Attachment 2 - Apartment Design Guide Assessment

Development Controls		
Design Guidance	**Proposed**	**Compliance**
2E Building Depth Use a range of appropriate maximum apartment depths of 12-18m from glass line to glass line. This will ensure that apartments receive adequate daylight and natural ventilation and optimise natural cross ventilation. For mixed use buildings align building depth to the likely future uses. For example, transition deeper commercial or retail podium levels to a narrower residential tower above. Where greater depths are proposed, demonstrate that indicative layouts can achieve acceptable amenity with room and apartment depths.	The cross-through apartments on the north eastern property boundary propose a building depth of 18.2m, measured glass line to glass line. The maximum apartment depth is considered a minor non-compliance. Natural cross ventilation is still achieved for the proposed dual-aspect apartments. All other apartment depths are less than the maximum 18m.	Satisfactory
2F Building Separation Up to four storeys (approx 12m) Five to eight storeys (approx 25m) Nine storeys and above (over 25m)	See section 3F-1 for compliance.	See section 3F of compliance table.
2G Street Setbacks In a centre, the street setback or building line may be set at the property boundary defining the street corridor with a continuous built edge. Street setbacks are to be consistent with exist/desired future setbacks.	Street setback for the retail (ground floor) component of the proposed development is proposed as a zero metre setback from the street.	Satisfactory
Site Analysis ***Objective 3A-1:*** Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context		
Design Guidance:	**Proposed**	**Compliance**
Each element in the Site Analysis Checklist should be addressed (see Appendix 1)	Site analysis provided with development application documentation.	Satisfactory
Orientation ***Objective 3B-1:*** Building types and layouts respond to the streetscape and site while optimising solar access within the development		
Design Guidance	**Proposed**	**Compliance**
Buildings along the street frontage define the street, by facing it and incorporating direct access from the street (see figure 3B.1)	The proposed pedestrian building entry is accessed from Dumaresq Street.	Satisfactory
Where the street frontage is to the east or west, rear buildings should be orientated to the north	The street frontage is to the south west. Rear apartments are oriented to the north east.	Satisfactory

Where the street frontage is to the north or south, overshadowing to the south should be minimised and buildings behind the street frontage should be orientated to the east and west (see figure 3B.2)	The frontage to Dumaresq Street is south west.	N/A
Objective 3B-2: Overshadowing of neighbouring properties is minimised during mid-winter		
Design Guidance	**Proposed**	**Compliance**
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	See Section 3D and 4A for compliance.	See Section 3D and 4A for compliance.
Solar access to living rooms, balconies and private open spaces of neighbours should be considered	The development site does not adjoin residential development.	N/A
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%	Adjoining development commercial development, built boundary to boundary.	N/A
If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy	Proposed development would not significantly reduce solar access of neighbours.	N/A
Overshadowing should be minimised to the south or down hill by increased upper level setbacks	Overshadowing impacts are considered satisfactory.	Satisfactory
It is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing acar parking and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development	Overshadowing impacts are considered satisfactory.	Satisfactory
A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings	Solar collectors are not identified on neighbouring buildings.	N/A
Public Domain Interface ***Objective 3C-1:*** Transition between private and public domain is achieved without compromising safety and security		
Design Guidance	**Proposed**	**Compliance**
Terraces, balconies and courtyard apartments should have direct street entry, where appropriate	Retail is proposed on the ground floor and is directly accessed from Dumaresq Street.	N/A
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)	Ground level apartments are not proposed.	N/A
Upper level balconies and windows should overlook the public domain	Residential balconies are designed to overlook the public domain, being Dumaresq Street and Coogan Lane car park.	Satisfactory
Front fences and walls along street frontages should use visually permeable	Fencing does not form part of the proposed development.	N/A

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	Solid wall length is limited along the Dumaresq Street frontage and the rear laneway.	Satisfactory
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	Given the mixed use nature of the development, it is not considered appropriate for seating to be located within the public domain area. However, casual interactions are achieved at the dual entrances of the development.	Satisfactory
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	Separate, identifiable entrances are proposed. Signage does not form part of this development proposal.	Satisfactory
Opportunities for people to be concealed should be minimised	The development application was referred to New South Wales Police to provide comment on CPTED. The response has been recommended as a condition of consent.	Satisfactory
Objective 3C-2: Amenity of the public domain is retained and enhanced		
Design Guidance	**Proposed**	**Compliance**
Planting softens the edges of any raised terraces to the street, for example above sub-basement car parking	Landscaping is proposed on the podium level and the communal open space area.	Satisfactory
Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	Mailboxes are proposed to be within the lobby area.	Satisfactory
The visual prominence of underground car park vents should be minimised and located at a low level where possible	Vent locations are not provided on the plans.	N/A
Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view	Services are appropriately screened and integrated into the building.	Satisfactory
Ramping for accessibility should be minimised by building entry location and setting ground floor levels in relation to footpath levels	Ramping is minimised.	Satisfactory
Durable, graffiti resistant and easily cleanable materials should be used	Details not provided with the development application.	Satisfactory. Recommended condition of development consent for the owner to be responsible for the removal of graffiti.

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	**Proposed:**	**Compliance**
1. Communal open space has a minimum area equal to 25% of the site (see figure 3D.3) ***Definition:*** *outdoor space located within the site at ground level or on a structure that is within common ownership and for the recreational use of residents of the development. Communal open space may be accessible to residents only, or to the public*.	460sqm provided (which equated to 36% of the site).	Satisfactory
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).	The principal usable part of the communal open space receives a minimum of 50% direct sunlight for a minimum of 2 hours between 9am and 3pm mid-winter.	Satisfactory
Design Guidance	**Proposed**	**Compliance**
Communal open space should be consolidated into a well-designed, easily identified and usable area	The communal open space is provided on the roof and would be accessible for all residence.	Satisfactory
Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions	Minimum 3 m is achieved.	Satisfactory
Communal open space should be co-located with deep soil areas	Deep soil planting is not proposed. See below for further design criteria.	No. Considered satisfactory.
Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies	Direct access is provided to the communal open space via central lift access.	Satisfactory
Where communal open space cannot be provided at ground level, it should be provided on a podium or roof	Communal open space is provided at roof level.	Satisfactory
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	Deep soil planting is not proposed. However, the development proposes the following: • Increased balcony sizes are proposed. • A landscaped roof top terrace and common room are proposed.	Satisfactory

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	**Proposed**	**Compliance**
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 proposed roof top communal open space provides the following amenities: • seating for individuals or groups • barbecue areas • common room The proposed amenities are considered to be attractive and inviting and to allow for a range of activities.	Satisfactory
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	The location of the roof top facilities are considered usable throughout the year.	Satisfactory
Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks	Services located on the roof top are sufficiently screened/contained from the usable communal open space area.	Satisfactory
Objective 3D-3: Communal open space is designed to maximise safety		
Design Guidance	**Proposed**	**Compliance**
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 is proposed on the roof top which is considered satisfactory. See Objective 4N-2.	Satisfactory
Communal open space should be well lit	Details not provided with development application.	Recommended condition of consent.
Where communal open space/facilities are provided for children and young people they are safe and contained	Facilities are specifically not proposed for children.	N/A
Objective 3D-4: Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood		
Design Guidance	**Proposed**	**Compliance**
The public open space should be well connected with public streets along at least one edge ***Definition:*** *public land for the purpose of open space and vested in or under the control of a public authority*	Public open space does not form part of the proposed development.	N/A

<table>
<tr><th colspan="3">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</th></tr>
<tr><th>Design Criteria</th><th>Proposed</th><th>Compliance</th></tr>
<tr><td>1. Deep soil zones are to meet the following minimum requirements:

<table>
<tr><th>Site area</th><th>Minimum dimensions</th><th>Deep soil zone (% of site area)</th></tr>
<tr><td>Less than 650sqm</td><td>-</td><td rowspan="4">7%</td></tr>
<tr><td>650-1,500sqm</td><td>3m</td></tr>
<tr><td>Greater than 1,500sqm</td><td>6m</td></tr>
<tr><td>Greater than 1,500sqm with significant existing tree cover</td><td>6m</td></tr>
</table>
</td><td>Deep soil areas are not proposed.</td><td>N/A</td></tr>
<tr><th>Design Guidance</th><th>Proposed</th><th>Compliance</th></tr>
<tr><td>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</td><td>Deep soil areas are not proposed.</td><td>N/A</td></tr>
<tr><td>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</td><td>Deep soil areas are not proposed.</td><td>N/A</td></tr>
<tr><td>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-</td><td>Deep soil areas are not proposed.</td><td>N/A</td></tr>
</table>

<table>
<tr><td>residential uses at ground floor level</td><td></td><td></td></tr>
<tr><td>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.</td><td>The development does not proposed deep soil planting areas. However, planting is proposed to the roof top communal open space area.</td><td>Satisfactory</td></tr>
<tr><td colspan="3">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</td></tr>
<tr><td>Design Criteria</td><td>Proposed</td><td>Compliance</td></tr>
<tr><td>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:

<table><tr><th>Building height</th><th>Habitable rooms and balconies</th><th>Non-habitable rooms</th></tr><tr><td>Up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr><tr><td>Up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr><tr><td>Over 25m (9+ storeys)</td><td>12m</td><td>6m</td></tr></table></td><td>The proposed development does not comply with the building separation requirements.

The proposed built form has considered the future built form for the neighbouring sites at No 4 and No. 14 Dumaresq Street.

A zero lot line is proposed for a portion of the residential component.

For mixed use buildings with retail uses at the ground floor, a zero setback is considered appropriate due to the expected dense nature of the Campbelltown urban centre.</td><td>No. Part 6.4 of the Planning Report assessed the variation requested by the applicant.</td></tr>
<tr><td>Design Guidance</td><td>Proposed</td><td>Compliance</td></tr>
<tr><td>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.</td><td>The proposed building does not create a ziggurat appearance. The applicant has submitted that strict compliance with the above separation distances would create a ziggurat appearance.</td><td>Satisfactory</td></tr>
<tr><td>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</td><td>The residential component of the proposed development does not adjoin a building.</td><td>Satisfactory</td></tr>
<tr><td>New development should be located and oriented to minimise visual privacy between buildings on site and for neighbouring buildings. Design solutions include:
• site layout and building orientation to minimize privacy impacts (see also section 3B Orientation)
• on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)
•</td><td>The proposed building design, particularly the residential levels (Level 4-14),</td><td>Satisfactory</td></tr>
<tr><td>Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in</td><td>Subject site is not adjacent to a zone that permits lower density residential development.</td><td>N/A</td></tr>
</table>

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 proposed built form has considered the future built form for the neighbouring sites at No 4 and No. 14 Dumaresq Street which includes zero lot line setbacks in order to create a cohesive, urban design that would increase the capacity for development, particularly on No. 14 Dumaresq Street which is a smaller sized allotment.	Satisfactory
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	**Proposed**	**Compliance**
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	The proposed development incorporates sufficient privacy measures. Privacy between courtyards is achieved on Level 4 by the inclusion of a privacy wall and landscaping.	Satisfactory
Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas	Separation is provided and considered satisfactory.	Satisfactory
Balconies and private terraces should be located in front of living rooms to increase internal privacy	Balconies are accessed directly from living areas.	Satisfactory
Windows should be offset from the windows of adjacent buildings	No windows are proposed to look directly at No. 4 and no. 14 Dumaresq Street.	Satisfactory

Recessed balconies and/or vertical fins should be used between adjacent balconies	Suitable screening is provided between balconies.	Satisfactory
Pedestrian Access and Entries ***Objective 3G-1:*** Building entries and pedestrian access connects to and addresses the public domain		
Design Guidance	**Proposed**	**Compliance**
Multiple entries (including communal building entries and individual ground floor entries) should be provided to activate the street edge	Access from Dumaresq Street to the Level 1 retail level is considered to suitably activate the street edge. The main entrance to the retail level provides separate access to the residential levels and commercial levels via separate lobby's and lift access.	Satisfactory
Entry locations relate to the street and subdivision pattern and the existing pedestrian network	The entrance is clearly identifiable from Dumaresq Street. Retail access is also provided from Coogans Lane.	Satisfactory
Building entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries	The main entrance to the retail level provides separate access to the residential levels and commercial levels via separate lobby's and lift access.	Satisfactory
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	Is it not considered that street frontage is limited. The entrances to the building are clear.	N/A
Objective 3G-2: Access, entries and pathways are accessible and easy to identify		
Design Guidance	**Proposed**	**Compliance**
Building access areas including lift lobbies, stairwells and hallways should be clearly visible from the public domain and communal spaces	The proposed building access is considered satisfactory and is clearly visible from the public domain.	Satisfactory
The design of ground floors and underground car parks minimise level changes along pathways and entries	The subject development requires a minimum finished floor level of 67.7m AHD due to overland flow traversing the site from the local catchment. Ramp and stair access is provided from Dumaresq Street which is considered satisfactory.	Satisfactory
Steps and ramps should be integrated into the overall building and landscape design	The proposed steps and ramps are considered to integrate into the overall building design.	Satisfactory
For large developments ‘way finding’ maps should be provided to assist visitors and residents (see figure 4T.3)	The development is not considered large enough for the provision of way finding maps.	N/A
For large developments electronic access and audio/video intercom should be provided to manage access	Access details not provided with the development application documentation.	Can comply. Recommended condition of consent to provide details of how access would be controlled within the building.

Objective 3G-3: Large sites provide pedestrian links for access to streets and connection to destinations		
Design Guidance	**Proposed**	**Compliance**
Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport	The proposed site is considered large enough to facilitate pedestrian links.	N/A
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	The proposed site is considered large enough to facilitate pedestrian links.	N/A
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	**Proposed**	**Compliance**
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 proposed basement car entrance is considered satisfactory. It is noted that a security door is provided.	Satisfactory
Car park entries should be located behind the building line	The car park entry is suitably integrated into the building design.	Satisfactory
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 is considered satisfactory.	Satisfactory
Car park entry and access should be located on secondary streets or lanes where available	Car park entry is accessed from a laneway.	Satisfactory
Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided	Vehicle standing areas are not proposed.	N/A
Access point locations should avoid headlight glare to habitable rooms Adequate separation distances should be provided between vehicle entries and street intersections	Residential levels are not located on the ground floor where headlight glare would be experienced.	Satisfactory
The width and number of vehicle access points should be limited to the minimum	The development proposes one vehicle access point.	Satisfactory
Visual impact of long driveways should be minimised through changing alignments and screen planting	Long driveways do not form part of the proposal.	N/A
The need for large vehicles to enter or turn around within the site should be avoided	Service vehicle ingress/egress is proposed from the laneway and is considered satisfactory.	Yes
Garbage collection, loading and servicing areas are screened	The servicing area is proposed to be screened with dark timber powder coated aluminium roller door.	Satisfactory

Clear sight lines should be provided at pedestrian and vehicle crossings	Site lines considered satisfactory**.**	Satisfactory
Traffic calming devices such as changes in paving material or textures should be used where appropriate	Traffic calming devices do not form part of the proposal.	N/A
Pedestrian and vehicle access should be separated and distinguishable. Design solutions may include: • changes in surface materials • level changes • the use of landscaping for separation	Pedestrian and vehicle access that is separated.	Satisfactory
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:	**Proposed**	**Compliance:**
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	The subject site is within 800 meters of a railway station and therefore the Guide to Traffic Generating Developments prepared by the then RTA October 2002 (version 2.2) is applicable. <u>Residential</u> 0.4 spaces per 1 BR = (0.4x20) =8 0.7 spaces per 2 BR = (0.7x51) =36 1.2 spaces per 3 BR = (1.2x4) = 5 1 space per 7 units (visitor) = 85/7 = 13 Required residential = 62 spaces (including 13 visitor spaces) Proposed = 88 residential (including 10 visitor spaces)	Can comply. See planning assessment report for discussion.
Design Guidance:	**Proposed:**	**Compliance:**
Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site	A car share scheme does not operate locally in the Campbelltown LGA.	N/A
Where less car parking is provided in a development, council should not provide on street resident parking permits	No car parking permits are proposed to be provided.	Satisfactory
Objective 3J-2: Parking and facilities are provided for other modes of transport		
Design Guidance:	**Proposed:**	**Compliance:**
Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters	Motorcycle parking is provided.	Satisfactory
Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas	Undercover bicycle parking is provided. Racks are provided for 20 bicycles which exceeds the 17 minimum requirement in accordance with Council's (Sustainable City) DCP 2015.	Satisfactory

Conveniently located charging stations are provided for electric vehicles, where desirable	Charging stations are not proposed.	N/A
Objective 3J-3: Car park design and access is safe and secure		
Design Guidance:	**Proposed:**	**Compliance:**
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	Access to services is considered satisfactory.	Satisfactory
Direct, clearly visible and well lit access should be provided into common circulation areas	Details not provided with the development application documentation.	Can comply. Recommended condition of consent.
A clearly defined and visible lobby or waiting area should be provided to lifts and stairs	The proposed development incorporates a clearly defined entrance and lobby area, accessed from Dumaresq Street.	Satisfactory
For larger car parks, safe pedestrian access should be clearly defined and circulation areas have good lighting, colour, line marking and/or bollards	Proposed car park is not considered large.	N/A
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	The proposed level of excavation is required to achieve the required car parking.	Satisfactory
Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles	The proposed car parking layout is considered satisfactory.	Satisfactory
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	The proposed car park does not exceed 1m above ground level.	Satisfactory
Natural ventilation should be provided to basement and sub-basement car parking areas	Details not provided with the development application.	Can comply. Recommended condition of development consent for ventilation to be provided to the basement levels.
Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design	The car parking ingress/egress is appropriately screened by a dark timber powder coated aluminium roller door.	Satisfactory
Objective 3J-5: Visual and environmental impacts of on-grade car parking are minimised		
Design Guidance:	**Proposed:**	**Compliance:**
On-grade car parking should be avoided	All parking is proposed underground.	N/A

Objective 3J-6: Visual and environmental impacts of above ground enclosed car parking are minimised		
Design Guidance	**Proposed:**	**Compliance:**
Exposed parking should not be located along primary street frontages	All parking is proposed underground.	N/A
Solar and Daylight Access ***Objective 4A-1*:** To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space		
Design Criteria:	**Proposed:**	**Compliance:**
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	The applicant had provided solar access diagrams. 65 (76.5%) apartments receive 2 or more hours of direct sunlight between 9am and 3pm mid winter.	Satisfactory
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	N/A. The site is located within the Sydney Metropolitan Area.	N/A
3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	20 (23.5%) apartments do not receive any direct sunlight between 9am and 3pm at mid-winter.	No. See Section 6.3 of the Planning Report for discussion.
Design Guidance:	**Proposed:**	**Compliance:**
The design maximises north aspect and the number of single aspect south facing apartments is minimised	53 apartments (62%) are north facing.	Satisfactory
Single aspect, single storey apartments should have a northerly or easterly aspect	South easterly aspect which is considered satisfactory given the configuration of the allotment.	Satisfactory
Living areas are best located to the north and service areas to the south and west of apartments	Service areas are located on the ground floor with the retail level and on the roof which is considered satisfactory.	Satisfactory
To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used: • dual aspect apartments • shallow apartment layouts • two storey and mezzanine level apartments • bay windows	The proposal incorporates 11 dual aspect apartments and the overall depth of the proposed apartments is not considered deep.	Satisfactory
To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m2 of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	Direct sunlight provision considered satisfactory.	Satisfactory
Achieving the design criteria may not be possible on some sites. This includes: • where greater residential amenity can	Section 6.3 of the Planning Assessment Report provides discussion is relation to non-	Section 6.3 of the Planning Assessment

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	compliances with Design Criteria.	Report for discussion of non-compliances with Design Criteria.
Objective 4A-2: Daylight access is maximised where sunlight is limited		
Design Guidance:	**Proposed:**	**Compliance:**
Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms	The design incorporates full length sliding doors to maximise direct and indirect sunlight.	Satisfactory
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	Courtyards have not been used in the calculation to achieve suitable solar access.	N/A
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	Reflected light opportunities are not proposed.	N/A
Objective 4A-3: Design incorporates shading and glare control, particularly for warmer months		
Design Guidance:	**Proposed:**	**Compliance:**
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	Suitable shading and glare control design measures are proposed.	Satisfactory

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)		
Natural Ventilation ***Objective 4B-1:*** All habitable rooms are naturally ventilated		
Design Guidance:	**Proposed:**	**Compliance:**
The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms	Cross ventilation diagrams were provided with the development application demonstrating that 53 (62%) of apartments are naturally cross ventilated.	Satisfactory
Depths of habitable rooms support natural ventilation	Habitable room depths support natural ventilation.	Satisfactory
The area of unobstructed window openings should be equal to at least 5% of the floor area served		Satisfactory
Light wells are not the primary air source for habitable rooms	Light wells are not the primary air source for habitable rooms. Cross ventilation is the primary air source.	N/A
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	Natural ventilation is considered sufficient.	Satisfactory
Objective 4B-2: The layout and design of single aspect apartments maximises natural ventilation		
Design Guidance:	**Proposed:**	**Compliance:**
Apartment depths are limited to maximise ventilation and airflow (see also figure 4D.3)	Figure 4D.3 limits the maximum depth of open plan layouts that combine living, dining and kitchen spaces to 8 metres (3x 2.7m = 8.1m height) Maximum depth proposed is 8m.	Satisfactory
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)	Ventilation diagrams illustrate window and door positioning facilitating natural air flow.	Satisfactory

• 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		
Objective 4B-3: The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents		
Design Criteria:	**Proposed:**	**Compliance:**
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	Cross ventilation diagrams were provided with the development application demonstrating that 53 (62%) of apartments are naturally cross ventilated.	Satisfactory
2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	18.2m The cross-over apartments (11 apartments, 13%) all receive a minimum 2 hours of direct sunlight between 9am and pm during mid-winter and are naturally ventilated.	Non-compliance. Considered satisfactory.
Design Guidance:	**Proposed:**	**Compliance:**
The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths	The proposed development includes dual aspect apartments and corner apartments. The apartment depth is considered satisfactory.	Satisfactory
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)	The inlet and outset side of the cross though apartments are of similar size.	Satisfactory
Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow	Apartment layout is considered to promote cross ventilation.	Satisfactory
Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow	Natural ventilation is considered satisfactory.	Satisfactory

Ceiling Heights

Objective 4C-1: Ceiling height achieves sufficient natural ventilation and daylight access

Design Criteria:	**Proposed:**	**Compliance:**
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 30m 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	Habitable ceiling height = 2.7m as shown on the proposed plans. Retail ceiling height = Not shown on plans. Commercial ceiling height = Not shown on plans.	Habitable ceiling heights are satisfactory. Retail and commercial floor to ceiling heights have been recommended as a condition of consent.
Design Guidance:	**Proposed:**	**Compliance:**
Ceiling height can accommodate use of ceiling fans for cooling and heat distribution	Ceiling height could accommodate ceiling fans.	Satisfactory

Objective 4C-2: Ceiling height increases the sense of space in apartments and provides for well proportioned rooms

Design Guidance:	**Proposed:**	**Compliance:**
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	The residential ceiling heights are considered satisfactory.	Satisfactory

<table>
<tr><td colspan="3">Objective 4C-3: Ceiling heights contribute to the flexibility of building use over the life of the building</td></tr>
<tr><td>Design Guidance:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>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)</td><td>All residential levels proposed a ceiling height of 2.7m.</td><td>Yes</td></tr>
<tr><td colspan="3">Objective 4D-1: The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity</td></tr>
<tr><td>Design Criteria:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>1. Apartments are required to have the following minimum internal areas:

<table><tr><th>Apartment type</th><th>Minimum internal area</th></tr><tr><td>Studio</td><td>35sqm</td></tr><tr><td>1 bedroom</td><td>50sqm</td></tr><tr><td>2 bedroom</td><td>70sqm</td></tr><tr><td>3 bedroom</td><td>90sqm</td></tr></table>
The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5sqm each

A fourth bedroom and further additional bedrooms increase the minimum internal area by 12sqm each</td><td><table><tr><th>Apartment type</th><th>Minimum internal area</th></tr><tr><td>Studio</td><td>40sqm</td></tr><tr><td>1 bedroom</td><td>52sqm and 61sqm</td></tr><tr><td>2 bedroom</td><td>77-86sqm</td></tr><tr><td>3 bedroom</td><td>101-115sqm</td></tr></table>
Four bedroom apartments are not proposed.</td><td>Satisfactory</td></tr>
<tr><td>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</td><td>All proposed habitable rooms include an external window.</td><td>Satisfactory</td></tr>
<tr><td>Design Guidance:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)</td><td>Kitchens are not proposed within the main circulation space.</td><td>Satisfactory</td></tr>
<tr><td>A window should be visible from any point in a habitable room</td><td>It is considered that a window could be seen from any point within the proposed habitable rooms.</td><td>Satisfactory</td></tr>
<tr><td>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</td><td>Room dimensions are met.</td><td>N/A</td></tr>
<tr><td colspan="3">Objective 4D-2: Environmental performance of the apartment is maximised</td></tr>
<tr><td>Design Criteria:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height</td><td>2.5m x 2.7m = 6.25m</td><td>Satisfactory</td></tr>
</table>

2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	Maximum habitable depth is 8m.	Satisfactory
Design Guidance:	**Proposed:**	**Compliance:**
Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths	Ceiling height is 2.7m - maximum depth is satisfied.	Satisfactory
All living areas and bedrooms should be located on the external face of the building	Living areas and bedrooms are generally located on the external face of the building.	Satisfactory
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	The location and laundries and bathrooms are considered satisfactory.	Satisfactory
Objective 4D-3: Apartment layouts are designed to accommodate a variety of household activities and needs		
Design Criteria:	**Proposed:**	**Compliance:**
1. Master bedrooms have a minimum area of 10sqm and other bedrooms 9sqm (excluding wardrobe space)	All proposed master bedrooms are a minimum of 10sqm and other bedrooms are a minimum of 9sqm (excluding wardrobe space).	Yes. Further, a condition of consent has been recommended for bedroom sizes to be demonstrated prior to the issue of a construction certificate.
2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	All proposed bedrooms have a minimum dimension of 3m (excluding wardrobes).	Satisfactory
3. Living rooms or combined living/dining rooms have a minimum width of: • 3.6m for studio and 1 bedroom apartments • 4m for 2 and 3 bedroom apartments	Studio and 1 bedroom apartments have a minimum width of 3.6m. 2 and 3 bedroom apartments have a proposed minimum width of 4m.	Satisfactory
4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	Apartment width is considered satisfactory. Deep narrow apartment are not proposed.	Satisfactory
Design Guidance:	**Proposed:**	**Compliance:**
Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas	Satisfactory separation is provided.	Satisfactory
All bedrooms allow a minimum length of 1.5m for robes	Robes are a minimum of 1.5m in length.	Satisfactory
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	Recommended condition of consent.	Can comply. Recommended condition of consent.

<table>
<tr><td>Apartment layouts allow flexibility over time, design solutions may include:
• 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
• 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</td><td>Apartment layouts are considered to allow for satisfactory flexibility.</td><td>Satisfactory</td></tr>
<tr><td colspan="3">Private Open Space and Balconies
Objective 4E-1: Apartments provide appropriately sized private open space and balconies to enhance residential amenity</td></tr>
<tr><td>Design Criteria:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>1. All apartments are required to have primary balconies as follows:

<table><tr><th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr><tr><td>Studio apartments</td><td>4sqm</td><td>-</td></tr><tr><td>1 bedroom apartments</td><td>8sqm</td><td>2m</td></tr><tr><td>2 bedroom apartments</td><td>10sqm</td><td>2m</td></tr><tr><td>3+ bedroom apartments</td><td>12sqm</td><td>2.4m</td></tr></table>
The minimum balcony depth to be counted as contributing to the balcony area is 1m</td><td>Minimum areas are as follows:

<table><tr><th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr><tr><td>Studio apartments</td><td>9sqm</td><td>-</td></tr><tr><td>1 bedroom apartments</td><td>19sqm</td><td></td></tr><tr><td>2 bedroom apartments</td><td>14sqm</td><td></td></tr><tr><td>3+ bedroom apartments</td><td>23sqm</td><td></td></tr></table></td><td>Satisfactory</td></tr>
<tr><td>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</td><td>Apartment located on Level 5 are provided with courtyards. The minimum area and depth is achieved for these apartments.</td><td>Satisfactory</td></tr>
<tr><td>Design Guidance:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>Increased communal open space should be provided where the number or size of balconies are reduced</td><td>All proposed apartments comply with the size and depth of balconies required.</td><td>Satisfactory</td></tr>
<tr><td>Storage areas on balconies is additional to the minimum balcony size</td><td>Storage is not proposed on balconies.</td><td>N/A</td></tr>
<tr><td>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</td><td>Balcony design is consisted appropriate.</td><td>Satisfactory</td></tr>
</table>

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		
Objective 4E-2: Primary private open space and balconies are appropriately located to enhance liveability for residents		
Design Guidance:	**Proposed:**	**Compliance:**
Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space	Balconies are accessible from main living areas.	Satisfactory
Private open spaces and balconies predominantly face north, east or west	Private balconies predominately face north east and south west.	Satisfactory
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	The longer side of the proposed balconies is orientated with the longer side facing outwards.	Satisfactory
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:	**Proposed:**	**Compliance:**
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	Solid and partially solid balustrades are proposed.	Satisfactory
Full width full height glass balustrades alone are generally not desirable	Full width full height glass balustrades are not proposed.	N/A
Projecting balconies should be integrated into the building design and the design of soffits considered	The proposed projecting balcony design is integrated into the building design.	Satisfactory
Operable screens, shutters, hoods and pergolas are used to control sunlight and wind	Louvres are proposed which would be used to control sunlight.	Satisfactory
Balustrades are set back from the building or balcony edge where overlooking or safety is an issue	Overlooking is not considered an issue.	Satisfactory
Downpipes and balcony drainage are integrated with the overall facade and building design	Details not shown on the proposed plans.	Can comply. Recommended condition of development consent for the downpipes and balcony drainage to integrate with the overall building design.

Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design	Air-conditioning units are located on the balcony of proposed apartments.	Satisfactory. A condition of consent has been recommended for the air conditions units to not be visible from a public place.
Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and integrated in the building design	Clothes drying areas are not proposed on the balconies.	N/A
Ceilings of apartments below terraces should be insulated to avoid heat loss	Apartments are not located below terraces.	N/A
Water and gas outlets should be provided for primary balconies and private open space	Details not provided with the development application.	N/A
Objective 4E-4: Private open space and balcony design maximises safety		
Design Guidance:	**Proposed:**	**Compliance:**
Changes in ground levels or landscaping are minimised	The private open space areas do not involve changes in levels.	Satisfactory
Design and detailing of balconies avoids opportunities for climbing and falls	The proposed design of the balconies is not considered to increase opportunities for climbing.	Satisfactory
Objective 4F-1: Common circulation spaces achieve good amenity and properly service the number of apartments		
Design Criteria:	**Proposed:**	**Compliance:**
1. The maximum number of apartments off a circulation core on a single level is eight	Proposed Levels 4-14 are accessed by three lifts.	Satisfactory
2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	The residential floors are accessed by three lifts.	Satisfactory
Design Guidance:	**Proposed:**	**Compliance:**
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	The minimum ceiling height is proposed and is considered satisfactory.	Satisfactory
Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments	Common circulation spaces are considered appropriately designed.	Satisfactory
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: • sunlight and natural cross ventilation in apartments • access to ample daylight and natural ventilation in common circulation spaces	Design Criteria 4F-1.1 and 4F1.2 is met.	N/A

<table>
<tr><td>

- common areas for seating and gathering
- generous corridors with greater than minimum ceiling heights
- other innovative design solutions that provide high levels of amenity

</td><td></td><td></td></tr>
<tr><td>Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level</td><td>Design Criteria 4F-1.1 is met.</td><td>N/A</td></tr>
<tr><td>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</td><td>Primary living room or bedroom windows do not open directly onto common circulation spaces.</td><td>Satisfactory</td></tr>
<tr><td colspan="3">Storage
Objective 4G-1: Adequate, well designed storage is provided in each apartment</td></tr>
<tr><td>Design Criteria:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:

<table><tr><th>Dwelling Type</th><th>Storage size volume</th></tr><tr><td>Studio apartments</td><td>4sqm</td></tr><tr><td>1 bedroom apartments</td><td>6sqm</td></tr><tr><td>2 bedroom apartments</td><td>8sqm</td></tr><tr><td>3+ bedroom apartments</td><td>10sqm</td></tr></table>
At least 50% of the required storage is to be located within the apartment</td><td><table><tr><th>Dwelling Type</th><th>Storage size volume</th></tr><tr><td>Studio apartments</td><td>4sqm</td></tr><tr><td>1 bedroom apartments</td><td>6sqm</td></tr><tr><td>2 bedroom apartments</td><td>8sqm</td></tr><tr><td>3+ bedroom apartments</td><td>10sqm</td></tr></table>
At least 50% of the required storage is located within the apartment.</td><td>Satisfactory</td></tr>
<tr><td>Design Guidance:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>Storage is accessible from either circulation or living areas</td><td>Proposed storage is accessible.</td><td>Satisfactory</td></tr>
<tr><td>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</td><td>Storage is not proposed to be provided on balconies.</td><td>N/A</td></tr>
<tr><td>Left over space such as under stairs is used for storage</td><td>All proposed apartments are single level.</td><td>N/A</td></tr>
<tr><td colspan="3">Objective 4G-2: Additional storage is conveniently located, accessible and nominated for individual apartments</td></tr>
<tr><td>Design Guidance:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>Storage not located in apartments is secure and clearly allocated to specific apartments</td><td>Storage located in the basement levels is assigned to a specific apartment via a security door.</td><td>Satisfactory</td></tr>
<tr><td>Storage is provided for larger and less frequently accessed items</td><td>Proposed storage could be used for larger items.</td><td>Satisfactory</td></tr>
<tr><td>Storage space in internal or basement car parks is provided at the rear or side of</td><td>Storage locations are satisfactory.</td><td>Satisfactory</td></tr>
</table>

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	N/A	N/A
Storage not located in an apartment is integrated into the overall building design and is not visible from the public domain	Proposed storage cannot be viewed from the public domain.	Satisfactory
Objective 4H-1: Noise transfer is minimised through the siting of buildings and building layout		
Design Guidance:	**Proposed:**	**Compliance:**
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)	Building Separation discussed in Section 6.3 of the Planning Assessment Report.	Satisfactory
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	Noisy areas (i.e. lifts and corridors) are located above one another.	Satisfactory
The number of party walls (walls shared with other apartments) are limited and are appropriately insulated	Proposed apartments share a maximum of two party walls.	Satisfactory
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	Noise sources are appropriately located to minimise noise conflict.	Satisfactory
Objective 4H-2: Noise impacts are mitigated within apartments through layout and acoustic treatments		
Design Guidance:	**Proposed:**	**Compliance:**
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	The apartments layouts appropriate group together quiet spaces.	Satisfactory
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:	**Proposed:**	**Compliance:**
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	The subject site is located near the southern railway line. Accordingly, a condition of development consent has been recommended for the building to achieve internal noise levels not exceeding those prescribed in 'Development Near Rail Corridors and Busy Roads – Interim Guideline' 2008 and State Environmental Planning Policy (Infrastructure) 2007.	Satisfactory

<table>
<tr><td>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</td><td></td><td></td></tr>
<tr><td colspan="3">Objective 4J-2: Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission</td></tr>
<tr><td>Design Guidance:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>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</td><td>The subject site is located near the southern railway line. Accordingly, a condition of development consent has been recommended for the building to achieve internal noise levels not exceeding those prescribed in ‘Development Near Rail Corridors and Busy Roads – Interim Guideline’ 2008 and State Environmental Planning Policy (Infrastructure) 2007.</td><td>Satisfactory</td></tr>
<tr><td colspan="3">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</td></tr>
<tr><td>Design Guidance:</td><td>Proposed:</td><td>Compliance:</td></tr>
<tr><td>A variety of apartment types is provided.</td><td>Assessment provided below.</td><td>Satisfactory</td></tr>
<tr><td>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</td><td><table><tr><th>Apartment</th><th>Number proposed</th></tr><tr><td>Studio</td><td>10(11.8%)</td></tr><tr><td>1 bedroom</td><td>20(23.5%)</td></tr><tr><td>2 bedroom</td><td>51(60%)</td></tr><tr><td>3 bedroom</td><td>4 (4.7%)</td></tr><tr><td>Total</td><td>85</td></tr></table></td><td>Satisfactory</td></tr>
</table>

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	Proposed apartment configurations are considered satisfactory.	Satisfactory
Objective 4K-2: The apartment mix is distributed to suitable locations within the building		
Design Guidance:	**Proposed:**	**Compliance:**
Different apartment types are located to achieve successful facade composition and to optimise solar access (see figure 4K.3)	Façade composition is considered satisfactory.	Satisfactory
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	All four bedroom apartments are located on Level 14.	Satisfactory
Ground Floor Apartments ***Objective 4L-1:*** Street frontage activity is maximised where ground floor apartments are located		
Design Guidance:	**Proposed:**	**Compliance:**
Direct street access should be provided to ground floor apartments	Ground level apartments are not proposed.	N/A
Objective 4L-2: Design of ground floor apartments delivers amenity and safety for residents		
Design Guidance:	**Proposed:**	**Compliance:**
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	Ground level apartments are not proposed.	N/A
Facades ***Objective 4M-1:*** Building facades provide visual interest along the street while respecting the character of the local area		
Design Guidance:	**Proposed:**	**Compliance:**
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	The building facade is considered to be satisfactory.	Satisfactory
Building services should be integrated within the overall facade	Building services are integrated into the building design and are not	Satisfactory

	considered obtrusive or not in keeping with the design of the building.	
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	The building façade is architecturally designed and is considered appropriate.	Satisfactory
Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights	It is anticipated that the adjacent buildings will be re-developed over time.	N/A
Shadow is created on the facade throughout the day with building articulation, balconies and deeper window reveals	It is anticipated that shadowing would be created on the facade of the building facing both Dumaresq Street and the un-named laneway.	Satisfactory
Objective 4M-2: Building functions are expressed by the facade		
Design Guidance:	**Proposed:**	**Compliance:**
Building entries should be clearly defined	The main building entry accessed from Dumaresq Street is well defined and easily identifiable.	Satisfactory
Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height	N/A – the subject site is not a corner allotment.	N/A
The apartment layout should be expressed externally through facade features such as party walls and floor slabs	Apartment separation is expressed through external party walls.	Satisfactory
Roof Design ***Objective 4N-1:*** Roof treatments are integrated into the building design and positively respond to the street		
Design Guidance:	**Proposed:**	**Compliance:**
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	The roof design is flat to accommodate landscaping and open space for the apartment occupants.	N/A
Roof treatments should be integrated with the building design. Design solutions may include:	The roof design is flat to accommodate landscaping and open space for the apartment occupants. In addition,	N/A

• roof design proportionate to the overall building size, scale and form • roof materials compliment the building • service elements are integrated	services are integrated into the roof top, however are separated from the open space area.	
Objective 4N-2: Opportunities to use roof space for residential accommodation and open space are maximised		
Design Guidance:	**Proposed:**	**Compliance:**
Habitable roof space should be provided with good levels of amenity. Design solutions may include: • penthouse apartments • dormer or clerestory windows • openable skylights	Proposed roof is flat, and therefore is not available for habitable purposes.	N/A
Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations	Suitable open space is provided.	Satisfactory
Objective 4N-3: Roof design incorporates sustainability features		
Design Guidance:	**Proposed:**	**Compliance:**
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	The proposed development does not incorporate a roof feature design.	N/A
Skylights and ventilation systems should be integrated into the roof design	One skylight is integrated into the roof top.	Satisfactory
Landscape Design ***Objective 4O-1:*** Landscape design is viable and sustainable		
Design Guidance:	**Proposed:**	**Compliance:**
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	Information not provided with development application. Recommended condition of consent.	Can comply. Recommended condition of consent.
Ongoing maintenance plans should be prepared.	Information not provided with the development application.	Recommended condition of consent.
Tree and shrub selection considers size at maturity and the potential for roots to compete (see Table 4)	Table 4 refers to deep soil planting and tree selection. Deep soil planting is not proposed.	N/A

Objective 4O-2: Landscape design contributes to the streetscape and amenity		
Design Guidance:	**Proposed:**	**Compliance:**
Landscape design responds to the existing site conditions including: • changes of levels • views • significant landscape features including trees and rock outcrops	Existing site does not contain any vegetation.	N/A
Significant landscape features should be protected by: • tree protection zones (see figure 4O.5) • appropriate signage and fencing during construction	None present.	N/A
Plants selected should be endemic to the region and reflect the local ecology	Recommended condition of consent for a landscape management plan to be provided prior to the issue of a construction certificate, which is to include comment on endemic species.	Satisfactory
Planting on Structures ***Objective 4P-1:*** Appropriate soil profiles are provided		
Design Guidance:	**Proposed:**	**Compliance:**
Structures are reinforced for additional saturated soil weight	Details not provided with the development application. Recommended condition of consent for the applicant to provide a landscape management plan which includes information relating to the soil composition and weight to be provided prior to the issue of a construction certificate	Can comply. Recommended condition of consent.
Soil volume is appropriate for plant growth, considerations include: • modifying depths and widths according to the planting mix and irrigation frequency • free draining and long soil life span • tree anchorage	Details not provided with the development application. Recommended condition of consent for information to be provided within the landscape maintenance plan prior to the issue of a construction certificate.	Can comply. Recommended condition of consent.
Minimum soil standards for plant sizes should be provided in accordance with Table 5.	Details not provided with the development application. Recommended condition of consent for information to be provided within the landscape maintenance plan prior to the issue of a construction certificate.	Can comply. Recommended condition of consent.
Objective 4P-2: Plant growth is optimised with appropriate selection and maintenance		
Design Guidance:	**Proposed:**	**Compliance:**
Plants are suited to site conditions, considerations include: • drought and wind tolerance • seasonal changes in solar access	Details not provided/demonstrated with the development application. Recommended condition of consent	Can comply. Recommended condition of consent.

• modified substrate depths for a diverse range of plants • plant longevity	for the applicant to provide the listed specific details in the form of a landscape management plan.	
A landscape maintenance plan is prepared	Details not provided with the development application. Recommended condition of consent for a landscape maintenance plan to be prepared prior to the issue of a construction certificate.	Can comply. Recommended condition of consent.
Irrigation and drainage systems respond to: • changing site conditions • soil profile and the planting regime • whether rainwater, stormwater or recycled grey water is used	Recommended condition of consent for information to be provided within the landscape maintenance plan prior to the issue of a construction certificate.	Can comply. Recommended condition of consent.
Objective 4P-3: Planting on structures contributes to the quality and amenity of communal and public open spaces		
Design Guidance:	**Proposed:**	**Compliance:**
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	The building design incorporates façade plantar boxes, courtyard planting and rooftop planting.	Satisfactory
Universal Design ***Objective 4Q-1:*** Universal design features are included in apartment design to promote flexible housing for all community members		
Design Guidance:	**Proposed:**	**Compliance:**
Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features	10% achieved.	Not a design criteria, 9 apartments considered satisfactory.
Objective 4Q-2: A variety of apartments with adaptable designs are provided		
Design Guidance:	**Proposed:**	**Compliance:**
Adaptable housing should be provided in accordance with the relevant council policy	Part 5.5.3 b) of Council's (Sustainable City) DCP requires 10% of apartments to be accessible (minimum 9 apartments) 9 adaptable apartments are proposed.	Satisfactory

Objective 4Q-3: Apartment layouts are flexible and accommodate a range of lifestyle needs		
Design Guidance:	**Proposed:**	**Compliance:**
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	Suitable apartments layouts are provided.	Satisfactory
Objective 4R-2: Adapted buildings provide residential amenity while not precluding future adaptive reuse		
Design Guidance:	**Proposed:**	**Compliance:**
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	The proposed development is not an adapted building.	N/A
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	The proposed development is not utilising an existing building.	N/A

Mixed Use ***Objective 4S-1:*** Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement		
Design Guidance:	**Proposed:**	**Compliance:**
Mixed use development should be concentrated around public transport and centres	Campbelltown train station is located approximately 400m from the subject site.	Satisfactory
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	Ground level is considered to appropriately address the public domain.	Satisfactory
Objective 4S-2: Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents		
Design Guidance:	**Proposed:**	**Compliance:**
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	Residential entrance is not clearly defined. Need further details regarding residential entrance.	
Landscaped communal open space should be provided at podium or roof levels	Landscaping is provided on the roof level.	Satisfactory
Awnings and Signage ***Objective 4T-1:*** Awnings are well located and complement and integrate with the building design		
Design Guidance:	**Proposed:**	**Compliance:**
Awnings should be located along streets with high pedestrian activity and active frontages	An awning is proposed to the Dumaresq Street frontage.	Satisfactory
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	Details of awning not provided with development application. Recommended condition of consent for architectural plans indicating the design, materials and colours of the proposed awning to be provided prior to the issue of a construction certificate. An awning is not provided to the unnamed laneway frontage which is	Can comply. Recommended condition of consent.

secondary frontages of corner sites • awnings are retractable in areas without an established pattern	considered acceptable due to the reduced amount of pedestrian activity at the rear of the site.	
Awnings should be located over building entries for building address and public domain amenity	An awning is proposed over the building entry and along the full Dumaresq Street frontage.	Satisfactory
Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure	Details of awning not provided with development application. Recommended condition of consent for architectural plans indicating the design, materials and colours of the proposed awning to be provided prior to the issue of a construction certificate.	Can comply. Recommended condition of consent.
Gutters and down pipes should be integrated and concealed	Details of awning not provided with development application. Recommended condition of consent for architectural plans indicating the design, materials and colours of the proposed awning to be provided prior to the issue of a construction certificate.	Can comply. Recommended condition of consent.
Lighting under awnings should be provided for pedestrian safety	Details of awning not provided with development application. Recommended condition of consent for architectural plans indicating the design, materials and colours of the proposed awning to be provided prior to the issue of a construction certificate.	Can comply. Recommended condition of consent.
Objective 4T-2: Signage responds to the context and desired streetscape character		
Design Guidance:	**Proposed:**	**Compliance:**
Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development	Signage is not proposed.	N/A
Legible and discrete way finding should be provided for larger developments	Signage is not proposed.	N/A
Signage is limited to being on and below awnings and a single facade sign on the primary street frontage	Signage is not proposed.	N/A
Energy and Efficiency ***Objective 4U-1:*** Development incorporates passive environmental design		
Design Guidance:	**Proposed:**	**Compliance:**
Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access)	Adequate natural light is provided to habitable rooms.	Satisfactory
Well located, screened outdoor areas should be provided for clothes drying	Recommended condition of consent for balconies to not be used as clothes drying areas.	Satisfactory

Waste Management ***Objective 4W-1:*** Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents		
Design Guidance:	**Proposed:**	**Compliance:**
Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park	Sufficient storage areas are allocated for waste storage.	Satisfactory
Waste and recycling storage areas should be well ventilated	Recommended condition of consent for waste areas to be mechanically ventilated.	Can comply. Recommended condition of consent.
Circulation design allows bins to be easily manoeuvred between storage and collection points	Satisfactory.	Satisfactory
Temporary storage should be provided for large bulk items such as mattresses	A bulky goods storage area is proposed on the ground floor.	Satisfactory
A waste management plan should be prepared	A Waste Management Plan (WMP) was provided with the development application, however was deemed insufficient by Council's Coordinator of Domestic Waste. A WMP is to be provided prior to the issue of a construction certificate.	Can comply. Recommended condition of consent.
Objective 4W-2: Domestic waste is minimised by providing safe and convenient source separation and recycling		
Design Guidance:	**Proposed:**	**Compliance:**
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	All dwelling are capable of storing domestic waste temporarily.	Satisfactory
Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core	Waste rooms on each residential level are centrally located.	Satisfactory
For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses	Provided	Satisfactory
Alternative waste disposal methods such as composting should be provided	Not provided.	Satisfactory
Building Maintenance ***Objective 4X-1:*** Building design detail provides protection from weathering		
Design Guidance:	**Proposed:**	**Compliance:**
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	Most apartment windows are protected by the location of the balconies.	Satisfactory