Appendix B
Apartment Design Guide Compliance Table

Relevant Control		Compliance with Requirements	Consistency Objectives
Part 3 - Sitting the Development			
3A Site Analysis			
3A-1	Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context.	This has been achieved. Council has supported a Planning Agreement proposal for the delivery of the infrastructure required to support the development as discussed within the main body of the report.	Yes
3B Orientation			
3A-1	Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context.	This is satisfactory.	Yes
3B-2	Overshadowing of neighbouring properties is minimised during mid-winter.	The separation distance between the site and the development along Railway Terrace to the east is 45 metres. The separation. The separation distance includes a railway corridor and a road. Shadow diagrams have been submitted which identifies that the development will have an impact upon developments facing Railway Terrace after 1 pm. In particular: • Tower B being the tallest building will begin to shadow the lower west facing apartments after 1 pm with considerable impact by 2 pm. Prior to 1 pm, there is no impact across the	Yes

		developments facing Railway Terrace. • Tower C and D will have impacts across developments along Railway Street after 2 pm. The impacts are within acceptable limits and consistent with the built form and permitted massing allowed by the local planning controls for the site.	
3C Public Domain Interface			
3C-1	Transition between private and public domain is achieved without compromising safety and security.	Satisfactory.	Yes
3D Communal and Public Open Space			
3D-1	Communal open space has a minimum area equal to 25% of the site.	There are four common open space areas across the rooftops of the buildings as follows: Building B - 425 square metres. Building C - 212 square metres. Building D (2 areas combined) - 672 square metres. Total rooftop common areas occupy 1,309 square metres across all 4 areas. There are two ground areas within the site that is large enough and suitable as being common open space being areas between Buildings B, C and D. The two areas combined occupies 362.8 square metres. Total area - 1,671.8 square metres or 27.15%,	Yes

<table>
<tr><td></td><td></td><td>This excludes all the culvert area to the immediate west of Site 2.</td><td></td></tr>
<tr><td></td><td>Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter).</td><td>This is achieved for the common areas.</td><td>Yes</td></tr>
<tr><td>3D-2</td><td>Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.</td><td>Satisfactory.</td><td>Yes</td></tr>
<tr><td>3D-3</td><td>Communal open space is designed to maximise safety.</td><td>Satisfactory.</td><td>Yes</td></tr>
<tr><td>3D-4</td><td>Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood.</td><td>Public open space is required for the site especially for that area adjacent to Building D.

The public open space areas are being provided via a separate development application.</td><td>Yes</td></tr>
<tr><td colspan="4">3E Deep Soil Zones</td></tr>
<tr><td>3E-1</td><td>Deep soil zones are to meet the following minimum requirements:

<table><tr><th>Site Area</th><th>Min dimensions</th><th>DSZ (% of the site area)</th></tr><tr><td>Less than 650m²</td><td>-</td><td rowspan="4">7%</td></tr><tr><td>650m² - 1,500m²</td><td>3m</td></tr><tr><td>Greater than 1,500m²</td><td>6m</td></tr><tr><td>Greater than 1,500m² with significant existing tree cover</td><td>6m</td></tr></table>
Should provide 430.9 square metres.</td><td>The total area is approximately 260 square metres or 4.2% for Site 2.

The variation is 170 square metres or 39.4%.

The applicant is arguing that across the broader site, deep soil zone is compliant.

The applicant has stated that the planning controls envisages the future parks to be deep soil zone.

A total of 2,444 square metres of deep soil zone is to be dedicated once the wider development is complete.

This is calculated at 15% which would be compliant.</td><td>No for Site 2

Yes for the wider site area due to the development of public parks.</td></tr>
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<table>
<tr><th colspan="4">3F Visual Privacy</th></tr>
<tr>
<td>3F-1</td>
<td>Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:

<table>
<tr><th>Building height</th><th>Habitable rooms & balconies</th><th>Non-habitable rooms</th></tr>
<tr><td>Up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr>
<tr><td>Up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr>
<tr><td>Over 25m (9+storeys)</td><td>12m</td><td>6m</td></tr>
</table>

<u>Note:</u>

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.</td>
<td>The western elevation between Building B towards A is considered.

There are main rooms and private areas situated on the ground level facing west but these would not raise privacy issues.

There are balconies and main rooms facing west on Levels 1, 2 and 3 across numerous apartments.

Building C is compliant.

<u>Building B</u>

A separation distance between balconies and living areas of 12 metres metres is provided.

<u>Between Buildings B and C</u>

Ground - No issues raised.

Level 1 to 3 - 12 metres between habitable and non habitable rooms.

Levels 4 to 7 - 12 metres between habitable rooms and bedrooms.

Levels 8 to 11 - 18 metres between habitable and non habitable rooms.

<u>Between Buildings C and D</u></td>
<td>Yes

Yes

Yes

The west side of Building B and C faces a 4 storey building.

Yes

Yes

Yes</td>
</tr>
</table>

		Ground - No issues raised. Level 1 to 3 - 12 metres between habitable and non habitable rooms and balconies. Levels 4 to 7 - 12 metres between habitable rooms, bedrooms and balconies. Levels 8 to 11 - 18 metres between habitable and non habitable rooms and balconies. <u>For Building D</u> There are habitable floor areas, balconies and bedrooms facing one another across a distance of 12 metres on Level 8 to 11.	Yes Yes Yes No (Variation up to 12 metres or 50%). Privacy screens are shown on the plans where required.
3G Pedestrian Access and Entries			
3G-1	Building entries and pedestrian access connects to and addresses the public domain.	The location of the building entrances are satisfactory.	Yes
3G-2	Access, entries and pathways are accessible and easy to identify.	This is achieved.	Yes
3G-3	Large sites provide pedestrian links for access to streets and connection to destinations.	A pathway is provided between Buildings A and B which includes a security gate. The link does not pass to Neil Street due to the presence of an embankment and a fence.	Yes Where possible.
3H Vehicle Access			
3H-1	Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.	Satisfactory.	Yes
3J Bicycle and Car Parking			

3J-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 site is within 800 metres of the Merrylands Railway Station. The minimum car parking requirement for residents and visitors outlined in the Guide to Traffic Generating Developments will apply. • 28 x 1 bedroom apartments. • 228 x 2 bedroom apartments. • 47 x 3 bedroom apartments. The development will require: • 28 x 0.6 = 17 spaces. • 228 x 0.9 = 205 spaces. • 47 x 1.4 = 66 spaces. **For a total of 288 spaces**. There will need to be at least 61 visitor spaces. For a total of 349 spaces. A minimum of 11 spaces are required for the commercial floor area. **Total 360 spaces.** Provided 439 spaces comprising of: Residential - 351 spaces. Visitor - 77. Retail 11 The excess is 79 spaces. If the Council DCP were to be applied then:	Yes

		• The development would need 28 spaces for the 1 bedroom apartments. • The development would need 228 spaces for the 2 bedroom apartments. • The development would need 71 spaces for the three bedroom apartments. **Total 327 spaces.** Including visitors - 76 spaces. Plus 11 spaces for the shops. **Total 414 spaces.** The surplus is reduced to 25 spaces. The surplus of spaces is reduced under the Cumberland provisions.	
3J-2	Parking and facilities are provided for other modes of transport.	Additional parking is provided for: Motorbikes - 297 spaces. Bike bays - 142.	Yes
3J-3	Car park design and access is safe and secure.	Satisfactory. A security grill is shown on the plans on the ground floor basement access level.	Yes
3J-4	Visual and environmental impacts of underground car parking are minimised.	Satisfactory.	Yes
3J-5	Visual and environmental impacts of on-grade car parking are minimised.	All car parking is enclosed within a basement car park with an appropriate access.	Yes.
3J-6	Visual and environmental impacts of above ground enclosed car parking are minimised.	All car parking is enclosed within a basement car park with an appropriate access.	Yes
Part 4 - Designing the Building			
4A Solar and Daylight Access			

4A-1	To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.	Satisfactory.	Yes
	Design Criteria		
	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas.	A total of 224 of 303 apartments or 73.9% will receive adequate sunlight penetration at the winter solstice.	Yes
	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.	At least 39 apartments or 12.8% will receive no sunlight at the winter solstice.	Yes
4A-2	Daylight access is maximised where sunlight is limited.	Satisfactory.	Yes
4A-3	Design incorporates shading and glare control, particularly for warmer months.	Satisfactory.	Yes
4B Natural Ventilation			
4B-1	All habitable rooms are naturally ventilated.	Satisfactory.	Yes
4B-2	The layout and design of single aspect apartments maximises natural ventilation.	This is satisfactory.	Yes
4B-3	The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents.	Satisfactory.	Yes
	Design Criteria		
	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.	At least 65% of apartments are cross ventilated (Total 198 apartments).	Yes
	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.	There are no apartments that exceed a length of 18 metres.	Yes
4C Ceiling Heights			
4C-1	Ceiling height achieves sufficient natural ventilation and daylight access.	Satisfactory.	Yes
	Design Criteria		
	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: **Min. Ceiling Height** - Habitable Rm = 2.7m	The first floor of each building has a floor to floor height of 3.1 metres.	Yes

	- Non-Habitable Rm = 2.4m These minimums do not preclude higher ceilings if desired. If located in mixed used areas - 3.3m for first floor level to promote future flexibility of uses.		
4C-2	Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms.	Satisfactory.	Yes
4C-3	Ceiling heights contribute to the flexibility of building use over the life of the building.	Satisfactory.	Yes
4D Apartment Size and Layout			
4D-1	The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity.	Satisfactory.	Yes
	Design Criteria		
	Apartments are required to have the following minimum internal areas: **Min. Internal Area** - Studio = 35m² - 1 b/r unit = 50m² - 2 b/r unit = 70m² - 3 b/r unit = 90m² The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m^2 each. A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m^2 each.	All apartments achieve or exceed the minimum apartment size.	Yes
	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.	Satisfactory.	Yes
4D-2	Environmental performance of the apartment is maximised.	This is achieved.	Yes
	Design Criteria		
	Habitable room depths are limited to a maximum of 2.5 metres x the ceiling height.	Room depths are satisfactory.	Yes
	In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.	Room depths reach up to 8.4 metres from a window.	No

4D-3	Apartment layouts are designed to accommodate a variety of household activities and needs.	Satisfactory.	Yes
	Master bedrooms have a minimum area of $10m^2$ and other bedrooms $9m^2$ (excluding wardrobe space).	All bedrooms comply.	Yes
	Bedrooms have a minimum dimension of 3m (excluding wardrobe space).	All bedrooms comply.	Yes
	Living rooms or combined living/dining rooms have a minimum width of: • 3.6m for studio and 1 bedroom apartments. • 4m for 2 and 3 bedroom apartments.	Livings rooms comply with minimum dimensions.	Yes
	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.	Livings rooms comply with minimum dimensions.	Yes
4E Private Open Space and Balconies			
4E-1	Apartments provide appropriately sized private open space and balconies to enhance residential amenity.	All balconies are satisfactory.	Yes
	Design Criteria		
	All apartments are required to have primary balconies as follows: **Min. Balcony Areas / Depths** - Studio = $4m^3$ / no min. depth - 1 b/r unit = $8m^3$ / 2m - 2 b/r unit = $10m^3$ / 2m - 3 b/r unit = $12m^3$ / 2.4m The minimum balcony depth to be counted as contributing to the balcony area is 1m.	All balconies comply with the minimum size and dimensions specified by Part 4E-1.	Yes
	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 $15m^2$ and a minimum depth of 3m.	This is achieved where possible. Apartments numbered: • G04 of Building B. • G09 of Building C. Have ground floor open space areas of less than 15 square metres and with widths of 3 metres or less. The variation to Apartment G04 is 3 square metres or 20%. The variation to the width is 1 metre.	No for 2 apartments within the development as stated.

		The variation to Apartment G09 is 5 square metres or 33%. The width is satisfactory.	
4E-2	Primary private open space and balconies are appropriately located to enhance liveability for residents.	Satisfactory.	Yes
4E-3	Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building.	Satisfactory.	Yes
4E-4	Private open space and balcony design maximises safety.	Complies.	Yes
4F Common Circulation and Spaces			
4F-1	Common circulation spaces achieve good amenity and properly service the number of apartments.	Satisfactory.	Yes
	Design Criteria		
	The maximum number of apartments off a circulation core on a single level is eight.	Building B - A maximum of 8 apartments connect to a circulation core. Building C - A maximum of 4 apartments connect to a circulation core. Building D - A maximum of 7 and 8 apartments connect to a circulation core.	Yes
	For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	Buildings B and C are provided with two lift cores while for Building D, there are 6 lift cores provided but split into a north wing and a south wing.	Yes
	Daylight & natural ventilation to be provided to CCS above ground level. Windows should be at ends of corridors or next to core.	Satisfactory.	Yes
4F-2	Common circulation spaces promote safety and provide for social interaction between residents.	Satisfactory.	Yes
4G Storage			
4G-1	Adequate, well designed storage is provided in each apartment.	Satisfactory. It is identified that there are 526 storage cages provided within the basement car park.	Yes
	Design Criteria		

	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: **Min. Storage Areas** - Studio = 4m³ - 1 b/r unit = 6m³ - 2 b/r unit = 8m³ - 3 b/r unit = 10m³ At least 50% of the required storage is to be located within the apartment.	Satisfactory.	Yes
4G-2	Additional storage is conveniently located, accessible and nominated for individual apartments.	The number of storage cages provided within the basement is calculated at 526.	Yes
4H Acoustic Privacy			
4H-1	Noise transfer is minimised through the sitting of buildings and building layout.	Satisfactory where possible.	Yes
4H-2	Noise transfer is minimised through the sitting of buildings and building layout.	Satisfactory.	Yes
4J Noise and Pollution			
4J-1	In noisy or hostile environments, the impacts of external noise and pollution are minimised through the careful sitting and layout of buildings.	The acoustic report prepared by Acouras Consultancy makes numerous recommendations at Part 3 (Page 13-14) in addressing noise. The recommendations will need to be incorporated into the final design of the building as part of the Construction Certificate plans.	Yes
4J-2	Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.	Satisfactory.	Yes
4K Apartment Mix			
4K-1	A range of apartment types and sizes is provided to cater for different household types now and into the future.	The apartment mix proposed is satisfactory. There is a range of apartment types and sizes suited to the building.	Satisfactory.
4K-2	A range of apartment types and sizes is provided to cater for different household types now and into the future.	Satisfactory.	Yes
4L Ground Floor Apartments			

4L-1	Street frontage activity is maximised where ground floor apartments are located.	This is achieved for the ground floor of Building D with the provision of ground floor shops (6 in total) facing north and west towards the public open space area and future parks.	Yes
4L-2	Design of ground floor apartments delivers amenity and safety for residents.	This is achieved.	Yes
4M Facades			
4M-1	Building facades provide visual interest along the street while respecting the character of the local area.	Satisfactory.	Yes
4M-2	Building functions are expressed by the façade.	Satisfactory.	Yes
4N Roof Design			
4N-1	Roof treatments are integrated into the building design and positively respond to the street.	This is achieved.	Yes
4N-2	Opportunities to use roof space for residential accommodation and open space are maximised.	There is common open space across the roof area of Tower B, C and D. The addition of common space to the roof areas is supported.	Yes
4N-3	Roof design incorporates sustainability features.	The roof incorporates planting and planter boxes that will allow shrubs and small trees to grow.	Yes
4O Landscape Design			
4O-1	Landscape design is viable and sustainable.	Satisfactory.	Yes
4O-2	Landscape design contributes to the streetscape and amenity.	Satisfactory.	Yes
4P Planting on Structures			
4P-1	Appropriate soil profiles are provided.	These are shown on the landscape plans.	Yes
4P-2	Plant growth is optimised with appropriate selection and maintenance.	Complies.	Yes
4P-3	Planting on structures contributes to the quality and amenity of communal and public open spaces.	Complies.	Yes
4Q Universal Design			
4Q-1	Universal design features are included in apartment design to promote flexible housing for all community members.	This is achieved. Many apartments include study nooks for home office functions. In addition, there are 61 adaptable apartments	Yes

		situated within the development.	
4Q-2	A variety of apartments with adaptable designs are provided.	There are 61 adaptable apartments situated within the development.	Yes
4Q-3	Apartment layouts are flexible and accommodate a range of lifestyle needs.	Satisfactory.	Yes
4R Adaptive Reuse			
4R-1	New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place.	Part 4R is not applicable to the development or modified development.	N/A
4R-2	Adapted buildings provide residential amenity while not precluding future adaptive reuse.	As above.	N/A
4S Mixed Use			
4S-1	Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement.	This is achieved where appropriate being Building D.	Yes
4S-2	Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents.	This is achieved.	Yes
4T Awnings and Signage			
4T-1	Awnings are well located and complement and integrate with the building design.	An appropriate cover has been provided where required for Building D but limited across the western, southern and eastern sections of the building.	Yes
4T-2	Signage responds to the context and desired streetscape character.	No signage is proposed for the development.	N/A
4P-3	Planting on structures contributes to the quality and amenity of communal and public open spaces.	Satisfactory.	Yes
4U Energy Efficiency			
4U-1	Development incorporates passive environmental design.	A BASIX Certificate is provided addressing sustainability matters. The Certificate suggests compliances with the water and energy needs.	Yes
4U-2	Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer.	Satisfactory.	Yes
4U-3	Adequate natural ventilation minimises the need for mechanical ventilation.	Satisfactory.	Yes
4V Water Management and Conservation			
4V-1	Potable water use is minimised.	Satisfactory.	Yes

4V-2	Urban stormwater is treated on site before being discharged to receiving waters.	Satisfactory.	Yes
4V-3	Flood management systems are integrated into site design.	Satisfactory	Yes
4W Waste Management			
4W-1	Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents.	This is achieved.	Yes.
4W-2	Domestic waste is minimised by providing safe and convenient source separation and recycling.	This is achieved.	Yes
4X Building Maintenance			
4X-1	Building design detail provides protection from weathering.	Satisfactory.	Yes
4X-2	Systems and access enable ease of maintenance.	Satisfactory	Yes
4X-3	Material selection reduces ongoing maintenance costs.	Satisfactory.	Yes