

10. Landscape Concept

The preservation and enhancement of Discovery Point Park has set a precedent for high quality public space and pedestrian amenity in this developing suburb. Indeed, much of the site planning has been shaped by the desire to preserve and highlight heritage-listed Tempe House, St Magdalen's Chapel and the surrounding Discovery Point Park.

Reinforcing this approach, the proposed landscape strategies seek to enhance the quality of the public space to contribute to the overall character and experience of the development as well as create a sense of place through the legibility of public spaces and their relationship to one another.

Public Domain Design Principles

- > Respect and enhance the heritage significance of St Magdalen's Chapel, Tempe House and its former grounds, now Discovery Point Park
- > Maximise connections to existing open space assets for both existing and future development
- > Create a legible network of parks, plazas and streets. Design of these open spaces will create a safe environment by providing clear lines of site, maximised passive surveillance and effective night lighting.
- > Maximise the experience of Cooks River and its parkland frontage
- > Create open spaces that are 'fit for purpose' – the design of outdoor spaces will complement and enrich adjoining commercial, retail and residential uses.
- > Enhance environmental quality within the public domain with:
 - 1. An integrated water management approach founded on water sensitive urban design principles
 - 2. The provision of extensive shade to reduce the heat island effect, particularly where hard surfaces prevail
 - 3. The development of a recycled water element with bio-swales that collect, reuse and cleanse local runoff
- > Provide winter sun, summer shade, seating and logical pedestrian connections within and between precincts creating a sustainable and comfortable outdoor environment.
- > Enhance the feeling of connection to nature.

The public domain and landscape strategy provides indicative plans for the parks and key streets of the proposed Concept Plan.

Below Indicative Landscape Concept Plan



Concept Plan Design Report
s11191 June 2010
Page 26

Neighbourhood Park
This new park located to the south of the site will connect to surrounding streets via a network of pedestrian links. Proposed built form provides excellent solar access due to the low building heights of the podium to the north, the generous width of the pedestrian walks and the park's north facing orientation. A deep soil zone enables provision of extensive planting of shade trees.

- The indicative park concept features:
- > A large central lawn with surrounding pedestrian walks
 - > A cafe terrace comprising deciduous planting and timber decking along the edge of Building 3
 - > A seating area on the western edge framed by deciduous trees and a large specimen fig tree
 - > Seating and feature trees set within a wider pedestrian zone adjacent the supermarket.

Below Neighbourhood Park artist's impressions

Bottom left Precedent images



10. Landscape Concept

Station Park

Located over the rail line, Station Park provides a unique urban opportunity to inject public open space in a landscape dominated by transportation. Station Park is a significant local open space connecting the Station East pedestrian walk, Brodie Spark Drive and the new Parkside Promenade at Discovery Point Park.

The indicative park concept features:

- > A large central lawn, raised 500mm above surrounding pavement level to provide sufficient soil volume and depth (800mm) for shade trees
- > A variety of seating: backed seating, benches, seating walls, steps, offering both sun and shade
- > A significant public art element that encourages interaction particularly for children

> Station North Walk

This new pedestrian thoroughfare will provide access to the north and east of the rail station. The Walk is made of two thoroughfares joined by a seam of lush understorey planting, flowering trees, paving, seating and lighting that offer vistas between the station entry and Station Park. Site lines will be maintained at all times in accordance with principles of pedestrian safety. One path incorporates shared cycle access to a bicycle and motorcycle parking area located in the undercroft of proposed Building 13.

Top Station Park artist's impressions

Centre Station North Walk artist's impressions

Below Precedent image



Improvement and completion of Discovery Point Park
This is a major public park and heritage element. A series of discrete interventions will improve connectivity in and around the park. These include:

- > A new Park Promenade linking Chapel Plaza, the Verge - Vine pedestrian plaza, the new Station Park, continuing east to Cooks River past Buildings 6 & 7.
- > Several new pedestrian paths links to the new park promenade at various locations within the park. Other paths, seating areas and planting enhance overall pedestrian amenity and visual quality.
- > Extensive planting surrounding rail infrastructure will reduce the visual impacts of the rail cutting on the park and adjoining apartment buildings. Service access to both rail equipment and Energy Australia substations will be integrated into planting, as will appropriate setback distances of trees from rail infrastructure.

Below Discovery Point Park promenade artist's impressions



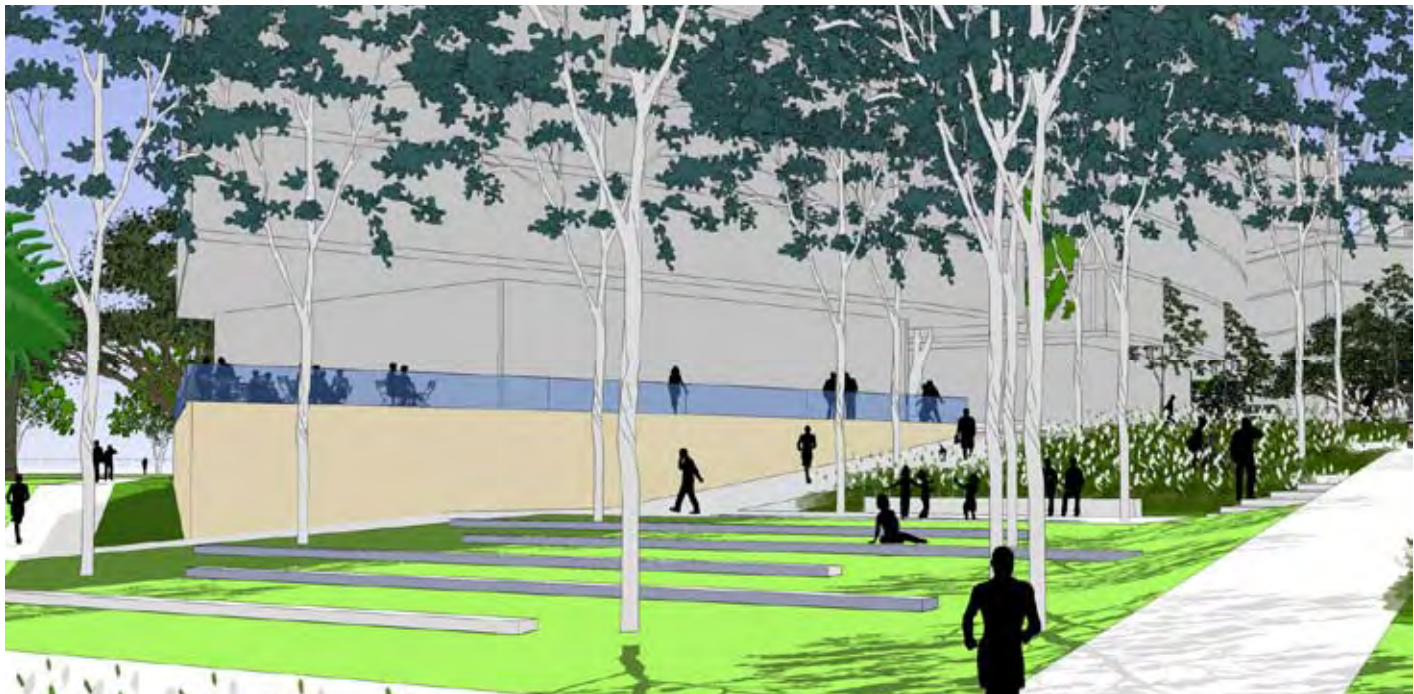
10. Landscape Concept

Waterfront Park
Brodie Spark Drive will taper out into a generous open space sloping down to the water's edge, offering striking views and direct pedestrian access to Cooks River.

- The indicative park concept features:
- > An upper plaza and pedestrian shared zone with water elements
 - > A mid-level plaza offering seating, water feature and expansive water views
 - > The natural ground line at the water's edge is retained and a lightweight boardwalk within the site boundary will provide a usable interface with the water.
 - > Universal pedestrian access, centrally located and extensively landscaped
 - > A shared pedestrian & bike path along the north-western edge, forming part of the site's cycle network
 - > An open lawn connecting the mid-level plaza to the creek side open space featuring simple yet robust benches for seating and informal children's play.
 - > A water edge featuring mangrove, salt grass & littoral vegetation integrated with bleacher steps and controlled access to the water edge enabling activities such as kayaking.

Left Waterfront park artist's impressions

Below Precedent images



Streets

> Brodie Spark Drive

Brodie Spark Drive is the processional thoroughfare commencing at Princes Highway and terminating at the Waterfront Park offering expansive views over Cooks River. The completed section of the Drive is of poor quality. Northward of Magdalene Terrace, the road will be modified to remove the centre island and locate street lighting to the kerbside. There is an opportunity to install all new street tree planting to achieve a high quality, enduring and cohesive outcome. A feature Fig tree planted in deep soil near the rail station will provide a highly visual 'marker' on the outside curve of the street.

> Discovery Point Place

Discovery Point Place will be a relatively busy urban space functioning as both bus/taxi interchange and shared pedestrian street. Shade trees, lush understory planting, seating and lighting will create a harmonious public environment that facilitates pedestrian movement between transport modes, the supermarket, other shops and adjacent neighbourhoods.

Left Indicative views of Brodie Spark Drive

Below Precedent images



10. Landscape Concept

Residential Podiums

The indicative design scheme includes three podium ‘Commons’ proposed for the use of apartment residents. Each common will feature generous lawns, garden beds, tree planting, shade structure, seating and barbecue facilities. Pool and associated change rooms and gym facilities will be provided along with allotment gardens enabling participating residents to grow food and herbs.

Green Roofs

Future buildings are proposed to feature ‘residents only’ green roofs, featuring gardens, shade structures and barbecue facilities for small group gatherings.

These rooftop gardens offering panoramic views over Wolli Creek, Botany Bay and the city will be carefully planned with respect to the provision of rooftop services. Building 3 will feature a pool and associated change rooms facilities.

Left Indicative Design Scheme Residential podiums

Middle Indicative Design Scheme green roofs

Bottom Precedent images



10. Landscape Concept

Public Spaces Planting Concept

It is proposed to include both indigenous (where practical) and exotic deciduous trees within the site. This will ensure a net increase in biodiversity of the area and enhancement of public amenity.

A range of broad leafed deciduous trees are recommended to provide summer shade and winter sun. It is proposed that new tree species along the promenade frontage be of tall and quick growing slender form with open canopy to retain views. In this way the development will visually blend and connect with Discovery Park enhancing the setting of the river front.

Smaller open spaces between buildings will be planted with more shade tolerant species. The lush green foliage setting will offer an alternative spatial quality to the more open areas and strengthen the more intimate nature of the spaces.

Below Public spaces planting



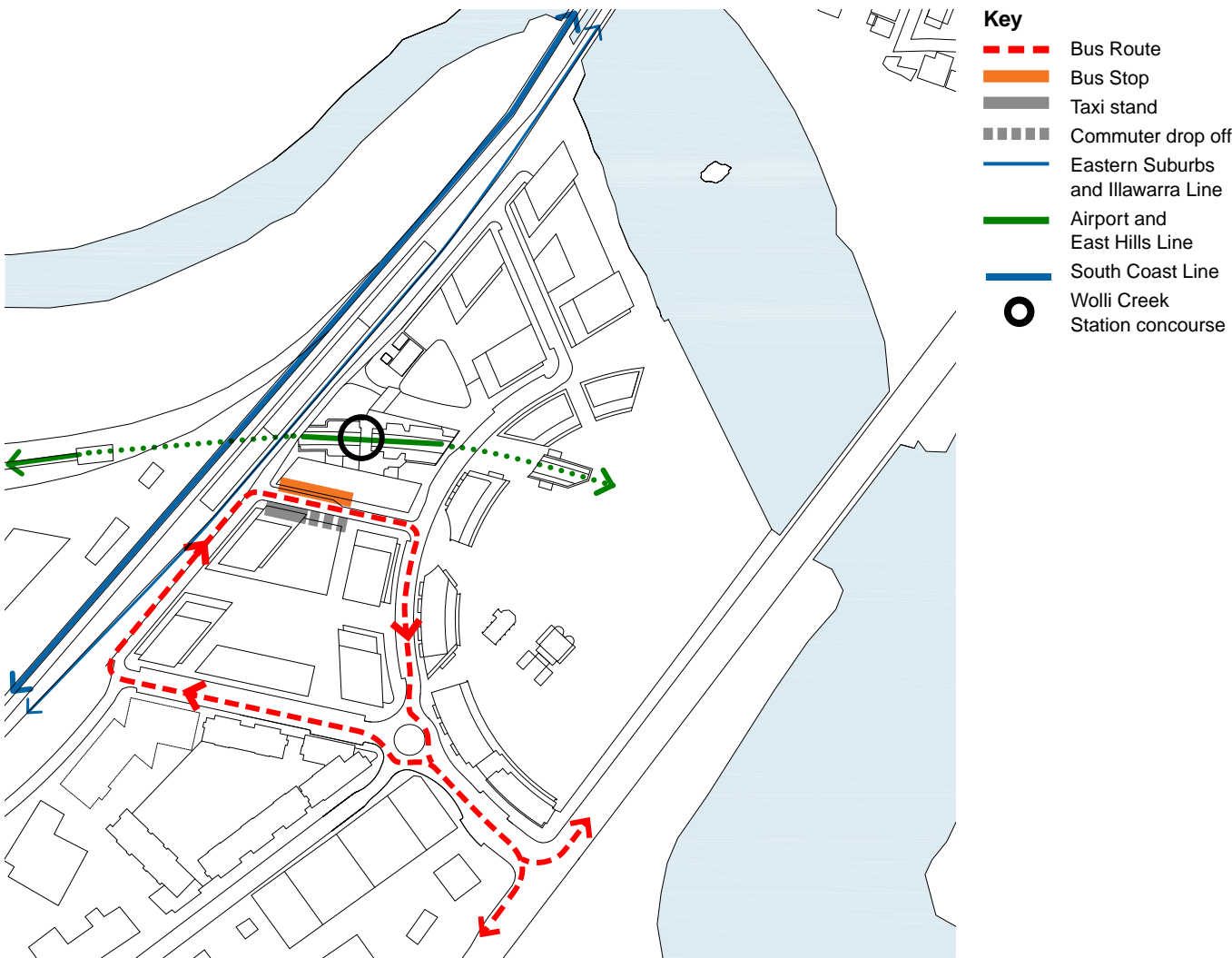
10. Landscape Concept

Private residential planting concept
Private residential spaces will be embellished with a range of plant species, both exotic and indigenous (where practical). Vegetation will be structured to develop spatial interest, privacy and intimacy, retention of visual corridor linkages, and to mediate environmental factors such as intense afternoon summer sun. Species selection will be based on the aim of developing a landscape character where plants appear to have a long founded association. Consideration will be given to complementing foliage texture and colour.

The plant palette will be enhanced by incorporating edible plants such as herbs and vegetables with interesting foliage and colour. These plants will provide attractive and usable garden areas for residents using the courtyard spaces. Planting will also be visually vibrant and enticing to the eye providing residents with an attractive landscape to reside in and interact with.

Below Private residential planting

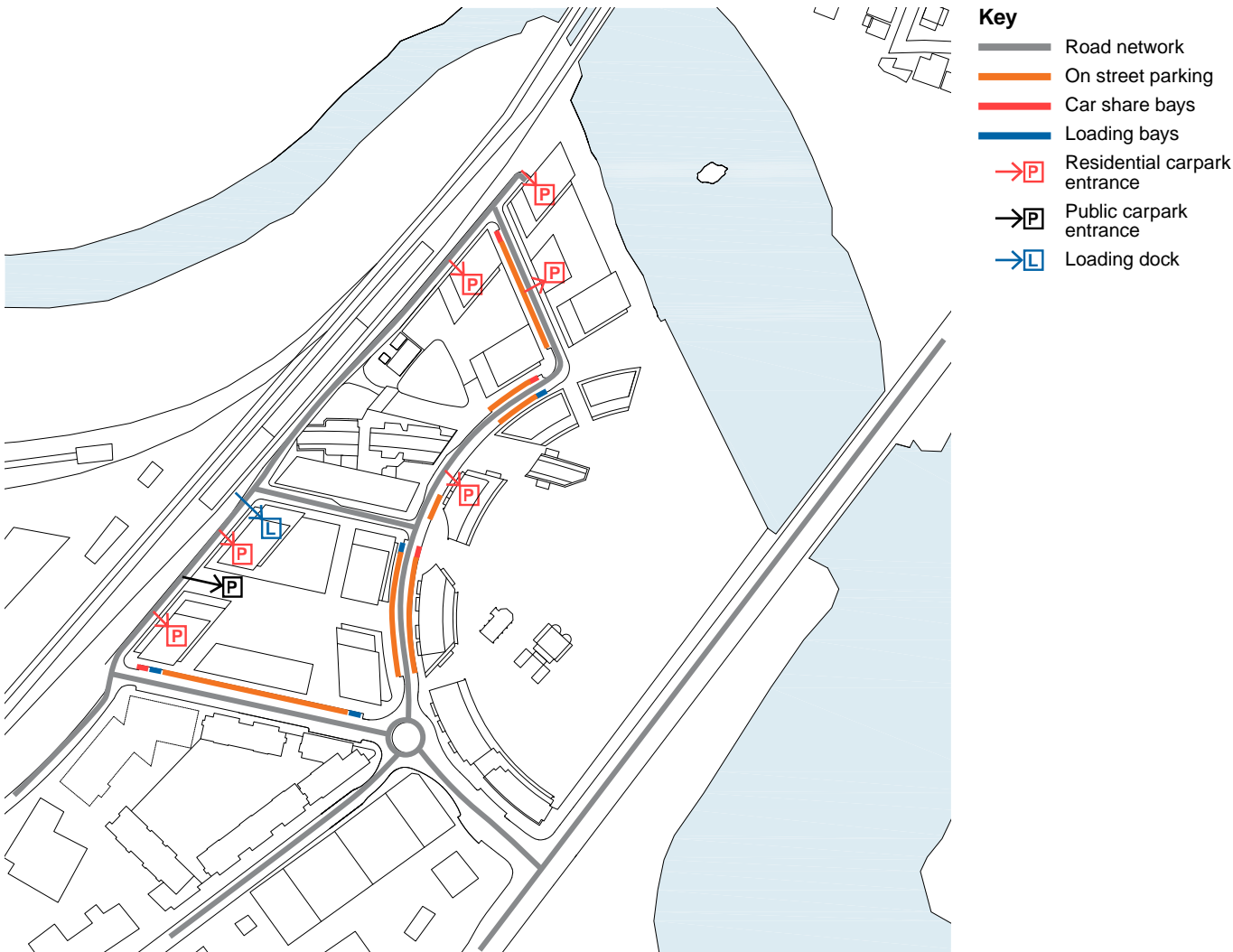




Public Transport

The new Concept Plan enhances Wolli Creek's function as a multi-modal and accessible public transport hub. Wolli Creek station is already a transfer station for three lines: the Eastern Suburbs and Illawarra line; the Airport and East Hills line; and the South Coast Line. It comprises two platforms served by an elevated concourse. The main entrance to the station is to be redesigned and will be accessible from street level.

Bus services comprise bus service 348 from Bondi Junction to Wolli Creek and bus service 422 from Sydney CBD to Kogarah train station. Buses will stop on Discovery Point Place, adjacent to Wolli Creek Station. A taxi and commuter drop-off is also provided at this location.



Site Access and Parking

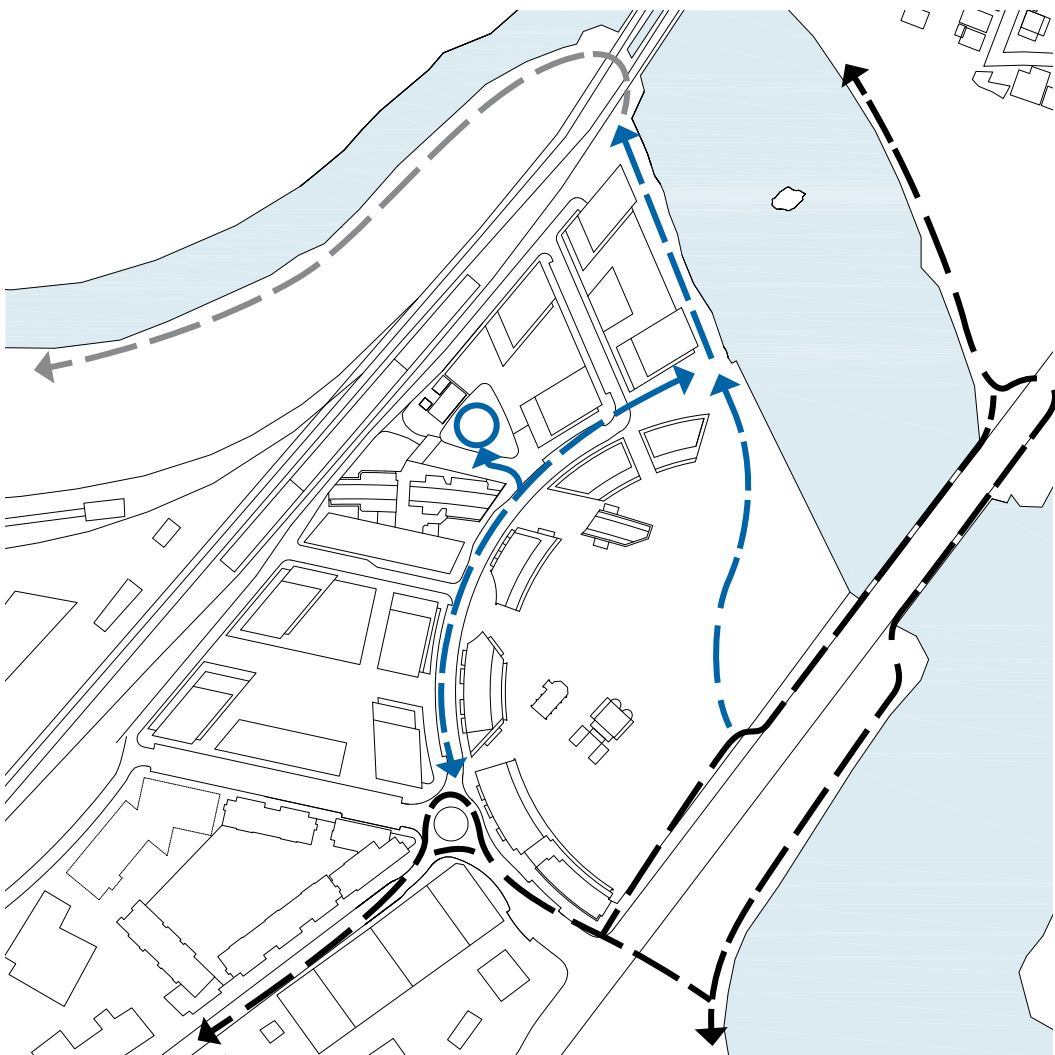
Below ground parking will be provided in the basements of the residential buildings and under suspended roads. Above ground car parking will be provided in the podiums of some of the proposed buildings and accessed from Spark Lane. The parking is typically screened behind two storey residential units and building entry lobbies which activate the street frontages. Along the north west edge of the site, the above ground car parking forms a buffer to the railway line.

While the majority of parking will be for residents, the southern precinct will provide a public carpark for shoppers and visitors in addition to dedicated parking for the commercial space. A further 40 on-street spaces will be made available for public use, four of which will be allocated for car share vehicles.

Service Vehicles

A site-wide refuse and recycling strategy will involve the collection of waste from storage rooms in the basement of each building and transfer to a centralised store in the ground floor of building 4. Adjacent to the central waste store is a loading dock which will accommodate waste collection vehicles in addition to deliveries vehicles for retail and commercial tenants, including the supermarket.

Emergency vehicles will gain access to all buildings and open spaces from the proposed street network.



- Key**
- Cycle route shown in Rockdale DCP 62
 - Future cycle route outlined in Rockdale Council S94 Plan
 - Proposed additional cycle routes
 - Secure cycle and motorcycle parking

Cycles
Bicycle paths will be provided along Brodie Spark Drive and the riverfront to connect the path from Magdalene Terrace to the Cooks River into the wider regional cycle network. The path along the river's edge will provide a linkage to the future Wolli Creek cycle paths outlined in Rockdale Council's Section 94 Plan.

Bicycle and motorcycle parking is proposed at the northern entrance to Wolli Creek Station. Provisions will be made for bicycle storage in residential building basements.



- Key**
- Pedestrian network
 - Wolli Creek Train Station

Pedestrian Network
The Concept Plan proposes a fine-grained network of vehicular and pedestrian streets to break up the development blocks and maximise connectivity with public open space.

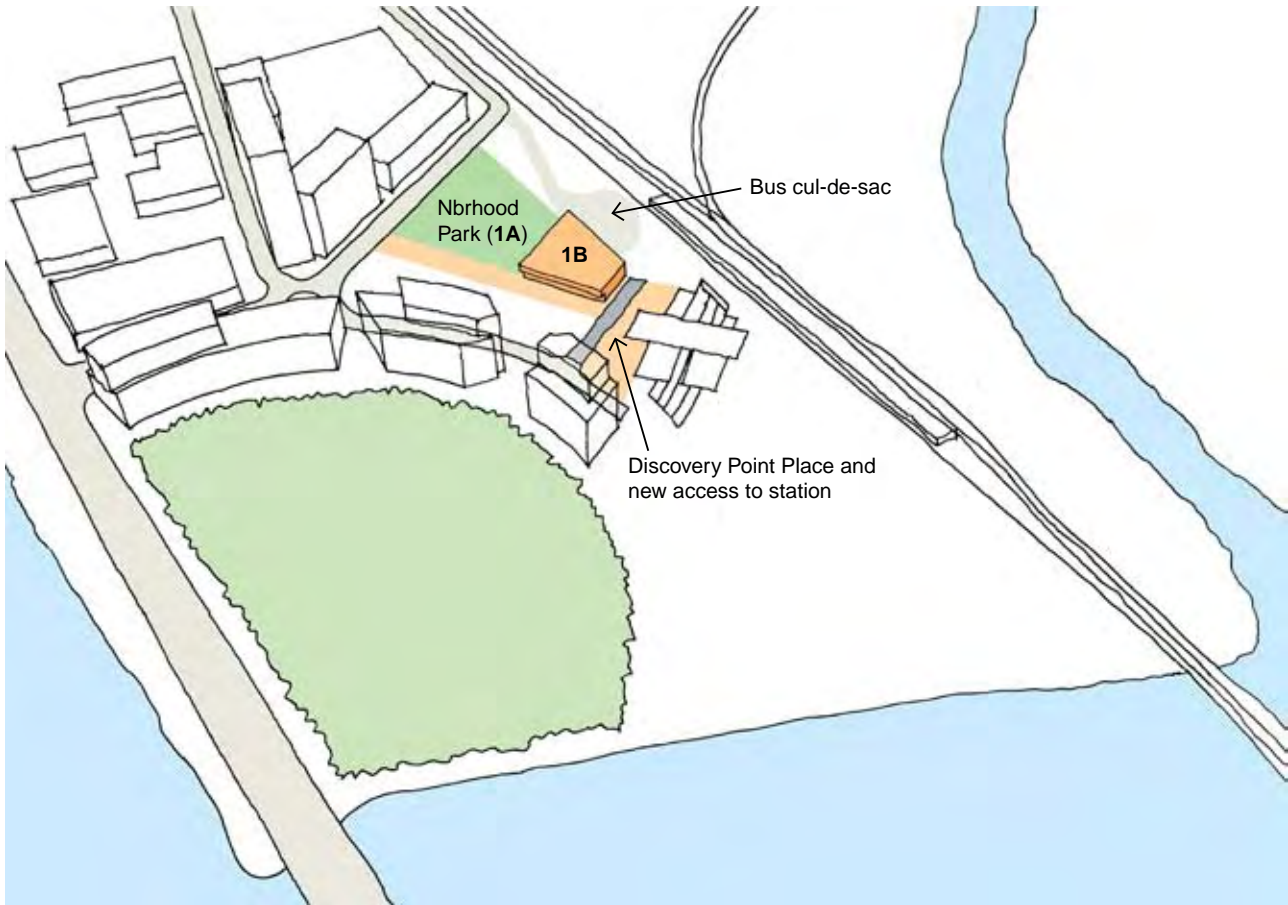
A new street, for pedestrians only, will connect Wolli Creek station with Magdalene Terrace. This street will be flanked by retail and the new neighbourhood park, creating a pedestrian focused village retail environment.

12. Indicative Staging Strategy

The Concept Plan has been conceived to allow the logical and cost effective sequencing of infrastructure with development stages, and for the site to appear complete with appropriate amenity at the conclusion of any individual stage. Up to 14 separate stages reduce the size of each building and the number of apartments in each stage.

An indicative staging plan is provided on the following pages. Each project application will include an updated staging strategy which is expected to evolve and be refined throughout the life of the development.

Currently, the indicative staging plan proposes firstly to complete the southern precinct including the neighbourhood park and the retail areas; secondly to complete the arc of Discovery Point Place; and thirdly to complete the northern waterfront precinct. The commercial building above the new station entrance is currently proposed following completion of the northern precinct but this will be accelerated if commercial market conditions allow.



Stage 1A & 1B
The first stage of development involves the construction of the new neighbourhood park, the supermarket, the majority of Discovery Point Place, and a new entrance to the southern side of Wolli Creek Station. Buses will retain access to the station from an amended cul-de-sac between the supermarket and the Illawarra railway line. Under the supermarket, a new public carpark will be accessed from the bus turning circle, while the residential basement carpark is accessed from existing ramps: one in Vine off Brodie Spark Drive and one off Magdalene Terrace on the future site of Building 2.



Stage 1C
This will be the first residential building, with apartments above retail at ground, two floors of basement parking and the sewer recycling plant at basement level three.



Stage 02
Building 2 proposes 20 storeys of residential accommodation above ground floor retail and two floors of basement parking. This stage involves the decommissioning of the existing carpark ramp of Magdalene Terrace.



Stages 03 - 05
Buildings 3, 4 and 5 will complete the southern precinct. Buildings 3 and 4 both include retail space at ground level with a single floor of basement parking below. Stages 4 and 5 include the completion of Discovery Point Place and Spark Lane which serves the loading dock, central waste store and carpark access ramp, all proposed in the ground floor of Building 4. Both Buildings 4 and 5 include parking at first and second floors which provide a buffer to the railway line. To maintain bus access to the station during construction of this stage a new cul-de-sac is proposed on the north side of the station.



Stages 06 - 07
Buildings 6 and 7 will complete the arc of buildings fronting Discovery Point Park. During construction of Building 6, Brodie Spark Drive will be extended to the intersection with Chisholm Street, including the new Station Park on top of the railway deck. In addition to Building 7, stage 7 will provide the new Waterfront Park at the end of Brodie Spark Drive.



Stages 08 - 10
Buildings 8 to 10 include the completion of Chisholm Street and the Waterfront Park along the edge of Cooks River.



Stages 11 - 13
Buildings 11-13 will provide the remaining residential accommodation including the 21-storey tower which marks the north entrance to the station.
This stage also proposes a new northerly entrance to the station and the completion of Spark Lane.



Stage 14
This stage proposes a low-rise commercial building and will complete development at Discovery Point. Construction of this building involves the redefinition of the southern station entrance at street level.

13. Sustainability Initiatives

Sustainability initiatives are integrated into the concept design, rather than appearing as “add ons” and include the following approaches:

Energy conservation

A key approach to conserving energy is to ensure good control of sunlight. This is facilitated by providing as many dwellings as possible with a northerly aspect. The orientation of the long axis of the site at 40 degrees to north provides an excellent orientation for most buildings to receive good solar access throughout the year. As demonstrated in the indicative design scheme, the majority of future apartments will be oriented north, north-east or north-west. The proposed massing profile ensures good solar access to apartments including those on the lowest levels; as well to public and communal spaces. This is validated by the solar studies which follow. Building envelopes have been arranged to accommodate generous balcony overhangs to minimise solar gain in summer. The indicative design scheme shows that the majority of apartments will have dual orientation, maximising opportunities for natural cross ventilation. The light and ventilation slots shown in the indicative design will not only provide improved ventilation to apartments, but also ensure lift lobbies and communal corridors can be naturally lit and ventilated. Wherever possible, low-energy lighting operating on motion sensors and energy efficient fixtures will be incorporated into apartments and common areas.

Water conservation

The development proposes a site-wide sewer recycling plant to process blackwater. If required, rainwater will also be collected and used for landscaping and grey water. Water efficient fixtures will be incorporated into the apartments. The deep soil zones in Discovery Point Park, the Neighbourhood Park and the Waterfront Park enable rainwater and overland flow to enter the ground and replenish the water table.

Resource minimisation

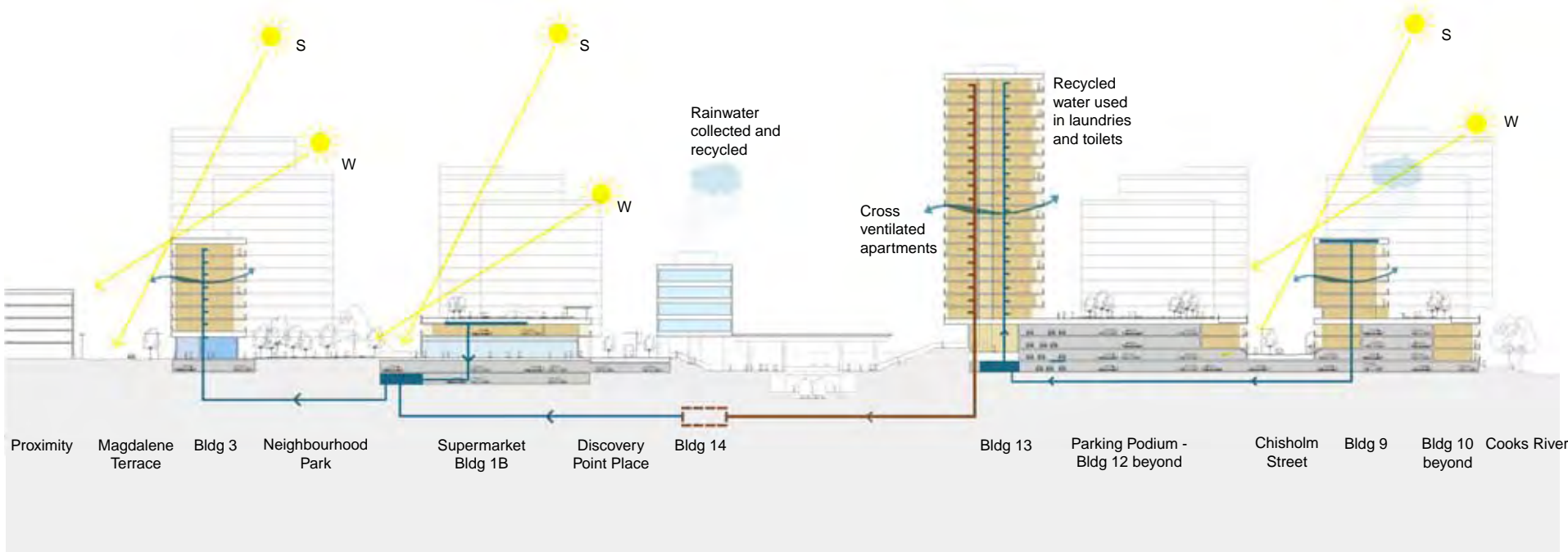
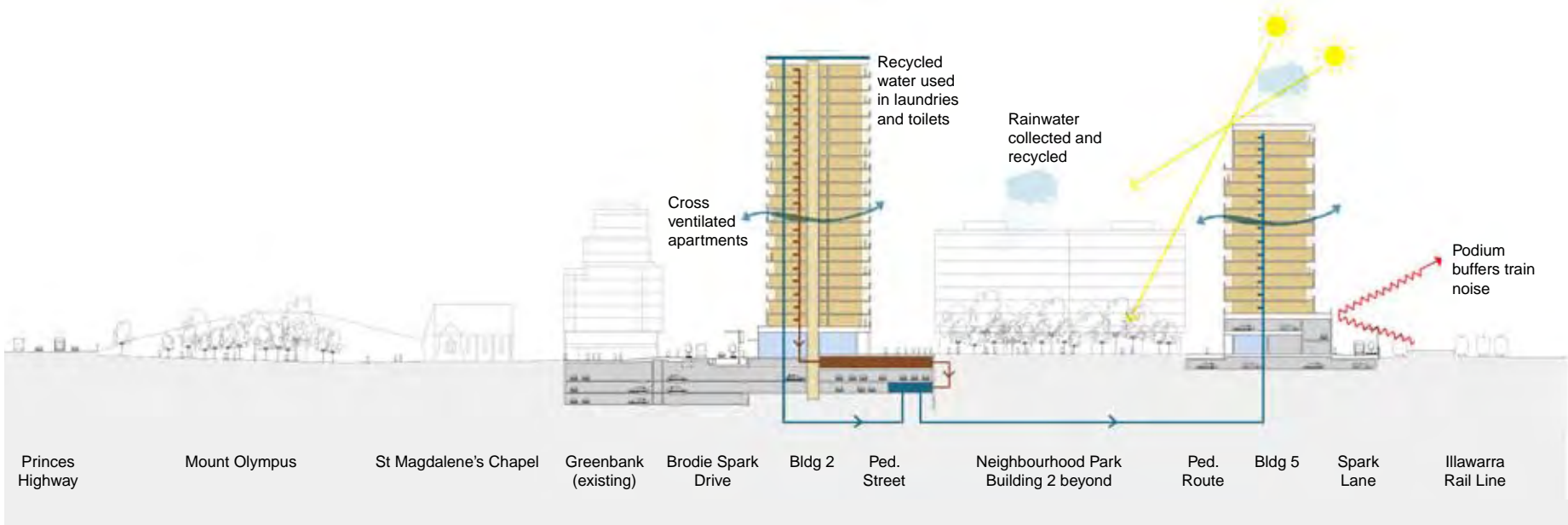
The proposed building structures will be constructed predominantly from concrete which has a low embodied energy. A portion of recycled content will be incorporated.

Green roofs and ecology

These spaces will provide significant visual and physical amenity for residents and reduce heat gain at podium level. A combination of water features, community gardens and lightly planted spaces will offer a variety of spaces to enjoy the natural environment.

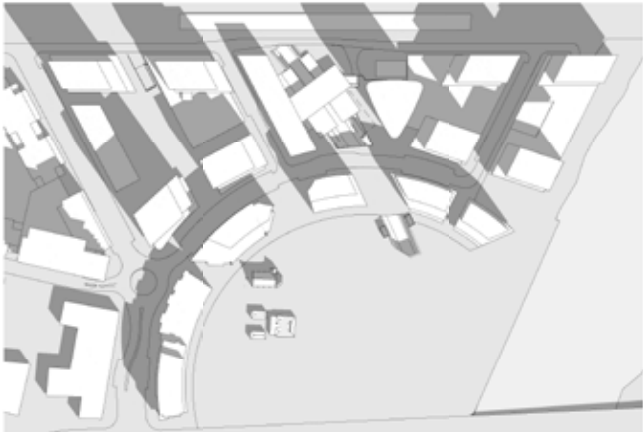
Below East West Section of indicative design scheme

Bottom North South Section of indicative design scheme



14. Shadow Diagrams

Plan view
The plan view shadow diagrams show the shadowing effect of proposed buildings on surrounding streets and open spaces. The diagrams demonstrate that Discovery Point Park will benefit from consistent morning sun throughout the whole year. The new Neighbourhood Park will benefit from afternoon sun for most of the year and lunchtime sun even during winter months. The Waterfront Park will enjoy direct sunlight in the morning all year round.



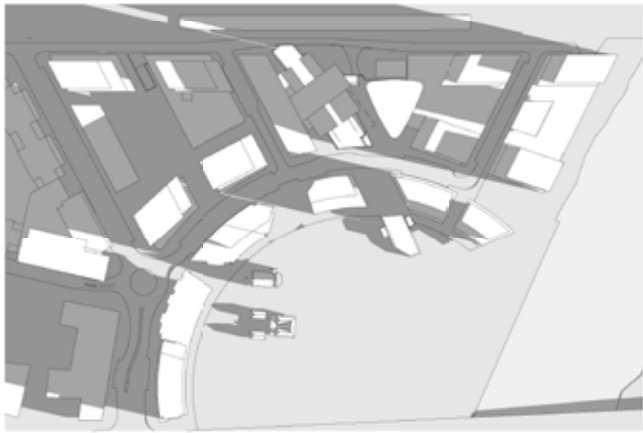
9am December 21
Summer Solstice



12noon December 21
Summer Solstice



3pm December 21
Summer Solstice



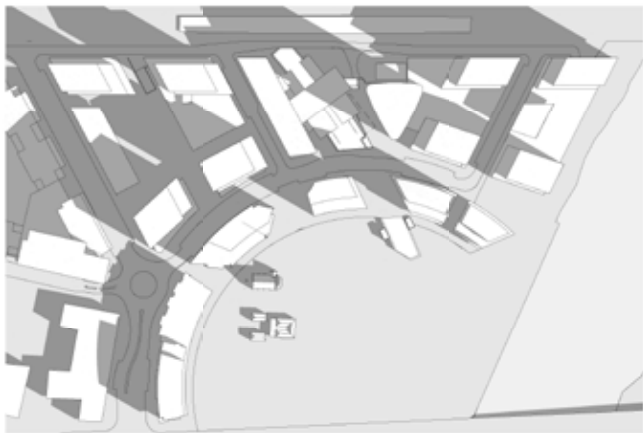
9am June 21
Winter Solstice



12noon June 21
Winter Solstice



3pm June 21
Winter Solstice



9am September 21
Spring Equinox



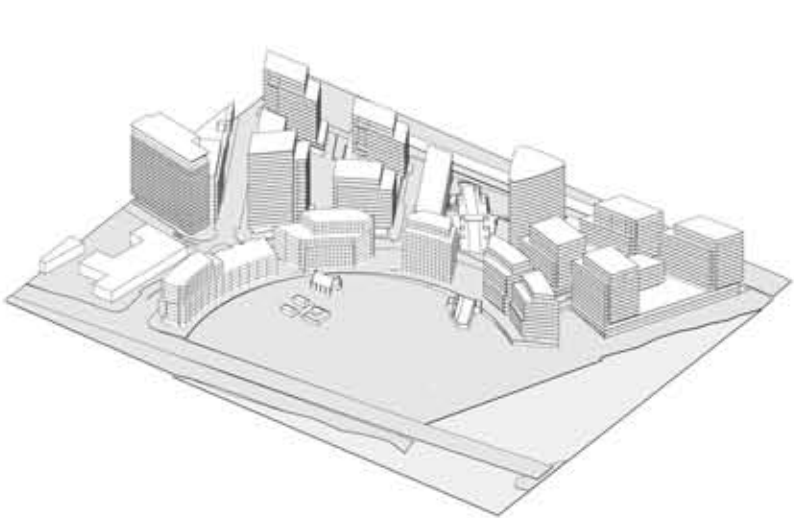
12noon September 21
Spring Equinox



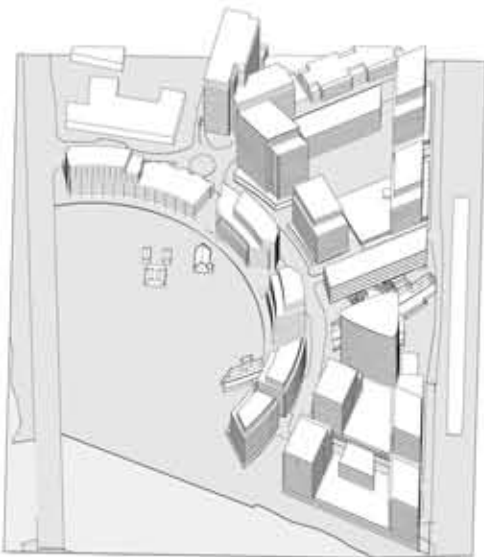
3pm September 21
Spring Equinox

14. Shadow Diagrams

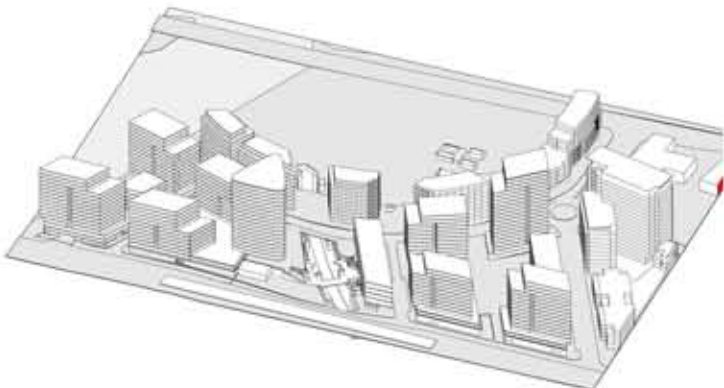
View from the Sun
These diagrams show a 'view from the sun'. At the noted date and time, all faces that are visible in the view will receive direct sun, while all faces that are not visible will be in shadow. These shadow diagrams illustrate the solar penetration into the urban fabric of the development as a result of careful consideration of heights, setbacks and perimeter block planning. Even at winter solstice, a high proportion of buildings will receive direct sun. At project application stage, the detailed layouts of building floorplates will be developed to maximise the number of living rooms and balconies which receive direct sunlight.



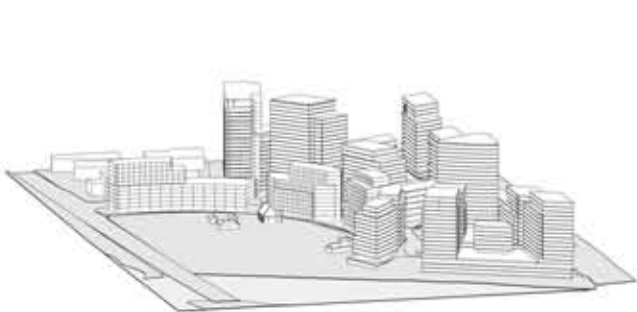
9am December 21
Summer Solstice



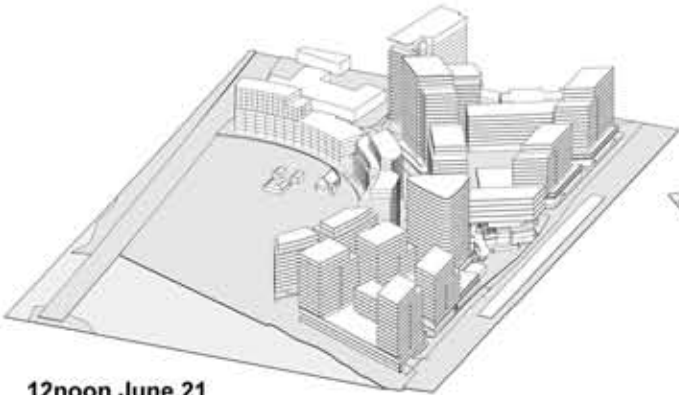
12noon December 21
Summer Solstice



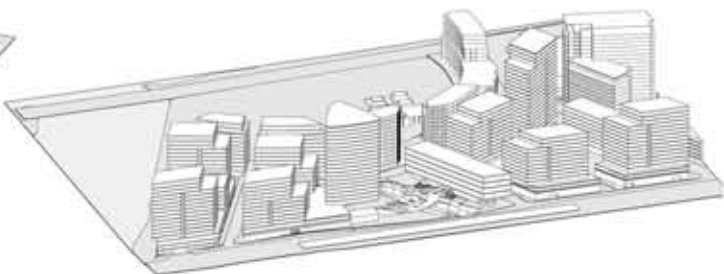
3pm December 21
Summer Solstice



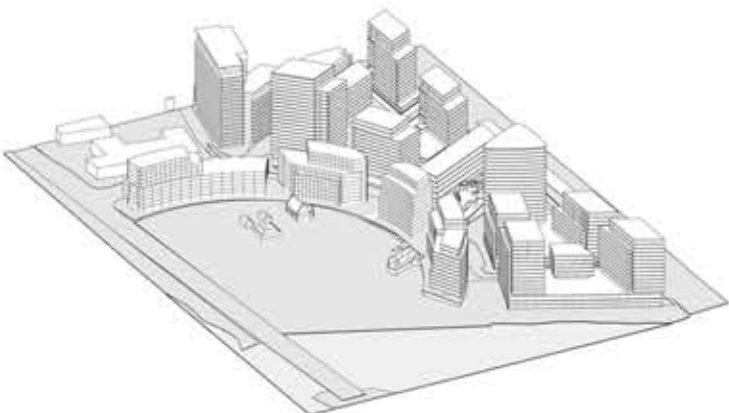
9am June 21
Winter Solstice



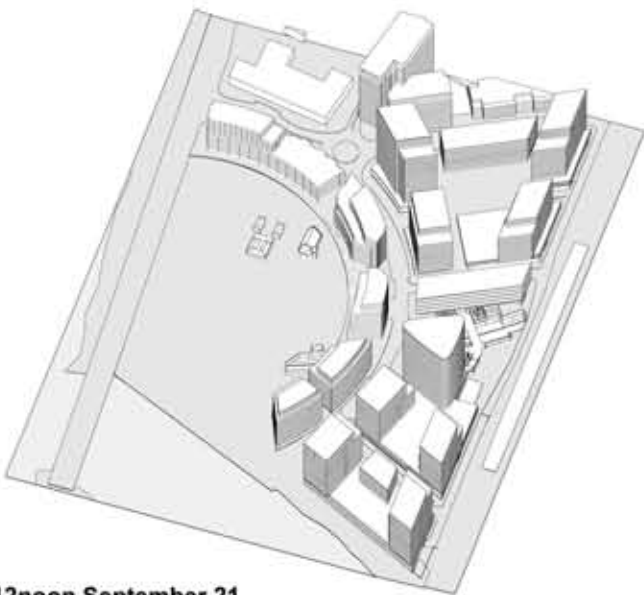
12noon June 21
Winter Solstice



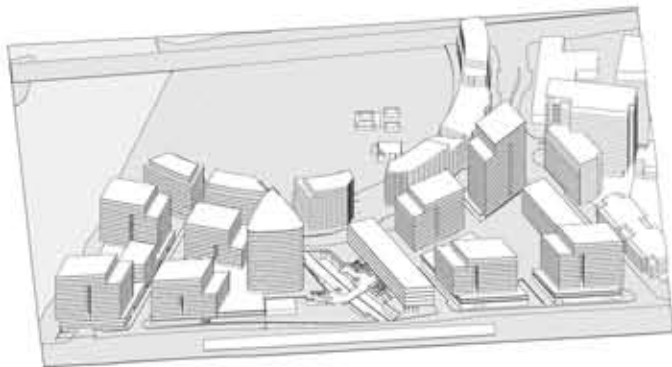
3pm June 21
Winter Solstice



9am September 21
Spring Equinox



12noon September 21
Spring Equinox



3pm September 21
Spring Equinox



Context
SEPP 65 principle 1, clause 9
Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area. Responding to context involves identifying the desirable elements of a location's current character or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality and identity of the area.

The site is located in Wolli Creek, an area of Rockdale in transition from light industrial use to a high quality urban precinct comprising residential, commercial, retail and generous open space. In accordance with *RLEP2000 10(a) - Railway Precinct*, the proposed development at Discovery Point encourages "a mixture of land uses (such as office, commercial, retail, residential, tourist, and transport), to create a sustainable, vibrant and high-quality precinct that responds to the land's proximity to major transport infrastructure and the Sydney CBD."

The site is bounded by the Illawarra railway to the northwest, Cooks River to the northeast, Princes Highway to the southeast and Magdalene Terrace to the southwest. Wolli Creek Station is centrally located on the site with vehicular and pedestrian access from Magdalene Terrace. The proposal has evolved to take advantage of the Discovery Point Park and Cooks River frontages by providing the majority of apartments with parkland or water views.

The proposal responds to the proximity of the Illawarra railway line by proposing Spark Lane as a vehicular and services route which, along with a 2-storey parking podium, buffer the residential uses from train noise.

Existing buildings on the site comprise two restored heritage listed buildings known as Tempe House and St Magdalen's Chapel, two completed mixed use buildings and one residential apartment building currently under construction. The proposal incorporates and celebrates these structures by highlighting their heritage and cultural value as objects in Discovery Point Park and by continuing the curve of Brodie Spark Drive to frame the park and these elements within it.

Scale
SEPP 65 principle 2, clause 10
Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings. Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk and height needs to achieve the scale identified for the desired future character of the area.

The scale of the proposed buildings are broadly in keeping with the bulk and height of existing buildings around the site and the desired future character of the area described in both planning policy and previous development consents. To the southwest, the Proximity development sets a precedent for high density mixed use development which creates strategic density within walking distance of the train station.

The scale of the completed buildings on the Discovery Point site - known as Greenbank and Verge - along with the building under construction - Vine - create a strong urban edge to Discovery Point Park, also acting as a gateway to Wolli Creek in general and Discovery Point in particular.

The Concept Plan seeks to build on these precedents, proposing a variety of building scales to support a range of residential typologies. Tall buildings are proposed in two key locations to lessen the development footprint and provide an increase in public open space.

The Concept Plan proposes variation in building heights for three key reasons:

- > Context - to respond to the range in height of existing buildings which include the single storey train station and adjacent 21-storey 'Proximity' tower
- > Amenity - to ensure that buildings and open spaces have adequate access to sunlight and daylight
- > Built Form and Aesthetics - to ensure there is sufficient variety in the appearance of proposed buildings.

Density
SEPP 65 principle 4, clause 12
Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents). Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities and environmental quality.

The masterplan promotes a high-density mixed use development consistent with the urban consolidation strategy which builds on its proximity to transport and access to green space and heritage amenities for workers, residents and the public. The Concept Plan proposes a density broadly consistent with the previously approved masterplan DA500/01.



Built form
SEPP 65 principle 3, clause 11
Good design achieves an appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type 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.

The Concept Plan adopts the principle of perimeter block planning, proposing envelopes aligned with streets to clearly define the public domain. A variety of public spaces comprising roads, pedestrian streets, parks and pathways result from the careful arrangement of built form.

While Brodie Spark Drive does not define a traditional block, its curved trajectory creates a clear delineation between the urban character of the Southern and Northern Precincts and the open and natural character of Discovery Point Park including the built heritage of Tempe House and St Magdalen's Chapel. The Concept Plan proposes to extend the 'dress circle' of apartment buildings fronting Discovery Point Park, emphasising its edge and improving its character.

Breaks between these buildings and the alignment of streets have been carefully chosen to maximise visual connection to Discovery Point Park and Cooks River. Brodie Spark Drive tapers out opening up key vistas to the water from the station and the urban centre of the development.

On Chisholm Street and along the Cooks River frontage, terrace type apartments have access directly from the street via a small private garden which acts as a buffer from these smaller scaled public spaces.

Two landmark towers are proposed in key locations: one at the corner of Brodie Spark Drive and Magdalene Terrace acts as a landmark upon entering the site by car; while the other tower acts as an urban marker for the station. Both will serve an iconic function for the development and the local area.

The indicative design scheme shows retail frontages with recessed colonnades or projecting canopies, improving pedestrian amenity and enhancing the edge condition of the streets and parks onto which they face.



Resource, energy and water efficiency
SEPP 65 principle 5, clause 13
Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction. Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.

While many of the sustainability decisions will be made at project application stage – particularly those relating to detailed layouts and material selection – sustainability initiatives are integrated into the concept design wherever possible. Passive solar design has informed the massing approach and allowance for envelopes. For example, the indicative design scheme shows the majority of future apartments will be oriented north, north-east or north-west, while proposed building envelopes can accommodate generous balcony overhangs to minimise solar gain in summer. The indicative design scheme shows that many apartments will have dual orientation, maximising opportunities for natural cross ventilation. Also shown are lift lobbies and communal corridors which can be naturally lit and ventilated.

The development proposes a sewer recycling plant as part of a sitewide water management strategy. Water efficient fixtures will be incorporated into the apartments. The deep soil zones in Discovery Point Park, the Neighbourhood Park and the Waterfront Park enable rainwater and overland flow to enter the ground and replenish the water table.



Landscape
SEPP 65 principle 6, clause 14
Good design recognises 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-ordinating water and soil management, solar access, micro-climate, 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 optimise usability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long term management.

The Concept Plan has developed a considered landscape strategy focusing on the following key public spaces:

- > Improvement and completion of Discovery Point Park including a new park promenade which defines the park edge and links the existing buildings with new development
- > A new Neighbourhood Park surrounded by retail, cafes and restaurants, connected to surrounding streets via a network of pedestrian links.
- > Station Park will provide an intermediate space between the hard landscaped plazas providing access to the station and the open space of Discovery Point Park.
- > Waterfront Park situated at the end of Brodie Spark Drive provides a new public space terracing down to Cooks River, connecting into the pedestrian and cycle network proposed along the river edge.

An indicative landscape design is set out in full in Chapter 10 and at Appendix C.



Amenity
SEPP 65 principle 7, clause 15
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 Concept Plan and indicative design scheme illustrate how careful massing and arrangement of cores have been considered in order to maximise amenity for future residents. Many of the amenity issues described above, particularly those regarding detailed apartment layouts, will be addressed in the future project applications.

Many apartments will have a primary aspect that optimises daylight and sunlight access, along with views to Cooks River and/or Discovery Point Park. More than half the units will have corner or dual aspect to enable natural cross ventilation.

Resident amenity is further enhanced by the inclusion of open spaces at ground level which provide recreational and pedestrian spaces within walkable distance. Landscaped podiums will also contribute to the overall level of amenity by offering resident facilities and an injection of vegetation within the built fabric.

The following section describes how the indicative design scheme performs against the amenity requirements of the Residential Flat Design Code.



Safety and security
SEPP 65 principle 8, clause 16
Good design optimises safety and security, both internal to the development and for the public domain. This is achieved by maximising overlooking of public and communal spaces while maintaining internal privacy, avoiding dark and non-visible areas, maximising 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.

The Concept Plan proposes active street frontages throughout the development by providing retail, residential lobbies and front doors to townhouses at ground level. Spark Lane, conceived primarily as a traffic and services route, is passively surveilled from the adjacent station platform, the bus loop and apartments above. The channelling of the vehicular traffic to four main streets – Brodie Spark Drive, Spark Lane, Discovery Point Place, and Chisholm Street – ensures pedestrian amenity and safety is maximised. Walking and cycling paths along the river will be improved to connect seamlessly with the wider network planned by Rockdale Council.



Social dimensions and housing affordability
SEPP 65 principle 9, clause 17
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 optimise the provision of housing to suit the social mix and needs in the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community. New developments should address housing affordability by optimising the provision of economic housing choices and providing a mix of housing types to cater for different budgets and housing needs.

The Concept Plan will provide an increase in residential housing available in the local area, consistent with the draft south sub-regional strategy. By providing several residential typologies and a range of apartment sizes, the proposal seeks to meet the council's vision for a diverse and vibrant community. The proposal contains a unit mix and apartment sizes that are carefully considered with affordability targets in mind.

Aesthetics
SEPP 65 principle 10, clause 18
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.

The aesthetics of the individual building designs will be addressed comprehensively in future project applications. Naturally, the composition of buildings, choice of materials and colours will be influenced by existing built context. Future buildings fronting Discovery Point Park will respond to the elevational rules established in response to St Magdalen's Chapel and Tempe House.



Building Separation
The Residential Flat Design Code (RFDC) aims to ensure that new development maintains visual and acoustic privacy, controls adverse overshadowing impacts, promotes daylight access and provides adequate open space.

Appropriate building separation provides a legible urban form which utilises the development potential of the site whilst ensuring that the scale and bulk of the buildings is not overwhelming. Building setbacks on upper floors as well as the creation of a human-scale podium are two strategies which have been adopted to strengthen the legibility and character of the proposed Concept Plan.

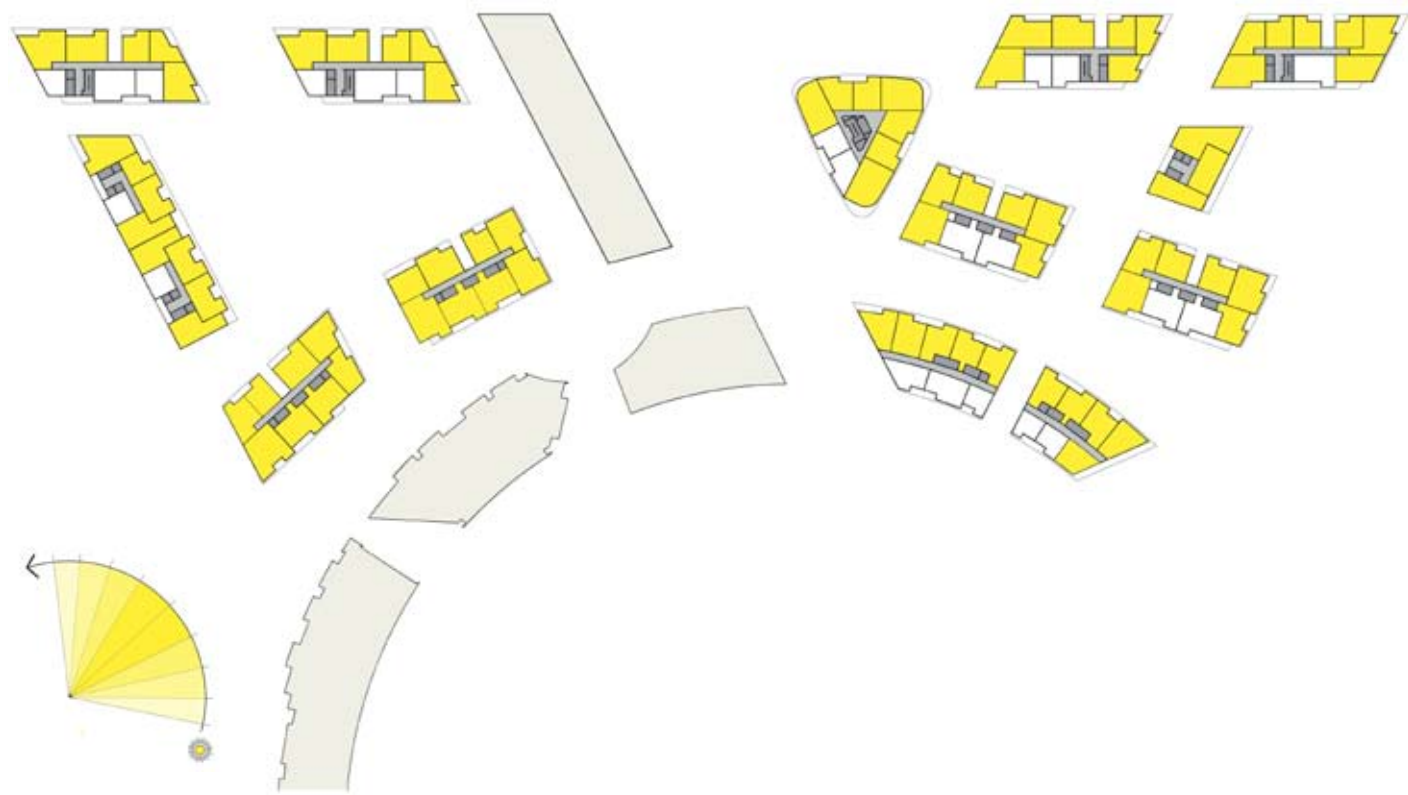
The diagram left shows nine situations where the indicative design scheme varies from the 'Rules of Thumb' set out in the RFDC. These separation distances have been deliberately chosen to define a strong urban form. Five of the situations (Building 3-5, 6-7, 8-9, 9-10 and 11-13) require nine to ten metres separation to reinforce the perimeter block planning. One, between buildings 1B and 1C, is used to define the pedestrian link to the station and exists only at first floor level. The other three situations are along Brodie Spark Drive, where the established arc of the street has determined building alignments.

In each of these circumstances, to ensure visual privacy, the development will carefully locate living areas and employ detailed design features such as the use of highlight windows on secondary facades, privacy screens and offsetting of balconies.

Detailed justification of each situation is described in JBA Urban Planning's *Environmental Assessment Report* (under separate cover).



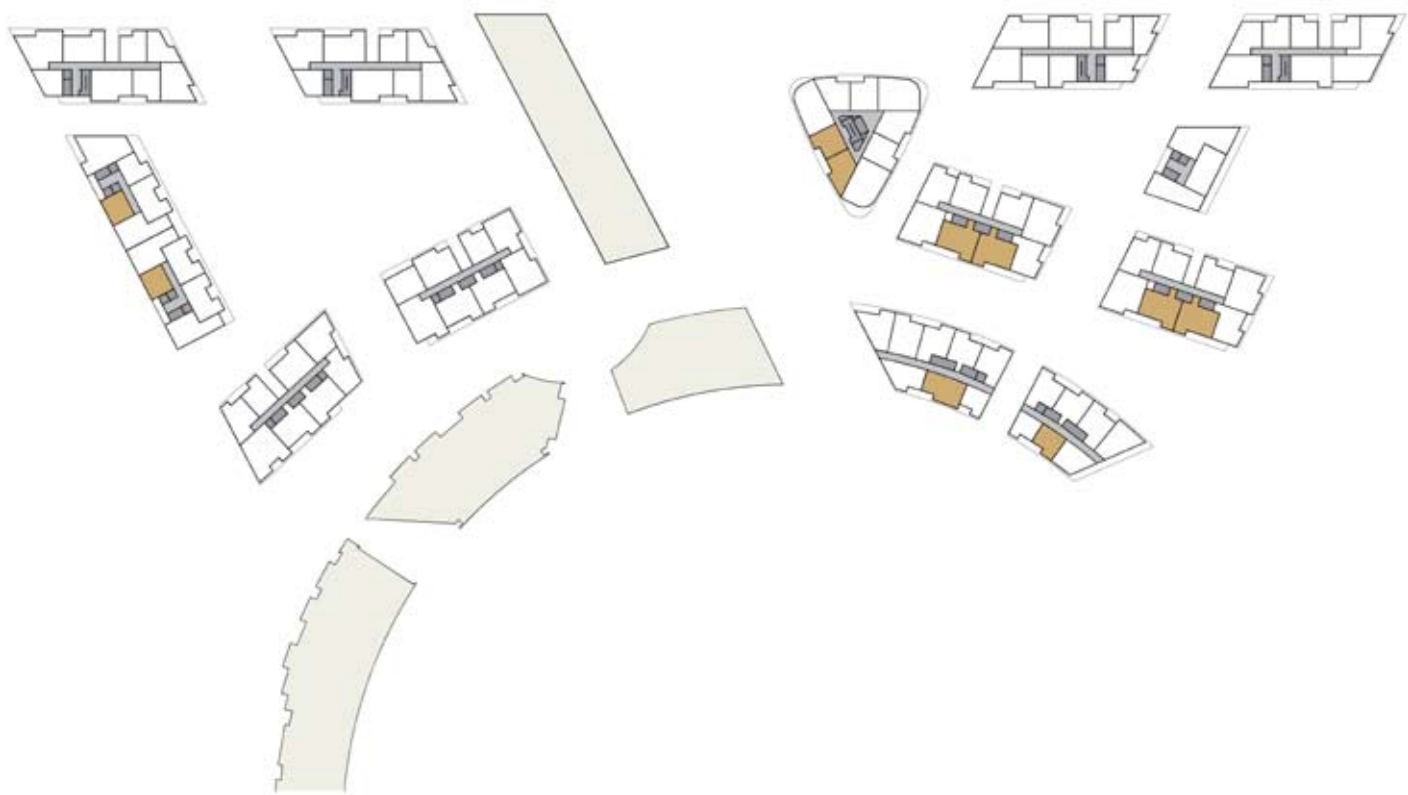
Natural Ventilation
Under the RFDC, a minimum of 60% of apartments should have two aspects to support natural cross ventilation. While the Concept Plan seeks approval only for building envelopes, the diagram left demonstrates that the indicative design scheme supports natural ventilation for up to 64% of apartments on a typical floor. This would be achieved by maximising the number of corner apartments and introducing vertical light and ventilation slots at strategic locations on the facade.



Access to sunlight
Under the RFDC rules of thumb, a minimum of 70 percent of apartments should receive at least three hours of direct sunlight during mid-winter, or at least two hours within denser urban areas such as what will result from the Concept Plan.

The arrangement of buildings in the Concept Plan aims to maximise direct sunlight reaching living rooms and balconies. While the Concept Plan seeks approval only for building envelopes, the diagram left demonstrates that on a typical floor, the indicative design scheme can achieve up to 79% of apartments with more than two hours of direct sun between 9am and 3pm in mid-winter.

Key	
	Units receive more than 2 hours direct sun between 9am and 3pm on June 21st - 79%
	Units receive less than 2 hours direct sun between 9am and 3pm on June 21st - 21%



Minimising South facing units
RFDC rules of thumb seek to limit the number of apartments with a southerly aspect (SW-SE) to a maximum of 10% of the total units proposed.

While the Concept Plan aims to minimise the number of south facing units, in providing a strong urban form, the indicative design scheme shows 10% of units with a single aspect between southwest and southeast. Of these, 8 out of 10 apartments face onto open spaces at least 30m wide, where a large area of visible sky will ensure good daylight levels.

Key	
	Units with a single aspect in the 90° arc between southeast and southwest - 10%

Bates Smart Pty Ltd
ABN 70 004 999 400

Sydney 243 Liverpool Street
East Sydney NSW 2010 Australia
T+612 8354 5100 F+612 8354 5199
syd@batesmart.com

Melbourne 1 Nicholson Street
Melbourne Victoria 3000 Australia
T+613 8664 6200 F+613 8664 6300
melb@batesmart.com

www.batesmart.com

2 June 2010

**Architecture
Interior Design
Urban Design
Strategy**

Michael Woodland
Director – Metropolitan Projects
NSW Department of Planning
23-33 Bridge Street
Sydney NSW 2000

BATESSMART™

Directors
Roger Poole
James Milledge
Jeffery Copolov
Philip Vivian
Simon Swaney
Lucy Best
Guy Lake
Kristen Whittle
Sheree Proposch
Finance Director
Jenny Nolan

Associate Directors
Paul Purcell
Allan Lamb
Fulvio Facci
Andrew Raftopoulos
Roger Chapman
Jacquelyn Johnston
Andrew Francis
Natalie Lane-Rose
Andrew Colangelo
Jan Eastwood
Misty Waters
Rob Graham
Nicola Lodge
Robert Moore
Martin Allen
Geoff Cosler
Grant Filpoff
Mark Healey
Rachael McCarthy
Sarah Naarden
Alice Pennington
Kendra Pinkus
Carolyn White
Kevin Masci
Debra Low Choy
Claudia Fleuter
Tim Leslie
Esther Mavrokki
Mirjana Sazunic
Dana Tomic

Associates
Andreas Rieke
Hamish Cant
Erica Lienert
Sarah Whyte
Albert Gregori
Olga Kurdiovsky
Torsten Fiedler
Ian Laging
Joanne Lewis
Janette Lisle
Nikolay Pechovski
Anke Pfeiler
Julian Anderson
Basil Richardson
Candice Bradley
Raymond Butt
Eugene Cheah
Daniel Chieng
James Christophidis
Marko Damic
Cameron Donald
Bradley Dom
Luciano Furfaro
Kathryn Lombard
Nikki Morley
Keith Feeney
Polly Gee
Leanne Guy
Kellie Payne

**SEPP65 Design Verification Statement
Part 3A Concept Plan Application MP 10_0003
Discovery Point, 1 Princes Highway Wolli Creek**

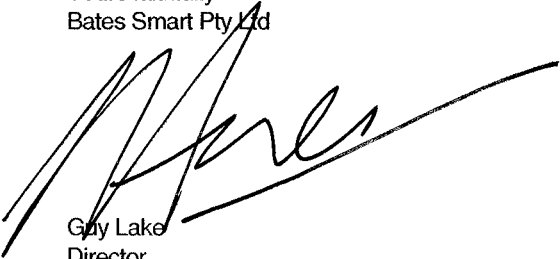
Dear Sir

Pursuant to Clause 50 (1A) of the Environmental Planning and Assessment Regulation 2000, effective from July 26 2003;

I hereby declare that I am a qualified designer, which means a person registered as an architect in accordance with the Architects Act 1921 as defined by Clause 3 of the Environmental Planning and Assessment Regulation 2000.

I affirm that the design achieves or is capable of achieving the design quality principles as set out in Part 2 of the State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development.

Yours faithfully
Bates Smart Pty Ltd



Guy Lake
Director
Registered Architect No. 7119

Bates Smart Pty Ltd
ABN 70 004 999 400

Melbourne 1 Nicholson Street
Melbourne Victoria 3000 Australia
T+613 8664 6200 F+613 8664 6300
melb@batessmart.com

Sydney 243 Liverpool Street
East Sydney NSW 2010 Australia
T+612 8354 5100 F+612 8354 5199
syd@batessmart.com

BATESSMART™

www.batesmart.com

Architecture
Interior Design
Urban Design
Strategy

Drawing Register - Transmittal

To	Department of Planning	Date	16 June 2010
Attention	Michael Woodland	Project No	S11191
From	Matthew Allen		
Project	Discovery Point Concept Plan - DRAWINGS FOR APPROVAL		

[illegible][illegible]

Bates Smart Pty Ltd
ABN 70 004 999 400

Melbourne 1 Nicholson Street
Melbourne Victoria 3000 Australia
T+613 8664 6200 F+613 8664 6300
melb@batesmart.com

Sydney 243 Liverpool Street
East Sydney NSW 2010 Australia
T+612 8354 5100 F+612 8354 5199
syd@batesmart.com



www.batesmart.com

Architecture
Interior Design
Urban Design
Strategy

Drawing Register - Transmittal

To	Department of Planning	Date	16 June 2010
Attention	Michael Woodland	Project No	S11191
From	Matthew Allen		
Project	Discovery Point Concept Plan - DRAWINGS FOR INFORMATION ONLY		

Date of Issue	Day	16																	
	Month	6																	
	Year	10																	

No.	Title	A1 scale	Revision																
DA2-100	Indicative Design - Ground Floor Plan	1:500	A																
DA2-101	Indicative Design - First Floor Plan	1:500	A																
DA2-102	Indicative Design - Second Floor Plan	1:500	A																
DA2-103	Indicative Design - Typical level Plan	1:500	A																
DA2-105	Indicative Design - Typical high level plan	1:500	A																
DA2-106	Indicative Design - Roof Plan	1:500	A																
DA2-B00	Indicative Design - Basement 0 Plan	1:500	A																
DA2-B01	Indicative Design - Basement 1 Plan	1:500	A																
DA2-B02	Indicative Design - Basement 2 Plan	1:500	A																
DA2-B03	Indicative Design - Basement 3 Plan	1:500	A																
DA4-001	Solar Studies - IDS - Plan	1:2000	A																
DA4-002	Solar Studies - IDS - View from Sun	1:2000	A																
DA4-003	Solar Studies - DA500/01 on MP08-0235	1:2000	A																
DA4-004	Solar Studies - Concept Plan on MP08-0235	1:2000	A																
DA4-005	NAHAS Solar studies - Comparison	1:1000	A																
DA5-101	IDS Street Elevations - BSD South	1:250	A																
DA5-102	IDS Street Elevations - Spark Lane	1:250	A																
DA5-103	IDS Street Elevations - Chisholm Street	1:250	A																
DA5-104	IDS Street Elevations - DPP	1:250	A																
DA5-105	IDS Street Elevations - BSD North	1:250	A																
DA5-106	IDS Street Elevations - Magdalene Tce	1:250	A																
DA6-100	IDS Site Sections	1:500	A																
DA6-201	IDS Street Sections - Spark Ln & Mag. Tce	1:100	A																
DA6-202	IDS Street Sections - DPP & Chisholm St	1:100	A																
DA6-203	IDS Street Sections - BSD	1:100	A																
DA7-000	Comparison with DA500/01 - Plan	1:500	A																
DA7-001	Comparison with DA500/01 - Massing	NTS	A																
DA7-002	Station area overlay	1:250	A																
DA7-003	Bus Access Diagrams	1:750	A																
DA7-004	Comparison with DA500/01 - Overlay	NTS	A																

Turf Design Studio

DOCUMENT REGISTER & TRANSMITTAL RECORD

☐ internet / ftp☐ Mail☐ Courier☐ By Hand

To:

Document Manager: Jerry Lin

Address:

Phone: 9527 3380

Fax: 9527 2307

Contact

Date: Wednesday, June 16, 2010

Project Title:	Discovery Point
-----------------------	------------------------

Project Number: 1002

Sheet No. 1 of 1

DATE OF ISSUE

Day

16

Month

06	
----	--

Year

10

DOCUMENT REGISTER

NO.

REVISION NO.

DOCUMENT REGISTER	NO.	REVISION NO.
	Concept Plan	
L-MP-01	Site Plan	1
L-MP-02	Indicative landscape concept plan	1
L-MP-03	Indicative landscape concept plan diagrams 1	1
L-MP-04	Indicative landscape concept plan diagrams 2	1
L-NP-01	Indicative Neighborhood Park Concept Plan	1
L-NP-02	Indicative Neighborhood Park Concept Section F	1
L-NP-03	Indicative Neighborhood Park Concept Views	1
L-NP-04	Indicative Neighborhood Park Concept Views	1
L-NP-05	Indicative Neighborhood Park Concept Views	1
L-PP-01	Indicative Park Promenade Plan	1
L-PP-02	Indicative Park Promenade Concept Section A	1
L-PP-03	Indicative Park Promenade Concept Section B	1
L-PP-04	Indicative Park Promenade Concept Section D	1
L-PP-05	Indicative Park Promenade Concept Views	1
L-PP-06	Indicative Park Promenade Concept Views	1
L-WF-01	Indicative Waterside Park Concept Plan	1
L-WF-03	Indicative Waterside Park Concept Section C1	1
L-WF-04	Indicative Waterside Park Concept Section E	1
L-WF-05	Indicative Waterside Park Concept Views	1
L-LC-01	Precedents	1
L-LC-02	Concept Vegetation	1
L-LC-03	Materials	1

NOTES

PURPOSE OF ISSUE

NOTES		FOR USE OF ISSUER											
		Approval	A	Construction	C	Information	I						
		Tender	T	Coordination	O	Costing	\$						
		As Requested	R	For Comment	F								

These documents have undergone appropriate verification activities for their purpose of issue.