SEPP (Housing) 2021 – Design Verification Report

Residential Apartment Development

38 Stockton Street & 8A Tomaree Street NELSON BAY NSW 2315

Revision: I
Project No: 0159
18.03.25

Summary of revisions

Revision	By	Date	Comment
I	BH	18.03.24	Development Application – Revised (Change of Architect)

Checked: BH

Author: Holdsworth Design

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Contents

1 INTRODUCTION

1.1 Purpose

This report should be read in conjunction with the Architectural Drawings provided. It responds to the SEPP (Housing) 2021 - Schedule 9 Design principles for residential apartment development and the Apartment Design Guide (ADG).

1.2 Design Verification

The proposal is considered to satisfy the relevant objectives under the nine Design principles.

The proposal also complies on a numerical basis with the specific criteria listed within the Apartment Design Guide (ADG).

It is noted that the ADG, and SEPP (Housing) itself, are intended to be applied in conjunction with professional advice to the consent authority provided by an expert panel. The reason for this is that design quality cannot be prescribed simply by a checklist and is best assessed on merit against the objectives set out in the ADG. It is also considered contrary to the clearly stated intent of the SEPP and the ADG, to apply the performance criteria listed, as mandatory controls.

Signature:

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Registration: **7453**

2 SEPP (HOUSING) DESIGN PRINCIPLES FOR RESIDENTIAL APARTMENT DEVELOPMENT

The nine (9) design principles listed in SEPP (Housing) have been considered in the design and evolution of this proposal. The proposed development is consistent with SEPP (Housing) in that it provides well-located, well- designed apartments consistent with the express principles of good design. A response to each design principle is summarised below.

The development achieves a high-quality design outcome for the site, in line with the objectives of the ADG, as it:

- delivers a high quality Architectural & Urban Design that responds appropriately to the character of the area and surrounding built form;
- provides a high level of amenity and liveability through apartment layout, depth and ceiling heights, solar access, natural ventilation, and visual privacy;
- delivers energy efficiency within the design;
- delivers a suitable relationship of apartments to the public domain; and
- provides a range of housing contributing to a diverse housing mix and choice.
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Proposal:

The development application for the construction of a 10-storey residential apartment building containing 48 units over basement carpark.

2.1 Principle 1 – Context and neighbourhood character

(1) Good design responds and contributes to its context, which is the key natural and built features of an area, their relationship and the character they create when combined and also includes social, economic, health and environmental conditions.
(2) Responding to context involves identifying the desirable elements of an area's existing or future character.
(3) Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.
(4) Consideration of local context is important for all sites, including sites in the following areas—
(a) established areas,
(b) areas undergoing change,
(c) areas identified for change.

Statement of Compliance

The proposal has been designed to provide a quality apartment development that responds to and utilises the advantages of its context within the Nelson Bay Town Centre which is undergoing significant change aimed at increasing development & investment within the region.

The site at the corner of Stockton & Tomaree Streets is a located in an elevated position on the southern edge of & entry to the town centre, on the primary street leading down into the township below. This position is considered a 'gateway' to the town centre.

Nelson Bay and the greater Port Stephens region is characterised by several bushland peaks and ridgelines, with the town centre located within a natural amphitheatre sloping up from the marina and bay.

The sites position affords 360-degree views of Port Stephens, the coastline, mountain and headland peaks, marina and township.

Additionally, the proposal responds to Principal 1 by providing:

- an activated frontage to Stockton & Tomaree Streets with the provision commercial premises located at the corner;
- residential entry positions located on Tomaree Street to provide a buffer to the main street (Stockton Street) and provide comfortable walking distances and access regimes;
- an increased diversity for the Nelson Bay Town Centre, with greater activity, passive surveillance, commercial and public transport patronage.

2.2 Principle 2 – Built form and scale

(1) Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

(2) Good design also achieves an appropriate built form for a site and the building's purpose in terms of the following—

- *(a) building alignments and proportions,*
- *(b) building type,*
- *(c) building articulation,*
- *(d) the manipulation of building elements.*

(3) Appropriate built form—

- *(a) defines the public domain, and*
- *(b) contributes to the character of streetscapes and parks, including their views and vistas, and*
- *(c) provides internal amenity and outlook.*

Statement of Compliance

The proposed scale, bulk and height of the development responds to the existing and future development along the Stockton & Tomaree Street edges and the importance of this corner within the Nelson Bay Town Centre.

Future & proposed development within the town centre is targeting apartment & mixed-use development to increase the density of population and promote walkability.

Recently approved development of a similar scale within the town centre includes:

- Angelina Apartments (currently under construction)
- Residential Apartments (COHO Property) at corner of Yacaaba & Tomaree Streets, Nelson Bay (construction to commence shortly)
- Ascent Apartments (COHO Property) at Church Street, Nelson Bay (currently under design development)

The site is currently bounded by the following adjacent development:

- 2-storey weatherboard & brick 'Paramount' Apartments adjacent the north boundary.
- 2-storey weatherboard & brick apartments & townhouses adjacent the west boundary.

The south side of Tomaree Street, as it rises toward Church Street, is dominated by 4 - 7 storey residential apartment buildings.

The site falls significantly from south to north along Stockton Street (approx. 3.0m), from west to east along Tomaree Street (approx. 3.1m) and diagonally from south-west to north-east (approx. 6.1m).

The proposal responds to Principal 2 as follows:

- The height and scale of the proposal provides an appropriate response for the Nelson Bay Town Centre, being well within the permissible building envelope in terms of height, setbacks & building separation requirements. Refer to max. building height overrun diagrams, elevations & sections, and roof plan for specific information.
- The built form is comprised of a well-defined base for the lower 4 storeys to define the street edge, with the upper levels setback from the street & stepped in from the shared boundary to the north & west.
- The gross floor area is distributed in a way that provides a better outcome in terms of massing & transition to existing & future developments.
- The plan form adopted seeks to define the street edge at the podium levels, with the upper levels taking on a linear east-west form to improve residential amenity through orientation to the north.
- The 'cranked' plan form to Tomaree Street works in tandem with the building's articulation & 'cranked' roof form, to increase Architectural drama toward the corner. These transitions were inspired by, & designed to be read against the ridgeline backdrop of Kurrara Hill, which also follows a similar outline.
- The proposed built form creates a variety of passive and active landscaped spaces including landscaped spaces at Ground Level fronting both Stockton & Tomaree Street, and a landscaped communal terrace space to the north-west of the site at Level 1 providing an aesthetic outlook from the apartments, adjacent properties, and township.
- The apartments are clearly articulated and robust in terms of internal amenity with the design providing the majority of apartments as corner apartments & through-apartments, and orientating as much as possible to the north-east and north-west.
- Living areas have access to views, enhancing character and amenity and providing a sense of security via passive surveillance of both Stockton & Tomaree Streets, the intersection of these streets and connection to the Nelson Bay Bowling Club beyond.

2.3 Principle 3 – Density

(1) Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.
(2) Appropriate densities are consistent with the area's existing or projected population.
(3) Appropriate densities are sustained by the following—
(a) existing or proposed infrastructure,
(b) public transport,
(c) access to jobs,
(d) community facilities,
(e) the environment.

Statement of Compliance

The residential density is within the permissible FSR of 3:1 prescribed in the LEP planning controls.

The proposal responds to Principal 3 by providing:

- Consistency with the LEP, regarding provision of a compatible housing in accessible locations.
- The proposal responds to the desired future density and scale of the Nelson Bay Town Centre.
- Apartments are all in keeping with the minimum size and mix recommended by the Apartment Design Guide and DCP.
- The density of the development is considered sustainable within the existing area in consideration of the context, proximity to public transport, services, and infrastructure, social and environmental qualities of the site.

2.4 Principle 4 – Sustainability

(1) Good design combines positive environmental, social and economic outcomes.
(2) Good sustainable design includes—
(a) use of natural cross ventilation and sunlight for the amenity and liveability of residents, and
(b) passive thermal design for ventilation, heating and cooling, which reduces reliance on technology and operation costs.
(3) Good sustainable design also includes the following—
(a) recycling and reuse of materials and waste,
(b) use of sustainable materials,
(c) deep soil zones for groundwater recharge and vegetation.

Statement of Compliance

The proposal aims to promote a high standard of environmental performance incorporating the use of ecologically sustainable development principles including:

- Appropriate housing density promoting walkability within the Nelson Bay Town Centre minimising the usage of private and public transport infrastructure. The site is located on a major bus route servicing Port Stephens locality, Newcastle, and Newcastle Airport (soon to be international), as well as Sydney.
- Designing the orientation of layout of apartments to maximise access to natural light, natural cross ventilation, and aspect, noting that the south-east corner, at such an important location within the town centre is a difficult orientation to deal with both in terms of solar access & street address.
- Use of construction materials that is conducive to thermal mass such concrete slabs.
- Landscape spaces laid out for maximum solar access, natural ventilation, water and planting management.
- Selective use of sun screening devices as required to minimise use of high energy consumption cooling systems.
- Waste minimisation and recycling.
- Energy saving appliances & low energy light fittings.
- On-site stormwater detention will be provided. A Stormwater Management Plan forms part of the DA submission.
- Inclusion of a suitably sized Solar PV system at roof level.

2.5 Principle 5 – Landscape

(1) Good design recognises that landscape and buildings operate together as an integrated and sustainable system, resulting in development with good amenity.
(2) A positive image and contextual fit of well designed development is achieved by contributing to the landscape character of the streetscape and neighbourhood.
(3) Good landscape design enhances the development's environmental performance by retaining positive natural features that contribute to the following—

- *(a) the local context,*
- *(b) co-ordinating water and soil management,*
- *(c) solar access,*
- *(d) micro-climate,*
- *(e) tree canopy,*
- *(f) habitat values,*
- *(g) preserving green networks.*

(4) Good landscape design optimises the following—

- *(a) usability,*
- *(b) privacy and opportunities for social interaction,*
- *(c) equitable access,*
- *(d) respect for neighbours' amenity.*

(5) Good landscape design provides for practical establishment and long term management.

Statement of Compliance

The proposal addresses principle 5 by providing:

- Appropriate communal open space and landscaped areas that have been designed to respond to the climate, with substantial Landscaped & Deep Soil Zones at Ground Level and above ground in the form of planters & landscaped roof areas.
- Sustainable planting species selected, that are low maintenance, locally appropriate and available.
- Inclusion of landscape planters to create green edges and terraces at key locations relative to the built form.
- Inclusion of swimming pool at level 1communal area to provide cooling to the open space areas.

2.6 Principle 6 – Amenity

(1) Good design positively influences internal and external amenity for residents and neighbours.
(2) Good amenity contributes to positive living environments and resident well-being.
(3) Good amenity combines the following—

- *(a) appropriate room dimensions and shapes,*
- *(b) access to sunlight,*
- *(c) natural ventilation,*
- *(d) outlook,*
- *(e) visual and acoustic privacy,*
- *(f) storage,*
- *(g) indoor and outdoor space,*
- *(h) efficient layouts and service areas,*
- *(i) ease of access for all age groups and degrees of mobility.*

Statement of Compliance

The proposal addresses principle 6 by providing:

- Good access to public transport, retail, open space and community facilities/services. The proposal is situated adjacent a major bus route linking residents to the greater region.
- Privacy buffers by the selection of landscape species and appropriate building separation from neighbouring buildings existing and potential.
- Direct solar access to the maximum number of apartments by way of its orientation to the north-east and north-west and providing adequate building separation for visual and acoustic privacy.
- Natural and cross-ventilation by minimising single aspect apartments. Windows are located to catch breezes from dominant wind directions in summer mornings and afternoons.
- Well-designed waste and recycling regime, integrating a well-positioned & ventilated waste storage rooms at ground level, as well as waste chutes & provision for recycling to each core. Please refer to Waste Management Plan to be submitted as part of the Development Application process.
- Apartments designed with large living and dining areas that are orientated for optimal solar access, opening onto generous balconies/terraces with views/outlook below enhancing passive surveillance and outlook

- Bedrooms that have been designed to accommodate at least queen size or two single beds with generous wardrobes/storage space.

2.7 Principle 7 – Safety

(1) Good design optimises safety and security within the development and the public domain.
(2) Good design provides for quality public and private spaces that are clearly defined and fit for the intended purpose.
(3) Opportunities to maximise passive surveillance of public and communal areas promote safety.
(4) A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

Statement of Compliance

The proposal addresses principle 7 by providing:

- The residential and vehicular entries are well located in high activity and visibility areas on Tomaree Street. Tomaree Street was specifically selected to not increase traffic congestion on Stockton Street and provide more discreet & private residential entry points.
- The building entries have been designed to provide an appropriate, identifiable, secure, safe, and accessible entry.
- Separate entries are provided for pedestrians and vehicles.
- Constant passive surveillance from apartments addressing both Stockton & Tomaree Streets.
- Access lobbies are to be well lit and suitably scaled.
- Secure car parking spaces for residential apartments & commercial space.
- Deep Soil Zones will be fenced for security.
- External areas will be well lit with clear line of sight from active frontages
- The principles of CPTED (Crime Prevention Through Environmental Design) have been addressed as follows:
    - Casual surveillance of the street through balconies and communal open space fronting the street.
    - Landscaping has been used to delineate private and public space.
    - Security entry to the resident car park and pedestrian entries.

2.8 Principle 8 – Housing diversity and social interaction

(1) Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.
(2) Well designed residential apartment development responds to social context by providing housing and facilities to suit the existing and future social mix.
(3) Good design involves practical and flexible features, including—
(a) different types of communal spaces for a broad range of people, and
(b) opportunities for social interaction among residents.

Statement of Compliance

The proposal addresses Principle 8- by providing:

- A range of apartment design and sizes, ensuring a diverse range of people from differing social groups. The development provides housing choice responsive to market demand, with a mix of apartment sizes proposed including the following:

#	Apartment type	%
4	1 Bed.	8.4%
36	2 Bed.	75.0%
5	3 Bed.	6.2%
3	4 Bed.	8.4%
48		100.0%

- A large communal terrace at Level 1 incorporating a swimming pool within a landscaped setting.
- Development will add an optimum density to the existing residential population in line with the LEP and Nelson Bay Town Centre plan.
- Beneficial economic impact to the Nelson Bay Town Centre and nearby businesses

2.9 Principle 9 – Aesthetics

(1) Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure.
(2) Good design uses a variety of materials, colours and textures.
(3) The visual appearance of well designed residential apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Statement of Compliance

The proposal addresses Principle 9 as follows:

- The proposed design provides a balanced composition of elements including:
    - a defined base of 4 storeys;
    - upper levels which are progressively stepped in from the side/rear boundaries
    - an articulated built form that addresses the corner location within the town centre
    - an interesting roof form which responds to its context
- The proposed massing achieves a balance between large and small elements, solid and void, built and natural parts, and horizontal/vertical. The arrangement and articulation of elements on the façade all contribute to a modulated façade.
- The building elements have been designed with regard to the elements, textures, materials and colours of the coastal bushland setting that is Port Stephens. A schedule of proposed materials, colours and finishes is included with the elevations.

3 Apartment Design Guideline - ADG Compliance Analysis

3.1 Design Criteria

The following section outlines ADG recommendations, how each of the minimum standards are applied to the proposed development, and how each of the standards are achieved in relation to the design objectives of the ADG.

3.2 Building Configuration

Total No. of Apartments:

Floor Level	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Ground Level	-	-	-	-
Level 1	2	6	-	-
Level 2	1	6	1	-
Level 3	1	6	1	-
Level 4	-	6	1	-
Level 5	-	6	1	-
Level 6	-	6	1	-
Level 7	-	-	-	3
TOTAL	4	36	5	3
48	8.4%	75.0%	6.2%	8.4%

While the ADG recommends a mix of apartments, there is no specific rule of thumb.

Residential Matrix:

	Maximum 15% apartments receive no direct sunlight between 9am-3pm mid-winter	Minimum 70% of apartments achieve 3 hours solar access to living rooms and private open space 9am-3pm mid-winter	Minimum 60% of apartments to be naturally cross-ventilated
Total (48 Apartments)	0/48	33/48	38/48
% Apartments	0.0%	68.75%	79.16%
ADG	**Max. 15%**	**Min. 70%**	**Min. 60%**

3.3 Compliance Analysis

Item	Controls	Comments
Part 1 – Identifying the Context		
Local Context	Undertake a local context analysis.	Site analysis plan and local context analysis.
1A Apartment Building Types		
1B Local Context	Strategic centres: Strategic centres are characterised by an established commercial core with a full range of services, taller buildings and a network of retail and commercial streets with active frontages. Considerations for residential apartment development in strategic centres include complex relationships with adjacent buildings, impact of taller building types, privacy between commercial and residential uses, parking demand, high site coverage, limited deep soil, reliance on quality public streets and places and overshadowing. Local centres: Local centres are typically characterised by an established main street. In larger local centres, retail and commercial uses are distributed around the main street or across a small network of streets defining the core. In smaller local centres, the main street or shopping strip is surrounded by residential uses. Considerations for residential apartment development in local centres include shop top housing, high site coverage, narrow site frontages, heritage, relationship with adjacent low density residential uses and multiple small lot land ownership requiring amalgamation to support changing use and density.	Nelson Bay Town Centre, for which the site is a part, is considered to be a combination of a Strategic Centre and a Local Centre. Considering the wider scale, the proposed development is suitable given the site's proximity to the Nelson Bay Town Centre, transport and major public spaces.
1C Precincts and individual sites		The proposed development is sited within the Nelson Bay Town Centre capable of supporting the proposed apartment building relative to the planning controls and Apartment Design Guidelines. The development is considered to define the southern edge & entry to the Nelson Bay Town Centre.

Item	Controls	Comments
Part 2 – Developing the Controls		
2A Primary Controls	Primary development controls are the key planning tool used to manage the scale of development so that it relates to the context and desired future character of an area and manages impacts on surrounding development. Primary development controls include building height, floor space ratio, building depth, building separation and setbacks (refer to in sections 2C-2H). When applied together, the primary development controls create a building envelope, which forms the three-dimensional volume where development should occur.	
2B Building Envelopes	Establish the allowable bulk, height and location of a development on a site.	The building envelope, including the allowable bulk, height and density has been established with reference to the local planning controls & the Apartment Design Guidelines, and is considered appropriate for the Nelson Bay Town Centre location.
2C Building Height	Test height controls against the FSR and the proposed number of storeys and minimum ceiling heights.	The building height is well within the maximum permissible building height of 28.0m, and is considered appropriate for the local area within the Nelson Bay Town Centre. The proposed development closely relates to recently approved development within the Nelson Bay Town Centre.
2D Floor Space Ratio		The proposed development is calculated to have an FSR of 2.75 : 1, which is compliant with the max. permissible Floor Space Ratio of 3 : 1 suggesting that it is an appropriate density of development.
2E Building Depth	Maximum internal depth of a building should be 18 m (this guideline generally applies to street wall buildings, buildings with dual and opposite aspect and buildings with minimal side setbacks). Freestanding buildings may exceed 18 m, subject to satisfactory daylight and natural ventilation.	The proposed building depth varies to promotes daylight and natural ventilation.

Item	Controls	Comments
2F Building Separation	For buildings over three storeys, it is recommended that building separation increase in proportion to building height to ensure appropriate urban form, adequate amenity and privacy for building occupants. Suggested dimensions within a development, for internal courtyards and between adjoining sites are: Up to four storeys/12 metres: • 12 metres between habitable rooms/balconies • 9 metres between habitable/balconies and non-habitable rooms • 6 metres between non-habitable rooms Five to Eight storeys/25 metres: • 18 metres between habitable rooms/balconies • 12 metres between habitable/balconies and non-habitable rooms • 9 metres between non-habitable rooms Allow zero building separation in appropriate contexts, such as in urban areas between street wall building types (party walls).	The building separation has been developed with consideration to the existing & future development on adjoining sites, increasing with building height to ensure adequate amenity and privacy. In general, the suggested dimensions are shared equally with the adjacent site and based on habitable/balconies to habitable/balconies.
2G Street Setbacks	Minimise overshadowing of street and buildings. Consider secondary upper level setbacks to reinforce desired scale of buildings on the street. Underground parking structures, awnings and balconies may encroach on the setback.	The sites prominent corner location at the northern entry to the Nelson Bay Town Centre, combined with the openness of the urban pattern opposite to the south provides an opportunity to create an Architectural statement on the corner as a gateway to the town centre. To this end, the proposal seeks to transition from a 6.0m setback to the west along Tomaree Street to a zero setback at the corner, allowing for articulation of the corner & podium as it turns down into Stockton Street. Secondary upper-level setbacks are introduced above the podium level to the corner and east. Shadow studies indicate that the overshadowing of the existing apartment building to the south, retains a minimum of 3 hours of solar access to existing living & terrace spaces.

Item	Controls	Comments
2H Side & Rear Setbacks	To retain or create rhythm or pattern of development that positively defines the streetscape so that space is not just what is left over around the building form. Consider building separation, open space and soil zones. Maximize the opportunity to retain and reinforce mature vegetation. Optimise use of land at the rear and surveillance of the street at the front. Relate setbacks to existing streetscape pattern.	The side setbacks proposed for north and west boundary respond to both existing and future adjacent development within the Nelson Bay Town Centre. To the north, the existing 'Paramount' apartments at 36 Stockton Street presents a 2-storey weatherboard wall with some small windows to habitable & non-habitable spaces within approx. 1.1m of the boundary. A 3.0m setback is proposed for the majority of this boundary, increasing to a 6.0m setback at the north-east corner for the apartment fronting Stockton Street at podium level. The proposed wall at the 3.0m setback allows for sufficient space for ventilation and natural light to the existing apartment interiors (which open toward the north & east), whilst not creating privacy issues. This is buffered by proposed landscape planting within the Deep Soil Zone. Ideally, in the main street of a town centre a zero setback would be considered appropriate to allow for a continuous street edge however a 3.0m setback is considered reasonable in this situation. To the west, the existing two storey apartments & townhouses at 8 & 10 Tomaree Street are setback from the boundary by a driveway, which together with the 6.0m side setback is considered sufficient buffer to existing & future development. The proposed setback to the west also provides an opportunity for the landscaping & trees within the deep soil zone, which also extends around adjacent part of the north boundary. Vehicular entrance, driveway and ramping to the car park levels are located wholly outside of these side setbacks minimising associated acoustic issues. Side setbacks increase above the podium level to comply with Apartment Design Guideline building separations (shared with the adjacent site).
Part 3- Siting the Development		
3A Site Analysis	Site analysis to include plans and sections of the existing features of the site, and written description.	Site analysis plan, survey plan and written analysis are to be provided in the SEE.

3B Orientation	Orient buildings to maximise north facing walls and provide adequate building separation. Respond to streetscape and optimise solar access. Align buildings to street on east-west streets Optimise solar access to living spaces and private open space by orienting them to the north. Building elements to maximise sun in winter and shade in summer.	The development has been orientated as much as possible to the north-east and north-west to maximise the number of apartments with good solar access to living spaces and terraces, as well as views over Port Stephens.
3C Public Domain Interface	The public domain interface is the transition area between the apartment building, its private or communal space at the street edge and the public domain. 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.	The building entries are designed to provide an appropriate, identifiable, secure, safe, and accessible entry points. Separate entries are provided for pedestrians and vehicles. Mailboxes are provided externally to each residential entry lobby space. The vehicular entry driveway is located on Tomaree Street, setback from the west boundary.

Item	Controls	Comments
3D Communal & Public Open Space	Design criteria 1. Communal open space has a minimum area equal to 25% of the site (see figure 3D.3) 2. Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9:00 am and 3:00 pm on 21 June (mid-winter)	The proposed development includes a large landscaped communal open space at Level 1 accessed from both lift/stair cores. This space, with its north & north-westerly aspect and elevation, will achieve the solar access requirements to the principal usable part of the communal open space for a min. of 2 hours between 9:00 am and 3:00 pm on 21 June (mid-winter). The total Communal Open Space is calculated to be 685.4 m^2 (30.29% site area).
3E Deep Soil Zones	Design criteria 1. Deep soil zones are to meet the following minimum requirements: Site area greater than 1,500m^2 Minimum dimensions 6.0m Deep soil zone (% of site area) 7%	Deep Soil Zone (with a compliant area of 221.6m^2 or 9.8% of site area) is provided adjacent to the west boundary of the site, with other landscape areas adjacent the north boundary and south street frontage considered adequate to achieve the proposed Deep Soil plantings. Tree planting are proposed close to the western boundary within the 5.33m width (exclusive of soldier piling below) to provide a landscape buffer to the west. The site location within the town centre, & inclusion of non-residential uses at ground level should be considered in any assessment of Deep Soil Zone. Alternative forms of planting have been provided on structure above ground, together with appropriate stormwater management. Overall, the deep soil zone is supplemented by an additional 412.6m^2 of Landscape area.

Item	Controls	Comments
3F Visual Privacy	Design criteria 1. Minimum separation distances for buildings are: Up to four storeys (approximately 12 m): • 12 m between habitable rooms/balconies • 9 m between habitable and non-habitable rooms • 6 m between non-habitable rooms Five to eight storeys (approximately 25 m): • 18 m between habitable rooms/balconies • 12 m between habitable and non-habitable rooms • 9 m between non-habitable rooms Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room. Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties.	The proposed building complies with the intent of the minimum separation distances within the Apartment Design Guidelines to mitigate any visual privacy issues.
3J Bicycle & Car Parking	Design criteria 1. For development in the following locations: • on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or • on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less. The car parking needs for a development must be provided off street.	The Nelson Bay Town Centre is Zoned E1 Local Centre. 83 car parking spaces are located on site including 1 accessible parking space. Please refer to the Statement of Environmental Effects and Traffic Report for calculations and associated information which is to be submitted with the Development Application. 1 bicycle parking space is proposed.

Item	Controls	Comments
Part 4- Designing the Building		
Amenity		
4A Solar & Daylight Access	Design criteria 1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9:00 am and 3:00 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas. 2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid- winter. 3. A maximum of 15% of apartments in a building receive no direct sunlight between 9:00 am and 3:00 pm at mid-winter.	The proposed development has been orientated to maximise the north-easterly and north-westerly aspect and to minimise the number of south-east and south-west facing units. The layout of units and window location provides satisfactory solar and daylight access, with 33/48 (68.75%) apartments of units receiving 3 hours direct sunlight between 9am-3pm mid-winter. The requirement that a maximum of 15% of apartments in the building receive no direct sunlight between 9:00 am – 3:00 pm mid-winter is satisfied with 0/48 (0%) apartments receiving no direct sunlight.
4B Natural Ventilation	Design criteria 1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed. 2. Overall depth of a cross-over or cross-through apartment does not exceed 18 m, measured glass line to glass line.	38/48 (79.16%) of the apartments have been designed to achieve cross ventilation through maximising corner apartments and cross-through apartments. The overall depth of the proposed cross-through apartments centrally measures 18.0m glass line to glass line, complying with the requirement.
4C Ceiling Heights	Design criteria 1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are: Minimum ceiling height for apartment and mixed-use buildings Habitable rooms: 2.7m Non-habitable: 2.4m If located in mixed use areas: 3.3m for ground and first floor to promote future flexibility of use These minimums do not preclude higher ceilings if desired.	Minimum floor to ceiling height of 2.7 m is provided to the main living areas and habitable rooms. Ground Level ceiling heights of 3.5m are proposed for the commercial space to promote future flexibility of use and to accommodate a transfer structure above to the underside of Level 1.

Item	Controls	Comments
4D Apartment Size & Layout	Design criteria 1. Apartments are required to have the following minimum internal areas: Apartment type / Minimum internal area: Studio = 35 m^2 1 bedroom = 50 m^2 2 bedroom = 70 m^2 3 bedroom = 90 m^2 The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5 m^2 each A fourth bedroom and further additional bedrooms increase the minimum internal area by 12 m^2 each 2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms Design criteria 1. Master bedrooms have a minimum area of 10 m^2 and other bedrooms 9 m^2 (excluding wardrobe space) 2. Bedrooms have a minimum dimension of 3 m (excluding wardrobe space) 3. Living rooms or combined living/dining rooms have a minimum width of: 3.6 m for studio and 1-bedroom apartments 4 m for 2- and 3-bedroom apartments 4. The width of cross-over or cross- through apartments are at least 4 m internally to avoid deep narrow apartment layouts.	Proposed apartments meet the minimum internal area requirements per apartment type. In fact, the proposed apartments are significantly larger to reflect the market demand. Every habitable room has been designed to have a window on the external wall. Bedroom sizes are designed to achieve the prescribed minimum area & dimensional requirements. Living spaces are designed to achieve the prescribed minimum width requirements.

Item	Controls	Comments
4E Private Open Space & Balconies	Design criteria 1. All apartments are required to have primary balconies as follows: *Dwelling type* Studio apartments: Minimum area = 4 m^2 Minimum depth = - 1-bedroom apartments: Minimum area = 8 m^2 Minimum depth = 2 m 2-bedroom apartments: Minimum area = 10 m^2 Minimum depth = 2 m 3+ bedroom apartments Minimum area = 12 m^2 Minimum depth = 2.4 m The minimum balcony depth to be counted as contributing to the balcony area is 1 m. 2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15 m^2 and a minimum depth of 3 m.	Proposed balconies and terraces meet the prescribed minimum areas and depths. Balconies & terraces have been designed to articulate the building façade and are provided adjacent to the living areas in all units and designed to be an extension of the living areas.
4F Common Circulation & Spaces	Design criteria 1. The maximum number of apartments off a circulation core on a single level is eight. 2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	The proposed design provides two separate circulation cores, incorporating one (1) lift in each. The east core serves 29 apartments. The west core serves 19 apartments.
4G Storage	Design criteria 1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage (volume) is provided: Dwelling type / volume Studio apartments = 4 m^3 1 bedroom apartments = 6 m^3 2 bedroom apartments = 8 m^3 3+ bedroom apartments = 10 m^3 At least 50% of the required storage is to be located within the apartment	Storage is to be allocated to provide the minimum required storage with at least 50% located within the apartment, with the remainder provided in storage rooms at each level and/or the car park levels. Refer to floor plans & ADG Storage calculations provided.
4H Acoustic Privacy	Maximise acoustic privacy by adequate separation. Internal layout to separate noise from quiet areas by grouping bedrooms and service areas. Resolve conflicts between noise, outlook and views by design measures, such as double glazing. Reduce noise transmission from common corridors or outside by providing seals to entry doors.	The proposed development will be designed to comply with the requirements of the NCC. Party walls are to be designed to exceed the minimum RW rating according to NCC. The majority of the apartment layouts provide similar rooms adjoining each other where possible. Noise from external sources will be treated to ensure compliance with Council's requirements.

Item	Controls	Comments
4J Noise and Pollution	In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings. Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.	To minimise impacts the following design solutions are used: - solid balustrades are used for part of balconies facing Stockton Street to minimise the traffic noise associated with this main access route. - Inclusion of awning to as a noise break to apartments above commercial and residential entry.
Configuration		
4K Apartment mix	A range of apartment types and sizes is provided to cater for different household types now and into the future. The apartment mix is distributed to suitable locations within the building.	The apartment mix is appropriate, taking into consideration: • the distance to public transport, employment and education centres • the current market demands and projected future demographic trends. Larger apartment types are located on the upper levels where there is potential for more open space and on corners where more building frontage is available
4L Ground Floor Apartments	Design gardens to contribute to visual and spatial structure of the street. Promote housing choice by providing private gardens and maximising accessible apartments on ground floor. Increase solar access in ground floor units, by higher ceilings and windows and tree selection.	Nil ground floor apartments are proposed.
4M Facades	Consider relationship between building form and façade or building elements. Facades to have appropriate scale, rhythm and proportion responding to use and desired character. Facades to reflect orientation of site using sun shading devices. Express important corners by giving visual prominence to parts of the façade. Coordinate and integrate building services. Coordinate security grills, ventilation louvers and car park entry doors with overall façade design.	The building elements have been designed with consideration to the elements, textures, materials, and colours befitting an apartment building within a coastal bushland context. The façade is intended to reduce the visual bulk of the building and offers an interesting dialogue of materials, textures and finishes. A schedule of proposed materials, colours and finishes is shown with the elevations which form part of this submission.

Item	Controls	Comments
4N Roof Design	Relate roof design to desired built form. Relate to size and scale of building, elevations, building form. Respond to orientation of site. Minimise visual intrusiveness of service elements. Facilitate use of roof for sustainable functions.	The roof design is inspired by the sites elevated position within the town and the ridgeline backdrop of Kurrara Hill. It is envisaged as a horizontal element hovering over the building which rises toward the corner along both Stockton & Tomaree Streets, building Architectural drama at this important corner within the town centre. The roof form will be highly visible from the many points in the town and is designed as an iconic element in the skyline against the backdrop of bushland ridges and peaks.
4O Landscape design	Improve amenity of open space with landscape design, including shade, screening and accessibility. Contribute to streetscape and public domain. Improve energy efficiency and solar efficiency of dwellings and microclimate of private open spaces. Design landscape with regard to site characteristics. Contribute to water and stormwater efficiency. Provide sufficient depth of soil above pavers to enable growth of mature trees. Minimise maintenance by robust landscape elements.	Proposed landscaping includes planting of street trees and is designed to improve amenity of open space and contribute to the streetscape and public domain. Robust landscape elements have been selected to minimise maintenance. Sufficient depth of soil is to be provided to the proposed green roof elements and landscape planters at above ground levels.
4P Planting on structures	Design for optimum plant growth by appropriate soil and drainage conditions. Design planters to support soil depth and plant selection.	Appropriate planting provided and integrated with landscaped area around the development.
4Q Universal Design	Universal design features are included in apartment design to promote flexible housing for all community members. A variety of apartments with adaptable designs are provided. Apartment layouts are flexible and accommodate a range of lifestyle needs.	The proposed development includes a variety of apartments which can facilitate adaptable designs to accommodate a range of lifestyle needs.
4R Adaptive reuse	Not applicable.	Not applicable.
4S Mixed use	Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement. Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents.	A commercial component has been included within the proposed development to activate the street frontages & open space at the corner.
4T Awnings & Signage	Locate awnings over building entries. Enhance safety by providing lighting.	Appropriate awnings and lighting will be provided to the residential and commercial entries.
4V Water management & conservation	Retain stormwater on site to reduce impact of stormwater on infrastructure. Protect stormwater quality. Control erosion. Consider using grey water for site irrigation. Optimize deep soil zones. Encourage use of rainwater tanks. Incorporate local native vegetation in landscape.	On-site stormwater management via infiltration system is proposed. A Stormwater Management Plan and a BASIX/NatHERS assessment forms part of the DA submission, confirming that the proposed development complies with the requirements.

4W Waste Management	Incorporate existing built elements where possible. Recycle and reuse demolished materials. Specify building materials that can be reused or recycled. Integrate waste management into all stages of project. Support waste management by specifying project needs and reducing waste by using standard product sizes. Prepare waste management plan. Locate storage areas for bins away from street frontage. Provide waste cupboards or temporary storage area. Incorporate on-site composting where possible.	A Waste Management Plan forms part of the DA submission and addresses the demolition, construction and ongoing phases of the development and the requirements of the Code. Each core incorporates a waste chute at each level, discharging into a central Waste Storage Room at Ground Level. Adequate clearance and turning areas are provided for waste collection vehicles under a private arrangement.
4X Building Maintenance	Design windows to enable cleaning from inside the building. Select manually operated systems, such as blinds, sunshades, pergolas and curtains. Incorporate and integrate building maintenance systems into the design of the building form, roof and façade. Select durable materials which are easily cleaned and graffiti resistant. Select appropriate landscape elements and vegetation and provide appropriate irrigation systems. Provide garden maintenance and storage area.	Maintenance has been addressed as follows: The roof will be accessible for maintenance to comply with Australian Standards and OH&S. Materials will be durable and cleanable. Landscape elements will be appropriate for the site condition, with the selection of hardy, low maintenance plantings and hardscape.