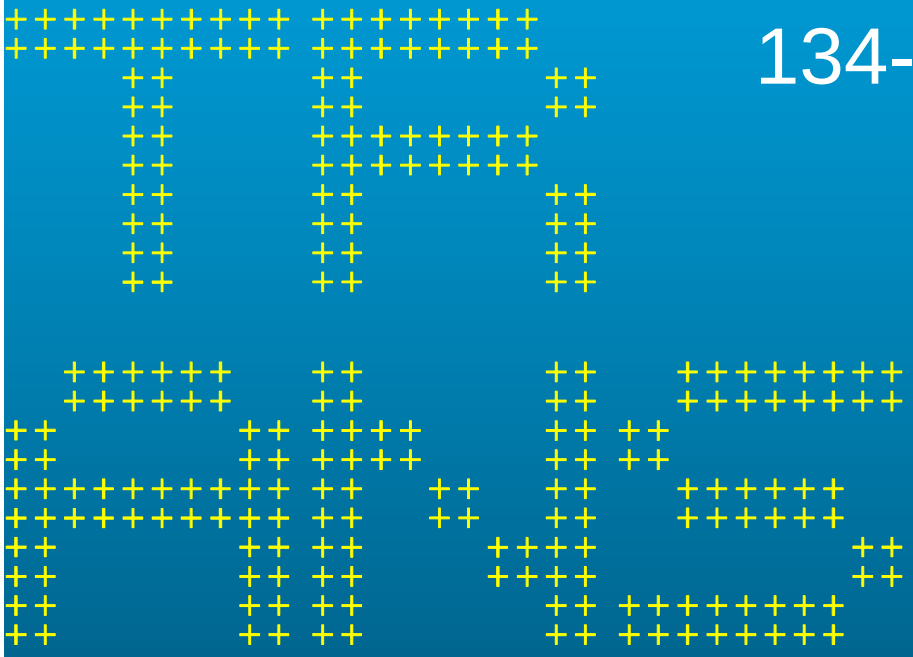
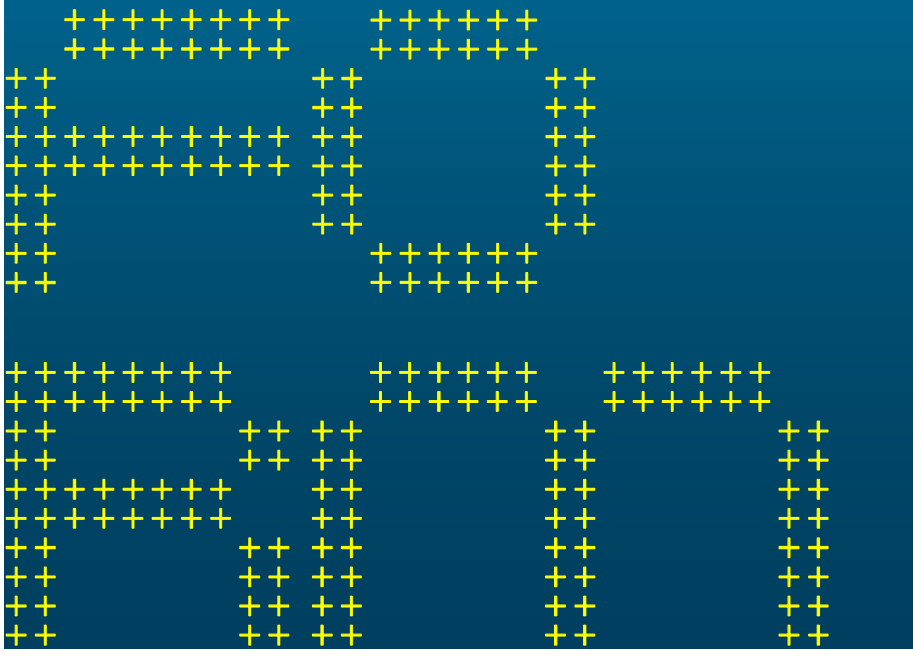
Supporting Design Report

134-144 Pitt Street, Redfern

March 2009





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Supporting Design Report
133-144 Pitt Street, Redfern

Prepared for Kaymet Corporation

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1 Introduction

This report has been prepared to accompany the Preliminary Environmental Assessment Report prepared by ABC Planning for the former Rachel Forster Hospital located at 134-144 Pitt Street, Redfern. This report in conjunction with Preliminary Environmental Assessment Report is submitted to the NSW Department of Planning in seeking the Director General's Requirements (DGR's).

On the 15th May 2007 the Redfern-Waterloo Authority received authorisation from the Minister for Planning to prepare a Part 3A Concept Plan Development Application for the subject site. A Major Project Application was subsequently lodged on the 29th June 2007. Following a detailed assessment of the proposal, the Major Project Application was granted consent on the 17th October 2007.

It is now proposed to vary the approved concept plan. The intent of this report is to demonstrate the design rationale of the proposed new scheme and the extent to which the scheme complies and/or enhances the existing approved concept plan. This report is intended to be a supplementary report that specifically addresses issues relating to urban design and the proposals compliance with the Residential Flat Design Code (RFDC).

This report should be read in conjunction with:

- Approved Concept Plan Development Application drawings prepared by Lippmann Associates.
- Architectural drawings prepared by Architecture and Building Works.
- Preliminary Environmental Assessment Report prepared by ABC Planning.

1.1 Approach

The proposed scheme has been designed following a best practice urban design principles approach. It has taken into account the key planning objectives and criteria as set out in the 1997 South Sydney DCP, while also aiming to conform to an existing set of design parameters, as defined by the building envelopes, building heights, maximum allowable FSR, and adaptive reuse initiatives of the approved concept plan.

However, this report also argues that there are a number of poor amenity outcomes demonstrated in the approved concept plan, and in these instances the proposed scheme has intentionally set out to vary and enhance these outcomes, leading to a more site responsive, RFDC compliant design.

2 Site and Surrounds

The subject site is situated in the inner city suburb of Redfern, to the south of the Sydney Central Business District.

The subject site is bounded by Pitt Street to the east and Albert Street to the north. Immediately surrounding the site are two storey terrace houses on the eastern side of Pitt Street. Albert Street comprises of a mixture of 2-4 storey terraces and units, while to the south of the site are 2 storey residential apartments. At the western boundary of site there is an existing brick warehouse, which has a blank facade facing the subject site.

The subject site's local context is defined by a predominant grid network following north south CBD streets, namely Pitt, Elizabeth, and Regent. To the west of the site is the Redfern train station, one of the primary city stations with interchanges to the suburban lines. The site is also within the vicinity of both UTS and Sydney University and a community education centre (located at the former Redfern Public School site).

To the north of the site is a local retail high street, which is largely retail and commercial in nature, located along Redfern Street. Redfern Park is located one block to the east of the site. This is a significant open space area and is the primary recreational space available to the local community.

The subject site falls within the 'Redfern Urban Village' as specified in the South Sydney DCP 1997. This is a community based area, of predominantly medium density residential, interspersed with some low rise mixed use lots. The site's location in the middle of an array of local infrastructure makes it an ideal location for transition into a medium density residential precinct.

Figure 1 illustrates the context of the subject site.

Figure 1 – Subject Site

3 Proposed Development

The proposed development seeks to amend the approved concept plan for the site. The proposal remains generally consistent with that which was approved, retaining the overall siting and number of buildings whilst increasing the number of units from the approved 150 units to 159 units.

The main changes to the approved scheme comprise variations to the existing unit mix and configuration of units in facilitating an increase in the number of units with direct solar access and natural ventilation.

In facilitating the redesign of the units, it has been possible to make only nominal variations to the dimensions of the approved floor plates. This ensures the proposal is generally consistent with the overall built form and amenity outcome as approved for the site.

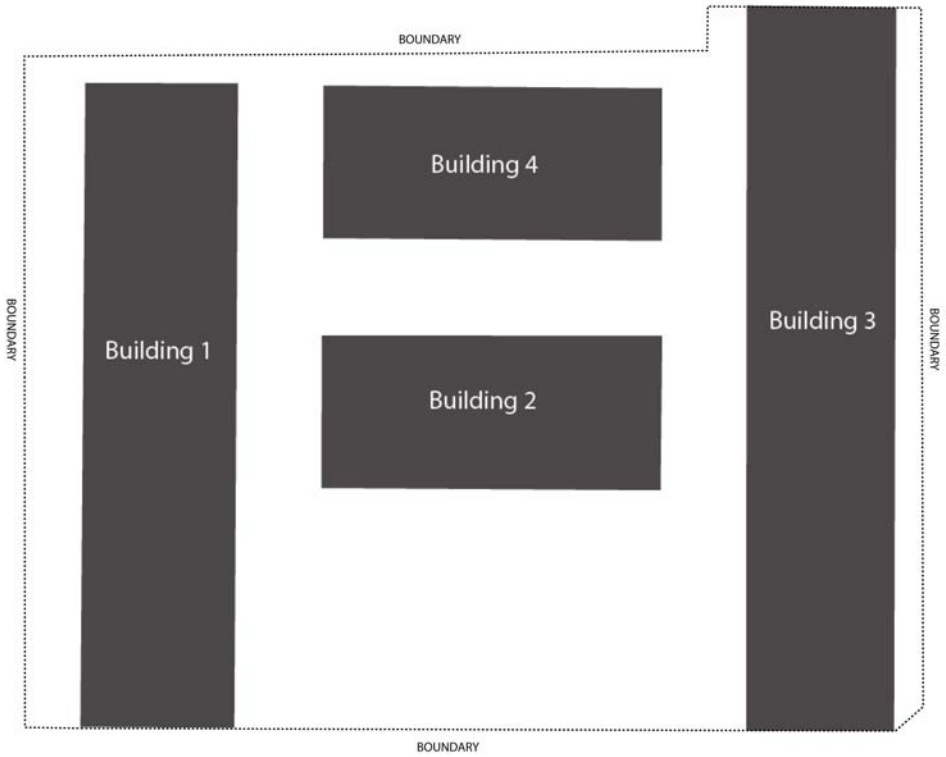
The most significant change to the approved scheme is the lowering of the basement level to accommodate additional parking spaces in servicing the increased number of units, as well as eliminating the approved sub-terrain apartments which have significantly poor amenity.

3.1 Building Envelopes

The approved concept plan defines four building envelopes for the subject site. The proposed scheme has been developed based on these four envelopes, and proposes minor overall variations to these envelopes as discussed below. As illustrated in Figure 2, the four buildings identified for the subject site include:

- Building 1- Located along the southern boundary of the site. This is the existing envelope of the former surgery wing heritage building, which will be retained.
- Building 2- Located in the centre of the site, adjacent to the public open space and retained heritage colonnade.
- Building 3- Located along the northern boundary of the site, fronting Albert Street.
- Building 4- Located along the western boundary of the site, between Buildings 1 and 3.

Figure 2 – Proposed Building



4 Consistency with approved concept plan

The proposed scheme has been designed taking account of the previously approved concept plan. Changes to the approved concept plan are sought in improving the layout and functionality of the residential apartments with the overall intent being to improve the proposed developments compliance with the rules of thumb contained within the Residential Flat Design Code (RFDC).

4.1 Building footprint

4.1.1 Building 1

The proposal is generally consistent with the floor plate as approved in the concept plan.

There is a nominal variation in the building width increasing from 14 metres in the approved concept plan to 16.16 metres. The building length has also been increased by 4.9 metres, from 62.7 metres to 67.6 metres. The proposed increase in building dimensions facilitates a reconfiguration of apartments, allowing a greater mix and size of apartments and improved residential amenity.

4.1.2 Building 3

The proposed concept maintains the dimensions of the approved scheme, with a width of approximately 15.5 metres and a length of approximately 72.9 metres.

4.1.3 Buildings 2 and 4

There is a nominal increase in the widths of Buildings 2 and 4, from 16 metres to 16.21 metres. The overall building length for both buildings has been retained at 36 metres.

4.2 Building Height

The proposed scheme has been designed such that there is a ‘stepping down’ of building heights across the site. Building 1 is the tallest building on site at 7 storeys, being an adaptive re-use of the existing surgery wing building. Buildings 2, 3 and 4 are four storeys, providing an overall transition in height between Building 1 and the general scale and form of buildings along Pitt and Albert Streets.

Generally, the proposed buildings heights are consistent with those of the approved concept plan, with some more site responsive variations also being substituted as discussed below.

4.2.1 Building 1

The approved concept plan has an overall roof height of RL55.10 excluding rooms. The revised scheme proposes an increase in height to a maximum height of RL58.10.

As illustrated by comparing the approved concept plan in Figure 3, and the proposed development in Figure 4, the overall massing and scale of the proposal is generally consistent with the approved concept plan.

As demonstrated in Figure 4 which overlays in red the approved concept plan over the current proposal, the different in height is minor and is predominantly due to increased articulation and taller emphasis of building elements at the eastern and western ends of the building. This increase in height does not add to the overall bulk of the proposal but improves the overall design of the building by essentially ‘book ending’ the building. This assists in the overall design of the building ensuring it reads as a series of cohesive vertical and horizontal elements as opposed to a stand alone, uniform structure.

Figure 3 – Approved Concept Plan- Building 1 Northern Elevation

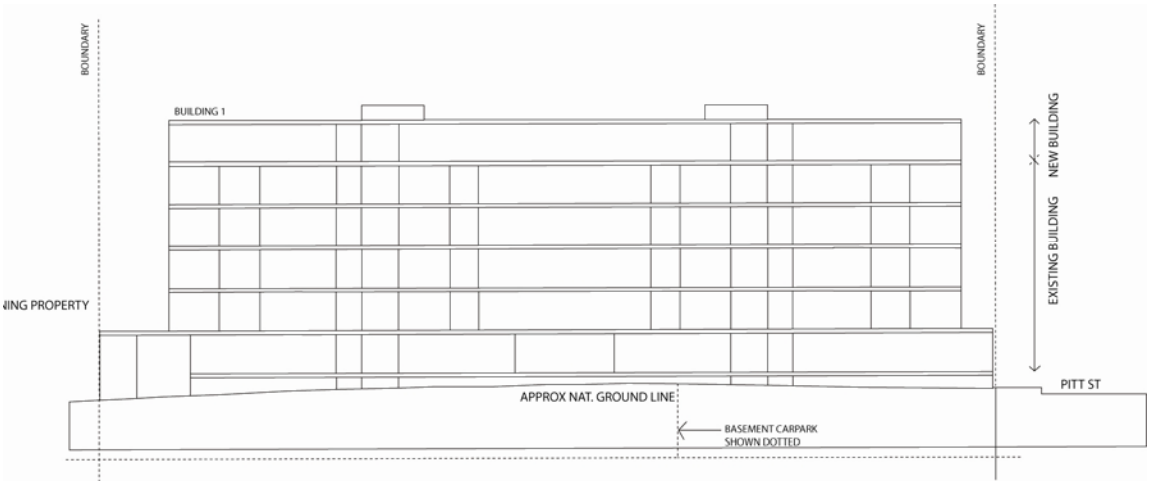


Figure 4 – Proposed Development- Building 1 North Elevation

4.2.2 Building 3

Building 3 has a maximum height of RL 45.05 (excluding plant rooms) and comprises 3 storeys, and a lower ground level (*note* this lower ground level is labelled basement level in the approved concept plan drawings).

The maximum building height has been slightly decreased from that in the approved concept plan, by incorporating a flat roof as opposed to a skillion roof form. The overall height reduction is 0.6 metres, taking the overall height of Building 3 to 9.7m.

This reduction in height is illustrated in Figure 5 whereby the approved concept plan has been overlayed in red over the northern elevation of Building 3.

Figure 5 – Proposed Development- Building 3 Northern Elevation

4.2.3 Building 2 and Building 4

Building 2 within the approved concept plan has a height of RL45.05 (excluding plant rooms). Building 2 within the proposed scheme has a height of RL 44.5 (excluding plant rooms), being an overall reduction in height of 0.55m.

Building 4 within the approved concept plan has a height of RL45.05 (excluding plant rooms). Within the proposed scheme, Building 4 has a height of RL 45.2 (excluding plant rooms), being an overall increase in height of 0.15m. This increase in height is negligible and is not considered unreasonable given it will have no noticeable increase in impacts such as overshadowing.

4.3 Basement Parking

A significant change between the approved concept plan and the proposed development is the configuration and siting of the basement parking levels. It is proposed to lower the lower ground floor basement car park from the approved RL of 28.30 to RL 25.70, being a 2.6m difference.

As demonstrated by comparing Figures 6 and 7, lowering the lower basement parking level eliminates the sub-terrain apartments contained within Buildings 1 and 3. This is an appropriate outcome as these apartments have poor solar access and orientate predominantly onto a solid building wall, thus having poor overall residential amenity. By lowering the basement parking levels, greater solar access penetration is received by ground floor units, as well as an improved outlook.

The revised parking arrangement also allows for a consolidated parking arrangement with additional parking spaces, as well as provides increased deep soil zones.

Figure 6 – Section drawing through Buildings 1, 2 and 3 of approved concept plan

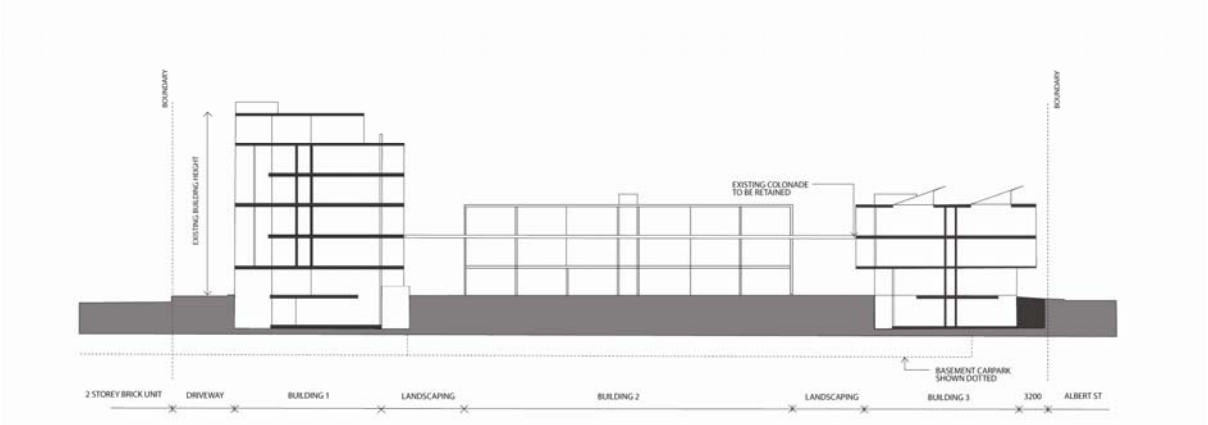
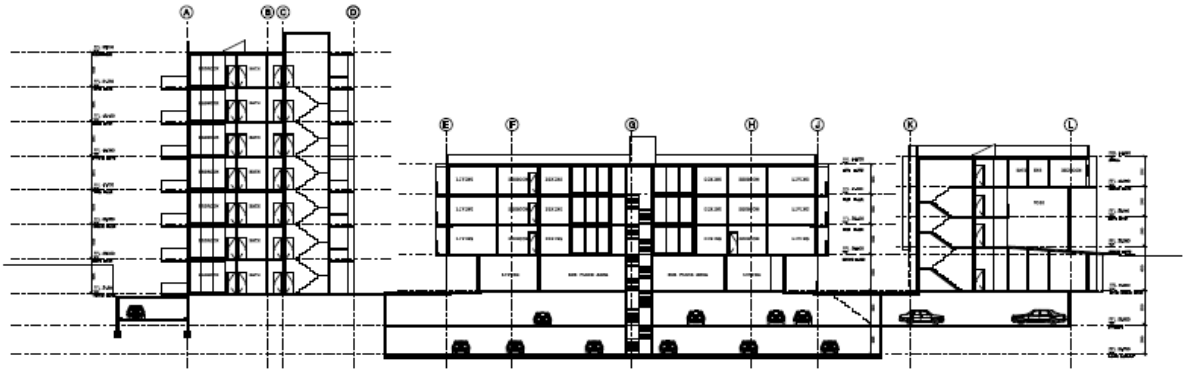


Figure 7 – Section drawing through Buildings 1, 2 and 3 of proposed development



5 Assessment of Issues

5.1 Streetscape

The proposal has frontages to both Pitt Street and Albert Street and is successful in responding to the surrounding built form and overall character of both streets.

Building 3 presents a three storey street wall height along the Albert Street frontage. This is a consistent number of storeys with that of the previous building in this location, and is similar in building mass to the residential buildings directly opposite the site on the northern side of Albert Street. Private entries are provided to ground floor units within Building 3, assisting in street activation and passive surveillance of the street.

Building 3 provides a strong street edge to Albert Street, consistent with the general setbacks and overall siting of buildings along Albert Street. The modulation to the façade and use of balconies and recessive elements also assists in 'breaking-up' the overall bulk of the scheme. This ensures the development reads as a number of different elements and not one continuous building mass.

Along Pitt Street, the development 'reads' as a number of individual buildings, with Buildings 2 and 3 being of a significantly reduced scale in comparison to Building 1. Whilst Building 1 is considerably larger in terms of height and its general massing, it is an adaptive re-use of the former surgery wing and thus is an established built form within the Pitt Street streetscape.

With respect to Building 2, it is setback from the Pitt Street streetscape at a distance that does not give it a dominant presence to the streetscape. This results in only Buildings 1 and 3 being readily apparent from Pitt Street, with both buildings being separated along the Pitt Street frontage by a large public open space area.

The ground floor levels of Buildings 1, 2 and 3 all provide residential entries that open onto the open space area. The residential levels located above also provide balconies which assist in the activation and passive surveillance of this open space area.

Furthermore, the proposed scheme reinforces the heritage nature of the site, by retaining and reusing elements such as the colonnade and the former surgery wing built form. Expressing these links to the site's historical significance within the local streetscape is a strong feature of the proposed scheme. This helps to strengthen the community based nature of the site while providing a unique backdrop to the public open space.

5.2 Density

The subject site has an area of 6,923 m². The approved concept plan specifies a maximum allowable FSR of 2:1, which correlates to 13,846m² of Gross Floor Area. The proposed development has an FSR of 1.98:1. This represents a reduction in GFA from the approved concept plan.

5.3 Overshadowing

There is a slight increase in overshadowing to adjoining properties due to the increase in height of Building 1. This increase is however negligible and as illustrated in the accompanying shadow diagrams, adequate solar access levels are maintained to adjoining properties.

The reduced height of Building 2 and 3 reduces the level of overshadowing cast from these buildings. The slight increase in height of 0.15m for Building 4 will not result in any noticeable increase in overshadowing.

5.4 Bulk and Scale

The overall bulk and scale of the proposal is consistent with the overall massing and scale of the approved concept plan. Despite the increase in height for Building 1, the overall massing of the proposal remains consistent with the existing building.

With respect to Buildings 2, 3 and 4, these buildings are consistent with the overall scale and massing of neighbouring properties and provide an overall considered response to the general proportions of both Pitt Street and Albert Street.

Further, the four proposed buildings improve on the overall bulk and scale of the approved concept plan, having greater articulation and modulation to building facades, as well as design changes to the upper levels and roof forms of each of the buildings.

5.5 Parking

The proposed amendments to the basement parking levels provides a consolidated basement parking arrangement whereby parking on site has been increased from 161 spaces to a total of 170 spaces.

With respect to access to the basement parking levels, the proposed development provides an overall improved outcome than that provided for in the approved concept plan. The basement entry driveway previously extended for the length of the southern boundary of the site. This has been redesigned so that the driveway into the basement now only extends for half the length of the southern boundary. This not only reduces noise levels for units on the southern side of Building 1, but also provides ground floor units with large private courtyards.

6 Residential Amenity

6.1 Apartment Layout and Mix

The overall number of residential units will be increased by 9 units, from 150 units as approved in the existing concept plan to a total of 159 units. The breakdown of units per building is as follows:

- Building 1- 67 units
- Building 2- 22 units
- Building 3- 46 units
- Building 4- 24 units

There has been a deliberate revision of the apartment layout and mix as set out in the approved concept plan. This has resulted from further study of South Sydney DCP 1997, which sites Census data as the main parameter for determining the apartment mix of a residential flat development.

South Sydney DCP 1997 outlines a recommended apartment mix for the Redfern area, as outlined in Table 1 below. As illustrated, the proposed development more closely follows the recommended apartment mix as per the DCP than does the mix of apartments within the approved concept plan.

Table 1 – Breakdown of apartment mix

Apartment Type	Recommended Apartment Mix	Approved Concept Plan	Proposed Development
1 Bed	24%	57%	40%
2 Bed	46%	41%	52%
3 Bed	20%	4%	8%
4 bed	10%		

With respect to compliance with the Residential Flat Design Code (RFDC), the proposed development increases the number of dual aspect apartments from 40% to 55%. This is a significant increase and is due to the substantial increase in the number of 2 and 3 bedroom apartments proposed.

Further, with respect to the distance of backs of kitchens from windows, not all units within the approved concept plan complied with the maximum 8m requirement. As currently proposed however, the maximum distance has been decreased in all non-complying units and thus all units within the proposed development comply with the maximum 8m requirement.

The approved concept plan incorporates a majority of north facing apartments, allowing for improved thermal efficiency. However, lower ground (labelled basement in the approved concept plan drawings) units on the southern side of Building 1 receive minimal direct solar access. There is very limited solar access to the basement units that face onto the car park in Buildings 1 and 3. The proposed scheme retains the approved concept plan's use of lower ground units throughout the site. However it has improved the solar access and amenity to these units significantly by lowering the surrounding ground level by approximately 2.6 metres, from RL 28.3 to RL 25.7.

6.2 Visual Privacy and Amenity

The proposed development has been designed taking account of the existing approved concept plan and the arrangement and configuration of the residential apartments. All efforts have been made to ensure consistency between the approved concept plan and the proposed development.

There are however significant visual privacy issues and poor residential amenity outcomes evident within the approved concept plan and thus all attempts have been made through the proposed development to 'design out' these issues.

Key concerns with the approved concept plan with respect to the lower ground floor (labelled basement in the approved concept plan drawings) of Buildings 1 and 3 include:

- 17 units have private open space which directly faces the wall of the car park located between Buildings 1 and 3.
- 10 south facing units in Building 1 have principal private open spaces that directly overlook the driveway which runs the length of the sites southern boundary.

The above concerns have been directly addressed through the new drawings by:

- The lowering of the basement parking levels, as discussed above, has eliminated the 17 sub-terrain apartments in Buildings 1 and 3.
- The driveway access has been reconfigured such that it now does not run for the length of the sites southern boundary, but rather has been lowered such that courtyards have been provided for all ground floor south facing apartments in Building 1.

Further, the proposed development predominantly retains the location and size of the existing floor plates of each of the four buildings. It does however adopt appropriate mitigation measures ranging from planter boxes, privacy screens, offsetting of windows in an attempt to maximise visual privacy for residents of the proposed development and adjoining properties.

6.3 Residential Flat Design Code (RFDC)

The ten design principles contained within the RFDC have been addressed below.

6.3.1 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 local context is characterised by varying building typologies i.e. fine grain terrace houses to the west and northwest, medium grain development bordering the southern precinct of the site, and a large warehouse located to the west of the site. There is however no consistent built form character within surrounding streets and thus the proposal provides a range of building typologies that respect the existing on site buildings, and the form and scale of immediately adjoining properties.
- The proposal responds to its context through the retention of a heritage item and the provision of new buildings that relate to the form and scale of adjoining buildings.

6.3.2 Scale

Good design provides an appropriate scale in terms of the 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.

- Building 1 is a heritage item of an established height and scale.

- The overall height of Building 1, whilst not similar to immediately adjoining properties is an established characteristic of the streetscape, and is reflective of the heritage nature of the building.
- Buildings 2, 3 and 4 are of an appropriate scale and massing relative to the immediately adjoining properties.

6.3.3 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 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.

- The proposed scheme improves upon the approved scheme through increased articulation to building facades. Building 1 sought to achieve a better design outcome through the articulation of vertical and horizontal elements to the eastern and western ends of the building. This assists in book-ending the site and ensuring that the building reads as a series of related components as opposed to a uniform building.
- The built form across the site is proposed to achieve a consistency through horizontal built form elements. This addresses the configuration of the four buildings where Buildings 1 and 3 are situated parallel to each other and separated by buildings 2 and 4 which also run parallel with each other and perpendicular to Buildings 1 and 3.
- Buildings 1 and 3 are adequately setback from Buildings 2 and 4, ensuring sufficient spacing between buildings, as well as providing sufficient area designated for public open space.

6.3.4 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 proposed scheme will achieve a greater yield than that achieved in the approved plans i.e. an increase in units from 150 to 159.
- An FSR of 1.98:1 is proposed, being lower than the maximum allowable FSR of 2:1.

6.3.5 Resources, Water and Energy 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.

- Building 1 is an adaptive re-use of the existing surgery wing building representing a considerable saving in building materials if a new building was constructed.
- Floor plans demonstrating the internal layout of the buildings indicate maximisation of natural sunlight through north-aspect apartments. The plan maximises the number of dual aspect and due north apartments, ensuring solar access and natural ventilation to units.

- The selection of building materials, mechanical appliances and water management will be addressed at the detailed design stage.

6.3.6 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 co-ordinating water and soil management, solar access, micro-climate, 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.

- The proposal incorporates a significant open space area along the sites Pitt Street frontage.
- Landscaping will be responsive to the streetscape and enhance the existing street character as demonstrated through the submitted landscape plan.
- The proposed scheme has increased the amount of deep soil planting.

6.3.7 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 and service areas, outlook and ease of access for all age groups and degrees of mobility.

- Balconies and courtyards are provided for all units.
- A large communal open space area is provided along the Pitt Street frontage of the site. This provides both active and passive recreational opportunities for residents of the development.
- 104 out of the 159 proposed units are either north-facing or dual aspect units, ensuring natural ventilation and solar access is maximised.

6.3.8 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 while 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 spaces.

- Casual surveillance of the street has been maximised, with units oriented both onto Pitt and Albert Streets. Individual entries are also provided to units on the ground floor in Building 3, assisting in activation of the street.
- Blind corners within the development have been avoided.

6.3.9 Social Dimensions and Housing Affordability

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 proposal facilitates housing affordability through a mix of units including one, two and three bedroom units.
- Particularly as the development is undergoing transition, a mix in apartment sizes enables the development to cater for different budgets and housing needs. The development will function to encourage a social mix through choice in housing types.

6.3.10 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 respond to the environment and context, particularly to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.

- Each building reads as a series of cohesive vertical and horizontal elements as opposed to a stand alone, building mass.
- The proposal incorporates extensive modulation and articulation to building facades, providing an overall reduction in the perceived bulk and scale when compared to the approved scheme.

7 Conclusion

The proposed development seeks to vary the approved concept plan. The development remains substantially the same with nominal changes to the building envelopes for each building and a reduction in overall height for two of the buildings.

Changes are sought to the approved concept plan in increasing the size and configuration of the residential apartments and to improve the developments compliance with the rules of thumb contained within the RFDC. Greater compliance with the RFDC is achieved through a greater mix of apartments; an increase in the number of dual aspect apartments; and an increase in the number of apartments with a due north aspect.

The main change to the development is the lowering of the basement parking levels. This substantially improves the amenity of the ground floor apartments, whereby sub-terrain apartments have been eliminated. The reconfigured basement parking also provides greater deep soil planting and reduces the length of the access driveway along the sites southern boundary.

Overall the proposed changes are supported and we accordingly request that the Director General's Requirements (DGR's) be provided.