## Principle 6: Landscape

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

Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by co-coordinating water and soil management, solar access, microclimate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character.

Landscape design should optimize usability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long-term management.

The landscape design provided with the Concept Plan demonstrates the integrated approach to building and open space design. The building envelopes frame the open space and likewise the landscape open space design provides setting and context for all the building envelopes. Almost half of the ground level is open space thereby achieving a comfortable balance between built form and open space. The open spaces include both "softscape' park areas and "hardscape" zones for high intensity activities such as the proposed neighbourhood square. Extensive and varied new plantings, sculptures, fountains, furniture and paving throughout the site will soften and beautify the site as well as provide environmental benefits currently lacking throughout the site.

Refer to the Landscape Design Report by Site Image Landscape Architects for extensive further detail on the indicative landscape design.



Source: Site Image Landscape Architects



## Principle 7: Amenity

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

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

The proposed building envelopes allow for good solar access, a high level of natural ventilation, and a high standard of visual privacy and outlook. This is based on careful consideration of the building placement, massing, orientation and separations.

The Concept Plan also utilises the entire ground level for non-residential uses. This allows for a mixed-use environment which provides convenience-based amenities to the residences through the provision of local business, retail and community spaces.

The proposal includes new open spaces including parkland and neighbourhood square as well as residential communal areas both indoor and outdoor associated with each residential building on the site

The Concept Plan also allows for pedestrian and cycle network connections which enhance the connectivity of future residents to surrounding amenities including more open spaces and a wider variety of commercial and recreational activities.

Acoustic privacy is a challenge on the site due to noise impacts from road, rail and substation. However the Noise and Vibration Assessment report (prepared by SLR Consulting) has quantified these noise issues and identified the ability to mitigate noise issues to levels suitable for residential development.

In summary, resident and user amenity will be of a high contemporary standard.





## Principle 8: Safety And Security

Good design optimizes safety and security, both within the development and for the public domain.

This is achieved by maximizing overlooking of public and communal spaces whilst maintaining internal privacy, avoiding dark and non-visible areas, maximizing activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and clear definition between public and private spaces.

Safety and security of the site is paramount to the success of the development as a new community neighbourhood. With the provision of multiple public and publicly accessible spaces comes the need for excellent casual surveillance, and high level of detail afforded to the design of the publicly accessible spaces. This includes issues such as lighting, landscape plantings, materials, and street and public space activity levels.

All open spaces are overlooked by multiple buildings and do not have "dead-end" spaces. The open spaces are also fronted by active businesses such as retail premises, cafes and neighbourhood service providers. This increases the number of people "on the ground" and looking out over public spaces. Building frontages are also designed not to have significant recesses and hiding locations at the ground level. All residential floors and parking areas will have controlled access.

A full CPTED (Crime Prevention Through Environmental Design) assessment will be prepared at the development application stage.

## Principle 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.

New developments should optimize the provision of housing to suit the social mix and the needs within the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community.

The proposal will provide much needed housing in a central Metropolitan Sydney locality. Variety in the unit sizes, layouts and positions will be provided throughout the different stages of development ensuring a good range of housing choice. Affordability within a diverse pricing structure will be an important part of bringing the residential units to the market.

The provision of public park, street, neighbourhood square as well as other publicly accessible spaces provides opportunity for social interaction, recreation, convenience shopping and provision of services. This is augmented by spatial allowance made for community facilities positioned to interact with adjacent open spaces.

Additionally, communal residential spaces (both indoor and outdoor) will be provided on a building by building basis for the exclusive use of residents.

Neighbourhood business premises will be designed to suit tenants appropriate for the neighbourhood scale of business operations with careful consideration of the area's demographic mix and likely buyer groups and will further contribute to social activity in the Precinct.



## Principle 10: Aesthetics

Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should respond to the environment and context, particularly to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.

Notwithstanding the greater detail which will be available at subsequent development application stage, the Concept Plan addresses aesthetics through the approach to building massing and public space design. The Concept Plan utilises perimeter block and sculptural tower elements to provide an attractive form for future building designs. The Concept Plan addresses aesthetics at both the streetscape level and the appearance of the district skyline.

The perimeter block and podium buildings will allow for building facades which frame and contain the public spaces creating the backdrop for the streetscape and street level public realm. The tower elements with the proposed sculptural forms will provide a varied and visually interesting skyline when viewed from district vantage points. The stepping of the building heights allows for gradation of the height when viewed form the nearest locations.





## Key Elements Of The Residential Flat Design Code (RFDC)

Many of the RFDC rules-of-thumb can only be assessed once a development application level of design detail is available for review. However with the aid of the indicative design provided with the Concept Plan application, several key RFDC rules-of-thumb and guidelines can be assessed at a preliminary level including solar access, ventilation and building separations. Each of these is critical to ensuring the building envelopes will allow for future residential design which can meet the RFDC rules-of-thumb.

#### Solar Access

"Living rooms and private open space for at least 70% of apartments in a development should receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid winter. In dense urban areas a minimum of two hours may be acceptable".

The design of the building envelopes has taken solar access in to consideration throughout the design process. The gradation of height from north to south, together with many primary facades facing north-east, north or north-west, ensures maximum amount of building facades receiving direct solar access. The figures below graphically illustrate the extent of units within the indicative design which achieve 3hr and 2 hr solar access at the winter solstice. SLR Consulting's Solar Access Report concludes over 83% of the units shown in the indicative design would achieve at least 2 hours direct solar access on the winter while 70% would achieve 3 hours direct solar access. Given the high density nature of the proposal and the surrounding areas, the solar access results are considered of a high standard.

## **South Facing Units**

"Limit the number of single-aspect apartments with a southerly aspect (SW-SE) to a maximum of 10 percent of the total units proposed."

The indicative design demonstrates 36 out of 629 units as being single aspect and south facing. This calculates to be approximately 5.7% of all units, well below the 10% maximum in the rule-of-thumb.



indicates - Units Receiving at Least Two Hours Solar Access on 21 June on Typical Mid-Level Plan



indicates - Single Frontage South-Facing-Units on Typical Mid-Level Plan



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# **Natural Ventilation**

"60% of residential units should be naturally cross-ventilated"

Based on the indicative design, over 66% of units would achieve cross-ventilation, comfortably satisfying the RFDC rule-of-thumb. This percentage can be further increased if top floor apartments which have only one aspect are designed to be naturally ventilated through the roof via clerestorey windows or the like.

# **Building Separations**

The RFDC includes recommended residential building separation distances which are summarised as follows:

- Up to 4 storeys provide min. 12 m separation for habitable rooms / balconies
  5 to 8 storeys provide min. 18m separation for habitable rooms / balconies
  9 storeys and above provide min. 24m separation between habitable rooms / balconies

The proposed building envelopes have been designed to meet or in many cases substantially exceed these guidelines.



indicates - Units with Cross Ventilation on Typical Mid-Level Plan



Minimum Building Separations



## Open Space and Deep Soil Zones

"The area of communal open space required should generally be at least between 25 and 30% of the site area. Larger sites and brownfield sites may have potential for more than 30%."

The proposed Concept Plan allows for 46% of the site as ground level open space. This is exclusive of the various podium level communal residential open spaces proposed and demonstrated in the indicative landscape design.

""A minimum of 25% of the open space area of a site should be a deep soil zone; more is desirable."

The Concept Plan achieves 49% of the open space as deep soil areas.

# **RFDC Summary**

The Concept Plan indicative design achieves compliance with the above key rules-of-thumb, therefore providing confirmation that the proposed building envelopes are not only suitable for residential accommodation but are able to support development of a high standard when measured against the RFDC.

A more detailed and complete assessment of the RFDC rules-of-thumb will be provided with each further application for implementable development.



OPEN SPACE AREA



DEEP SOIL ZONE AREA

