Compliance with Requirements of the RFDC

PART 1 – LOCAL CONTEXT			
Residential Flat Building Types			
<u>Apartment types</u>	The proposed development represents a combination of "Row", "Stepped" and "Slab" apartment types. The row apartments and stepped form of Blocks E, F and G respond to the adjacent residential areas to the east. The slab style of apartments permits a larger number of units access to cross ventilation and solar access.		
Amalgamation & Subdivision	The site is currently a single allotment. As such, there is no amalgamation or subdivision proposed. The regular building layout of the proposal relates to the surrounding street layouts.		
Primary Development Controls			
<u>Building Height</u>	The site exceeds 5,000 m2 in area by threefold (1.427 hectares) and is therefore eligible under Blacktown DCP to be considered for 5 storey development. The site falls from the north west to the south east corner by approximately 6m and the siting of the buildings responds by stepping down the site accordingly. Of the seven buildings proposed, three are 5 storeys in height. These are located in the middle of the site. Transitional scales of 2-3 storey buildings to the north and eastern edges of the site have been incorporated to respect adjoining residential properties. Both the three storey and five storey buildings comply with the respectively 12m and 16m height limits of BDCP with only a minor breach of the height plane height plane at the south eastern corner of Block D and the eastern end of Block B in the centre of the site as a result of enclosing the lift overrun in the roof form. Due to the detention basin providing a separation between the subject site and neighbouring residential properties to the south, there will be no impact in terms of overshadowing, or overlooking as a result of the minor non-compliance.		
Building Depth: An apartment building depth should not exceed 18 metres.	The building depth for Blocks A, B, C and D vary from 18m to 21m . The areas of 18m depth represents back to back living areas that are within the RFDC guidelines. The deeper portions of the building occur at locations where there are bedrooms with generous bathrooms and circulation areas that do not require daylight. As the maximum depth of the bedrooms is 3.9m adequate natural light and ventilation will be provided to these rooms. Blocks E, F and G vary in depth from 12.3 – 15.5m and fall well within the RFDC criteria.		
Building Separation:For buildings over 3 storeys, it isrecommendedthatbuildingseparation increase in proportion tobuildingheight.Suggesteddimensions within a development,for internal courtyards and betweenadjoining sites are:- Up to 4 storeys• 12metresbetweenhabitable rooms/balconies• 9metresbetweenhabitable rooms/balconiesand non-habitable rooms• 6metresbetweenhabitable rooms	 The proposed development complies with the building separation controls as follows: 18.48m minimum building separation between Blocks A, B, C and D (balconies to balconies). This complies with the minimum requirement of an 18m separation for 5 storey buildings. 9.54m building separation between Block E, F and G (balconies to non habitable areas). This complies with the minimum requirement of 9m for up to 4 storey buildings. 15.95-17.9m building separation between the eastern ends of the 5 storey Buildings B, C and D and Blocks E, F and G (balconies to balconies). The controls recommend a distance between balconies of 12m for up to 4 storeys and 18m for 5 storey buildings. As Blocks E, F and G are only 3 storeys in height this separation complies with the standard. 		

- 5 to 8 storeys	
 18m between habitable rooms/balconies 	
• 13m between habitable	
rooms/balconies and non-	
habitable rooms	
• 9m between non-habitable	
rooms	
Street Setbacks:	The proposed building line setback to Myrtle Street helps to reduce the bulk and scale of the building addressing the street. It also provides a transition between
	the zero setback to the retail development to the west and the 8-10m setback to the residential properties to the east.
	Block A has a 9.0m-13.1m setback to the building or balconies.
	Block G has a 9.0m-10.8m setback to the building line or balconies. One balcony
	extends into the setback zone by 1.0m. This is an open balcony and its projection is within the guidelines of Council's DCP.
Side and rear setbacks:	The development complies with Council's 6m setback requirement to all side boundaries. Due to the detention basin (Lot 43) separating the subject site from the residential properties to the south (i.e. in Ollier Crescent) the effective rear setback is well in excess of the required 6.0m. The nearest house to the southern boundary is sited 58m away.
Floor Space Ratios:	No floor space ratios are applicable under Blacktown's DCP controls, however, the FSR achieved by this development is a modest 1.38:1.
PART 2 – SITE DESIGN	
Site Configuration	
Deep Soil Zones: A minimum of 25% of the open space area of a site should be designated to deep soil zones.	As the basement car parking has been located under the building footprint to Blocks A, B, C, and D there is generous provision for deep soil zones. 51% of the open space areas, at ground level, are deep soil zones and these occur along the site frontage and side and rear setbacks which will allow for significant landscaping buffers.
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<u>Fences:</u>	Fences to the street frontages and along Myrtle Street will be open style palisade fences. They will be powdercoated dark grey and set within planter beds to mitigate their appearance and promote landscaping to public frontages. It is proposed that the existing lapped and capped timber fence to the eastern boundary will be retained and supplemented by a 600mm high lattice screen to enhance visual separation of neighbouring properties. Within the development, masonry walls with timber fences will separate private open spaces from common areas.
Landscape design:	
	Extensive landscaped communal areas occur between the larger buildings. These will contain a variety of spatial qualities which will provide residents with sections of lawn, manicured gardens, contemplative retreats, exercise zones and BBQ areas. The site will be enclosed by a security fence, with controlled access on the Myrtle Street frontage and at the Woolworths roundabout. Landscaping to Myrtle Street will disguise palisade security fencing and present a free-formed edge to the public footpath. Supplementary planting to sections of the eastern boundary will enhance screening properties of the existing vegetation. Plant species selected for the development will be drought-tolerant and largely of
Open Space:	indigenous varieties.
<u>Open Space</u> : At least 25%-30% of the site area	Communal space is provided between buildings and also assumd the neximator of
should be designated to communal	Communal space is provided between buildings and also around the perimeter of the site. The main areas being located between Blocks C and D and between
open space.	Blocks B and C. An area for fitness equipment is also provided within the

<u>Orientation:</u>	The development exhibits considered and appropriate orientation by optimising the northern aspect for the four largest buildings (i.e. Blocks A-D). Utilising a long rectangular building has maximised the number of units that receive general solar access. The unit plans in these buildings maximise the northerly aspect not only for living areas but also bedrooms.
Planting on Structures	There are no areas of planting on roof tops or balconies. The communal areas between Blocks B, C and D provide 500-1000mm soil depth for planting over the basement car parking.
Stormwater management:	The stormwater design has been undertaken by hydraulic engineers and has been included as part of the application. All stormwater details are provided in Section 7.2(h) of this report.
Site Amenity	
<u>Safety:</u>	There is a clear definition between private, communal and public space throughout the development. Each entrance to the site, both pedestrian and vehicular, will be secured and brightly illuminated. Communal spaces, including the internal accessway, main pedestrian access and common landscaped areas, are to be well lit in darkness and the massing of proposed development will result in passive surveillance of the street and public areas by residents within the development. In addition, the car park panel lift doors will be closed at all times opened only with a remote or intercom. The nature of the unit layouts and planning of the development results in the area having a high level of natural surveillance. The buildings will overlook both Myrtle Street and access to adjoining retail complex improving surveillance of these areas. The main pedestrian and vehicular access to the development is overlooked by units in Blocks E, F and G.
<u>Visual Privacy:</u>	The design maintains a high degree of visual privacy for all residents. As discussed above the building separation generally exceeds the minimum recommendations and living areas and balconies have been offset between buildings. Changes of level, landscaping and timber screen walls will provide visual privacy between the private terraces of ground floor units and the communal open spaces. Visual privacy of adjoining neighbours to the east is also respected.
Site Access	
Building Entry:	The main entry to the proposal occurs midway along the Myrtle Street frontage. An entrance pavilion with a signature curved roof form creates a clearly identifiable entrance and a clear zone of transition between the public street and the shared private realm of the development. Each of the buildings on the site is clearly identified by a unique colour highlight and a vertical blade wall signposts the entrances to Blocks A, B, C and D.
Parking:	The resident parking spaces for Buildings A, B, C and D and a small number of visitor spaces are located within the basement car park. Parking to Buildings E, F and G and the majority of visitor parking spaces are located on grade. The impact of the on-grade car parking will be reduced by quality paving and landscaping between groups of cars. Substantial landscaping in the front setback will screen this parking from the street. Car parking has been provided in accordance with Council's requirements.
Pedestrian Access:	The main pedestrian access to the site is located approximately midway along the Myrtle Street frontage. An entry pavilion provides a clear and secure entrance that is separate to the vehicular access to the site. A secondary access is provided on the west boundary to allow for access from the adjacent retail development.

Vehicle Access:	There is a continuous access path from the entrance of the development on Myrtle Street to all units in Blocks A-D via ramps and lifts in compliance with AS 1428.1. This provides disabled access to 78% of the units within the development. 16 accessible/adaptable units are provided in accordance with the requirements of AS 1428.1. Vehicular access to the site will be via the main entrance on Myrtle Street. An exit
The width of driveways should be limited to a maximum of 6 metres. Vehicle entries should be located away from main pedestrian entries and on secondary frontages.	(left turn only) is also provided at this location. A 'secondary' vehicular entry/exit is provided along the western boundary feeding into the existing Woolworths roundabout.
PART 3 – BUILDING DESIGN	
Building Configuration	
<u>Apartment Layout</u> : Single-aspect units should be limited in depth to 8 metres from a window. The back of a kitchen should be no more than 8 metres from a window.	The scheme features unit layouts that are functional, rational and well organised. Living rooms/dining rooms and kitchens are grouped in all cases. Bedrooms are separate, opening to corridors so as to maintain clear definition of space and manage acoustic separation. The area of each apartment type is generous and permits a high degree of flexibility in furnishing. Single aspect units have limited depth to the living areas to generally 7.8m. The depth of some units exceeds 8m in the bedroom zone of the unit due to generous bedroom sizes and provision for storage. There are no habitable rooms that are placed further than 8m from the glassline. All kitchens are less than 8m from the glassline with many containing a window that provides direct natural light and ventilation. Areas of each apartment type exceed those recommended areas nominated in the RFDC.
<u>Apartment Mix:</u>	The development provides a mix of 1, 2 and 3 bed units. 2 bedroom units represent the majority of unit types to respond to the expected market demand. The unit mix is: 29×1 bed = 18% 110×2 bed = 68% 23×3 bed = 14% 162 units = 100% Provision has also been made for 16 adaptable housing units (i.e. 10%), although it is not inconceivable that other apartments may also be converted owing to their generous size.
Balconies: Each unit must accommodate at least one balcony with a minimum depth of 2 metres.	Each apartment accommodates at least one balcony in excess of 2m in width. Many apartments have large terrace areas or several balconies. The light and shade created by the deep recesses of the balcony assist in the modulation of the façade.
<u>Ceiling Heights</u> : In residential flat buildings, habitable rooms are to have a minimum floor to ceiling height of 2.7 metres. Non- habitable rooms may be 2.4 metres.	Floor to floor heights for the residential levels is set at 3m. This permits a general ceiling height to living spaces of approximately 2.7m. To the bathroom areas, a reduced height will be required to cater for sanitary plumbing, however, heights will be maintained at 2.4m where possible and 2.1m at an absolute minimum for only part of the wet area.
<u>Flexibility:</u>	 The following design features have been incorporated into the proposed development in order provide potential flexibility in the life of the building: Dual access to the ground floor of Buildings A-D; Dual access for most ground floor units; Open plan living areas that accommodate multiple usage of the space; and 16 adaptable units.
Ground Floor Apartments:	All ground floor units in the development incorporate generous terraces and landscaped areas. Where possible a separate access has been provided from the

	communal open space. Privacy is maintained by means of fences that are masonry with slatted timber screens to a height of 1.5-1.8m. In addition, extensive landscaping will be planted either side of the fence. These will provide
	visual privacy while still allowing for natural ventilation.
Internal Circulation: Where units are arranged off a double-loaded corridor, the number of units accessible from a single core/corridor should be limited to 8.	The general internal circulation for Buildings A, B, C and D have been designed to create a safe and pleasant approach to the individual units and at the same time contributes to the form and articulation of the building facade. The corridors are generous in width and will be articulated by feature framed elements and dropped ceilings. Both ends of the corridors at each level are glazed, providing light, ventilation and outlook to the circulation space. This glazing, together with a feature blade wall, colour-coded for each building, punctures the curved roof form creating one of the important design features on the exterior. In compliance with the guidelines of RFDC a maximum of 7 units are accessed at ground level, with each entrance providing access for four units.
<u>Storage:</u>	The proposed development incorporates large areas of storage for residential users. Generally all units accommodate general storage cupboards within the units of the following volumes: o one bedroom 3m3; o two bedroom units 4m3; and o three bedroom units 5m3. Generous storage is also provided in the basement parking area. Approximately 130m3 is provided in common storage rooms, and 200m3 along the western wall will be allocated to the adjoining car spaces. In addition, there is potentially 590m3 available between car spaces in the middle aisle. The car bays have been sized to allow for each to be enclosed by a garage which would provide secure to the approximate.
Building Amenity:	storage to these spaces.
Acoustic Privacy:	A high degree of acoustic privacy will be achieved. Similar uses of adjoining apartments are grouped together with living spaces abutting living spaces and sleeping areas adjoining sleeping areas. Additionally in many cases wet areas further shield sleeping areas from public corridors.
Solar Access: Living rooms and private open spaces for at least 70% of units should receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid winter. The number of single-aspect units with a southerly aspect (SW-SE) should be limited to a maximum of 10% of the total units proposed.	The proposed development optimises northern aspect for the four largest buildings (Blocks A-D). Utilising a long rectangular building has maximised the number of units that receive general solar access. The unit plans in these buildings maximise northerly aspect not only for living areas but also the bedrooms. In accordance with the guidelines of the RFDC, the living rooms and private open space of 119 units (73%) will receive a minimum of three hours direct sunlight between 9am and 3pm in mid winter. Southerly orientated units have been limited to 18 in number, however, four of these will be provided with a skylight allowing solar access into the unit, resulting in only 14 single aspect units (9%).
Natural Ventilation: 60% of the units should be naturally cross ventilated. 25% of the kitchens within the development should have access to natural ventilation.	The building accommodates a large number of corner apartments and Buildings E, F and G contain exclusively cross-over townhouse style apartments resulting in 67% of apartments (total of 108) that are naturally cross ventilated. 58 apartments contain kitchens with windows (i.e. a total of 36%) which is well in excess of the recommendations.
Building Form	
Facades and Roof Design	Aesthetic clarity of the development is achieved through a consistent set of character elements applied to all buildings. In respect to Blocks A to D, the roof form wraps and encloses each cluster of dwellings, shielding the east and west facades from solar radiation and unifying each group as a separate identity. The use of individual highlight colouration also adds to the sense of place within the development. The northern and southern facades are heavily articulated with balcony projections to further assist in environmental control.

Building Performance	
<u>Energy Efficiency</u>	The proposed development incorporates many ESD principles and energy minimisation measures. Ample access to solar radiation, cross ventilation and appropriate window protection will result in further decreases in energy reliance. As a concrete framed structure, the internal mass of the proposed building will also assist in the thermal inertia of the building thereby softening the heating and cooling spikes that may be attributed to lighter, less protected structures.
<u>Maintenance</u>	It is proposed that commercial grade materials and finishes will give appropriate levels of durability. In addition there is a high degree of accessibility to the external façade. Many windows are able to be cleaned from terrace areas and only two curtain wall elements will require periodic inspection and cleaning. There are also provisions for building and landscape maintenance stores in the basement.
Waste Management:	The development provides adequate space for garbage storage and collection. All waste management arrangements are detailed under Section 7.3(ee) of this report.
Water Conservation:	It is proposed the development will incorporate many water use minimisation techniques. AAA rated appliances will be incorporated into wet areas, a rainwater farm will collect stormwater and all on site landscaping will be irrigated with stored water. Landscaping will comprise indigenous species will high drought tolerance and low water reliance.