TURNER+ASSOCIATES

RESIDENTIAL DEVELOPMENT

CRONULLA SHARKS REDEVELOPMENT (RESIDENTIAL COMPONENT)
ARCHITECTURAL STATEMENT INCORPORATING

SEPP 65 – DESIGN QUALITY OF RESIDENTIAL FLAT DEVELOPMENT STATEMENT

RESIDENTIAL FLAT DESIGN CODE RULES-OF-THUMB SCHEDULE

PREFERRED PROJECT REPORT

MARCH 2011

01 SEPP 65 STATEMENT

This statement has been prepared by Turner Associates for Bluestone Capital Ventures No.1 Pty. Ltd. It forms part of the Masterplan prepared by Scott Carver for the Cronulla Sharks Club and Retail development for a New Centre for the region at Captain Cook Drive. This statement applies to the residential portion only, refer also to the Masterplan prepared by Scott Carver.

Summary of changes for Preferred Project Report - March 2010

In response to the letter from Department for Planning and Infrastructure (03.02.10) and taking into account community feedback, the design of the residential portion has been amended to reduce both the density and height of the proposal. A holistic reappraisal of the design was undertaken in order to take advantage of new possibilities arising from these changes, rather than a simple blanket reduction in floors. As well addressing the urban issues of the greater context and the development's relationship to the locality, the design has been substantially remodelled in parts to further maximise the amenity of its future occupants. The main outcomes of these changes are as follows:

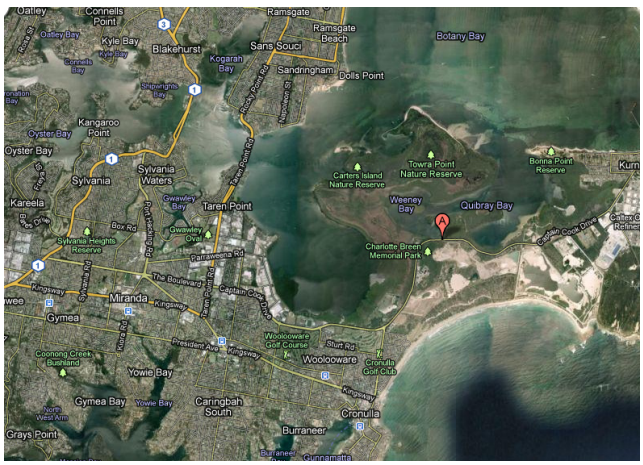
- A reduction in the height of the maximum height to 12 storeys above the podium from 14 storeys in the original proposal
- A reduction in the apparent height from nearby with the re-location of higher portions (8-12 storeys) away from the perimeter
- An increase in the variety of built form with the re-orientation of building B and C resulting in a less regular plan layout of buildings
- The reduction in number of large buildings from 8 to 7 has resulted a greater building separation between the buildings.
- The orientation of Building B has further opened the site and allows a greater number of units to enjoy distant views than previously.
- An increase in the open space in the centre of the site with the reduced footprint of Building G helps further open the relationship to the Foreshore Park . The rotation of Buildings B and C has resulted in a two large open courtyard spaces on the Eastern podium compared to the three smaller courtyards previously.
- An improved treatment of the podium with the maisonette units of Building C providing activation and passive surveillance to the creek walkway. Additional indentation of this East side helps to break up the form of the podium.
- Parking numbers have been maintained at 883 spaces resulting in a substantially higher parking rate as the number of units has decreased.

VIEW FROM WEST ALONG CAPTAIN COOK DRIVE

Numerical Summary of changes		
Category	**Concept Plan Septemebr 2011**	**Preferred Project Report**
Number of Units	700 Units	600 Units (Maximum)
Maximum Height	14 Storeys + Podium	12 Storeys + Podium
Parking Numbers	883 spaces	883 spaces (No reduction)
FSR	1.65:1	1.42:1

Height Comparison by Building	
Building A	Reduction in Height from 13 to 7 Storeys
Building B	Increase in Height from 8 storeys to 8 and 12 storeys
Building C	Reduction in Height from 7 to 2 storeys
Building D	No Change
Building E	Reduction in height from 14 and 6 storeys to 12 and 6 storeys
Building F	Reduction in Height from 9 and 6 storeys to 7 storeys
Building G	Reduction in height from 14 and 8 storeys to 12 and 8 storeys
Building H	No Change

PRINCIPLE	DESIGN QUALITY	PROPOSAL
1	**CONTEXT**	
	Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area. Responding to context involves identifying the desirable elements of a location's current character or in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality and identity of the area.	• The site is located on the southern edge of Woolooware Bay. It is bound by Toyota Stadium to the East, Captain Cook Drive to the South and Solander playing fields to the West. • Other than Toyota Stadium and Sharks Leagues Club building to the east, the immediate context is charachterized by verdant open space. To the north there are mangroves fringing the open expanse of Woolooware Bay. To the west are the Solander playing fields and across Captain Cook Drive to the south is Captain Cook Oval and the Woolooware Golf Course • The proposal is part of a larger masterplan for the Sharks Leagues Club Redevelopment incorporating the refurbishment of the existing club building, and New Retail Centre to the east and the development of a new public Foreshore Park and associated pedestrian and cycle links. • This site is flat in topograhy and low in elevation (RL2-2.5M). Its previous use as a waste tip precludes excavation. • Due to the flat local topography excellent views will be enjoyed even from the lower levels of the buildings



AERIAL VIEW CONTEXT

VIEW ACROSS PLAYING FIELDS TO TOYOTA STADIUM

PRINCIPLE	DESIGN QUALITY	PROPOSAL
2	**SCALE**	
	Good design provides an appropriate scale in terms of bulk and height that suits the scale of the street and the surrounding buildings. Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk and height needs to achieve the scale identified for the desired future character of the area.	• The residential site has been divided into three main portions - the residential development, land dedicated for the New Public Foreshore Park to the North, and the Watercourse and Riparian Regeneration zone along the creek to the East • This development consists of approximately 600 apartments divided between eight buildings on a two storey podium of parking. The accommodation of parking in a raised podium is necessary due to a prohibtion on excavation of this former waste tip site and issues of flooding on the site. • The proposal is organised around a boulevard running north-south that forms the main circulation artery of the site. A secondary road branches off to the west. This road configuration breaks the residential portion of the site into three main sectors. • The buildings are typically six-to-eight storeys in height above the podium. There are three taller portions of buildings B, E and G at 12 storeys above the podium respectively. These taller portions are attached to lower buildings and are set in from the perimeter of the site reducing their visibility from outside the site • The overall masterplan and specific building design has been considered to ensure that the buildings are proportional to the spaces around them. • There is no existing similar built form in the immediate vicinity. The new development, in conjunction with the new retail, will provide a New Centre for the region.
		

PRINCIPLE	DESIGN QUALITY	PROPOSAL
3	**BUILT FORM**	
	Good design achieves an appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type and manipulation of building's 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.	• The South/North boulevard forms the main spine of the development. This axis runs from the site entry along Captain Cook Drive to the park on the Northern portion of the site. As one enters the site the road inclines up over the podium. It crests in the centre of the site where views of the park, mangroves, water and in the distance Sydney CBD are revealed. The boulevard then flares wider along its North West edge drawing the Public Foreshore Park into the site • The bulk of the parking podium has been mitigated by its perimeter treatment. The main boulevard that bisects the podium gives the impression of a natural incline. To the south there is commercial space screening the podium that fronts onto Captain Cook Drive and providing activation to the principal frontage of the site. To the north the park and lanscpaing rise up to screen the podium. Residential units screen the first level of parking onfront the podium on its Eastern and Western sides lessening the aparent size of the of the podium and indentations in the podium help to break down its appearance as a single mass. • The residential blocks are arranged to maximise a feeling of open-ness embracing the surrounding natural environment. Closed more urban perimeter block forms were deemed unsuitable in this location. For the most part the buildings are bar forms running East/West with the exception of Building B and C. This arrangement maximises optimal solar position and permits oblique distant views even for units towards the centre of the blocks. The private courtyards between the buildings on top of the podium have open sides, increasing the perceived size of these spaces and permitting views to the outside. • The ends of the bar forms have expressive articulated forms that have been designed to maximise views and winter sun. They also address the Main Boulevard adding visual interest. • The upper levels are articulated by individual roof treatments through setbacks and roof forms. All plant is concealed within the overall building form, giving animated rooflines where parapet heights vary to respond to these pragmatic needs.
		

PRINCIPLE	DESIGN QUALITY	PROPOSAL
4	**DENSITY**	
	Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents). Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities and environmental quality.	• The residential site area is 41,280sqm. The proposal has an FSR of 1.42:1 with a GFA of 58,500sqm. The original Concept plan had an FSR of 1.65:1 • There are 600 (reduced from 700) apartments anticipated (shown within the illustrative plans) with a range of 1 bed, 1 bed + study, 2 bed/1bath, 2 bed/2bath and 3 bed apartments to allow for a range of typologies and living patterns. • The proposed New Retail Centre to the East of Toyota Stadium will provide the necessary facilities locally to support the community of the New Residential Centre. • Nearby bus routes are anticipated to be extended in due course to serve the new development. (Refer to McLaren Traffic Engineering Report)

VIEW FROM FORESHORE PARK

PRINCIPLE	DESIGN QUALITY	PROPOSAL
5	**RESOURCE, ENERGY AND WATER EFFICIENCY**	
	Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction. Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.	• The development is designed to embrace ESD principles. The use of appropriate built form generates a minimum 60% cross-ventilated apartments that result in slender buildings with a range of single-storey and maisonette typologies. • The massing, and orientation have been organised so as to provide good natural daylighting and solar access into the primary living spaces, external living areas and courtyards. • Energy efficient appliances and water efficient devices will be specified to minimise water consumption of resources. Refer to report by Cundall. • The development will include tanks for the retention of stormwater to be re-used for irrigation and car wash bays. • The non-residential areas will be assessed in relation to the BCA Section J.

PRINCIPLE	DESIGN QUALITY	PROPOSAL
6	**LANDSCAPE**	
	Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain. Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by coordinating water and soil management, solar access, microclimate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character. Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long-term management.	• There are many layers of open space providing a hierarchy that responds to the need for a variety of different activities to occur within the site. • The New Public Foreshore park will provide amenity for the greater public and ties the site into local pedestrian and cycle paths. • The New Boulevard through its generous landscaping and the way it flares out to the North allows the Foreshore Park continue into the site. • The generous common property of the residential buildings will offer private outdoor amenity for residents, as well as providing a good outlook spaces for those living above. All of the common coutyards have open sides, allowing views out of the the courtyards. In turn, people in the public areas will enjoy views into the common courtyards and their landscaping. • New sizable trees will be included as part of the new landscaping works. • Each apartment has a balcony of generous depth that has been located to maximise light and views, whilst considering privacy. • Refer to the report and drawings by Aspect Studios for more detail.

PRINCIPLE	DESIGN QUALITY	PROPOSAL
7	**AMENITY**	
	Good design provides amenity through the physical, spatial and environmental quality of a development. Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts, outlook and ease of access for all age groups and degrees of mobility.	• Apartments will be a mix of unit typologies, providing a high degree of cross-ventilation with dual aspect orientation. A minimum of 60% of apartments are targetted to be cross-ventilated in each apartment building. • Layouts have been developed to allow the maximum of units face north and enjoy the spectacular distant views. • A minimum of 70% of the apartments in each building shown in the illustrative plans are targetted to receive greater than 2 hours of sunlight to the living room glazing during the winter solstice. • Privacy is maintained between apartments through orientation and internal layouts. • Accessible apartments will be provided throughout the building in different typologies to offer variety to potential purchasers.

RETAIL TO CAPTAIN COOK DRIVE

PRINCIPLE	DESIGN QUALITY	PROPOSAL
8	**SAFETY AND SECURITY**	
	Good design optimises safety and security, both internal to the development and for the public domain. This is achieved by maximising overlooking of public and communal spaces whilst maintaining internal privacy, avoiding dark and non visible areas, maximising activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and clear definition between public and private open space.	• Safe access is achieved by clear pedestrian routes within the site • The main Boulevard running North-South through the development brings activation into the heart of the development and connects to the Foreshore Park. The street-facing perimeters of the buildings to the South will be fronted by either retail units or by glazing to the amenities. • Passive surveillance is afforded by balconies and windows at the higher levels, taking in all aspects. • There will be appropriate lighting to all exterior areas, both public and communal.

VIEW ALONG BOULEVARD

PRINCIPLE	DESIGN QUALITY	PROPOSAL
9	**SOCIAL DIMENSIONS**	
	Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities. New developments should optimise the provision of housing to suit the social mix and needs in the neighbourhood, or in the case of precincts undergoing transition, provide for the desired future community. New developments should address housing affordability by optimising the provision of economic housing choices and providing a mix of housing types to cater for different budgets and housing needs.	• The scheme provides a range of unit typologies and sizes that shall appeal to different price points. • The outdoor spaces are designed to engender community spirit for residents within the development by offering both public and private areas for congregation and activity, as well as good linkages to the new Retail Centre • Housing diversity and affordability will be enhanced in the locality through the provision of a range of unit sizes, including accessible housing, to cater for the full life cycle of tenants and enabling people to age in place without the need for specialised aged accommodation. One and two bedroom units will cater for young professional single persons or couples as well as older “empty nesters”. • The redevelopment will facilitate the re-introduction of a viable and regular public transport service linking the site to other centres and modes of transport (particularly the rail line). This will not only benefit users of the Club and the new retail and residential development, it will also improve transport choice for the surrounding local community and ease parking pressure on game days.

PRINCIPLE	DESIGN QUALITY	PROPOSAL
10	**AESTHETICS**	
	Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should also relate to the context, particularly responding to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.	• The aesthetics of the proposal do not form part of the Concept Plan, these will be addressed in detail in a subsequent Stage 2 DA submissions. • This submission, however, includes illustrative plans and perspectives to give an indication of the type of approach that may be given in order to represent the overall scale of the buildings relative to their context. • The buildings are typified by areas of open balcony, especially in a continuous manner to the north, as well as wall surfaces that shall include areas of fenestration. • The western façades may include louvres or other treatments in response to the solar gain that would otherwise be present to these façades. • The design, materials and colours shown are purely indicative at this stage.

VIEW FROM EAST ALONG CAPTAIN COOK DRIVE

RULES-OF-THUMB FROM
RULES OF THUMB THE RESIDENTIAL FLAT DESIGN CODE

PAGE	RECOMMENDATION	CURRENT
7	Relating to local context	**YES** The surrounding context is not developed, with the exception of Toyota Stadium, which is a different typology to the proposal
27	In general a depth of building 10-18m (glass-to-glass) wide is appropriate. If wider, demonstration of satisfactory daylighting and natural ventilation.	**YES** Generally the indicative envelopes acheive these distances.
28	Distance between buildings: Over 9 storeys (over 25m) 24m between habitable / balconies 18m habitable / balconies to non-habitable 12m non-habitable to non-habitable	**YES** The distances bettween buildings exceeds the required distances in all instances.
44	Minimum 25% open space area to be deep planting	**YES** The site has an area of 41,280sqm of which 18520 is deep soil. This equals 45% of the site area.
49	Communal open space to be 25-30% of site area	**YES** The site has an area of 41,280sqm of which 21890sqm is public or private communal open space. This equals 53% of the site area.
49	Minimum recommended area of private open space for each apartment at ground level or on a structure such as podium or car park is 25sqm; minimum preferred dimension in one direction is 4 metres.	**YES, WITH QUALIFICATIONS** The units shown are only indicative at this stage and have not been designed in detail. The current design would allow for ground floor terraces of the required area and dimensions
50-51	Site configuration – orientation	**YES** The relevant section of the RFDC relates to aligning with streets and maximising the number of units facing north; this proposal reflects both of these requirements.

PAGE	RECOMMENDATION	CURRENT
56-57	Site amenity - safety	**YES, WITH QUALIFICATIONS** The RFDC requires secure ground level access, passive surveillance, reinforcing the building boundary, orientating entrances to streets, providing clear lines of site from the lobbies to the street, provision of adequate illumination. The proposal responds positively to all of these requirements.
58-59	Site amenity – visual privacy	**YES** The buildings are typically orientated such that units face predominantly away from those in the opposite building. All other units are orientated such that there are no proximity issues with other windows and balconies.
69	8m max to rear of kitchen from glass. If more, demonstration of satisfactory daylighting and natural ventilation.	**N/A** The units have not been yet been designed for this stage and are indicated in block form
69	8m maximum depth to single aspect units. If more, demonstration of satisfactory daylighting and natural ventilation.W	**N/A** The units have not been yet been designed for this stage and are indicated in block form.
69	Minimum unit sizes: Studio: Not stated 1 bed: 50sqm 2 bed: 70sqm 3 bed: 95sqm	**YES** The specific unit sizes for each building will be detailed in subsequent DA submissions
72	2m min balcony width, unless furniture layout can be demonstrated	**YES** All primary balconies will have minimum 2.0m depth.
74	2.7m min ceiling height in habitable areas	**YES** 3.1m floor-to-floor, therefore 2.7m is achievable to ceilings.
74	2.25-2.4m ceiling height in non-habitable	**YES**

<table>
<tr><th>PAGE</th><th>RECOMMENDATION</th><th>CURRENT</th></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>78</td><td>Optimise the number of ground level units with separate entries.</td><td>N/A

No residential uses at ground level.</td></tr>
<tr><td>79</td><td>In general, maximum 8 apartments off of a double-loaded common area (except where amenity provided through crossover, dual aspect apartments)</td><td>YES WITH QUALIFICATIONS

10 of the 12 corridors comply and most of these have less than 8 units off a corridor. The southern corridor of Building B on levels G-7 has 11 units. In this instance there are two lifts and they are are centrally located in a naturally lit lobby, thereby lessening the congestion in the corridor as people turn left or right.</td></tr>
<tr><td>82</td><td>Storage provision – 1 bed: 6 cu m; 2 bed: 8 cu m; 3 bed: 10 cu m. Minimum 50% within unit</td><td>N/A

The units have not been yet been designed for this stage and are indicated in block form</td></tr>
<tr><td>85</td><td>70% of units to receive 2 hours of direct sunlight in winter to living rooms and private open spaces</td><td>YES

The design of the buildings for this stage are only indicative. All of the buildings in the indicative scheme acheive a minimum of 2hrs solar to the living spaces.

Table below relates to Illustrative proposal
<table><tr><td>Building A - 77%</td><td>Building E - 79%</td></tr><tr><td>Building B - 78%</td><td>Building F - 70%</td></tr><tr><td>Building C - 100%</td><td>Building G - 70%</td></tr><tr><td>Building D - 83%</td><td>Building H - 85%</td></tr></table></td></tr>
<tr><td>87</td><td>60% of units to be cross-ventilated</td><td>YES

The design of the buildings for this stage are only indicative. All of the buildings in the indicative scheme acheive a minimum of 60% of units being cross ventilated.

Table below relates to Illustrative proposal
<table><tr><td>Building A - 64%</td><td>Building E - 63%</td></tr><tr><td>Building B - 77%</td><td>Building F - 65%</td></tr><tr><td>Building C - 100%</td><td>Building G - 79%</td></tr><tr><td>Building D - 72%</td><td>Building H - 67%</td></tr></table></td></tr>
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