Residential Flat Design Code

Standards/controls	Comment
Part 1 – Local context	
Residential Flat Building type	
Suitable for site context	
	Residential flat building (tower apartment)
Amalgamation and Subdivision	
Encouraged	
	The subject site consists of 3 lots, it is recommended consolidation be required as a condition of consent if the DA is supported
Building Depth	
Max 18m (glass line to glass line) For wider buildings, must demonstrate how satisfactory daylight and natural	Level 3-Level 6 17m Level 8 - Level 14
ventilation are achieved	13.5m Northern portion
	15m southern
	<u>Level 15 – 16</u>
	15m Level 17m
	16m
Building Separation	
To ensure that new development is scaled to support the desired area character with appropriate massing and spaces between buildings.	There is no building immediately adjoining the property that contains either residential or residential levels above two storeys. However the application includes setbacks which cater for future building separation requirements on adjoining site as they are at the 50% of the required rate. As indicated below:
To provide visual and acoustic privacy for existing and new residents.	and the title copy of the required rule. The interestical series in
To control overshadowing of adjacent properties and private or shared open space.	
To allow for the provision of open space with appropriate size and proportion for recreational activities for building occupants.	
To provide deep soil zones for stormwater management and tree	
planting, where contextual and site conditions allow.	

Standards/controls	Comment
form and visual and acoustic privacy has been satisfactorily achieved.	
Rule of thumb Between adjoining sites: Up to four storeys/12m 12m between habitable rooms/balconies 9m between habitable rooms/balconies and non-habitable rooms 6m between non-habitable	The building is mixed use and the commercial/retail component is located between the ground floor and the 12m height. There is no residential below 12m.
 Five to eight storeys/up to 25m: 18m between habitable rooms/balconies 13m between habitable rooms/balconies and non habitable rooms 9m between non-habitable rooms Nine storeys and above/over 25m 24m between habitable/balconies 18m between habitable and non 12m to non-habitable Allow zero building separation in appropriate contexts such as in urban areas between street wall building tripes (nexts walls) 	Whilst the building between 12m and 25m has a 0m setback on the Auburn and Dean Street frontage which is in response to the urban context. The urban context encourages 0m setbacks up to a street frontage height of 24m. Components of the building that are not located on the boundary are setback 17.5m at the closet point and therefore satisfy building separation given the 50% requirement. Above 25m the building is setback 12m to both the west and southern boundary. This equates to 50% of the required 24m and such building separation for future development should be compliant. As discussed above the area of affordable housing located between 12m and 25m in height is located on the boundary. This is in response to the urban context and considered satisfactory.
building types (party walls) Street setbacks	
Om	Ground Floor retail Dean Street – 0m Auburn Street – 0m to stairs - 0.5m to ramp – 4m to building Level 1 – Retail/Commercial Dean Street – 0m Auburn Street – 0.5m to glassline Level 2 – retail/Commercial Dean Street – 0m Auburn Street – 0m Auburn Street - 0.5m to balcony planters and 2.4m to building Residential Level 3 – 6 Dean Street – 0m to balcony and building

Standards/controls	Comment
	<u>Level 8 - 14</u>
	Dean Street – 4m to balcony – 5.8 to building
	Auburn Street – 4m to balcony & building
	<u>Level 15-16</u>
	Dean Street – 4m balcony 5.7m to building
	Auburn Street – 4m to balcony – 6.3m to building
	Level 17
	Dean Street – 5.8m to COS – 8.1m balcony, 16.2m to building
	Auburn Street – 4m to balcony – 6.3m to building
Side and rear setbacks	
Objectives	Ground Floor
To minimise the impact of	West – 0m
development on light, air, sun,	South – 0m
privacy, views and outlook for	Level 1
neighbouring properties, including	West – 0m
future buildings.	South = 0m
Maintain deep soil zones	Level 2
Maximise building separation to	West - 0m
provide visual and acoustic privacy	South - 0m
Where setbacks are limited by lot	
size and adjacent buildings, "step in" the plan to provide internal	Residential
courtyards and limit the length of	<u>Level 3 – 6</u>
walls facing boundaries	West – 0m to balcony & building
	Extends to 17.5m to balcony
	South – 0m to balcony & building
	Level 8 - 14
	West – 12m to balcony & building
	South - 12m to balcony – 14m to building
	Level 15-16
	West - 16.5m to balcony - 17.5m to building
	South – 14m to balcony – 15.5m to building
	Level 17
	West – 17.6m to COS – 20.4m to building
	South – 15.5m to balcony – 22m to building
Floor space ratio	
Test the desired built form outcome	The application has been nominated as affordable housing and
against FSR to ensure consistency with	therefore benefits from the additional allowances of FSR however Council is of the opinion that the SEPP is not
other building envelope controls	however Council is of the opinion that the SEPP is not applicable in this case and as such the additional 20% is not
	allowable. In this regard the FSR is non-compliant in regards to
	the WLEP2009.
Part 2 – Site design	
Deep Soil Zone	
The rule of thumb is for a minimum of	The site is located within the city core and as such allows for
The rule of thumb is for a minimum of	The site is located within the city core and as such allows for

Standards/controls	Comment
25% of the open space area of site to be a deep soil zone.	boundary to boundary commercial development. Deep soil zones within the commercial core are not required. Podium planting is required instead.
Fences and walls	
Compatible with existing street character.	The subject site is located within the commercial core. The ground floor is to be used entirely for commercial/retail
Delineate public and private domain.	activities and car parking. At this level there is no delineation of public and private domains required. The proposal complies.
Select durable materials.	complete.
Enhance open spaces by incorporating planter boxes, seats, BBQs etc.	
Landscape design	
To add value to residents' quality of life within the development in the forms of privacy, outlook and views. Improve amenity of open space.	Landscape plan has been provided, and reviewed by Council's Landscape Officer. It is satisfactory and provides for a range of different areas and types of spaces including dense planting within podium.
Contribute to streetscape character and public domain.	
Improve energy efficiency & solar efficiency of dwellings and private open spaces.	
Landscape to contribute to site's characteristics.	
Contribute to water and stormwater efficiency.	
Provide sufficient depth of soil above slabs to enable growth of mature trees.	
Minimise maintenance.	
Open Space	
The area of communal open space (includes landscaping) should generally be at least between 25 and 30% of the site area. Larger sites and brownfield sites may have potential for more than 30%. Where developments are unable to achieve the recommended communal open space, such as those in dense urban areas, they must demonstrate that residential amenity is provided in the form of increased private open space and/or in a contribution to	Communal Open Space Landscaped level 7 Podium has an area of 1,270sq.m Landscaped Rooftop 151sq.m Total – 1,420sq.m Site Area – 2,171sq.m Equates to 65.4%

Standards/controls	Comment
public open space.	
The minimum recommended area of private open space for each apartment at ground level or similar space on a structure, such as a podium or car park, is 25m ² ; the minimum preferred dimension in one direction is 4 metres	
<u>Orientation</u>	
Plan the site to optimise solar access by: positioning and orienting buildings to maximise north facing walls where possible providing adequate separation within the development and to adjacent buildings Select building types or layouts which respond to the streetscape while optimising solar access. Where streets are to be edged and defined by buildings, design solutions include: align buildings to the street on east-west streets use courtyards, L-shaped	It is considered that the proposed building with the L-shape allowing for adequate solar access to the existing properties to the south and is considered acceptable.
configurations and increased setbacks to northern (side) boundaries on north-south streets. Optimise solar access to living spaces and associated private open spaces by orienting them to the north. Detail building elements to modify environmental conditions, as required, to maximise sun access in winter and sun shading in summer.	
Planting on Structures	
Recommended plant sizes are provided for varying situations.	Podium planting proposed in planter beds. Council's Landscape Officer has reviewed the landscape plan and has no objection in relation to this aspect of the landscaping works. The proposal complies.
Stormwater management	
To minimise the impacts of residential development and associated works on the health and amenity of natural waterways.	Council's Stormwater Engineer has reviewed the proposed application and raised no objection. Conditions have been provided if the application was to be favourably viewed.
To preserve existing topographic and natural features, including	

Standards/controls	Comment
 watercourses and wetlands. To minimise the discharge of sediment and other pollutants to the urban stormwater drainage system during construction activity. 	
Safety	
The rule of thumb is that a formal crime risk assessment be carried out for residential developments of over 20 new dwellings.	The proposal has been reviewed by Council's SCAT.
Visual privacy	
 To provide reasonable levels of privacy externally and internally, during the day and at night To maximise outlook and views from principal rooms and private open space without compromising visual privacy. 	Building layout has been designed to minimise opportunities for direct overlooking. Balconies are sited such that overlooking between balconies is not possible. The proposal complies.
Building entry	
To create entrances which provide a desirable residential identity for the development.	Proposed building entry is located on the ground level. Entry is reasonably well defined between retail and commercial tenancies.
To orient the visitor	Entry is safe. It is assumed that key control will be required.
To contribute positively to the streetscape and building façade design Provide as direct a physical and visual connection as possible between street and building entry.	Access is level. Access from adaptable parking spaces within the basement will be via the lift. Conditions will be required to be imposed in relation to compliance with AS 4299. Ramp to basement is separate to pedestrian entry.
Provide safe and secure access	Mail boxes are appropriately located adjacent to the main pedestrian entry and close to the frontage.
Provide equal access	The proposal complies.
Provide separate entries for vehicles and pedestrians	
Appropriate design and location of mail boxes	
<u>Parking</u>	
To minimise car dependency for commuting and recreational transport use and to promote alternative means of transport-public transport, bicycling and walking.	All parking is provided behind the building or below ground. A total of 129 parking spaces have been provided. The parking complies with the WDCP 2009.
To provide adequate car parking	

Standards/controls	Comment
for the building's users and visitors, depending on building type and proximity to public transport.	
Pedestrian Access	
Identify the access requirements from	Pedestrian access available from the street.
the street or car parking area to the apartment entrance.	Pedestrian access between car parking level and the rest of the building is via the fire stairs or lift.
Follow the accessibility standard set out in AS1428 (part 1 and 2), as a minimum	Barrier free access appears to be available to all units. 6 units are nominated as adaptable units.
Provide barrier free access to at least 20% of dwellings in the development	The proposal complies.
<u>Vehicle access</u>	
Generally limit the width of	Proposed driveway width 6.0 metres.
driveways to a maximum of 6 metres.	Vehicular access separate from pedestrian access points.
Locate vehicle entries away from main pedestrian entries and on secondary street frontages.	The proposal complies.
Part 3 – Building Design	
Apartment layout	
Single-aspect apartments should be limited in depth to 8m from a window	The single aspect units have a maximum depth of 8m
Back of a kitchen should be no more than 8m from a window	All kitchens comply.
The width of cross-over or cross- through apartments over 15 metres deep should be 4 metres or greater to avoid deep narrow apartment layouts	Units all have a width greater than 4m.
Providing open space in the form of a balcony, a terrace, a courtyard	All units have satisfactory solar access and natural ventilation.
 or a garden for every apartment Locating main living areas adjacent to main private open space. 	The proposal complies.
Include adequate storage space.	
Buildings not meeting the minimum standards listed above, must demonstrate how satisfactory daylighting and natural ventilation should be achieved, particularly in relation to habitable rooms (see Daylight Access and Natural Ventilation)	

Standards/controls	Comment
Apartment mix	
Provide a variety of apartment types between studio-, one-two-, three- and three plus-bedroom apartments, particularly in large apartment buildings. Variety may not be possible in small apartment buildings, for example, up to six units. Refine the appropriate apartment mix for a location by: • Considering population trends in the future as well as present market demands • Noting the apartments' location in relation to public transport, public facilities, employment areas, schools and universities • Locate a mix of one- and three bedroom apartments on the ground level where accessibility is more easily achieved for disabled, elderly people or families with children. • Optimise the number of accessible and adaptable apartments and cater for a wide range of occupants. Australian Standards are only a minimum. • Investigate the possibility of flexible apartment configurations, which support change in the future (see Flexibility).	99 x 1 bedroom 10 x 2 bedroom units 7 x 3 bedroom units Total = 116 Of those 56 x 1 bedroom affordable 4 x 2 bedroom affordable Mix is considered to be appropriate All apartments accessible via lift. 12 units identified as adaptable.
Balconies	
 Provide primary balconies with a minimum depth of 2m. Developments that seek to vary from the minimum standards must demonstrate negative impacts from noise, wind can not be mitigated with design solutions. 	Affordable The affordable units have balconies of 8sq.m Level 8-14 The balconies have an area that ranges from 14sq.m to 37sq.m all with a minimum depth of 2.4m or larger. Level 15-16 The balconies have an re of 17sq.m to 43sq.m with a depth of 2.4m or larger Level 17 The penthouse has a balcony of 162sq.m with a depth of 2.4m and greater.
Ceiling heights	
The following recommended dimensions are measured from finished	Ceiling heights are 2.7m or more to all rooms. Complies

Standards/controls	Comment
floor level (FFL) to finished ceiling level (FCL). These are minimums only and do not preclude higher ceilings, if desired.	
-in mixed use buildings: 3.3m minimum for ground floor retail or commercial and for first floor residential, retail or commercial to promote future flexibility of use	
-in residential flat buildings in mixed use areas: 3.3m minimum for ground floor to promote future flexibility of use	
-in residential flat buildings or other residential floors in mixed use buildings:	
- in general, 2.7m minimum for all habitable rooms on all floors, 2.4 metres is the preferred minimum for all non-habitable rooms, however 2.25m is permitted.	
-for two storey units 2.4m minimum for second storey if 50 percent or more of the apartment has 2.7m minimum ceiling heights	
-for two-storey units with a two-storey void space, 2.4 metre minimum ceiling heights	
-attic spaces, 1.5 metre minimum wall height at edge of room with a 30 degree minimum ceiling slope.	
Developments which seek to vary the recommended ceiling heights must demonstrate that apartments will receive satisfactory daylight (eg. shallow apartments with large amount of window area).	
Flexibility	
To encourage housing designs which meet the broadest range of the occupants' needs as possible.	A mix of unit size and type has been provided appealing to different aspects of the market. All units are physically accessed via lifts.
To promote 'long life loose fit' buildings, which can accommodate whole or partial change of use.	Minimal flexibility built into design. This is considered to be appropriate having regard to the zoning of the site and the

Standards/controls	Comment
To encourage adaptive re-use.	character of the neighbourhood.
	12 adaptable units are proposed and all units should be accessible.
Ground floor apartments	
 Optimise the number of ground floor apartments with separate entries and consider requiring an appropriate percentage of accessible units. This relates to the desired streetscape and topography of the site. Provide ground floor apartments 	Located within the commercial core and as such no residential apartments are located on the ground floor
with access to private open space, preferably as a terrace or garden.	
Internal circulation	
In general, where units are arranged off a double loaded corridor, the number of units accessible from a single core/corridor should be limited to eight. Exceptions may be allowed: • For adaptive re-use buildings • Where developments can demonstrate the achievement of the desired streetscape character and entry response Where developments can demonstrate a high level of amenity for common lobbies, corridors and units (cross over, dual aspect apartments)	Levels 3-6 = 15 units Levels 7 podium Levels 8-12 = 7 units Levels 13-14 = 7 units Level 17 = 1 unit For Levels 8 to 17 a maximum of 7 units is accessed from a single core and complies. However the affordable housing floors being Levels 3 to 6 have a total of 15 units accessed from a single core. This is not considered satisfactory.
Mixed use	
Complementary uses Consider building depth and form in relation to each uses requirements for servicing and amenity Design legible circulation systems which ensure safety Ensure building positively contributes to public domain Address acoustic requirements Recognise ownership/lease patterns	The commercial use is separate to the residential uses. The operation of the commercial component should not interfere with the residential. Satisfactory

Standards/controls	Comment
assessment	
Storage	
In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates:	All units have been provided with a storage area within the basement car park. Each of the storage areas has sufficient capacity. Complies
 studio apartments 6m³ one-bedroom apartments 6m³ two-bedroom apartments 8m³ 	
three-plus bedroom apartments 10m ³	
Acoustic privacy	
Use site and building layout to maximise potential for acoustic privacy by providing adequate building separation within the development and from neighbouring buildings.	Suitable separation distances provided
Arrange apartments within a development to minimise noise transition between flats.	Like areas within units generally abut. Most units appear to be reasonably well designed with regard to acoustic privacy.
Design internal apartment layout to separate noisier spaces from quieter spaces.	As above.
Resolve conflicts between noise, outlook and views.	Details of entry seals are not provided. This could be dealt with by a condition of consent is the proposal is approved.
Reduce noise transmission from common corridors or outside the building by providing seals at entry doors.	Complies.
Daylight access	
Living Rooms and private open spaces for at least 70% of apartments in a development should receive a	Applicant indicates that 80.2% of units will receive a min of three hours sunlight between 9am and 3pm.
minimum of three hours direct sunlight between 9.00am and 3.00pm in mid winter. In dense urban areas a	Applicant indicates that all balconies will receive sufficient solar access in accordance with this requirement.
minimum of two hours may be acceptable	There are 4 single aspect south facing units which equates 3.5%
Limit the number of single aspect apartments with a southerly aspect (SW-SE) to a maximum of 10 percent of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed (see Orientation	Complies

Standards/controls	Comment
and Energy Efficiency).	
Natural ventilation	
Building depths, which support natural ventilation typically range from 10 to 18 metres. 60% of residential units should be naturally cross-ventilated. 25% percent of kitchens within a development should have access to natural ventilation. Developments, which seek to vary from the minimum standards, must demonstrate how natural ventilation can be satisfactorily be achieved,	Building depth complies with the maximum. The applicant has indicated that 100% of units are cross ventilated. This is further discussed within the report. All units will receive sufficient solar access and are all naturally ventilated. Discussed further within the report The proposal complies.
particularly in relation to habitable rooms.	
Awnings and signage	
Objectives: Provide shelter for public streets Ensure signage is in keeping with desired streetscape character and with scale, detail and design of the development. Facades To ensure that new developments	Awnings are proposed over the footpath as they are required by WDCP 2009 No signage is proposed at this stage Design is of a reasonably high standard. External finishes appear to be of a high standard.
 have facades which define and enhance the public domain and desired street character. To ensure that building elements are integrated into the overall building form and façade design. 	All elevations are reasonably well treated with regard to modulation, articulation and fenestration. This assists in reducing the perception of bulk. Appropriate materials will be used. The proposal complies.
Roof design	
Relate roof design to the desired built form. Design the roof to relate to the size and scale of the building, the building elevations and three dimensional building form.	Most of the proposed roof is flat, and complies with the maximum height limits. This is considered to be appropriate with regard to the design of other buildings within with precinct. Service elements are not incorporated into the roof design.
Design roofs to respond to the orientation of the site, eg. by using eaves and skillion roofs to respond to	The proposal complies.

Standards/controls	Comment
sun access.	
Minimise visual intrusiveness of service elements by integrating them into the design of the roof.	
Support use of roofs for quality open space in denser urban areas.	
Energy efficiency	
Incorporate passive solar design techniques to optimise heat storage in winter and heat transfer in summer. Improve the control of mechanical space heating and cooling.	BASIX certificate submitted in relation to the units. Units are designed with dual aspect, or minimum depth and so have solar access and cross ventilation. This will assist in reducing energy usage through mechanical heating and cooling. BASIX certificate requires use of efficient appliances.
Provide or plan for future installation of photovoltaic panels.	The proposal complies.
Improve efficiency of hot water systems.	
Reduce reliance on artificial lighting.	
Maximise efficiency of household appliances.	
<u>Maintenance</u>	
Design windows to enable cleaning from inside the building, where possible.	Some of the windows will be accessible from either inside the building or from balconies. Council's Landscape Officer is satisfied generally with planting,
Select manually operated systems, such as blinds, sunshades, pergolas and curtains in preference to mechanical systems.	subject to some changes being made. Conditions have been recommended in this regard should the application be favourably viewed.
as blinds, sunshades, pergolas and curtains in preference to mechanical	subject to some changes being made. Conditions have been recommended in this regard should the application be
as blinds, sunshades, pergolas and curtains in preference to mechanical systems. Incorporate and integrate building maintenance systems into the design of the building form, roof, and façade. Select appropriate landscape elements and vegetation and provide appropriate	subject to some changes being made. Conditions have been recommended in this regard should the application be favourably viewed. No details have been provided in relation to maintenance of the podium planting. If properly planted, these will not require significant maintenance works.
as blinds, sunshades, pergolas and curtains in preference to mechanical systems. Incorporate and integrate building maintenance systems into the design of the building form, roof, and façade. Select appropriate landscape elements and vegetation and provide appropriate irrigation systems. For developments with communal open space, provide a garden maintenance and storage area, which is efficient and convenient to use and is	subject to some changes being made. Conditions have been recommended in this regard should the application be favourably viewed. No details have been provided in relation to maintenance of the podium planting. If properly planted, these will not require significant maintenance works.

Standards/controls	Comment
of the development application.	be moved to the street for garbage collection.
	The proposal complies.
Water conservation	
To reduce mains consumption of	Roofing materials – metal deck roof sheeting.
potable water.	BASIX certificate makes provision for rainwater collection and
• To reduce the quantity of stormwater run off.	reuse on site.
	The proposal complies.

WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

Chapter D13

Objectives/ controls	Comment	Compliance
2.1 General		
Building form and character refers to the individual elements of building design that collectively contribute to the character and appearance of the built environment. The Wollongong City Centre LEP includes provisions for land use, building heights and sun access planes, floor space ratio and design excellence. The development provisions in this section of the DCP on building form are intended to encourage high quality design for new buildings, balancing character of Wollongong with innovation and creativity. The resulting built form and character of new development should contribute to an attractive public domain in central Wollongong and produce a desirable setting for its intended uses.	It is considered that the development complies with the objectives of the zone and complies with the height requirements contained within the WLEP 2009. As discussed with on the report the building does not comply with the FSR as the bonus FSR is not applicable. It is considered that the application provides for appropriate built for within this location	Satisfactor
2.2 Building to street alignment and street setbacks		
Commercial Core Build to the street alignment or specified setback with 4m minimum further setback above street frontage height.	Street Frontage height Ground Floor Dean Street – 0m	Yes
Balconies may project up to 600 mm into front building setbacks, provided the cumulative width of all balconies at that particular level totals no more than 50% of the horizontal width of the building façade, measured at that level. Balconies are not permitted to encroach above the public road reserve. The Commercial Core, Mixed Use (city edge) and Enterprise Corridor zones are subject to requirement for corner properties to provide a 6m	Auburn Street – 0m to stairs - 0.5m to ramp – 4m to building Level 1 Dean Street – 0m Auburn Street – 0.5m to glassline Level 2 Dean Street – 0m Auburn Street – 0.5m to balcony planters and 2.4m to building	

Objectives/controls	Comment	Compliance
x 6m corner splay.	Residential	1
1 7	Level 3 – 6	
	Dean Street – 0m to balcony and building	
	Auburn Street – 0m to balcony and building	
	Above Street Frontage Height Level 8 - 14	
	Dean Street – 4m to balcony – 5.8 to building	
	Auburn Street – 4m to balcony & building	
	Level 15-16 Dean Street – 4m balcony 5.7m to	
	building Auburn Street – 4m to balcony – 6.3m to building	
	Level 17	
	Dean Street – 5.8m to COS – 8.1m balcony, 16.2m to building	
	Auburn Street – 4m to balcony – 6.3m to building	
2.3 Street frontage heights in commercial core		
The street frontage height of buildings in the Commercial Core are not to be less than 12m or greater than 24m above mean ground level on the street front as shown in Figure 2.3.	The street frontage height is 24m however due to the slope of the land this extends to 26m along the Auburn Street frontage.	No - Satisfactor y
2.4 Building depth and bulk		
The maximum floorplate sizes and depth of buildings are:	The floor plate sizes and depth comply with the maximum.	Yes
Residential and serviced apartments in Commercial Core above 24m height is 18m and 900m2		
2.5 Side and rear building setbacks and building separation		
Commercial Core	Street Frontage height	
Up to Street frontage height = 0m	Ground Floor	Yes
	West – 0m	
	South – 0m	
	Level 1 West – 0m	
	west – um	

Objectives/controls	Comment	Compliance
	South – 0m	
	Level 2	
	West - 0m	
	South - 0m	
	Residential	
	<u>Level 3 – 6</u>	
	West – 0m to balcony & building	
	Extends to 17.5m to balcony	
	South – 0m to balcony & building	
	Level 7	
	Landscape podium	
	Landscape podium	
Residential Uses (habitable rooms) between street	Above Street Frontage Height	
frontage height and $45m = 12m$	<u>Level 8 - 12</u>	
All uses (including non-habitable residential)	West – 12m to balcony & building	Yes
between street frontage height and 45m = 6m	South - 12m to balcony – 14m to	
	building	
	Above 45m	
	Level 13 & 14	
All use above $45m = 14m$	West – 14m to balcony & building	Yes
	South - 14m to balcony – 14m to building	100
	<u>Level 15-16</u>	
	West - 16.5m to balcony - 17.5m to building	Yes
	South – 14m to balcony – 15.5m to building	
	Level 17	
	${\text{West} - 17.6\text{m}}$ to $\cos - 20.4\text{m}$ to	
	building	
	South – 15.5m to balcony – 22m to	
	building	
2.6 Mixed used buildings		
Provide flexible building layouts which allow	A flowible floor levent for the	
variable tenancies or uses on the first two floors of	A flexible floor layout for the commercial space has been provided to	
a building above the ground floor.	allow for two storey retail components.	
	And small and large spaces have been provided	
	Ground floor retail - 5.3m	
Minimum floor to ceiling heights are 3.3 metres	First floor retail/commercial - 3.4m	
for commercial office and 3.6 metres for active public uses, such as retail and restaurants in the B3	Second Floor commercial – 4m	

Objectives/ controls	Comment	Compliance
Commercial Core zone.		
Separate commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook.	Separate spaces have been provided	
Locate clearly demarcated residential entries directly from the public street		
2.7 Deep soil zone		
All residential developments must include a deep soil zone. The deep soil zone shall comprise no less than 15% of the total site area preferably provided in one continuous block and shall have a minimum dimension (width or length) of 6 metres. For residential components in mixed use developments in the Commercial Core, Mixed Use (city edge) and Enterprise zones, the amount of deep soil zone may be reduced commensurate with the extent of non-residential uses. Where non-residential components result in full site coverage and there is no capacity for water infiltration, the deep soil component must be provided on structure. Where deep soil zones are provided, they must accommodate existing mature trees as well as allowing for the planting of trees/shrubs that will grow to be mature trees.	Within the commercial core the deep soil cannot be provided on the ground floor as the commercial can be building boundary to boundary. A deep soil zone is being provided on the podium level.	Yes
2.8 Landscape design		
	Council's landscape section has assessed the application and raise no objection to the proposal and has provided conditions if the application was to be favourably viewed.	Yes
2.9 Planting on structures		
Provide sufficient soil depth and area to allow for plant establishment and growth.	Council's landscape section has assessed the application and raise no objection to the proposal and has provided conditions if the application was to be favourably viewed.	Yes
2.10 Sun access planes		
Relevant height and setback controls for development adjacent to key public spaces apply.	The subject site is not located adjoining or within the vicinity of a key site	Yes

Objectives/controls	Comment	Compliance
2.11 Development on classified roads		
Consent must not be granted to the development of land that has a frontage to a classified road unless the consent authority is satisfied that:	The site is not located on a classified road	N/A
Where practicable, vehicular access to the land is provided by a road other than the classified road.		

3 Pedestrian amenity

Objectives/controls	Comment	Compliance
3.1 General		
Pedestrian amenity incorporates all those elements of individual developments that directly affect the quality and character of the public domain. The pedestrian amenity provisions are intended to achieve a high quality of urban design and pedestrian comfort in the public spaces of the city centre. The pedestrian environment provides people with their primary experience of and interface with the city. This environment needs to be safe, functional and accessible to all. It should provide a wide variety of opportunities for social and cultural activities. The pedestrian environment is to be characterised by excellence of design, high quality materials and a standard of finish appropriate to a regional city centre.	It is considered that the development contributes to high pedestrian amenity	Satisfactor y
3.2 Permeability		
Where possible, existing dead end lanes are to be extended through to the next street as redevelopment occurs. New through site links should be connected with existing and proposed through block lanes, shared zones, arcades and pedestrian ways and opposite other through site links	The site is not identified as requiring permeability being by way of through links	N/A
3.3 Active street frontages		
In commercial and mixed use development, active street fronts are encouraged in the form of non-residential uses on ground level. Active street fronts in the form of non-residential uses on ground level are required along streets, lanes and through site links shown in Figure 3.4 for all buildings in the Commercial Core and Tourist zones, and for mixed use buildings in the Mixed Use (city edge) and Enterprise zones. Residential developments are to provide a clear	The development proposes an active street frontage by way of commercial/retail located on the ground floor. Clearly delineated residential entry points are proposed.	Yes

street address and direct pedestrian access off the primary street front, and allow for residents to		
overlook all surrounding streets. 3.4 Safety and security		
Ensure that the building design allows for casual		**
surveillance of accessways, entries and driveways.	Council's Safe Community Action Team assessed the application and comments were provided. The applicant	Yes
Avoid creating blind corners and dark alcoves that provide concealment opportunities in pathways, stairwells, hallways and carparks.	amended some components of the application to provide for better safety and is considered satisfactory in this	
Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering.	regard.	
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.		
Provide security access controls where appropriate.		
3.5 Awnings		
Continuous street frontage awnings are to be provided for all new developments as indicated in Figure 3.6.	A continuous awning is being provided across the Dean Street frontage of the property	Yes
Awning design must match building facades and be complementary to those of adjoining buildings.		
3.6 Vehicular footpath crossings		
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.	Two vehicle entry points are being proposed and one is large then the maximum 5.4m provisions. This issue has been discussed further within the report.	No- variation sought
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.		
Where practicable, adjoining buildings are to share or amalgamate vehicle access points. Internal onsite 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.		
3.7 Pedestrian overpasses, underpasses and encroachments		
New overpasses over streets will generally not be approved. In exceptional circumstances, new overpasses over service lanes may be considered by the consent authority subject to assessment of		N/A

impacts on safety and crime prevention, streetscape amenity and activation of the public domain. In such circumstances, overpasses are to be fully glazed, not greater than 6 metres wide or more than one level high. Refer to AS 5100.1 – 2004. Longitudinal development under the road reserve is not permitted. The siting of basement carparks beneath the road reserve is not permitted for private developments. Stratum road closures for this purpose will not be permitted. Underpasses may be considered by the consent		
authority for direct connection under adjacent streets to railway stations: i) Where they would substantially improve pedestrian safety and accessibility, and ii) Incorporate active uses, particularly at entry and exit points.		
3.8 Building exteriors		
Articulate facades so that they address the street and add visual interest. External walls should be constructed of high quality and durable materials and finishes with 'selfcleaning' attributes, such as face brickwork, rendered brickwork, stone, concrete and glass. 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. Limit opaque or blank walls for ground floor uses to 30% of the street frontage. Maximise glazing for retail uses, but break glazing into sections to avoid large expanses of glass. The design of roof plant rooms and lift overruns is to be integrated into the overall architecture of the building.	It is considered that the building exterior of the building provides for good design and interest. Building alignment and setbacks are appropriate Appropriate material and finishes selection The proportions are acceptable. Building is modulated and well articulated. Variety of materials are used	Yes
3.9 Advertising and signage		
Signs are to be designed and located to: i) Relate to the use of the building, ii) Be visually interesting and exhibit a high level of design quality, iii) Be integrated and achieve a high degree of	None proposed at this stage.	N/A

compatibility with the architectural design of the		
supporting building having regard to its composition, fenestration, materials, finishes, and		
colours, and ensure that architectural features of the building are not obscured,		
iv) Have regard to the view of the sign and any supporting structure, cabling and conduit from all		
angles, including visibility from the street level and nearby higher buildings and against the		
skyline, and		
v) Have only a minimal projection from the building.		
3.10 Views and view corridors		
Existing views shown in located with the view corridor are to be protected to the extent that is practical in the planning and design of	The subject site is located outside of an known view corridor.	Yes
development.	There is no immediately surrounding property that is affected by loss of	

4 Access, parking and servicing

Objectives/controls	Comment	Compliance
4.1 General		
This section contains detailed objectives and controls on pedestrian access, vehicular access, onsite parking and site facilities, including refuse collection and removal.	It is considered that the application complies with the requirements of this section of the DCP	Yes
To satisfy the aims and zoning objectives of the Wollongong LEP 2009, controls in this section aim to:		

a) Facilitate the development of building design excellence appropriate to a regional city;		
b) Require parking and servicing provisions to be contained within development sites to an amount and		
rate adequate for the economic and sustainable growth of the city centre;		
c) Provide for safe and secure access;		
d) Minimise impacts on city amenity, the public domain and streetscape, and		
e) Ensure that access is provided for the disabled and mobility impaired.		
4.2 Pedestrian access and mobility		
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.	The building entry is clearly visible and unobstructed access is available	Yes
The development must provide at least one main pedestrian entrance with convenient barrier free access in all developments to at least the ground floor.		
The development must provide continuous access paths of travel from all public roads and spaces as well as unimpeded internal access.		
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.		
4.3 Vehicular driveways and manoeuvring areas		
	Two driveways 5.5m and 6m in width are proposed. Council's traffic section have assessed the application and have raised no objection to the location of the driveway	Yes
4.4 On-site parking		
On-site parking must meet the relevant Australian Standard (AS2890.1 2004 – Parking facilities, or as amended). On-site vehicle, motorcycle and bicycle parking is to be provided in accordance with Part E of this DCP.	Discussed within the E3 chapter within the report. The proposed development provides for 129 parking spaces which comply with the minimum requirements.	Yes

To accommodate people with disabilities, provide a minimum of 1% of the required parking spaces,		
or minimum of 1 space per development,		
(whichever is the greater) as an appropriately designated and signed disabled parking space.		
4.5 Site facilities and services		
Mail boxes Provide letterboxes for residential building and/or	Mailboxes have been provided for within an appropriate location	Yes
commercial tenancies in one accessible location adjacent to the main entrance to the development.		
Communication structures, air conditioners and service vents	If the application was to be favourably	
a) Locate satellite dish and telecommunication antennae, air conditioning units, ventilation stacks and	viewed then it could be conditioned for that these provisions are provided for in an appropriate location.	
any ancillary structures: i) Away from the street frontage,		
ii) Integrated into the roof scape design and in a position where such facilities will not become a skyline feature at the top of any building, and		
A master antennae must be provided for residential apartment buildings. This antenna shall be sited to minimise its visibility from surrounding public areas.		
Waste (garbage) storage and collection		
General (all development)	The development provides for a garbage room of an appropriate size and	
All development is to adequately accommodate waste handing 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.	location.	
Fire service and emergency vehicles	Adequate service/loading dock has been provided within the development. Council's traffic section reviewed this aspect and raised no objections	
Utility Services	Adequate provision. Also required to comply with the BCA	
Development must ensure that adequate provision has been made for all essential services including	If the application was to be favourably	
water, sewerage, electricity and	viewed then it could be conditioned that	
telecommunications and stormwater drainage to	the adequate arrangement and clearance certificates obtained from relevant	

the satisfaction of all relevant authorities.	utility authorities prior to the release of	
	a construction certificate.	

5 Environmental management

Objectives/controls	Comment	Compliance
5.1 General		
This section deals with energy efficiency requirements of buildings, water use and conservation, wind and solar impacts and waste management.	It is considered that the building achieves energy efficiency.	Yes
5.2 Energy efficiency and conservation		
Residential 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).	BASIX Certificate has been submitted as part of this application	Yes
Non-Residential Comply with the Building Code of Australia energy efficiency provisions.	The plans indicate that proposed building complies with Section J of the BCA. A construction certificate cannot be issued without such compliance	
5.3 Water conservation		
Residential 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). Non-residential Water saving measures are to be incorporated into non-residential building.	A BASIX certificate has been issued for the application The plans indicate that proposed building complies with Section J of the BCA. A construction certificate cannot be issued without such compliance	Yes
5.4 Reflectivity		
 a) New buildings and facades should not result in glare that causes discomfort or threatens safety of pedestrians or drivers. Visible light reflectivity from building materials used on facades of new buildings should not exceed 20%. 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. 	A schedule of finishing external materials and colours was submitted with the application. If approved, material reflectivity will be limited to 20% as required by the DCP	Yes

5.5 Wind mitigation		
5.6 Waste and recycling		
	Sufficient storage has been supplied within the building for garbage storage. Adequate arrangements for collection have been made that Council's Traffic section has raised no objection.	Yes

6 Residential development standards

Objectives/controls	Comment	Compliance
6.1 SEPP 65 and residential flat design code		
	RFDC discussed earlier in a table of compliance	Satisfactor y
6.2 Housing choice and mix		
To achieve a mix of living styles, sizes and layouts within each residential development, comply with the following mix and size: i) Studio and one bedroom units must not be less than 10% of the total mix of units within each	99 x 1 bedroom 10 x 2 bedroom units 7 x 3 bedroom units Total = 116	Yes
development, ii) Three or more bedroom units must not be less than 10% of the total mix of units within each	Of those 56 x 1 bedroom affordable 4 x 2 bedroom affordable	
development, and		
iii) For smaller developments (less than six dwellings) achieve a mix appropriate to locality.		
For residential apartment buildings and multi-unit housing, 10% of all dwellings (or at least one dwelling) must be designed to be capable of adaptation for disabled or elderly residents.		
6.3 Dwelling houses		
		N/A
6.4 Multi dwelling housing		
		N/A
6.5 Dual occupancy		
		N/A
6.6 Basement Carparks		
The scale and siting of the basement car park must not impact upon the ability of the development to satisfy minimum landscaping and deep soil zone requirements.	As the development involves ground floor commercial that can be built boundary to boundary no deep soil is being provided within this	Yes

Objectives/ controls	Comment	Compliance
	development.	
6.7 Communal open space		
Developments with more than 10 dwellings must incorporate communal open space. The minimum size of this open space is to be calculated at 5m2 per dwelling. Any area to be included in the communal open space calculations must have a minimum dimension of 5m.	The development contains a total of 116 dwellings which equates to 580sq.m of communal open space. The development provides for a landscaped podium that has an area of 1,270sq.m for all residents	Yes
	The development also provides for landscaped rooftop for private residents (ie excluding the affordable rental housing) that has an area of 151sq.m Combined this totals 1,421sq.m	
6 & Deivata open space	Combined this totals 1,1215q.iii	
6.8 Private open space Private open space must be provided for each	n: O C	
dwelling within a residential apartment building in the form of a balcony, courtyard, terrace and/or roof garden.	Private Open Space Affordable The affordable units have balconies of 8sq.m	Yes
Private open space for each dwelling within a residential apartment building must comply with the following:	Level 8-14 The balconies have an area that ranges from 14sq.m to 37sq.m all with a minimum depth of 2.4m or larger. Level 15-16	
i) The balcony must have a minimum area of 12m2 open space a minimum depth of 2.4 metres.	The balconies have an re of 17sq.m to 43sq.m with a depth of 2.4m or larger Level 17	
The primary private open area of at least 70% of the dwellings within a residential apartment building must receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.	The penthouse has a balcony of 162sq.m with a depth of 2.4m and greater.	
6.9 Overshadowing		
The design of the development must have regard to the existing and proposed level of sunlight which is received by living areas and private open space areas of adjacent dwellings. Sensitive design must aim to retain the maximum amount of sunlight for adjacent residents. Council will place greatest emphasis on the retention of sunlight within the lower density residential areas.	There are no residential buildings surrounding the subject site that is affected by shadows.	Yes
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.		
6.10 Solar access		
The living rooms and private open space of at least 70% of apartments should receive a	There are 4 single facing south aspect apartments.	Yes

Objectives/controls	Comment	Compliance
minimum of three hours of direct sunlight between 9.00am and 3.00pm. 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.	From the applications calculation 80.2% of apartments will receive 3 hours of solar access on the 21 June	
6.11 Natural ventilation		
A minimum of sixty percent (60%) of all residential apartments shall be naturally cross ventilated. Twenty five percent (25%) of kitchens within a development must have access to natural ventilation. Where kitchens do not have direct access to a window, the back of the kitchen must be no more than 8m from a window. Single aspect apartments must be limited in depth to 8m from a window	The applicant has indicated that 100% of units receive natural ventilation. Discussed further within the report	Satisfactor y
6.12 Visual privacy		
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.	It is considered that the application is suitable in regards to visual privacy	Yes
6.13 Acoustic Privacy		
Residential apartments should be arranged in a mixed use building, to minimise noise transition between apartments by 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);.	Like uses have been arranged in similar areas It is not anticipated that the development will generate significant noise. An acoustic report has also been submitted in regards to the impact of the railway and the occupants within.	Yes
6.14 Storage		
For residential apartment buildings provide a secure space to be set aside exclusively for storage as part of the basement.	Storage has been provided for all units at the rear of the car spaces	Yes

7 Planning controls for special areas

Objectives/controls	Comment	Compliance
7.1 Special areas with heritage items		
		N/A

ATTACHMENT 5

7.2 Special areas and Development Standards		
		N/A
7.3 Non-residential development in the enterprise corridor zone		
		N/A
7.4 Special area design guidelines		
		N/A
7.5 Design excellence		
	Discussed within the LEP	Yes

8 Works in the public domain

Any development requiring works to be carried	Council's landscape section has assessed	Yes
out within the public domain in the Wollongong	the application and provided conditions	
City Centre will be subject to compliance with the	in regards to the public domain.	
requirements of the Wollongong City Centre		
Public Domain Technical Manual at Appendix 2		
to this DCP and any other specific Council		
requirements.		