STATEMENT OF ENVIRONMENTAL EFFECTS

Super-Lot Subdivision, Construction of Residential Buildings, Residential Subdivision and Ancillary Works

Stage 3, Newleaf Bonnyrigg

December 2010

urbis

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FIGURES:

PICTURES:

TABLES:

1 Introduction

1.1 Stage 3 of Bonnyrigg Living Communities Project

This Statement of Environmental Effects has been prepared on behalf of Bonnyrigg Partnerships and in association with a development application seeking consent for the Stage 3 renewal of Newleaf Bonnyrigg (also known as the Bonnyrigg Living Communities Project).

The development application seeks approval for the following works:

- Super-lot subdivision to create 6 unserviced residue superlots, dedicate public land and enable the staged construction of the proposed works.
- Construction of 159 residential dwellings comprising:
  - 22 walk-up apartments
  - 28 attached dwellings
  - 109 detached dwellings
- Public domain improvements and individual site works including site preparation/earthworks, road re-surfacing (where required), public and private landscaping works, stormwater infrastructure upgrades and individual lot servicing.
- Residential subdivision to create 137 Torrens title lots, and 22 strata title lots (for the apartment building) to facilitate the sale/transfer of individual dwellings to private purchasers and Housing NSW.

1.2 Part 4 Development Application and Section 75W Modification

The proposed dwellings are located within Stage 3 of the Bonnyrigg Living Communities Project (BLCP). The application is lodged with Fairfield City Council under the provisions of Part 4 of the Environmental Planning and Assessment Act 1979 in accordance with the Ministerial delegation dated 12 January 2009.

The development application has been prepared concurrently with a Section 75W application to amend the Concept Plan for the Bonnyrigg Living Communities Project. The application has been lodged with Department of Planning and is currently being assessed. A copy of the Section 75W application is attached as **Appendix A**.

In summary, the application is seeking a reduction in the minimum allotment size for detached houses to enable the dwelling density to be achieved within a more 'traditional' detached dwelling format. Secondly, it proposes to enable apartment buildings to be accommodated in additional locations. Additional minor amendments include a re-wording of the zero side setbacks, and a variation to the front boundary fencing types.

It is anticipated that the Section 75W modification will be determined under delegation to the Director-General of the Department of Planning taking into account the minor nature of the proposed amendments.

1.3 Development Application Documentation

This Statement of Environmental Effects has been prepared based on review and analysis of the following information:

- Survey Plans, prepared by Vince Morgan.
- Subdivision Plans, prepared by Vince Morgan.

- Development Plans prepared by dKO Architects
- SEPP 65 Design Verification Statement prepared by dKO Architects
- SEPP 65 Compliance Table prepared by dKO
- Compliance Assessment Spreadsheet prepared by dKO Architects
- Basix Certificates issued by dKO Architects
- Landscape Drawings prepared by Site Image
- Arborist Report prepared by Anderson Environmental Consultants
- Stage 3 Civil Infrastructure Drawings prepared by Mott Macdonald
- Construction Management documentation prepared by Mott Macdonald
- Stormwater Design – Stage 3 Report, prepared by Mott Macdonald
- QS Report –WT Partnership

2 Site Context

2.1 Site Description

The development application comprises Stage 3 of the approved Concept Plan for the Bonnyrigg Living Communities Project (now commonly known as 'Newleaf Bonnyrigg'). The Stage 3 land is generally bound by Edensor Road, Bunker Avenue, Barseden Street and Donovan Place, Bonnyrigg. A locality plan is provided below.

Figure 1 – Locality Plan

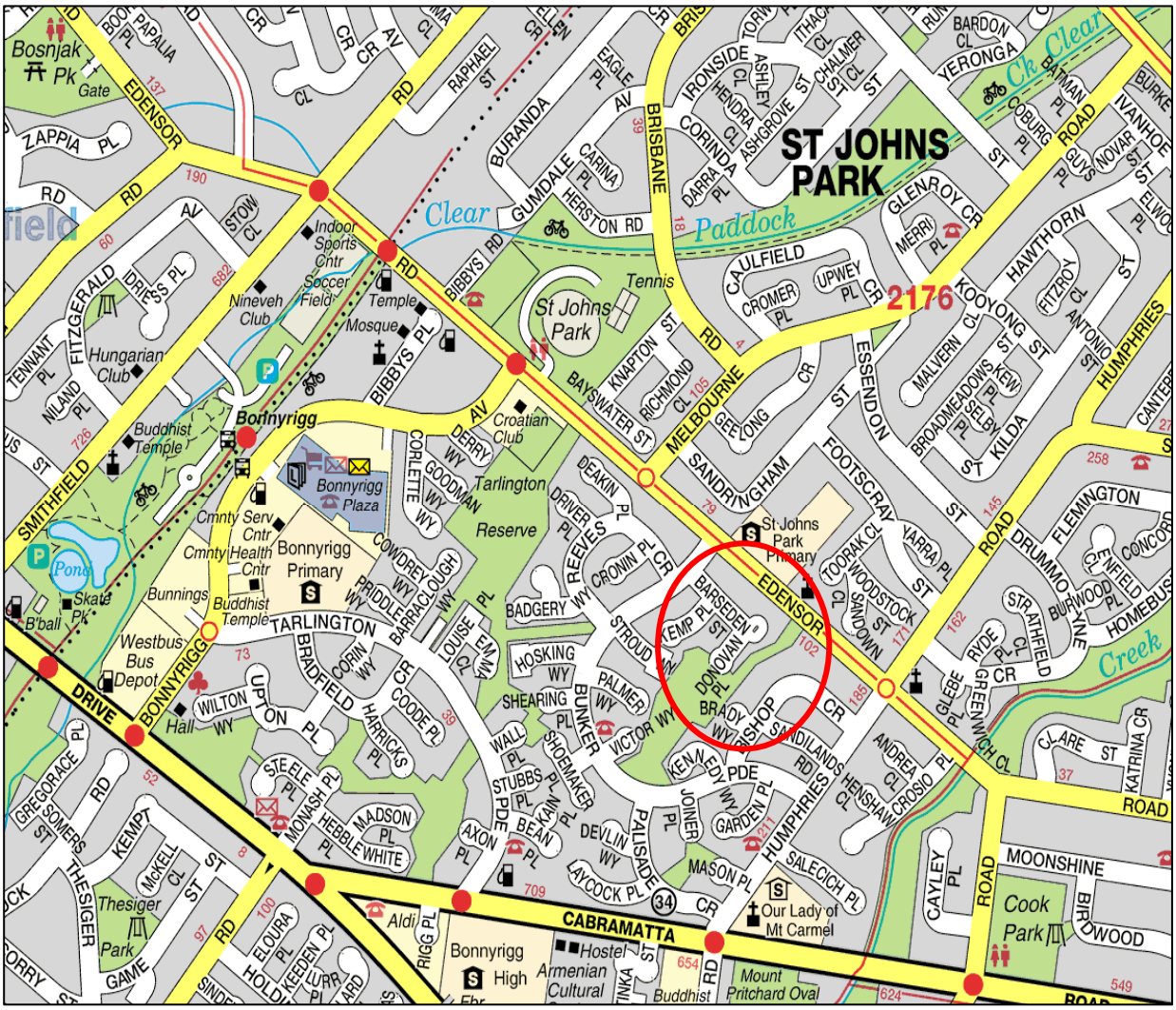

Figure 2 – Aerial Photograph indicating Stage 3

The street addresses and legal descriptions of the properties included within Stage 3 are provided in the following table:

Table 1 – Property Descriptions

Street Address	Legal Description
3 Barseden Street, Bonnyrigg	Lot 6622 in DP 790377
21 – 28 Barseden Street, Bonnyrigg	Lots 67, 76, 77,78,90, 91 in DP 262456
79-89 Kemp Place, Bonnyrigg	Lots 2-12 in DP 262456
1-7 Donovan Place, Bonnyrigg	Lots 69-75 in DP262456
1 Bunker Parade, Bonnyrigg	L6621 in DP 790377
5, 7, 9, 11, 13, 15 Bunker Parade, Bonnyrigg	Lots 93 – 98 in DP 262456

2.2 Surrounding Development

The site is located to the east of Stages 1 and 2 of the Newleaf Bonnyrigg, which are separated by Bunker Parade. Stage 1 of the project has been completed (see photographs below), and construction of Stage 2 is currently underway.

Figure 3 – Stage 1 & 2 Development Photographs

Picture 1 – Stage 1 exhibition homes on corner of Edensor Road and Road No 1 (Newleaf Parade)

Picture 2 – Stage 1 construction site

Picture 3 – Stage 1 dwellings

Picture 4 – Stage 1 dwellings

Picture 5 – Central Valley Park

Picture 6 – Water Sensitive Urban Design

Picture 7 – Future playing oval in Central Valley Park

Picture 8 – Road No 1 (Newleaf Parade)

3 Development Description

3.1 Overview

The development application seeks approval for a super-lot subdivision to create 6 unserviced residue lots, construction of dwellings with ancillary site works and residential subdivision to create individual lots as outlined in the following sub-sections.

To facilitate the timely release of building approvals, it is requested that the conditions of any determination are structured to enable the release of Final Occupation Certificates for individual dwellings upon completion.

3.2 Super-Lot Subdivision

It is proposed to configure the Stage 3 development site into 6 unserviced residue lots to enable the staged release of construction and occupation certificates.

The six super-lots are shown on the Masterplan as Superlots 1, 2, 3, 4, 5 & 6 and are described further below:

Figure 4 – Stage 3 Superlot Designation

- Superlots 1 & 3 – comprises land bound by Edensor Road, Bunker Parade, Barseden Street and Stage 4. This residue lot will accommodate 57 of the future residential lots.
- Superlot 2 – comprises the land bound by Bunker Parade, Barseden Street and Kemp Place. This residue lot will accommodate 27 of the future residential lots.
- Superlot 4 – comprises the land bound by Bunker Parade, Barseden Street and Kemp Place to the south of Superlot 3. This residue lot will accommodate 28 future residential lots.

- Superlot 5 – comprises the land bound by Kemp Place to the south of Superlot 4. This residue lot will accommodate 7 future residential lots.
- Superlot 6 – comprises the land to the east of Superlot 5. This residue lot will accommodate 19 future residential lots (including 1 lot adjacent to Hilltop Park which will accommodate 22 walk-up apartments).

Each of the above precincts has been proposed as an unserviced residue lot as they will be subject to a further subdivision process to create individual residential lots. It is proposed that all required servicing certificates (eg Section 73 certificate) will be obtained upon the subsequent residential subdivision of the land.

3.3 Dwelling Construction

The development application seeks consent for the construction of 159 dwellings with associated ancillary works, including site preparation/earthworks, stormwater, servicing and landscaping. A variety of dwellings have been proposed in accordance with the housing types and provisions of the Bonnyrigg Masterplan. A breakdown of the building types is listed below:

- 22 walk-up apartments
- 28 attached dwellings
- 109 detached dwellings

A comprehensive assessment of the compliance of the proposed dwellings, including the ancillary site works, with the provisions of the Concept Plan approval documentation is provided in Section 4.

3.4 Residential Subdivision

The development application also seeks consent for a residential subdivision to enable the sale of the private dwellings and the transfer of the social housing dwellings to Housing NSW.

The proposed subdivision will create 137 Torrens title lots and a future strata title lot (for the apartment building)

4 Section 75W Application

An application under Section 75W of the Act is submitted concurrently with the Department of Planning which seeks amendments to the approved Concept Plan for the Bonnyrigg Living Communities Project.

Based on direct market feedback from Stages 1 and 2 of the project, the following amendments are proposed to Bonnyrigg Masterplan to allow additional flexibility with the range of dwelling types proposed within Stage 3:

- Reduction in the minimum width size for detached dwellings to allow more 'traditional' housing options.
- Provision of walk-up apartments in additional locations within the Masterplan where prevailing environmental conditions are suitable for higher density housing.
- Re-wording of zero side setback guidance to enhance privacy, amenity and streetscape of proposed dwelling types.
- Variation to front boundary fencing types to ensure additional privacy provision for future residents.

The design of Stage 3 has enabled Bonnyrigg Partnerships and dKO Architects to test the 'new' dwelling typologies. These dwellings provide an attractive streetscape, a high degree of residential amenity, good passive surveillance and functional open space.

5 Compliance Assessment

5.1 Consistency with Part 3A Concept Plan Approval

The Concept Plan was approved by the Minister for Planning on 12 January 2009. The Concept Plan provides the overriding controls that will guide the ongoing renewal of the estate.

The relevant conditions contained in the Concept Plan approval have been considered as part of the Stage 3 application and are addressed as follows:

- **Demolition of Dwellings in Stages:**

  Demolition of existing dwellings is to be undertaken in accordance with the approved Concept Plan. No further development consent for demolition is required.

- **Retention of Privately Owned Homes and Roads:**

  The Stage 3 Precinct includes two privately owned dwellings, each of which has been incorporated into the proposed renewal. In particular:

  – The siting and design of the proposed dwellings has sought to address the existing dwellings, including avoiding the use of zero setbacks on common boundaries and provision of appropriate fencing that defines the common boundaries and maintains the privacy of existing private open spaces.

  – Vehicle access and services to the existing dwellings will be maintained via the retention of the existing road network. Only minor re-surfacing works are expected to be required in Stage 3.

  – An Environment and Construction Management Plan has been prepared to manage the construction phase of the project to minimise and where required mitigate the potential impacts on the private owners.

- **Allocation of Land Use Within the Renewed Estate:**

  Stage 3 comprises the renewal of existing residential land and retention of the existing road hierarchy, which is consistent with the Concept Plan approval.

- **Stage Construction of approx 2,330 dwellings in 18 stages over 13 years, including apartments, attached homes (in 2,3,4,6 and 8-plex configurations) and detached homes comprising private dwellings and public dwellings:**

  The Concept Plan approval includes 160 dwellings within Stage 3. The development application is generally consistent as it seeks development consent for a total of 159 dwellings.

- **Retention and upgrade of existing roads, construction of new roads and provision of a pedestrian and bicycle movement network:**

  Stage 3 retains the existing road network, with minor re-surfacing works where required. The public domain improvements makes provision for pedestrian and bicycle connections, including the construction of a shared pedestrian/cycle path on Edensor Road and pedestrian paths on the other roads within this stage.

- **Stormwater Infrastructure Works including WSUD measures to controls the quantity and quality of stormwater, enhance the appearance of the site and provide passive recreation opportunities:**

  A Stormwater Design Report has been prepared by Mott Macdonald in support of the current development application for Stage 3. The stormwater drainage plans illustrate the configuration of individual lot drainage within Stage 3 as well as the location of pipes, stormwater outlets and typical street section drawings. The plans also include erosion and sediment control details.

Mott Macdonald has confirmed that the proposed stormwater works are in accordance with both Council's requirements and the approved Water Cycle Management Report that forms part of the Concept Plan approval.

- **Retention, extension and upgrades of existing services infrastructure to maintain supply through construction and cater for the increased population.**

  Services Disconnection Plans have been prepared by Mott Macdonald for both Water & Sewer and Electrical & Communications. These plans have nominated the location of all relevant services, taking into account the need to maintain services to the privately owned dwellings during the construction phase of the Stage 3 renewal and the planned decommissioning of other unnecessary services.

5.2 Development in Accordance with Plans and Documentation

The Stage 3 proposal has been prepared having regard to the requirements of each of the relevant plans and reports that form part of the Concept Plan approval. Compliance with key issues in the approval documentation is outlined below:

- **Updated Master Plan**

  The compliance of the Stage 3 development with the relevant provisions of the Bonnyrigg Masterplan is discussed in detail in **Section 5.4** of this report.

- **Updated Concept Plan Maps**

  The Concept Plan Land Use Map provides for "mainly attached homes with some detached" adjacent to Hilltop Park and "mainly detached homes with some attached" along Edensor Road, within this precinct.

  The proposal fully complies with the objectives of the Land Use Map. The principal purpose of the Land Use Map is to control residential density across the site, taking into account the proximity of different parts of the site to public transport, services and open space. The proposed development retains this dwelling density, noting the higher density adjacent to Hilltop Park.

  The proposed apartments positively respond to the surrounding context, and have been designed fully in accordance with the guidelines contained within SEPP 65. The apartments are of a low scale and height, have been strategically located adjacent to Hilltop Park to optimise the connectivity to open space and limit the extent of overshadowing from taller building elements to surrounding detached and attached houses. These apartments provide passive surveillance, with living rooms, main bedrooms and balconies on upper levels oriented to the street and park. To increase solar access, these apartments also contain secondary private open space (either in the form of courtyards or balconies) to the rear to optimise northern orientation.

  Further, the Bonnyrigg Masterplan clearly recognises that the renewal process will need to respond to the changing needs of the community and the market:

  Flexibility in Design Outcomes

  Beyond nominating two apartment precincts and outlining a strategy for locating higher density development, the Masterplan does not prescribe specific housing types on specific allotments. This enables each stage to meet social housing requirements while remaining responsive to changes in the community and the market, as well as potential changes to requirements related to building performance.

  The new Bonnyrigg Masterplan is intended to be developed in 18 stages to be built over approximately 13 years. Although the Masterplan itself is largely determined by key requirements of the project (including the need to preserve private homes scattered throughout the existing estate), completing the project in stages encourages greater flexibility in design outcomes. However, changes in dwelling design with time are expected to be minor. Regardless, new dwellings will achieve the general requirements of the project.

Overall, it is considered that the proposed layout and design is entirely appropriate as it meets the principal objective of the Land Use Map and provides a better response to the site constraints imposed by the retention of the existing road layout and optimal amenity outcomes for the individual dwellings.

The Indicative Staging Plan that forms part of the Concept Plan approval includes 160 dwellings within Stage 3. The development application is generally consistent with the Indicative Staging Plan as it seeks development consent for a total of 159 dwellings.

The existing road hierarchy has been retained in accordance with the Road Hierarchy Plan.

- **Community Renewal Services and Implementation Plans**

  The Stage 3 development is a continuation of the previous work undertaken in Stages 1 and 2, including the social and physical renewal of Bonnyrigg to:

  – Improve the existing quality of life for tenants.

  – Better manage tenancy issues.

  – Improve resident safety.

  – Better match the housing needs of the tenants.

  The renewal will continue in Stage 3 through the ongoing improvement of the urban design of the estate, ongoing dilution of the concentration of social housing with privately owned dwellings and better integration of Bonnyrigg with the wider community.

  In accordance with the provisions of the approved Concept Plan, the allocation of social and private housing has not been nominated. The external appearance of each of the dwellings has been designed in a consistent manner to avoid their identification as social or private dwellings.

- **Water Cycle Management Plan**

  The Stage 3 Stormwater Design Report prepared by Mott Macdonald demonstrates that the proposed stormwater management is appropriate and complies with the provisions of the Concept Plan approval and relevant standards.

- **Transport Management and Accessibility Plan**

  A Transport Management and Accessibility Plan (TMAP) was prepared in associated with the approved Concept Plan. The TMAP sets out a range of measures for Bonnyrigg in relation to infrastructure enhancements, travel behavioural change and intersection improvements.

  The provisions of the TMAP do not include any works that are applicable to the Stage 3 development, taking into account that the projected increase in population does not occur until Stage 8. As such, there are no transport and travel requirements that need to be incorporated into the Stage 3 approval. Further consideration is given to transport and car parking issues in Section 4.3, taking into account the conditions in Schedule 2 of the Concept Plan approval.

- **Project Design Report**

  The Living Communities Project Design Report prepared by EDAW and approved as part of the Concept Plan includes a Landscape Masterplan Vision for Bonnyrigg.

  The landscape drawings prepared by Site Image and submitted with the development application for Stage 3 comply with the provisions of the Project Design Report, taking into account:

  – Provision of the pedestrian and bicycle connections, including the shared pedestrian/cycle path on Edensor Road and the pedestrian paths on the local roads.

  – Provision of external lighting in accordance with the provisions of Integral Energy and current Australian Standards.

- Landscaping and fencing of individual dwellings.

- **Masterplan Infrastructure Report**

  Each of the required services and utilities will be provided in accordance with the approved Infrastructure Report prepared by Mott Macdonald. The Environment and Construction Management Plan and Services Disconnections Plans also prepared by Mott Macdonald and in support of the Stage 3 development application demonstrate the manner in which services will be retained, disconnected and/or upgraded, as required to meet the needs of the development and the retention of the privately owned dwellings.

- **Environment and Construction Management Plan**

  An Environment and Construction Management Plan (ECMP) has been prepared in support of the current application by Mott Macdonald. The environmental outcomes of the ECMP are to:

  - Avoid environmental impacts where possible.
  - Minimise those impacts that are unavoidable.
  - Provide long-term enhancement of the local environment.

  The ECMP sets out the environmental goals and range of management measures required throughout the construction phase of Stage 3.

- **Infrastructure Delivery Plan and Voluntary Planning Agreement**

  The Voluntary Planning Agreement allocates $0.032 million of works for Stage 3 within the Infrastructure Services Delivery Plan. This includes a contribution of funding for the provision of bus shelters.

- **Incoming Community Report**

  The dwelling designs for Stage 3 have responded to the findings of the Incoming Community Report. In particular, the proposals positively respond to the “Suggestions to make the estate more attractive” in Section 2.5.5 of the Report, where feedback indicating the desire for a greater range of detached houses on the estate.

  Overall, it is considered that the Stage 3 proposal provides a variety of dwelling types that are appropriate to a mix of diverse cultures.

- **Ecological Sustainable Development – Environmental Opportunities Report**

  BASIX certification has been obtained for all dwellings and is provided with the development application documentation. Installation of reticulated recycled water system is included as part of the infrastructure works for Stage 3.

5.3 Compliance with Schedule 2 - Conditions

The development application for Stage 3 addresses each of the relevant requirements listed in Schedule 2 of the Concept Plan approval as outlined below:

- **Voluntary Planning Agreement and Ongoing Consultation**

  The $0.032m of works nominated in the Infrastructure Services Delivery Plan will be delivered as part of the Stage 3 development.

  Becton has continued to liaise with Council and the local community during the development process.

- **BASIX**

BASIX certification has been obtained for all dwellings and is provided with the development application documentation. Installation of reticulated recycled water system is included as part of the Stage 3 works in accordance with the Revised Statement of Commitments, dated November 2008.

- **Social Impacts**

  The Rehousing Services Plan, Community Renewal Implementation Plan and Community Renewal Services Plan will continue to be implemented for Stage 3 and future renewal stages.

- **Open Space Provision**

  All ground level dwellings include an area of private open space that has a minimum dimension of 4 metres and a minimum area of 18sqm. The majority of the private open space areas significantly exceed the minimum requirement.

- **Residential Amenity and Urban Design**

  The required covenant restricting the installation of air conditioning units will be imposed on the leases for social housing and the titles of the private dwellings.

- **Traffic and Parking**

  A traffic management plan has been submitted in association with the approved demolition of the dwellings in accordance with the Concept Plan.

  A parking analysis and needs assessment is underway and will be submitted with the Stage 3 development application.

  The intersection improvements are not relevant to the Stage 3 development. These will need to be resolved prior to the issue of a construction certificate for Stage 8.

- **Drainage**

  A Stormwater Report has been prepared by Mott Macdonald for Stage 3 which demonstrates that the proposed stormwater and drainage works are in accordance with Fairfield City Council's standards and Mott Macdonald's "Water Cycle Management" Report.

- **Landscaping**

  The Stage 3 development application has been designed in accordance with the guidelines contained in the Bonnyrigg Masterplan, and as detailed in the Landscape Plan prepared by Site Image.

- **Economic Impacts**

  This condition relates to the development of the community precinct stages, which does not part of Stage 3.

5.4 Bonnyrigg Masterplan

dKO Architects have prepared a series of spreadsheets that summarise the compliance of the individual dwellings with each of the numeric controls listed in Part 5 of the Bonnyrigg Masterplan. These spreadsheets demonstrate that the Stage 3 development generally complies with each of the relevant requirements, with only a small number of minor variations. These variations are discussed in detail in **Table 2**.

As outlined in **Section 1.2** of this report, a Section 75W application has been lodged with the Department of Planning to enable:

- A reduction in the minimum width size for detached dwellings to facilitate the dwelling density to be achieved within a more 'traditional' detached dwelling format

- Apartments in additional locations that benefit from high levels of amenity, including lots adjacent to public open space. An assessment of the design principles and guidelines contained within SEPP65 is provided at Section 5.5 of this report.
- Rewording of the zero side setbacks guidelines contained in the Masterplan to enhance privacy, amenity and streetscape.
- A variation to the front fencing types in response to ongoing concerns of current residents.

Table 2 – Bonnyrigg Masterplan Compliance Assessment

Control	Required	Provided	Complies
Part 5: Private Realm Guidelines			
Lot Size	Lot sizes and dimensions to be as per the table on page 150 of Bonnyrigg Masterplan.	The minimum width size for detached dwellings in Stage 3 is proposed to be as per indicated in the Section 75W modification letter attached at Appendix A. It is considered that the proposed minimum width sizes are appropriate as: ▪ These are generally consistent with Fairfield City Wide DCP 2006 (Version 9) which makes provision for 6.7m wide lots in a number of locations ▪ They allow for the introduction of more affordable and innovatively designed detached houses which is currently sought after from the market ▪ Smaller detached dwellings have been introduced on the narrower south facing lots, where living rooms and main bedrooms are located to the rear to optimise the solar orientation to the north. ▪ They provide opportunities for an enhanced sense of privacy (such as no sharing of common walls) ▪ They do not alter the appearance and streetscape presentation of detached dwellings. ▪ They will maintain a high degree of passive surveillance to the street.	**Yes** – Complies with Section 75W modification to be considered concurrently.
Site Coverage	Minimum of 35% of site to be landscaped area. Minimum of 30% of the landscape area must be deep soil landscaping. Maximum of 65% of site area to be built upon.	All lots comply with the controls for landscaped area, deep soil landscaping and built-upon area	**Yes**
Streetscape	Garages to be setback 5.5 metres from street (except for access street). Maximum combined width of garages fronting a street (not incl rear access streets) is 50% of lot width. Maximum combined width of garages fronting a rear access street is 80% of lot width. No triple or more garages side-by-side are permitted except where fronting access places.	All garages are setback a minimum of 5.5 metres from the street All garage widths fronting a street are less than 50% of the lot width. All garages are orientated to front streets All dwellings have direct entry and address from the street frontage. Dwellings are designed so that front doors are clearly visible from the street. All dwellings on corner allotments have been designed to address the street frontage.	**Yes**

Control	Required	Provided	Complies
	Dwellings are to have direct entry and address from street frontage. Front doors are to be visible and/or easily identifiable from the street. Dwellings on corner allotments are to be designed so that one elevation addresses the street. The secondary elevation is to be visually interesting, including articulation to the dwelling and roof form; and Long blank walls are to be avoided.		
Bulk and Scale	Predominate building height of two storeys, with three story elements permitted in select locations. Minimum 2.4m ceiling height measured from finished floor to finished ceiling level in all habitable rooms.	All proposed detached and attached dwellings in Stage 3 are two storeys in height and comply with the minimum 2.4m ceiling height guideline. The proposed apartment building is addressed separately in Section 5.5.	**Yes**
Setbacks	Minimum of 80% of building footprint (excl garages) is to be setback minimum of 4.5m from lot frontage. Maximum of 20% of building footprint may be setback minimum of 1.2m from lot frontage. Zero setback may be permitted for limited building elements on secondary street frontages. 80% of building footprint must be setback minimum of 0.9m from side boundary. Zero setback may be provided on access places. Zero side setbacks must not exceed a maximum length of 12m and a minimum 0.9m access path between the front and rear yards must be provided elsewhere. Windows or openings are permitted only where they satisfy BCA and no privacy impacts. Where a gutter is required, a 0.2m offset from lot boundary must be established, with maintenance easement on adjoining lot for access.	All Stage 3 dwellings comply with the front setback guidelines contained within the Masterplan. The side setbacks in Stage 3 dwellings include zero side setbacks in excess of 12 metres. This amendment to the masterplan is incorporated within the Section 75W modification. It generally seeks to enhance the privacy, amenity and streetscape for future dwelling occupants while avoiding any unacceptable impacts on the private lots which do not form part of the Concept Plan approval.	**Yes** **Yes** – Complies with Section 75W modification to be considered concurrently.
Privacy	Internal layout to minimise overlooking of living areas and private open space. Balcony or habitable room window must not be located to have direct view into the balcony or habitable window of another dwelling located within	The Stage 3 layout has been designed to ensure that windows of adjacent dwellings do not directly face each other. The provision of private open space within front and rear yards, as well as the provision of large rear yards minimises the opportunity for upper floors to overlook dedicated areas of private open space.	**Yes**

Control	Required	Provided	Complies
	6m. Windows of upper level primary living rooms facing ground level private open space of another dwelling must be of a high level with a deep sill or sill height of minimum 1.5m above floor level or be fitted with a horizontal privacy screen from its base (or similar) to screen a proportion of the private open space from the window. Air conditioning units are to meet appropriate acoustic standards. Attached dwellings and apartments must be designed (and their material specified) to the relevant BCA requirements for acoustic privacy.	the proposed modification to the zero setback control will enhance the privacy, amenity and streetscape for future dwelling occupants. Where overlooking is unavoidable, screening of upper level windows is provided to maintain privacy.	
Safety and Security	Define edges of spaces using a mixture of height change, landscape, hedges, fences, walls, and gates. Ensure each dwelling has safe well-lit access to and from their car parks and their dwelling. Make homes inaccessible from balconies, roofs and windows of neighbouring buildings. Provide direct access from car park to home wherever possible. Orient entrances towards public street and provide clear sight lines. Minimise number of dwellings using shared entrance ways. Orient living areas and provide balconies with views over public and any communal open spaces or areas of car parking. Avoid dead ends and other areas of possible entrapment. Ensure lighting is sufficient to allow for facial recognition of approaching pedestrians within 15m. Avoid blind or dark alcoves near where people will need to walk - such as entrances, car parks, corridors or walkways. Provide good lighting along any paths and areas that people are likely to use at night. Such as over entry doors and car parking areas. Utilise white light instead of sodium vapour to ensure proper	Edges of spaces are clearly defined through the use of fencing and landscaping All dwellings benefit from direct access to their allocated car parking, wither via the front door or their private open space. Buildings have been designed and located to make homes inaccessible from balconies, roofs and windows of neighbouring buildings. All building entrances are oriented towards public streets and provide clear sight lines to the street. No dwellings utilise shared entrance ways. The dwellings have been designed to achieve overlooking of the street. Stage 3 utilises the existing road pattern. All dwellings face onto the street to ensure maximum passive surveillance and activity. Adequate building setbacks are provided to ensure that people walking on public footpaths can do so safely. Lighting compiles with the relevant Australian Standards.	**Yes**

Control	Required	Provided	Complies
	colour and textural rendition.		
Open Space	Minimum of 25m^2 of ground level private open space with minimum dimension of 4m or 10m^2 of above ground level open space with minimum dimension of 2.5m. Private open space should generally be accessible from living area. Private open space should generally be located to maximise solar access. Fencing will be constructed in accordance with the site fencing strategy. Retaining walls will be designed to max 1m height. When located within sight of a public place, the material and colour will be complementary to character and quality of the streetscape.	All lots comply with the minimum private open space requirements. The provision of private open space in both front and rear gardens is designed to maximise the residential amenity of individual dwellings, taking into account the optimal solar access and accessibility from living areas. Dwellings have been designed to incorporate front and rear living areas. Stage 3 proposes to introduce a new style of fencing on the estate which will enable a high quality finish, additional privacy provision which still retains visual permeability, and is generally low maintenance. This is discussed in more detail in the Section 75W modification letter at Appendix A.	**Yes** – considered appropriate on merit.
Car Parking and Garages	Car parking must be designed to ensure cars are not parked across pedestrian or cycle paths. Minimum dimensions of any parking space is 2.5m x 5.5m. Minimum internal dimensions of an enclosed garage must be 3m x 6m. Maximum 6m width of driveways at boundary for individual dwellings. Detached homes will provide two car spaces per dwelling which may be tandem, with visitor parking on street. Attached home types will provide minimum 1 car space for 1-2 beds and 1.5 car spaces per 3+ beds and visitor parking on-street.	All dwellings provide private car parking in accordance with the relevant rates. Minimum dimensions of parking spaces are achieved Minimum internal dimensions of garages are achieved No driveways exceed 6m in width. The minimum garage setbacks of 5.5m allow space for a second vehicle to be parked within the property.	**Yes**
Service Areas	Each dwelling will have access to a service court for garbage that is screened from the street and placed in a convenient location.	Each dwelling provides space for garbage bins to be screened from the street.	**Yes**
Storage	Storage space should be provided in addition to kitchen cupboards and bedroom wardrobes - 1 bed – 6m^3. 2 beds – 8m^3; and 3+ beds – 10m^3.	Storage space is provided to all dwellings contained within Stage 3 in accordance with the minimum requirements.	**Yes**
Sloping Sites	Maximum 1m cut/fill measured	There is an isolated section of fill over 1m	**Yes**

Control	Required	Provided	Complies
	at any corner of the building platform.	between Barseden Road and Edensor Road. This has been proposed to remove a pronounced sag in ground levels, thus providing a more aesthetically pleasing streetscape as well as improving stormwater drainage. The maximum depth of fill is approximately 1.1m.	
Sustainable Environmental Design and BASIX	Achieve targets specified in tables on pages 158-159 of Bonnyrigg Masterplan.	BASIX certification has been obtained for all dwellings and is provided with this DA.	**Yes**
Solar Access	Maximise northerly exposure for as many rooms as possible and minimise shadows. Glazing facing west to southwest should be minimised and protected with effective sun shades. Living area windows and >50% of private open space to receive minimum 3 hours direct sunlight between 9am and 3pm on the 21st of June.	Stage 3 has been designed to optimise northerly exposure to buildings while retaining the existing road layout. The incorporation of front and rear living areas and private open spaces in a large number of the Stage 3 dwellings assists to maximise the use of natural light. The minor variations are identified and discussed below: ▪ Lot 3107 –The primary living spaces receive morning sunlight through west facing windows, and receive generous amounts of sunlight in the early (rear yard) and late afternoon (front yard) periods. ▪ Lot 3108 - Primary living space receives sunlight in the morning, and receive generous amounts of sunlight in the early (rear yard) and late afternoon (front yard) periods. ▪ Lot 3109 - This is a very large lot with generous amounts of open space which receive sunlight in the morning (front and rear yards), early afternoon (front yard) and late afternoon (front and side yards). ▪ Lot 3110 - This is a large allotment which receives generous amounts of sunlight in the morning (front and rear yard) and afternoons (front yard). ▪ Lot 3214 – This dwelling receives sunlight for the duration of the day to the front yard. ▪ Lot 3412 – awaiting feedback from dKO ▪ Lot 3416 – Due to the south-east facing orientation of this lot, solar access to POS does not strictly comply with this guideline. However, this lot is very large and will still receive generous amounts of sunlight on the southern side of the rear yard in the afternoon. ▪ 3504 – This dwelling is adjacent to a retained dwelling to the north, and is orientated to the south-east. Whilst the backyards are subject to overshadowing in the morning, this is a large allotment and the rear yards receive generous amounts of sun in the mid to late afternoon. ▪ 3613, 3614 & 3617 - Due to the east facing orientation, the rear yards of these dwellings are subject to overshadowing in the afternoons. However, the front gardens of these dwellings receive generous amounts of uninterrupted sunlight the entire day on	**Majority comply (93%) - considered acceptable.**

Control	Required	Provided	Complies
		the winter solstice.	

Overall, it is considered that the layout and design of the Stage 3 renewal satisfactorily responds to the provisions of the Bonnyrigg Masterplan. Each of the proposed variations has been fully justified and demonstrated to be appropriate, taking into account the retention of the existing road layout and general site orientation. Where variations are proposed, these have been off-set by a more generous response to other requirements prescribed in the Masterplan, providing a high level of residential amenity for future occupants and an enhanced and attractive streetscape.

5.5 State Environmental Planning Policy 65 – Design Quality of Residential Flat Buildings

State Environmental Planning Policy No. 65 has been developed along with the Residential Flat Design Code to provide guidelines on standards for quality residential development to ensure adequate levels and amenity and efficiency can be achieved.

The proposed apartment building in Stage 3 has been designed with regard to the relevant guidelines contained in SEPP 65. As per the requirements of SEPP 65, DKO Architects have provided an explanation of how the proposals satisfy the ten design principles of SEPP 65, and a checklist of compliance with SEPP 65.

Issue	Required	Proposed	Complies (Y/N)
Part 1 – Local Context			
Local Context	Undertake a local context analysis.	In terms of overall context the increased density of the subject apartment site affords greater communal amenity in the form of open space areas. The immediate context constitutes a range of housing types and opportunities.	Yes
Residential Flat Building Types	Block apartments are best used with large development sites.	The type of building proposed constitutes a “row-apartment” type whereby there are a numerous cores and a vertical rhythm of articulation.	Yes
Building Envelopes	Establish allowable bulk, height and location of development on a site.	Whilst there are no building envelope controls for the site we have designed the building to sit comfortably within it’s context and more specifically the two storey scale of the surrounding development.	Yes
Building Height	Test height controls against FSR and proposed number of storeys and minimum ceiling heights.	Not applicable.	Yes
Building Depth	Max internal depth should be 18m. Freestanding buildings may exceed 18m, subject to satisfactory daylight and natural ventilation.	The maximum depth of apartments is 16.7m with a majority of apartments under 14m in depth.	Yes
Building Separation	Up to four storeys/12 metres:	9m has been provided between the	Yes

Issue	Required	Proposed	Complies (Y/N)
	12m between habitable rooms/balconies. 9m between habitable rooms & non-habitable rooms. 6m between non-habitable rooms. Five to eight storeys/25 metres: 18m between habitable rooms/balconies. 13m between habitable rooms/balconies and non-habitable rooms. 9m between non-habitable rooms	face of balcony of Units 2,7,4,9,6,11 to the face of the Southern wall to Units 19 and 21. This will provide appropriate acoustic and visual privacy and also maintain a satisfactory level of daylight and ventilation to apartments.	
Street Setbacks	Use range where desired character is variation with overall consistency (5-9m for suburban areas). Minimise overshadowing of street and buildings. Consider secondary upper level setbacks to reinforce desired scale. Underground parking structures, awnings and balconies may encroach on setback.	A street setback in the range of 4.5-6.9m has been provided. This ensures that all ground level apartments receive a Private Open Space with a minimum dimension of 4m, and area of 25m². Upper level setback are similar to lower level setbacks with building form appropriately articulated with the use of different materials. The carparking structure (below units 19-22) has been designed as an integral element to the building form to ensure that structure and materials are articulated in a similar fashion to the main portions of the building. The setbacks to the parking structure have been provided with a range of 5.5-6m to ensure the transition to the adjoining development is appropriate and in keeping with the overall street rhythm.	Yes
Side and Rear Setbacks	Retain or create rhythm or pattern of development that positively defines streetscape so space is not just left over around building form. Consider building separation, open space and soil zones. Relate setbacks to existing streetscape pattern.	Where possible each of the 3 street facades has been provided to ensure there is a continuation of the street rhythm. The vertical articulation of the building form also helps reinforce the scale in context to the overall development where most dwellings are of two storey scale. Proposed setbacks have been designed to ensure that the overall streetscape and building line has been maintained.	Yes
Floor Space Ratio	Height, setbacks and FSR to be consistent.	The height is considered appropriate based upon the relationship to adjoining 2 storey development.	Yes

Issue	Required	Proposed	Complies (Y/N)
		Setbacks are again in keeping with the overall rational of the streetscape. There are no particular FSR requirements relating to the site.	
Part 2 Site Design			
Site Configuration			
Deep Soil Zones	Optimise deep soil zones. Support rich variety of vegetation type and size. Increase permeability of paved areas. 25% of open space to be deep soil.	The site comprises a diverse range of deep soil zones. The total site area equates to 2143.5m², and the total of all deep soil zones equates to 576.4m² or 26.9%.	Yes
Fences and Walls	Respond to character of street and area. Delineate private and public domain without compromising safety and security. Contribute to amenity, beauty and usability of private and communal open spaces. Retain and enhance amenity of public domain by avoiding continuous lengths of blank walls and using planting to soften edges and reduce scale. Select durable materials which are easily cleaned and graffiti resistant.	Fences and walls have been provided to all street boundaries. These will be a combination of face brickwork and powder coated palisade fencing. These materials are suitably durable and will provide adequate levels of privacy screening whilst also maintaining a transparency when viewed from the public domain (and vice versa). It is intended to provide planting zones forward of the main fence line to help further increase the amenity of the public domain.	Yes
Landscape Design	Improve amenity of open space with landscape design, including shade and screening. Contribute to streetscape and public domain. Improve energy efficiency and solar efficiency of dwellings and microclimate of private open spaces. Design landscape with regard to site characteristics. Contribute to water and stormwater efficiency. Provide sufficient depth of soil above pavers Minimise maintenance by robust landscape elements.	The landscape design has been prepared to ensure that the planting is interesting and varied. Street trees have been provided along all street frontages and these have been supplemented with lower scale shrubs both forward of the building line, and behind the fence line. This helps provide greater privacy to ground floor apartments, and ensure a softer landscaped transition between the public and private domain.	Yes
Open Space	Provide communal open space appropriate and relevant to context and building setting.	As the location of the apartments are directly adjacent the park there is better quality private open space directly adjacent the apartment	Yes

Issue	Required	Proposed	Complies (Y/N)
	Facilitate use of communal open space by solar access, site features and minimising overshadowing. Provide private open space for each apartment. Locate open space to increase residential amenity. Provide environmental benefits including habitat, microclimate, rainwater percolation, outdoor drying area. Communal open space should be 25-30% of site area. Minimum private open space for each ground level apartment is 25m^2, with minimum dimension of 4m.	building. Private open space has been provided in the form of ground level gardens and terraced areas (with a minimum dimension of 4m and minimum area of 25m²). Upper level apartments have been provided with 2 balconies which meet minimum dimensional requirements. As the apartments have been design to obtain complete cross ventilation all units have access to two balconies. This provides greater flexibility and greater amenity to the future occupants. The ability to fully open up both ends of the apartment (usually North and South balconies) also helps promote greater and more efficient cross ventilation.	
Orientation	Orient buildings to maximise north facing walls and provide adequate building separation. Respond to streetscape and optimise solar access. Courtyards and setbacks to northern boundaries. Optimise solar access to living spaces and private open space by orienting them to north. Building elements to maximise sun in winter and shade in summer.	The main apartment building (Units 1-18) has been oriented to ensure all units achieve an appropriate level of solar access. Those units which face East and West (Units 19-22) also have a desirable orientation which maximise solar access in mid winter. Furthermore the internal design of the apartments, and in particular the open plan living / dining / kitchen areas provide full solar access and cross ventilation to living areas.	Yes
Planting on Structures	Design for optimum plant growth by appropriate soil and drainage. Design planters to support soil depth and plant selection.	Not applicable.	Yes
Stormwater Management	Retain stormwater on site. Protect stormwater quality. Control erosion. Consider grey water for irrigation.	As the stormwater strategy relates to the overall masterplan, there are no specific on site systems as these are provided by the overall masterplan. This ensures that there is recycled water and town water provided to the site which enables efficient reticulation through the masterplan.	Yes
Site Amenity			
Safety	Delineate private and public space. Optimise visibility, functionality and safety of building entrances. Improve opportunities for casual surveillance and minimise	The public and private domain is clearly demarcated with either fencing or landscaping. In addition balconies face the street on all street frontages to ensure there is	Yes

Issue	Required	Proposed	Complies (Y/N)
	opportunities for concealment. Control access to the development.	continual passive surveillance and eyes on the street. Access to the development is again provided through a series of apartment lobbies which are secure and prominently located.	
Visual Privacy	Maximise visual privacy adjoining buildings by separation, setbacks and site layout. Design layouts to minimise direct overlooking of rooms and private open spaces. Use site and building design elements to increase privacy without compromising light and air access.	Both visual and acoustic privacy has been dealt with ensure adequate building separation together with orienting the dwellings away from each other. Building elements such as blade walls balconies and offset openings help ensure that visual privacy (within the development) is screened.	Yes
Site Access			
Building Entry	Improve presentation to street by entry treatment. Direct connection and clear transition between street and entry. Ensure equal access for all. Provide safe and secure access. Separate building entry from car parks. Design entries/circulation to allow furniture movement. Provide mailboxes to be convenient, but not clutter the appearance of the development from the street.	The building entries (pedestrian) are prominently located and articulated differently to the habitable portions of the building. It is this difference in articulation and fenestration which ensures the clear and obvious locations for each of the entries. In addition to the street entries, access has been provided from all carparking areas, with apartment lobbies running straight through from the street boundary to the carpark. As previously outlined the apartment lobbies provide space and circulation for furniture movement and contain straight run stairs (with the exception of Units 19-22) which ensure furniture movement is relatively straight forward. Mailboxes have been provided on all street frontages together with unit number signage and place markers for building entrances.	Yes
Parking	Determine car spaces by access to public transport, density and ability to accommodate on site. Limit visitor spaces, where impact on landscape and open space is significant. Give preference to underground	Carparking has been provided both on grade and enclosed carparking. Carparking has been provided in accordance with relevant council controls and landscaping has been maximised where possible.	Yes

Issue	Required	Proposed	Complies (Y/N)
	parking. Provide bicycle parking which is easily accessible.	The enclosed carpark of units 19-22 has been designed to ensure that the base is recessive and of similar articulate to the upper levels of building. This ensures that the dominance of this structure is recessive in the overall streetscape context.	
Pedestrian Access	Accessible routes to public and semi-public areas. Promote equity by entry location and ramps. Ground floor apartments to be accessible from street and associated open space. Maximise number of accessible, visitable and adaptable apartments. Barrier free access to min 20% of dwellings.	Pedestrian access has been provided in the most efficient manner possible with central stairwell lobbies providing direct access to each of the apartments. The lobbies have direct access to both the street and carpark, ensuring the access is as efficient as possible. A total of 18% of apartments have been designed in accordance with requirements of both AS 4299 and 1428. This ensures that these apartments have ground floor direct access to street and contain accessible features such as bathrooms design, kitchen design and adequate circulation space.	No
Vehicle Access	Ensure adequate separation between vehicle entries and street intersections. Optimise opportunities for active street frontages and streetscape design. Improve appearance of car parking entries. Limit width of driveways to 6m. Locate vehicle entries away from pedestrian entries and on secondary frontages.	Vehicular access has been provided to both carparking facilities. Security gates have been provided to both carpark entrances to ensure that there is a clear line between the public and private domain. Vehicular entries have been completely separated from pedestrian entries which, as previously outlined, have there own direct access from the street.	Yes
Part 3 Building Design			
Building Configuration			
Apartment Layout	Determine apartment sizes in relation to location, market, spatial configuration and affordability. Ensure apartment layouts are resilient over time. Design layouts to respond to natural and built environments and optimise site opportunities. Avoid locating kitchen in circulation space. Include adequate storage in the apartment. Ensure apartments facilitate furniture removal and placement.	Apartment sizes meet the minimum requirements contained within SEPP 65 and are efficiently design to ensure there is no wasted space within the apartments. In general terms the apartments contain a sleeping module with bathrooms and bedrooms, and a living module with dining, living and kitchen areas. The separation of these uses helps ensure that circulation space is kept to a minimum. In addition all apartments are cross through with no single aspect	Yes

Issue	Required	Proposed	Complies (Y/N)
	Single aspect apartments to have max depth of 8m from window. Kitchen to be max 8m from window. Crossover or cross through apartments >15m deep to have min width of 4m.	apartments throughout the development.	
Apartment Mix	Provide variety of apartments in larger buildings. Refine appropriate mix by population trends and proximity to transport, employment and services. Locate mix of 1 and 3 bed units on ground floor to enable access by disabled, elderly and families. Optimise accessible and adaptable apartments.	The apartments complex contains a total of 22 x 2 bedroom apartments in a variety of configurations. Whilst there is not a mix of accommodation within this specific building the characteristics of the overall development must be taken into consideration. The Newleaf masterplan does provide a vast array and diversity of accommodation, with this apartment building all but one aspect of the overall development.	Yes.
Balconies	Primary balcony (min 2m depth) to be adjacent to living area. Consider secondary balconies in larger apartments, adjacent to bedrooms and for clothes drying. Balconies to respond to local climate and context, solar access, wind and privacy. Design balustrades to allow views and casual surveillance, while providing safety and privacy. Coordinate and integrate building services with façade and balcony design.	Two balconies have been provided to Units 1 – 18, all of which meet the minimum size and depth requirements of SEPP 65. Balconies to Units 19-22 have been provided to the street facade, and are larger than the requirements of the SEPP. These balconies also provide passive surveillance of the street.	Yes
Ceiling Heights	Coordinate internal ceiling heights and slab levels with external height requirements. Min floor to ceiling height of 2.7m. Variations to demonstrate satisfactory daylight.	All ceiling heights throughout the development maintain a minimum of 2.7m in all habitable areas.	Yes
Flexibility	Provide robust building configurations which utilise multiple building entries and circulation cores. Promote accessibility and adaptability by accessible and visitable apartments and pedestrian access.	The “terrace” style aspect of the design provides a degree of flexibility within the internal design and in turn provides access to multiple cores. This in effect is a key driver to the apartment design whereby this single move has meant that the apartments provide cross ventilation and superior solar access.	Yes
Ground Floor Apartments	Design gardens to contribute to street. Promote housing choice by providing private gardens and maximising accessible apartments on ground floor.	All ground floor apartments have access to both a street and “rear” garden / terrace area. Both areas have access to adequate solar access and provide flexibility and choice for future occupants to	Yes

Issue	Required	Proposed	Complies (Y/N)
	Increase solar access on ground floor by higher ceilings and windows and tree selection.	recreate.	
Internal Circulation	Increase amenity and safety by generous widths, lighting, minimising lengths, avoiding tight corners, legible signage and adequate ventilation. Support better apartment layouts by designing buildings with multiple cores. Articulate longer corridors by using series of foyer areas and windows along or at end of window. Minimise maintenance and maintain durability by using robust materials in common circulation areas.	Apartment lobbies are glazed on both ends and contain almost no corridor space. This has been achieved through providing multiple cores. This design ensures that the lobby areas are always well lit and ventilated.	Yes
Storage	50% of storage to be within apartment and accessible from hall or living area, and dedicated storage rooms on each floor and car parks. Storage to be suitable for local area and able to accommodate larger items (eg bicycles). Storage is secure for individual use.	Storage has been provided in a range of areas both internal and external to the apartment. All units satisfy the storage requirements of the SEPP in so far as all units provide a total combined volume of 8m3.	Yes
Building Amenity			
Acoustic Privacy	Maximise acoustic privacy by adequate separation. Internal layout to separate noise from quiet areas by grouping bedrooms and service areas. Resolve conflicts between noise, outlook and views by design measures, such as double glazing. Reduce noise transmission from common corridors Provide seals to entry doors.	The acoustic separation of the apartments has been dealt with in a number of ways. First and foremost the internal layout of the apartments has placed noise sensitive areas (bedrooms and sleeping areas) together and those less sensitive areas away from each other. The BCA provides performance measures to deal with acoustic separation. The situation outlined above further aids in provide superior amenity within the apartments.	Yes
Daylight Access	Orient building to optimise northern aspect. Ensure daylight access to communal open space March-September and shade in summer. Optimise apartments receiving daylight access to habitable rooms and principal windows. Design for shading and glare control. Living rooms and POS of min 70% of apartments should receive 3 hours direct sunlight between 9am and 3pm in mid winter.	In general terms all apartments have dual orientation which ensures that all apartments receive higher than average solar access to habitable areas, living rooms and private open space. A total of 21 apartments (95%) receive more than 3 hours of solar access on June 22, mid winter. Only Unit 7 does not receive the required solar access and this is only due to the fact that it is partially overshadowed by Block B.	Yes

Issue	Required	Proposed	Complies (Y/N)
	Max 10% to be single aspect apartments with southerly aspect.		
Natural Ventilation	Promote and guide natural breezes. Utilise building layout and section to increase natural ventilation. Internal layout to minimise disruptions and group rooms with similar usage together. Select doors and operable windows to utilise air pressure or windows to funnel breezes. Coordinate design with passive solar design. Explore innovative technologies to ventilate rooms. 10-18m building depth for natural ventilation. 60% of units to be naturally cross ventilated. 25% of kitchens to have access to natural ventilation.	The design of the apartments has enable 100% of apartments to be cross ventilated. In addition 100% kitchens have access to natural ventilation by way of their placement in the plan between the living and dining areas.	Yes
Building Form			
Awnings and Signage	Locate awnings over building entries. Enhance safety by providing lighting.	All street entries have awnings provided to their main entries.	Yes
Facades	Consider relationship between building form and façade or building elements. Facades to have appropriate scale, rhythm and proportion responding to use and desired character. Facades to reflect orientation of site using sunshade devices. Express important corners by giving visual prominence to parts of façade. Coordinate and integrate building services. Coordinate security grills, ventilation louvres and car park entry doors with overall façade design.	The facades have been carefully designed to ensure there is a prominent base, middle and top. The composition is all articulated in a vertical “terrace” style form. The base and the middle are categorised by a heavy masonry plinth categorised by rendered brickwork and / or face brickwork. Where the base houses carparking (Units 19-22), ventilation grills and louvers are placed to correspond with the architecture and fenestration of the upper levels. The top (Level 2) is categorised by lightweight wall cladding together with an expressive roof element.	Yes
Roof Design	Relate roof design to desired built form. Relate to size and scale of building, elevations, building form. Respond to orientation of site. Minimise visual intrusiveness of service elements. Facilitate use of roof for sustainable	The proposed roof elements are expressive and provide extended eaves to provide weather protection to the upper level windows.	Yes

Issue	Required	Proposed	Complies (Y/N)
	functions.		
Building Performance			
Energy Efficiency	Incorporate passive solar design to optimise heat storage in winter and heat transfer in summer. Improve control of mechanical heating and cooling. Plan for photovoltaic panels. Improve hot water system efficiency. Reduce reliance on artificial lighting. Maximise efficiency of household appliances.	All openings have been designed to ensure there is some level of solar protection provided. Windows to the North have been provided with small sun-shades placed over the windows, all sliding doors are appropriately protected by deep balcony reveals, and doors to the West have been provided with sliding screens. In addition passive cooling has been provided by virtue of the cross ventilation provided within the apartments.	Yes
Maintenance	Design windows to enable internal cleaning. Select manually operated systems, such as blinds. Incorporate and integrate building maintenance systems into design of building form, roof and façade. Select durable materials which are easily cleaned. Select appropriate landscape elements and vegetation and provide appropriate irrigation systems. Provide garden maintenance and storage area.	Building materials, door and windows have been selected with durability and life cycle maintenance in mind. Window configurations have been designed to ensure that cleaning can occur internally.	Yes
Waste Management	Incorporate existing built elements where possible. Recycle and reuse demolished materials. Specify building materials that can be reused or recycled. Integrate waste management into all stages of project. Support waste management by specifying project needs and reducing waste by using standard product sizes. Prepare waste management plan. Locate storage areas for bins away from street frontage. Provide waste cupboards or temporary storage area. Incorporate on-site composting where possible.	Separate waste storage has been provided to both aspects of the development. The appropriate number of bins has been provided including general waste and recycling allocation.	Yes
Water Conservation	Use AAA rated appliances. Encourage use of rainwater tanks. Collect, store and use rainwater on	Noted.	Yes

Issue	Required	Proposed	Complies (Y/N)
	site. Incorporate local native vegetation in landscape. Consider grey water recycling.		

6 Section 79C Consideration

The proposed development has been assessed in accordance with the provisions of Section 79C of the Environmental Planning and Assessment Act 1979, as outlined below.

(a)(i) Any environmental planning instrument

The proposed development is permitted under the Part 3A Concept Plan Approval for the Bonnyrigg Living Communities Project, as outlined in **Section 5.1**. Each of the relevant approval documents has been fully assessed to ensure that the Stage 3 development responds to the relevant requirements for the ongoing renewal of Newleaf Bonnyrigg in accordance with the Concept Plan Approval.

(a)(ii) Any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the draft instrument has been deferred indefinitely or has not been approved)

The Draft Comprehensive Fairfield LEP was recently placed on public exhibition on which seeks to zone the majority of Newleaf Bonnyrigg as R1 General Residential. The proposed development satisfies the applicable objectives for the R1 zone by providing housing needs of the community in a variety of housing types and densities. Each of the proposed dwelling types (including attached, detached, walk up apartments) are permitted with development consent.

(a)(iii) Any development control plan

The proposal generally complies with the Bonnyrigg Master Plan, as outlined in detail in **Section 5.1**. The minor variations have been fully justified and it is considered that the Stage 3 renewal will achieve a high level of residential amenity for future occupants and an enhanced and attractive streetscape to benefit the wider community.

(a)(iiia) Any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F

A voluntary planning agreement submitted with the Part 3A application was endorsed by Fairfield City Council and forms part of the Concept Plan approval.

(a)(iv) The regulations (to the extent that they prescribe matters for the purposes of this paragraph)

The development application has been prepared and lodged in accordance with the relevant provisions of the Environmental Planning and Assessment Regulation 2000.

(b) The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality

The likely environmental, social and economic impacts of the development have been assessed and it is considered that there will be a number of important benefits arising from the Stage 3 renewal. Further, the potential detrimental impacts are minor and can be appropriately mitigated. A summary of the likely impacts and responses is provided below:

- The proposed dwellings have been designed to achieve and exceed the BASIX criteria to minimise demand for services, including water, sewer and power.
- The construction phase for the project will be managed in accordance with the ECMP, Services Disconnections Plans and Traffic Control Plan to minimise the potential impacts on the private land owners in Stage 3 and the existing social and private housing occupants in the surrounding residential areas.
- The Bonnyrigg Community Renewal Services Plan and Bonnyrigg Rehousing Services Plan will continue to be implemented to assist social housing residents during the renewal of Stage 3.

- The construction phase of the project will result in increased employment and spending in the local community.
- The provision of a variety of dwelling types at different price points will facilitate the sale of housing to a range of buyers, including first-home purchasers, people seeking to upgrade to a newly constructed home and investors, increasing the availability of housing stock within the local area.

(c) The suitability of the site for the development

The site is suitable for the proposed development, taking into account its existing residential use and compliance with the approved Concept Plan.

(d) Any submissions made in accordance with this Act or the regulations

It is acknowledged that Fairfield City Council will exhibit the development application and any submissions received will be addressed at that time.

(e) The public interest

The proposal is considered to be in the public interest as it has been demonstrated that:

- The proposal is permitted under the provisions of the Concept Plan and generally complies with the relevant planning controls.
- The proposal will have no significant adverse impacts but will deliver a range of economic, social and environmental benefits and is therefore in the public interest.
- The site is suitable for its intended use.

7 Summary and Recommendations

This Statement of Environmental Effects has demonstrated that the proposed super-lot subdivision, dwelling construction and residential subdivision is appropriate for the site, based on the following:

- The proposal is permissible with consent under the provisions of the Part 3A Concept Plan Approval for the Bonnyrigg Living Communities Project.
- The development application is appropriately lodged under the provisions of Part 4 of the Environmental Planning and Assessment Act 1979 in accordance with the Ministerial declaration.
- The proposed dwellings have been designed to achieve substantial compliance with the provisions of the Bonnyrigg Masterplan.
- The project will deliver a range of positive social, economic and environmental benefits to the community and the region.

Overall, it is considered that the proposal is satisfactory and approval is recommended.

Appendix A Section 75W Application