ATTACHMENT 8 – SEPP 65 Apartment Design Guide compliance

Standards/controls	*Comment*	*Complies?*
Part 1 – Identifying the context		
1A Apartment building types Generic apartment building types can be used to: - Determine the appropriate scale of future built form - Communicate the desired character of an area - Assist when testing envelope and development controls to achieve high amenity and environmental performance.	The development comprises a shared podium and two towers, with each tower at the maximum respective height limit of 24m and 48m.	Yes
1B Local character and context This guideline outlines how to define the setting and scale of a development, and involves consideration of the desired future character, common settings and the range of scales.	A context analysis was undertaken by the applicant and refined over successive Design Review Panel (DRP) meetings. It models likely development on adjoining sites and tests the proposed building form for compatibility in the neighbourhood. The DRP noted it is unreasonable for a development to not comply with building controls if it would compromise development opportunities on neighbouring land. The context plans address only those immediately adjoining allotments whereas a wider extent would have provided a more thorough basis with which to assess the non-complying setbacks and test susceptibility to future neighbouring development. The DRP specifically requested modelling occur to test potential overshadowing of the northern apartments should land to the north be redeveloped. This has been done and shows a potential 67% solar access rate, where the ADG requires 70%. Potential future shadow elevations (sheets A406 A and A 407 A) indicate overshadowing impacts if land to the north and south was redeveloped. These hypothetical buildings correlate with the context analysis on sheet A015A, however appear only to include the applicant's residential scenario. The building footprint and heights for non-residential shown on sheet A015A are different to residential and would result in different overshadowing impacts. The future buildings scenarios assume land to the north and south is not	**No**

Standards/controls	*Comment*	*Complies?*
	consolidated in the same way as the proposed development (i.e. Keira through to Kenny Streets), and therefore anticipate a break in the centre which may not eventuate. Land to the north and south has the same height and FSR controls as the subject site, and it could be expected that consolidation of more lots than those shown on the context analysis might occur. In that event, buildings of a larger scale and height than depicted on the context analysis could be proposed. Further, the setbacks indicated on residential scenario Figure 2 (sheet A015 A) would not comply with the ADG. It appears that north and south elevations on these lots are treated entirely as non-habitable, which is unrealistic.	
1C Precincts and individual sites Individual sites: New development on individual sites within an established area should carefully respond to neighbouring development, and also address the desired future character at the neighbourhood and street scales. Planning and design considerations for managing this include: - Site amalgamation where appropriate - Corner site and sites with multiple frontages can be more efficient than sites with single frontages - Ensure the development potential for adjacent sites is retained - Avoid isolated sites that are unable to realise the development potential.	The site is comprised of four allotments, providing two street frontages. The building extends east west from Keira to Kenny Streets. Consolidation of allotments is required. The potential redevelopment of adjoining sites is shown on sheet A015 A. Refer to comments above.	Yes
Part 3 Siting the development **3A Site analysis** Site analysis uses the following key elements to demonstrate that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context. A written statement explaining how the design of the proposed development has responded to the site analysis must accompany the development application.	Written statement provided. Site analysis plan provided. Survey undertaken. Sheet A007I identifies the location of easements and restrictions. Aerial and existing streetscape photos provided.	Yes
3B Orientation		

Standards/controls	*Comment*	*Complies?*
Buildings must be oriented to maximise northern orientation, response to desired character, promote amenity for the occupant and adjoining properties, retain trees and open spaces and respond to contextual constraints such as overshadowing and noise. *Objective 3B-1:* *Building types and layouts respond to the streetscape and site while optimising solar access within the development* Design Guidance - Buildings should define the street by facing it and providing direct access. *Objective 3B-2* *Overshadowing of neighbouring properties is minimised during mid- winter* Design Guidance - Overshadowing should be minimised to the south or downhill by increased upper level setbacks - Refer sections 3D & 4A below for solar access requirements - A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings	The bulk of apartments are oriented to the north, which maximises solar access but leaves apartments susceptible to overshadowing impacts of future redevelopment to the north. Both towers have lobbies oriented north into the through site link. The main communal open space area is located on Level 6, which would receive morning and midday sunlight. Redevelopment of land to the north could overshadow this space. Additional communal open space on Level 1 is located on the southern side of the podium and is not expected to receive substantial sunlight. Both street frontages have direct access via ramps and steps. The Keira Street elevation has a café and outdoor terrace which activates this elevation. Kenny Street is less successful, with an office premises accessed directly from the boundary via several steps. A 1.5m wide terrace area adjoins the access ramp from Kenny Street which is narrower than other terraces on the podium and users may feel cramped. Shadow diagrams are provided on plans A401J, A402D, A403DA404D and A405B.	Yes
3C Public domain interface Key components to consider when designing the interface include entries, private terraces or balconies, fences and walls, changes in level, services locations and planting. The design of these elements can influence the real or perceived safety and security of residents, opportunities for social interaction and the identity of the development when viewed from the public domain *Objective 3C-1:* *Transition between private and public domain is achieved without compromising safety and security* Design Guidance - Terraces, balconies and courtyards should have direct street entry, where appropriate - Changes in level between private terraces etc. above street level provide surveillance and improved visual privacy for ground level dwellings.	The ground floor has been raised in response to flooding calculations. An undercroft flood conveyance area is partially shielded from the through site link and public domain by raised planters. Access ramps are provided at both Keira and Kenny Streets. The application proposes no mechanism for ensuring ongoing public access in the through site link. The management of the right of way and easement for parking by residents and tenants of the proposed development is unclear. Further detail is needed as to how the legal rights of the benefiting land will be maintained once the building is constructed. For example, how will parking in the easement by residents or tenants of the proposed development be prevented?	Yes

Standards/controls	*Comment*	*Complies?*
- Front fences and walls along street frontages should use visually permeable materials and treatments. The height of solid fences or walls should be limited to 1m. - Opportunities should be provided casual interaction between residents and the public domain e.g. seating at building entries, near letterboxes etc. *Objective 3C-2:* *Amenity of the public domain is retained and enhanced* Design Guidance - Planting softens the edges of any raised terraces to the street (e.g. basement podium) - Mailboxes should be located in lobbies perpendicular to street alignment or integrated into front fences. - Garbage storage areas, substations, pump rooms and other service requirements should be located in basement car parks. - Durable, graffiti resistant materials should be used - Where development adjoins public parks or open space the design should address this interface.	How will conflict between pedestrians and vehicles be managed in this area? Street tree planting and other public domain works are shown on the landscape plan. Waste rooms and the bin collection area are located on ground level out of sight from the public domain. One internal substation is proposed on the Kenny Street frontage. Raised planters are used on the Keira Street frontage to alleviate the raised floor level of the ground floor and disguise the undercroft flood conveyance area. Mailboxes are located adjacent to each tower lift lobby. The Keira Street frontage is located opposite MacCabe Park. The Keira Street tower has a reduced height as required by WLEP 2009. Locating communal open space on the eastern tower appropriately visually connects with the park.	
3D Communal and public open space *Objective 3D-1* *An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping* Design Criteria 1.Communal open space has a minimum area of 25% of the site area 2. 50% direct sunlight provided to principal usable part of communal open space for a minimum of 2 hours between 9am and 3pm on 21 June Design Guidance - Communal open space should be consolidated into a well-designed, usable area. - Minimum dimension of 3m - Should be co-located with deep soil areas - Direct & equitable access required - Where not possible at ground floor it should be located at podium or roof level. - Where developments are unable to achieve the design criteria, such as on small lots, sites within	Minimum 25% of 2582.9m^2 site = 645.72m^2. Sheet A504I provides m^2 of the COS. The principal communal open space area on Level 6 is shown on Sheet A504I as being 570m2, consisting of landscaped areas, indoor common room and paved areas. The additional communal open space area on Level 1 is approximately shown as 202m^2. Additional communal open space is located at ground level, in the though site link. The Level 6 area receives minimum 2hrs (refer shadow diagram). In the current design, there is no way to reach the outdoor communal open space area without walking through the indoor common room. This is not ideal as the common room might be used for private functions like parties or meetings.	Yes

Standards/controls	*Comment*	*Complies?*
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 *Objective3D-2* *Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting* Design guidance - Facilities to be provided in communal open spaces for a range of age groups, and may incorporate seating, barbeque areas, play equipment, swimming pools *Objective 3D-3* *Communal open space is designed to maximise safety* Design guidance - Communal open space should be visible from habitable rooms and POS areas and should be well lit. *Objective 3D-4* *Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood* (N/A in most cases)		
3E Deep soil zones *Objective 3E-1* *3E-1 Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality.* Design Criteria: 1. Deep soil zones for sites exceeding 1500m^2 are to meet the following minimum requirements: 7% of site area, 6m dimension Design guidance: - Deep soil zones should be located to retain existing significant trees. - Achieving design criteria may not be possible on some sites including where; there is 100% site coverage or non-residential uses at ground floor level or the location and building typology have	Minimum dimension of 6.0m required, with minimum area of 180.80m^2 (7%). The landscape plan does not identify any deep soil zone, however sheet A504I says 180m^2 of deep soil is provided. Whilst the application refers to achievement of 7% deep soil zone, it is noted that the only part of the site that is landscaped at ground level is also affected by the drainage easement and contains existing underground drainage infrastructure. No deep soil zone (areas of minimum dimension, planted with significant	**No**

Standards/controls	*Comment*	*Complies?*
limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres).	trees and not sitting over drainage infrastructure) is provided.	
3F Visual privacy *Objective 3F-1* *Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual amenity.* Design Criteria: For buildings up 12m (4 storeys) the minimum required separation distances from buildings to the side and rear boundaries are as follows: 6m habitable rooms and balconies and 3m non-habitable rooms. For buildings up to 25m (5-8 storeys): 9m habitable rooms and balconies and 4.5m non-habitable rooms. For buildings over 25m (9 storeys): 12m habitable rooms and balconies and 6m non-habitable rooms. Separation distances between towers on same site should combine required building separations. Design Guidance - Apartment buildings should have an increased separation distance of 3m (in addition to the above requirements) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale. - Direct lines of sight should be avoided for windows and balconies across corners - No separation is required between blank walls *Objective 3F-2:* *Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space* Design Guidance - Communal open space, common areas and access paths should be separated from private open space and windows to apartments. Design solutions include: · Setbacks, · Solid or partly solid balustrades to balconies · Fencing or vegetation to separate spaces · Screening devices	All adjoining buildings are 1-2 storeys and are not currently used for residential purposes. The development contains the following setbacks: up 12m (4 storeys) - Ground-Level 3 habitable: minimum nil setback Level 1 POS where 6m required (south); minimum 8m where 6m required (north) non-habitable: minimum nil setback where 4.5m required (south); minimum 6m where 3m required (north) up to 25m (5-8 storeys): Levels 4-7 habitable: minimum 1m where ADG requires 9m (south); COS 2m setback where 9m required (south); minimum 8m where 9m required (north) non-habitable: minimum nil setback where 4.5m required (south); no non-habitable areas on northern elevation. over 25m (9 storeys): Levels 8-14 habitable: minimum 6m where 12m required (south); minimum 11m where 12m required (north) non-habitable: minimum 6m where 6m required (south); no non-habitable areas on northern elevation. Communal open space on Levels 1 and 6 is not adequately separated from private open space e.g. COS covered area Level 6 directly adjoins outdoor terrace of apartment 604 and has same floor level; Level 1 COS adjoins POS of apartments 101, 107, 108 and 113 at same floor level.	**No**

Standards/controls	*Comment*	*Complies?*
· Raising apartments/private open space above the public domain · Planter boxes incorporated into walls and balustrades to increase visual separation · Pergolas or shading devices to limit overlooking · Only on constrained sites where it's demonstrated that building layout opportunities are limited – fixed louvres or screen panels - Windows should be offset from the windows of adjoining buildings		
3G Pedestrian access and entries *Objective 3G-1* *Building entries and pedestrian access connects to and addresses the public domain* Design Guidance - Multiple entries should be provided to activate the street edge. - Buildings entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries. *Objective 3G-2* *Access, entries and pathways are accessible and easy to identify* Design Guidance - Building access areas should be clearly visible from the public domain and communal spaces - Steps and ramps should be integrated into the overall building and landscape design. *Objective 3G-3* *Large sites provide pedestrian links for access to streets and connection to destinations*	The main building entries (lift lobbies) are located on the northern elevation. From Keira and Kenny Streets, pedestrians will have to identify ramps or steps to terrace areas and then walk around to find the lift lobbies. A through site link has been proposed, but it is unclear whether it will operate as a publicly accessible pedestrian path as required by WDCP 2009. The applicant has advised Council it does not intend to enter into a planning agreement to dedicate this land to Council.	**No**
3H Vehicle access *Objective 3H-1* *Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes* Design Guidance - Car park entries should be located behind the building line	All existing driveways are to be demolished. The vehicle driveway is located on the southern side of Keira Street. The driveway leads to three basement levels. The third basement was recently added and does not appear on sections or elevations.	**No**

Standards/controls	*Comment*	*Complies?*
- Access point locations should avoid headlight glare to habitable rooms - Garbage collection, loading and service areas should be screened - Vehicle and pedestrian access should be clearly separated to improve safety. - Where possible, vehicle access points should not dominate the streetscape and be limited to the minimum width possible.	The Kenny Street driveway servicing the parking easement and right of way benefiting 21 Kenny has been relocated further north than the existing driveway. A submission from 21 Kenny has indicated that the new location would not allow vehicle access into 21 Kenny without compromising the existing car parking spaces in the easement area. Garbage collection would occur via the loading bay on ground level. Council's traffic engineer has requested this area accommodate 10.24m vehicles, however this has not yet been demonstrated. It is unclear how pedestrian and vehicle conflict will be managed in the right of way and parking easement area.	
3J Bicycle and car parking *Objective 3J-1* *Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas* Design Criteria On land zoned, and sites within 400m of land zoned B3 Commercial Core or B4 Mixed Use, or equivalent in a nominated regional centre; The minimum car parking requirement for residents and visitors is set out in the RMS Guide To Traffic Generating Development, or Council's car parking requirement, whichever is less. The car parking needs for a development must be provided off street. *Objective 3J-2* *Parking and facilities are provided for other modes of transport* Design Guidance - Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters - Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas. *Objective 3J-3* *Car park design and access is safe and secure* Design Guidance	The land is located within the B3 Commercial Core zone. Therefore, the lesser of RMS or WDCP 2009 applies to the residential component. In this case, the lesser is RMS. WDCP 2009 applies to the business/retail component – Refer WDCP 2009 discussion Attachment 9. The proposed provision of 8 commercial parking spaces is less than the 11 spaces required by WDCP 2009. Residential parking spaces include a surplus which has been calculated as gross floor area in accordance with WLEP 2009. Council's traffic engineer has requested that the basement roller door not block manoeuvring. This has not yet been demonstrated. Car parking areas are accessible from lift lobbies.	**No**

Standards/controls	*Comment*	*Complies?*
- Supporting facilities within car parks (garbage rooms, storage areas, car wash bays) can be accessed without crossing parking spaces - A clearly defined and visible lobby or waiting area should be provided to lifts and stairs. - Permeable roller doors allow for natural ventilation and improve the safety of car parking areas by enabling passive surveillance. *Objective 3J-4* *Visual and environmental impact of underground car parking are minimised* Design Guidance - Excavation should be minimised through efficient carpark layouts and ramp design. - Protrusion of carparks should not exceed 1.0m above ground level. - Natural ventilation should be provided to basement and sub-basement car parking areas. - Ventilation grills or screening devices should be integrated into the façade and landscape design. *Objective 3J-5* *Visual and environmental impacts of on-grade car parking are minimised* - On grade car parking should be avoided - Design guidelines provided where it's unavoidable *Objective 3J-6* *Visual and environmental impacts of ground enclosed car parking are minimised* - Exposed parking should not be located along primary street frontages - Positive street address and active street frontages should be provided at ground level.		
Part 4 – Designing the building - Amenity		
4A Solar and daylight access *Objective 4A-1* *To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space* Design Criteria 1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of two (2) hours direct sunlight between 9am and 3pm in mid-winter in Wollongong LGA.	Sheet A002I indicates 87% of apartments would receive 2 hours of sunlight. It is unclear whether this refers to living areas or POS (or both). Sheet A002I notes that 16% would receive no direct sunlight between 9am and 3pm. Sheets A406A and A407A show potential shadowing of the proposed	Yes

Standards/controls	*Comment*	*Complies?*
1. A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at mid-winter Design Guidance - The design maximises north aspect and the number of single aspect south facing apartments is minimised - To optimise the direct sunlight to habitable rooms and balconies, the following design features are used: Dual aspect, Shallow apartment layouts Bay windows - To maximise the benefit to residents, a minimum of 1m^2 of direct sunlight measured at 1m above floor level, is achieved for at least 15 minutes. *Objective 4A-2* *Daylight access is maximised where sunlight is limited* Design Guidance - Courtyards, skylights and high level windows (sill heights of 1500m or greater) are used only as secondary light sources in habitable rooms *Objective 4A-3* *Design incorporates shading and glare control, particularly for warmer months* Design Guidance Design features can include: - Balconies - Shading devices or planting - Operable shading - High performance glass that minimises external glare	apartments should land to the north be redeveloped. Shadow impacts have been quantified at 67%, however the potential building form does not accommodate lot consolidation and therefore the potential built form may be larger. Screens and awnings are provided to some apartments.	
4B natural ventilation *Objective 4B-1* *All habitable rooms are naturally ventilated.* Design Guidance - A building's orientation should maximise the prevailing winds for natural ventilation in habitable rooms - The area of unobstructed window openings should be equal to at least 5% of the floor area served.	Sheet A002I indicates that 63% of apartments are cross ventilated.	Yes

Standards/controls	*Comment*	*Complies?*
- Doors and openable windows should have large openable areas to maximise ventilation. *Objective 4B-2* *The layout and design of single aspect apartments maximises natural ventilation* Design Guidance - Single aspect apartments should use design solutions to maximise natural ventilation. *Objective 4B-3* *The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents* Design Criteria: 1. 60% of apartments are naturally cross ventilated in the first nine storeys 2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line. **4C Ceiling heights** *Objective 4C-1* *Ceiling height achieves sufficient natural ventilation and daylight access* Design Criteria 1. Minimum 2.7m for habitable rooms and 2.4m for non-habitable rooms *Objective 4C-2* *Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms* *Objective 4C-3* *Ceiling height contribute to the flexibility of building use over the life of the building* Design Guidance - Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses. **4D Apartment size and layout** *Objective 4D-1* *The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity* Design Criteria:	All apartments have 3m floor to floor height. Ground floor has floor to floor height of minimum 3.85m. A schedule of units has been provided on sheet A002I. All apartment sizes exceed ADG size requirements.	Yes Yes

Standards/controls	*Comment*	*Complies?*
1. Minimum internal areas: Studio – 35m^2 1 bed – 50m^2 2 bed – 70m^2 3 bed – 90m^2 The minimum internal areas include only 1 bathroom. Additional bathrooms increase the minimum internal areas by 5m^2 each. 2. Every habitable room must have a window in an external wall with a total minimum glass area of at least 10% of the floor area of the room <u>Design Guidance:</u> - Where minimum areas are not met, need to demonstrate the usability and functionality of the space with realistically scaled furniture layouts and circulation areas. <u>*Objective 4D-2*</u> *Environmental performance of the apartment is maximised* <u>Design Criteria:</u> 1. Habitable room depths are limited to a maximum of 2.5 x ceiling height 2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window. <u>Design Guidance:</u> - Greater than the minimum ceiling heights can allow proportionate increases in room depths. - Where possible, bathrooms and laundries should have an external openable window. - Main living spaces should be oriented towards the primary outlook. <u>*Objective 4D-3*</u> *Apartment layouts are designed to accommodate a variety of household activities and needs* <u>Design Criteria:</u> 1. Master bedrooms have a minimum area of 10m^2 and other bedrooms 9m^2 (excl. wardrobe space) 2. Bedrooms have minimum dimension of 3m (excl. wardrobe) 3. Living rooms have minimum width of: - 3.6m for studio and 1 bed apartments and - 4m for 2+ beds.		

Standards/controls	*Comment*	*Complies?*
4. The width of the crossover or cross through apartments is at least 4m internally to avoid deep narrow apartment layouts. Design Guidance: - Access to bedrooms, bathrooms and laundries is separated from living areas - Minimum 1.5m length for bedroom wardrobes - Main bedroom apartment: minimum 1.8m long x 0.6m deep x 2.1m high wardrobe - Apartment layouts allow for flexibility over time, including furniture removal, spaces for a range of activities and privacy levels within the apartments.		
4E Private open space and balconies *Objective 4E-1* *Apartments provide appropriately sized private open space and balconies to enhance residential amenity* 1. Minimum primary balcony depths are: 1 bedroom: minimum area 8m^2, minimum depth 2m 2 bedroom: minimum area 10m^2, minimum depth 2m 3+ bedroom: minimum area 12m^2, minimum depth 2.4m The minimum balcony depth to be counted as contributing to the balcony area is 1m. 2. Ground level apartment POS must have minimum rea of 15m^2 and min. depth of 3m *Objective 4E-2* *Primary private open space and balconies are appropriately located to enhance liveability for residents* Design Guidance - Primary private open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space. - POS & Balconies should be oriented with the longer side facing outwards to optimise daylight access into adjacent rooms. *Objective 4E-3* *Primary private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building* Design Guidance - A combination of solid and transparent materials balances the need for privacy with surveillance of the public domain	Balcony dimensions are shown on floor plans. All comply, with the exception of apartments 904 on levels 7-13, where 8m^2 and 2m^2 balconies are provided and a 10m^2 primary balcony is required. All primary balconies are located off living areas except for apartments 904 on levels 7-13, which has the 2m^2 balcony located off a bedroom. Generally, the longer side face outwards. Screening devices are provided on some balconies, including on the north elevation. Some apartments have full width clear glazing balustrades.	**No**

Standards/controls	*Comment*	*Complies?*
- Full width glass balustrades alone are not desirable - Operable screens etc. are used to control sunlight and wind, and provide increased privacy for occupancy while allowing for storage and external clothes drying. *Objective 4E-4* *Private open space and balcony design maximises safety* Design Guidance - Changes in ground levels or landscaping are minimised.		
4F Common circulation and spaces *Objective 4F-1* *Common circulation spaces achieve good amenity and properly service the number of apartments.* Design Criteria 1. The maximum number of apartments off a circulation core on a single level is eight 2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40. Design Guidance - Long corridors greater than 12m in length should be articulated through the use of windows or seating. - Primary living rooms or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces should be controlled. *Objective 4F-2* *Common circulation spaces promote safety and provide for social interaction between residents* Design Guidance: - Incidental spaces can be used to provide seating opportunities for residents, and promotes opportunities for social interaction.	The development contains 2 lifts servicing the Kenny Street tower and one lift for the Keira Street tower. Maximum number of dwellings off a lift is seven. The Kenny Street lift corridor is approximately 16m long and is not relieved by seating or articulation.	**No**
4G Storage *Objective 4G-1* *Adequate, well designed storage is provided in each apartment* 1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided 1 bedroom: 6m^3	Storage is provided within apartments and in the basement parking levels. Sheet A002I details storage for each apartment. All storage complies with minimum dimensions and location.	Yes

Standards/controls	*Comment*	*Complies?*
2 bedroom: $8m^3$ 3+ bedroom: $10m^3$ At least 50% of the required storage is to be located within the apartment *Objective 4G-2* *Additional storage is conveniently located, accessible and nominated for individual apartments* Design Guidance: - Storage not located within apartments should be allocated to specific apartments.		
4H Acoustic privacy *Objective 4H-1* *Noise transfer is minimised through the siting of buildings and building layout* Design Guidance - Adequate building separation is required (see section 2F above). - Noisy areas within buildings should be located next to or above each other and quieter areas next to or above quieter areas. - Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources. - Noise sources such as garage doors, plant rooms, active communal open spaces and circulation areas should be located at least 3m away from bedrooms. *Objective 4H-2* *Noise impacts are mitigated within apartments through layout and acoustic treatments* Design Guidance - In addition to mindful siting and orientation of the building, acoustic seals and double or triple glazing are effective methods to further reduce noise transmission.	Building separation is non-complying. The principal noise source intruding on apartments is likely to be other apartment balconies or communal open space. Level 1 and Level 6 communal open space directly adjoins some apartments. Level 1 COS is greater than 3mfrom bedrooms, however Level 6 COS is less than 3m from the bedrooms of apartment 604.	**No**
4J Noise and pollution *Objective 4J-1* *In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings* Design Guidance - Minimise impacts through design solutions such as physical separation from the noise or pollution source,	An acoustic report has been provided, which reviewed external noise sources and incorporated noise monitoring. No significant noise sources were identified. The acoustic report recommends necessary construction measures to	Yes

Standards/controls	*Comment*	*Complies?*
Objective 4J-2 *Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission* Design guidance: - Design solutions include limiting openings to noise sources & providing seals to prevent noise transfer.	achieve satisfactory internal noise levels. Submissions from land to the north raise concerns with the potential for future residents to complain about noise from existing commercial and light industrial activities.	
Part 4 – Designing the building - Configuration		
4K Apartment mix *Objective 4K-1* *A range of apartment types and sizes is provided to cater for different household types now and into the future* Design guidance - A variety of apartment types is provided - The apartment mix is appropriate, taking into consideration the location of public transport, market demands, demand for affordable housing, different cultural/social groups - Flexible apartment configurations are provided to support diverse household types and stages of life *Objective 4K-2* *The apartment mix is distributed to suitable locations within the building* Design guidance - 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	The development incorporates 1, 2 and 3 bedroom apartments. 11 (10%) apartments are identified as silver level housing.	Yes
4M Facades *Objective 4M-1* *Building facades provide visual interest along the street while respecting the character of the local area* Design guidance - To ensure that building elements are integrated into the overall building form and façade design - The front building facades should include a composition of varied building elements, textures, materials, detail and colour and a defined base, middle and top of building. - Building services should be integrated within the overall facade	A schedule of finishes has been provided which provides a variety of external materials, and walled landscaping.	Yes

Standards/controls	*Comment*	*Complies?*
- Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. - To ensure that new developments have facades which define and enhance the public domain and desired street character? *Objective 4M-2* *Building functions are expressed by the facade* Design guidance - Building entries should be clearly defined		
4N Roof design *Objective 4N-1* *Roof treatments are integrated into the building design and positively respond to other street* Design guidance - Roof design should use materials and a pitched form complementary to the building and adjacent buildings. *Objective 4N-2* *Opportunities to use roof space for residential accommodation and open space are maximised* Design guidance - Habitable roof space should be provided with good levels of amenity. - Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations *Objective 4N-3* *Roof design incorporates sustainability features* Design guidance - Roof design maximises solar access to apartments during winter and provides shade during summer	The roof of each tower is flat, with no lift protruding. Photovoltaics are shown on sheet A112B.	Yes
4O Landscape design *Objective 4O-1* *Landscape design is viable and sustainable* Design guidance - Landscape design should be environmentally sustainable and can enhance environmental performance - Ongoing maintenance plans should be prepared *Objective 4O-2*	Landscape plans by Site Image have been provided. Planting and maintenance details are provided. Street tree planting is proposed on both Keira and Kenny Streets.	Yes

Standards/controls	*Comment*	*Complies?*
Landscape design contributes to the streetscape and amenity Design guidance - Landscape design responds to the existing site conditions including: • changes of levels • views • significant landscape features		
4P Planting on Structures *Objective 4P-1* *Appropriate soil profiles are provided* Design guidance - Structures are reinforced for additional saturated soil weight - Minimum soil standards for plant sizes should be provided in accordance with Table 5 *Objective 4P-2* *Plant growth is optimised with appropriate selection and maintenance* Design guidance - Plants are suited to site conditions *Objective 4P-3* *Planting on structures contributes to the quality and amenity of communal and public open spaces* Design guidance - Building design incorporates opportunities for planting on structures. Design solutions may include: • green walls with specialised lighting for indoor green walls • wall design that incorporates planting • green roofs, particularly where roofs are visible from the public domain • planter boxes	Green walls are proposed on the northern boundary and would be visible from the public domain. Planting details are shown on the landscape plan.	Yes
4Q Universal design *Objective 4Q-1* *Universal design features are included in apartment design to promote flexible housing for all community members* Design guidance - A universally designed apartment provides design features such as wider circulation spaces,	An access report has been provided. 11 (10%) of apartments are identified as silver level housing.	Yes

Standards/controls	*Comment*	*Complies?*
reinforced bathroom walls and easy to reach and operate fixtures *Objective 4Q-2* *A variety of apartments with adaptable designs are provided* Design guidance - Adaptable housing should be provided in accordance with the relevant council policy *Objective 4Q-3* *Apartment layouts are flexible and accommodate a range of lifestyle needs* Design guidance - Apartment design incorporates flexible design solutions		
4S Mixed use *Objective 4S-1* *Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement* Design guidance - Mixed use development should be concentrated around public transport and centres - Mixed use developments positively contribute to the public domain. *Objective 4S-2* *Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents* Design guidance - Residential circulation areas should be clearly defined. - Landscaped communal open space should be provided at podium or roof levels	The development is shop top housing. Separate services, parking, access and facilities are provided for residential and non-residential tenants.	Yes
4T Awnings and signage *Objective 4T-1* *Awnings are well located and complement and integrate with the building design* Design guidance - Awnings should be located along streets with high pedestrian activity and active frontages *Objective 4T-2* *Signage responds to the context and desired streetscape character*	An awning is proposed on Kenny Street. The application refers to continuous awnings on both frontages but there does not appear to be an awning on Keira Street. No signage is proposed.	Yes

Standards/controls	*Comment*	*Complies?*
Design guidance - Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development		
Part 4 – Designing the building - Configuration		
4U Energy efficiency *Objective 4U-1* *Development incorporates passive environmental design* Design guidance - Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access) *Objective 4U-2* *Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer* Design Guidance - Provision of consolidated heating and cooling infrastructure should be located in a centralised location *Objective 4U-3* *Adequate natural ventilation minimises the need for mechanical ventilation*	A BASIX certificate and solar access plans have been submitted. Shading screens are proposed on some apartments. Roof top photovoltaics are shown on sheet A112B.	Yes
4V Water management and conservation *Objective 4V-1* *Potable water use is minimised* *Objective 4V-2* *Urban stormwater is treated on site before being discharged to receiving waters* Design guidance - Water sensitive urban design systems are designed by a suitably qualified professional *Objective 4V-3* *Flood management systems are integrated into site design* Design guidance - Detention tanks should be located under paved areas, driveways or in basement car parks	A Water Sensitive Urban Design strategy has been submitted and is satisfactory.	Yes
4W Waste management *Objective 4W-1*	A waste management plan has been provided.	Yes

Standards/controls	*Comment*	*Complies?*
Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents Design guidance - Common waste and recycling areas should be screened from view and well ventilated *Objective 4W-2* *Domestic waste is minimised by providing safe and convenient source separation and recycling* Design guidance - Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core - For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses - Alternative waste disposal, such as composting, can be incorporated into the design of communal open space areas	Waste storage and collection would occur at ground level. Separate residential and commercial waste rooms are provided.	
4X Building maintenance		
Objective 4X-1 *Building design detail provides protection from weathering* Design guidance - Design solutions such as roof overhangs to protect walls and hoods over windows and doors to protect openings can be used. *Objective 4X-2* *Systems and access enable ease of maintenance* Design guidance - Window design enables cleaning from the inside of the Building *Objective 4X-3* *Material selection reduces ongoing maintenance costs easily cleaned surfaces that are graffiti resistant*	Access to service areas is provided. Proposed materials are robust and low maintenance.	Yes