Assessment of development against the nine design principles in SEPP 65

Principle 1- Context and Neighbourhood Character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic and environmental conditions.

Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.

Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Comment: The redevelopment of the site for a landmark building is consistent with the future vision for the site as stated within the Wagga Wagga Riverside Master Plan. This vision requires a building of appropriate design quality and architectural features that is site responsive so that its commanding presence does not result in visual intrusion that detracts from or overwhelms adjacent development and that does not compromise the values of the heritage conservation area.

The development is strategically located close to transport and facilities and within a heritage conservation area that comprises significant built heritage items. The design of the development has responded to some of these issues. The design takes advantage of the river and city views and provides significant housing opportunities within an accessible and convenient location.

The development presents a significant opportunity to realise the vision for Cadell Place, activate the precinct and rejuvenate the area in accordance with the vision and strategies set out in the Riverside Master Plan. The future character is for pedestrian movement, artisan space and connection to the river and the commercial space adjacent to the levee is the ideal location for a coffee shop with open seating areas to the front.

Principle 2 - Built Form and Scale

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

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.

Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook

Comment: The development site is a landmark site where a significant building has been planned and proposed for some time. Adjoining sites within the neighbourhood will have a lower built form to that intended for the development site. The height of the development is significant but this is not unexpected and not necessarily unreasonable nor unacceptable given the vison for the development of the site within the precinct.

The proposed built form with two towers of residential accommodation allows for varied sized apartments that each achieve the required standards for function and amenity. The orientation, configuration and setbacks of the proposed development have been designed to avoid existing easements and services, maximise residential amenity and take advantage of views to the Murrumbidgee River. At ground level, setbacks are minimal, compliant and not inconsistent with adjacent development, nor unacceptable within the commercial precinct.

The bulk of the development is broken up by the design of two separate residential towers. The scale of each tower is reflective of the surroundings with the higher tower maximising scale by focusing outlooks across the river plains to the north. The break up of the bulk of the development also minimises the overshadowing from the development at different times of the day.

There is a servicing area to Cadell Place for the collection of waste, it is anticipated that this function will occur early in the morning and not be of detriment to users of the public domain in this area.

Principle 3 - Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

Comment: The proposed density is consistent with the Councils various strategic planning documents as increased residential accommodation within the central area contributes to an active, safe and vibrant city. The proposal complies with the FSR for the site and provides a variety of apartment sizes across the development. The density allows for an increase in the number of modern high quality residential units within the central area close to jobs and community facilities. The location is well connected to facilities and transport links with nearby pedestrian walkways cycleways and public roadways and with a bus stop less than 150m away.

Principle 4 - Sustainability

Good design involves design features that provide positive environmental and social outcomes. Good sustainable design includes use of natural cross breezes and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.

Comment: The applicant has provided a BASIX Certificate which confirms that the development complies with the required water, thermal comfort and energy conservation targets. The development provides access to sunlight with 70% of the apartments receiving a minimum of 3 hours of direct sunlight and the remaining 30%r receiving 2 hours of direct sunlight. All apartments have large windows optimising natural light and 79% of the apartments have natural cross ventilation. Recycling facilities are provided on site in the form of communal waste chutes for different types of waste.

Principle 5 - Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well- designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, coordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.

Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, and respect for neighbours' amenity and provides for practical establishment and long term management

Comment: The development includes a communal area of open space at the podium level. Landscaping is provided across this area within raised planter beds of a mix of native shrubs and perennials. The planting scheme is complemented with hardscaping materials which consist of a mix of contemporary and heritage elements providing a landscaped space that is

unique, ornamental and functional. Tree planting is proposed to the Sturt Street frontage and alternate paving along Cadell Place will contribute to the streetscape in a positive manner.

Each unit is provided with private balcony areas sufficient for recreational use and amenity benefit. Whilst some balconies do not achieve the minimum depth they all exceed the minimum area which is considered acceptable. The reduced depth to balconies to apartment K is linked to the wind exposure and the reduced balconies to apartment I is to minimise overshadowing.

Principle 6 - Amenity

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well-being. Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degrees of mobility

Comment: The design has sought to provide the best amenity possible for residents taking into account the various constraints and opportunities presented by the site with consideration to neighbouring development. Amenity will be improved by the significant view opportunities and strategic position of the site near the Murrumbidgee River and in a convenient and accessible location. The apartments all meet minimum size requirements with many being much larger with good natural cross ventilation. Storage is provided to all apartments with a mix of cupboard areas within the apartment and storage cages within the car-park areas. Appropriate noise attenuation such as double glazed windows has been incorporated into the design of the building to protect future residents from noise disturbance.

Principle 7 - Safety

Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

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.

Comment: The development provides passive surveillance opportunities, territorial reinforcement and delineation of private and public domain. The main pedestrian entrances onto Cadell Place provide activation to this streetscape as well as increased pedestrian movement towards the commercial premises and levee connection. This area will be appropriately illuminated for the safety of the public and the residents.

The external open space within the development presents a wide useable area that is accessible only by residents from within the residential towers and has good visibility from within the building and across the podium area.

The proposal was referred to NSW Police who supported the overall development but did recommend that a condition be placed on any approval requiring the preparation and implementation of a Safety Management Plan

Principle 8 - Housing diversity and social interaction

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.

Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.

Comment: The proposal provides for 67 residential apartments in a commercial area that has good access to facilities, public roads, pedestrian paths and the riverside. The proposed mix includes: 28 x three bedroom units, 29 x two bedroom units and 10 x one bedroom units providing good housing diversity for differing household needs and budgets.

The level 2 podium provides outdoor space for the development as well as a common internal space for various community uses. The commercial area on Cadell Place includes an external space for good social interaction among residents and community alike.

Principle 9 - Aesthetics/Architectural Expression

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of a well-designed apartment development responds to the existing or future local context, particularly desirable elements and rhythms of the streetscape.

Comment: The development has incorporated a variety of materials and finishes in response to the existing built form within the precinct as well as differentiating between the uses and elements within the development.

The building incorporates a base plinth that is finished in red brick, this is complementary to the adjacent Romano's Hotel building. There is good use of glazing as the towers increase in height and the staggered building line contributes to the visual aesthetics of the development and reduces the overall bulk of the building.

The design responds well to the adjacent river outlook by concentrating balconies to this elevation.

APA	ARTMENT DESIGN GUIDE (ADG)		
No	Objective	Control	Complies
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	Each element in the Site Analysis checklist should be addressed	YES - supporting information provided in the form of plans showing site analysis and context, including existing buildings in the locality, heights of buildings, streetscapes, materials, character, and building form.
3B	Orientation		
3B-1	Building types and layouts respond to the streetscape and site while optimising solar access within the development.	Face streets and incorporate direct access from the street Orientate buildings to north	YES – smaller tower responds directly to Sturt Street Entrances into buildings and road treatment allow a response to Cadell Place too Northern elevations to the river optimise solar access
3B-2	Overshadowing of neighbouring properties is minimised during mid- winter.	Solar access to new apartments and existing buildings reduction to solar to neighbours no greater than 20% If significant reduction increase building separation Minimise privacy and overshadowing impacts	YES – shadow of existing structures demonstrated Impact to surrounding buildings shown on shadow diagrams many are commercial and have no shadow in afternoon Kilnacroft living space to north so unaffected
3C	Public Domain Interface		
3C-1	Transition between private and public domain is achieved without compromising safety and security.	Direct entry from street, balconies to overlook public domain, permeable fencing, active ground level, minimise concealed areas	No ground floor apartments Open walkway access into commercial Balconies all have ability to overlook public domain Car park walls are permeable Linkage of common landscape area to all apartments Connection of commercial space 3

			with outdoor costing
			with outdoor seating and levee link
3C-2	Amenity of the public domain is retained and enhanced.	New planting, garbage areas out of view, limit use of ramps, strong interfaces with adjoining open space	treatment of Cadell Place is positive garbage storage is undercover levee linkage near commercial space
3D	Communal and Public Open Space		
3D1	An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	DESIGN Criteria Communal open space has a minimum area equal to 25% of the site Minimum dimensions of 3m Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a min 2 hours between 9am-3pm on 21 June	Communal open space is provided and complies
3D2	Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting	Seating, bbq area, play areas, common room Respond to microclimate	Communal open space has a mix of facilities Communal bicycle parking area also provided Shaded areas for summer and winter
3D3	Communal open space is designed to maximise safety	Visible from habitable rooms without reducing privacy; Well lit	All well lit and visible from variety of locations
3D4	Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood	n/a paved streetscape area?	The treatment of the street and the seated space at the commercial area allows for the activation of Cadell Place
3E	Deep Soil Zones		
3E1	Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality	Design Criteria Minimum dimension deep soil zone is 6m and 7% of site area (165.6m2)	Cannot be achieved due to landscaped areas on podium roof Significant plantings but not deep soil Permeable pavers to be used in streetscape

			Stormwater
			management achieved
3F	Visual Privacy		management achieved
3F1	Visual i rivuoy	Design Criteria	
	Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy	Up to 12m (4 storeys) Habitable and balconies 6m Non habitable 3m Up to 25m (5-8 storeys) Habitable and balconies 9m Non habitable 4.5m Over 25m Habitable and balconies 12m Non habitable 6m	YES – minimum distances are all achieved
3F2	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		Balustrades to communal area Offset windows Vertical fins between balconies
3G	Pedestrian Access and Entries		
3G1	Building entries and pedestrian access connects to and addresses the public domain		Clearly identified pedestrian entries are proposed to Cadell Place residential lobbies and to commercial properties on Sturt Street.
3G2	Access, entries and pathways are accessible and easy to identify		Entries are clearly identified, the use of different paving along Cadell Place will define the walkway.
3G3	Large sites provide pedestrian links for access to streets and connection to destinations		Links into car park, lobby areas and lifts from Cadell Place as well as linking to the levee walkway.
3H	Vehicle Access		
3H1	Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes		Single vehicle entry point from new driveway separate from pedestrian entry points; lights will have limited impact on residential properties Permeable screening to car-park levels Separate garbage collection area

3J	Bicycle and Car Parking		
3J1	Car parking is provided based on	Design criteria	using the guide the
	proximity to public transport in	For Wagga Wagga	requirement is 85
	metropolitan Sydney and centres	car parking is based	spaces for the
	in regional areas	on either the Guide	residential apartments.
		to Traffic Generating	The internal car park
		Development or the	provides 85 spaces and
		DCP requirements	complies
		whichever is the	Manoeuvring within car
		lesser	park and to and from all spaces has been
			spaces has been demonstrated.
			Tandem spaces will be
			utilised by three
			bedroom apartments
			that are assigned both
			of the spaces
3J2	Parking and facilities are provided		Bicycle parking storage
	for other modes of transport		area is provided
3J3	Car park design and access is safe		Louvred screens allow
	and secure		circulation
			Lobby areas glazed with good visibility
			Storage areas near to
			lifts and car spaces
3J4	Visual and environmental impacts		No underground
	of underground car parking are		parking; permeable
	minimised		roller door set in from
			the access lane for
			security
3J5	Visual and environmental impacts		visitor parking provided
	of on-grade car parking are minimised		within access driveway, accessible spaces to
	mmmseu		Cadell Place – lobbies
			are accessible from
			both areas
3J6	Visual and environmental impacts		Louvred screening
	of above ground enclosed car		allows for improved
	parking are minimised		presentation to Cadell
			Place – use of red brick
			facades complements
			nearby buildings – entrances designed
			into the building façade
4A	Solar and Daylight Access	1	
4A1	To optimise the number of	Design criteria	
	apartments receiving sunlight to	living rooms and	Living rooms and
	habitable rooms, primary windows	private open spaces	private open spaces of
	ana private open space		
		•	•
		Canada Canada	9am-3pm in mid-winter.
	and private open space	of at least 70% of apartments in a building receive a minimum of <u>3 hours</u> direct sunlight	apartments in the building receive a minimum of 3 hours direct sunlight betweer

	1		
		between 9 am and 3 pm at mid winter	The remaining 30% of apartments receive 2 hours for the same time
		A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	
4A2	Daylight access is maximised where sunlight is limited		All apartments utilise large windows and sliding doors to maximise light
4A3	Design incorporates shading and glare control, particularly for warmer months		North facing apartments have shading devices & use high performance glass
4B	Natural Ventilation		
4B1	All habitable rooms are naturally ventilated		Achieved
4B2	The layout and design of single aspect apartments maximises natural ventilation		Achieved
4B3	The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	Design Criteria At least 60% of apartments are naturally cross ventilated Overall depth of a cross-over or cross- through apartment does not exceed 18m, measured glass line to glass line	Overall 79% comply, there are 14 single aspect apartments that don't comply, None of the apartments exceed 18m depth
4C	Ceiling Heights		
4C1	Ceiling height achieves sufficient natural ventilation and daylight access	Design criteria Minimum ceiling heights from finished floor to finished ceiling heights <u>Mixed Use</u> 3.3m from ground and first floor Habitable 2.7m Non-habitable 2.4 2 storey apartments 2.7m main living, 2.4m for second floor where the area does not exceed 50% of the apartment.	Complies

400	Calling beight increases the series		
4C2	Ceiling height increases the sense of space in apartments and		All habitable areas have 2.7m high ceilings
	provides for well proportioned		with large windows
	rooms		with large windows
4C3	Ceiling heights contribute to the		Level 1 ceilings (within
	flexibility of building use over the		tower 1) are 3.3m to
	life of the building		allow for future
	5		flexibility of use
4D	Apartment Size and Layout		
4D1	The layout of rooms within an	Design criteria	
	apartment is functional, well	Min internal areas	
	organised and provides a high	Studio 35m2	All apartments meet
	standard of amenity	1 bed 50m2	minimum areas
		2 bed 70m2	
		3 bed 90m2	
		The min internal	
		areas only include	
		one bathroom.	
		Additional	
		bathrooms increase the minimum internal	
		area by 5m2 each.	
		Every habitable	All habitable rooms
		room must have a	have windows and
		window in an	exceed 10%
		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	
4D2	Environmental performance of the	Design Criteria	
	apartment is maximised	Habitable room	Complies
		depths are limited to	
		a maximum of 2.5 x	
		the ceiling height	
		In open plan layouts (where the living,	
		dining and kitchen	
		are combined) the	
		maximum habitable	
		room depth is 8m	
		from a window	
4D3	Apartment layouts are designed to	Design criteria	Apartment K (levels 8-
	accommodate a variety of	Master – min 10m2	13) second bedroom
	household activities and needs	and other bedrooms	has a width of 2.90m
		9m2 (excludes	but achieves the
		wardrobe space)	minimum area with
		Bedrooms min	9.3sq.m.
		dimension 3m	
		(excludes wardrobe	
		space)	

		Living rooms or combined living dining rooms have a minimum width of: • 3.6m for studio/1bed • 4m for 2/3 bed The width of cross over or cross through apartments	
		are at least 4m internally to avoid deep narrow apartment layouts	
4E	Private Open Space and Balconie		
4E1	Apartments provide appropriately sized private open space and balconies to enhance residential amenity	Design criteria All apartments are required to have primary balconies as follows: Studio – min area 4m 1 bed – min area 8m, depth 2m 2 bed – min area 8m, depth 2m 3 + - min area 12m, depth 2.4 The min balcony depth to be counted as contributing to the balcony area is 1m 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 min area of 15m and min depth of 3m	are limited in size due to their location and potential exposure to high winds. The apartment sizes are large and the two smaller balconies (8m ² + 4m ²) to the north western corner are considered acceptable. Apartment I on levels 3- 7 (3 bed) do not have the minimum depth of balcony but exceed the minimum area. The balconies are minimised to this elevation to reduce overshadowing of the
4E2	Primary private open space and balconies are appropriately located to enhance liveability for residents		All balconies connected to living areas, some also connect to bedrooms
4E3	Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building		Various balcony treatments, balustrades solid and glass

4E4	Private open space and balcony design maximises safety		heights of balconies in line with NCC
			requirements to ensure
45	Common Circulation and Crosse		safety of all users
4F	Common Circulation and Spaces		Marine of fire
4F1	Common circulation spaces achieve good amenity and properly service the number of	Design criteria The maximum number of	Maximum of five apartments per level
	apartments	apartments off a circulation core on a single level is eight	Two lifts serve 55 apartments in tower 2
		For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	One lift serves 12 apartments in tower 1
4F2	Common circulation spaces promote safety and provide for social interaction between residents		Wide lobby areas adjacent to lifts on all floors- natural light from window No rooms open directly into lobby area community meeting room included
4G	Storage		
4G1	Adequate, well designed storage is provided in each apartment	In addition to storage in kitchens, bathrooms and bedrooms: <u>Storage required</u> Studio 4m3 1 bed 6m3 2 bed 8m3 3 bed 10m3: 50% is to be within the apartments	Areas all achieved apart from the one bed Apartment E that achieves an area of 8.26m ² of storage but less than 50% is within the apartment (2.26m ²⁾ This is acceptable as the overall requirement is exceeded.
4G2	Additional storage is conveniently located, accessible and nominated for individual apartments		Individual cages of 6sq.m have been assigned to the apartments and are easily accessible
4H	Acoustic Privacy		
4H1	Noise transfer is minimised through the siting of buildings and building layout		Apartment layouts group bedrooms together and away from circulation space and noise sources
4H2	Noise impacts are mitigated through layout and acoustic treatments		Double glazing incorporated to limit noise penetration from external sources

4J	Noise and Pollution	
4J1	In noisy or hostile environments	n/a
	the impacts of external noise and	
	pollution are minimised through	
	the careful siting and layout of	
	buildings	
4J2	Appropriate noise shielding or	n/a
	attenuation techniques for the	
	building design, construction and	
	choice of materials are used to	
	mitigate noise transmission	
4K	Apartment Mix	
4K1	A range of apartment types and	Mix of 1, 2, 3 beds
	sizes is provided to cater for	various designs and
	different household types now and	sizes
	into the future	01200
4K2	The apartment mix is distributed to	3 bed face the river, 1
-112	suitable locations within the	and 2 bed mixed
	building	locations in both towers
4L	Ground Floor Apartments	N/A
4M	Facades	
4M1	Building facades provide visual	Mix of materials is
	interest along the street while	proposed rendered
	respecting the character of the	walls, cladding, glass
	local area	red brick to lower levels
4M2	Building functions are expressed	Direct ground floor
41112	by the facade	access to commercial
	by the lacade	properties, car parking
		clearly defined by
		materials, entrances to
		be features
4N	Roof Design	be leadines
4N1	Roof treatments are integrated into	Parapet walls used to
	the building design and positively	define the roof
	respond to the street	boundary
		Complementary to
		surrounding roof forms
4N2	Opportunities to use roof space for	Penthouses on top two
	residential accommodation and	levels no living or
	open space are maximised	communal areas on
		roof for safety and
		security reasons
4N3	Roof design incorporates	Shading provided to
	sustainability features	penthouse
40	Landscape Design	ponulouoo
401	Landscape design is viable and	Complies
-01	sustainable	
402	Landscape design contributes to	Minimal impact to
402	the streetscape and amenity	streetscape as
		Landscaped areas on
		podium level
		Hard landscaping
		contributes through
		5
		paving of streetscape

		along Cadell Place and lighting
4P	Planting on Structures	
4P1	Appropriate soil profiles are provided	Planter boxes on podium level
4P2	Plant growth is optimised with appropriate selection and maintenance	Natives and drought tolerant species used, maintenance plan provided
4P3	Planting on structures contributes to the quality and amenity of communal and public open spaces	As above
4Q	Universal Design	
4Q1	Universal design features are included in apartment design to promote flexible housing for all community members	Apartment styles C and H have silver level compliance – 20% Many others have partial compliance
4Q2	A variety of apartments with adaptable designs are provided	as above
4Q3	Apartment layouts are flexible and accommodate a range of lifestyle needs	Some apartments have ability to mix bedroom and living area layouts
4R	Adaptive Reuse- N/A	
4S	Mixed Use	
4S1	Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	Easily accessible by different modes of transport Commercial premises provide active frontage
4S2	Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	Complies
4T	Awnings and Signage	
4T1	Awnings are well located and complement and integrate with the building design	Colonnade and lobby areas provided
4T2	Signage responds to the context and desired streetscape character	No details – likely to be exempt building identification
4U	Energy Efficiency	
4U1	Development incorporates passive environmental design	Natural light to all apartments
4U2	Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	Insulation Reverse cycle heating and cooling
4U3	Adequate natural ventilation minimises the need for mechanical ventilation	Cross ventilation
4V	Water Management and Conservation	

4V1	Potable water use is minimised	Water efficient fittings, individual meters, BASIX prepared
4V2	Urban stormwater is treated on site before being discharged to receiving waters	Stormwater collected into mains – no onsite detention
4V3	Flood management systems are integrated into site design	n/a
4W	Waste Management	
4W1	Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	Bin storage rooms, collection area accessed from Cadell Place
4W2	Domestic waste is minimised by providing safe and convenient source separation and recycling	Separate waste collection chutes provided
4X	Building Maintenance	
4X1	Building design detail provides protection from weathering	ok
4X2	Systems and access enable ease of maintenance	ok
4X3	Material selection reduces ongoing maintenance costs	ok