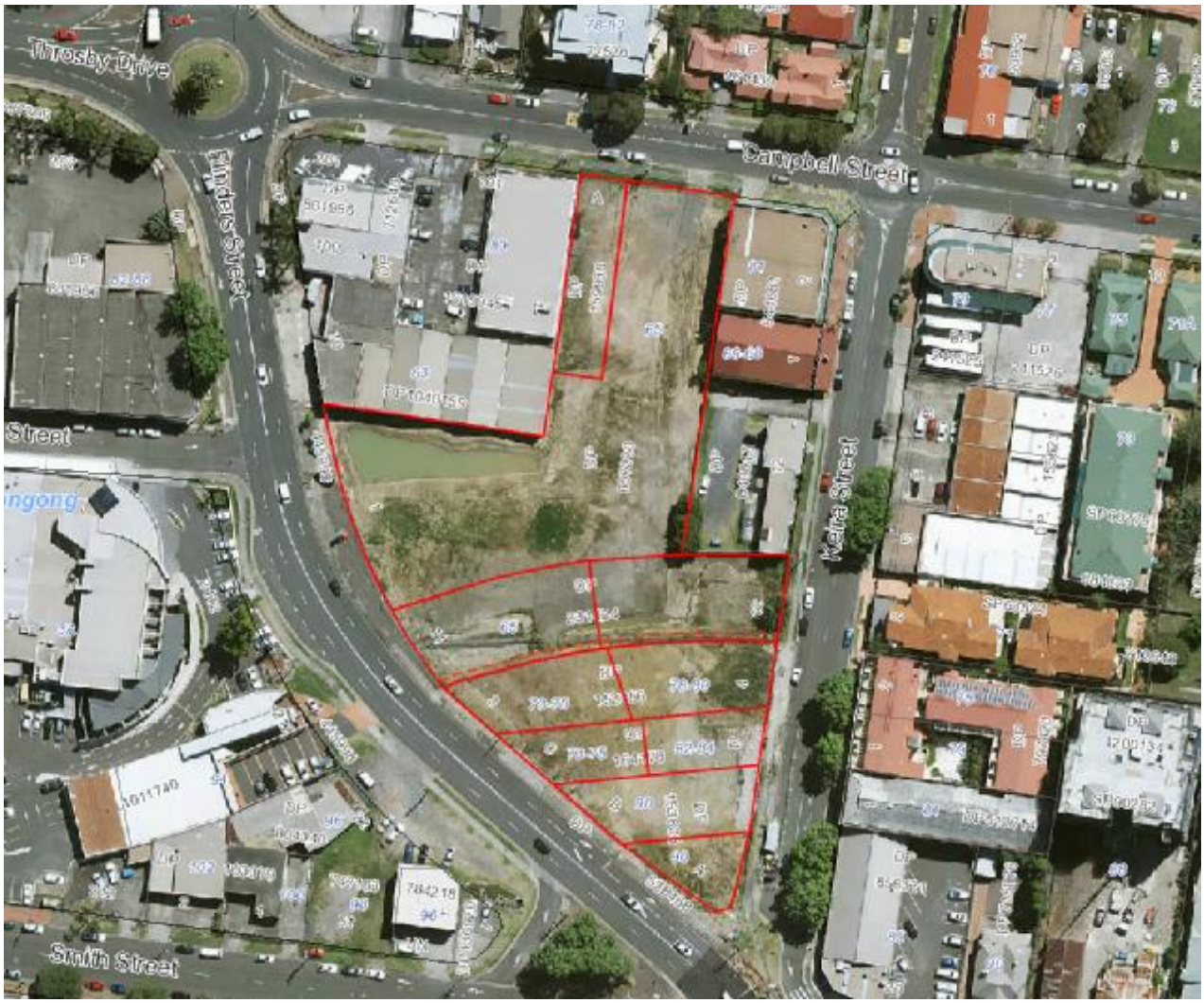
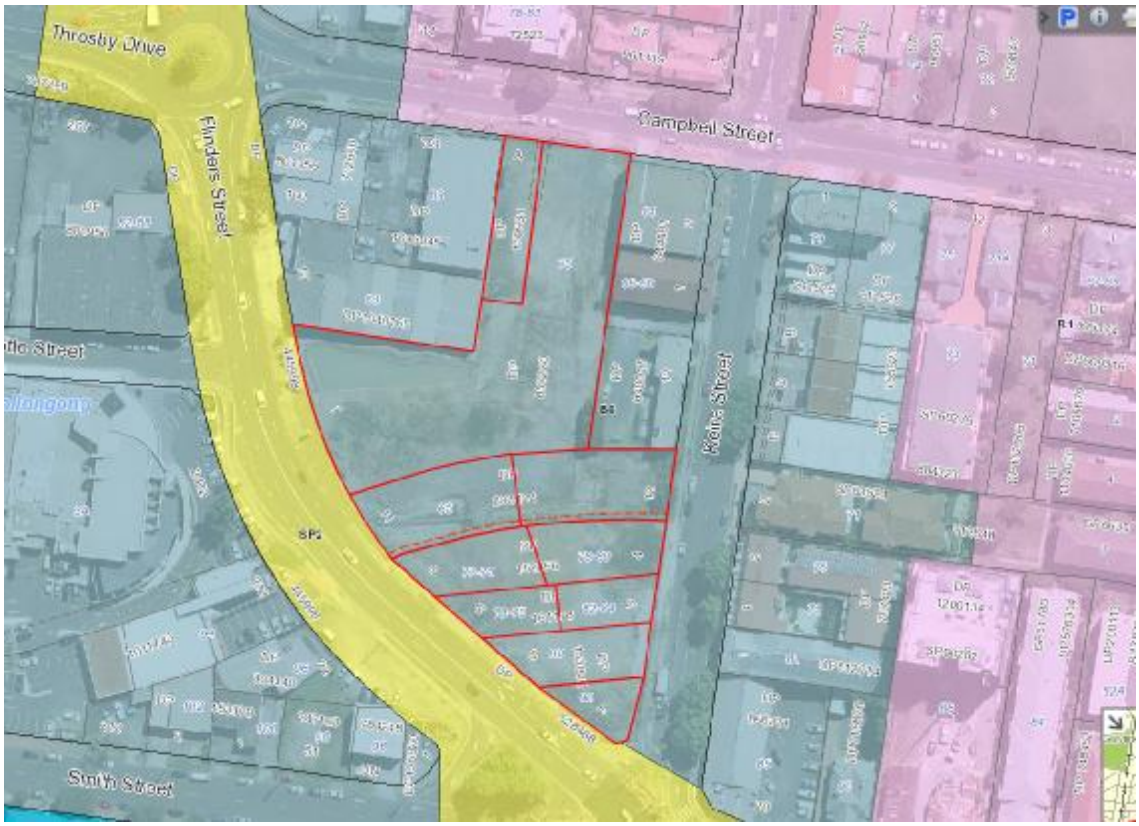
Attachment 1 Aerial Photograph DA-2016/591



Attachment 2 Wollongong Local Environmental Plan 2009 zoning map DA-2016/591



Attachment 4 Design Review Panel comment DA-2016/591

1. Prior to lodgement 30 November 2015 (as DE-2015/214)

Wollongong Design Review Panel meeting.
For proposed mixed use development at Flinders, Keira and Campbell Street.
Held at Wollongong Council on 30th November 2015.

Present:

Mark Jones Edmiston Jones, Architects
Gabe Reed Edmiston Jones, Architects

Andrew Carfield, Wollongong City council
Mark Riordan, Wollongong City Council
Pier Panozzo, Wollongong City Council

David Jarvis, Panel Member
Brendan Randels, Panel Member

The proposal is a mixed use development located on a large site (in excess of 9000sqm) with frontages to three streets close to the Wollongong City Centre. The current proposal contains 16436sqm of residential, 5000sqm of commercial space and a pub. Vehicular servicing and parking is provided by one level of basement parking and two levels of podium parking, above ground but for the most part, sleeved and incorporated into the site's topography. At this stage, the Pre Development Application documentation provided to the Panel is conceptual.

Context and Neighbourhood character

The proposal is located on a busy arterial road, which is the main route into the Wollongong City Centre (Flinders Street) from the freeway, Sydney and suburbs to the north. Located on a curve before it ascends into the City Centre, it is a true gateway site with great prominence and outlook.

Keira Street by comparison, provides a much calmer, pedestrian friendly environment. As an extension of one of the city's main north south streets, it is well proportioned, highly accessible and contains existing mature street trees. Keira Street not only houses numerous eateries and provides a direct route into the city centre for both vehicles and pedestrians; it is highly amenable for residential entries and commercial outlets of all kinds. The site also has a narrow frontage to Campbell Street. This portion of the site is essentially an infill site, with existing buildings located on adjoining sites to the east and west; both adjoining sites have potential to be developed to accommodate buildings of a similar scale as those proposed on the subject site.

The site is very large and complex, with a steep grade from east to west and a valley giving it a unique landscape form. With three distinct street frontages and such a complex topographical shape, it requires quite different solutions at each of its edges as well as within its internal open spaces. The panel therefore recommends that a much broader site and contextual analysis is required than has been presented. This analysis must include long site sections that illustrate how the site and proposal sit within its block and greater context, how its different street interfaces are handled and how the proposal relates to existing and future built form. Many more sections should

be prepared, extending well beyond the site and across adjacent streets to show existing and future street spaces. Elevational studies should illustrate how the site connects with the City Centre. Plan studies should demonstrate how the new proposal interrelates with local facilities as well as creating compelling urban spaces around and within its boundaries.

Built Form and Scale

Four options have been provided, which show different built form arrangements across the site. However none of these options appear to have been developed to respond to the context of the site. Rather than pick up on site qualities and opportunities at the street edge, the block options simply demonstrate ADG compliance, minimizing setbacks and optimizing yield. For a large site such as this, these schematic diagrams are not adequate. At a minimum, they should include the remaining sites within this city block and the sites across each of the site's adjacent streets.

While the building forms proposed appear to respond appropriately at its major corner and along street edges, the responses generally fail to consider the differences between the Keira St frontage and the arterial road counterpart. While a street wall and expressive corner appears appropriate to Keira Street, it could be that a series of buildings with gaps between them may be better for the arterial road context for example. Further exploration of built form in response to a broader contextual study will ultimately determine the appropriate response to Flinders street. While this aspect of the site response is still to be explored, the weakest aspect of the current proposal is the long linear building form fronting Campbell Street. The long bank of single aspect apartments facing east will be looking straight into the back of a future apartment building on the neighbouring site fronting Keira Street. Even when ADG building separation requirements are achieved, the outlook from these units will be poor and solar access may also be compromised. This portion of the site should be treated as an infill site orientated toward Campbell Street, and to a substantial rear courtyard. Therefore, the width of the building should be maximized and the length to which the building extends back into the site should be limited. The space provided between buildings in the centre of the block would then increase, as would solar access into this central court yard space.

The potential to recuperate floor space lost from the Campbell Street building (if the suggestion above were to be undertaken) was discussed at the meeting.

Locating an additional storey on the corner of Flinders Street and Keira Street was discussed as one option that may be viable if a contextual study demonstrated that the built form contributed to an appropriate streetscape and had no adverse impact on neighbouring properties or areas of public open space. However it must be noted that this option will not comply with council's height control and would be subject to a variation (clause 4.6). Even if an acceptable urban design solution was able to demonstrate that added height improved urban form and visual amenity to the public domain, the proposal may still be refused on planning grounds. The applicant should therefore seek advice from his planning consultant and Council.

Alternatively, the above ground parking located on the second floor could be relocated underground, which would create the opportunity to provide more residential units in the residential block fronting Flinders Street. It would also lower the height of the podium / communal court yard by 1 level, creating opportunities for an additional level of units facing back into the internal court yard on both the Flinders Street and Keira Street blocks. This option can be achieved whilst remaining compliant with Councils height control.

The proposed second floor car park fronts Flinders Street, with a screen of some sort proposed to mask it and provide some visual amenity to the public domain. In principle the panel has no objection to this strategy if the aesthetic treatment of the car park is appropriately handled. While, sleeving with apartments is genuinely preferred, in this location traffic noise may rule this out on the southern end of Flinders Street where second floor units would be located closest to street level (Note: There is a level difference between the proposed second floor level and the street of approximately 9m on the northern end of Flinders Street which diminishes to approximately 2.5m at the southern end of the street). However, consideration should first be given to the location of the upper level car park, in respect to the appropriate distribution of built form across the site, as outlined above.

The success of the buildings' interface with Flinders street will be largely dependent upon how the bulky goods outlet relates to the street and how the rest of the street wall can be expressed. Current documents are yet to detail this interface. There can be a tendency for many bulky goods outlets to present largely blank walls to the street to provide additional internal space for storage and racking. This would result in a hostile inactive street. Detail development of the Flinders street façade should aim to provide a lively activated frontage to Flinders street. The image show on drawing S2/18 Mood Board (image in the bottom left hand corner) shows a good example of an active street which the applicant should be aspiring to achieve. Alternatively, the proponent could treat the street frontage as a series of buildings as suggested above with landscape between buildings providing active gaps – this strategy is also prevalent along arterial roads in similar locations.

Density

The proposal appears to be compliant with Councils density control. While there appears to be potential to accommodate the full extent of permissible floor space on the site, some of the mass located in the Campbell Street building should be relocated (as outlined above) to provide a better relationship with future buildings on the neighbouring sites to the east.

Amenity

Development Application documents must demonstrate compliance with the Solar access requirements of the ADG. It is recommended that this is done with three dimensional drawings showing the extent of shadowing on each unit at hourly intervals. The drawings must clearly show the extent of shadow on the living room window and private open space of each unit.

The current proposal does not appear to meet minimum Cross ventilation requirements of the ADG (60%). Strategies that could be developed to address this issue include creating generously proportioned breeze ways between buildings, developing more dual aspect apartments by introducing additional vertical circulation cores or creating some two storey / cross over apartments. It is important that consideration is given to the typology of apartments at this stage of the design process.

The proposal should also meet Communal open space requirements of the ADG (25% of site area and 2 hours solar access to 50% of the communal open space between the hours of 9am and 3pm in mid winter). It is recommended that the central courtyard space is increased in size and developed to provide functional spaces that can be easily accessed by all buildings in the development. By increasing the size of the central court yard it may be possible to reduce the size of the three proposed roof gardens, perhaps creating small more intimate but better appointed roof top facilities

for each building. Whilst still meeting the requirements of the ADG. It also crucial that the open spaces are planned as passive and/or active, that landscape is well integrated into the planning of these spaces by a qualified landscape architect and that all privacy issues with adjacent apartments are considered and resolved.

Each building is serviced by a very long corridor, providing access to up to 14 units. This appears to prevent compliance with cross ventilation requirements as stated above. The ADG design criteria states that the maximum number of apartments off a single core on a single level is to be eight.

Sustainability

Both solar access and natural ventilation strategies are yet to be demonstrated at this stage. This issue will be covered in greater detail once a development application is submitted.

Landscape

A landscape design was not provided at this stage. It is recommended that a landscape architect is engaged to develop a well considered landscape strategy for the central courtyard, roof terraces and surrounding streets, that the size of central court yard is increased and a public domain / street tree strategy is developed.

Housing diversity and Social interaction

The proposal will provided an appropriate housing option for this precinct. The central court yard, roof top gardens and street interface all provide potential for social interaction if developed appropriately. Further detail development is required to realise this potential.

Aesthetics

At this stage the proposal is conceptual, little information has been provided to indicate how the aesthetics of the development will be handled. The panel encourages the applicant to examine the context of each street and develop a response appropriate to the three individual characteristics of these very different environments.

Summary

Current documents outline a broad conceptual response to the site within the framework provided by council's controls. In developing this further the applicant is encouraged to consider / address the following issues:

- Further exploration of the surrounding context of the site.
- Development of a built form strategy, that is inclusive of the entire city block.
- Reduction of the length of the building fronting Campbell Street.
- Increasing the size of the central courtyard.
- Development of a strategy to appropriately distribute the built form across the site.
- Develop a detail strategy to provide an individual response to each street and an appropriate interface with the public domain.
- Development of unit configuration to provide appropriately proportioned circulation core and compliance with ADG solar and cross ventilation requirements.

NOTE: Additional information has been provided to the panel showing further development to the concept design. The main concerns raised in the report above remain, the length of the Campbell Street building still results units orientated back towards the sites to the east. Building forms that create simple perimeter buildings around the edge of the city block, as previously proposed for buildings A and C were a more logical response to this site. It is also a concern that the cranked form created for tower C will be difficult to develop into functional units. The revised proposal needs to include a substantial context and site analysis. This may lead to different design strategies for each of the three contexts described above and more feasible approach to this very important gateway site.

2. Prior to lodgement (as DE-2015/236) 4 March 2016

8th March 2016

Wollongong City Council
Design Review Panel Meeting
4th March 2016

Re: Proposed mixed use development 90 Keira Street, Wollongong

Present:

Proponents:	(MJ) Mark Jones	–	Edmiston Jones Architects
	(GR) Gabe Reed	–	Edmiston Jones Architects
	(IB) Iain Brammer	–	Taylor Brammer Landscape Architects

Panellists: (TQ) Tony Quinn (Chair)
(BR) Brendon Randles
(IS) Iain Stewart

WGC: (PP) Pier Panozzo
(MR) Mark Riordan

The following were discussed and have been arranged under headings as per the Apartment Design Guide (ADG).

Context + Neighbourhood Character
Gabe Reed explained drawings SA 3-5 inclusive and how design has changed.

- More contextual analysis done, including sections
- More comprehensive reasoning demonstrated of how adjoining sites could be developed.
- Lack of proposed elevations and sections make detail analysis difficult.
- While current proposal demonstrates better consideration of street interface to all streets, the Panel remain concerned that the western address appears to be half thought through and can be substantially improved through the separation of west facing building tower C into two discrete forms as discussed at the meeting, with landscape used to reinforce the resultant interstitial spaces
  Issue raised by MR re "Shoptop housing" compliance

Built Form

- Noted the three towers are 7 storeys each
- Built form is very hard to assess without elevations, only envelopes were presented
- Proposal seems clearer with a better formed central space, however the western building Tower C is not resolved and introduces privacy issues within its street facing courtyard. This building should become two discrete forms as discussed above.
- Northern building improved through shortening its length and providing a better address, however long corridor can only be supported if it allows clear views out to landscape at each of its ends in compliance with ADG. Design excellence needs to be shown with 11 units in the layout.
- If proposed, the panel supports higher form at the Keira Street corner as an urban marker. Mark Jones indicated client wants to "stick to the rules". MJ indicted roof structures would assist with height. (pergolas etc)

Scale and Density

- Building heights and setbacks appear to comply with LEP/DCP and ADG respectively
- Layout is improved but can get better – see above. Also better if slot on Keira Street runs full height of the building, creating better connection to the ground
- Scale is very hard to assess without elevations
- Density warrants a serious review of landscape to ensure that potential impacts from communal uses are reduced and that the amenity of the community spaces are optimised. Toilet, storage for furniture and kitchen facilities (where needed) should be provided to upper terraces

Amenity

Generally internal and external amenity improved however:

- Issue of condensers on balconies raised and hiding same was raised
- Cross ventilation compliance was raised as a concern
- Long corridors should be 1800 wide minimum have natural light and ventilation near lobbies and allow views out at their ends in particular Tower B. Discussed flipping unit entries to create noads to break up gun barrel effect
- Entries to the west should be reviewed to coincide with revised built form – see above
- Units generally are very good, expect for inner corner of Tower C around court
- More attention should be given to defensive strategies where units come close to each other to minimize adverse impacts
- IS raised issue of community room. IB/MJ responded, taken out from earlier scheme
- Fire boosters need to be carefully considered to minimise visual intrusion along public streets
- The panel supports more active retail along Keira Street
- Condensor units on balconies are not supported
- Without elevations, review is limited

Safety
This item wasn't addressed or discussed, but CPTED issues will need to be covered in the Development Application.

Sustainability

- Not really discussed however a suite of well-considered sustainable strategies will need to be developed in subsequent design phases demonstrated at DA
- The proposal must fully comply with ADG solar and natural ventilation requirements
- The panel would like to see solar panels integrated into the proposal to power all communal spaces lighting etc

Landscape

- IB indicated landscape sits around 30% with landscape space on top of each tower
- More attention needed to careful placement of uses to minimize noise impact (especially POS)
- Review needed to better define major space and interstitial spaces as mentioned above
- Facilities required at each roof terrace – see notes above
- Deep soil is provided in setback zones and currently 12%

Housing Diversity and Social Interaction

- Appears ok
- Have not seen any units yet
- See notes above regarding communal open space, entries and long corridors

Aesthetics

- MR raised concern over services on the street including fire hydrants. Discussed locating in corridor between commercial and plant space on Flinders street
- Assessment impossible without any elevations or 3D'S

3. Post-lodgement Meeting 12 July 2016 (as DA-2016/591)

Wollongong City Council
Design Review Panel Meeting 12 July 2016

DA-2016/591 Shop-top housing development comprising construction of four (4) 7-8 storey buildings containing total 221 residential apartments, 336 parking spaces and eight (8) business tenancies

Property: 74-76 Keira Street, 78-80 Keira Street, 82-84 Keira Street, 90 Keira Street, 65 Flinders Street, 73-75 Flinders Street, 87 Campbell Street, Wollongong

Present:

Proponents:	(MJ) Mark Jones	–	Edmiston Jones Architects
	(GR) Gabe Reed	–	Edmiston Jones Architects
Panellists:	(TQ) Tony Quinn (Chair)		
	(ST) Shannon Truloff		
	(IS) Iain Stewart		
WCC:	(DF) David Fitzgibbon		
	(DB) Darren Bourke		

The following items were discussed and have been arranged under headings as per the Apartment Design Guide (ADG).

Context + Neighbourhood Character

Gabe Reed explained drawings and how design has changed since the DRP dated March 2016.

- More contextual analysis done, including sections
- More comprehensive contextual descriptions
- Proposed elevations and sections now provided
  The proponents had taken the panel's previous recommendation and provided two separate buildings to replace Tower C. Materials, finishes and landscape plan now provided.

Built Form and Scale

- Noted there are now four towers of 7 storeys each
- The panel noted that building separation between Tower A and Tower C needs to be 12m as per ADG.
- Side setbacks don't comply with Council's DCP and no variation request has been submitted. This needs justification.
- The panel pointed out non compliances and suggested how they might be amended with slight changes like wall angles and directed views regarding Tower A and Tower C.

Density

- Building heights appear to comply with LEP/DCP and ADG respectively
- Site layout is improved with four buildings breaking the bulk of 3 previous towers
- Other items raised in March DRP have been addressed.

Amenity

Generally, internal and external amenity has been improved, however:

- The number of apartments per floor being 11 requires better design resolution for the corridor. The panel suggested opening up the corridor of Tower A at it ends / along its length to introduce daylight.
- Concern was expressed about natural ventilation under 4B of ADG and depth of units B102 – 110 being 19 metres in lieu of 18 metres requirement. Suggest reduction of apartment depth to 18m.
- Issue of 4F common circulation spaces was discussed and lifts servicing the number of apartments and the need for ADG compliance.
- It was noted under 3J bicycle and car parking didn't comply and this would need to be addressed prior to any development application.

Safety

- This item wasn't addressed or discussed, but CPTED issues will need to be covered in the Development Application.

Sustainability

- Not really discussed however a suite of well-considered sustainable strategies will need to be developed in subsequent design phases demonstrated at DA
- The proposal must fully comply with ADG solar and natural ventilation requirements

Landscape

- Facilities are required at each roof terrace
- Deep soil is provided in setback zones and currently 12% compliant
- Communal open space was discussed and the need for access to rooftop spaces for all as the podium space doesn't provide the total COS. This is to be demonstrated.

Housing Diversity and Social Interaction

- This wasn't addressed and will need to be covered in the DA.

Aesthetics

- The buildings are greatly improved since the March DRP, and if the above items are addressed a better outcome will be achieved.

Summary

- The panel expressed the scheme is an improvement on previous submissions.

Attachment 5 Compliance table DA-2016/591

SEPP APARTMENT DESIGN GUIDE

Standards/controls	*Comment*	*Satisfactory?*
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 four towers, situated around a central courtyard. The towers are located on the perimeter of the site, and create a street wall edge which reinforces the CBD gateway character.	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 meetings. It models likely development on nearby sites and tests the proposed building form for compatibility in the neighbourhood. The analysis demonstrates the proposed footprint and building form is suitable. This has also been supported by the Design Review Panel.	Yes
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	The site is comprised of multiple allotments, providing three street frontages. Consolidation of allotments is required. Adjoining sites maintain potential for redevelopment in accordance with WLEP 2009.	Yes

Standards/controls	*Comment*	*Satisfactory?*
frontages - Ensure the development potential for adjacent sites is retained - Avoid isolated sites that are unable to realise the development potential.		
Part 2 – Developing the controls		
These guidelines include tools to support the strategic planning process when preparing planning controls, and aren't relevant to the development assessment of individual proposals.	Not applicable	N/a
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. Consideration of adjoining and nearby development has been demonstrated. Survey undertaken. Aerial and existing streetscape photos provided.	Yes
3B Orientation 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	Access is provided at each of the three street frontages. Overshadowing complies with ADG requirements and is assisted by the site topography and location of the towers.	Yes

Standards/controls	*Comment*	*Satisfactory?*
- Overshadowing should be minimised to the south or down hill 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		
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	Changes in level have been accommodated in the design. Building entries are adequately defined.	Yes
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. - 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.	Ground floor is comprised pf business/retail areas. The above ground car parking areas are encased with semi-permeable external finishes. Indicative communal open space seating and other furniture is shown in 3D images.	Yes
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	Street tree planting is shown on revised landscaping plan. Internal communal open space areas are	Yes

Standards/controls	*Comment*	*Satisfactory?*
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.	landscaped. The garbage room is located within car parking areas. Two substations have been identified adjacent to the Keira Street driveway and are shielded by landscaping. A condition of consent is recommended addressing implementation of a graffiti management strategy. A condition of consent is recommended requiring footpath works in accordance with Council's Public Domain Technical Manual.	
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 business zones, or in a dense urban area, they should: · provide communal spaces elsewhere such as a landscaped roof top terrace or a	Minimum 25% of 934m^2 site = 2283.5m^2. The principal communal open space area on Level 3 (podium) is approximately 1800m^2. The remaining communal open space areas are approximately 730m^2, which exceeds the total requirement. Achieves minimum 2hrs (refer shadow diagram).	Yes

Standards/controls	*Comment*	*Satisfactory?*
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 <u>*Objective3D-2*</u> *Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting* <u>Design guidance</u> - Facilities to be provided in communal open spaces for a range of age groups, and may incorporate seating, barbeque areas, play equipment, swimming pools <u>*Objective 3D-3*</u> *Communal open space is designed to maximise safety* <u>Design guidance</u> - Communal open space should be visible from habitable rooms and POS areas and should be well lit. <u>*Objective 3D-4*</u> *Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood* (N/A in most cases)	The 'resident park (podium)' landscape plan shows separate zones with discrete character within the communal open space area. This includes the 'entertainment pavilion' (notation 12) which incorporates seating and outdoor cooking facilities. Other recreation areas are provided; a yoga lawn (notation 13), intimate lawn space (notations 4 and 5) and a village green (notation 7).	Yes
<u>3E Deep soil zones</u> <u>*Objective 3E-1*</u> *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.* <u>Design Criteria:</u> 1. Deep soil zones for sites exceeding 1500m^2 are to meet the following minimum	Minimum dimension of 6.0m required, with minimum area of 640m^2 (7%). The landscape plan identifies location and species of tree planting. The SEPP 65 verification statement confirms the deep soil zone is provided at 8%. Minimum dimensions include 3m in parts. This is	Yes

Standards/controls	*Comment*	*Satisfactory?*
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 limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres).	considered satisfactory having regard to design guidance and ability to successfully plant trees in areas of these dimensions (refer landscape plan).	
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: 1. For buildings up to 25m (5-8 storeys) the minimum required separation distances from buildings to the side and rear boundaries are as follows: habitable rooms and balconies 9m and non-habitable rooms 4.5m. 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	All adjoining buildings are non-residential. The proposed building separation is: Tower A: Adjoins non-residential building partially built to the boundary. Proposed 9m setback for habitable (only neighbouring building is to the north). Internally to Tower C minimum 4.5m. Tower C eastern bedroom walls/windows are angled to prevent direct looking into Tower A. Tower C eastern terraces have solid walls. Tower B: Adjoins non-residential buildings built to the boundary. Proposed 9m setback for habitable to west and east. Internally to Tower C minimum 5m for corner unit, where screening applied to prevent direct looking. Tower C: Adjoins non-residential building built to the boundary. Proposed 9m setback for habitable to north.	Yes
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:	The principal communal open space area is located on Level 3.	Yes

Standards/controls	*Comment*	*Satisfactory?*
· Setbacks, · Solid or partly solid balustrades to balconies · Fencing or vegetation to separate spaces · Screening devices · 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	For apartments on this level, solid screening is proposed separating communal areas from private open space. High level windows are also employed to maximise privacy. The landscape plan shows proposed plantings, paving and seating which also provide barriers between private and communal areas. Windows are offset from other internal 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*	Building entries are available from all three street frontages. The central Level 3 communal open space allows movement throughout the development. The SEPP 65 verification statement indicates residents will have access to all frontages through this area. This arrangement would need to be supported by a future strata subdivision plan.	Yes

Standards/controls	*Comment*	*Satisfactory?*
Large sites provide pedestrian links for access to streets and connection to destinations		
3H Vehicle access	Driveways are located on all three street frontages.	
Objective 3H-1	Garbage collection is located in Tower B.	
Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes	Separate pedestrian and vehicle entries are provided.	
Design Guidance - Car park entries should be located behind the building line - 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.		
3J Bicycle and car parking		
Objective 3J-1 *Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas*	The land is located within the 400m of B3 and B4 zoned land. 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.	Yes
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.	The applicant proposes 330 car parking spaces. The Bitzios traffic plan refers to bulky goods retailing as part of the non-residential floor space, however this is not proposed in the Statement of Environmental Effects. Therefore, the Bitzios car parking calculations are inaccurate. Adjustments to allocation of residential and non-residential car parking spaces may be required for the Construction Certificate.	
Objective 3J-2 *Parking and facilities are provided for other modes of transport*	The required car parking is reflected in the draft condition of consent (no. 27) and is based on residential and business/retail rates in the ADG and WDCP 2009 as	

Standards/controls	*Comment*	*Satisfactory?*
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.	it applies to the City Centre B6 zone. Total required: cars 330, bicycles 108 and motorcycles 19. **Residential** 233 residential car parking spaces. This is comprised of 189 resident spaces 44 residential visitor spaces and has been calculated using ADG/RMS Guide to Traffic Generating development as it is the lesser compared to WDCP 2009. 92 secure residential bicycle spaces. This is comprised of 74 resident spaces and 18 residential visitor spaces and has been calculated using WDCP 2009. 15 motorcycle spaces. These are for residents. WDCP 2009 has no requirement for residential visitor spaces. **Non-residential** 97 car parking spaces. This has been calculated based on a shared business and retail split in accordance with WDCP 2009. 16 secure bicycle space. This is comprised of 13 staff and 3 customers/visitors, in accordance with WDCP 2009. 4 motorcycle spaces	
Objective 3J-3 *Car park design and access is safe and secure* Design Guidance - Supporting facilities within car parks (garbage rooms, storage areas, car wash bays) can be accessed without crossing parking spaces	Car parking areas are accessible from lift lobbies (if a pedestrian) or driveway (if in a vehicle). Garbage room is located in Tower B, and accessible on foot from the lift. Collection vehicles can stand in loading bay near the	Yes

Standards/controls	*Comment*	*Satisfactory?*
- 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*	garbage room. There is sufficient aisle width to allow other vehicles to pass while garbage vehicle is loading. Car park riser is shown adjacent to Tower A, north side. Car parking is located at ground level due to slope and encased by commercial or residential areas.	

Standards/controls	*Comment*	*Satisfactory?*
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. 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	A solar access assessment by Sefaira has been submitted. The SEPP 65 design verification statement confirms 70% of apartments achieve 2hrs sunlight to living areas and 72% achieve 2hrs to private open space. 14% would receive no direct sunlight between 9am and 3pm. Operable screens and awnings are provided to some apartments where required to reduce glare.	Yes

Standards/controls	*Comment*	*Satisfactory?*
- Shading devices or planting - Operable shading - High performance glass that minimises external glare		
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. - 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.	The SEPP 65 verification statement confirms 61% of apartments achieve cross-flow ventilation. Depth of cross-over apartments is generally 17m, except for Tower B levels 1 & 2 where 10 apartments are 19m depth. This is considered acceptable as the two storey layout accommodates internal stairs and the private open space allows large openings.	Yes
4C Ceiling heights *Objective 4C-1*		

Standards/controls	*Comment*	*Satisfactory?*
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.	All apartments have minimum 2.7m to habitable and 2.4m to non-habitable. Business/retail areas have a 4m ceiling height.	Yes
4D Apartment size and layout *Objective 4D-1* *The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity* Design Criteria: 1. 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	A schedule of units has been provided. Apartment sizes all exceed ADG size requirements. The SEPP 65 verification confirms all habitable windows exceed 10% of floor area.	Yes

Standards/controls	*Comment*	*Satisfactory?*
Design Guidance: - Where minimum areas are not met, need to demonstrate the usability and functionality of the space with realistically scaled furniture layouts and circulation areas. *Objective 4D-2* *Environmental performance of the apartment is maximised* Design Criteria: 1. Habitable room depths are limited to a maximum of 2.5 x ceiling height 2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window. Design Guidance: - Greater than 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. *Objective 4D-3* *Apartment layouts are designed to accommodate a variety of household activities and needs* Design Criteria: 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. 4. The width of the crossover or cross through apartments is at least 4m internally to avoid deep narrow apartment layouts. Design Guidance:	All habitable rooms are less than 2.5 x ceiling height. All kitchens (work/preparation area) are less than 8m from a window. All bedrooms have minimum dimensions 3mx3m excluding wardrobe. Master bedrooms exceed 10m^2, and are generally 3.6mx3m. All living rooms exceed 3.6m wide. Crossover widths Tower Bare 4.1m wide.	Yes Yes Yes

Standards/controls	*Comment*	*Satisfactory?*
- 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	A schedule of units has been provided. All balconies comply with ADG.	Yes
1. Minimum balcony depths are: 1 bedroom: minimum area 8m2, minimum depth 2m 2 bedroom: minimum area 10m2, minimum depth 2m 3+ bedroom: minimum area 12m2, 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	No balcony depth is less than 2.4m. Ground level apartments have POS minimum 3m and $15m^2$.	
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.	All POS is located off living areas.	Yes
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		

Standards/controls	*Comment*	*Satisfactory?*
Design Guidance - A combination of solid and transparent materials balances the need for privacy with surveillance of the public domain - 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*	Maximum number of apartments exceeds 8 in some parts of all towers. Tower a services 11 apartments, Tower B lower/entry level of the two-storey apartment's services 13 apartments and Tower C services 9-10 units. This is considered acceptable due to amenity measures including areas of glazing and marginal increase in number of apartments.	Yes

Standards/controls	*Comment*	*Satisfactory?*
residents Design Guidance: - Incidental spaces can be used to provide seating opportunities for residents, and promotes opportunities for social interaction.	Lift lobbies and foyers provide adequate areas for interaction.	Yes
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: $6m^3$ 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.	A schedule of units is provided which identifies storage areas. All units comply with ADG requirements.	Yes
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	Building separation is adequate. The principal noise source for most apartments is likely to be balconies, which are generally offset and/or protected with some screening. Podium level apartments are likely to experience some noise transmission from communal open space areas, despite landscaping. Residents on this level would have the option to close windows and doors if noise	Yes

Standards/controls	*Comment*	*Satisfactory?*
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. <u>*Objective 4H-2*</u> *Noise impacts are mitigated within apartments through layout and acoustic treatments* <u>Design Guidance</u> - 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.	problematic. It is expected that future by-laws would address hours of use of the communal outdoor areas.	
<u>4J Noise and pollution</u> <u>*Objective 4J-1*</u> *In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings* <u>Design Guidance</u> - Minimise impacts through design solutions such as physical separation from the noise or pollution source, <u>*Objective 4J-2*</u> *Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission* <u>Design guidance:</u> - Design solutions include limiting openings to noise sources & providing seals to prevent noise transfer.	Construction is required in accordance with Building Code of Australia, which requires noise seals and insulation. Road noise source has been minimised by layout of apartments on the Flinders Street frontage. A condition of consent is recommended requiring internal acoustic performance in accordance with SEPP (Infrastructure) 2007.	Yes
Part 4 – Designing the building - Configuration **<u>4K Apartment mix</u>** <u>*Objective 4K-1*</u> *A range of apartment types and sizes is provided to cater for different household types now*	The development incorporates 1, 2 and 3 bedroom apartments. 10% (21) apartments are identified as capable of adaptation.	Yes

Standards/controls	*Comment*	*Satisfactory?*
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		
4L Ground floor apartments *Objective 4L-1* *Street frontage activity is maximised where ground floor apartments are located* Design guidance - Direct street access should be provided to ground floor apartments - Activity is achieved through front gardens, terraces and the facade of the building. - Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for conversion into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor amenities for easy conversion	Not applicable – no ground floor apartments are proposed as required by WLEP 2009.	N/a
Objective 4L-2 *Design of ground floor apartments delivers amenity and safety for residents* Design guidance - The design of courtyards should balance the need for privacy of ground floor apartments with surveillance of public spaces. Design solutions include:	Not applicable – no ground floor apartments are proposed as required by WLEP 2009.	N/a

Standards/controls	*Comment*	*Satisfactory?*
• elevation of private gardens and terraces above the street level by 1-1.5m (see figure 4L.4) • landscaping and private courtyards • window sill heights that minimise sight lines into apartments • integrating balustrades, safety bars or screens with the exterior design - Solar access should be maximised through: • high ceilings and tall windows • trees and shrubs that allow solar access in winter and shade in summer **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 - 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	A schedule of finishes has been provided which provides a variety of external materials, and walled landscaping. The Keira and Smith intersection is emphasised through the external form on the south-eastern corner.	Yes

Standards/controls	*Comment*	*Satisfactory?*
- 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 tower roof design incorporates gardens and a flat or skillion pitch.	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	Landscape plans by Taylor Bramber have been provided. These show a principal communal open space on Level 3 and smaller private open space areas on roof tops. Planting and maintenance details are provided.	Yes

Standards/controls	*Comment*	*Satisfactory?*
- Ongoing maintenance plans should be prepared *Objective 4O-2* *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 are proposed on building exterior and would be visible from the public domain. A variety of plants is proposed and contributes to specific character/purpose of the communal open space areas. Large and medium shrubs are proposed on the communal open space/private open space interface.	Yes

Standards/controls	*Comment*	*Satisfactory?*
• 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		
4Q Universal design	An access report has been provided.	Yes
Objective 4Q-1 *Universal design features are included in apartment design to promote flexible housing for all community members*	10% of apartments are identified as adaptable dwellings. This complies with WDCP 2009.	
Design guidance - A universally designed apartment provides design features such as wider circulation spaces, reinforced bathroom walls and easy to reach and operate fixtures	The two storey apartments in Tower B allow occupation with greater privacy for intergenerational families, carers or others.	
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		
4R Adaptive reuse *Objective 4R-1* *New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place*	Not applicable – the site is vacant.	N/a
4S Mixed use		

Standards/controls	*Comment*	*Satisfactory?*
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. A condition of consent is recommended to manage occupation of the non-residential areas in accordance with the WLEP 2009 definition. Separate services, 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* Design guidance - Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development	Awnings are integrated in to the building design. Signage panels are shown on the elevations, however specific separate development consent is recommended for erection of individual signs.	Yes
Part 4 – Designing the building - Configuration **4U Energy efficiency**	A BASIX certificate and solar access report have been	Yes

Standards/controls	*Comment*	*Satisfactory?*
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*	submitted.	
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 implementation is required by a draft condition of consent.	Yes
4W Waste management		

Standards/controls	*Comment*	*Satisfactory?*
Objective 4W-1 *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	A waste management plan has been provided. Waste storage and collection would occur in Tower B, which is accessible by all business tenants and residents.	Yes
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*	All plant areas are located within parking levels. Access to service areas is provided.	Yes

Standards/controls	*Comment*	*Satisfactory?*
Material selection reduces ongoing maintenance costs easily cleaned surfaces that are graffiti resistant		

CHAPTER D13 – WOLLONGONG CITY CENTRE

The site is located within the Wollongong City Centre, as defined in WLEP 2009 and WDCP 2009. Chapter D13 applies to the development and prevails over other parts of the DCP where there is any inconsistency. Relevant provisions are addressed in Table 2 below.

Table 2: WDCP 2009

2 Building form

Objectives/controls	*Comment*	*Satisfactory?*
2.1 General		
Building form and character refers to the individual elements of building design that collectively contribute to the character and appearance of the built environment. Wollongong City Centre LEP includes provisions for land use, building heights and sun access planes, floor space ratio and design excellence. The building form provisions are intended to encourage high quality design for new buildings, balancing character of Wollongong with innovation and creativity. The resulting built form and character of new development should contribute to an attractive public domain in central Wollongong and produce a desirable setting for its intended uses.	The proposed design incorporates adequate building separation. Council's Design Review Panel has reviewed the development on three occasions. The final revised proposal satisfactorily resolves these concerns.	Yes
2.2 Building to street alignment and street setbacks		
B6 zone: 4m minimum setback Flinders Street.	4m setback provided.	Yes
2.4 Building depth and bulk		
Maximum 900m^2 floor plate size and 18m depth for residential outside the Commercial Core that is above 12m height	The proposed building incorporates a wider footprint on the lower levels, with smaller upper levels of the tower. Maximum building depth above 12m is less than 18m and floor plate is less than 1200m^2.	Yes

Objectives/controls	*Comment*	*Satisfactory?*
2.5 Side and rear building setbacks and building separation		
Residential uses (habitable rooms and balconies) up to 12m in height: minimum 6m side setback and 6m rear setback Residential uses (non-habitable rooms) up to 12m in height: minimum 3m side and 4.5m rear setback Residential uses (habitable rooms and balconies) between 12m and 24m in height: minimum 9m side setback and 9m rear setback Residential uses (non-habitable rooms) between 12m and 24m in height: minimum 4.5 side setback and 4.5m rear setback Commercial uses up to 24m in height: minimum 3m side setback and 9m rear setback	These setback requirements in part exceed the ADG requirements. Where that applies, compliance with the ADG is considered satisfactory. The building footprint and consequential setbacks vary in response to angled allotment boundaries and the building design (screens, terraces etc.) Due to the building footprint location and street frontage, all setbacks are considered side setbacks. Residential uses up to 12m in height: Tower A minimum 9m, tower B minimum 6m, Tower C minimum 9m Residential uses up to 12m in height: Tower A minimum 9m, tower B minimum 9m, Tower C minimum 9m Non-residential uses; all towers exceed 3m setback	Yes
2.6 Mixed used buildings		
Minimum 3.3m ceiling heights for commercial space Separate commercial service areas from residential access Locate clearly demarcated residential entries from the public street	Commercial ceiling heights are 4m The car parking levels provide separate residential and service areas The residential entries are identifiable.	Yes
2.7 Deep soil zone		
Minimum 15% of site area shall be deep soil zone For a residential component of mixed use buildings, required deep soil zone may be reduced.	15% of 9134m^2 = 1370.01m^2 This requirement exceeds the amount required by the ADG, to which the development complies. The applicant has not quantified the deep soil provided, however it appears less than 15%. Council's landscape officer has no objection.	Yes

Objectives/controls	*Comment*	*Satisfactory?*
2.8 Landscape design		
A landscape plan must be provided.	Council's landscape officer has no objection	Yes
2.9 Planting on structures		
Provide soil depth appropriate for plant type and structure	Council's landscape officer has no objection	Yes

3 Pedestrian amenities

Objectives/controls	*Comment*	*Satisfactory?*
3.3 Active street frontages		
Residential developments are to provide a clear street address and direct pedestrian access off the primary street front, and allow for residents to overlook all surrounding streets	The placement of commercial space on the lower level of the development allows for active uses at ground level. Upper level balconies overlook all three street frontages.	Yes
3.4 Safety and security		
Ensure adequate lighting, surveillance and good lines of sight. Provide security access where required.	Crime prevention is addressed in the Statement of Environmental Effects. It is recommended a condition of consent is applied requiring all access and circulation controls to be installed prior to occupation certificate.	Yes
3.6 Vehicular footpath crossings		
One vehicle access point only will generally be permitted.	One driveway is proposed on each of the three frontages. RMS has indicated they have no objection to the arrangement, subject to conditions regarding Flinders Street. These have been incorporated into draft conditions in Attachment 6.	Yes
3.8 Building exteriors		
Adjoining buildings should be considered. Balconies should be provided. External walls should be articulated. External materials should be of high quality and durable.	A schedule of external finishes has been provided and is satisfactory	Yes

3.9 Advertising and signage	The elevations incorporate indicative signage panels. These are appropriately located. It is recommended a condition of consent is applied requiring separate development consent for specific signs. This is required to ensure visual cohesion for the commercial elevations.	Yes
3.10 Views and view corridors		
Maintain and enhance views to the foreshore and escarpment, where practical.	The site is located within the distant panoramic view corridor identified in figure 3.12. The proposed height complies with the maximum 24m permitted in WLEP 2009. Building separation and setbacks comply with ADG and WDCP 2009.	Yes

4 Access, parking and servicing

Objectives/controls	*Comment*	*Satisfactory?*
4.2 Pedestrian access and mobility		
Main building entry should be clearly visible. Development must provide at least one main pedestrian entrance with convenient barrier free access in all developments to at least the ground floor. Development must provide continuous access paths of travel from all public roads and spaces as well as unimpeded internal access. Building entrance levels and footpaths must comply with the longitudinal and cross grades specified in AS 1428.1:2001, AS/NZS 2890.1:2004 and the Disability Discrimination Act.	The land slopes down from Keira Street towards the west and north-west. Several building entry points are proposed. Barrier free access is provided.	Yes
4.3 Vehicular driveways and manoeuvring areas		
All vehicles must enter and exit in forward direction with maximum 3-point turn. Driveway widths and dimensions and car space widths and dimensions must comply with Australian Standards. Semi-pervious materials on driveway to provide for stormwater filtration.	Council's traffic engineer has no objection to the proposed development. Standard conditions of consent regarding compliance with Australian Standards are recommended.	Yes

4.4 On-site parking		
Parking must be on-site and meet AS2890.1 2004 (as amended).	Parking , including calculations, is discussed in relation to the ADG above.	Yes
4.5 Site facilities and services		
Provide mailboxes in one accessible location.	Mailboxes can be accommodated in residential lobbies.	Yes
Locate satellite dish and telecommunication antennae, air conditioning units, ventilation stacks and any ancillary structures: I) Away from the street frontage, and ii) Integrated into the roof scape design	Waste storage is proposed in Tower B. Servicing is required to be effected by a medium or large rigid vehicle. Utility connection may be finalised at construction phase.	
All development is to adequately accommodate waste handling and storage on-site.		
The development must ensure that adequate provision has been made for all essential services including water, sewerage, electricity and telecommunications and stormwater drainage.		

5 Environmental management

Objectives/controls	*Comment*	*Satisfactory?*
5.2 Energy efficiency and conservation		
New dwellings are to comply with SEPP (BASIX)	A BASIX certificate has been provided	Yes
5.3 Water conservation		
New dwellings are to comply with SEPP (BASIX)	A BASIX certificate has been provided	Yes
5.4 Reflectivity		
Visible light reflectivity from building materials used on facades of new buildings should not exceed 20%.	The indicative materials are satisfactory.	Yes
5.6 Waste and recycling		
A site waste minimisation and management plan is required.	A site waste minimisation and management plan has been provided.	Yes

6 Residential development standards

Objectives/controls	*Comment*	*Satisfactory?*
6.1 SEPP 65 and residential flat design code		
SEPP 65 controls are adopted	Refer SEPP 65 discussion	Yes
6.2 Housing choice and mix		
Minimum 10% of all units are to be capable of adaptation	22 (i.e. 10%) units are adaptable	Yes
6.6 Basement Carparks		
The roof of any basement podium, measured to the top of any solid wall located on the podium, must not be greater than 1.2m above natural or finished ground level, when measured at any point on the outside walls of the building. Where height of basement podium is less than 1.2m above ground level, the basement may be located on the boundary. Any portion which exceeds 1.2m, must be set back from boundaries by a ratio of 1:1, with a minimum setback of 1.5m. Ventilation structures and air conditioning ducts must be located away from windows of habitable rooms and private open space areas. Basements must be protected from inundation by 100-year ARI flood levels.	The car parking levels are designed to accommodate the slope of the site, and incorporate basement areas. Services are shown on each parking level. The architectural plan indicates a riser located on Tower A, adjacent to the driveway.	Yes
6.7 Communal open space		
Minimum $5m^2$ of communal open space is required for each apartment in developments containing more than 10 apartments	221 apartments are proposed i.e. $1105m^2$. The communal space on Level 3 exceeds this amount.	Yes
6.8 Private open space		
Private open space in the form of balcony or terrace is required for each apartment	All residential apartments are provided with private open space in the form of a balcony or terrace.	Yes
6.9 Overshadowing		
Adjacent residential buildings and their public spaces must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June. The design of the development must have regard to the existing and proposed level of sunlight which is received by living areas and private open space areas of adjacent dwellings. Sensitive design must aim to retain the maximum amount of sunlight for adjacent residents. Council will place	A shadow diagram has been provided. This shows shadowing would extend west of Flinders Street, and east across Keira Street. The affected properties would receive more than 3 hrs solar access. .	Yes

Objectives/controls	*Comment*	*Satisfactory?*
greatest emphasis on the retention of sunlight within the lower density residential areas. In areas undergoing change, the impact of overshadowing on development likely to be built on adjoining sites must be considered, in addition to the impacts on existing development.		
6.10 Solar access		
Shading devices should be utilised where necessary, particularly where windows of habitable rooms are located on the western elevation. The living rooms and private open space of at least 70% of apartments should receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm. The number of single aspect apartments with a southerly aspect (south-westerly to south-easterly) is limited to a maximum of 10% of the total number of apartments proposed.	The ADG requires minimum 2hrs. The development complies with ADG requirements and is considered satisfactory. Shading devices are proposed.	Yes
6.11 Natural ventilation		
A minimum of sixty percent (60%) of all residential apartments shall be naturally cross ventilated.	61% of apartments would receive cross-ventilation.	Yes
6.12 Visual privacy		
The internal layout of buildings should be designed to minimise any direct overlooking impacts occurring upon habitable rooms and private balcony/open space courtyards, wherever possible by separating communal open space and public domain areas from windows of rooms, particularly sleeping room and living room areas.	Where communal open space is located adjacent to private open space, screening and landscaping provides adequate separation.	Yes
8 Works in the public domain		
Any works within the public domain are to be in accordance with the Public Domain Technical Manual (Appendix 2 WDCP 2009)	Council's landscape officer has reviewed the proposed public domain works and has no objection. A standard condition requiring compliance with the Public Domain Technical Manual is recommended.	Yes

Attachment 1 Draft conditions of consent DA-2016/591

Approved Plans and Specifications

1) [To be completed by Council]

General Matters

2) **Shop Top Housing Definition**
As required by the Wollongong Local Environmental Plan 2009 (WLEP 2009) 'shop top housing' definition, the ground floor units must be occupied, or advertised only for occupation, by business premises or retail premises, as defined in WLEP 2009.

3) **Geotechnical**
   a) An earthworks plan is to be developed by a geotechnical consultant prior to start of earthworks.
   b) All recommendations of the report dated 23 July 2013 by Parsons Brinckerhoff and any supplementary geotechnical report are to be accommodated in the earthworks plan.
   c) All earthworks including drainage and retaining wall construction is to be subject to geotechnical supervision as defined in Australian Standard AS3798 Guidelines for Earthworks for Commercial and Residential Developments. Where necessary amendments are to be made to the designs during construction based on supplementary geotechnical advice given during the supervision to ensure that the completed works accommodates all encountered geotechnical constraints.
   d) Retaining wall design is not to include anchors extending on to adjoining property without the written consent of the adjoining property owner.
   e) There is to be no unsupported excavations with all cuts to be immediately supported by retaining wall construction.
   f) Hard bedrock where encountered will be difficult to excavate. Alternative excavation methods should be considered to minimise noise and vibration.
   g) At the completion of the site preparation earthworks, the geotechnical consultant is to prepare a works-as-executed report detailing encountered geotechnical conditions and how the works addressed these conditions so that the residual geotechnical constraints can be accommodated within the structural designs for the development. These structural designs are to be confirmed or amended by the structural engineer based on the works-as-executed geotechnical report.

4) Separate development consent must be obtained prior to use of any business and retail areas within the development.

5) **Water Cycle/Stormwater Quality Management**
   a) The water cycling management treatment nodes shall be constructed as per the Jones Nicholson Consulting Engineers *'DA Stormwater Design Report'* dated 5 September 2016 water cycle management study to achieve the treatment goals for removal of pollutants and nutrients which shall be: Gross Pollutants (GP) – 90%, Total Suspended Solids (TSS) – 80%, Total Phosphorus (TP) – 60% and Total Nitrogen (TN) – 45%;
   b) It is the owners/strata management's responsibility to maintain the water cycle management infrastructure and undertake regular servicing of gross pollutants.

6) All works and traffic control facilities in Flinders Street shall be undertaken by a pre-qualified contractor. A copy of pre-qualified contractors is located at http://www.rta.nsw.gov.au/doingbusinesswithus/tenderscontracts/prequalifiedcontractors.html

7) **Building Work - Compliance with the Building Code of Australia**
All building work must be carried out in compliance with the provisions of the Building Code of Australia.

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

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

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

9) **Disability Discrimination Act 1992**
This consent does not imply or confer compliance with the requirements of the Disability Discrimination Act 1992.

It is the responsibility of the applicant to guarantee compliance with the requirements of the Disability Discrimination Act 1992. The current Australian Standard AS1428.1 (2009) – Design for Access and Mobility is recommended to be referred for specific design and construction requirements, in order to provide appropriate access to all persons within the building.

10) **Separate Consent Required for Advertising Signage**
This consent does not authorise the erection of any advertising signage. Any advertising signage will require separate Council consent in the event that the signage is not exempt development. Any new application for advertising signage must be submitted to Council in accordance with Chapter C1 – Advertising and Signage Structure of Wollongong Development Control Plan 2009.

11) **Maintenance of Access to Adjoining Properties**
Access to all properties not the subject of this approval must be maintained at all times and any alteration to access to such properties, temporary or permanent, must not be commenced until such time as written evidence is submitted to Council or the Principal Certifying Authority indicating agreement by the affected property owners.

12) **Occupation Certificate**
An Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of Section 109H of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

Prior to the Issue of the Construction Certificate

13) **Flinders, Campbell and Keira Streets – Detailed Civil Engineering Design**
A detailed civil engineering design shall be provided for the proposed footpath works in Flinders, Campbell and Keira Streets. The detailed civil engineering design shall be prepared by a suitably qualified practicing civil engineer in accordance with the relevant Council engineering standards. The design plans shall include:

a) Levels and details of existing and proposed infrastructure such as kerb and gutter, public utility, pits, poles, fencing, stormwater drainage, adjacent road carriageway and footpath levels, and shall extend a minimum of 10 metres beyond the limit of works.

b) Footpath longitudinal sections, and cross-sections at regular intervals including building entrance points demonstrating compliance with the latest versions of AS 1428.1, AS/NZS 2890.1, the Disability Discrimination Act and the AUSTROAD road design standards.

c) Cross sections of the design must be from the crown of the road and continue past the property boundary with a maximum chainage of 10m per cross section.

d) Where any adjustments to public utilities are proposed the applicant shall submit documentary evidence that they have the consent of the owner of the public utility authority.

e) All construction must be in accordance with the requirements of Council's Subdivision Code and the Wollongong City Council City Centre Public Domain Technical Manual.

Evidence that this requirement has been met must be detailed on the engineering drawings.

The detailed civil engineering design and supporting documentation shall be submitted to Wollongong City Council's Development Engineering Manager for approval prior to the issue of the construction certificate, other than a construction certificate for remediation or bulk excavation.

14) **Footpath Levels**
Footpath levels must be obtained from Council's Development Assessment and Certification Division prior to the issue of the Construction Certificate. The approved footpath levels shall be reflected on the Construction Certificate plans. All such structures and internal driveways shall be constructed to these approved levels.

15) **Road Reserve – Footpath Levels/Gradients**
Entry point floor levels of the development shall be designed to match Council and Roads and Maritime Services footpath levels at the property boundary. Footpath crossfalls from the back of the kerb to the property boundary shall be maintained at 2.5% for the full frontage of the development to the road reserve. This requirement shall be reflected on the construction certificate plans and associated documentation and submitted to Council's Development Engineering Manager prior to the issue of the Construction Certificate.

16) **Street Trees**
The developer must address all three street frontages by installing street tree planting. The number and species for this development are as follows:

Flinders Street
200 litre size *Brachychiton acerifolius*.

Keira Street and Campbell Street
200 litre size *Tristanopsis laurina 'Luscious'*

Tree pit detailing is to be in accordance with the City Centre Public Domain Technical Manual. Dial Before You Dig must be consulted prior to any excavation on site. Pot holing must be carried out to determine service location. Location of street tree plantings to be sited to ensure no conflict occurs with street light poles or other existing services.

Tree pits must be installed to the satisfaction of WCC Manager Design and Technical Services.

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

17) **Footpath Paving**
The developer is responsible for the construction of footpath paving for the entire frontage (Campbell, Flinders and Keira Streets) of the development for the full width of the verge. The paving for this development is to be in accordance with the City Centre Public Domain Technical Manual.

A nominal two percent (2%) minimum one percent (1%), maximum two and a half percent (2.5%) cross fall to be provided from property line to back of kerb.

Driveway entry threshold finish from property boundary line to face of kerb shall match the footpath and be designed to withstand predicted traffic loadings.

Driveway threshold finish within property boundary line shall contrast with driveway entry.

Footpath must be installed to the satisfaction of Council.

A Landscape Plan is to be submitted to Council prior to the issue of the Construction Certificate showing proposed paving and location of all services.

18) **Works Authorisation Deed**
Prior to issue of the Construction Certificate, the developer must enter into a Works Authorisation Deed (WAD) with Roads and Maritime Services (RMS) for all works on Flinders Street. Any new services or modifications to existing services associated with this development that involves works on, over or under Flinders Street must be incorporated into

and managed under the Works Authorisation Deed for the project. It is the developer's responsibility to identify these works to the relevant RMS project manager.

19) A graffiti management strategy is required to be submitted to the Principal Certifying Authority prior to issue of the Construction Certificate. This strategy shall include methods to prevent graffiti from being applied where it is visible from public roads, and detail removal methods, the persons responsible for removal and scheduling of removal.

20) Lighting of car parking areas shall be in accordance with AS/NZS1158. Transition lighting from dark to light areas and light to dark areas of the carpark should be of adequate flux to prevent 'blindness' of drivers. Details of proposed lighting shall be submitted to the Principal Certifying Authority prior to issue of the Construction Certificate.

21) **Dilapidation Report Prior to Construction**
A Dilapidation Report detailing the current structural condition of adjoining buildings, infrastructure and roads shall be prepared and endorsed by a qualified structural engineer. The report shall be submitted to the satisfaction of the certifying authority prior to issue of the Construction Certificate.

A copy of the report is to be forwarded to Council and the owners of adjoining properties prior to the issue of a Construction Certificate.

22) **Excavation and Retaining Structures Adjacent to a Public Road**
The design of all permanent and temporary retaining structures within the zone of influence of any Council assets including the road pavement, stormwater pipes and pits, must be provided to Wollongong City Council and the Principal Certifying Authority prior to the issue of the Construction Certificate. The design must be prepared by a suitably qualified civil engineer with experience in structural design and NPER 3 accreditation, in accordance with the RMS Technical direction GTD 2012/001. The design must clearly show that all components of the retaining structure and associated drainage are wholly located within the development site. The following additional documentation must accompany the design:

a) A geotechnical report prepared by a suitably qualified and practising engineer in accordance with RMS Technical direction GTD 2012/001. The report must also certify that the structural design is in accordance with the recommendations of the geotechnical report;
b) A dilapidation survey of the existing Council infrastructure, including CCTV footage of any existing stormwater drainage infrastructure fronting the subject site to the next downstream pit;
c) Details of the proposed monitoring program for the excavation and retaining structures, and relevant threshold actions prepared in accordance with RMS Technical direction GTD 2012/001.

23) **Proposed Levels**
Proposed levels to Australian Height Datum (AHD), including floor, ground, grate, pipe inverts and pavement levels shall be shown on the detailed drainage design. This requirement shall be reflected on the Construction Certificate plans and supporting documentation.

24) **Permit to Enter and Exit Construction Site**
Any use of the footpath or road reserve for construction purposes requires Council approval under the Roads Act 1993. Where it is proposed to carry out activities such as construction vehicles entering and leaving the site from a public road reserve and/or installation of a fence or hoarding, a permit must be obtained from Council's Development Assessment and Certification Division prior to the issue of the Construction Certificate.

25) **Ground Anchors**
Permanent ground anchors are not permitted within the road reserve. Temporary ground anchors can only be used where the Roads Authority has provided written confirmation to the applicant for their use. Temporary anchors must be designed in accordance with RMS Technical Direction GTD 2012/001.

26) **Street Furniture**
Any street furniture installed must comply with the City Centre Public Domain Technical Manual for Core and Civic Streets. Details of street furniture are to be included in a

Landscape Plan is to be submitted to Council prior to the issue of the Construction Certificate showing proposed paving and location of all services.

27) **Car Parking and Access**
The development shall make provision for the following car parking, motorcycle and bicycle parking spaces.

Total: cars 330, bicycles 108 and motorcycles 19.

Residential

233 residential car parking spaces (comprised of 189 resident spaces 44 residential visitor spaces)

92 secure residential bicycle spaces (comprised of 74 resident spaces and 18 residential visitor spaces)

15 motorcycle spaces (for residents, no requirement for residential visitor spaces)

Non-residential

97 car parking spaces (includes staff and customers/visitors)

16 secure bicycle space (comprised of 13 staff and 3 customers/visitors)

4 motorcycle spaces

This requirement shall be reflected on the Construction Certificate plans. Any change in above parking numbers requires a section 96 modification to the development. The approved parking spaces shall be maintained to the satisfaction of Council, at all times, including their designated use as residential and non-residential. Adequate security measures to limit access to spaces by unauthorised persons must be implemented at all times. The designated loading/unloading facility shall be kept clear for that purpose at all times. The designated loading/unloading facility shall be shown on the Construction Certificate plans.

28) The parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking areas are to be in conformity with the current relevant Australian Standard AS2890.1, except where amended by other conditions of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.

29) **Noise Attenuation Building Design**
Prior to issue of the Construction Certificate, details are to be provided to the Principal Certifying Authority demonstrating that the building would achieve internal noise levels not exceeding those prescribed in State Environmental Planning Policy (Infrastructure) 2007.

The Acoustic Report referred to in condition 1 must be reviewed so as to determine the existing noise levels above the height of the adjoining building to the west.

The relevant LAeq levels are:

- in any bedroom in the building—35 dB(A) at any time between 10.00 pm and 7.00 am,
- anywhere else in the residential areas of the building (excluding a garage, kitchen, bathroom or hallway)—40 dB(A) at any time.

30) Suitable barriers, line-marking and painted signage delineating vehicular flow movements are required within the car parking areas. These details shall be reflected on the Construction Certificate plans.

31) A change in driveway paving is required at the entrance threshold to clearly show motorists they are crossing a pedestrian area. The developer must construct the paving in accordance with the conditions, technical specifications and levels to be obtained from Council's Manager Works. This requirement shall be reflected on the Construction Certificate plans and any supporting documentation.

32) Any proposed structures adjacent to the driveway shall comply with the requirements of the current relevant Australian Standard AS2890.1 to provide for adequate sight distance. This includes, but is not limited to, structures such as signs, letterboxes, retaining walls and dense planting. This requirement shall be reflected on the Construction Certificate plans.

33) The depth and location of all services (i.e. gas, water, sewer, electricity, telephone, stormwater etc.) must be ascertained and reflected on the Construction Certificate plans and supporting documentation.

34) Bicycle parking facilities must have adequate weather protection and provide the appropriate level of security as required by the current relevant Australian Standard AS2890.3 - Bicycle Parking Facilities and Austroads Guide to Traffic Management Part 11: Parking (Commentary 9: C9.2). This requirement shall be reflected on the Construction Certificate plans.

35) **Detailed Drainage Design**
A detailed drainage design shall be submitted with the Construction Certificate documentation for the proposed development. This detailed drainage design shall be prepared by a suitably qualified civil engineer in accordance with Chapter E14 of Wollongong City Council's Development Control Plan 2009 and conditions listed under this consent.

36) **Protection of Building from Surface Runoff**
The development shall be designed such that adequate protection is provided to the building against the ingress of upslope surface run-off in any rainfall event. This design shall also ensure there are no adverse effects to adjoining properties or upon the subject land as a result of flood or surface run-off. These requirements shall be reflected on the Construction Certificate plans and supporting documentation.

37) **On Site Stormwater Detention - Design Criteria**
The on-site stormwater detention facility must incorporate a minimum 900mm square lockable grate for access and maintenance purposes, provision for step irons where required, provision for safety, debris control screen and a suitably graded invert to prevent ponding (i.e., no sump). Also, details of the orifice plate including diameter of orifice and method of fixing shall be provided. These requirements shall be reflected on the Construction Certificate plans.

38) **On Site Stormwater Detention – Identification**
Details shall be provided of a corrosion resistant identification plaque for location on or close to the on-site detention (OSD) facility. The plaque shall include the following information:

The structure is an OSD facility, being part of the stormwater drainage network, and is not to be tampered with.

identification number [DA2015/1655]

any specialist maintenance requirements.

39) **Orifice Plate Design and Installation**
The orifice plate shall be designed and installed such that the orifice invert matches the invert level of the On Site Detention (OSD) control pit. This requirement shall be reflected on the Construction Certificate plans and associated documentation and submitted to the Principal Certifying Authority for assessment prior to the release of the Construction Certificate.

40) **Roofwater Drainage**
All roof gutters/sumps and downpipes shall be designed to cater for a 1 in 100 year ARI storm event in accordance with AS 3500.3 (2003) – Plumbing and Drainage (Stormwater Drainage). Details of gutter/downpipe sizes and downpipe locations shall be reflected on the Construction Certificate plans.

41) The developer must provide on-site detention storage for stormwater runoff from the development. The Site Storage Requirement (SSR) and Permissible Site Discharge (PSD) values for the site must be designed in accordance with Chapter E14 of the Wollongong DCP2009. Details of the detention facility and SSR/PSD values must be submitted with the Construction Certificate application.

42) **On-Site Detention – Structural Design**
The on-site detention facility must be designed to withstand loadings occurring from any combination of hydrostatic, earth, traffic and buoyancy forces. Details must be provided demonstrating these requirements have been achieved prior to the issue of the Construction Certificate.

43) **On-Site Detention - Maintenance Schedule**

A maintenance schedule for the on-site stormwater detention system must be submitted with the Construction Certificate plans for the proposed development. The maintenance schedule must be in accordance with Chapter E14 of the Wollongong DCP2009.

44) A dedicated pit and pipe system shall be provided to drain the low point along the eastern side of the proposed building, designed to collect and convey the upslope runoff to Council's existing stormwater drainage system. The dedicated pit/pipe system shall be designed to capture and convey the full 100 year ARI flow rate from all of Lots 1-2 DP 544681 and Lot 12 DP 840017, with allowance for pit blockage in accordance with Section 7.2 of Chapter E14 Wollongong Development Control Plan 2009 (i.e. 50% blockage for sag pits). A catchment plan and hydrologic/hydraulic calculations for the upslope catchment area and dedicated pit/pipe system in accordance with Section 13.1(1)(b) of Chapter E14 shall be provided to the Principal Certifying Authority prior to issue of the Construction Certificate.

45) Prior to issue of the Construction Certificate, a revised stormwater concept plan shall be submitted to the Principal Certifying Authority demonstrating that the development does not allow ingress of stormwater into the proposed building in the event of a blockage/overload of the piped system.

46) Prior to issue of the Construction Certificate, a revised stormwater concept plan shall be submitted to the Principal Certifying Authority demonstrating compliance with Section 12.5.5(7) of Chapter E14 Wollongong Development Control Plan 2009. Provision needs to be made in the design of the storage for overflows from storms more severe than the design storm or for blockages in the system. Overflows should be directed to a flow path through the development so that buildings are not inundated nor are flows concentrated on an adjoining property.

47) Revised plans shall be submitted to the Principal Certifying Authority prior to issue of the Construction Certificate demonstrating overflow paths are provided to allow for flows in excess of the piped drainage system or for blockages in the system and each proposed floor level should be set with a suitable freeboard above the adjacent local blocked pipe situation 100 year ARI water level.

48) Prior to issue of the Construction Certificate, a revised stormwater concept plan shall be submitted to the Principal Certifying Authority demonstrating the existing pit invert and grate levels shown on the stormwater external works plan for the road reserve drainage works are inconsistent with the submitted drainage survey plan by Craven Elliston & Hayes dated 26 February 2016.

49) Prior to issue of the Construction Certificate, a revised stormwater concept plan shall be submitted to the Principal Certifying Authority demonstrating there is sufficient cover to facilitate the proposed upgraded (larger) pipes within the road reserve. Council will not accept proposed road drainage pipes with insufficient cover.

50) Prior to issue of the Construction Certificate, a revised stormwater concept plan shall be submitted to the Principal Certifying Authority demonstrating that the basement car parking area will not collect external runoff, in accordance with Section 11.3.11 of Chapter E14 Wollongong Development Control Plan 2009. The water to be pumped from the basement car park shall be limited to sub-soil drainage, vehicle wash water, and runoff from the driveway that drains towards the basement.

51) **Section 73 Compliance Certificate**
A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water Corporation. Application must be made through an authorised Water Servicing Coordinator. Please refer to the "Builders and Developers" section of the web site www.sydneywater.com.au then search to "Find a Water Servicing Coordinator". Alternatively, telephone 13 20 92 for assistance.

Following application, a "Notice of Requirements" will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the Coordinator, since

building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design.

The Notice of Requirements must be submitted to the Principal Certifying Authority prior to issue of the Construction Certificate.

52) **Endeavour Energy Requirements**
The submission of documentary evidence from Endeavour Energy to the Principal Certifying Authority is required confirming that satisfactory arrangements have been made with Endeavour Energy for the provision of electricity supplies to the development, prior to the release of the Construction Certificate.

Note: Applications should be made to Customer Connections – South Coast, Endeavour Energy PO Box 811 Seven Hills NSW 1730.

53) **Telecommunications**
The submission of documentary evidence from an approved telecommunications carrier to the Principal Certifying Authority confirming that underground telecommunication services are available for this development is required prior to the issue of the Construction Certificate.

54) In order to maximise visibility in the basement carpark, adequate areas of the ceiling shall be painted white. This requirement shall be reflected on the Construction Certificate plans.

55) Prior to release of the Construction Certificate, a final Landscape Plan shall be submitted to the Principal Certifying Authority. The final Landscape Plan shall address the following requirements:

a) consistency with architectural plans;
b) a schedule of proposed planting, including botanic name, common name, expected mature height and staking requirements as well as number of plants and pot sizes;
b) the location of all proposed and existing overhead and underground service lines. The location of such service lines shall be clear of the dripline of existing and proposed trees.

The completion of the landscaping works in accordance with the final approved Landscape Plan is required, prior to the issue of Occupation Certificate.

56) The submission of certification from a suitably qualified and experienced landscape designer and drainage consultant to the Principal Certifying Authority prior to the release of the Construction Certificate, confirming that the landscape plan and the drainage plan are compatible.

57) The implementation of a landscape maintenance program in accordance with the approved Landscape Plan for a minimum period of 12 months to ensure that all landscape work becomes well established by regular maintenance. Details of the program must be submitted with the Landscape Plan to the Principal Certifying Authority prior to release of the Construction Certificate.

58) **Property Addressing Policy Compliance**
Prior to the issue of any construction certificate, the developer must ensure that any site addressing complies with Council's **Property Addressing Policy** (as amended). Where appropriate, the developer must also lodge a written request to Council's **Infrastructure Systems & Support - Mapping Services Section,** for the site addressing prior to the issue of the construction certificate.

59) **Section 94A Levy Contribution**
The following Section 94A Levy Contribution is required towards the provision of public amenities and services in accordance with the Wollongong City Council Section 94A Development Contributions Plan.

Pursuant to Section 80A(1) of the Environmental Planning and Assessment Act 1979, and the Wollongong City Council Section 94A Development Contributions Plan, a contribution of 1% of the cost of development (Contribution may be increased to 2% within the City Centre in accordance with Clause 1 of the Plan) amounting to $1,027,446.60 shall be paid to Council prior to the release of any associated Construction Certificate.

The amount to be paid will be adjusted at the time of actual payment, in accordance with the provisions of the Wollongong City Council Section 94A Development Contributions Plan. The Consumer Price Index All Group Index Number for Sydney at the time of the development application determination is 110.4. The following formula for indexing contributions is to be used:

Contribution at time of payment = **$C x (CP2/CP1)**

Where:

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

CP1 is the Consumer Price Index (all groups index for Sydney) used in the proceeding indexation calculation

CP2 is the Consumer Price Index (all groups index for Sydney) at the time of indexation

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

METHOD	HOW	PAYMENT TYPE
Online	http://www.wollongong.nsw.gov.au/applicationpayments Your Payment Reference: 717585	Credit Card
In Person	Wollongong City Council Administration Building Customer Service Centre Ground Floor 41 Burelli Street WOLLONGONG	Cash Credit Card Bank Cheque
	PLEASE MAKE CHEQUES PAYABLE TO: Wollongong City Council (Personal Cheques not accepted)	

A copy of the Wollongong City Council Section 94A Development Contributions Plan and accompanying Fact Sheet may be inspected or obtained from the Wollongong City Council Administration Building, 41 Burelli Street, Wollongong during business hours or on Council's web site at www.wollongong.nsw.gov.au

The reason for Section 94A is to provide high quality and diverse public amenities and services to meet the expectations of the existing and new residents of Wollongong City Council

Prior to the Commencement of Works

60) **Construction Environmental Management Plan**
Prior to commencement of works, the developer shall submit the Construction Environmental Management Plan (CEMP) prepared by Coffey dated 28 August 2014 to the Principal Certifying Authority. These works shall be undertaken prior to issue of the Occupation Certificate.

61) RMS is the roads authority for works on Flinders Street. Consent under section 138 of the Roads Act 1993 must be obtained from RMS prior to works commencing. The developer is required to submit detailed design plans and all relevant additional information to RMS prior to undertaking any work in Flinders Street and pay all RMS associated fees and charges. In the first instance, the developer should email the conditions of consent to WAD.suthern@rms.nsw.gov.au.

62) Prior to commencing roadworks on a State Road or any other works that impact a travel lane of a State Road or impact the operation of traffic signals on any road, the developer must apply for and obtain a Road occupancy Licence (ROL) from RMS Traffic Operations Unit (TOU).
The application will require a Traffic Management Plan (TMP) to be prepared by a person who is certified to prepare Traffic Control Plans. Should the TMP require a reduction of the speed limit, a Speed Zone Authorisation is also required from the TOU. The developer must submit the ROL application at least ten business days before commencing work. It should be noted that receiving an approval for the ROL within ten business days is dependent upon providing RMS an accurate and compliant TMP.
An approved ROL does not constitute an approval to commence works until an authorisation letter for the works has been issued by the relevant RMS Project Manager.

63) **Soil Material Disposal Plan**
Prior to commencement of works, the developer shall submit an excavated soil material disposal plan to the Principal Certifying Authority, with the batching, sampling and analysis procedures in accordance with NSW Government DECCW (2009) *Waste Classification Guidelines*. The plan shall be prepared by a suitably qualified and experienced consultant. A copy of the plan shall be forwarded to Council.

64) **Appointment of Principal Certifying Authority**
Prior to commencement of work, the person having the benefit of the Development Consent and a Construction Certificate must:

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

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

65) **Sign – Supervisor Contact Details**
Before commencement of any work, a sign must be erected in a prominent, visible position:

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

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

66) **Temporary Toilet/Closet Facilities**
Toilet facilities are to be provided at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.

Each toilet provided must be:

a) a standard flushing toilet; and
b) connected to either:
    i) the Sydney Water Corporation Ltd sewerage system or
    ii) an accredited sewage management facility or
    iii) an approved chemical closet.

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

67) **Structural Engineer's Details**
Structural engineer's details for all structurally designed building works such as reinforced concrete footings, reinforced concrete slabs and structural steelwork must be submitted to the Principal Certifying Authority, prior to the commencement of any works on the site.

68) **Hoardings (within any Public Road Reserve)**

The site must be enclosed with a suitable hoarding (type A or B) or security fence of a type in accordance with the Works and Services Division Design Standard, and must satisfy the requirements of the Occupational Health and Safety Act, the Occupational Health and Safety Regulations and Australian Standard AS 2601. This application must be submitted to Council's Works and Services Division, and a permit obtained, before the erection of any such hoarding or fence.

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

70) **Consultation with NSW WorkCover Authority**
Prior to any work commencing on the site it is the responsibility of the owner to contact NSW WorkCover Authority in writing in respect to any demolition or use of any crane, hoist, plant or scaffolding.

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

The adjoining property owner of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

72) **Erosion and Sediment Control Measures**
Erosion and sediment control devices are to be installed prior to the commencement of any demolition, excavation or construction works upon the site. These devices are to be maintained throughout the entire demolition, excavation and construction phases of the development and for a minimum three (3) month period after the completion of the project, where necessary.

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

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

During Demolition, Excavation or Construction

74) **Dust Suppression Measures**
Activities occurring during the construction phase of the development must be carried out in a manner that will minimise the generation of dust.

All sealed surfaces intended to carry vehicular traffic must be managed with the aim of preventing windblown dust emissions.

75) **Importation of soils**
Prior to importing any soils to site for the purpose of back-filling, the soils require validation testing in accordance with NSW Government Environment Protection Authority (1995) *Sampling Design Guidelines* to confirm suitability for the proposed land use.

76) **Mechanical Plants and Exhaust Ventilation system**
Mechanical Exhaust
Centralised mechanical exhaust ventilation must be provided to the building. Cooking appliances installation in all commercial kitchens such as cafes and restaurants shall be in accordance with AS4674-2004, AS1668.2-1991. Grease filters shall comply with AS1530.1.

Outdoor Air Conditioning or refrigeration units

The outdoor units for refrigeration system, including air conditioners, shall have suitable acoustic enclosures to comply with NSW Government noise guidelines.

Duct system

The ducting within the building must be mounted on vibration-reducing pads to minimise the vibration effect for residential and business/retail spaces and ensure compliance with vibration guidelines.

77) **Water Sensitive Urban Design**

The Water Sensitive Urban Design concept detailed in '*DA Stormwater Design Report'* reference CRPT-20151191.01.C prepared by Jones Nicholson Consulting Engineers dated 5 September 2016 must be implemented.

78) **Survey Report for Floor Levels**

A Survey Report must be submitted to the Principal Certifying Authority verifying that each floor level accords with the floor levels as per the approved plans under this consent. The survey shall be undertaken after the formwork has been completed and prior to the pouring of concrete for each respective level of the building (if the building involves more than one level). All levels shall relate to Australian Height Datum.

79) **Forty Eight Hours Notice – Prior to Works Commencing in any Road Reserve**

The applicant shall consult with Wollongong City Council's Divisional Engineer, giving 48 hours notice to arrange an on-site meeting, prior to any works commencing in any road reserve (footpath/carriageway). The purpose of the meeting will be to discuss any relevant issues such as a schedule of inspections, the need for a road opening permit and the provision of a traffic control plan as part of the works.

80) **Restricted Hours of Work**

The developer must not carry out any work other than emergency procedures to control dust or sediment laden runoff outside the hours of 7.00 am to 6.00 pm, Monday to Saturday without the prior written consent of the Principal Certifying Authority and Council.

No work is permitted on public holidays, Sundays or the Saturday adjacent to public holidays on Mondays or Fridays.

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

a) the variation in hours required;
b) the reason for that variation;
c) the type of work and machinery to be used.

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

81) The developer must carry out work at all times in a manner which will not cause a nuisance, by the generation of unreasonable noise, dust or other activity, to the owners and/or occupiers of adjoining and adjacent land.

82) **Provision of Waste Receptacle**

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

83) **Provision of Taps/Irrigation System**

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

84) **Podium Planting**

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

All podium planting areas to be provided with an adequate drainage system connected to the stormwater drainage system. The planter box is to be backfilled with free draining planter box soil mix.
If selected mulch is decorative pebbles/gravel, the maximum gravel pebble size is 10mm diameter

Prior to the Issue of the Occupation Certificate

85) **Heritage Interpretation Plan**
Prior to the release of any Occupation Certificate, the developer is to prepare a Heritage Interpretation Plan. This plan must provide specific recommendations for on-site interpretation of the history of the former Mt Keira Colliery Tramline, which traversed the site through Lots 11 and 12, DP 231424. The Interpretation plan must be submitted to Council for written endorsement prior to implementation. A copy of the endorsed Heritage Interpretation Plan is to be lodged with the Wollongong City Library for inclusion in the local studies collection.

86) **Heritage Interpretation Works**
Prior to the release of any Occupation Certificate, the developer is to complete all recommended on-site interpretation works, as detailed in the required Heritage Interpretation Plan. These on-site interpretation works must then be retained and maintained by the future body corporate.

87) Prior to issue of any Occupation Certificate, the arrangements on Flinders Street must be designed and constructed in accordance with the relevant standards and to the satisfaction of RMS. Lane widths on Flinders Street must be preserved (or widened), with road widening to accommodate the median. The design must accommodate the swept path of the largest vehicles likely to use Flinders Street, Charlotte Street and all access affected by the works.

88) The upgrade to the pavement and wearing surface associated with the Flinders Street road widening must be to the satisfaction of RMS, consistent with existing lanes and in accordance with Austroads Standards. Pavement joins must be located away from wheel paths. RMS requires a uniform pavement and wearing surface that is adequately waterproofed. All these works must be completed prior to issue of any Occupation Certificate.

89) Prior to issue of any Occupation Certificate, the developer must ensure to the satisfaction of Council that post development storm water discharge from the subject site into the classified road drainage system does not exceed the pre-development discharge.

90) Prior to issue of any Occupation Certificate and where required, the developer must upgrade/provide lighting in accordance with Australian Standard AS/NZS1158.

91) All road works, traffic control facilities and other works associated with this development, including any modifications required to meet RMS standards, shall be at no cost to RMS. All works must be completed prior to issue of any Occupation Certificate.

92) **Dilapidation Report Post Construction**
A Dilapidation Report detailing the current structural condition of adjoining buildings, infrastructure and roads shall be prepared and endorsed by a qualified structural engineer. The report shall be submitted to the satisfaction of the certifying authority prior to issue of the Occupation Certificate.
A copy of the report is to be forwarded to Council and the owners of adjoining properties prior to the issue of an Occupation Certificate.

93) **CEMP implementation**
Prior to issue of any Occupation Certificate, certification by a qualified person must be provided to the Principal Certifying Authority confirming that the Construction Environmental Management Plan (CEMP) prepared by Coffey dated 28 August 2014 has been implemented in full.

94) Prior to issue of any Occupation Certificate, adequate security measures are to be installed into the development. These include traffic signalling systems and signage within car parking areas and controlled access to circulation spaces.

95) **Retaining Wall Certification**
The submission of a certificate from a suitably qualified and experienced structural engineer or civil engineer to the Principal Certifying Authority is required, prior to the issue of the

Occupation Certificate or commencement of the use. This certification is required to verify the structural adequacy of the retaining walls and that the retaining walls have been constructed in accordance with plans approved by the Principal Certifying Authority.

96) **Occupation Certificate**
A final Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of Section 109H of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

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

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

99) Prior to issue of the Occupation Certificate, the Principal Certifying Authority is required to confirm that internal noise levels in residential parts of the building would not exceed levels prescribed in State Environmental Planning Policy (Infrastructure) 2007.

The relevant LAeq levels are:

- in any bedroom in the building—35 dB(A) at any time between 10.00 pm and 7.00 am,
- anywhere else in the residential areas of the building (excluding a garage, kitchen, bathroom or hallway)—40 dB(A) at any time

100) Garbage and recycling collection shall occur within the building. On-street placement of bins is not permitted.

101) Consolidation of allotments is required. Prior to issue of the Occupation Certificate, details must be provided to the Principal Certifying Authority confirming all allotments have been consolidated.

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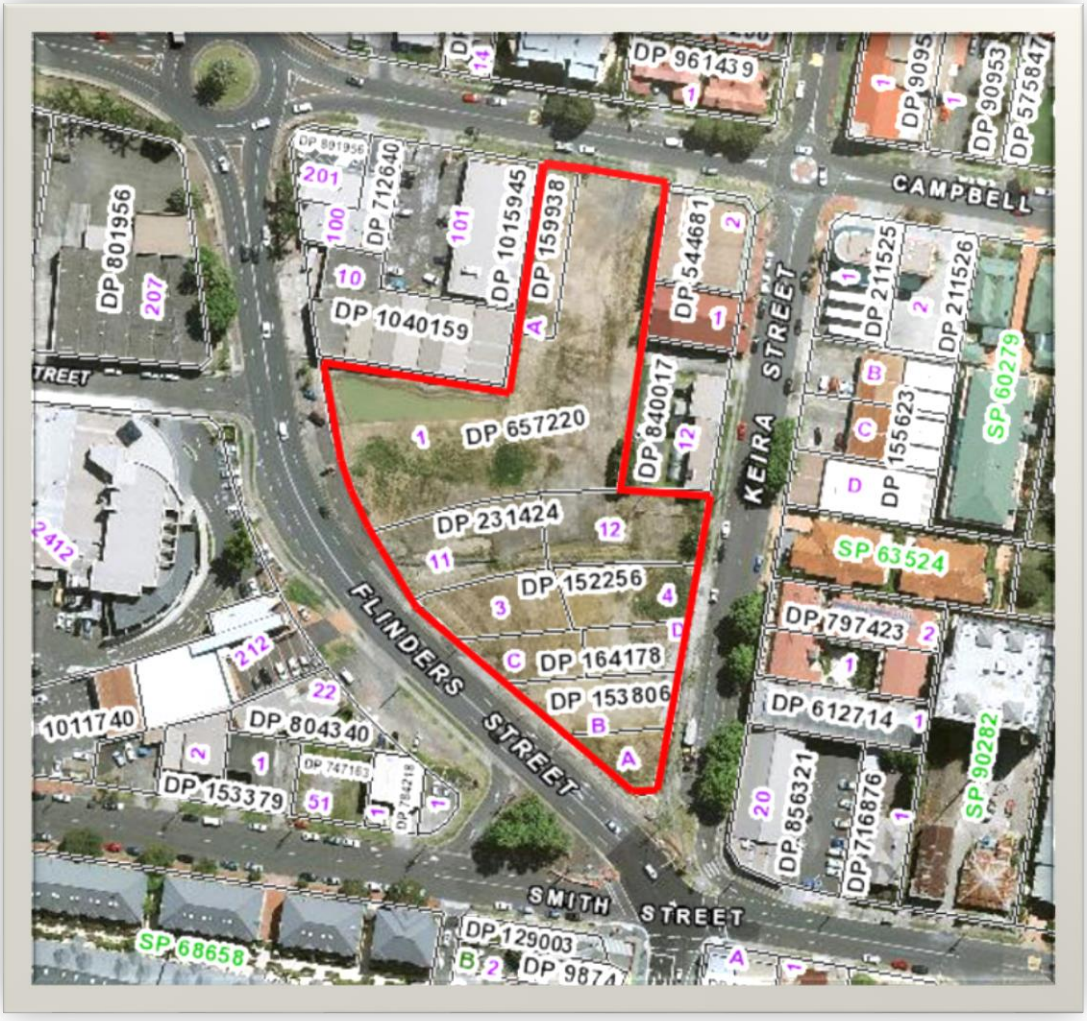
PEER REVIEW

Assessment Report for Shop Top Housing Development Application DA-2016/591

Flinders Street, Keira Street and Campbell Street
Wollongong



November 2016

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This Peer Review was prepared by Robert Montgomery, Principal, Montgomery Planning Solutions.

Robert Montgomery BApSc (Environmental Planning) MPIA
November 2016
Reference: 1614

Montgomery Planning Solutions
PO Box 49
Kurmond NSW 2757

Tel: 4572 2042
Mobile: 0407 717 612

Email: robert@montgomeryplanning.com.au

1. Introduction

Montgomery Planning Solutions has been engaged by Wollongong City Council to prepare a peer review of the Council Officer's assessment of Development Application DA-2016/591.

The land, which comprises some 9 individual lots, has a total site area of 9,134m2 and is located at the northern gateway to the Wollongong City Centre.

The development application proposes the construction of shop top housing in the form of four 7 – 8 storey residential towers containing 221 apartments and 2,665m2 of commercial space.

The land is owned by Wollongong City Council. The consent authority is the NSW Southern Joint Regional Planning Panel.

The purpose of this report is to provide additional transparency and independence in the development application assessment process and to ensure that the Council has met its statutory obligations under Environmental Planning and Assessment Act, 1979.

I inspected the site and surrounds on 22 September 2016 in company with the Council's assessing officer. We did not enter the site, however all parts of the site were visible from the Campbell, Keira and Flinders Street frontages. Among other things I noted the terrain, the location of buildings immediately joining the subject land, and the relationship to surrounding development.

It is concluded that:

1 the Council's assessment of the application satisfies all relevant statutory requirements; and

2 the recommendation for approval with the proposed conditions is considered reasonable based on the assessment.

2. Document Review

Wollongong City Council provided the following documents for the purposes of this review:

- Statement of environmental effects dated 9 May 2016
- DA plan set including revised drawings provided to Council on 6 September 2016
- SEPP 65 Design verification statement prepared by Gabe Reed, registered architect
- Traffic impact assessment dated 5 May 2016
- Contamination site audit dated August 2014
- BASIX Certificates dated 9 May 2016
- Daylight report prepared by Pidcock Pty Ltd
- Project cost details dated 20 April 2016
- Council Assessment Report - Panel Ref 2016TH017

Following my preliminary review of the documents, the applicant was required by Council to amend the property description in the statement of environmental effects, to provide a signed SEPP 65 Design Verification (original lodged with DA was not signed) and to confirm FSR calculations. The applicant satisfied these matters.

After reading the Council officer's assessment, some minor revisions were made to the officer's report. The assessment and recommendation was not altered in any way.

3. Statutory Requirements

The relevant statutory matters applying to the site and the proposed development are:

- Environmental Planning & Assessment Act – s79C
- Environmental Planning & Assessment Regulation 2000
- SEPP 55 – Remediation of Land
- SEPP 65 Design Quality of of Residential Apartment Development
- SEPP (Building Sustainability Index: BASIX) 2004
- SEPP (Infrastructure) 2007
- SEPP (State and Regional Development) 2011
- Wollongong LEP 2009
- Wollongong Development Control Plan 2009
- Wollongong S94A Development Contribution Plan 2009

The Council Assessment Report provides details of the relevant provisions of each of the statutory instruments. I consider that the detail provided in the report and the assessment of each of these is satisfactory. There appear to be no omissions in this regard.

Although not provided to me, I note that the comments of the Wollongong Design Review Panel have been incorporated in the final design to the satisfaction of Council.

4. Public Submissions

The Council Assessment Report notes that five (5) submissions were received in response to notification of the development proposal. A detailed summary of each of the matters raised is provided within the Report along with responses to each matter.

I consider that the Report adequately addresses the matters raised in public submissions.

5. Conflict of Interest Statement

As a member of Wollongong Council's Independent Hearing and Assessment Panel (IHAP) I am bound by the IHAP Charter in relation to conflict of interest. The Charter relevantly provides:

> *"Public perception of bias/conflict of interest requires that Panel members not engage in any of the following while they are members of IHAP: [non-relevant paragraphs excluded]*
>
> - *Deriving income (other than remuneration for being an IHAP panel member) through contracts with Council."*

In my view this paragraph of the Charter is designed to prevent Panel members from carrying out regular work for the council under contract, which could potentially diminish the degree of independence they bring to IHAP.

On the contrary, this report is an independent review of the Council's assessment of a single development application. This work is similar to my role as an IHAP member and Chair, and does not affect my independence in relation to either role.

I submit that providing this independent review as sought will not create a public perception of bias. Accordingly, I am of the view that there is no conflict of interest in carrying out this review.

I also confirm that I have no past or present relationship with Gateway Wollongong Pty Ltd or any of the specialist consultants involved in preparing the development application.

6. Conclusion

It is concluded that:

- the development is permissible with consent;
- the development complies with the principle development standards of WLEP 2009 and relevant DCP provisions (as detailed in the assessment);
- the Council Assessment Report demonstrates that the application satisfies all relevant statutory requirements;
- the Report properly deals with the public submissions received in response to the proposal; and
- the recommendation for approval with the proposed conditions is considered reasonable based on the assessment.

Accordingly, I support the recommendation to approve the development application subject to the proposed draft conditions attached to the Report.