TURNER

MANNIX PARADE

11-13 Mannix Parade Warwick Farm NSW 2170

DESIGN STATEMENT

Development Application
Residential Development

Incorporating:

SEPP 65 and ADG Statement

DA **14.08.20**_Rev 2

CONTENT

VIEW FROM MANNIX STREET

PART 1
INTRODUCTION

This design statement by Turner forms part of Development Application (DA) submission for 11-13 Mannix Parade Warwick Farm seeking approval for the proposed residential development on the subject land.

This report should be read in conjunction with the accompanying architectural design package, associated consultant's reports and also includes SEPP65 Design Verification and provides relevant information on how the design responds to the design principles of the SEPP and the objectives of the Apartment Design Guide (ADG).]

MANNIX PARADE LOBBY ENTRY

Site description

The site, located at 11-13 Mannix Parade Warwick Farm, NSW, is bounded by Mannix Parade to the East, McGirr Parade to the North, single storey residential dwellings to the West and South with medium density three storey residential flat buildings predominantly to the East. The site comprises of five Lots; Located at 11-13 Mannix Parade, 2-4 McGirr Parade and 2 Hinkler Avenue Warwick Farm with a total site area of 1683 sqm. The site is zoned R4 High Density Residential under Liverpool LEP 2008. The site is in close proximity to public transport, local neighbourhood shops and nearby land uses including Liverpool Hospital, Westfield Liverpool Shopping Centre and local schools such as Liverpool Girls High School and All Saints Catholic College. Warwick Farm Railway Station to the south east and Liverpool Station to the south, both link the site to the Paramatta and Sydney CBD.
11-13 Mannix Parade Warwick Farm, NSW, from here on will be referred to as the Site.

Proposal

The proposal for the Site includes an 7 storey residential building with

- one level of basement car parking for 20 cars;
- residential apartments to the upper 6 floors consisting of 21 one bedroom apartments and 22 two bedroom apartments.

Project team

Turner is engaged by Land and Housing Corporation to prepare the architectural design package for the proposed development of 11-13 Mannix Parade Warwick Farm, NSW,

Working closely with the consulting team for the project which includes Planning, Landscape Architects, BCA, Traffic, Civil, ESD, Acoustic, Waste Management and Services Consultants since February 2020, we have prepared the architectural design package including this design statement in support of the proposed development.

PART 2

SEPP 65
DESIGN QUALITY PRINCIPLES

We confirm that Stephen Cox of Turner is registered as an architect under the Architects Act 2003 and has directed the DA design and documentation of the development at 11-13 Mannix Parade Warwick Farm, NSW and that the design quality principles set out in Part 2 of State Environmental Planning Policy No 65-Design Quality of Residential Flat Development are achieved for the residential development.

Stephen Cox
Registration Number: 6391

01 DESIGN QUALITY PRINCIPLE

CONTEXT AND NEIGHBORHOOD CHARACTER

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.

Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Proposal

The Warwick Farm area within the Liverpool Local Government Area is a locality undergoing significant transformation to a high density residential area. The proposal responds to the desired urban renewal that is occurring throughout the locality and forms a positive contribution to the desired future character of the area.

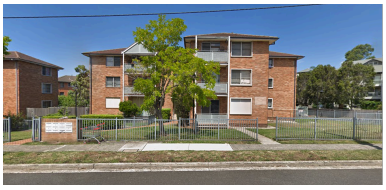
The immediate context is characterised by single storey detached fibro cottages and three storey walk-up residential flat buildings. The site is bound by McGirr Parade to the North and Mannix Parade to the East with three storey residential flat buildings located opposite the Site on these two frontages. Adjoining the Site, to the western and southern boundaries, are single storey residential dwellings. The Site is not located within a heritage conservation area.

The proposal is designed to fit in to the future desired context and neighbourhood character envisaged by the planning controls. The massing of the proposal was an important consideration to ensure that the development envelope minimised impact to neighbouring properties privacy or overshadowing.
The building is profiled to maximise solar access to the apartments and to maintain solar access to the adjoining properties to the south and west.

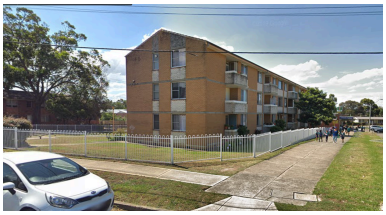
The street address on Mannix Parade features a clearly defined building entry and a landscape strategy that offers a green relief zone of mature tree planting, low maintenance indegenous shrubs, grases and ground covers to the front set-back. This landscape strategy continues around the corner to McGirr Parade.

The character and materialty of the proposal is driven by simplicity, durability and low maintenance. A common language of face brick is used throughout with select areas of corbelling and stack bond offering variation and texture. The robust form and refined material palette offer an architectural language that the occupants and neighbourhood can be proud of.

Single storey detached fibro cottages.



Three storey walk up residential flat buildings to the East.



Three storey walk up residential flat building to the North with neighbourhood shops beyond.

02 DESIGN QUALITY PRINCIPLE

BUILT FORM AND SCALE

Good design achieves a scale, bulk and height appropriate to the existing or future desired character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.

Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

Proposal

During the concept design phase a number of massing strategies were investigated. Starting with the movement of sun during mid-winter several massing strategies were tested against the various site controls, permissible FSR bonus (ARH SEPP) applicable to the site, the relationship to the streetscape along McGirr Parade and Mannix Parade, and the amenity of the internal spaces and apartments within the development.

A building setback of 3m-4m is proposed to McGirr Parade. A 5.5m setback is maintained along Mannix Parade with minor encroachments where the form steps.

The stepped facades combined with building setbacks from the western and southern boundary at Level 04 (Storey 05) reduce the perceived scale and mass of the building. This enables a six storey articulated brick form that defines the corner block without compromising amenity to adjoining sites.

On each face, balconies with perforated metal mesh and vertical steel balustrades combined with privacy screens are used to break down the scale providing shadow and depth. Corbelled brickwork to the windows of the eastern street elevation and stack bond brickwork to the ground floor terraces bring a finer level of detail close to the street.

All apartments have good outlook taking advantage of local vistas and landscaped communal areas.

Active edges are provided by the building Lobby Entry at Mannix Parade and access to the southern ground floor apartments from the Communal Open Space.

A building setback of 3m-4m is proposed to McGirr Parade. Proposed setbacks support the growth of mature large canopy trees.

03 DESIGN QUALITY PRINCIPLE

DENSITY

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

Proposal

The proposed development fits within the prescribed zoning; R4 High Density Residential under Liverpool LEP 2008 and proposes a residential density that supports the future intended population density for the area. Other planning considerations such as The Greater Sydney Region Plan (GSRP) March 2018 recognise the demand for housing supply, choice, diversity and affordability in an area with access to jobs, services and public transport.

The proposal is designed to provide 100% social housing all configured to meet the Livable Housing Australia guidelines with 10% configured for adaption.

There are existing facilities in close proximity to support the proposed densities including Warwick Farm and Liverpool train stations, local neighbourhood shops and nearby land uses including Liverpool Hospital, Westfield Liverpool Shopping Centre and local schools such as Liverpool Girls High School and All Saints Catholic College.

The proposed development:

- Reflects an FSR of 1.92:1. The site has an FSR of 1.5:1 under the Liverpool LEP 2008 however the development is eligible for a bonus 0.5:1 FSR given the proposal will provide more than 50% affordable housing.
- Houses a total of 43 units with a mix of 49% one bedroom, 51% two bedroom apartments, allowing a mix of typologies and living patterns required by Land and Housing Corporation. All of the apartments are livable and feature both silver and gold level design elements as outlined in the Livable Housing Australia 2017 guideline.
- Provides 25% of the site area as communal open space.

04 DESIGN QUALITY PRINCIPLE

SUSTAINABILITY

Good design combines positive environmental, social and economic outcomes.

Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.

Proposal

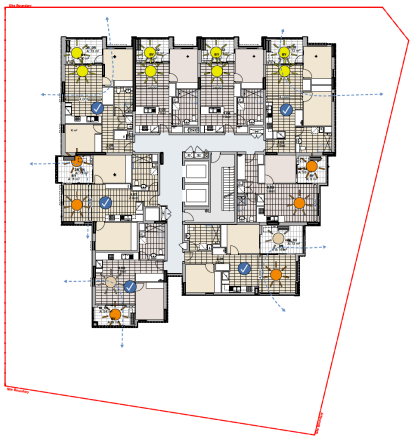
The development is designed to embrace ESD principles. The use of appropriate built form generates 60% of apartments naturally ventilated.

The massing, internal layouts and orientation have been organised so as to provide good natural daylighting and solar access into the primary living spaces, external living areas and courtyard. The massing also allows a greater proportion of apartments to have a Northern aspect. Eastern and Western aspects are then prioritised over south aspect apartments.

Photovoltaics will be included on the roofs to provide energy to common area lighting at the Entry Lobby and lift lobby corridors.

A BASIX report by WSP Australia Pty Ltd is submitted with this development application outlining the thermal comfort, water and energy use strategy for the development.

Refer to architectural drawing package in which provides further details relating to the above.



Amenitiy:

Solar access 3 hours:
- Apartment:
- Balcony:

Solar access = 2 hours:
- Apartment:
- Balcony:

Solar access < 2 hours:
- Apartment:
- Balcony:

No direct Solar access:
- Apartment:
- Balcony:

Cross Ventilation:

05 DESIGN QUALITY PRINCIPLE

LANDSCAPE

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values, and preserving green networks.

Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, and provides for practical establishment and long-term management.

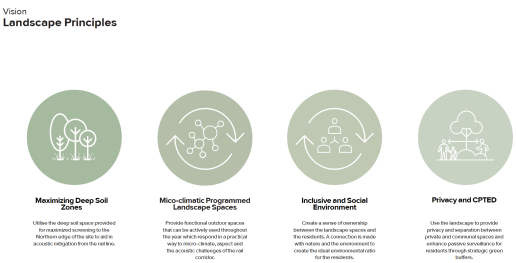
Proposal

An integrated approach has been adopted for the development where:

- A diversity of open spaces provide amenity and a hierarchy that responds to the need for a variety of different activities to occur within the site.
- The street frontage will benefit the wider community; the landscape strategy offers a green relief zone of mature tree planting, low maintenance indegenous shrubs, grasses and ground covers that extend across the Mannix Parade frontage and continue around the corner to McGirr Parade.
- The Communal Open space occupies the 6m wide deep soil zone at the southern end of the site that extends east-west. A pathway connects the communal gardens that are easily accessible from the Ground Floor Lobby. The south-eastern garden offers an open turf green for informal play while the western portion features passive resting areas and a communal gathering area. The proposed mature tree planting and buffer planting provide privacy and shade via the tree canopies. A favourable respite especially in the warmer seasons.
- Pergola planting over the driveway screens the vehicular access entry ramp.
- Each apartment has a balcony complying with the minimum prescribed depth in the ADG, and have been designed to encourage potted plants and maximise light and views, whilst considering privacy and screening of clothes lines and balcony furniture.

Refer to Landscape drawings and report by Arcadia for further detail.

Landscape Plan By Arcadia



Landscape Principles By Arcadia

"Mature tree planting, low maintenance shrubs, grasses and ground covers extend across Mannix Parade and continue arounf the corner to McGirr Parade"

06 DESIGN QUALITY PRINCIPLE

AMENITY

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well-being.

Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and services areas and ease of access for all age groups and degrees of mobility.

Proposal

The building has been organised and arranged to maximise the potential amenity of the indoor and outdoor spaces.

- The proposal complies with the amenity provisions of the ADG; solar access, natural cross-ventilation, room size and apartment areas all meet or exceed SEPP65 minimums.
- The use of appropriate built form generates 60% of apartments naturally ventilated.
- Ceiling heights are designed to facilitate light and ventilation to the habitable areas and to allow for efficient mechanical extraction and services integration. 2.7m ceilings will be provided to living and bedrooms with minimal bulkheads below 2.7m. Some kitchens will be a minimum of 2.4m to all for the reticulation of hydraulic and mechanical exhaust ducts.
- All units have primary living areas facing local district views or new communal open space.
- Room sizes adopt the Livable and adaptable design standards while making the apartment look the same as regular apartments. This offers variety to potential residents, also allowing for age-in-place.
- The privacy of the units has been maintained through appropriate set backs, orientation, internal layouts and separation of balconies.

07 DESIGN QUALITY PRINCIPLE

SAFETY

Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well-lit and visible areas that are easily maintained and appropriate to the location and purpose.

Proposal

Crime Prevention Through Environmental Design (CPTED) considerations are important to the delineation of public, communal and private areas of the development.

- Good passive surveillance of the street and communal areas is afforded by balconies and windows to the full building perimeter, thereby taking in all aspects. There are clear lines of site within and adjacent to the site.
- Ground floor terraces feature low walls and palisade fencing providing appropriate separation and privacy for ground floor apartments.
- The building entry is well defined and legible with mailboxes located inside the lobby in a secured area.
- Appropriate lighting will be provided to all exterior areas, both public and communal, particularly around entry points. The entry lobby will be well-lit to accentuate the street address and continually illuminated after dark for added safety.
- The building will utilise a security system at all entry points, and within the lifts. A single point of vehicular access is secured by an automatic roller door.
- Communal open space is well delinated from the public domain and is easily accessible and overlooked from apartments.

08 DESIGN QUALITY PRINCIPLE

HOUSING DIVERSITY AND SOCIAL INTERACTION

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.

Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.

Proposal

The proposal is designed to provide 100% social housing in apartments with high amenity. All apartments are configured to meet the Livable Housing Australia guidelines with 10% configured for adaption.

One and two bedroom apartments are provided, following the social housing demands of the area. Ground floor and selected upper apartments have larger outdoor spaces suitable for different demographics.

The outdoor spaces are designed to engender community spirit for residents within the development, by offering both public and private areas for congregation and activity.

Refer to the Social Impact Statement prepared by Mecone as part of the Statement of Environmental Effects for further detail.

09 DESIGN QUALITY PRINCIPLE

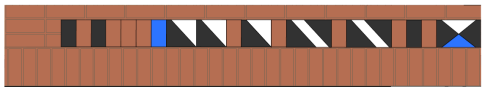
AESTHETICS

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Proposal

- The overall design concept has been to provide an approach that considers both the detail of the building at the scale of an individual person interacting with their immediate environment, as well as to consider the overall building form within the immediate context and how the material and treatment of the façade give character and definition in the context of Liverpool.
- The street frontage and Lobby Entry is celebrated with good quality native planting, brick corbelling and a ceramic tile pattern as signage for the street address creating visual intrigue for passers by.
- The stepped facades combined with building setbacks from the western and southern boundaries at Level 04 reduce the perceived scale and mass of the building. This enables a six storey articulated brick form that defines the corner block.
- On each face, balconies with perforated metal mesh and vertical steel balustrades combined with privacy screens are used to break down the scale providing shadow and depth. Corbelled brickwork to the windows of the eastern street elevation and stack bond brickwork to the ground floor terraces bring a finer level of detail close to the street.
- The design has included consideration to external materials and finishes so that applied finishes are minimised to reduce maintenance. Interior finishes will also be selected for durability and ease of maintenance.
- The proposed face brick façade provides a durable, low maintenance building with materials designed to weather gracefully. The brick skin is given definition and texture through horizontal raked joints, vertical flush joints and select areas of corbelling. A high degree of standardisation is proposed through window size and balcony screens.
- Balconies feature balustrades with perforated metal mesh to allow privacy and screening of balcony furniture but still permitting openness and district views. Balconies are designed to enable clothes lines and encourage potted plants and vegetation by residents.
- Low brick walls in a rich earthy tone are used for the garden walls to the ground floor terraces. These walls are fronted with painted steel fencing to bring a finer detail close to the street. The base is richer in its detailing, reflecting its proximity to pedestrians.
- The robust form and refined material palette offer an architectural language that the occupants and neighbourhood can be proud of.
- 
- *A ceramic tile pattern is signage for the street address.*



PART 3

RESPONSE TO APARTMENT DESIGN GUIDE OBJECTIVES

The following provides a design response to the relevant objectives of the Apartment Design Guide (ADG) and describes the measures by which the proposed development meets these objects.

3A Site analysis [p.47]

Objective 3A-1
Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context

The proposal meets the objectives.

- The site analysis plan is included in the architectural drawings demonstrating the how the design has considered the site amenities.
- Site Location Plan and Aerial Photograph is submitted that illustrates the site location in relation to surrounding centres, shops, civic/community facilities and transport
- The Warwick Farm area within the Liverpool Local Government Area is a locality undergoing significant transformation to a high density residential area. The proposal responds to the desired urban renewal that is occurring throughout the locality and forms a positive contribution to the desired future character of the area.
- The immediate context is characterised by single storey detached fibro cottages and three storey walk-up residential flat buildings. The site is bound by McGirr Parade to the North and Mannix Parade to the East with three storey residential flat buildings located opposite the Site on these two frontages. Adjoining the Site, to the western and southern boundaries, are single storey residential dwellings. The Site is not located within a heritage conservation area.
- The proposal is designed to fit in to the future desired context and neighbourhood character envisaged by the planning controls. The massing of the proposal was an important consideration to ensure that the development envelope minimised impact to neighbouring properties privacy or overshadowing.
- The building is profiled to maximise solar access to the apartments and to maintain solar access to the adjoining properties to the south and west.
- The street address on Mannix Parade features a clearly defined building entry and a landscape strategy that offers a green relief zone of mature tree planting, low maintenance indegenous shrubs, grases and ground covers to the front set-back. This landscape strategy continues around the corner to McGirr Parade.
- The character and materialty of the proposal is driven by simplicity, durability and low maintenance with materials designed to weather gracefully. Paint is minimised. The proposed face brick façade features select areas of corbelled brick and stack bond. This combined with horizontal raked joints and flush vertical joints enable texture, light and shadow to the street elevation.
- The strong form and refined material palette offer an architecture that the occupants and neighbourhood can be proud of.

3B Orientation [p.49]

Objective 3B-1
Building types and layouts respond to the streetscape and site while optimising solar access within the development

The proposal meets the objectives.

- During the concept design phase a number of massing strategies were investigated. Starting with the movement of sun during mid-winter several massing strategies were tested against the various site controls, permissible FSR bonus (ARH SEPP) applicable to the site, the relationship to the streetscape along McGirr Parade and Mannix Parade, and the amenity of the internal spaces and apartments within the development.
- The selected solution was a form that enabled high amenity to the apartments and communal open space within the development without compromising amenity and solar access to adjoining sites.
- A building setback of 3m – 4m is proposed to McGirr Parade. A 5.5m setback is maintained along Mannix Parade with minor encroachments where the form steps.
- The stepped facades combined with building setbacks from the western and southern boundaries at Level 04 (Storey 05) reduce the perceived scale and mass of the building. This enables a six storey articulated brick form that defines the corner block without compromising amenity to adjoining sites.
- The proposed development seeks to vary one development standard:
    1. In relation to the northern boundary setback as outlined in Clause 3.7 Liverpool LEP 2008; a 3m - 4m setback is proposed.

Objective 3B-2
Overshadowing of neighbouring properties is minimised during mid-winter

The proposal meets the objectives.

- Modelling indicates that the neighbouring properties receive the required sunlight.
- No collectors sighted on adjoining properties.

Refer to the shadow diagrams for further information.

3C Public domain interface [p.51]

Objective 3C-1
Transition between private and public domain is achieved without compromising safety and security

The proposal meets the objectives.

- Much of the site grading along McGirr Parade and Mannix Parade is maintained to ensure a seameless junction with the Public Domain and existing neighbouring properties.
- The building entry is well defined and legible with mailboxes located inside the lobby in a secured area.
- Appropriate lighting will be provided to all exterior areas, both public and communal, particularly around entry points. The entry lobby will be well-lit to accentuate the street address and continually illuminated after dark for added safety.
- Good passive surveillance of the street and communal areas is afforded by balconies and windows to the full

building perimeter, thereby taking in all aspects. There are clear lines of site within and adjacent to the site.

- Ground floor terraces feature low walls and palisade fencing providing appropriate separation and privacy for ground floor apartments.
- The building will utilise a security system at all entry points, and within the lifts. A single point of vehicular access is secured by an automatic roller door.
- Communal open space is well delinated from the public domain and is easily accessible and overlooked from apartments.

Objective 3C-2
Amenity of the public domain is retained and enhanced

The proposal meets the objectives.

- The street frontage will benefit the wider community; the landscape strategy offers a green relief zone of mature tree planting, low maintenance indegenous shrubs, grasses and ground covers that extend across the Mannix Parade frontage and continue around the corner to McGirr Parade.
- The design works to minimise the prominence of services and service areas to accommodate vehicular access and waste collection.

Refer to the Landscape concept plan prepared by Arcadia for further information.

3D Communal and public open space [p.55]

Objective 3D-1
An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.

Design Criteria

- *Communal open space has a minimum area equal to 25% of the site*
- *Developments achieve a minimum of 50%*

  direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter)

The proposal meets the objectives.

- 25% of site area is classified as communal open space;
- The proposal will achieve the percentage requirements for communal open spaces receiving a minimum 2 hours of mid-winter sun.

Objective 3D-2
Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting

The proposal meets the objectives.

- The Communal Open space occupies the 6m wide deep soil zone at the southern end of the site that extends east-west. A pathway connects the communal gardens that are easily accessible from the Ground Floor Lobby. The south-eastern garden offers an open turf green for informal play while the western portion features passive resting areas and a communal gathering area. The proposed mature tree planting and buffer planting provide privacy and shade via the tree canopies. A favourable respite especially in the warmer seasons.

Objective 3D-3
Communal open space is designed to maximise safety

The proposal meets the objectives.

- Appropriate lighting will be provided to all exterior areas, both public and communal, particularly around entry points.
- Good passive surveillance of the communal open space is afforded by balconies and windows to the full building perimeter, thereby taking in all aspects.
- The communal open space is well delinated from the public domain and is easily accessible and overlooked from apartments.

Objective 3D-4
Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood

The proposal meets the objectives.

- The building lobby entry activates the street frontage and is well connected to Mannix Parade.
- Boundaries are clearly defined between public open space and private areas.

3E Deep soil zones [p.61]

Objective 3E-1
Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality

Design criteria
Deep soil zones are to meet the following minimum requirements:

- *7% of site area*
- *<650sqm – no min dimension*
- *650sqm-1500sqm – 3m min dimension*
- *>1500sqm – 6m min dimension*

The proposal meets the objectives.

- Deep soil zones are provided throughout the development, offering a landscape buffer to the adjacent residential dwellings;
- 20% of the site features deep soil planting.
- 11% of the site features deep soil with a minimum dimension of 6m.

Refer to the Deep soil and Communal Open Space Plan for further information.

3F Visual Privacy [P.62]

Objective 3F-1
Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy

Design criteria
1. Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum separation distances from buildings to the side and rear boundaries are as follows:

Up to 12m (4 storeys): Habitable rooms and balconies - 6m; Non-habitable rooms – 3m
Up to 25m (5-8 storeys): Habitable rooms and balconies - 9m; Non-habitable rooms – 4.5m
Over 25m (9 + storeys): Habitable rooms and balconies - 12m; Non-habitable rooms – 6m

The proposal meets the objectives.

- Up to 4 Storeys;

  Habitable Rooms and Balconies; Minimum separation disctance of 6m from the proposal to the side and rear boundaries is achieved.

  Non-Habitable Rooms; Minimum separation disctance of 3m from the proposal to the side and rear boundaries is achieved.
- 5 to 8 Storeys;

  Habitable Rooms and Balconies; Minimum separation disctance of 9m from the proposal to the side and rear boundaries is achieved.

  Non-Habitable Rooms; Minimum separation disctance of 4.5m from the proposal to the side and rear boundaries is achieved.

Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see fig 3F.2)

Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties

Objective 3F-2
Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space

The proposal meets the objectives.

- Balconies feature balustrades with perforated metal mesh to allow privacy and screening of balcony furniture but still permitting openness and district views. Balconies are designed to enable clothes lines and encourage potted plants and vegetation by residents.
- The privacy of the units has been maintained through appropriate set backs, orientation, internal layouts and separation of balconies.

3G Pedestrian access and entries [p.66]

Objective 3G-1
Building entries and pedestrian access connects to and addresses the public domain

The proposal meets the objectives.

- The street frontage and Lobby Entry is clearly defined with good quality native planting, brick corbelling and a ceramic tile pattern as signage for the street address creating visual intrigue for passers by.
- The street frontage will benefit the wider community with high quality native planting to both street frontages.

Objective 3G-2
Access, entries and pathways are accessible and easy to identify

The proposal meets the objectives.

- Pathways, ramps and stairs have been integrated with the overall landscape and building design concept for accessible and legible entries;
- The residential lobby entry is separated from the maintenance/service building entries with a separate access route different in character and materiality;
- All apartments are accessible from the Ground Floor Lobby and Basement carpark.
- Screened fences with gates will be used to secure resident private open space from the public domain and communal open space. This will also assist legibility and navigation throughout the site.

Objective 3G-3
Large sites provide pedestrian links for access to streets and connection to destinations

- N/A

3H Vehicle access [p.68]

Objective 3H-1

- *Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes*

The proposal meets the objectives.

- The car park entry point is located to allow the smooth ingress of traffic and to avoid conflicts with pedestrian routes;
- Passing bays provided to avoid traffic clashes;

- Clear sight lines are to provided at the carpark entry/exit point and vehicle crossings;
- Pedestrian and vehicle access points to and from the buildings are to be kept separate.

Further information about the vehicle entry, exit and traffic management can be found in the traffic report by PTC traffic engineers submitted with this proposal.

3J Bicycle and car parking [p.71]

Objective 3J-1
Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas

1. For development in the following locations:

- *On sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or*
- *On zoned land, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre*

the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less

The car parking needs for a development must be provided off street

The proposal is consistent with the objectives.

- The proposed basement car parking is provided in accordance with the traffic engineers calculations which support concessions to rates specified under the current DCP. A total of 20 car spaces are provided off street, of which 5 are accessible. These numbers reflect the car parking rates outlined in the Affordable Rental Housing SEPP.
- The site is in close proximity to public transport. Warwick Farm Railway Station to the north east and Liverpool Station to the south, both link the site to the Paramatta and Sydney CBD.

Objective 3J-2
Parking and facilities are provided for other modes of transport

The proposal meets the objectives.

- Bicycle parking is provided at rates required under the Liverpool DCP 2008. A total of 22 bicycle spaces for residents and 4 for vistors are provided.

Objective 3J-3
Car park design and access is safe and secure

The proposal meets the objectives.

- Car park access is secured at appropriate levels for amenity and residential uses.

Objective 3J-4
Visual and environmental impacts of underground car parking are minimised

The proposal meets the objectives.

- Car parking is in the basement and accessed off McGirr Parade.
- The Entry to the basement is minimised in width and appearance where possible while complying the development standards.
- Pergola planting over the driveway screens the vehicular access entry ramp.

Objective 3J-5

The proposal meets the objectives.

Visual and environmental impacts of on-grade car parking are minimised	– There is no on-grade car parking.
Objective 3J-6 *Visual and environmental impacts of aboveground enclosed car parking are minimised*	The proposal meets the objectives. – There is no above ground enclosed car parking.

4A Solar and daylight access [p.79]

Objective 4A-1 *To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space* *Design criteria* – *Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas* – *A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter*	The proposal meets the objectives. – 74% of apartments receive a minimum of 2 hours direct sunlight to the Living Rooms and Private Open Spaces at mid-winter. – 2% of apartments (one apartment) receives no-direct sunlight between 9am and 3pm mid-winter. Refer to the Amenity Diagrams for further information.
Objective 4A-2 *Daylight access is maximised where sunlight is limited*	The proposal meets the objectives. – The building envelope has been developed to enable only one apartment with no direct sunlight midwinter.
Objective 4A-3 *Design incorporates shading and glare control, particularly for warmer months.*	The proposal meets the objectives. – Balconies on north, east and west facades sit within the building envelope for shading in summer and weather protection. – Windows feature projecting mullions for sun shading. – Non-reflective, matte surfaces reduce reflectivity and glare.

4B Natural ventilation [p.83]

Objective 4B-1 *All habitable rooms are naturally ventilated*	The proposal meets the objectives. – Windows and doors are provided to allow the ADG and BCA requirements for natural ventilation; – Habitable room depths facilitate natural ventilation.
Objective 4B-2 *The layout and design of single aspect apartments maximises natural ventilation*	The proposal meets the objectives. – The apartment layouts include open plan kitchen, dining and living and, – For single aspect apartments the depth of rooms from external windows is within the maximum 3x the ceiling height requirement. (ADG Fig 4D.3)
Objective 4B-3	The proposal meets the objectives.

The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents

Design criteria

- *At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed*
- *Overall depth of a cross-over or cross through apartment does not exceed 18m, measured glass line to glass line*

- 60% of apartments achieve natural cross-ventilation;
- Cross-through apartments do not exceed 18m glass line to glass line;
- Natural cross-ventilation is proposed by corner or cross-through strategy to the living area and n-1 bedrooms. Refer to the definition in the ADG [Appendix p.180].
- The building includes 63% dual aspect or cross over apartments

Refer to the Amenity diagrams for further information.

4C Ceiling heights [p.87]

Objective 4C-1
Ceiling height achieves sufficient natural ventilation and daylight access

Design criteria

- *Measured from finished floor level to finished ceiling level, minimum ceiling heights are:*
- *Habitable rooms: 2.7m*
- *Non-habitable: 2.4m*
- *For 2 storey apartments: 2.7m for main living area floor; 2.4m for second loor, where the area does not exceed 50% of the apartment area*
- *If located in mixed use area: 3.3m for ground and first floor to promote flexibility*

The proposal meets the objectives.

- A minimum floor-to-floor height of 3.1m is used to allow the ADG recommendation of 2.7m ceiling height to be achieved in living, dining and bedroom areas.
- In some cases a reduced ceiling height or bulkhead is used in habitable rooms for mechanical services. In these cases the minimum ceiling level will be 2.4m;
- Bulkheads will be minimised in these rooms and placed at the perimeter of the space so that natural ventilation and daylight are maximised.
- Where required, ceilings in kitchen areas are proposed at a minimum of 2.4m high to allow the integration of services. The bulkhead permits the concealment services in a neat enclosure providing an appropriate proportion of spaces and a natural division between the living and dining areas from the kitchen area.
- As the kitchen is typically located at the rear of the living areas, the reduced ceiling height above the kitchen has a minimal effect on the access of daylight from the facade and natural ventilation.
- Floor to floor height of 3.35m to the Ground floor level.

Refer to Architectural Drawing Package GA Sections for further information.

Objective 4C-2
Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms

The proposal meets the objectives.

- Internal layouts have well proportioned rooms with good access to daylight and ventilation to maximise the feeling of spaciousness.

Objective 4C-3
Ceiling heights contribute to the flexibility of building use over the life of the building

A floor-to-floor height of 3.35m is used at Ground Level with 3.1m from Level 01 up therfore providing limited flexibility of building use.

4D Apartment size and layout [p.89]

Objective 4D-1
The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity

Design criteria
1. *Apartments are required to have the following minimum internal areas:*
- *Studio: 35sqm*
- *1 bedroom: 50sqm*
- *2 bedrooms: 70sqm*
- *3 bedrooms: 90sqm*

The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m each
A fourth bedroom and further additional bedrooms increase the minimum internal area by 12mÇ each

2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms

The proposal meets the objectives.

- A range of apartment typologies are provided adding to the flexibility and affordability of the development;
- The proposal includes dual aspect apartments, dual aspect living areas and cross through apartments;
- Apartments have varying aspects and amenity including local district views and proximity to the communal open space.

The proposal achieves the design criteria.

- Average apartment sizes meet or exceed ADG requirements;
- Layouts are functional providing well positioned and flexible storage solutions;
- Windows are visible and within 8m from the furthest point within habitable rooms.

Objective 4D-2
Environmental performance of the apartment is maximised

Design criteria
- *Habitable room depths are limited to a maximum of 2.5 x the ceiling height*
- *In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window*

The proposal meets the objectives.

- Refer to Objective 4C-1 for ceiling heights.
- Living areas and bedrooms are all located on the external face of the building. Maximum habitable room depths from windows is 8m.

Objective 4D-3
Apartment layouts are designed to accommodate a variety of household activities and needs

Design criteria
- *Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)*
- *Bedrooms have a minimum dimension of 3m (excluding wardrobe space)*
- *Living rooms or combined living/dining rooms have a minimum width of 3.6m for studio and 1 bedroom apartments and 4m for 2 and 3 bedroom apartments*
- *The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts*

The proposal meets the objectives.

- Minimum areas and widths for habitable rooms are provided or exceeded.
- Access to bathrooms and laundires are generally separated from living areas minimising direct openings between living and service areas.
- All bedrooms allow a minimum length of 1.5m for robes
- The main bedroom of an apartment is provided with a wardrobe of a minimum 1.8m in length.
- Layouts facilitate a variety of furniture arrangements and removal.
- Spaces for a range of activities and privacy levels between different spaces within the apartment
- Room sizes and proportions are open plans. Rectangular spaces that are more easily furnished than square spaces.
- Efficient planning of circulation by stairs, corridors and through rooms maximise the amount of usable floor space in rooms

4E Private open space and balconies [p.92]

Objective 4E-1

Apartments provide appropriately sized private open space and balconies to enhance residential amenity

Design criteria
1. All apartments are required to have primary balconies as follows:

- *Studio: 4sqm*
- *1 bedroom: 8sqm, 2m deep*
- *2 bedrooms: 10sqm, 2m deep*
- *3 bedrooms: 12sqm, 2.4m deep*
- *The minimum balcony depth to be counted as contributing to the balcony area is 1m*

2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15sqm and a minimum depth of 3m

The proposal meets the objectives.

Minimum areas and depths of balconies and private open space meet or exceed the minimum requirements of the ADG.

Objective 4E-2
Primary private open space and balconies are appropriately located to enhance liveability for residents

The proposal meets the objectives.

- Private open spaces and balconies predominantly face north, east or west
- Primary balconies open directly from Living spaces.

Objective 4E-3
Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building

The proposal meets the objectives.

- Balconies feature perforated mesh and vertical metal screens to allow privacy and screening of balcony furniture but still permitting openness and district views. These are designed to enable clothes lines and encourage potted plants and vegetation by residents.
- Balconies allow passive surveillance of the street while maintaining visual privacy.
- Low stack bond brick walls with painted steel fencing bring a finer detail close to the street. The base is richer in its detailing reflecting the proximity to pedestrians.
- Clothes lines and Hot Water Units integrated into the building design and are screened,
- Downpipes and balcony drainage are integrated with the overall facade and building design
- Ceilings of apartments below terraces are insulated to avoid heat loss

Objective 4E-4
Private open space and balcony design maximises safety

The proposal meets the objectives.

- Design and detailing of balconies avoids opportunities for climbing and falls.
- Changes in ground levels are minimised.

4F Common circulation and spaces [p.97]

Objective 4F-1
Common circulation spaces achieve good amenity and properly service the number of apartments

Design criteria
- *The maximum number of apartments off a circulation core on a single level is eight*
- *For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40*

The proposal meets the objectives.

- 2 lifts are provided to service 43 apartments.
- The proposal features one circulation core that services a maximum of 8 apartments per level.
- Each circulation corridor to each level has access to natural light increasing the amenity of the residents.
- The Main Entry Lobby and lift lobbies at each individual floor achieve a good level of amenity as they are connected to the facade to facilitate access to natural light and outdoor air.
- Lobbies are widened outside lifts and will include clear legible wayfinding signage for comfortable movement of residents and visitors.

Objective 4F-2
Common circulation spaces promote safety and provide for social interaction between residents

The proposal meets the objectives.

- Common circulation spaces are designed to provide safe, legible spaces to foster interaction and harmony between residents;
- The ground floor Lobby entry is well defined and legible with mailboxes located inside the lobby in a secured area. Communal open space is easily accessible from the Ground Floor Lobby

4G Storage [p.101]

Objective 4G-1
Adequate, well-designed storage is provided in each apartment
Design criteria
- *In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:*
- *studio: 4m3*
- *1 bed: 6m3*
- *2 beds: 8m3*
- *3 beds: 10m3*

At least 50% of the required storage is to be located within the apartment

The proposal meets the objectives.

- 70% of apartments accommodate the entire storage volume within the unit. The remaining locate a minimum of 50% of the required storage within the apartment with the remainder located in secure and accessible locations within the basement;
- A variety of storage types will be provided, accessed off living rooms and circulation corridors within the apartments.

Objective 4G-2
Additional storage is conveniently located, accessible and nominated for individual apartments

The proposal meets the objectives

- Storage locations will be allocated within the basement level as part of the proposal

4H Acoustic Privacy [p.103]

Objective 4H-1
Noise transfer is minimised through the siting of buildings and building layout

- Adequate building separation is provided from neighbouring buildings/adjacent uses.
- Walls, glazing, and roofs are designed to meet the requirements of the acoustic report for sound mitigation, particularly from the Hume Hwy.

Refer to Acoustic report for further details.

Objective 4H-2
Noise impacts are mitigated within apartments through layout and acoustic treatments

The proposal meets the objectives

- Noisy areas within the proposed development including building entries and corridors are generally located above each other and quieter areas above quieter areas;
- Where possible, bedrooms of adjacent apartments will be located next to each other and likewise with living area.
- Storage, circulation areas and non-habitable rooms will be located to buffer noise from living areas and common areas;
- The party walls (walls shared with other apartments) are designed to meet the requirements of the acoustic report.

4J Noise and Pollution [p.105]

Objective 4J-1
In noisy or hostile environments the impacts of external noise and pollution are minimised throught the careful siting and laytout of buildings

The proposal meets the objectives

- Private and communal landscaped spaces on ground level buffer noise from the street and public domain.
- Internal apartment layouts separate noisy spaces from quiet spaces;
- Waste collection is isolated to the north of the development.

Refer to Acoustic report for further details

Objective 4J-2
Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission

The proposal meets the objectives

- Dense materials are used in the facades, providing good noise reduction.
- Walls, glazing, and roofs are designed to meet the requirements of the acoustic report for sound mitigation;
- The party walls (walls shared with other apartments) are designed to meet the requirements of the acoustic report.

Refer to Acoustic report for further details

4K Apartment Mix [p.107]

Objective 4K-1
A range of apartment types and sizes is provided to cater for different household types now and into the future

The proposal meets the objectives:

- A variety of apartment types are provided;
- Houses a total of 43 units with a mix of 49% one bedroom, 51% two bedroom apartments, allowing a mix of typologies and living patterns. All of the apartments are livable and

feature both silver and gold level design elements as outlined in the Livable Housing Australia 2017 guideline.

- One and two bedroom apartments are provided, following the social housing demands of the area. Ground floor and selected upper apartments have larger outdoor spaces suitable for different demographics.

Objective 4K-2
The apartment mix is distributed to suitable locations within the building

The proposal meets the objectives.

- Apartment types have been located to achieve successful facade composition and to optimise solar access;
- Apartment mix is distributed throughout the development providing 1 and 2 bedroom apartments of varying typology.
- Larger apartment types have been located on the top levels where there is opportunity for more open space as well as on the corners of the building and at street level, where more building frontage is available.

4L Ground floor apartments [p.109]

Objective 4L-1
Street frontage activity is maximised where ground floor apartments are located

The proposal meets the objectives.

- The ground level is designed to provide activity and vibrancy through the building lobby and an integrated landscape concept that includes high quality native planting.

Objective 4L-2
Design of ground floor apartments delivers amenity and safety for residents

The proposal meets the objectives.

- Provision of gates and fences will be designed to offer a surveillance of the public domain and privacy for residents through a balance of permeability and opacity.

4M Facades [p.111]

Objective 4M-1
Building facades provide visual interest along the street while respecting the character of the local area

The proposal meets the objectives.

- Shadow is created on the façade throughout the day by building articulation, texture of brickwork horizontal raked joints and corbel patterns, recessed balconies and portions of projecting balconies.

Objective 4M-2
Building functions are expressed by the façade

The proposal meets the objectives.

- The building façade is informed by the particular programme of the spaces within the apartments.
- Different strategies have been adopted for residential and services uses.
- Residential apartments are clearly identifiable and distinguishable from the services.

Refer to the architectural drawings for further information

4N Roof design [p.113]

Objective 4N-1 *Roof treatments are integrated into the building design and positively respond to the street*	The proposal meets the objectives. – Roof treatments are integrated with the building design and materials to compliment the architectural aesthetic.
Objective 4N-2 *Opportunities to use roof space for residential accommodation and open space are maximised*	The proposal meets the objectives where practicable.
Objective 4N-3 *Roof design incorporates sustainability features*	The proposal meets the objectives. – Roof design maximises solar access to apartments during winter and provides shade during summer via overhanging roofs to balconies and living areas.

4O Landscape design [p.115]

Objective 4O-1 *Landscape design is viable and sustainable*	The proposal meets the objectives. – Building performance is enhanced by incorporating diverse planting including appropriately planted shading trees along street frontages to meet DCP requirements. Refer to the landscape design package for further information
Objective 4O-2 *Landscape design contributes to the streetscape and amenity*	The proposal meets the objectives. – The proposal involves a significant improvement to the public domain with high quality mature trees offering green relief to the streetscape.

4P Planting on structures [p.116]

Objective 4P-1 *Appropriate soil profiles are provided*	The proposal meets the objectives. Refer to the landscape design package.
Objective 4P-2 *Plant growth is optimised with appropriate selection and maintenance*	The proposal meets the objectives. – Diverse planting that is low in maintenance and suited to the site are incorporated to enhance the performance of the landscaped areas. Refer to the landscape design package.
Objective 4P-3 *Planting on structures contributes to the quality and amenity of communal and public open spaces*	The proposal meets the objectives. Refer to the landscape design package.

4Q Universal Design [p.118]

Objective 4Q-1 *Universal design features are included in apartment design to promote flexible housing for all community members*	The proposal exceeds the objectives. 100% of the total apartments incorporate the Livable Housing Guideline's silver level universal design features.
Objective 4Q-2 *A variety of apartments with adaptable designs are provided* *Adaptable housing should be provided in accordance with the relevant council policy*	The proposal meets the objectives. 10% of the total number of apartments are adaptable in accordance with the Liverpool DCP Design solutions for adaptable apartments include: – convenient access to communal and public areas – high level of solar access – minimal structural change and residential amenity loss when adapted – larger car parking spaces for accessibility
Objective 4Q-3 *Apartment layouts are flexible and accommodate a range of lifestyle needs*	The proposal meets the objectives. Apartment design incorporates flexible design solutions which include: – a mix of north facing and dual aspect apartments – a variety of internal layouts

4R Adaptive Reuse [p.120]

Objective 4R-1 *New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place*	This objective is not applicable.
Objective 4R-2 *Adapted buildings provide residential amenity while not precluding future adaptive reuse*	This objective is not applicable.

4S Mixed use [p.122]

Objective 4S-1 *Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement*	This objective is not applicable.
Objective 4S-2 *Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents*	This objective is not applicable.

4T Awnings and signage [p.125]

Objective 4T-1	

Awnings are well located and complement and integrate with the building design	The proposal meets the objectives. – Awnings are not proposed as the Lobby Entry and ground floor apartments have sufficient coverage and weather protection due to the building over
Objective 4T-2 *Signage responds to the context and desired streetscape character*	The proposal meets the objectives. – Signage will be limited to building identification, navigation and statutory signs. It will be designed to fit harmoniously in the architecture and to contribute positively to the precinct.

4U Energy efficiency [p.127]

Objective 4U-1 *Development incorporates passive environmental design*	The proposal meets the objectives. – Natural light will be provided to all habitable rooms. – Outdoor communal open space areas are designed to provide residents with a range of spaces offering flexibility and choice demonstrating a high level of passive environmental design. Refer to ESD and BASIX report for more information.
Objective 4U-2 *Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer*	The proposal meets the objectives. – The massing, internal layouts and orientation have been organised so as to provide good natural daylighting and solar access into the primary living spaces, external living areas and courtyard. – The massing also allows a greater proportion of apartments to have a Northern aspect. Eastern and Western aspects are then prioritised over south aspect apartments. – Photovoltaics will be included on the roofs to provide energy to common area lighting at Lobby Entries and Lift Lobby corridors.
Objective 4U-3 *Adequate natural ventilation minimises the need for mechanical ventilation*	The proposal meets the objectives. – The use of appropriate built form generates 60% of apartments naturally ventilated.

4V Water management and conservation [p.129]

Objective 4V-1 *Potable water use is minimized*	The proposal meets the objectives. – The development will incorporate water efficient fittings. – Plant selections are designed for the microclimate and are typically low-water use.

	– Further details about the proposed planting and landscape concept is detailed in the accompanying Landscape Concept Plan submitted as part of the development application.
Objective 4V-2 *Urban storm water is treated on site before being discharged to receiving waters*	The proposal meets the objectives. – WSUD principles are incorporated; on site detention tank is located at the basement level. Refer to Civil and Hydraulic Engineers documents for further information.
Objective 4V-3 *Flood management systems are integrated into site design*	N/A The development is not located in a flood affected area.

4W Waste management [p.131]

Objective 4W-1 *Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents*	The proposal meets the objectives. – A bulk-waste area for residents is provided at Ground Level. – Garbage collection will be on McGirr Parade via the pathway adjacent to the driveway access. Refer to the Waste Management and Traffic report for more detail.
Objective 4W-2 *Domestic waste is minimised by providing safe and convenient source separation and recycling*	The proposal meets the objectives. – Communal waste room is provided at Ground Level for residents. This is located in a convenient accessible location adjacent to the Lift core. – Waste and recycling storage areas will be well ventilated and have durable and washable finishes – All dwellings will be designed to have sufficient internal space for the holding of waste and recycling as required under DCP. Refer to the Waste Management and Traffic report for more detail.

4X Building Maintenance [p.133]

Objective 4X-1 *Building design detail provides protection from weathering*	The proposal meets the objectives. – Building materials are selected to weather gracefully. – Painted and applied finishes are minimised.

Objective 4X-2
Systems and access enable ease of maintenance

The proposal meets the objectives.

- Suitable access for cleaning will be provided by appropriately controlled roof access.
- The majority of windows can be cleaned from inside or from balconies.

Objective 4X-3
Material selection reduces ongoing maintenance costs

The proposal meets the objectives.

- The proposed face brick façade provides a durable, low maintenance building with materials designed to weather gracefully and withstand the demands of the environment. The use of applied finishes is minimised.