

Newleaf Bonnyrigg: Stage 4 Development Application

Statement of Environmental Effects

December 2011

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1 Introduction

1.1 STAGE 4 OF BONNYRIGG LIVING COMMUNITIES PROJECT

This Statement of Environmental Effects has been prepared on behalf of Newleaf Communities (formerly known as Bonnyrigg Partnerships) and in association with a development application seeking consent for the Stage 4 renewal of Newleaf Bonnyrigg (also known as the Bonnyrigg Living Communities Project).

The development application seeks approval for the following works:

- Residential subdivision to create 64 Torrens title lots and 30 Strata title lots to facilitate the sale/transfer of individual dwellings to private purchasers and Housing NSW.
- Construction of 94 residential dwellings comprising:
 - 30 garden apartments
 - 12 attached dwellings
 - 52 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.

1.2 PART 4 DEVELOPMENT APPLICATION AND SECTION 75W MODIFICATION

The proposed dwellings are located within Stage 4 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 modify the Concept Plan for the Bonnyrigg Living Communities Project. The application has been lodged with Department of Planning and Infrastructure (DPI) and is currently being assessed. A copy of the Section 75W application is attached as **Appendix A**.

The potential modifications to the Concept Plan approval the following key changes:

- Increase in the total number of dwellings across the site from approximately 2,332 dwellings to approximately 2,500 dwellings.
- Increase in the amount of public open space to be delivered across the estate from 12 hectares to 12.13 hectares and an increase in the size of the future community centre building from 560m² to 700m².
- Amendments to the site and road layout to accommodate the proposed additional total number of dwellings.
- Refinement of the existing attached dwelling controls to enable row houses/terraces to be accommodated in future stages.
- Provision of specific car parking rates for lifted and garden apartments.
- Housekeeping amendments to the Bonnyrigg Masterplan to incorporate the previous and currently proposed modifications and to improve the clarity and interpretation of a number of existing controls for attached dwellings.

This development application has been assessed in accordance with the modifications proposed within the Section 75W application.

1.3 DEVELOPMENT APPLICATION DOCUMENTATION

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

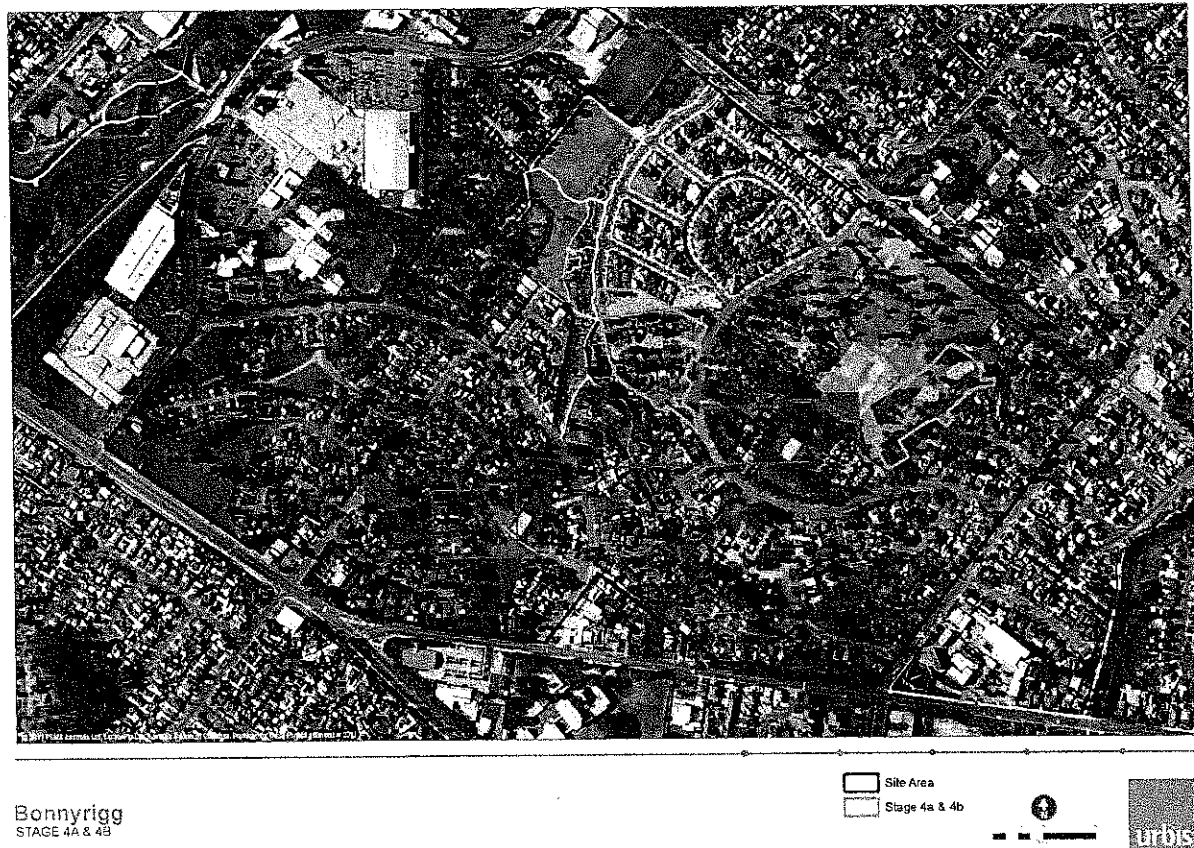
- Survey Plans, prepared by Vince Morgan.
- Subdivision Plans, prepared by Vince Morgan.
- Development Plans prepared by dKO Architects
- SEPP 65 Design Verification Statement prepared by dKO Architects
- SEPP 65 Compliance Table prepared by dKO
- Compliance Assessment Spreadsheet prepared by dKO Architects
- Basix Certificates issued by dKO Architects
- Landscape Drawings prepared by Site Image
- Arborist Report prepared by Anderson Environmental Consultants
- Stage 4 Civil Infrastructure Drawings prepared by Hyder
- Construction Management documentation prepared by Hyder
- Stormwater Design – Stage 4 Report, prepared by Hyder
- QS Report –WT Partnership
- Remedial Action Plan – JBS Environmental
- Stage 4 and Revised Masterplan Community Issues and Outcomes Report - GHD

2 Site Context

2.1 SITE DESCRIPTION

The development application comprises Stage 4 of the approved Concept Plan for the Bonnyrigg Living Communities Project (now commonly known as 'Newleaf Bonnyrigg'). A locality plan is provided below.

FIGURE 1 – LOCALITY PLAN



The street addresses and legal descriptions of the properties included within Stage 4 are provided in the following table and a site survey is included at **Appendix B**.

TABLE 1 – PROPERTY DESCRIPTIONS

STREET ADDRESS	LEGAL DESCRIPTION
Badgery Way, Bonnyrigg	Lots 11 & 12 DP 1143255
Hosking Way, Bonnyrigg	Lot 65 DP 262453
Bunker Parade, Bonnyrigg	Lots 101,102 & 414 DP 262456
Bunker Parade, Bonnyrigg	Lots 254 to 265 DP 262449

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 2 – 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



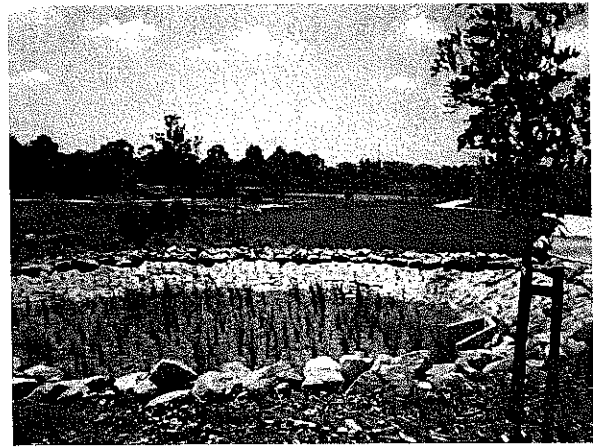
PICTURE 3 – STAGE 1 DWELLINGS



PICTURE 4 – STAGE 1 DWELLINGS



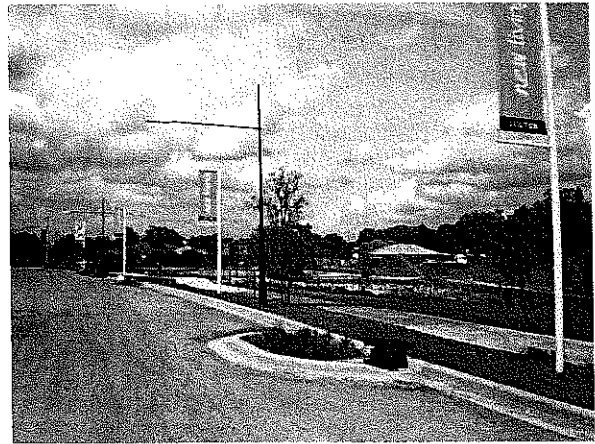
PICTURE 5 – CENTRAL VALLEY PARK



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 construction of dwellings, residential subdivision, public domain improvements and individual site works.

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 DWELLING CONSTRUCTION

The development application seeks consent for the construction of 94 dwellings with associated ancillary works, including site preparation/earthworks, stormwater, servicing and landscaping. Development Plans are included at **Appendix C**.

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:

- 30 garden apartments
- 12 attached dwellings
- 52 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.

3.3 RESIDENTIAL SUBDIVISION

The development application 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. Subdivision Plans are included at **Appendix D**.

The proposed subdivision will create:

- 64 Torrens lots (Lots 4100 to 4138 inclusive and Lots 4200 to 4224)
- 2 Development Lots for apartment building (Lots 4225 & 4226 comprising 30 Strata Lots)
- 5 Residue Lots (Lots 4139, 4140, 4227, 4228 & 4229)

3.4 PUBLIC DOMAIN AND INDIVIDUAL SITE WORKS

Public domain improvements and individual site works including site preparation/earthworks (refer to **Appendix E**), road re-surfacing (where required), public and private landscaping works (refer to **Appendix F**), stormwater infrastructure upgrades (refer to **Appendix G**) and individual lot servicing.

3.5 TREE REMOVAL

Trees and vegetation are proposed to be removed as part of the application. An Arboricultural Assessment (see **Appendix H**) has been prepared which has informed a Tree Removal Plan (see **Appendix F**).

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.

The potential modifications to the Concept Plan approval include following key changes:

- Increase in the total number of dwellings across the site from approximately 2,332 dwellings to approximately 2,500 dwellings.
- Increase in the amount of public open space to be delivered across the estate from 12 hectares to 12.13 hectares and an increase in the size of the future community centre building from 560m² to 700m².
- Amendments to the site and road layout to accommodate the proposed additional total number of dwellings.
- Refinement of the existing attached dwelling controls to enable row houses/terraces to be accommodated in future stages.
- Provision of specific car parking rates for lifted and garden apartments.
- Housekeeping amendments to the Bonnyrigg Masterplan to incorporate the previous and currently proposed modifications and to improve the clarity and interpretation of a number of existing controls for attached dwellings.

In order to facilitate the above changes, it will be necessary to amend the Concept Plan approval and a number of the approved documents, including:

- Amendments to the written instrument of approval, including the total number of dwellings to be delivered across the estate.
- Amendments to the Concept Plan Maps, including the approved land use (residential, open space and neighbourhood centre), road hierarchy and indicative staging plans.
- Amendments to the Bonnyrigg Masterplan, including:
 - Minor text changes to Parts 1 and 2 to reflect the increased number of dwellings and general housekeeping changes to reconcile the previous and proposed amendments to the Part 5 Private Domain controls.
 - Updating the graphics in Part 3 to reflect the amended site layout.
 - Substantial changes to the Part 4 Public Domain controls, including both graphic and text changes, to incorporate the enhanced public domain improvements required to meet the needs of the increased residential population.
 - Comprehensive review and update of Part 5 Private Domain to improve the legibility of the existing development controls and introduce a limited range of new dwelling typologies that will facilitate the achievement of the increased dwelling density across the estate.

This development application has been assessed in accordance with the modifications proposed within the Section 75W application.

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 4 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 4 Precinct does not include any privately owned dwellings.

The proposal seeks to retain the existing road layout where possible. In summary, the application provides:

- Continuation of Newleaf Parade to connect to Bunker Parade and the retention of Bunker Parade as an interim connection until Stage 5 is developed. Palmer Way through the centre of Stage 4a will also provide a connection to Bunker Road.
- Existing services within Bunker Parade and Newleaf Parade will be extended to service stage 4a. Stage 4b will divert the alignment of Bishop Crescent to be parallel with Donovan Place which will be constructed in the stage 3 works.
- The existing alignment of Bishop Crescent will remain as a connection at the Sandilands Roads intersection until it's removal in a future stage. The existing Sandilands Road will be utilised to direct stormwater flows from Stage 4b and existing services within Sandilands Road and Bishop Crescent will be extended to service Stage 4b.

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 4 comprises the renewal of existing residential land, which is consistent with the Concept Plan approval.

- **Staged Construction of approx. 2,500 dwellings in 18 stages over 13 years, including apartments, attached homes (in 2,3,4,6 and 8-plex configurations) , terraces/row homes, detached homes comprising private dwellings and public dwellings:**

Stage 4 includes 94 dwellings in a consistent manner with the modifications to the Concept Plan as proposed within the current Section 75W application.

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

Stage 4 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 paths.

- **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 Hyder Consulting in support of the current development application for Stage 4. The stormwater drainage plans illustrate the configuration of individual lot drainage within Stage 4 as well as the location of pipes, stormwater outlets and typical street section drawings. The plans also include erosion and sediment control details.

Hyder Consulting 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 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 4 renewal and the planned decommissioning of other unnecessary services.

5.2 DEVELOPMENT IN ACCORDANCE WITH PLANS AND DOCUMENTATION

The Stage 4 proposal has been prepared having regard to the requirements of each of the relevant plans and reports that form part of the current Concept Plan approval and the proposed modifications within the current Section 75W application. Compliance with key issues in the approval documentation is outlined below:

- **Updated Master Plan**

The compliance of the Stage 4 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 (as proposed to be modified) provides for "Garden Apartments" adjacent to the Middle Valley Community Centre Park and "attached and detached dwellings" elsewhere in the Stage 4 boundaries.

The proposal fully complies with the objectives of the Land Use Map.

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 the Middle Valley Community Centre 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.

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

The Indicative Staging Plan that forms part of the Concept Plan approval includes 94 dwellings within Stage 4. The development application is generally consistent with the Indicative Staging Plan (as proposed to be modified) as it seeks development consent for a total of 94 dwellings.

The proposed roads have been designed in accordance with the Road Hierarchy Plan (as proposed to be modified).

- **Community Renewal Services and Implementation Plans**

The Stage 4 development is a continuation of the previous work undertaken in Stages 1, 2 and 3 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 4 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 4 Stormwater Design Report prepared by Hyder Consulting 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 association 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 4 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 4 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 4 comply with the provisions of the Project Design Report, taking into account:

- Provision of the pedestrian and bicycle connections, including the shared pedestrian/cycle 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 Hyder Consulting. The Environment and Construction Management Plan and Services Disconnections Plans also prepared by Hyder Consulting and in support of the Stage 4 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.

A Remedial Action Plan (RAP) has been prepared for Stage 4 which is included at **Appendix I**.

▪ **Environment and Construction Management Plan**

An Environment and Construction Management Plan (ECMP) has been prepared in support of the current application by Hyder Consulting. 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 4. This is included at **Appendix J**.

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

The Voluntary Planning Agreement allocates \$0.879 million of works for Stage 4 within the Infrastructure Services Delivery Plan. This includes:

- Upgrade of collector roads within the Bonnyrigg Estate
- Contribution of funding for the provision of bus shelters
- Provision of cycleways within Bonnyrigg Estate and connections to established cycleways outside the Bonnyrigg Estate
- Works for the construction and embellishment of the 'Valley Park'
- Installation of water quality measures
- Contribution of funding for upgrade of Bonnyrigg library.

▪ **Incoming Community Report**

The dwelling designs for Stage 4 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 4 proposal provides a variety of dwelling types that are appropriate to a mix of diverse cultures.

A copy of the *Stage 4 and Revised Masterplan Community Issues and Outcomes Report*, prepared by GHD and dated November 2011 is attached as **Appendix K**. A summary of the key findings and recommendations is provided below:

- Participation in community consultation activities increased compared to the previous events held in association with the original proposal and subsequent stages.
- The majority of respondents were social housing residents, followed by private residents and private non-residents (ie residents living outside of the general boundaries of the Concept Plan approval).
- Feedback included particular areas of support for the revised Masterplan, as well as issues and questions regarding the proposed changes.
- Supportive feedback generally related to the responses made to previously expressed community sentiment, including consultation, sales, design/appearance and privacy.
- Concerns were primarily related to consultation, allocation/timing (rehousing of existing social housing residents), windows (absence of windows in bathrooms in zero lot line dwellings) and fit-out (generally referring to the type of finishes and provision of air conditioning).

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

BASIX certification has been obtained for all dwellings and is provided with the development application documentation.

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 \$0.879 million of works nominated in the Infrastructure Services Delivery Plan will be delivered as part of the Stage 4 development.

Newleaf Communities has continued to liaise with Council, the working group and the local community during the development process.

A working group was established to guide the preparation, lodgement and assessment of the Section 75W application to modify the Concept Plan approval. The aim of the working group was to achieve consensus between the proponent and Fairfield City Council with regard to the work to be undertaken by the proponent in reviewing the original Concept Plan approval documentation and assist Council with its assessment of the modifications proposed by the Section 75W application.

The core members of the working group from Fairfield City Council were David Niven, Amanda Bray and Andrew Mooney. However, additional Council officers attended meetings as required to respond to specific issues, such as public open space provision/maintenance, etc. A range of issues were discussed at each of the working group meetings, which was largely influenced by the attendees and their existing knowledge of/previous involvement with the Concept Plan and its implementation.

- **BASIX**

BASIX certification has been obtained for all dwellings and is provided with the development application documentation.

- **Social Impacts**

The Rehousing Services Plan, Community Renewal Implementation Plan and Community Renewal Services Plan will continue to be implemented for Stage 4 and future renewal stages.

In addition, updated CPTED, Social Impact Assessment and Infrastructure Needs Analysis were undertaken as part of the Concept Plan modifications. The principles established within these updated reports has been embodied within the Stage 4 design.

- **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.

The intersection improvements are not relevant to the Stage 4 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 Hyder Consulting for Stage 4 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 4 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 4.

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 4 development comprehensively complies. A summary of this compliance is provided in **Table 2** below.

As outlined in **Section 1.2** of this report, a Section 75W application has been lodged with the Department of Planning which seeks to update the Bonnyrigg Masterplan as follows:

- Minor text changes to Parts 1 and 2 to reflect the increased number of dwellings and general housekeeping changes to reconcile the previous and proposed amendments
- Updating the graphics in Part 3 to reflect the amended site layout.
- Substantial changes to the Part 4 Public Domain controls, including both graphic and text changes, to incorporate the revised site layout and the enhanced public domain improvements required to meet the needs of the increased residential population.
- Comprehensive review and update of Part 5 Private Domain to improve the legibility of the existing development controls and introduce a new dwelling typology that will facilitate the achievement of the increased dwelling density across the estate.

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.	All lots comply with the controls table for attached and detached dwellings.	Yes
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	All garage must be setback a minimum of 5.5m from the street frontages (not including rear access streets or secondary frontages which are considered on merit) Garages fronting rear access streets and secondary frontages may be constructed to the allotment boundary subject to demonstrating safe vehicle and pedestrian movements can be	All garages are setback a minimum of 5.5 metres from the street with the exception of Lot 4100 and Lot 4135 which are on secondary frontages. 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	Yes

CONTROL	REQUIRED	PROVIDED	COMPLIES
	maintained and an appropriate streetscape.	designed so that front doors are clearly visible from the street. All dwellings on corner allotments have been designed to address the street frontage.	
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 4 are either one or two storeys in height and comply with the minimum 2.4m ceiling height guideline. The proposed apartment building is addressed separately below.	Yes
Setbacks	<p><i>For Front Setbacks:</i></p> <p>A minimum of 80% of the front building facade (excluding garages) is to be setback a minimum of 4.5m from the allotment frontage;</p> <p>A maximum of 20% of the front building facade may be setback a minimum of 1.2m from the allotment frontage; and</p> <p>A zero setback may be permitted for limited building elements and only on secondary street frontages.</p> <p><i>For Side and Rear Setbacks:</i></p> <p>80% of the side building facade must be setback a minimum of 0.9m from the side boundary (except for zero setbacks)</p> <p>Where there is a zero side setback, a minimum 0.9m access path must be provided between the front and rear yards elsewhere;</p> <p>Zero side setbacks must not exceed a maximum length of 12m where it adjoins a private allotment;</p> <p>Windows or openings are permitted within these walls only where they satisfy BCA requirements for fire safety and where no privacy impacts arise; and</p> <p>Where a gutter is required on the zero setback boundary, a 0.2m offset from the allotment line must be established, with the placement of a maintenance easement on the adjoining allotment for access.</p>	All Stage 4 dwellings comply with the setback guidelines contained within the Masterplan.	Yes
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	The Stage 4 layout has been designed to ensure that windows of adjacent dwellings do not directly face each other. The provision of private open space within	Yes

CONTROL	REQUIRED	PROVIDED	COMPLIES
	<p>view into the balcony or habitable window of another dwelling located within 6m.</p> <p>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.</p> <p>Air conditioning units are to meet appropriate acoustic standards.</p> <p>Attached dwellings and apartments must be designed (and their material specified) to the relevant BCA requirements for acoustic privacy.</p>	<p>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.</p> <p>Where overlooking is unavoidable, screening of upper level windows is provided to maintain privacy.</p>	
Safety and Security	<p>Define edges of spaces using a mixture of height change, landscape, hedges, fences, walls, and gates.</p> <p>Ensure each dwelling has safe well-lit access to and from their car parks and their dwelling.</p> <p>Make homes inaccessible from balconies, roofs and windows of neighbouring buildings.</p> <p>Provide direct access from car park to home wherever possible.</p> <p>Orient entrances towards public street and provide clear sight lines.</p> <p>Minimise number of dwellings using shared entrance ways.</p> <p>Orient living areas and provide balconies with views over public and any communal open spaces or areas of car parking.</p> <p>Avoid dead ends and other areas of possible entrapment.</p> <p>Ensure lighting is sufficient to allow for facial recognition of approaching pedestrians within 15m.</p> <p>Avoid blind or dark alcoves near where people will need to walk - such as entrances, car parks, corridors or walkways.</p> <p>Provide good lighting along any paths</p>	<p>Edges of spaces are clearly defined through the use of fencing and landscaping.</p> <p>All dwellings benefit from direct access to their allocated car parking, wither via the front door or their private open space.</p> <p>Buildings have been designed and located to make homes inaccessible from balconies, roofs and windows of neighbouring buildings.</p> <p>All building entrances are oriented towards public streets and provide clear sight lines to the street.</p> <p>No dwellings utilise shared entrance ways.</p> <p>The dwellings have been designed to achieve overlooking of the street.</p> <p>Stage 4 utilises the existing road pattern. All dwellings face onto the street to ensure maximum passive surveillance and activity.</p> <p>Adequate building setbacks are provided to ensure that people walking on public footpaths can do so safely.</p> <p>Lighting compiles with the relevant Australian Standards.</p>	Yes

CONTROL	REQUIRED	PROVIDED	COMPLIES
	<p>and areas that people are likely to use at night. Such as over entry doors and car parking areas.</p> <p>Utilise white light instead of sodium vapour to ensure proper colour and textural rendition.</p>		
Open Space	<p>Minimum of 25m² of ground level private open space with minimum dimension of 4m or 10m² of above ground level open space with minimum dimension of 2.5m.</p> <p>Private open space should generally be accessible from living area.</p> <p>Private open space should generally be located to maximise solar access.</p> <p>Fencing will be constructed in accordance with the site fencing strategy.</p> <p>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.</p>	<p>All lots comply with the minimum private open space requirements.</p> <p>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.</p>	Yes
Car Parking and Garages	<p>Car parking must be designed to ensure cars are not parked across pedestrian or cycle paths.</p> <p>Minimum dimensions of any parking space is 2.5m x 5.5m.</p> <p>Minimum internal dimensions of an enclosed garage must be 3m x 6m.</p> <p>Maximum 6m width of driveways at boundary for individual dwellings.</p> <p>Detached homes will provide two car spaces per dwelling which may be tandem, with visitor parking on street.</p> <p>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.</p>	<p>All dwellings provide private car parking in accordance with the relevant rates.</p> <p>Minimum dimensions of parking spaces are achieved</p> <p>Minimum internal dimensions of garages are achieved</p> <p>No driveways exceed 6m in width.</p> <p>The minimum garage setbacks of 5.5m allow space for a second vehicle to be parked within the property. Lot 4100 and Lot 4135 are on secondary frontages which have a slightly reduced setback.</p>	Yes
Service Areas	<p>Each dwelling will have access to a service court for garbage that is screened from the street and placed in a convenient location.</p>	<p>Each dwelling provides space for garbage bins to be screened from the street.</p>	Yes
Storage	<p>Storage space should be provided in addition to kitchen cupboards and</p>	<p>Storage space is provided to all dwellings contained within Stage 4 in accordance with</p>	Yes

CONTROL	REQUIRED	PROVIDED	COMPLIES
	bedroom wardrobes - 1 bed – 6m ³ . 2 beds – 8m ³ ; and 3+ beds – 10m ³ .	the minimum requirements.	
Sloping Sites	Maximum 1m cut/fill measured at any corner of the building platform.	The proposed maximum cut/fill is less than 1m in all circumstances.	Yes
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. Refer to Appendix L .	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.	100% of dwellings achieve full solar access in accordance with the masterplan.	Yes
Garden Apartments	Garden (or walk up) apartments should be provided in a variety of locations which allow opportunities for enhanced residential amenity, design quality and environmental sustainability within Newleaf Bonnyrigg in accordance with the guidelines contained within SEPP 65. Areas such as those in close proximity to public open space, parks and activity centres will be suitable as they provide 'breathing space' for housing, opportunities for passive and active recreational opportunities, pleasant views, outlooks and circulation space, and casual surveillance. These apartments will be designed in an innovative manner and contain high quality materials and finishes. They will reinforce street edges where required, and positively respond to the surrounding characteristics of individual areas within the estate. Car parking for garden apartments to be provided at the rate referred to in	The proposed garden apartments in Stage 4 respond positively to the objectives of the Bonnyrigg Masterplan. The proposed apartments comply with the guidance contained within the Residential Flat Design Code and within the Bonnyrigg Masterplan.	Yes

CONTROL	REQUIRED	PROVIDED	COMPLIES
	the TMAP (1/dwelling for 1-2 bed and 1.5/dwelling (3+ bed). Visitor parking to be provided on-street.		

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 4 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 (refer to **Appendix M**)

ISSUE	REQUIREMENT	PROPOSED	COMPLIES
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 three storey heights for the site we have designed the building to sit comfortably within its 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 12.3m with 45% of apartments under 11m in depth.	Yes
Building Separation	<u>Up to four storeys/12 metres:</u> 12m between habitable rooms/balconies. 9m between habitable rooms & non-habitable rooms. 6m between non-habitable rooms. <u>Five to eight storeys/25 metres:</u>	Buildings have been oriented away from each other to minimise any form of overlooking. Added to this balconies which are in proximity to each other have been provided with privacy screens	Yes

ISSUE	REQUIREMENT	PROPOSED	COMPLIES
	18m between habitable rooms/balconies. 13m between habitable rooms/balconies and non-habitable rooms. 9m between non-habitable rooms		
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 varied street setback has been provided to ensure the scale of the building is appropriate to it's context relative to the park. Upper level setback are similar to lower level setbacks with building form appropriately articulated with the use of different materials.	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 three 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 proposed three storey height is considered appropriate based upon the relationship to adjoining two storey development. Setbacks are again in keeping with the overall rational of the streetscape. There are no particular FSR requirements relating to the site.	Yes

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 3575m ² , and the total of all deep soil zones equates to 1006.7m ² or 28%.	Yes
Fences and Walls	Respond to character of street and area. Delineate private and public domain without compromising safety and security.	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	Yes

ISSUE	REQUIREMENT	PROPOSED	COMPLIES
	<p>Contribute to amenity, beauty and usability of private and communal open spaces.</p> <p>Retain and enhance amenity of public domain by avoiding continuous lengths of blank walls and using planting to soften edges and reduce scale.</p> <p>Select durable materials which are easily cleaned and graffiti resistant.</p>	<p>provide adequate levels of privacy screening whilst also maintaining a transparency when viewed from the public domain (and vice versa).</p> <p>It is intended to provide planting zones forward of the main fence line to help further increase the amenity of the public domain.</p>	
Landscape Design	<p>Improve amenity of open space with landscape design, including shade and screening.</p> <p>Contribute to streetscape and public domain.</p> <p>Improve energy efficiency and solar efficiency of dwellings and microclimate of private open spaces.</p> <p>Design landscape with regard to site characteristics.</p> <p>Contribute to water and stormwater efficiency.</p> <p>Provide sufficient depth of soil above pavers</p> <p>Minimise maintenance by robust landscape elements.</p>	<p>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.</p>	Yes
Open Space	<p>Provide communal open space appropriate and relevant to context and building setting.</p> <p>Facilitate use of communal open space by solar access, site features and minimising overshadowing.</p> <p>Provide private open space for each apartment.</p> <p>Locate open space to increase residential amenity.</p> <p>Provide environmental benefits including habitat, microclimate, rainwater percolation, outdoor drying area.</p> <p>Communal open space should be 25-30% of site area.</p> <p>Minimum private open space for each ground level apartment is 25m², with minimum dimension of 4m.</p>	<p>As the location of the apartments are directly adjacent the park there is quality private open space directly adjacent the apartment building.</p> <p>Communal open space has been provided in the form of ground level gardens, access ways, and front strip gardening. The total site area equates to 3575m², and the total of all communal open space equates to 1902.5m² or 53%.</p> <p>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 also helps promote greater and more efficient cross ventilation.</p>	Yes
Orientation	<p>Orient buildings to maximise north facing walls and provide adequate building separation.</p> <p>Respond to streetscape and optimise solar access.</p> <p>Courtyards and setbacks to northern boundaries.</p> <p>Optimise solar access to living spaces and private open space by</p>	<p>Units 1-12 has a North South orientation. All units achieve an appropriate level of solar access. Those units which face East and West (Units 1-18) also have a desirable orientation which maximise solar access in mid winter.</p> <p>Further the internal design of the</p>	Yes

ISSUE	REQUIREMENT	PROPOSED	COMPLIES
	orienting them to north. Building elements to maximise sun in winter and shade in summer.	apartments, and in particular the open plan living / dining / kitchen areas provide full solar access and cross ventilation to living areas.	
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
<i>Site Amenity</i>			
Safety	Delineate private and public space. Optimise visibility, functionality and safety of building entrances. Improve opportunities for casual surveillance and minimise opportunities for concealment. Control access to the development.	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 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.	Yes
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
<i>Site Access</i>			
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	Yes

ISSUE	REQUIREMENT	PROPOSED	COMPLIES
		run stairs 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.	
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 parking. Provide bicycle parking which is easily accessible.	Carparking has been provided with on grade carparking. Carparking has been provided in accordance with relevant council controls and landscaping has been maximised where possible.	Yes
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 10% 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. A total of 30% of apartments (all ground floor apartments) have barrier free access.	Yes
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. Driveways to both carparks provide a 5.5m wide crossover which enables two way traffic into and out of the carpark. 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	Apartment sizes meet the minimum requirements contained	Yes
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ISSUE	REQUIREMENT	PROPOSED	COMPLIES
	<p>configuration and affordability. Ensure apartment layouts are resilient over time.</p> <p>Design layouts to respond to natural and built environments and optimise site opportunities.</p> <p>Avoid locating kitchen in circulation space.</p> <p>Include adequate storage in the apartment.</p> <p>Ensure apartments facilitate furniture removal and placement.</p> <p>Single aspect apartments to have max depth of 8m from window.</p> <p>Kitchen to be max 8m from window.</p> <p>Crossover or cross through apartments >15m deep to have min width of 4m.</p>	<p>within SEPP 65 and are efficiently design to ensure there is no wasted space within the apartments.</p> <p>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.</p> <p>In addition all apartments are cross through with no single aspect apartments throughout the development.</p>	
Apartment Mix	<p>Provide variety of apartments in larger buildings.</p> <p>Refine appropriate mix by population trends and proximity to transport, employment and services.</p> <p>Locate mix of 1 and 3 bed units on ground floor to enable access by disabled, elderly and families.</p> <p>Optimise accessible and adaptable apartments.</p>	<p>The apartment complex contains a total of 30 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.</p>	Yes.
Balconies	<p>Primary balcony (min 2m depth) to be adjacent to living area.</p> <p>Consider secondary balconies in larger apartments, adjacent to bedrooms and for clothes drying.</p> <p>Balconies to respond to local climate and context, solar access, wind and privacy.</p> <p>Design balustrades to allow views and casual surveillance, while providing safety and privacy.</p> <p>Coordinate and integrate building services with façade and balcony design.</p>	<p>Two balconies have been provided to all units which meet the minimum size and depth requirements of SEPP 65.</p>	Yes
Ceiling Heights	<p>Coordinate internal ceiling heights and slab levels with external height requirements.</p> <p>Min floor to ceiling height of 2.7m.</p> <p>Variations to demonstrate satisfactory daylight.</p>	<p>All ceiling heights throughout the development maintain a minimum of 2.7m in all habitable areas.</p>	Yes
Flexibility	<p>Provide robust building configurations which utilise multiple building entries and circulation cores.</p> <p>Promote accessibility and adaptability by accessible and</p>	<p>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</p>	Yes

ISSUE	REQUIREMENT	PROPOSED	COMPLIES
	visitable apartments and pedestrian access.	whereby this single move has meant that the apartments provide cross ventilation and superior solar access.	
Ground Floor Apartments	Design gardens to contribute to street. Promote housing choice by providing private gardens and maximising accessible apartments on ground floor. Increase solar access on ground floor by higher ceilings and windows and tree selection.	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 recreate.	Yes
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 have been efficiently design with almost not wasted space. Added to this apartment lobbies are fully glazed, with operable windows ensuring 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 (e.g. 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
<i>Building Amenity</i>			
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	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. 100% of apartments meet the	Yes

ISSUE	REQUIREMENT	PROPOSED	COMPLIES
	<p>and principal windows.</p> <p>Design for shading and glare control.</p> <p>Living rooms and POS of min 70% of apartments should receive 3 hours direct sunlight between 9am and 3pm in mid winter.</p> <p>Max 10% to be single aspect apartments with southerly aspect.</p>	<p>minimum 3 hours of sunlight to habitable rooms.</p> <p>No apartments have a single orientation, all apartments have a dual frontage.</p>	
Natural Ventilation	<p>Promote and guide natural breezes.</p> <p>Utilise building layout and section to increase natural ventilation.</p> <p>Internal layout to minimise disruptions and group rooms with similar usage together.</p> <p>Select doors and operable windows to utilise air pressure or windows to funnel breezes.</p> <p>Coordinate design with passive solar design.</p> <p>Explore innovative technologies to ventilate rooms.</p> <p>10-18m building depth for natural ventilation.</p> <p>60% of units to be naturally cross ventilated.</p> <p>25% of kitchens to have access to natural ventilation.</p>	<p>The design of the apartments has enabled 100% of apartments to be cross ventilated. In addition 100% kitchens have access to natural ventilation by way of their placement in the plan in the living module.</p>	Yes

Building Form

Awnings and Signage	<p>Locate awnings over building entries.</p> <p>Enhance safety by providing lighting.</p>	<p>All street entries have awnings provided to their main entries.</p>	Yes
Facades	<p>Consider relationship between building form and façade or building elements.</p> <p>Facades to have appropriate scale, rhythm and proportion responding to use and desired character.</p> <p>Facades to reflect orientation of site using sunshade devices.</p> <p>Express important corners by giving visual prominence to parts of façade.</p> <p>Coordinate and integrate building services.</p> <p>Coordinate security grills, ventilation louvers and car park entry doors with overall façade design.</p>	<p>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.</p>	Yes
Roof Design	<p>Relate roof design to desired built form.</p> <p>Relate to size and scale of building, elevations, building form.</p> <p>Respond to orientation of site.</p> <p>Minimise visual intrusiveness of service elements.</p> <p>Facilitate use of roof for sustainable</p>	<p>The proposed roof elements are expressive and provide extended eaves to provide weather protection to the upper level windows.</p>	Yes

ISSUE	REQUIREMENT	PROPOSED	COMPLIES
	functions.		
<i>Building Performance</i>			
Energy Efficiency	<p>Incorporate passive solar design to optimise heat storage in winter and heat transfer in summer.</p> <p>Improve control of mechanical heating and cooling.</p> <p>Plan for photovoltaic panels.</p> <p>Improve hot water system efficiency.</p> <p>Reduce reliance on artificial lighting.</p> <p>Maximise efficiency of household appliances.</p>	<p>All openings have been designed to ensure there is some level of solar protection provided.</p> <p>Windows to the North have been provided with sun-shades placed over the windows, all sliding doors are appropriately protected by deep balcony reveals.</p> <p>In addition passive cooling has been provided by virtue of the cross ventilation provided within the apartments.</p>	Yes
Maintenance	<p>Design windows to enable internal cleaning.</p> <p>Select manually operated systems, such as blinds.</p> <p>Incorporate and integrate building maintenance systems into design of building form, roof and façade.</p> <p>Select durable materials which are easily cleaned.</p> <p>Select appropriate landscape elements and vegetation and provide appropriate irrigation systems.</p> <p>Provide garden maintenance and storage area.</p>	<p>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.</p>	Yes
Waste Management	<p>Incorporate existing built elements where possible.</p> <p>Recycle and reuse demolished materials.</p> <p>Specify building materials that can be reused or recycled.</p> <p>Integrate waste management into all stages of project.</p> <p>Support waste management by specifying project needs and reducing waste by using standard product sizes.</p> <p>Prepare waste management plan.</p> <p>Locate storage areas for bins away from street frontage.</p> <p>Provide waste cupboards or temporary storage area.</p> <p>Incorporate on-site composting where possible.</p>	<p>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.</p> <p>A waste management plan is included at Appendix N.</p>	Yes
Water Conservation	<p>Use AAA rated appliances.</p> <p>Encourage use of rainwater tanks.</p> <p>Collect, store and use rainwater on site.</p> <p>Incorporate local native vegetation in landscape.</p> <p>Consider grey water recycling.</p>	<p>It is intended to provide water conservation appliances where practical.</p>	Yes

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**. This application is submitted concurrently with a Section 75W application to modify this Concept Plan.

Each of the relevant approval documents has been fully assessed to ensure that the Stage 4 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 defers the Concept Plan boundaries of Newleaf Bonnyrigg.

(a)(iii) Any development control plan

The proposal generally complies with the Bonnyrigg Master Plan (as proposed to be modified by the Section 75W application), as outlined in detail in **Section 5.1**.

(a)(iia) 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. This may be subject to modifications as part of the Section 75W application submitted concurrently with the application.

(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 4 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 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 4.
- 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 private homes 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 (as proposed to be modified by the Section 75W application) 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 development 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 (as proposed to be modified by the Section 75W application) 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 full compliance with the provisions of the Bonnyrigg Masterplan (as proposed to be modified by the Section 75W application).
- 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.