

SEPP 65 DESIGN VERIFICATION STATEMENT

**PREPARED TO ACCOMPANY A
PART 3A APPLICATION
SUBMITTED TO THE NSW DEPARTMENT OF PLANNING**

Project Site Address:
7-9 Gibbons St, Redfern

Prepared on behalf of
Lawson Square Pty Limited

Prepared by
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SECTION 1.0 SUMMARY

This SEPP 65 Design Verification Statement has been prepared on behalf of Lawson Square Pty Limited in support of a Part 3A Application to the NSW Department of Planning seeking the Department's approval of the proposal to redevelop the site at 7-9 Gibbons St, Redfern.

The development involves:

- The demolition of the existing building housing a four storey car park with commercial premises on lower ground floor
- Excavation for eight levels of basement car parking.
- The construction of retail floor space with associated loading dock, services and amenities at ground and level 1
- The construction of commercial floor space and associated amenities on level 2
- The construction of 149 residential units over 15 levels

The following Council Codes and Planning Instruments provided the controls for the proposal:

- State Environmental Planning Policy (Major Projects) 2005 Schedule 3 Redfern Waterloo Authority Sites
- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy (Building Sustainability Index :BASIX) 2004
- State Environmental Planning Policy 55 Remediation of Land
- State Environmental Planning Policy No. 65 Design Quality of Residential Development
- State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) 2007
- Sydney Metropolitan Strategy (Sydney City Subregional Strategy)
- Redfern Waterloo Built Environment Plan (Stage 1) 2006
- Redfern Waterloo Authority Contributions Plan 2006
- Redfern Waterloo Affordable Housing Contributions Plan 2006
- DRAFT Redfern Centre Urban Design Principles
- South Sydney Local Environment Plan 2005
- South Sydney Development Control Plan 11 – Transport Guidelines for development 1996
- City of Sydney Policy for Waste Minimisation in New Developments

This report is intended to be read in conjunction with the architectural plans prepared by Candalepas Associates Pty Limited (the Architect), as well as the following associated reports:

- Statement of Environmental Effects prepared by Kass – Hermes
- Traffic Impact Assessment prepared by Traffix
- Acoustic Assessment prepared by Renzo Tonin & Associates
- Basix Report prepared by Jones Nicholson
- BCA Compliance Report prepared by City Plan Services
- Access Report prepared by Accessibility Solutions
- ESD Report prepared by Jones Nicholson
- Flooding Analysis and Drainage Report and Drawings prepared by Jones Nicholson
- Electrical Infrastructure Report prepared by Jones Nicholson
- Fire Services Infrastructure Report prepared by Jones Nicholson
- Hydraulic Services Infrastructure Report prepared by Jones Nicholson
- Concept Stormwater Drainage Plan prepared by Jones Nicholson
- Mechanical Services Spatial Report prepared by Jones Nicholson
- Environmental Site Management Plan prepared by Jones Nicholson
- Structural Report on Rail Tunnel Implication prepared by Jones Nicholson
- Geotechnical Report prepared by SMEC
- Environmental Assessment Report- Stage 1 Investigation prepared by SMEC
- Pedestrian Wind Environment Statement prepared by Windtech
- Electrolysis Risk Assessment Report prepared by Corrosion Control Engineering
- Community Consultation Report prepared by Elton Consulting
- CPTED report prepared by Elton Consulting
- Photomontage prepared by AA3D

We confirm that Mr Angelo Candalepas of Candalepas Associates directed the design of the enclosed development application, which is represented by drawings (DA 1000, 1001, 1101-1106, 1201, 1301-1304, 1501-1502) and that Mr Candalepas is registered as an architect in NSW (registration No. 5773) in accordance with the Architects Act 1921.

We confirm that the enclosed documentation achieves the design principles set out in *State Environmental Planning Policy 65 - Design Quality of Residential Flat Development* and has been designed with regard to the publication *Residential Flat Building Code*.

SECTION 2.0 DESIGN QUALITY PRINCIPLES

PRINCIPLE NO. 1: CONTEXT

Good design responds and contributes to its context. Context can be defined as the key natural and built features of the area.

The subject site, known as 7-9 Gibbons Street, Redfern, is “rectangular” in shape and bounded by Gibbons Street to the west, Marian Street to the south, William Lane to the east and a two storey building, (Redfern RSL) to the north.

The site is currently occupied by Travelex offices at the basement level and a public carpark located on the upper four floors. The building is setback at street level on Marian Street. There are four vehicular entry/ exit points to the site, three to the north on Gibbons Street and one to Marian Street.

The surrounding built form on Gibbons Street is a mix of residential, commercial, infrastructure and community facilities. The eastern side of Gibbons Street, on which the subject site is located, contains a variety of building heights from 1-12 storeys with predominately commercial uses. A Council Depot is located to the south of the site, on the opposite side of Marian Street, whilst to the north on Gibbons street are commercial and community facilities’, the Redfern RSL club is situated adjacent to the site and Redfern Police Station is housed within the two 12 storey towers on the intersection of Gibbons and Lawson Square. An on-grade car park is situated to the west between Gibbons street and the Redfern Train Station platforms as well as Marian Street Park.

Immediately to the east of the site are lots that are considerable smaller (approximately 250sqm) with frontages to Regent Street of 5 to 9 metres. These lots contain two to three storeys buildings, predominantly commercial/ retail on ground floor with residential accommodation above.

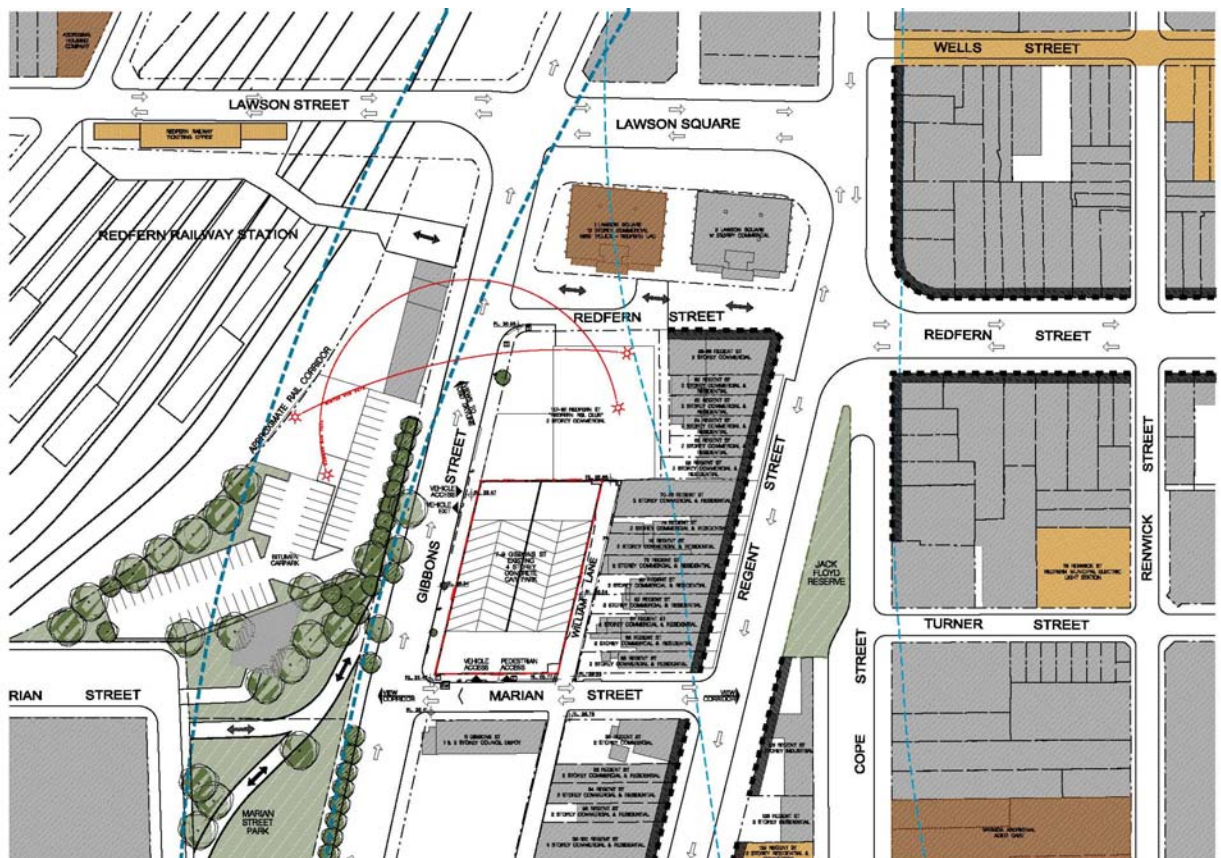


Figure 1: Site Plan

The development proposes retail at ground and level 1, commercial on level 2 and a mix of studio, one and two bedroom residential units on level 3 to level 17 with roof terraces and plant on Level 18. This mix of retail, commercial and residential is in keeping with the current uses on surrounding sites; the projected density and uses identified within the Redfern Waterloo Built Environment Plan and will provide greatly improved services to the community.

A development similar in scale to that proposed was recently approved by NSW Department of Planning on The Redfern RSL site, at 157 Redfern Street. This proposal is for an 18 storey mixed use building with 84 residential units, 1660sqm of commercial area, 670 sqm of specialty retail and 1470sqm for the Redfern RSL club.

The proposal seeks to improve the relationship between the existing use of the site to the wider Redfern Waterloo Precinct by creating a variety of uses and well articulated and rich facade that will be a positive contribution to the quality of building design and amenity of the area. The is informed by both the negative conditions existing on the site, which consists of a car park and basement commercial space with no street frontage beyond vehicle access points and the planning framework that seeks to redevelop Redfern through a Zoning as “Business Zone – Commercial Core”, 18 storey height limit and Floor Space Ratio (FSR) of 7:1.

Given the planning context, negative existing site conditions, and recently approved development, the proposal will provided much needed services in addition to providing a defined retail edge to Gibbons and Marian Streets which, combined with increased residential uses will improve the appearance, safety and security of the surrounding area.

PRINCIPLE NO. 2: SCALE

Good design provides an appropriate scale in terms of bulk and height that suits the scale of the street and the surrounding buildings.

The site is located within the Redfern Town Centre as stipulated in the State Environmental Planning Policy (SEPP) Major Project 2005 Redfern Waterloo Authority Sites Controls. This site due to its size and it being one of the early development proposals under the SEPP plays a key role within the realisation of a revitalised Redfern Town Centre.

The maximum building height is 18 storeys with a 3 storey street wall height to Gibbons and Marian Streets. The height and density controls for the precinct encourage the centre to become a hub for business, jobs and housing activity.



Height map

Figure 2 – height map from page 15 of Redfern Centre Draft Urban Design Principles

The block within which the subject site is situated is in the centre of an 18 storey height zone which is zoned “Business Zone – Commercial Core”. The proposed building is 18 storeys with a 3 storey street wall height and is sited adjacent to a recently approved development of similar height and scale at the RSL site in addition to the existing 12 storey towers at Lawson Square.

The building elevation is divided between a 3 storey podium and 15 storey residential tower. A podium street wall height was agreed with the RSL site proponents and Redfern Waterloo Authority to ensure a unified approach to the urban design of the area and reinforce the future use of Gibbons Street as a retail and commercial street. A similar treatment is proposed to Marian Street with the 3 storey podium continuing to the south frontage. A large corner retail unit giving an address to both frontages and beginning the formalisation of what is already an identified pedestrian path between Redfern Street and Australian Technology Park.

The Gibbons Street elevation shows the current development proposal, (the Redfern RSL) to the north of the site and the outline of the Master plan envelope on the adjacent site on Marian Street. In this context the height of the proposal is in keeping with desired future development and within the SEPP height controls for the site.



Figure 2: Gibbons Street (West) Elevation

Above podium level the tower is setback and articulated to reflect the unit layout, emphasising the vertical nature of the development and breaking down the perception of its width. A slender facade is presented to Marian Street which is considered appropriate to the site width and is setback to ensure the proposed tower will not negatively affect future development of adjacent properties to the East.

As the proposed development is amongst the first to be considered for the redeveloped Redfern Centre, its scale, bulk and height must be considered with respect to the SEPP Planning Controls and desired future development of surrounding sites as defined by the SEPP, rather than the existing context.

The proposed development addresses the street and provides a human scale to the pedestrian via the concrete awning over the footpath. This awning is between 2.7m to 3.7m above the footpath stepping down with the street (four times over the length of Gibbons Street).

The development has a podium height at RL41.40 which is 13-15.7m above the Gibbons Street footpath. This podium height is equal to that of the development proposal submitted for the Redfern RSL site. This produces a consistency of scale to the streetscape.

The 15 storey residential tower, above podium level is setback between 3.14m and 4.45m, from the Gibbons street boundary, with an average of 4m. The setback to Marian Street is 4.0m with minor building elements with setbacks of between 2.7m and 3.4m to provide articulation. The setback William Lane is predominately 3.2m, and a 6m setback is provided to the Northern boundary to ensure adequate tower separation between the proposal and approved or future developments on the adjacent site.

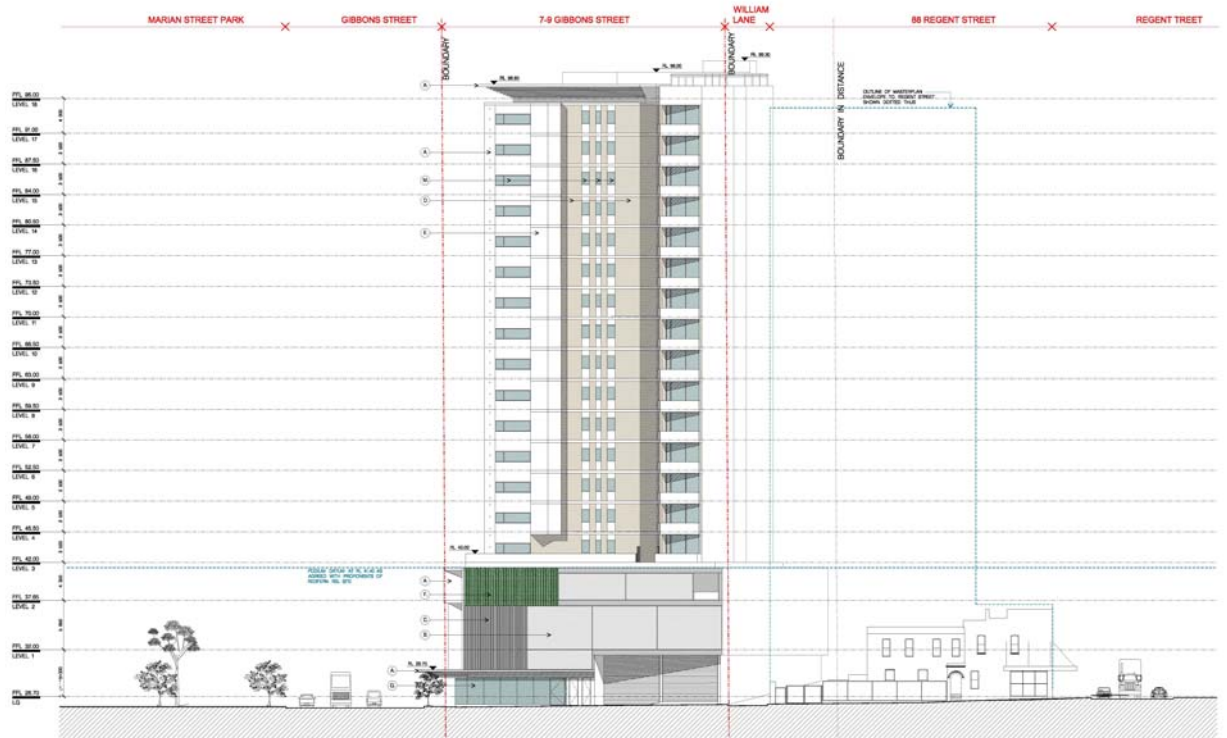


Figure 3: Marion Street (South) Elevation



Figure 4: William Lane (East) Elevation

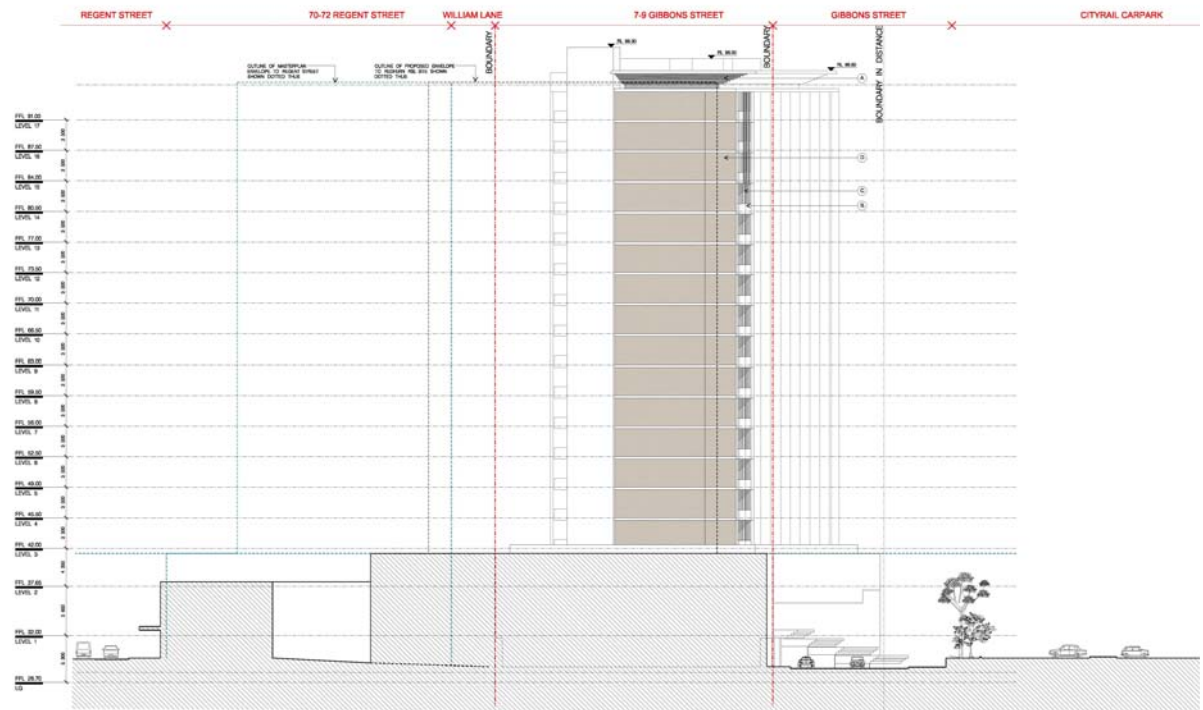


Figure 5: North Elevation

The setbacks to Marian Street and William Lane are significantly greater than the SEPP controls and in accordance with the Redfern Centre DRAFT Urban Design Principals providing greater amenity to future development on surrounding sites.

Therefore the proposed mixed use development is compatible with future development in the area and also consistent with the SEPP Planning Controls.

PRINCIPLE NO. 3: BUILT FORM

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

The proposed development is composed of three main elements; the street level, the podium and the tower. These three elements break up the façade and create proportions that relate to the Redfern RSL and the desired future character of the area in providing a defined street edge with multiple uses and access points to both Gibbons Street and Marian Street.

The street level creates an interaction with the pedestrian and retail tenancies proposed on Gibbons Street and the corner of Marian Street. The retail tenancies are setback providing a 5m footpath to Gibbons street, 3.7m footpath to Marian Street and 0.8m footpath to William Lane. This provides the pedestrian with a wider more generous footpath whilst the cantilevered awning provides protection from the elements and creates a pedestrian scale to the development.

The podium is two storeys high above the ground level and contains retail and commercial tenancies. The podium is built to the boundary and has a height equal to the neighbouring Redfern RSL proposal. It has facades which create a finely detailed materiality and simplicity, with the use of precast concrete fins and glass blades.

Above podium level the tower is setback and articulated to reflect the unit layout, emphasising the vertical nature of the development and breaking down the perception of its width. A slender facade is presented to Marian Street which is considered appropriate to the site width and is setback to ensure the proposed tower will not negatively affect future development of adjacent properties. This articulation is appropriate in response to the human scale, articulating the individual apartments, whilst responding to the greater context as a tower in the city that is composed as a unified whole.

The tower addresses the corner of the site with a defined edge that serves to anchor the building and mediate between the more open, North West facing balconies and the protected southern facing rooms. These subtle manipulations of the tower have been carefully considered with respect to the articulation designed to represent the dwelling, the corner site and the rise in levels, responding both to the requirement of the resident for a home and to the wider context of Redfern Centre as a retail and commercial hub.

The materials used throughout are robust, with textural variations creating a hierarchy of increasing lightness towards the upper floor units.

The built form responds to the envisaged future character of the locality, through well considered, distinctive architectural forms and refined materiality.

PRINCIPLE NO. 4: DENSITY

Good design has a density appropriate for a site and its context, in terms of floor space yields (or numbers of units or residents).

The SEPP (Major Projects) as amended in May 2009, vision for Redfern Town Centre is “to provide an activity and focus for jobs, housing, transport and importantly meeting place for residents and workers.”

The site is zoned as “Business Zone- Commercial Core”, with an allowable FSR of 7:1. The objectives of this zone are to facilitate the development of a town centre, encourage employment generating activities, permit residential development, ensure viability and safety of community and public domain, ensure design excellence and promote landscaped areas.

The development is in line with the appropriate bulk, scale and density for a mixed use commercial / residential development on the subject site as outlined in the SEPP (Major Projects) 2005 Redfern Waterloo Authority Site achieving the maximum permissible FSR of 7:1.

The proposed development will locate 149 new dwellings, commercial and retail activity on a site considered appropriate given the existing infrastructure, public transport and community facilities in the area as well as addressing the objectives of the Redfern Centre DRAFT Urban Design Principles.

The high density of housing proposed by the SEPP (Major Projects) is supported by the increasingly limited supply of housing in Sydney City, location of the proposal adjacent to Redfern train station and Redfern shopping strip on Redfern Street, and the proposed supermarket within the development which will cater to both the existing, proposed and desired future density of the Redfern-Waterloo area.

PRINCIPLE NO. 5: RESOURCE, ENERGY AND WATER EFFICIENCY

Good design makes efficient use of natural resources, energy, and water throughout its full life cycle, including construction.

The proposed development has met the targets set out in the Building & Sustainability Index (BASIX). Further, the proposal embodies excellent passive systems of sustainable design such as:

- North west aspect to living spaces of all units to optimise solar access, daylight penetration and reduce heating and artificial lighting requirements.
- Proposed selection of low embodied-energy materials.
- Excellent passive solar gain and loss properties.
- Sun-screening devices and strong shuttering elements to reduce solar gains and increase control of the internal environment against late afternoon sun.
- Cross ventilation to all units. Louvers will be provided above entry doors providing cross ventilation to all living spaces and to the unit generally.
- Collection and reuse of rainwater.

PRINCIPLE NO. 6: LANDSCAPE

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both the residents and for the public domain.

This site is situated within the Redfern Town Centre, an urban setting where deep soil landscaping is impractical. The accommodation of many functions at the ground floor to facilitate a mixed use development along with basement car parking restricts any deep soil zone.

There are no SEPP (Major Projects) 2005 controls dictating the amount of landscaping or deep soil required.

Due to the high winds expected from down wash off the residential tower, a communal open space at podium level is not considered appropriate, private open spaces are provided to each unit in accordance with the NSW Residential Flat Design Code. The site benefits from being situated opposite Marian Street Park, providing both a leafy outlook as well as an outdoor recreation space for future residents of the site. There are opportunities for increased landscape treatment to Gibbons Street and Marion Street via the increased footpath width.

PRINCIPLE NO. 7: AMENITY

Good design provides amenity through the physical, spatial and environmental quality of a development.

The 149 residential units are comprised of 42 studio units, 74 one bedroom units and 31 two bedroom units. The majority of units have a North-Western aspect with 80% of the units receiving a minimum of three hours of solar access to the living areas and private open spaces during mid winter.

The unit orientation establishes a high level of privacy for internal areas and private terraces. The units look out to the street with various screening elements including precast concrete screens to balconies and external blinds alleviating any privacy issues. This provides the individual residents the opportunity to control their level of privacy.

The units have an open plan and a narrow floor plate facilitating good cross ventilation to all habitable rooms. The units will enjoy a considered approach to materiality and detailed design.

Each unit has been provided with a private open space off the main living area, by way of either an open terrace, balcony or roof deck with a minimum dimension of 2m. Considered design of screening elements provides privacy for residents.

Two continuous sectional voids are proposed adjacent to the common walkway at each level to separate the residential units from the public corridor improving privacy and amenity to the bedrooms fronting the walkway.

The proposal includes a communal residential area (proposed as a gymnasium) for the common use of residents.

The compliance table and solar access diagrams in the appendices further detail measures to improve the amenity of occupants.

PRINCIPLE NO. 8: SAFETY AND SECURITY

Good design optimises safety and security, both internal to the development and for the public domain.

The design proposes the following security measures to restrict and control communal access around the proposed development and ensure a high level of safety and security is provided within the design:

- Residential entry points and circulation areas are clearly separated from retail areas without compromising passive surveillance.
- Retail frontages to Gibbons Street will achieve an active street front and provide passive surveillance of the area.
- A video entry system at residential entry points linked to the units allows access through the external security point upon confirmation from inside.
- A FOB (Free On Board) key is supplied to occupants; this allows access through the entry security points and controls lift entry and exit, dependant on pre programmed access allocations. The FOB can be kept inside a wallet, unlocking the security points upon approach.
- A security shutter separates the residential and retail/ commercial car parking facilities. The residential parking is secured via remotely operated entry shutters.
- The residential mail boxes are located within the secure residential lobby which is separated from all other uses.
- Wide common circulation areas with clear sight lines at all levels.
- High quality architectural lighting throughout the development will assist in securing the area at night.
- Generous windows and balconies provide natural surveillance to the surrounding streets.

Further details of safety and security measures are provided within the Crime Prevention Through Environmental Design Report prepared by Elton Consulting.

PRINCIPLE NO. 9: SOCIAL DIMENSIONS

Good design responds to the social context and needs of the local community in terms of lifestyles, affordability and access to social facilities.

The site is located close to all necessary facilities such as public transport, childcare facilities, schools, health care, supermarkets, educational and leisure facilities. With Redfern Station opposite and frequent bus services along Gibbons Street it provides an ease of connectivity to the city, local and regional areas.

The development consists of 44 studio units, 74 one bedroom units and 31 two bedroom units. The unit mix and apartment sizes are considered appropriate for the area.

The retail and commercial space available on the lower floors and the extensive mix of retail accommodation provided in the proposed development provides a significant addition to the services provided in the local area.

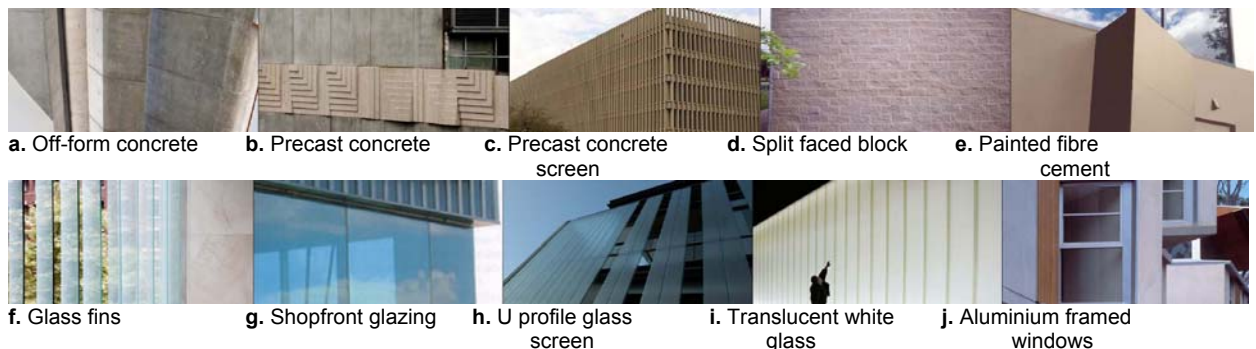
PRINCIPLE NO. 10: AESTHETICS

Quality aesthetics require the appropriate composition of building elements, texture, materials and colours and reflect the use, internal design and structure of the development.

Materials

The proposed development has been carefully considered with respect to the surrounding natural and built environment. The nature of it being a corner site on a significant transport corridor has also played a key role in the design with regards to selection of robust façade treatment and materials.

The use of materials and textures such as split-faced block, precast concrete, fibre cement and translucent glass bring a richness and character to the site that sets a high standard of design. The design whilst contemporary in nature fits in with the adjacent existing and proposed tower developments and will enhance the streetscape of Gibbons and Marian Streets.



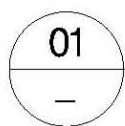
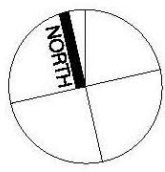
The intent of the design is that both on a macro and micro level the detailing of the finishes and planning of the site will lift the standard of the surrounding area into the future and provide a high quality example for development in the area.

The building elevation is tripartite in design, divided into an active podium, with a high degree of visibility both into and from the development at ground floor and the second floor commercial level, the main tower and articulated roof which acts as a unifying termination to the varying angles of the tower facade.

The facade is articulated to reflect the vertical nature of the tower form with continuous, fixed privacy screens between apartments as opposed to the operable sunshades directly to the West which reflect the internal solar requirements of the resident. This interplay of macro and micro is made apparent as the viewer moves around the building. What appears as a shear plane in elevation gives rise to shadowed windows or balconies that reflect the spaces adjacent. The varying angles and screens also providing interplay of light and shade which breaks down the mass of the building. The robust material selection ensures longevity of appearance as designed whilst at the human scale, softer materials can be introduced to respond to the individual user.

SECTION 3.0 APPENDICES

APPENDIX A: SOLAR ACCESS DIAGRAMS



SOLAR ACCESS – LEVELS 3–17
JUNE 22 – 12PM



SOLAR ACCESS
TO LIVING
+ PRIVATE OPEN
SPACE AREA
SHOWN HATCHED

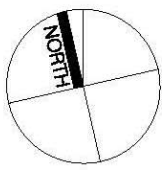


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SOLAR ACCESS – LEVELS 3–17
JUNE 22 – 1PM



SOLAR ACCESS
TO LIVING
+ PRIVATE OPEN
SPACE AREA
SHOWN HATCHED



03
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SOLAR ACCESS – LEVELS 3–17
JUNE 22 – 2PM



SOLAR ACCESS
TO LIVING
+ PRIVATE OPEN
SPACE AREA
SHOWN HATCHED



04
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SOLAR ACCESS – LEVELS 3–17
JUNE 22 – 3PM



SOLAR ACCESS
TO LIVING
+ PRIVATE OPEN
SPACE AREA
SHOWN HATCHED

APPENDIX B: SEPP 65 COMPLIANCE CHECKLIST

ITEM No.	ITEM	PART / PAGE	RULES OF THUMB	BETTER DESIGN PRACTICE	NOTES	PROPOSAL COMPLIANT
			PROPOSED FEATURE	PROPOSED FEATURE		
	PART 2 SITE DESIGN					
1	PRIMARY DEVELOPMENT CONTROLS					
1.1	BUILDING HEIGHT	2_24				
1.2	BUILDING DEPTH	2_26				
	Apartment building depths of 10-18m are appropriate		√		All units under 18m in depth, maximum 16m	√
1.3	BUILDING SEPARATION	2_28				
	Building Separation is proportionate to building height to facilitate better urban form and improved residential amenity			√		√
1.4	STREET SETBACKS	2_30				
	Identify desired streetscape character, the common setback of building in the street, the accommodation of street planting and height of buildings and daylight access controls			√	The setbacks have been determined in consultation with the neighbouring proposed development, the SEPP controls for the site and Draft Urban Design Principals.	√
1.5	SIDE & REAR SETBACKS	2_33				
	Relate side and rear setbacks to existing streetscape patterns			√	The setbacks are greater than the SEPP controls for the site and in accordance with the Draft Urban Design Principals.	√
1.6	FLOOR SPACE RATIO	2_35		√	The proposal has undergone a series of design iterations with extensive consultation with authorities to achieve the current layout which is consistent within the planning controls.	√
2	SITE CONFIGURATION					
2.1	DEEP SOIL ZONES	2_44				
	A minimum of 25 percent of the open space area of a site should be a deep soil zone; more is desirable.		√		Due to the site area occupied on ground level by retail loading facilities this is unachievable	X
2.2	FENCES & WALLS	2_45				
2.3	LANDSCAPE DESIGN	2_46				
2.4	OPEN SPACE	2_48				
	Communal open space. Area provided at least 25-30% site area.		X		Communal open space is not feasible due to adverse wind conditions at podium level from tower. Communal facilities at level2 are proposed.	X

ITEM No.	ITEM	PART / PAGE	RULES OF THUMB	BETTER DESIGN PRACTICE	NOTES	PROPOSAL COMPLIANT
	Where recommended area is unachievable, demonstrate that residential amenity is provided in the form of increased private open space &/or contribution to public open space.		√		The site is located in an urban setting opposite a public park and public transport linking it to various community facilities throughout Sydney. Units balconies are minimum 9.5 sqm with greater areas at podium level and level 18 roof decks.	√
	Min. area for private open space at ground or structure is 25m ² . Min dim in one direction 4m.		X		Increased private open space is provided to units on podium level, this is limited by required street wall height and adverse wind conditions from tower development on the site and adjacent development	X
2.5	ORIENTATION	2_50				
	Plan the site to optimise solar access.			√	Building orientated to allow units to northern sunlight.	√
	Select building types which respond to the streetscape whilst optimising solar access			√	Building faces Gibbons Street, hence addressing the main street.	√
	Optimise solar access to living spaces and associated private open spaces by orientating them north			√	All private open spaces are directly off the living spaces and obtain northern light.	√
	Detail buildings elements to modify environmental conditions			√	Units have bounding walls played in northern direction. Vertical screens are provided against western sun.	√
2.6	PLANTING ON STRUCTURES	2_52				
	Minimum soil depth for planting		√			√
2.7	STORMWATER MANAGEMENT	2_54				
	On dense urban sites seek measures such as on site detention.		√		On site detention tank provided and a rainwater tank will be provided reuse.	√
3	SITE AMENITY					
3.1	SAFETY	2_56				
	Separate residential parking from other building use and control access from public and common areas			√		√
	Provide direct access from car parks to apartment lobbies for residents			√		√
	Provide separate access for residents in mixed-use buildings			√		√
	Provide audio or video intercom for visitor entry			√		√
	Provide key card access for residents			√		√

ITEM No.	ITEM	PART / PAGE	RULES OF THUMB	BETTER DESIGN PRACTICE	NOTES	PROPOSAL COMPLIANT
3.2	VISUAL PRIVACY	2_58				
	Locate and orient development to maximise visual privacy			√		√
	Design building layouts to minimise direct overlooking of rooms and private open space.			√		√
4	SITE ACCESS					
4.1	BUILDING ENTRY	2_60				
	Provide as direct a physical and visual connection as possible between street and entry			√		√
	Achieve clear lines of transition between public street, the shared private, circulation spaces and apartment unit.			√		√
	Generally provide separate entries from the street for pedestrians and cars and different uses.			√		√
4.2	PARKING	2_62				
	Give preference to underground carparking			√		√
	Provide bicycle parking which is easily accessible from ground level and from apartments.			√		√
4.3	PEDESTRIAN ACCESS	2_64				
	Follow accessibility standard AS 1428 (Pt 1 & 2) as a minimum.		√			√
	Provide barrier free access to at least 20 percent of dwellings in the development.		√			√
4.4	VEHICLE ACCESS	2_65				
	Generally limit the width of driveways to a max of 6m.		√		12m single entry for both residential and commercial uses	NA
	Locate vehicle entries away from main pedestrian entries and on secondary frontages.		√			√
	PART 3 BUILDING DESIGN					
5	BUILDING CONFIGURATION					
5.1	APARTMENT LAYOUT	3_67				
	Determine appropriate apartment sizes in relation to: - Geographic location and market demands. - The spatial configuration of an apartment, not just plan e.g. maisonette apartments are often small in sqm but have double-height living spaces. - Affordability; a range of apartment sizes provides more choice for more people.			√	A variety of studio, one bed and two bed units are proposed which respond to the proximity of the site to the city, university and community facilities/services	√
	Ensure apartment layouts are resilient over time. Design issues to address may include: - Accommodating a variety of furniture arrangements. - Providing for a range of activities and privacy levels between different spaces within the apartment. - Utilising flexible room sizes and proportions or open plans. - Ensuring circulation by stairs, corridors and through rooms is planned as efficiently as possible thereby increasing the amount of floor space in rooms.			√		√

ITEM No.	ITEM	PART / PAGE	RULES OF THUMB	BETTER DESIGN PRACTICE	NOTES	PROPOSAL COMPLIANT
	Design apartment layouts, which respond to the natural and built environments and optimise site opportunities by: - Providing private open space in the form of a balcony, a terrace, a courtyard or a garden for every apartment. - Orientating main living spaces toward the primary outlook and aspect and away from neighbouring noise sources or windows. - Locating main living spaces adjacent to main private open space. - Locating habitable rooms, and where possible kitchens and bathrooms, on the external face of the buildings thereby maximises the number of rooms with windows. - Maximising opportunities to facilitate natural ventilation and to capitalise on natural daylight - Avoid locating kitchen as part of main circulation spaces, such as a hallway or entry space.			√		√
	Ensure apartment layouts and dimensions facilitate furniture removal and placement.			√		√
	In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates: - studio apartments 6m3 - one-bedroom apartments 6m3 - two-bedroom apartments 8m3 - three plus bedroom apartments 10m3		√			√
	Single aspect apartments should be limited in depth to 8m from a window		NA			NA
	The back of kitchen should be no more than 8m from a window	3_69	√			√
	The width of cross-over or cross-through apartments over 15m deep should be 4 m or greater to avoid deep narrow apartment layouts	3_69	NA			NA
	Buildings not meeting minimum standards listed above must demonstrate how satisfactory daylight and ventilation can be achieved.	3_69	NA			NA
	As a guide, the Affordable Housing Service suggest the following minimum apartment sizes: - 1 bedroom apartment 50m2 - 2 bedroom apartment 70m2 - 3 bedroom apartment 95m2	3_69	√			√
5.2	APARTMENT MIX					
	Provide a variety of apartment types.	3_70				
	Refine the appropriate apartment mix for a location by: - Considering population trends in the future as well as present market demands. - Noting the apartment's location in relation to public transport, public facilities, employment areas, schools and universities and retail centres.			√		√
	Locate mix of one and three bedroom apartments on the ground level where accessibility is more easily achieved for disabled, elderly people or families with			√		NA

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	children.					
	Optimise the number of accessible and adaptable apartments to cater for a wider range of occupants. Australian Standards are only a minimum.			√		√
	Investigate the possibility of flexible apartment configurations, which support change in the future.			√		√
5.3	BALCONIES	3_71				
	Provide primary balconies for all apartments with a minimum depth of 2m.	3_72	√			√
	Require scale plans of balcony with furniture layout to confirm adequate, useable space when an alternate balcony depth is proposed.					NA
5.4	CEILING HEIGHTS	3_73				
	Recommended minimum FFL - FCL heights:					
	Mixed-use 3.3m ground & first floor to promote future use flexibility.		√			√
	Residential building in mixed-use area 3.3m ground and first floor to promote future use flexibility.		√			√
	In residential flats or other residential floor of mixed use buildings:					
	2.7m habitable rooms, 2.4 non-habitable preferred, 2.25m permitted.		√		3.5m floor to floor is proposed which can allow for 2.7minimum internal ceiling height in all rooms	√
	Two storey units 2.4m min. for second storey if 50% or more of the apartment has 2.7m min. heights.					NA
	Two storey units with two storey void space, 2.4m min. ceiling heights					NA
	Attic spaces 1.5m min wall height at edge of room with 30degree min. ceiling slope.					NA
	Developments which seek to vary the recommended ceiling heights must demonstrate that apartments will receive satisfactory daylight.					NA
5.5	FLEXIBILITY	3_75				
	Provide robust building configurations, which utilise multiple entries and circulation cores, especially in larger buildings over 15m long. - Thin building cross sections, which are suitable for residential or commercial uses. - A mix of apartment types. - higher ceilings in particular on the ground floor and first floor - Separate entries for the ground floor level and the upper levels. - Sliding and/or movable wall systems.			√		√
	Provide apartment layouts, which accommodate the changing use of rooms.			√		√
	Utilise structural systems, which support a degree of furniture change in building use or configuration.					

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	Promote accessibility.	3_76		√		√
5.6	GROUND FLOOR APARTMENTS	3_77		√		NA
	Optimise the number of ground floor apartments with separate entries and consider requiring an appropriate percentage of accessible units. This relates to the desired streetscape and topography of the site.					NA
	Provide ground floor apartments with access to private open space, preferably as a terrace or garden.					NA
5.7	INTERNAL CIRCULATION	3_79				
	In general where units are located off a double loaded corridor the number of units accessible from a single core should be limited to 8.					NA
5.8	MIXED USE	3_80				
	Choose a mix of uses that compliment and reinforce the character, economics and function of the local area.			√		√
	Choose compatible mix of uses.			√		√
	Consider building depth and form in relation to each use's requirements for servicing and amenity.			√		√
	Design legible circulation systems, which ensure safety of users.			√		√
	Ensure building positively contributes to public domain.			√		√
	Design for acoustic privacy from the beginning of the project to ensure that future services, such as air conditioning, do not cause acoustic problems later.			√		√
	Recognising the ownership/lease patterns and separating requirements for purposes of BCA for considerations.			√		√
5.9	STORAGE	3_82				
	In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates: - studio apartments 6m3 - one-bedroom apartments 6m3 - two-bedroom apartments 8m3 - three plus bedroom apartments 10m3		√			√
6	BUILDING AMENITY					
6.1	ACOUSTIC PRIVACY	3_83		√		
6.2	DAYLIGHT ACCESS	3_84				
	Living rooms and private open spaces for at least 70% of apartments in a development should receive a min. 3 hours direct sunlight between 9am and 3pm in mid winter. In dense urban areas min. 2 hours may be acceptable		√		80% of units achieve the minimum 3 hours of direct sunlight in midwinter to living room and private open spaces.	√
	Limit the number of single-aspect apartments with a southerly aspect to a maximum of 10% of total units.				No single aspect units	NA
6.3	NATURAL VENTILATION	3_86				
	Building depths which support natural ventilation typically range from 10-18m.		√			√

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	60% of residential units should be naturally cross ventilated.		√		100% of units achieve cross ventilation as all entry doors have highlight louvers.	√
	25% of kitchens should have access to natural ventilation.		√			√
7	BUILDING FORM					
7.1	AWNINGS AND SIGNAGE	3_88				
	Awnings encourage pedestrian activity on streets			√		√
	Signage should be carefully considered and integrated into the development.				Signage will be submitted at a later stage with fitout DA.	NA
7.2	FACADES	3_89				
	Compose facades with appropriate scale, rhythm and proportion, which respond to building uses and contextual character.			√		√
	Design facades to reflect the orientation of the site using elements such as sun shading, depending on orientation.			√		√
7.3	ROOF DESIGN	3_91				
	Relate roof design to the desired built form			√		√
	Design the roof to relate to the size and scale of the building.			√		√
8	BUILDING PERFORMANCE					
8.1	ENERGY EFFICIENCY	3_93		√		
	Incorporate passive solar design techniques to optimise heat storage in winter and heat transfer in summer by:			√		
	Maximising thermal mass in floor & walls in northern rooms.			√		√
	hard floor finishes instead of carpet			√		X
	Limiting number of single aspect apartments with southerly aspect to max 10%.			√		√
	Insulating roof/ceiling to R2.0, external walls to R1.0 and floor including separation from basement parking to R1.0.			√		√
	Improve control of mechanical space heating & cooling by:					
	Designing apartments so that entries open into lobbies or vestibules and are isolated from living areas by doorways.			√		√
	Provide or plan for future installation of photovoltaic panels.			√	This is possible as a part of future roof design though not proposed.	√
	Improve efficiency of hot water systems			√		√
	reduce reliance on artificial lighting			√		√
	Maximise the efficiency of household appliances			√		√
8.2	MAINTENANCE	3_95		√		

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8.3	WASTE MANAGEMENT	3_96				
	Provide every dwelling with a waste cupboard or temporary storage area of sufficient size to hold a single days waste and enable source separation.			√		√
	Supply waste management plan with DA		√			√
8.4	WATER CONSERVATION	3_97		√		
9	DISABLED PRIVATE CAR ACCOMMODATION	NA				
	Car parking space or garage min. area 6.0m x 3.8m			√		√
	Roof to car parking space			√		√
	Internal clearance of garage or carport 2.5 min.			√		√