised above in this report. The following concerns should be addressed in the redesign:</p> <ul style="list-style-type: none"> - The architectural and landscape plans should be coordinated to ensure all proposed built works, key finished hardstand and soil levels are shown on the architectural and landscape plans. This includes all works from the street kerb to the street boundary. - The constraints imposed by the sewer line must be addressed in a manner that is both acceptable to council's engineer and that achieves the high level of amenity (such as privacy, shade, screening and functional space) envisaged for deep soil zones on developments of this nature. - The overland stormwater flow path must satisfy the requirements of council's engineers (eg in terms of dimensions and plantings relation). This has implications for the siting of the driveway ramp, fire stair egress points, retaining walls etc. but it also raises further questions about the proposed privacy plantings in the setback to the northern neighbour. The Panel is not convinced that the proposed narrow setback lying below the retaining wall to the driveway ramp is suitable in terms of plant establishment or access for maintenance. The redesign needs to ensure that high quality plantings

	<p>can be established to achieve a desirable level of screening for privacy and amenity.</p> <ul style="list-style-type: none"> - A more considered approach to planting locations (and mounding) needs to be taken in relation to the ground floor units whose windows are expected to provide cross-ventilation: dense shrub/tree plantings will limit airflow, access to daylight and outlook. - The extensive area of compacted gravel in the south-eastern corner of the communal open space defeats the purpose of the deep soil zone; the option to have a curved path for access via the southern setback should be explored. - The interface between the ground floor units and the communal open space needs better resolution. While privacy is a concern, it should not be at the expense of amenity. The landscape designer needs to work closely with the architect to better resolve the problems that remain once the building overhang has been realigned to reduce the depth of the undercroft. The building columns need to be considered as part of this. - The residential address is too weak; the high gate set among dense, large shrubs is a poor approach. - The current scheme includes extensive retaining walls. Options should be explored to reduce them where possible. The planting plan should ensure that they are largely screened and that the development presents as a building set among trees and greenery. Hedges planted between fences/buildings and trees that will overshadow them are not recommended. - There appears to be an opportunity to establish several – rather than just one – street trees at the front of this site. Council should be consulted in this regard. - The Panel strongly encourages the planting of locally indigenous canopy trees for all plantings (including street trees) in the development’s landscape. - The Panel recommends that the level 4 roof terrace be reconfigured to reduce the expanse of non-trafficable area.
<p>Amenity</p>	<p>The proposal appears to be capable of complying with ADG objectives for both solar access and natural cross ventilation. Solar access diagrams have now been provided to confirm solar access compliance.</p> <p>The solar access study should be extended to tabulate the full extent of the impact upon the neighbour to the south for both the existing dwelling and potential built form on 5 Church Street.</p> <p>Units have been developed to generally provide a good level of amenity to residents.</p> <p>The Panel suggested relocating the living areas of units 5 and 7 to the north-west corner of the building to provide more natural light and outlook to living areas. The applicant advised that the</p>

	<p>living rooms in these units were positioned to maximise outlook through a view corridor to the northeast.</p> <p>The extension of Unit 2 private open space around to the north undercroft as proposed results in functional problems and poor amenity for both the unit and the adjacent communal open space. As discussed at the meeting, pulling back the overhang to reduce the depth of the undercroft and taking into account the locations of supporting columns should inform the layout of the spaces and how privacy issues, access to natural light and viability of plantings can be resolved. It may be that the northern portion of unit 2's terrace should be deleted and/or translucent glass used at the entry to the unit.</p>
Safety	<p>It is strongly recommended that a NCC BCA report accompany any DA, confirming compliance with core access, egress, separation and fire-fighting equipment requirements. The proposed extensive use of aluminum facade cladding warrants particular attention.</p> <p>External AC condenser positions should be indicated on all floors demonstrating that safety and private open space area compliance is not jeopardised.</p>
Housing Diversity and Social Interaction	<p>The proposed development would provide an appropriate contribution to the housing stock of this precinct. Further development of the ground floor communal open space is recommended to encourage social interaction between residents.</p>
Aesthetics	<p>The perspectives provided show a promising start to developing an appropriate and competent aesthetic. However, further detail information is required to ensure that the design intent is realized. A larger scale detail section would assist in providing a better understanding of the quality of finish being proposed and also help to ensure that the architect's design intent is realised.</p> <p>The exposed slab aesthetic shown in the perspectives is a reasonable strategy if appropriately detailed and developed in conjunction with a high-quality material pallet. Reliance on large areas of painted surfaces is discouraged, as this is likely to age poorly and create long-term maintenance issues. The use of timber (timber look) screening / blades as currently shown is encouraged</p> <p>Care should be taken to ensure that clearly identified functions are addressed, and screens are not simply superficial decorative elements. For example:</p> <ul style="list-style-type: none"> - Are the screens shown on the north-eastern corner of the building restricting outlook? - What is the purpose of the vertical screens on the northern façade, directly in front of the dining rooms of units 5 and 7? - Are screens fixed or operable? <p>Further detail information / clarification is required.</p>

	<p>Consideration should also be given to incorporating high quality finishes, eg white brick, into the lower levels of the building. All materials and finishes must be clearly documented, including type of brick selected, type of glazing (material, finish and colour) type of cladding, type of balustrade (frameless / semi frameless / handrail / material finish) treatment of soffit, detail of louvres etc. Information should include built landscape elements, garden walls, edgings, fences, paving.</p> <p>The colorbond fencing proposed to side and rear boundaries is not supported. The panel favours a discreet open mesh type fence form in a recessive colour for security with reliance on shrub and climber planting for screening.</p> <p>Servicing of the building must be considered at this stage of the design process. The location of service risers, car park exhausts, AC condensers, down pipes and fire hydrant boosters should be accommodated. It must also be determined if a sub-station is required.</p>
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Design Excellence WLEP2009	
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<p>Whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved</p>	<p>Further detail information is required to ensure the design intent outlined in perspectives is realised.</p>
<p>Whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,</p>	<p>The proposal will provide a positive contribution to the street, pending detail resolution of materials, finishes and landscape</p>
<p>Whether the proposed development detrimentally impacts on view corridors,</p>	<p>None apparent.</p>
<p>Whether the proposed development detrimentally overshadows an area shown distinctively coloured and numbered on the Sun Plane Protection Map,</p>	<p>The extent of overshadowing of 5 Church Street remains a concern. The impacts on both the existing house and potential future development of the site need to be quantified and assessed.</p>
<p>How the development addresses the following:</p>	
<p>the suitability of the land for development,</p>	<p>The proposed site will comfortably accommodate a RFB of the proposed scale. However, the contextual analysis provided by the applicant demonstrates that the development potential of the neighbouring site to the south will be compromised if developed in isolation.</p>
<p>existing and proposed uses and use mix</p>	<p>The use of this site as a RFB is consistent with council's vision for this precinct.</p>

heritage issues and streetscape constraints,	The proposal addresses the street in a reasonable manner. However, the scale of the proposal in relation to the single storey dwelling to the south is a concern, given that the development potential of this site appears to be significantly compromised.
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,	The proposed tower is appropriately located.
bulk, massing and modulation of buildings	The scale of the building is consistent with Council's vision for this area. The building form has been articulated to express the form of the building in a reasonable manner.
street frontage heights	Reasonable.
environmental impacts such as sustainable design, overshadowing, wind and reflectivity	The extent of overshadowing of 5 Church Street remains a concern, given that the development potential of this site appears to be compromised.
the achievement of the principles of ecologically sustainable development	Specific measures to be incorporated need to be clearly delineated.
pedestrian, cycle, vehicular and service access, circulation and requirements	Appears capable of meeting standards.
impact on, and any proposed improvements to, the public domain	Opportunities to enhance and green the streetscape to improve the visual and pedestrian amenity are discussed above.
Key issues, further Comments & Recommendations	<p>The proposal has been developed to provide a reasonable contextual response to the site and generally provide a good level of amenity to residents. However, the isolation of the site to the south (5 Church Street) has compromised the development potential of the neighbour. The Panel is concerned that this will not allow the street to develop to realise councils vision for this precinct or provide a cohesive street scape.</p> <p>Additional detail issues requiring further resolution include:</p> <ul style="list-style-type: none"> - Refinement of the communal open space. - Refinement of unit 1 to improve amenity / street address - Provide a perspective to demonstrate a legible street entry - Detail resolution of communal terraces interface with the northern boundary - Refinement of northern façade to improve solar access to level 1 balconies. - Clearly tabulate the solar access to 5 Church Street, to what extent is solar access being reduced. - Provide a detail sections through the building.

Date: 30 January, 2021

Re: 5 Church Street, Wollongong 2500 NSW

To whom it may concern,

We write this letter to inform that we do not intend to sell our property to MIND Property Group after being presented with a final offer of \$2,100,000.

We understand that both number 1 and 3 Church St have committed to selling their houses and understand that apartments will be developed on the sites next to us.

Yours Sincerely,

E. J. McNamara

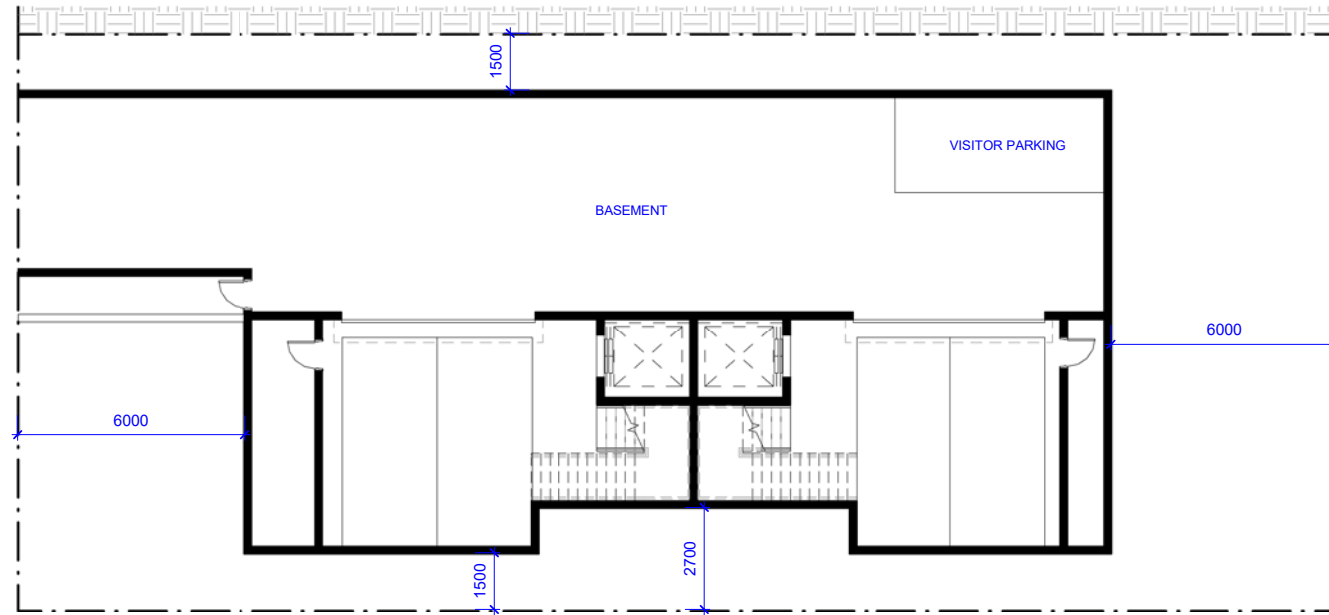
Name: *B. A. McNamara* *C. McNamara*

E. J. McNamara
Signature: *B. A. McNamara*

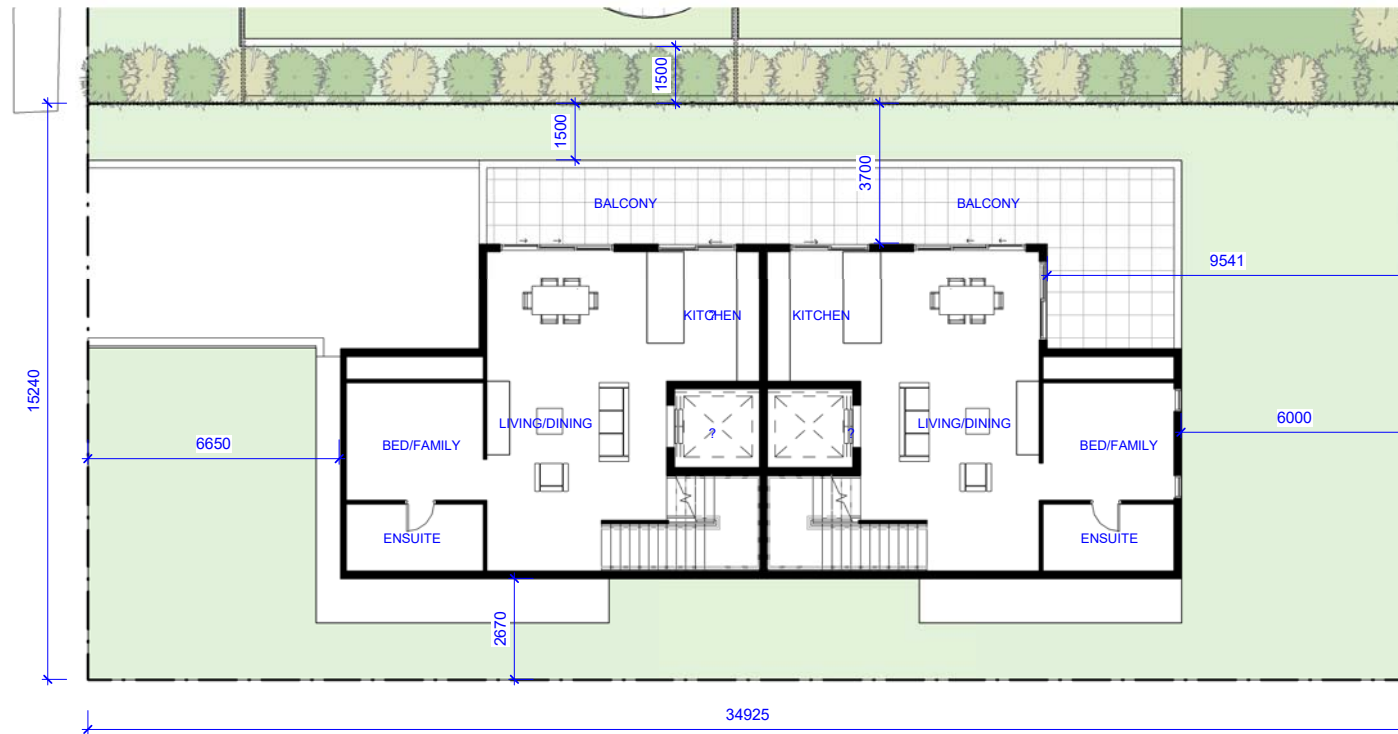
Date: *30/1/2021*



No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DO
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DO



1 NO. 5 CHURCH STREET - BASEMENT
 1 : 100



2 NO. 5 CHURCH STREET - GROUND FLOOR
 1 : 100

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6920
 Client:
MIND PROPERTY GROUP



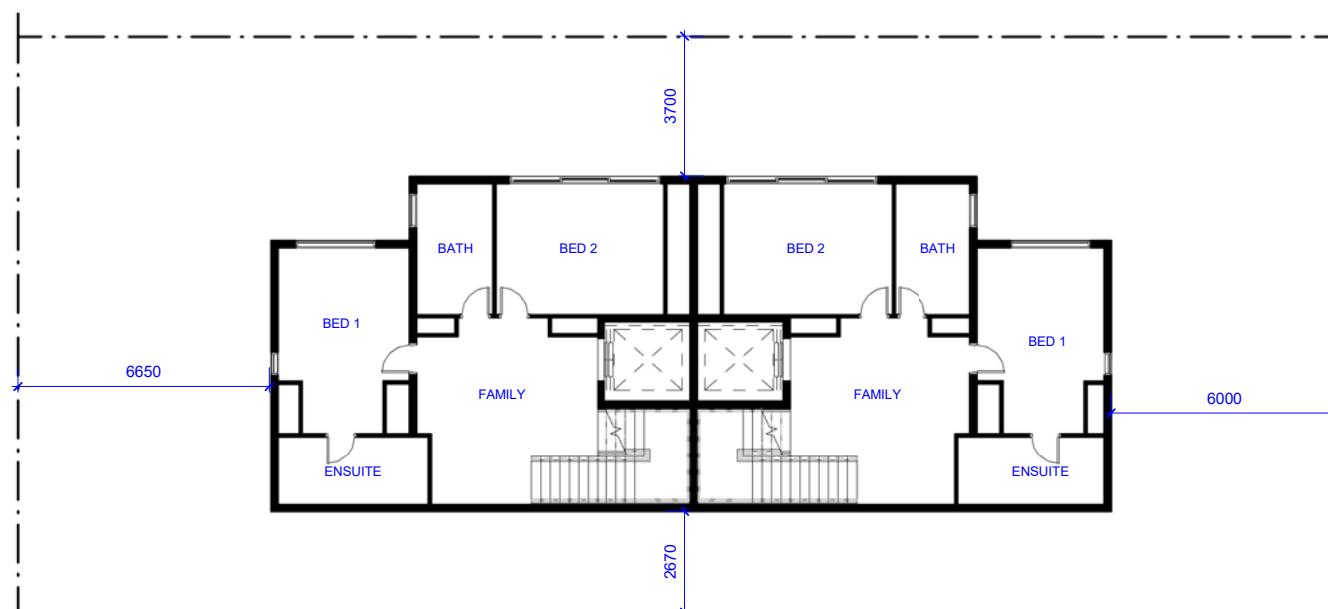
Title:
NO.5 CHURCH STREET - CONTEXTUAL STUDY

Date: 13.12.2021	Job No: 20-59	Dwg: DA-40	Rev:
Scale: 1 : 100			

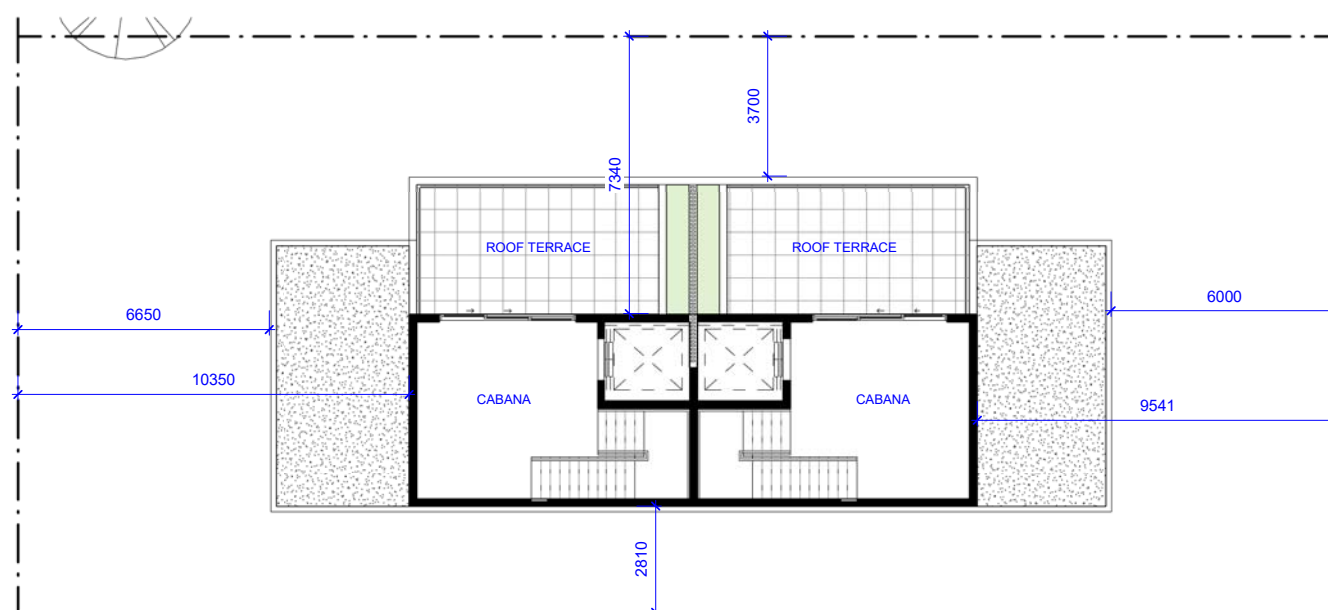




No.	Revision Description	Date	BY:
A	ISSUED FOR DEVELOPMENT APPLICATION	17.09.2021	DO
B	ISSUED FOR ADDITIONAL INFORMATION	13.12.2021	DO



1 NO. 5 CHURCH STREET - LEVEL 1
 1 : 100



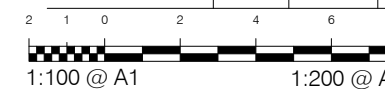
2 NO. 5 CHURCH STREET - ROOF TERRACE
 1 : 100

Project:
RESIDENTIAL APARTMENT BUILDING
 1 & 3 CHURCH STREET, WOLLONGONG
 LOTS 33 & 34 IN DP 6920
 Client:
MIND PROPERTY GROUP



Title:
NO.5 CHURCH STREET - CONTEXTUAL STUDY

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Standards/controls

Comment

Objective 3B-2

Overshadowing of neighbouring properties is minimised during mid winter

Design guidance

Living areas, private open space and communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access

Solar access to living rooms, balconies and private open spaces of neighbours should be considered

Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%

If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy

Overshadowing should be minimised to the south or down hill by increased upper level setbacks

It is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development

A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings

Overshadowing of neighbouring properties is considered acceptable. The height complies with the LEP and the tower form complies with rear and front setbacks with the exception of variations at the upper levels.

The property to the immediate south of the site containing a single dwelling will be overshadowed throughout the middle of the day but will receive morning and afternoon sun.

Potential redevelopment of that land would be required to optimise easterly and westerly orientation in order to compensate for the substantial difference in scale to the proposed development however this would appear possible by having a single unit per floor.

3C Public domain interface**Objective 3C-1**

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

Design guidance

Terraces, balconies and courtyard apartments should have direct street entry, where appropriate

Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings (see figure 3C.1)

Upper level balconies and windows should overlook the public domain

Front fences and walls along street frontages should use visually permeable materials and treatments. The height of solid fences or walls should be limited to 1m

Length of solid walls should be limited along street frontages

Opportunities should be provided for casual interaction between residents and the public domain. Design solutions may include seating at building entries, near letter boxes and in private courtyards adjacent to streets

In developments with multiple buildings and/or entries, pedestrian entries and spaces associated with individual buildings/entries should be differentiated to improve legibility for residents, using a number of the following design solutions:

- architectural detailing
- changes in materials
- plant species
- colours

Opportunities for people to be concealed should be minimised

The proposal provides a pleasant street address with generous landscaped areas and a legible entry.

Standards/controls

Comment

<i>Standards/controls</i>	<i>Comment</i>
Objective 3C-2 Amenity of the public domain is retained and enhanced	<p>Landscaping is provided to soften exposed walls of the basement.</p> <p>Mailboxes are provided within a wall adjacent to the entry perpendicular to the street.</p> <p>No substation is proposed.</p>
Design guidance	
Planting softens the edges of any raised terraces to the street, for example above sub-basement car parking	
Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	
The visual prominence of underground car park vents should be minimised and located at a low level where possible	
Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view	
Ramping for accessibility should be minimised by building entry location and setting ground floor levels in relation to footpath levels	
Durable, graffiti resistant and easily cleanable materials should be used	
Where development adjoins public parks, open space or bushland, the design positively addresses this interface and uses a number of the following design solutions: <ul style="list-style-type: none">• street access, pedestrian paths and building entries which are clearly defined• paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space• minimal use of blank walls, fences and ground level parking	
On sloping sites protrusion of car parking above ground level should be minimised by using split levels to step underground car parking	

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

Design criteria

1. Communal open space has a minimum area equal to 25% of the site (see figure 3D.3)
2. Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)

Design guidance

Communal open space should be consolidated into a well designed, easily identified and usable area

Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions

Communal open space should be co-located with deep soil areas

Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies

Where communal open space cannot be provided at ground level, it should be provided on a podium or roof

Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they should:

- provide communal spaces elsewhere such as a landscaped roof top terrace or a common room
- provide larger balconies or increased private open space for apartments
- demonstrate good proximity to public open space and facilities and/or provide contributions to public open space

The proposal includes a communal open space on the podium of approximately 210m² which equates to ~20% of the site area. This is consistent with the DCP rate of 5m²/dwelling.

The communal open space will exceed the 50% direct sunlight requirement.

Standards/controls

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

Design guidance

Facilities are provided within communal open spaces and common spaces for a range of age groups (see also 4F Common circulation and spaces), incorporating some of the following elements:

- seating for individuals or groups
- barbecue areas
- play equipment or play areas
- swimming pools, gyms, tennis courts or common rooms

The location of facilities responds to microclimate and site conditions with access to sun in winter, shade in summer and shelter from strong winds and down drafts

Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks

Objective 3D-3

Communal open space is designed to maximise safety

Design guidance

Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy. Design solutions may include:

- bay windows
- corner windows
- balconies

Communal open space should be well lit

Where communal open space/facilities are provided for children and young people they are safe and contained

The design and location of the communal open space area is considered to provide suitable amenity and includes a toilet, BBQ area and seating.

The communal open space is secure and safe.

Standards/controls

Comment

Objective 3D-4

Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood

Design guidance

The public open space should be well connected with public streets along at least one edge

The public open space should be connected with nearby parks and other landscape elements

Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid

Solar access should be provided year round along with protection from strong winds

Opportunities for a range of recreational activities should be provided for people of all ages

A positive address and active frontages should be provided adjacent to public open space

Boundaries should be clearly defined between public open space and private areas

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

Design criteria

- 1. Deep soil zones are to meet the following minimum requirements:

Site area	Minimum dimensions	Deep soil zone (% of site area)
less than 650m ²	-	7%
650m ² - 1,500m ²	3m	
greater than 1,500m ²	6m	
greater than 1,500m ² with significant existing tree cover	6m	

A deep soil zone is provided along the rear of the site. The deep soil zone represents approximately 20% of the site area.

Standards/controls

Comment

Design guidance

On some sites it may be possible to provide larger deep soil zones, depending on the site area and context:

- 10% of the site as deep soil on sites with an area of 650m² - 1,500m²
- 15% of the site as deep soil on sites greater than 1,500m²

Deep soil zones should be located to retain existing significant trees and to allow for the development of healthy root systems, providing anchorage and stability for mature trees. Design solutions may include:

- basement and sub basement car park design that is consolidated beneath building footprints
- use of increased front and side setbacks
- adequate clearance around trees to ensure long term health
- co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil

Achieving the design criteria may not be possible on some sites including where:

- the location and building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres)
- there is 100% site coverage or non-residential uses at ground floor level

Where a proposal does not achieve deep soil requirements, acceptable stormwater management should be achieved and alternative forms of planting provided such as on structure

There are no significant trees to be retained.

The deep soil area can accommodate trees.

It is noted there is a sewer line running along the rear boundary however it is considered this will not unreasonably compromise establishment of significant vegetation. Root protection barriers are to be installed to mitigate any impacts from trees to that pipe.

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

Design criteria

1. Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:

Building height	Habitable rooms and balconies	Non-habitable rooms
up to 12m (4 storeys)	6m	3m
up to 25m (5-8 storeys)	9m	4.5m
over 25m (9+ storeys)	12m	6m

Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2)

Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties

The proposal complies with setbacks with the exception of the upper two levels where side setbacks are 9m.

The variation is considered acceptable with regard to the existing tower forms (which are lower and don't have a direct interface) and potential future redevelopment.

Standards/controls

Comment

Design guidance

Generally one step in the built form as the height increases due to building separations is desirable. Additional steps should be careful not to cause a 'ziggurat' appearance

For residential buildings next to commercial buildings, separation distances should be measured as follows:

- for retail, office spaces and commercial balconies use the habitable room distances
- for service and plant areas use the non-habitable room distances

New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include:

- site layout and building orientation to minimise privacy impacts (see also section 3B Orientation)
- on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)

Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)

Direct lines of sight should be avoided for windows and balconies across corners

No separation is required between blank walls

The tower form generally has one setback up to four storeys with the remainder of the tower having a separate building setback.

The layout of the units is considered to be acceptable with regard to privacy and overlooking.

Standards/controls

Comment

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 private open space

Design guidance

Communal open space, common areas and access paths should be separated from private open space and windows to apartments, particularly habitable room windows. Design solutions may include:

- setbacks
- solid or partially solid balustrades to balconies at lower levels
- fencing and/or trees and vegetation to separate spaces
- screening devices
- bay windows or pop out windows to provide privacy in one direction and outlook in another
- raising apartments/private open space above the public domain or communal open space
- planter boxes incorporated into walls and balustrades to increase visual separation
- pergolas or shading devices to limit overlooking of lower apartments or private open space
- on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels to windows and/or balconies

Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas

Balconies and private terraces should be located in front of living rooms to increase internal privacy

Windows should be offset from the windows of adjacent buildings

Recessed balconies and/or vertical fins should be used between adjacent balconies

Suitable separation is provided between the communal open space and units within the development and adjoining sites through use of privacy screens landscaped areas and orientation.

Bedrooms are separated from common areas.

Balconies are located in front of living rooms.

Orientation of windows is generally between northwest and northeast to maximise solar access. Towards the west the road provides added distance to built form in that direction. To the north, the tower form turns its back on the development. To the north east, land will likely be redeveloped in future for other tower form which would also seek to maximise northerly aspect and views towards the escarpment and ocean away from the subject site.

Adjacent balconies within the development are separated by fin walls.

3G Pedestrian access and entries**Objective 3G-1**

Building entries and pedestrian access connects to and addresses the public domain

Design guidance

Multiple entries (including communal building entries and individual ground floor entries) should be provided to activate the street edge

Entry locations relate to the street and subdivision pattern and the existing pedestrian network

Building entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries

Where street frontage is limited and multiple buildings are located on the site, a primary street address should be provided with clear sight lines and pathways to secondary building entries

Objective 3G-2

Access, entries and pathways are accessible and easy to identify

Design guidance

Building access areas including lift lobbies, stairwells and hallways should be clearly visible from the public domain and communal spaces

The design of ground floors and underground car parks minimise level changes along pathways and entries

Steps and ramps should be integrated into the overall building and landscape design

For large developments 'way finding' maps should be provided to assist visitors and residents (see figure 4T.3)

For large developments electronic access and audio/video intercom should be provided to manage access

The proposed building has a legible street address.

As noted above the entry is clearly identifiable from the street and secure.

The car park, whilst protruding from the ground, does take advantage of the slope of the land to come in at the low point and sink the basement below ground at the high point. Where the basement does protrude above ground, boundary landscaping is provided to screen this.

Standards/controls

Comment

Objective 3G-3

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

Design guidance

Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport

Pedestrian links should be direct, have clear sight lines, be overlooked by habitable rooms or private open spaces of dwellings, be well lit and contain active uses, where appropriate

N/A

3H Vehicle access

Objective 3H-1

Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes

Design guidance

Car park access should be integrated with the building's overall facade. Design solutions may include:

- the materials and colour palette to minimise visibility from the street
- security doors or gates at entries that minimise voids in the facade
- where doors are not provided, the visible interior reflects the facade design and the building services, pipes and ducts are concealed

The vehicle access point has compliant sight lines and does not dominate the streetscape.

The entry is behind the building line.

The width is no greater than it needs to be to facilitate safe manoeuvring.

A garbage enclosure is provided within the basement.

Standards/controls

Comment

Car park entries should be located behind the building line	
Vehicle entries should be located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout	
Car park entry and access should be located on secondary streets or lanes where available	
Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided	
Access point locations should avoid headlight glare to habitable rooms	
Adequate separation distances should be provided between vehicle entries and street intersections	
The width and number of vehicle access points should be limited to the minimum	
Visual impact of long driveways should be minimised through changing alignments and screen planting	
The need for large vehicles to enter or turn around within the site should be avoided	
Garbage collection, loading and servicing areas are screened	
Clear sight lines should be provided at pedestrian and vehicle crossings	
Traffic calming devices such as changes in paving material or textures should be used where appropriate	
Pedestrian and vehicle access should be separated and distinguishable. Design solutions may include: <ul style="list-style-type: none">• changes in surface materials• level changes• the use of landscaping for separation	

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

Design criteria

1. For development in the following locations:

- on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or
- on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less

The car parking needs for a development must be provided off street

Design guidance

Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site

Where less car parking is provided in a development, council should not provide on street resident parking permits

Objective 3J-2

Parking and facilities are provided for other modes of transport

Design guidance

Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters

Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas

Conveniently located charging stations are provided for electric vehicles, where desirable

The proposal provides compliant car parking.

Compliant motorcycle and bicycle parking is provided.

Standards/controls

Comment

3J Bicycle and car parking

Objective 3J-3

Car park design and access is safe and secure

Design guidance

Supporting facilities within car parks, including garbage, plant and switch rooms, storage areas and car wash bays can be accessed without crossing car parking spaces

Direct, clearly visible and well lit access should be provided into common circulation areas

A clearly defined and visible lobby or waiting area should be provided to lifts and stairs

For larger car parks, safe pedestrian access should be clearly defined and circulation areas have good lighting, colour, line marking and/or bollards

A secure bicycle enclosure is provided within the basement.

Standards/controls

Comment

Objective 3J-4

Visual and environmental impacts of underground car parking are minimised

Design guidance

Excavation should be minimised through efficient car park layouts and ramp design

Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles

Protrusion of car parks should not exceed 1m above ground level. Design solutions may include stepping car park levels or using split levels on sloping sites

Natural ventilation should be provided to basement and sub basement car parking areas

Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design

The proposal is not considered to result in unreasonable excavation.

The layout is efficient and logical.

Whilst the basement extrudes slightly greater than 1m above ground, this is only at the lowest point and allows for more gentle grade into the car park. Exposed basement is suitably screened and setback from the boundary.

Objective 3J-5

Visual and environmental impacts of on-grade car parking are minimised

Design guidance

On-grade car parking should be avoided

Where on-grade car parking is unavoidable, the following design solutions are used:

- parking is located on the side or rear of the lot away from the primary street frontage
- cars are screened from view of streets, buildings, communal and private open space areas
- safe and direct access to building entry points is provided
- parking is incorporated into the landscape design of the site, by extending planting and materials into the car park space
- stormwater run-off is managed appropriately from car parking surfaces
- bio-swales, rain gardens or on site detention tanks are provided, where appropriate
- light coloured paving materials or permeable paving systems are used and shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures from large areas of paving

N/A

Standards/controls

Comment

<p>Objective 3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised</p>	<p>The exposed basement does not directly face the street and is screened with landscaping.</p> <p>A suitable street address is provided.</p>
<p>Design guidance</p>	
<p>Exposed parking should not be located along primary street frontages</p>	
<p>Screening, landscaping and other design elements including public art should be used to integrate the above ground car parking with the facade. Design solutions may include:</p> <ul style="list-style-type: none">• car parking that is concealed behind the facade, with windows integrated into the overall facade design (approach should be limited to developments where a larger floor plate podium is suitable at lower levels)• car parking that is 'wrapped' with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage (see figure 3J.9)	
<p>Positive street address and active frontages should be provided at ground level</p>	

4A Solar and daylight access

<p>Objective 4A-1 To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space</p>	<p>The proposal provides compliant solar access.</p>
<p>Design criteria</p>	
<p>1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas</p>	
<p>2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter</p>	
<p>3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter</p>	

Standards/controls

Comment

Design guidance	
The design maximises north aspect and the number of single aspect south facing apartments is minimised	No south facing single aspect units are proposed.
Single aspect, single storey apartments should have a northerly or easterly aspect	Living areas are oriented to maximise outlook and solar access and all units have dual aspect.
Living areas are best located to the north and service areas to the south and west of apartments	
To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used: <ul data-bbox="256 779 770 954" style="list-style-type: none">• dual aspect apartments• shallow apartment layouts• two storey and mezzanine level apartments• bay windows	
To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m ² of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	
Achieving the design criteria may not be possible on some sites. This includes: <ul data-bbox="256 1256 868 1485" style="list-style-type: none">• where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source• on south facing sloping sites• where significant views are oriented away from the desired aspect for direct sunlight Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective	

Objective 4A-2

Daylight access is maximised where sunlight is limited

Design guidance

Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms

Where courtyards are used :

- use is restricted to kitchens, bathrooms and service areas
- building services are concealed with appropriate detailing and materials to visible walls
- courtyards are fully open to the sky
- access is provided to the light well from a communal area for cleaning and maintenance
- acoustic privacy, fire safety and minimum privacy separation distances (see section 3F Visual privacy) are achieved

Opportunities for reflected light into apartments are optimised through:

- reflective exterior surfaces on buildings opposite south facing windows
- positioning windows to face other buildings or surfaces (on neighbouring sites or within the site) that will reflect light
- integrating light shelves into the design
- light coloured internal finishes

Alternate measures for capturing daylight are not required.

Objective 4A-3

Design incorporates shading and glare control, particularly for warmer months

Design guidance

A number of the following design features are used:

- balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas
- shading devices such as eaves, awnings, balconies, pergolas, external louvres and planting
- horizontal shading to north facing windows
- vertical shading to east and particularly west facing windows
- operable shading to allow adjustment and choice
- high performance glass that minimises external glare off windows, with consideration given to reduced tint glass or glass with a reflectance level below 20% (reflective films are avoided)

Shade control is provided through vertical louvres and recessed living areas behind balconies along with minimising large west facing glazed areas.

4B Natural ventilation**Objective 4B-1**

All habitable rooms are naturally ventilated

Design guidance

The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms

Depths of habitable rooms support natural ventilation

The area of unobstructed window openings should be equal to at least 5% of the floor area served

Light wells are not the primary air source for habitable rooms

Doors and openable windows maximise natural ventilation opportunities by using the following design solutions:

- adjustable windows with large effective openable areas
- a variety of window types that provide safety and flexibility such as awnings and louvres
- windows which the occupants can reconfigure to funnel breezes into the apartment such as vertical louvres, casement windows and externally opening doors

Complies

Objective 4B-2

The layout and design of single aspect apartments maximises natural ventilation

Design guidance

Apartment depths are limited to maximise ventilation and airflow (see also figure 4D.3)

Natural ventilation to single aspect apartments is achieved with the following design solutions:

- primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation)
- stack effect ventilation / solar chimneys or similar to naturally ventilate internal building areas or rooms such as bathrooms and laundries
- courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation and avoid trapped smells

N/A

Standards/controls

Comment

Objective 4B-3

The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents

Design criteria

1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed
2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line

Design guidance

The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths

In cross-through apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side) (see figure 4B.4)

Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow

Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow

Complies

4C Ceiling heights**Objective 4C-1**

Ceiling height achieves sufficient natural ventilation and daylight access

Design criteria

1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are:

Minimum ceiling height for apartment and mixed use buildings	
Habitable rooms	2.7m
Non-habitable	2.4m
For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area
Attic spaces	1.8m at edge of room with a 30 degree minimum ceiling slope
If located in mixed used areas	3.3m for ground and first floor to promote future flexibility of use

These minimums do not preclude higher ceilings if desired

Design guidance

Ceiling height can accommodate use of ceiling fans for cooling and heat distribution

Complies

Objective 4C-2

Ceiling height increases the sense of space in apartments and provides for well proportioned rooms

Design guidance

A number of the following design solutions can be used:

- the hierarchy of rooms in an apartment is defined using changes in ceiling heights and alternatives such as raked or curved ceilings, or double height spaces
- well proportioned rooms are provided, for example, smaller rooms feel larger and more spacious with higher ceilings
- ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor and coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist

Complies

Standards/controls

Comment

Objective 4C-3

Ceiling heights contribute to the flexibility of building use over the life of the building

Design guidance

Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses (see figure 4C.1)

Complies

4D Apartment size and layout**Objective 4D-1**

The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity

Design criteria

1. Apartments are required to have the following minimum internal areas:

Apartment type	Minimum internal area
Studio	35m ²
1 bedroom	50m ²
2 bedroom	70m ²
3 bedroom	90m ²

The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m² each

A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m² each

2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms

Design guidance

Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)

A window should be visible from any point in a habitable room

Where minimum areas or room dimensions are not met apartments need to demonstrate that they are well designed and demonstrate the usability and functionality of the space with realistically scaled furniture layouts and circulation areas. These circumstances would be assessed on their merits

Room sizes comply.

Standards/controls

Comment

Objective 4D-2

Environmental performance of the apartment is maximised

Design criteria

1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height
2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window

Design guidance

Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths

All living areas and bedrooms should be located on the external face of the building

Where possible:

- bathrooms and laundries should have an external openable window
- main living spaces should be oriented toward the primary outlook and aspect and away from noise sources

Complies

Bathrooms generally have windows.

Living spaces are oriented towards views and to take advantage of sun. There are no significant noise sources in the locality.

Standards/controls

Comment

<p>Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs</p>	<p>Rooms comply with minimum recommended areas. Bedrooms do not open directly to living spaces and have suitable robe space.</p>
<p>Design criteria</p> <ol style="list-style-type: none"> 1. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space) 2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space) 3. Living rooms or combined living/dining rooms have a minimum width of: <ul style="list-style-type: none"> • 3.6m for studio and 1 bedroom apartments • 4m for 2 and 3 bedroom apartments 4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts 	
<p>Design guidance</p> <p>Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas</p> <p>All bedrooms allow a minimum length of 1.5m for robes</p> <p>The main bedroom of an apartment or a studio apartment should be provided with a wardrobe of a minimum 1.8m long, 0.6m deep and 2.1m high</p>	
<p>Apartment layouts allow flexibility over time, design solutions may include:</p> <ul style="list-style-type: none"> • dimensions that facilitate a variety of furniture arrangements and removal • spaces for a range of activities and privacy levels between different spaces within the apartment • dual master apartments • dual key apartments <p><i>Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the Building Code of Australia and for calculating the mix of apartments</i></p> <ul style="list-style-type: none"> • room sizes and proportions or open plans (rectangular spaces (2:3) are more easily furnished than square spaces (1:1)) • efficient planning of circulation by stairs, corridors and through rooms to maximise the amount of usable floor space in rooms 	

4E Private open space and balconies**Objective 4E-1**

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

Design criteria

1. All apartments are required to have primary balconies as follows:

Dwelling type	Minimum area	Minimum depth
Studio apartments	4m ²	-
1 bedroom apartments	8m ²	2m
2 bedroom apartments	10m ²	2m
3+ bedroom apartments	12m ²	2.4m

The minimum balcony depth to be counted as contributing to the balcony area is 1m

2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m

Design guidance

Increased communal open space should be provided where the number or size of balconies are reduced

Storage areas on balconies is additional to the minimum balcony size

Balcony use may be limited in some proposals by:

- consistently high wind speeds at 10 storeys and above
- close proximity to road, rail or other noise sources
- exposure to significant levels of aircraft noise
- heritage and adaptive reuse of existing buildings

In these situations, juliet balconies, operable walls, enclosed wintergardens or bay windows may be appropriate, and other amenity benefits for occupants should also be provided in the apartments or in the development or both. Natural ventilation also needs to be demonstrated

Balconies comply.

Standards/controls

Comment

Objective 4E-2

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

Design guidance

Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space

Private open spaces and balconies predominantly face north, east or west

Primary open space and balconies should be orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms

Complies

Standards/controls

Comment

Objective 4E-3

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

Design guidance

Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are designed to allow views and passive surveillance of the street while maintaining visual privacy and allowing for a range of uses on the balcony. Solid and partially solid balustrades are preferred

Full width full height glass balustrades alone are generally not desirable

Projecting balconies should be integrated into the building design and the design of soffits considered

Operable screens, shutters, hoods and pergolas are used to control sunlight and wind

Balustrades are set back from the building or balcony edge where overlooking or safety is an issue

Downpipes and balcony drainage are integrated with the overall facade and building design

Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design

Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and integrated in the building design

Ceilings of apartments below terraces should be insulated to avoid heat loss

Water and gas outlets should be provided for primary balconies and private open space

Objective 4E-4

Private open space and balcony design maximises safety

Design guidance

Changes in ground levels or landscaping are minimised

Design and detailing of balconies avoids opportunities for climbing and falls

Complies

Complies

4F Common circulation and spaces**Objective 4F-1**

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

Design criteria

1. The maximum number of apartments off a circulation core on a single level is eight
2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40

The common open space has a window and is suitable for the size and layout of the tower, which has only one to two units per floor.

Standards/controls

Comment

<i>Design guidance</i>	
Greater than minimum requirements for corridor widths and/or ceiling heights allow comfortable movement and access particularly in entry lobbies, outside lifts and at apartment entry doors	
Daylight and natural ventilation should be provided to all common circulation spaces that are above ground	
Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors	
Longer corridors greater than 12m in length from the lift core should be articulated. Design solutions may include: <ul style="list-style-type: none">• a series of foyer areas with windows and spaces for seating• wider areas at apartment entry doors and varied ceiling heights	
Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments	
Achieving the design criteria for the number of apartments off a circulation core may not be possible. Where a development is unable to achieve the design criteria, a high level of amenity for common lobbies, corridors and apartments should be demonstrated, including: <ul style="list-style-type: none">• sunlight and natural cross ventilation in apartments• access to ample daylight and natural ventilation in common circulation spaces• common areas for seating and gathering• generous corridors with greater than minimum ceiling heights• other innovative design solutions that provide high levels of amenity	
Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level	
Primary living room or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces to any other rooms should be carefully controlled	

Standards/controls

Comment

Objective 4F-2

Common circulation spaces promote safety and provide for social interaction between residents

Design guidance

Direct and legible access should be provided between vertical circulation points and apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines

Tight corners and spaces are avoided

Circulation spaces should be well lit at night

Legible signage should be provided for apartment numbers, common areas and general wayfinding

Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided

In larger developments, community rooms for activities such as owners corporation meetings or resident use should be provided and are ideally co-located with communal open space

Where external galleries are provided, they are more open than closed above the balustrade along their length

Complies

4G Storage**Objective 4G-1**

Adequate, well designed storage is provided in each apartment

Design criteria

1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:

Dwelling type	Storage size volume
Studio apartments	4m ³
1 bedroom apartments	6m ³
2 bedroom apartments	8m ³
3+ bedroom apartments	10m ³

At least 50% of the required storage is to be located within the apartment

Design guidance

Storage is accessible from either circulation or living areas

Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proof and screened from view from the street

Left over space such as under stairs is used for storage

Complies

Standards/controls

Comment

Objective 4G-2

Additional storage is conveniently located, accessible and nominated for individual apartments

Design guidance

Storage not located in apartments is secure and clearly allocated to specific apartments

Storage is provided for larger and less frequently accessed items

Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages so that allocated car parking remains accessible

If communal storage rooms are provided they should be accessible from common circulation areas of the building

Storage not located in an apartment is integrated into the overall building design and is not visible from the public domain

Complies

4H Acoustic privacy

Objective 4H-1

Noise transfer is minimised through the siting of buildings and building layout

Design guidance

Adequate building separation is provided within the development and from neighbouring buildings/adjacent uses (see also section 2F Building separation and section 3F Visual privacy)

Window and door openings are generally orientated away from noise sources

Noisy areas within buildings including building entries and corridors should be located next to or above each other and quieter areas next to or above quieter areas

Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources

The number of party walls (walls shared with other apartments) are limited and are appropriately insulated

Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces and circulation areas should be located at least 3m away from bedrooms

The layout mitigates noise transfer for common area.

Standards/controls

Comment

Objective 4H-2

Noise impacts are mitigated within apartments through layout and acoustic treatments

Design guidance

Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions:

- rooms with similar noise requirements are grouped together
- doors separate different use zones
- wardrobes in bedrooms are co-located to act as sound buffers

Where physical separation cannot be achieved noise conflicts are resolved using the following design solutions:

- double or acoustic glazing
- acoustic seals
- use of materials with low noise penetration properties
- continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements

Satisfactory

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

Design guidance

To minimise impacts the following design solutions may be used:

- physical separation between buildings and the noise or pollution source
- residential uses are located perpendicular to the noise source and where possible buffered by other uses
- non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses and communal open spaces
- non-residential uses are located at lower levels vertically separating the residential component from the noise or pollution source. Setbacks to the underside of residential floor levels should increase relative to traffic volumes and other noise sources
- buildings should respond to both solar access and noise. Where solar access is away from the noise source, non-habitable rooms can provide a buffer
- where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferable (see figure 4J.4)
- landscape design reduces the perception of noise and acts as a filter for air pollution generated by traffic and industry

Achieving the design criteria in this Apartment Design Guide may not be possible in some situations due to noise and pollution. Where developments are unable to achieve the design criteria, alternatives may be considered in the following areas:

- solar and daylight access
- private open space and balconies
- natural cross ventilation

N/A

Standards/controls

Comment

Objective 4J-2

Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission

Design guidance

Design solutions to mitigate noise include:

- limiting the number and size of openings facing noise sources
- providing seals to prevent noise transfer through gaps
- using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens)
- using materials with mass and/or sound insulation or absorption properties e.g. solid balcony balustrades, external screens and soffits

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

Design guidance

A variety of apartment types is provided

The apartment mix is appropriate, taking into consideration:

- the distance to public transport, employment and education centres
- the current market demands and projected future demographic trends
- the demand for social and affordable housing
- different cultural and socioeconomic groups

Flexible apartment configurations are provided to support diverse household types and stages of life including single person households, families, multi-generational families and group households

The proposal has a mixture unit sizes.

Standards/controls

Comment

Objective 4K-2

The apartment mix is distributed to suitable locations within the building

Design guidance

Different apartment types are located to achieve successful facade composition and to optimise solar access (see figure 4K.3)

Larger apartment types are located on the ground or roof level where there is potential for more open space and on corners where more building frontage is available

Satisfactory.

4L Ground floor apartments

Objective 4L-1

Street frontage activity is maximised where ground floor apartments are located

Design guidance

Direct street access should be provided to ground floor apartments

Activity is achieved through front gardens, terraces and the facade of the building. Design solutions may include:

- both street, foyer and other common internal circulation entrances to ground floor apartments
- private open space is next to the street
- doors and windows face the street

Retail or home office spaces should be located along street frontages

Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for conversion into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor amenities for easy conversion

Satisfactory

Standards/controls

Comment

Objective 4L-2

Design of ground floor apartments delivers amenity and safety for residents

Design guidance

Privacy and safety should be provided without obstructing casual surveillance. Design solutions may include:

- elevation of private gardens and terraces above the street level by 1-1.5m (see figure 4L.4)
- landscaping and private courtyards
- window sill heights that minimise sight lines into apartments
- integrating balustrades, safety bars or screens with the exterior design

Solar access should be maximised through:

- high ceilings and tall windows
- trees and shrubs that allow solar access in winter and shade in summer

Satisfactory

4M Facades**Objective 4M-1**

Building facades provide visual interest along the street while respecting the character of the local area

Design guidance

Design solutions for front building facades may include:

- a composition of varied building elements
- a defined base, middle and top of buildings
- revealing and concealing certain elements
- changes in texture, material, detail and colour to modify the prominence of elements

Building services should be integrated within the overall facade

Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. Design solutions may include:

- well composed horizontal and vertical elements
- variation in floor heights to enhance the human scale
- elements that are proportional and arranged in patterns
- public artwork or treatments to exterior blank walls
- grouping of floors or elements such as balconies and windows on taller buildings

Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights

Shadow is created on the facade throughout the day with building articulation, balconies and deeper window reveals

Objective 4M-2

Building functions are expressed by the facade

Design guidance

Building entries should be clearly defined

Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height

The apartment layout should be expressed externally through facade features such as party walls and floor slabs

The design incorporates a mixture of materials and finishes and is articulated in a way to provide visual interest.

Services are integrated.

Satisfactory.

4N Roof design**Objective 4N-1**

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

Design guidance

Roof design relates to the street. Design solutions may include:

- special roof features and strong corners
- use of skillion or very low pitch hipped roofs
- breaking down the massing of the roof by using smaller elements to avoid bulk
- using materials or a pitched form complementary to adjacent buildings

Roof treatments should be integrated with the building design. Design solutions may include:

- roof design proportionate to the overall building size, scale and form
- roof materials compliment the building
- service elements are integrated

Complies.

Objective 4N-2

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

Design guidance

Habitable roof space should be provided with good levels of amenity. Design solutions may include:

- penthouse apartments
- dormer or clerestory windows
- openable skylights

Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations

N/A

Standards/controls

Comment

Objective 4N-3

Roof design incorporates sustainability features

Design guidance

Roof design maximises solar access to apartments during winter and provides shade during summer. Design solutions may include:

- the roof lifts to the north
- eaves and overhangs shade walls and windows from summer sun

Skylights and ventilation systems should be integrated into the roof design

Satisfactory.

40 Landscape design

Objective 4O-1

Landscape design is viable and sustainable

Design guidance

Landscape design should be environmentally sustainable and can enhance environmental performance by incorporating:

- diverse and appropriate planting
- bio-filtration gardens
- appropriately planted shading trees
- areas for residents to plant vegetables and herbs
- composting
- green roofs or walls

Ongoing maintenance plans should be prepared

Microclimate is enhanced by:

- appropriately scaled trees near the eastern and western elevations for shade
- a balance of evergreen and deciduous trees to provide shading in summer and sunlight access in winter
- shade structures such as pergolas for balconies and courtyards

Tree and shrub selection considers size at maturity and the potential for roots to compete (see Table 4)

The landscaping meets Council controls.

Standards/controls

Comment

<p>Objective 4O-2 Landscape design contributes to the streetscape and amenity</p> <p>Design guidance</p> <p>Landscape design responds to the existing site conditions including:</p> <ul style="list-style-type: none">• changes of levels• views• significant landscape features including trees and rock outcrops <p>Significant landscape features should be protected by:</p> <ul style="list-style-type: none">• tree protection zones (see figure 4O.5)• appropriate signage and fencing during construction <p>Plants selected should be endemic to the region and reflect the local ecology</p>	<p>Satisfactory</p>
<p>4P Planting on structures</p>	
<p>Objective 4P-1 Appropriate soil profiles are provided</p> <p>Design guidance</p> <p>Structures are reinforced for additional saturated soil weight</p> <p>Soil volume is appropriate for plant growth, considerations include:</p> <ul style="list-style-type: none">• modifying depths and widths according to the planting mix and irrigation frequency• free draining and long soil life span• tree anchorage <p>Minimum soil standards for plant sizes should be provided in accordance with Table 5</p>	<p>Satisfactory</p>

Standards/controls

Comment

Objective 4P-2

Plant growth is optimised with appropriate selection and maintenance

Design guidance

Plants are suited to site conditions, considerations include:

- drought and wind tolerance
- seasonal changes in solar access
- modified substrate depths for a diverse range of plants
- plant longevity

A landscape maintenance plan is prepared

Irrigation and drainage systems respond to:

- changing site conditions
- soil profile and the planting regime
- whether rainwater, stormwater or recycled grey water is used

Satisfactory

Objective 4P-3

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

Design guidance

Building design incorporates opportunities for planting on structures. Design solutions may include:

- green walls with specialised lighting for indoor green walls
- wall design that incorporates planting
- green roofs, particularly where roofs are visible from the public domain
- planter boxes

Note: structures designed to accommodate green walls should be integrated into the building facade and consider the ability of the facade to change over time

Satisfactory

Standards/controls

Comment

4Q Universal design

Objective 4Q-1

Universal design features are included in apartment design to promote flexible housing for all community members

Design guidance

Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features

Complies

Objective 4Q-2

A variety of apartments with adaptable designs are provided

Design guidance

Adaptable housing should be provided in accordance with the relevant council policy

Design solutions for adaptable apartments include:

- convenient access to communal and public areas
- high level of solar access
- minimal structural change and residential amenity loss when adapted
- larger car parking spaces for accessibility
- parking titled separately from apartments or shared car parking arrangements

A suitable number of adaptable units are provided.

Objective 4Q-3

Apartment layouts are flexible and accommodate a range of lifestyle needs

Design guidance

Apartment design incorporates flexible design solutions which may include:

- rooms with multiple functions
- dual master bedroom apartments with separate bathrooms
- larger apartments with various living space options
- open plan 'loft' style apartments with only a fixed kitchen, laundry and bathroom

Satisfactory

Standards/controls

Comment

4R Adaptive reuse

Objective 4R-1

New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place

Design guidance

Design solutions may include:

- new elements to align with the existing building
- additions that complement the existing character, siting, scale, proportion, pattern, form and detailing
- use of contemporary and complementary materials, finishes, textures and colours

Additions to heritage items should be clearly identifiable from the original building

New additions allow for the interpretation and future evolution of the building

N/A

Standards/controls

Comment

Objective 4R-2

Adapted buildings provide residential amenity while not precluding future adaptive reuse

Design guidance

Design features should be incorporated sensitively into adapted buildings to make up for any physical limitations, to ensure residential amenity is achieved. Design solutions may include:

- generously sized voids in deeper buildings
- alternative apartment types when orientation is poor
- using additions to expand the existing building envelope

Some proposals that adapt existing buildings may not be able to achieve all of the design criteria in this Apartment Design Guide. Where developments are unable to achieve the design criteria, alternatives could be considered in the following areas:

- where there are existing higher ceilings, depths of habitable rooms could increase subject to demonstrating access to natural ventilation, cross ventilation (when applicable) and solar and daylight access (see also sections 4A Solar and daylight access and 4B Natural ventilation)
- alternatives to providing deep soil where less than the minimum requirement is currently available on the site
- building and visual separation – subject to demonstrating alternative design approaches to achieving privacy
- common circulation
- car parking
- alternative approaches to private open space and balconies

N/A

4S Mixed use**Objective 4S-1**

Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement

Design guidance

Mixed use development should be concentrated around public transport and centres

Mixed use developments positively contribute to the public domain. Design solutions may include:

- development addresses the street
- active frontages are provided
- diverse activities and uses
- avoiding blank walls at the ground level
- live/work apartments on the ground floor level, rather than commercial

N/A

Objective 4S-2

Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents

Design guidance

Residential circulation areas should be clearly defined. Design solutions may include:

- residential entries are separated from commercial entries and directly accessible from the street
- commercial service areas are separated from residential components
- residential car parking and communal facilities are separated or secured
- security at entries and safe pedestrian routes are provided
- concealment opportunities are avoided

Landscaped communal open space should be provided at podium or roof levels

N/A

4T Awnings and signage**Objective 4T-1**

Awnings are well located and complement and integrate with the building design

Design guidance

Awnings should be located along streets with high pedestrian activity and active frontages

A number of the following design solutions are used:

- continuous awnings are maintained and provided in areas with an existing pattern
- height, depth, material and form complements the existing street character
- protection from the sun and rain is provided
- awnings are wrapped around the secondary frontages of corner sites
- awnings are retractable in areas without an established pattern

Awnings should be located over building entries for building address and public domain amenity

Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure

Gutters and down pipes should be integrated and concealed

Lighting under awnings should be provided for pedestrian safety

N/A

Objective 4T-2

Signage responds to the context and desired streetscape character

Design guidance

Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development

Legible and discrete way finding should be provided for larger developments

Signage is limited to being on and below awnings and a single facade sign on the primary street frontage

N/A

Standards/controls

Comment

4U Energy efficiency

Objective 4U-1

Development incorporates passive environmental design

Design guidance

Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access)

Well located, screened outdoor areas should be provided for clothes drying

Complies

Objective 4U-2

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

Design guidance

A number of the following design solutions are used:

- the use of smart glass or other technologies on north and west elevations
- thermal mass in the floors and walls of north facing rooms is maximised
- polished concrete floors, tiles or timber rather than carpet
- insulated roofs, walls and floors and seals on window and door openings
- overhangs and shading devices such as awnings, blinds and screens

Provision of consolidated heating and cooling infrastructure should be located in a centralised location (e.g. the basement)

Satisfactory

Objective 4U-3

Adequate natural ventilation minimises the need for mechanical ventilation

Design guidance

A number of the following design solutions are used:

- rooms with similar usage are grouped together
- natural cross ventilation for apartments is optimised
- natural ventilation is provided to all habitable rooms and as many non-habitable rooms, common areas and

Satisfactory

4V Water management and conservation

<p>Objective 4V-1 Potable water use is minimised</p> <p>Design guidance</p> <p>Water efficient fittings, appliances and wastewater reuse should be incorporated</p> <p>Apartments should be individually metered</p> <p>Rainwater should be collected, stored and reused on site</p> <p>Drought tolerant, low water use plants should be used within landscaped areas</p>	Satisfactory
<p>Objective 4V-2 Urban stormwater is treated on site before being discharged to receiving waters</p> <p>Design guidance</p> <p>Water sensitive urban design systems are designed by a suitably qualified professional</p> <p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> • runoff is collected from roofs and balconies in water tanks and plumbed into toilets, laundry and irrigation • porous and open paving materials is maximised • on site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits 	Satisfactory
<p>Objective 4V-3 Flood management systems are integrated into site design</p> <p>Design guidance</p> <p>Detention tanks should be located under paved areas, driveways or in basement car parks</p> <p>On large sites parks or open spaces are designed to provide temporary on site detention basins</p>	The site is not flood impacted.

4W Waste management**Objective 4W-1**

Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents

Design guidance

Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park

Waste and recycling storage areas should be well ventilated

Circulation design allows bins to be easily manoeuvred between storage and collection points

Temporary storage should be provided for large bulk items such as mattresses

A waste management plan should be prepared

A suitable waste storage area is provided to accommodate the likely waste generated by the development and includes a bulk waste room and FOGO waste.

The waste room is securely located in the basement.

Objective 4W-2

Domestic waste is minimised by providing safe and convenient source separation and recycling

Design guidance

All dwellings should have a waste and recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste and recycling

Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core

For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses

Alternative waste disposal methods such as composting should be provided

Complies

4X Building maintenance**Objective 4X-1**

Building design detail provides protection from weathering

Design guidance

A number of the following design solutions are used:

- roof overhangs to protect walls
- hoods over windows and doors to protect openings
- detailing horizontal edges with drip lines to avoid staining of surfaces
- methods to eliminate or reduce planter box leaching
- appropriate design and material selection for hostile locations

Satisfactory

Objective 4X-2

Systems and access enable ease of maintenance

Design guidance

Window design enables cleaning from the inside of the building

Building maintenance systems should be incorporated and integrated into the design of the building form, roof and facade

Design solutions do not require external scaffolding for maintenance access

Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems

Centralised maintenance, services and storage should be provided for communal open space areas within the building

Satisfactory

Objective 4X-3

Material selection reduces ongoing maintenance costs

Design guidance

A number of the following design solutions are used:

- sensors to control artificial lighting in common circulation and spaces
- natural materials that weather well and improve with time such as face brickwork
- easily cleaned surfaces that are graffiti resistant
- robust and durable materials and finishes are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors

Satisfactory

Attachment 8

APPENDIX 2 – DCP 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

All units within the building will have high levels of amenity (outlook, natural ventilation, solar access). A suitable landscaped outcome is achieved including planting of street trees and inclusion of a deep soil zone. BASIX targets are met. The development provides additional housing, albeit in the upper end of the pricing market. Stormwater is captured for reuse in the landscaped areas. The proposal is considered to be an efficient use of land in close proximity to services.

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

6.2 Minimum Site Width Requirement

Within the R1 General Residential, R3 Medium Density Residential and R4 High Density Residential zones, development for the purpose of a residential flat building must not result in the creation of an “isolated lot”. An “isolated lot” is a lot which is bounded on both sides by properties (or a property and a second street frontage) which comprise existing development other than a single dwelling house and redevelopment of such adjoining properties is unlikely. This includes cases where there is high separation of ownership of dwelling ownership in the adjoining developments. Amalgamation of allotments will be required in the circumstance where an isolated allotment would otherwise be created.

See variation discussion at Chapter A1.

CHAPTER D13 – WOLLONGONG CITY CENTRE

2 Building form

<i>Objectives/controls</i>	<i>Comment</i>
<u>2.2 Building to street alignment and street setbacks</u>	
4m setback	Complies
<u>2.3 Street frontage heights in commercial core</u>	
N/A	
<u>2.4 Building depth and bulk</u>	
18m maximum building depth	Complies
<u>2.5 Side and rear building setbacks and building separation</u>	
Up to 12m in height	Complies
habitable rooms with openings and balconies rear 6m; side 6m	

Objectives/controls	Comment
<p>- non-habitable rooms and habitable rooms without openings 3m side, 4.5m rear</p> <p>between 12m & 24m (levels 3-6)</p> <p>- habitable rooms with openings and balconies 9m side, 9m rear</p> <p>non-habitable rooms and habitable rooms without openings 4.5m side, 4.5m rear</p> <p>above 24m (levels 7-8)</p> <p>habitable rooms with openings and balconies rear 12m; side 12m</p> <p>non-habitable rooms and habitable rooms without openings 6m side, 6m rear</p>	<p>Does not comply</p> <p>Level 4: Complies</p> <p>Level 5-6: Complies</p> <p>Does not comply – See discussion at Chapter A1.</p>
<p><u>2.7 Deep soil zone</u></p>	<p>A deep soil area comprising ~185m² and 6m deep along the rear of the site is provided (equating to ~17% of the site area).</p>
<p>The zone should accommodate existing mature trees as well as allowing for the planting of trees/shrubs that will grow to be mature trees.</p>	<p>Satisfactory</p>
<p>No structures, works or excavations that may restrict vegetation growth are permitted in this zone</p>	<p>A sewer line has been identified approximately 2m from and running parallel to the rear boundary and roughly 2.3m below natural ground level. This is considered to have been addressed via root protection barriers to prevent trees from impacting on that infrastructure.</p>
<p><u>2.8 Landscape design</u></p>	<p>Satisfactory</p>
<p>a) The following documents must be considered for site planning and landscape design:</p> <p>i) Chapter E6 – Landscaping in the DCP.</p> <p>ii) Wollongong City Centre Public Domain Technical Manual.</p> <p>b) Remnant vegetation must be maintained throughout the site wherever practicable, particularly significant trees.</p>	<p>Retention of vegetation on the site is generally precluded by the building footprint. The vegetation proposed to be removed is not significant and compensatory planting is proposed which should ensure a satisfactory landscaped outcome.</p>

<i>Objectives/controls</i>	<i>Comment</i>
<p>c) A long-term landscape management plan must be provided for all landscaped areas, in particular the deep soil landscape zone.</p> <p>d) The plan must outline how landscaped areas are to be maintained for the life of the development.</p> <p>e) Chapter E17 Preservation and Management of Trees and Other Vegetation in this DCP provides for the protection of all trees with a girth greater than 200mm or a height over three metres, or a spread over three metres.</p> <p><u>2.9 Green roofs, green walls and planting on structures</u></p> <p>N/A</p> <p><u>2.10 Sun access planes</u></p> <p>N/A</p> <p><u>2.11 Development on classified roads</u></p> <p>N/A</p>	<p>Conditions of consent are recommended in this regard.</p> <p>Satisfactory</p> <p>See discussion below.</p>

3 Pedestrian amenity

<i>Objectives/controls</i>	<i>Comment</i>
<p><u>3.2 Permeability</u></p> <p>N/A</p> <p><u>3.3 Active street frontages</u></p> <p>N/A</p> <p><u>3.4 Safety and security</u></p> <p>a) Ensure that the building design allows for casual surveillance of accessways, entries and driveways.</p> <p>b) Avoid creating blind corners and dark alcoves that provide concealment opportunities in pathways, stairwells, hallways and carparks.</p> <p>c) Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering.</p> <p>d) Where private open space is located within the front building alignment any front fencing must be of a design and/or height which allows for passive surveillance of the street</p> <p>e) Provide adequate lighting of all pedestrian access ways, parking areas and building entries. Such lighting should be on a timer or movement detector to reduce energy consumption and glare nuisance.</p> <p>f) Provide clear lines of sight and well-lit routes throughout the development.</p>	<p>Complies</p> <p>Satisfactory</p> <p>Complies</p> <p>N/A</p> <p>Satisfactory</p> <p>Satisfactory</p>

<i>Objectives/controls</i>	<i>Comment</i>
g) Where a pedestrian pathway is provided from the street, allow for casual surveillance of the pathway.	Satisfactory
h) For large scale retail and commercial development with a GFA of over 5,000m ² , provide a 'safety by design' assessment in accordance with the CPTED principles.	N/A
i) Provide security access controls where appropriate.	Provided
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
<u>3.5 Awnings</u>	
N/A	
<u>3.6 Vehicular footpath crossings</u>	
a) No additional vehicle entry points will be permitted into the parking or service areas of development along those streets identified as significant pedestrian circulation routes in Figure 3.7.	N/A
b) In all other areas, one vehicle access point only (including the access for service vehicles and parking for non-residential uses within mixed use developments) will be generally permitted.	Complies
c) Where practicable, vehicle access is to be from lanes and minor streets rather than primary street fronts or streets with major pedestrian and cyclist activity.	N/A
d) Where practicable, adjoining buildings are to share or amalgamate vehicle access points. Internal on-site signal equipment is to be used to allow shared access. Where appropriate, new buildings should provide vehicle access points so that they are capable of shared access at a later date.	N/A
e) Vehicle access may not be required or may be denied to some heritage buildings.	N/A
<u>3.7 Pedestrian overpasses, underpasses and encroachments</u>	
N/A	
<u>3.8 Building exteriors</u>	
a) Adjoining buildings (particularly heritage buildings) are to be considered in the design of new buildings in terms of:	Street setback complies
i) Appropriate alignment and street frontage heights.	Materials and finishes acceptable
ii) Setbacks above street frontage heights.	Proportions are suitable
iii) Appropriate materials and finishes selection.	
iv) Façade proportions including horizontal or vertical emphasis.	

Objectives/controls	Comment
v) The provision of enclosed corners at street intersections.	
b) Balconies and terraces should be provided, particularly where buildings overlook parks and on low rise parts of buildings. Gardens on the top of setback areas of buildings are encouraged.	Satisfactory
c) Articulate facades so that they address the street and add visual interest.	Complies
d) External walls should be constructed of high quality and durable materials and finishes with 'self-cleaning' attributes, such as face brickwork, rendered brickwork, stone, concrete and glass.	Satisfactory
e) Finishes with high maintenance costs, those susceptible to degradation or corrosion from a coastal or industrial environment or finishes that result in unacceptable amenity impacts, such as reflective glass, are to be avoided.	Acceptable
f) To assist articulation and visual interest, avoid expanses of any single material.	Acceptable
g) Limit opaque or blank walls for ground floor uses to 30% of the street frontage.	Complies
h) Maximise glazing for retail uses, but break glazing into sections to avoid large expanses of glass.	
i) Highly reflective finishes and curtain wall glazing are not permitted above ground floor level (see Section 5.3).	Complies
j) 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.	Complies
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).	
l) The design of roof plant rooms and lift overruns is to be integrated into the overall architecture of the building.	Complies
<u>3.9 Advertising and signage</u>	
N/A	

<i>Objectives/controls</i>	<i>Comment</i>
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.	N/A
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.	N/A
c) Align buildings to maximise view corridors between buildings.	The building footprint and envelope are generally compliant with the relevant controls. In this respect impacts to any view corridors between buildings are considered acceptable.
d) Remove or avoid installation of built elements that obstruct significant views.	N/A
e) Carefully consider tree selection to provide views along streets in Figure 3.12 and keep under storey planting low where possible.	Satisfactory
f) Site analysis must address views with the planning and design of building forms taking into account existing topography, vegetation and surrounding development.	As noted above, the footprint location and envelope are compliant with the relevant controls and considered a reasonable response to the site.

4 Access, parking and servicing

<i>Objectives/controls</i>	<i>Comment</i>
4.2 Pedestrian access and mobility	
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.	Complies
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).	Complies
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.	Complies
d) The development must provide continuous access paths of travel from all public roads and spaces as well as unimpeded internal access.	Complies

<i>Objectives/controls</i>	<i>Comment</i>
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.	Complies
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.	Complies
<u>4.3 Vehicular driveways and manoeuvring areas</u>	
a) Driveways should be:	Complies
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:	Complies
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.	Complies
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.	Complies
e) Driveway widths must comply with the relevant Australian Standards.	Complies
f) Car space dimensions must comply with the relevant Australian Standards.	Complies
g) Driveway grades, vehicular ramp width/grades and passing bays must be in accordance with the relevant Australian Standard, (AS 2990.1).	Complies
h) Vehicular ramps less than 20m long within developments and parking stations must have a	N/A

<i>Objectives/controls</i>	<i>Comment</i>
<p>maximum grade of 1 in 5 (20%). Ramp widths and design must be in accordance with AS 2890.1.</p>	
<p>i) Access ways to underground parking should not be located adjacent to doors or windows of the habitable rooms of any residential development.</p>	Complies
<p>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.</p>	N/A
<p><u>4.4 On-site parking</u></p>	
<p>See Chapter E3</p>	
<p><u>4.5 Site facilities and services</u></p>	
<p>Mail boxes</p>	Complies
<p>a) Provide letterboxes for residential building and/or commercial tenancies in one accessible location adjacent to the main entrance to the development.</p>	
<p>b) They should be integrated into a wall where possible and be constructed of materials consistent with the appearance of the building.</p>	
<p>c) Letterboxes shall be secure and large enough to accommodate articles such as newspapers.</p>	
<p>Communication structures, air conditioners and service vents</p>	Complies
<p>a) Locate satellite dish and telecommunication antennae, air conditioning units, ventilation stacks and any ancillary structures:</p>	
<p>i) Away from the street frontage,</p>	
<p>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</p>	
<p>iii) Adequately setback from the perimeter wall or roof edge of buildings.</p>	
<p>b) A master antennae must be provided for residential apartment buildings. This antenna shall be sited to minimise its visibility from surrounding public areas.</p>	

Objectives/controls

Comment

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:

The development incorporates a waste storage room within the basement with a suitable number of bins for the number of units within the building.

Bins will be wheeled to the street for collection and there is sufficient frontage for this to occur.

Objectives/controls

Comment

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.

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.

There is a turning head within which small delivery vehicles could load and unload items.

There is a hydrant adjacent to 7-9 Church Street approximately 25m from the site.



<i>Objectives/controls</i>	<i>Comment</i>
<p>Utility Services</p> <p>The provision of utility services and access for regular servicing and maintenance must be considered at the concept stage of site development.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>d) The applicant must liaise with the power authority with regard to the retention, relocation, or removal of any existing power pole.</p>	<p>Conditions recommended.</p>

5 Environmental management

<i>Objectives/controls</i>	<i>Comment</i>
<p><u>5.2 Energy efficiency and conservation</u></p> <p>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.</p>	<p>BASIX targets met</p>
<p><u>5.3 Water conservation</u></p> <p>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.</p>	<p>BASIX targets met</p>

Objectives/controls

Comment

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.

Large glazed areas are generally set back beneath balconies. Reflectivity is not expected to be a concern.

5.5 Wind mitigation

- a) To ensure public safety and comfort the following maximum wind criteria are to be met by new buildings:
 - i) 10 metres/second in retail streets,
 - ii) 13 metres/second along major pedestrian streets, parks and public places, and
 - iii) 16 metres/second in all other streets.
- b) Site design for tall buildings (towers) should:
 - i) Set tower buildings back from lower structures built at the street frontage to protect pedestrians from strong wind downdrafts at the base of the tower,
 - ii) Ensure that tower buildings are well spaced from each other to allow breezes to penetrate city centre,
 - iii) Consider the shape, location and height of buildings to satisfy wind criteria for public safety and comfort at ground level, and
 - iv) Ensure usability of open terraces and balconies.
- c) A Wind Effects Report is to be submitted with the DA for all buildings greater than 32m in height,
- d) For buildings over 50m in height, results of a wind tunnel test are to be included in the report.

The development is not of a height that requires preparation of a wind impacts assessment.

It is noted the building is set back from all boundaries and surrounded by landscaped areas which will assist with wind mitigation.

5.6 Waste and recycling

- a) All development must comply with Council's Technical Policy for the Management of all Wastes Associated with Building Sites

Satisfactory subject to conditions.

Provision must be made for the following waste generation:

Complies

- 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

<i>Objectives/controls</i>	<i>Comment</i>
<p>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;</p> <p>i) Not visible from the street,</p> <p>ii) Easily accessible to dwelling occupants,</p> <p>iii) Accessible by collection vehicles (or adequately managed by the body corporate to permit relocation of bins to the approved collection point),</p> <p>iv) Has water and drainage facilities for cleaning and maintenance, and</p> <p>v) Does not immediately adjoin private open space, windows or clothes drying areas.</p> <p>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</p>	

6 Residential development standards

<i>Objectives/controls</i>	<i>Comment</i>
<p><u>6.2 Housing choice and mix</u></p> <p>Studio and one bedroom – 10-%</p> <p>Three + bedrooms – 10%</p> <p>10% adaptable</p> <p>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.</p> <p>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).</p> <p>g) Car parking and garages allocated to adaptable dwellings must comply with the requirements of the relevant Australian Standard for disabled parking spaces.</p> <p>h) 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</p>	<p>2 one bed units (16.7%)</p> <p>9 three bed units (75%)</p> <p>3 adaptable (25%)</p> <p>Complies</p> <p>Complies</p> <p>Complies</p> <p>Units 10 and 11 are designed to achieve silver standards of the Livable Housing Design Guideline.</p>

Objectives/controls

Comment

Design Guideline (Livable Housing Australia 2015). All proposed livable dwellings must be clearly identified on the submitted DA plans.

i) 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;

ii) 2.25m to 2.4m minimum for non-habitable rooms on all floors;

iii) for two storey apartments, 2.4m minimum for the second storey if 50% or more of the apartment has 2.7m minimum ceiling heights;

iv) for two storey units with a two storey void space, 2.4m minimum ceiling heights;

v) attic spaces, 1.5 minimum wall heights at edge of room with a 30 degree minimum ceiling slope.

6.3 Dwelling houses

N/A

6.4 Multi dwelling housing

N/A

6.5 Dual occupancy

N/A

6.6 Basement Carparks

a) 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.

b) 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.

Complies

Complies

The basement extends to approximately 1.5m out of the ground. See variation discussion at Chapter A1.

Objectives/controls	Comment
<p>c) In addition, the following must be satisfied:</p> <p>i) Landscaped terraces are provided in front of the basement podium to reduce the overall visual impact;</p> <p>ii) The height of the basement does not result in the building having a bulk and scale which dominates the streetscape; and</p> <p>iii) The main pedestrian entry to the building is identifiable and readily accessible from the street frontage.</p>	Satisfactory
<p>d) The following setbacks from front, side and rear boundaries apply to basement podiums:</p> <p>i) Where the height of the basement podium (measured to the top of any solid wall located on the podium) is less than 1.2m above natural or finished ground level (whichever distance is greater), the basement podium may extend to the property boundary. A minimum 1.5m wide landscaped planter must be provided on the perimeter of any section of the basement podium which is located on a side or rear property boundary. Such planter must prevent direct access to the outer edge of the podium, to minimise direct overlooking of adjacent dwellings and open space areas.</p> <p>ii) 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.</p>	A 1.5m landscaped setback is provided to the podium on the northern side.
<p>e) 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.</p>	Car park exhaust discharges to the roof
<p>f) 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.</p>	Satisfactory
<p>g) Basements must be protected from inundation from 100-year ARI flood levels (or greater).</p>	Satisfactory

<i>Objectives/controls</i>	<i>Comment</i>
<u>6.7 Communal open space</u>	
a) Developments with more than 10 dwellings must incorporate communal open space. The minimum size of this open space is to be calculated at 5m ² per dwelling. Any area to be included in the communal open space calculations must have a minimum dimension of 5m.	Complies
b) The 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.	Complies
c) 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
d) 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
e) The communal open space area must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on June 21.	Complies
<u>6.8 Private open space</u>	
i) Avoid locating the primary balconies where they address side setbacks.	Complies
ii) The balcony must have a minimum area of 12m ² open space a minimum depth of 2.4 metres.	Complies
iii) The primary balcony of at least 70% of the dwellings within a multi dwelling housing development shall receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.	Complies
iv) Balconies must be designed and positioned to ensure sufficient light can penetrate into the building at lower levels.	Complies
v) 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.	N/A

Objectives/controls

Comment

6.9 Overshadowing

a) 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.

b) 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.

c) 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).

d) 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

a) 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.

b) 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.

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

d) 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.

e) 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.

Most notable is the overshadowing impact to the dwelling immediately to the south of the site.

The shadow diagrams indicate the development will substantially overshadow the dwelling between 9 and 12 after which the dwelling will begin to receive sunlight from the west. A substantial part of the rear yard of the dwelling will receive sun light up until approximately 11am.

The overshadowing impact to this property is not unacceptable given the height and scale anticipated by the planning controls.

Protection of solar access in circumstances where single dwellings are situated amongst high density residential is difficult without imposing unreasonable restrictions on redevelopment of land that reflects the existing controls.

The building is designed to maximise northerly aspect, with all units achieving or exceeding the minimum solar access requirements.

Complies

The east and west elevations are provided with louvres and operable screens to assist with shading.

Complies

No single aspect southerly oriented apartments are proposed.

Objectives/controls	Comment
<p>f) Provide vertical shading to eastern and western windows. Shading can take the form of eaves, awnings, colonnades, balconies, pergolas, external louvres and planting.</p>	<p>Vertical louvres are provided to the bedroom windows on the western elevation.</p>
<p><u>6.11 Natural ventilation</u></p>	
<p>a) 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.</p>	<p>Complies</p>
<p>b) Variation to this standard will only be considered where it can be demonstrated that apartments will achieve the minimum requirements with regard to natural ventilation. This may be achieved where apartments have a wider frontage, or increased ceiling and window height to allow for greater penetration of natural light. The building depth is measured across the shortest access, excluding the depth of any unenclosed balconies.</p>	<p>N/A</p>
<p>c) A minimum of sixty percent (60%) of all residential apartments shall be naturally cross ventilated.</p>	<p>Complies</p>
<p><u>6.12 Visual privacy</u></p>	
<p>1. 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.</p>	<p>Separation distances are acceptable from a visual privacy perspective given existing and likely future development on adjoining land.</p>
<p>2. 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.</p>	<p>Complies</p>
<p>3. Buildings are to be designed to increase privacy without compromising access to sunlight and natural ventilation through the following measures:</p>	<p>Satisfactory</p>
<p>(a) Off-setting of windows in new buildings from windows in existing adjoining building(s).</p>	
<p>(b) Recessed balconies and / or vertical fin elements between adjoining balconies to improve visual privacy.</p>	
<p>(c) Provision of solid, semi-solid or dark tinted glazed balustrading to balconies.</p>	
<p>(d) Provision of louvers or screen panels to windows and / or balconies.</p>	

<i>Objectives/controls</i>	<i>Comment</i>
<p>(e) Provision of perimeter landscaped screen / deep soil planting.</p> <p>(f) Incorporating planter boxes onto apartment balconies to improve visual separation between apartments within the development and adjoining buildings.</p> <p>(g) Provision of pergolas or shading devices to limit overlooking of lower apartments or private open space courtyards / balconies.</p>	
<p><u>6.13 Acoustic Privacy</u></p>	
<p>1. Residential apartments should be arranged in a mixed use building, to minimise noise transition between apartments by:</p> <p>(a) Locating busy, noisy areas next to each other and quieter areas, next to other quieter areas (eg living rooms with living rooms and bedrooms with bedrooms);</p> <p>(b) Using storage or circulation zones within an apartment to buffer noise from adjacent apartments, mechanical services or corridors and lobby areas; and</p> <p>(c) Minimising the amount of party (shared) walls with other apartments.</p>	Complies
<p>2. All residential apartments within a mixed use development should be designed and constructed with double-glazed windows and / or laminated windows, solid walls, sealing of air gaps around doors and windows as well as insulating building elements for doors, walls, roofs and ceilings etc; to provide satisfactory acoustic privacy and amenity levels for occupants within the residential and / or serviced apartment(s).</p>	N/A
<p>3. Noise transmission from common corridors or outside the building is to be minimised by providing seals at entry doors.</p>	Satisfactory
<p><u>6.14 Storage</u></p>	
<p>a) For residential apartment buildings provide a secure space to be set aside exclusively for storage as part of the basement. The storage area must comply with the following requirements</p>	Provided.

Objectives/controls

Comment

Dwelling	Storage	Storage
	Area	Volume
One bedroom apartments	3m ²	3m ³
Two bedroom apartments	4m ²	8m ³
Three or more bedroom apartments	5m ²	10m ³

7 Planning controls for special areas

The site is not located within a special area.

8 Works in the public domain

The developer will be required to reinstate the concrete pedestrian path for the frontage along with street trees.

CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY

Accessible parking spaces are provided.

An accessible toilet is provided adjacent to the communal open space area.

The development provides accessible paths of travel into and within the building and its common areas.

Liveable Housing Guideline Silver Level universal design features are incorporated into 20% of dwellings.

The minimum number of adaptable dwellings is provided.

CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

The proposal is considered to be designed in a way to provide passive surveillance of common areas and the public domain while avoiding creating alcoves or concealment opportunities. Secure access is provided to the basement area.

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

6 Traffic impact assessment and public transport studies

6.1 Car Parking and Traffic Impact Assessment Study

A traffic impact assessment was not required for the development. Council's Traffic Officer has advised that the proposed peak hour traffic generation from the development is relatively low and unlikely to result in any significant traffic network implications.

6.2 Preliminary Construction Traffic Management Plan

The construction phase of a development is not considered likely to pose a significant impact upon traffic movement, onstreet car parking availability and / or pedestrian safety. A Construction Traffic Management Plan is not required in order to determine the application.

7 Parking demand and servicing requirements

7.1 Car Parking, Motor Cycle, Bicycle Requirements and Delivery / Servicing Vehicle Requirements

The car parking for the development is to use the DCP rate rather than that of the RMS guide as the DCP rate is the lesser.

Unit	beds	size	DCP rate	RMS	Guide
			0.75 < 70m ²	rate	
			1 – 70-110m ²	1 bed	0.6
			1.25 > 110m ²	2 bed	0.9
			0.2 / dwelling visitor	3 bed	1.4
1	1	60	0.75	0.6	
2	2	95.3	1	0.9	
3	1	58.9	0.75	0.6	
4	3	126	1.25	1.4	
5	3	111.4	1.25	1.4	
6	3	126	1.25	1.4	
7	3	111.4	1.25	1.4	
8	3	126	1.25	1.4	
9	3	146.7	1.25	1.4	
10	3	152.5	1.25	1.4	
11	3	152.5	1.25	1.4	
12	3	142.9 + 77.6	1.25	1.4	
Total resident			(14)	14.7	
Total visitor			3		
Proposed			15* resident and 3 visitor		

* It is a condition of consent that space marked R3 be converted to additional residential storage as there is a one space surplus of residential parking. If that space were to be retained it would have to be included as gross floor area which would result in the FSR being exceeded.

7.2 Disabled Access and Parking

Compliant accessible parking is provided.

It is noted that excess accessible car parking is provided from what is required under the DCP. Only 2 spaces are required and 5 are provided. Provision of additional accessible spaces is considered to be a reasonable strategy to improve the adaptability of units to facilitate ageing in place. These spaces should however be designed such that they could not be readily converted to additional car spaces (e.g. shared space not converted to additional parking). This is considered to have been addressed either by having those spaces as 3.8m wide or via conditions of consent.

7.3 Bicycle Parking / Storage Facilities and Shower and Change Facilities

Bicycle parking is provided within the upper basement level within a secure enclosure.

8 Vehicular access

Driveway grades and sight distances comply.

9 Loading / unloading facilities and service vehicle manoeuvring

The development complies with AS 2890.2.

10 Pedestrian access

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

11 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 prepared by a suitably qualified consultant has been submitted. This has been reviewed as satisfactory by Council's Landscape Officer and appropriate conditions recommended.

CHAPTER E7: WASTE MANAGEMENT

Where the number of bins proposed can be accommodated within 50% of the developments frontage on collection day, bins may be collected from a kerbside location. The proposal comprises 12 units and the frontage is approximately 30m and can accommodate the bins.

A separate bulky waste room is provided adjacent to the general waste room.

A Site Waste Minimisation and Management Plan has been provided in accordance with this chapter.

Separate general waste, recyclable waste and FOGO/Green waste bins are to be provided.

The proposal involves demolition of two dwellings and a demolition plan has accordingly been provided.

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

The site is identified as being located within an Uncategorised Flood Risk Precinct. Council's stormwater engineer has reviewed the proposal with respect to the provisions of this chapter and clause 5.21 of WLEP 2009 and has recommended conditions of consent.

CHAPTER E14 STORMWATER MANAGEMENT

Stormwater is proposed to be disposed of to the street. Council's stormwater engineer has reviewed the proposal with respect to the provisions of this chapter and has recommended conditions of consent.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The development involves excavation for basement car parking. Conditions of consent are recommended with regard to mitigating impacts during construction.

CHAPTER E20 CONTAMINATED LAND MANAGEMENT

See discussion at SEPP Resilience and Hazards 2021.

CHAPTER E21 DEMOLITION AND HAZARDOUS BUILDING MATERIALS MANAGEMENT

Conditions of consent are recommended with 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 9 – Draft conditions of consent

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

Demolition Plan DA-05-A dated 17 September 2021 prepared by PRD Architects
Site/Roof Plan DA-10-B dated 13 December 2021 prepared by PRD Architects
Basement 1 Plan DA-11-C dated 14 February 2022 prepared by PRD Architects
Basement 2 Plan DA-12-C dated 14 February 2022 prepared by PRD Architects
Ground Floor Plan DA-13-B dated 13 December 2021 prepared by PRD Architects
Level 1 Plan DA-14-B dated 13 December 2021 prepared by PRD Architects
Level 2-3 Plan DA-15-B dated 13 December 2021 prepared by PRD Architects
Level 4 Plan DA-16-B dated 13 December 2021 prepared by PRD Architects
Level 5 & 6 Plan DA-17-B dated 13 December 2021 prepared by PRD Architects
Level 7 Plan DA-18-B dated 13 December 2021 prepared by PRD Architects
Level 8 Plan DA-19-B dated 13 December 2021 prepared by PRD Architects
Pre and Post - Adaptable Plans DA-20-B dated 13 December 2021 prepared by PRD Architects
Section A-A Plan DA-23-C dated 4 May 2022 prepared by PRD Architects
Section B-B Plan DA-24-C dated 4 May 2022 prepared by PRD Architects
North Elevation Plan DA-25-B dated 13 December 2021 prepared by PRD Architects
East Elevation Plan DA-26-B dated 13 December 2021 prepared by PRD Architects
South Elevation Plan DA-27-B dated 13 December 2021 prepared by PRD Architects
West Elevation Plan DA-28-B dated 13 December 2021 prepared by PRD 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 **Geotechnical**
- a A dilapidation report is required for all structures located within the zone of influence of the proposed earthworks as determined by a geotechnical consultant.
 - b All excavations need to be supported during and after construction particularly to protect adjoining property with nearby existing development.
 - c Retaining wall design is not to include anchors extending on to adjoining property without the written consent of the adjoining property owner.
 - d 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 a geotechnical consultant to ensure adjoining property is not adversely impacted upon by this development.
 - e An earthworks plan is to be developed by a geotechnical consultant prior to start of earthworks.
 - f Hard bedrock where encountered will be difficult to excavate. Alternative excavation methods should be considered to minimise noise and vibration.
 - g The earthworks plan may require modification considering any subsequent geotechnical reports commissioned to address unforeseen geotechnical conditions encountered during the site preparation works.
 - h Due to the sensitivity of the site to changing geotechnical conditions, all work must be undertaken with geotechnical supervision.
 - i At the completion of site preparation earthworks, the geotechnical consultant is to prepare a works-as-executed (WAE) report detailing encountered geotechnical conditions and how the remedial works addressed these conditions so that the residual geotechnical constraints can be accommodated within the structural designs for the development. These structural

designs are to be confirmed or amended by the structural engineer based on the WAE geotechnical report.

- j All excavations for foundations are to be inspected by the geotechnical consultant and certified that the ground has been suitably prepared for the placement of footings.

3 **Restricted Vegetation Removal**

This consent permits the removal of trees and other vegetation from the site within three (3) metres of the approved buildings. This consent also permits the pruning of trees within three (3) metres of approved buildings in accordance with AS 4373:2007 Pruning of Amenity Trees. No other trees or vegetation shall be removed or pruned, without the prior written approval of Council.

4 **Occupation Certificate**

An Occupation Certificate must be issued by the Principal Certifier (PC) prior to occupation or use of the development. In issuing an Occupation Certificate, the PC 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.

5 **Street Tree Removal**

The developer shall remove existing the street tree as indicated on the approved plans. Tree removal costs are to be borne by developer. The removal of trees, including stumps, is to be carried out by suitably qualified tree contractor. This contractor must be appropriately insured to indemnify Council against any loss or damage incurred during the above works. They must also have appropriate WH&S policies and procedures (including traffic control) to ensure that works are carried out in a safe manner and in accordance with Council's own WH&S policies.

The developer must apply for (and be granted) permission under section 138 of the Roads Act to work within the road reserve. Tree removal must be carried out to the satisfaction of WCC Manager of Works.

Prior to the Issue of the Construction Certificate

6 **Flows from Adjoining Properties**

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. The above requirements must be clearly shown on Construction Certificate plans prior to the release of the Construction Certificate.

7 **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.

8 **Basement Waterproofing**

Full engineering details of the proposed wall around the basement car park shall be submitted to the PC 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 other than from sub-soil drainage, vehicle wash water and runoff from the driveway that drains towards the basement. This applies to any proposed opening such as doors or ventilation louvres. The problem of backwater from the stormwater pipeline entering the basement car park level shall be addressed by a method such as a flap gate or one-way valve system.

- 9 Car space labelled R3 on Basement 2 Plan DA-12 C is to be converted to an enclosed storage area as this space is surplus to that required by Council.

10 **Present Plans to Sydney Water**

Approved plans must be submitted online using Sydney Water Tap, available through www.sydneywater.com.au 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 PC 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.

11 **Car Parking and Access**

The development shall make provision for a total of 14 residential car parking spaces (including 5 spaces capable for adaption for people with disabilities), 3 visitor car parking spaces, 4 secure (Security Class B) residential bicycle spaces, 1 visitor bicycle space (Security Class C) and 1 motorcycle parking space. This requirement shall be reflected on the Construction Certificate plans. Any change in above parking numbers shown on the approved DA plans shall be dealt with via a section 4.55 modification to the development. The approved car parking spaces shall be maintained to the satisfaction of Council, at all times.

12 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 AS 2890.1, except where amended by other conditions of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.

13 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.

14 **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 approved Landscape Plan (Landscape Plan 4132-P201-E dated 22 March 2022 prepared by dsb Architects) for the approval by the PC, prior to the release of the Construction Certificate.

15 The submission of a final Landscape Plan to the PC, prior to the release of the Construction Certificate. The final Landscape Plan shall address the following requirements:

- a planting of indigenous plant species native to the Illawarra Region such as: *Syzygium smithii* (syn *Acmena smithii*) Lilly pilly, *Archontophoenix cunninghamiana* Bangalow palm, *Backhousia myrtifolia* Grey myrtle, *Elaeocarpus reticulatus* Blueberry ash, *Glochidion ferdinandii* Cheese tree, *Livistona australis* Cabbage palm tree, *Syzygium paniculatum* Brush cherry.
A further list of suitable suggested species may be found in Wollongong Development Control Plan 2009 – Chapter E6: Landscaping;
- b a schedule of proposed planting, including botanic name, common name, expected mature height and staking requirements as well as number of plants and pot sizes;
- c the location of all proposed and existing overhead and underground service lines. The location of such service lines shall be clear of the dripline of existing and proposed trees; and
- d any proposed hard surface under the canopy of existing trees shall be permeable and must be laid such that the finished surface levels match the existing level. Permeable paving is to be installed in accordance with the manufacturer's recommendations.
- e installation of root control barrier to base of any tree pit in the deep soil zone to protect sewer line from root damage.
- f The Landscape Plan is to be amended to remove all structures from the Deep Soil Zone, including but not limited to paths, steps and paving.
- g In regard to the overland flow paths along the Eastern and Northern boundaries, raised vegetation with stems up to 1m should replace any hedges to enable stormwater flow to be conveyed as well as capture the flow from the upstream catchment and deep soil zone.

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

16 The submission of certification from a suitably qualified and experienced landscape designer and drainage consultant to the PC prior to the release of the Construction Certificate, confirming that the landscape plan and the drainage plan are compatible.

17 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 PC prior to release of the Construction Certificate.

18 **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 one (1) metre to the PC 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, subsoil drainage 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, subsoil drainage and footing structure must be contained wholly within the subject property;
- e The proposed method of subsurface and surface drainage, including water disposal. This is to include subsoil drainage connections to an inter-allotment drainage line or junction pit that discharges to the appropriate receiving system;
- f The assumed loading used by the engineer for the wall design.
- g 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.

19 **Stormwater Connection to Kerb**

Connection across footways shall be by means of one or two (maximum), sewer grade UPVC pipe(s), 100mm diameter pipes with a continuous downslope gradient to the kerb. Connection to the kerb shall be made with a rectangular, hot dipped galvanised mild steel weephole(s) shaped to suit the kerb profile, with each weephole having the capacity equal to a 100mm diameter pipe. Alternatively, a maximum of two 150mm x 100mm hot dipped galvanised steel pipes may be used across footways, with the 150mm dimension being parallel to the road surface to suit the kerb profile.

20 Bicycle parking facilities must have adequate weather protection and provide the appropriate level of security as required by the current relevant Australian Standard AS 2890.3 - Bicycle Parking Facilities. This requirement shall be reflected on the Construction Certificate plans.

21 **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. Please allow up to 3-5 business days for a reply. Enquiries regarding property addressing may be made by calling 4227 8660.

22 **Street Trees City Centre**

The developer must address the street frontage by installing street tree planting. The number and species for this development is two (2) *Glochidion ferdinandi* 200 litre container size in accordance with AS 2303:2018 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.

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

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

23 **Sizing of Drainage**

All roof gutters, downpipes, pits, and pipelines draining roof areas and other impervious surfaces with no deliberate overflow path to the on-site stormwater detention (OSD) facility, shall be designed to cater for a 1 in 100 year ARI storm event in accordance with AS 3500.3 – Plumbing and Drainage (Stormwater Drainage). Details of gutter/downpipe/pipeline sizes and locations shall be reflected on the Construction Certificate plans.

24 **Stormwater Drainage Design**

A detailed drainage design for the development must be submitted to and approved by the PC 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 plan/s lodged for development approval, prepared by ATB Consulting Engineers, Reference Nos: 21021 SW3 Revision B dated 03/09/21, 21021 SW4 Revision D dated 31/03/22, 21021 SW8 Revision A dated 12/12/21 and 21021 SW9 Revision A dated 31/03/22.
- b Include details of the method of stormwater disposal. Stormwater from the development must be piped to Council's existing stormwater drainage system.
- 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.

25 **Council Footpath Reserve Works – Driveways and Crossings**

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 restored 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. Any redundant linemarking such as 'marked parking bays' are adjusted/removed at the developer's expense by a Council recognised contractor with the relevant insurances. Details and locations are to be shown on the Construction Certificate Plans.

26 **Dilapidation Survey**

A dilapidation survey and report shall be submitted to the PC.

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 PC prior to the issue of a Certificate of Practical Completion for Subdivision works.

27 **Development Contributions**

Pursuant to Section 4.17 of the Environmental Planning and Assessment Act 1979 and the Wollongong City-Wide Development Contributions Plan, a monetary contribution of \$70,484.30 (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 x (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: 1381777	<ul style="list-style-type: none"> • Credit Card
In Person	Wollongong City Council Administration Building - Customer Service Centre Ground Floor 41 Burelli Street, WOLLONGONG	<ul style="list-style-type: none"> • Cash • Credit Card • Bank Cheque
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 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

28 **Unexpected Finding Protocol**

Unexpected site contamination such as buried asbestos or other materials may be detected after work commences. Unexpected contamination or hotspots on a site should be taken into account for any site health and safety plan. Precautions should be included in the plan, including:

- workers trained to recognise potential contamination and danger signs e.g. odours or soil discolouration.
- precautions to be taken if signs of unexpected contamination or hot spots are found, such as:
 - stop work.
 - report signs to the site supervisor immediately.
 - isolate the area with a physical barrier.
 - assume the area is contaminated until an assessment proves otherwise.
 - assess the area to identify contaminants in the soil or spoil.

29 **Construction Environmental Management Plan**

A Construction Environmental Management is to be prepared and submitted to the PC prior to works commencing. The plan shall address but not necessarily be limited to the following:

- 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.

30 **Excavated Soil Material Disposal Plan**

An Excavated Soil Material Disposal Plan is to be prepared and submitted to the PC identifying the batching, sampling and analysis procedures as per the DECCW (2009) Waste Classification Guidelines. The plan shall be prepared by a suitably qualified and experienced consultant. A copy of the plan shall be forwarded to Council.

31 **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 PC 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.

32 **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.

33 **Enclosure of the Site**

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

34 **Demolition Works**

Demolition shall be carried out in accordance with Australian Standard AS 2601:2001: 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 PC. 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.

35 **Demolition Notification to Surrounding Residents**

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

36 **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.

37 **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 (<<http://www.safework.nsw.gov.au>>). The strategy shall be submitted to the PC and Council (in the event that Council is not the PC 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 PC and Council (in the event that Council is not the PC), 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.

38 **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.

39 **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.

40 **Waste Management**

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 reusable materials.

41 **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, five (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.

42 **Tree Protection**

Prior to commencement of any work on the site, including any demolition, all trees not approved for removal as part of this consent that may be subjected to impacts of this approved development must be protected in accordance with Section 4 of the Australian Standard Protection of Trees on Development Sites (AS 4970:2009).

Tree protection zones must be established prior to the commencement of any work associated with this approved development.

No excavation, construction activity, grade changes, storage of materials stockpiling, siting of works sheds, preparation of mixes or cleaning of tools is permitted within Tree Protection Zones.

During Demolition, Excavation or Construction

43 **Implementation of all the Recommendations (Façades Glazing, Structural Materials and Construction Noise Prevention) of Acoustic Report**

Building acoustic treatments recommended in Section 3.0 and 4.0 of the Acoustic Report prepared by PKA Acoustic Consulting dated 17 September 2021 are to be implemented.

44 **Mechanical Plants and Exhaust Ventilation System
Outdoor Air Conditioning or Refrigeration Units**

The outdoor units for refrigeration system including air conditioners shall have suitable acoustic enclosure as recommended by Acoustic Report prepared by PKA Acoustic Consulting dated 17 September 2021 to comply with the noise guidelines.

Duct system

The ducting within the building must be mounted on vibration reducing pads to minimise vibration effect for residential apartments to comply with the vibration guidelines.

45 **Piping of Stormwater to Existing Stormwater Drainage System**

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

46 **No Adverse Run-off Impacts on Adjoining Properties**

The design and 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.

47 **Copy of Consent to be in Possession of Person carrying out Tree Removal**

The Developer/Applicant must ensure that any person carrying out tree removal is in possession of this development consent and/or the approved landscape plan, in respect to the tree(s) which has/have been given approval to be removed in accordance with this consent.

48 **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 PC and Council. No work is permitted on public holidays or Sundays.

Allowable construction activity noise levels must be within the limits identified in the NSW EPA Interim Construction Noise Guidelines (ICNG) July 2009. ICNG are also applied for blasting, rock hammer and drilling, external plant and equipment.

<https://www.environment.nsw.gov.au/resources/noise/09265cng.pdf>

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.

49 **Site Management**

Stockpiles of sand, gravel, soil and the like must be located to ensure that the material:

- a Does not spill onto the road pavement and
- b is not placed in drainage lines or watercourses and cannot be washed into these areas.

50 Should during construction any waste material or construction material be accidentally shall be removed immediately. Evidence that any approval to place material on the road or road reserve shall be available for inspection by Council officers on site at any time.

51 **Dust Suppression Measures**

Activities occurring during the construction phase of the development must be carried out in a manner that will minimise the generation of dust.

52 **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 (<http://www.safework.nsw.gov.au>).

53 **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 PC, and a copy submitted to Council (in the event that Council is not the PC), prior to commencement of the construction works.

54 **Acid Sulfate Soils**

The Wollongong Local Environmental Plan 2009 Acid Sulfate Soils Map 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) by 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.

55 **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.

56 **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.”

57 **Excess Excavated Material – Disposal**

Excess excavated material shall be classified according to the NSW Environment Protection Authority’s Waste Classification Guidelines – Part 1: Classifying Waste (2014) prior to being transported from the site and shall be disposed of only at a location that may lawfully receive that waste.

58 **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.

59 **Screen Planting**

To mitigate impact to adjoining dwelling a continuous hedge is to be established along Northern, Eastern and Southern boundaries boundary for the length of property boundary.

To ensure the landscaping does not conflict with the drainage overland flow path, species are to be selected and managed to achieve the following: Shrubs to be single stemmed, 70L pot size, and pruned such that the stem is clear of branches up to 1m above ground level. Suitable species include Lilly pillies and Viburnums.

Minimum spacing 1500mm.

Minimum pot size 70 lt.

A further list of suitable suggested species may be found in Wollongong Development Control Plan 2009 – Chapter E6: Landscaping.

60 **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.

Prior to the Issue of the Occupation Certificate

61 **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 WAE 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 DCP 2009. This information must be submitted to the PC prior to the issue of the final Occupation Certificate

62 **BASIX**

An Occupation Certificate must not be issued unless accompanied by the BASIX Certificate applicable to the development. The PC 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.

63 **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.

64 **Drainage WAE**

The developer shall obtain written verification from a suitably qualified civil engineer, stating that all stormwater drainage and related work has been constructed in accordance with the approved Construction Certificate plans. In addition, full WAE 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), and finished ground and pavement surface levels. This information shall be submitted to the PC prior to the issue of the Occupation Certificate.

Operational Phases of the Development/Use of the Site

65 **Loading/Unloading Operations/Activities**

All loading/unloading operations are to take place at all times wholly within the confines of the site or within the road reserve under an approved traffic control plan.