

CASE STUDY

Water's Edge Apartments, Warners Bay



Living by the lake
Generous apartments with high levels of amenity overlooking Lake Macquarie, viewed from the north-east corner of the site. All photos: Simon Wood Photography.

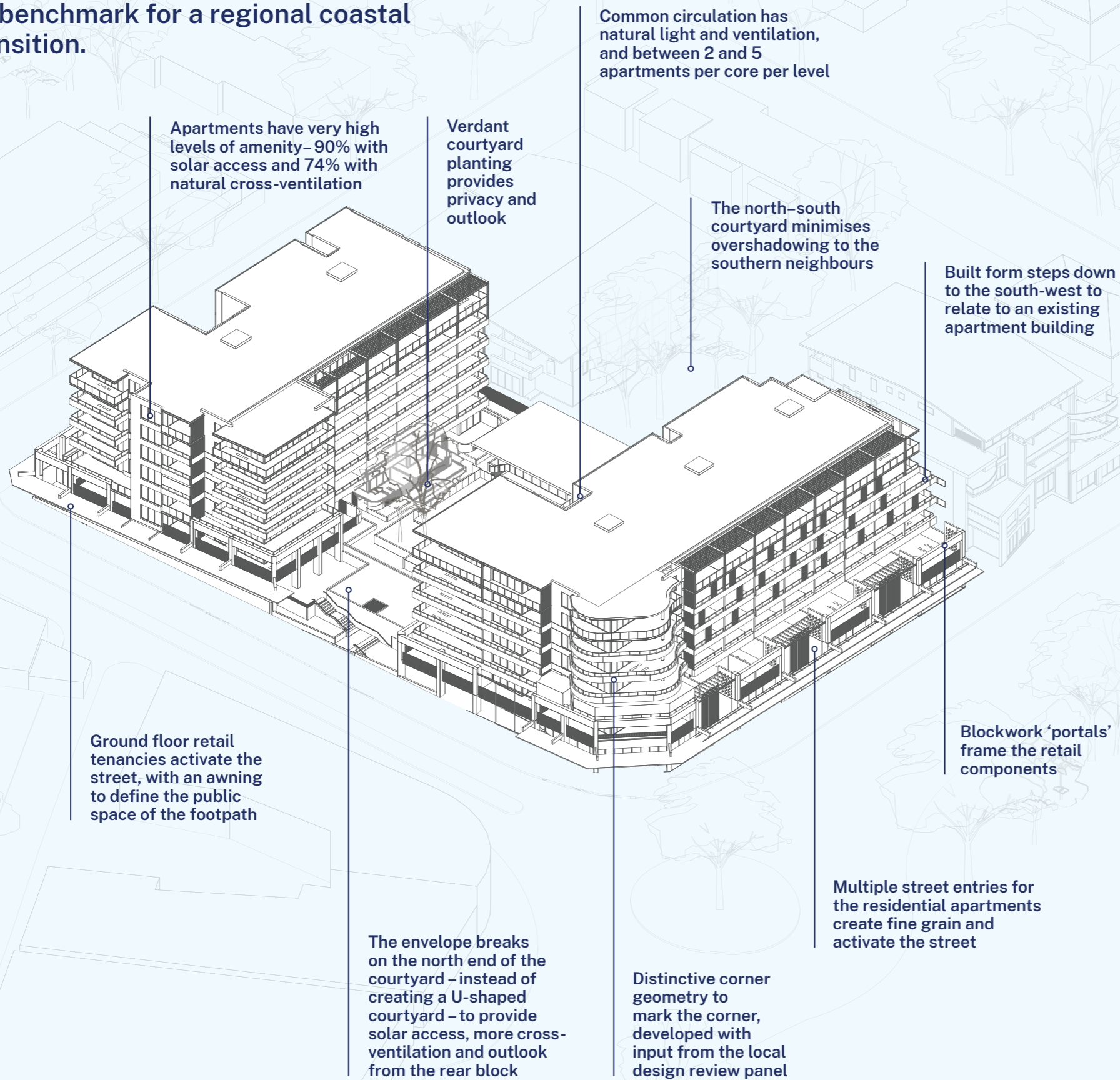
A refined, mixed-use development in a regional town centre, creating an active street edge and highly amenable apartments

QUICK FACTS

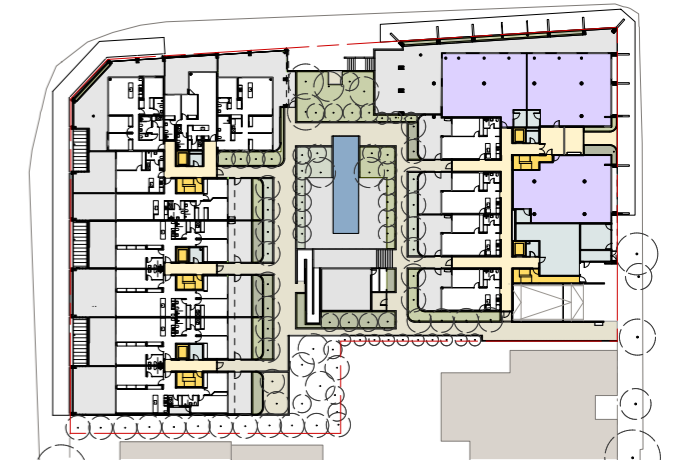
APARTMENT BUILDING TYPE: Shop-top	SITE DENSITY: 210 dwellings/ha
LOCATION: Warners Bay, Lake Macquarie, NSW, Regional	YEAR: Completed 2020
COUNTRY: Awabakal	PROJECT TEAM: ARCHITECT Stewart Architecture LANDSCAPE ARCHITECT Terras Landscape Architects TOWN PLANNER ADW Johnson STRUCTURAL ENGINEER Indesco SERVICES ENGINEERING Marline Building Services Engineers FIRE ENGINEER Defire SUSTAINABILITY Certis BUILDER BLOC
LOCAL GOVERNMENT AREA: Lake Macquarie City Council	ZONING: B2 Local Centre
APPLICABLE CONTROL: 2015 Apartment Design Guide (ADG)	CLIENT: BLOC
DESIGN EXCELLENCE: Council design review panel	PROCUREMENT: Developer/builder, architectural services throughout
PROJECT DATA: Site area 5,101 m ² Floor space ratio 2.49:1 107 apartments (21 x 1B, 55 x 2B, 31 x 3B) 9 retail / commercial units 7 storeys 227 car parking spaces 127 bicycle parking spaces (107 for residents)	



With high-quality market apartments in a prime lakefront location, Water's Edge represents site optimisation as opposed to yield maximisation. Generous apartments appeal to downsizers and set a good benchmark for a regional coastal town in transition.



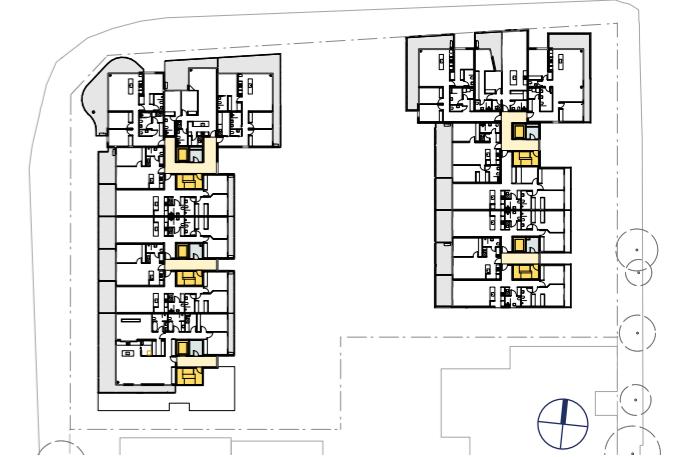
Ground floor west, B1 east



Level 1 west, ground floor east



Level 2-5 west, level 1-4 east



Level 6 west, level 5 east

10 25 50M



Water's Edge sets a new scale for the town centre to support tourist activity and resident vitality, promoting a vibrant, high-amenity public realm and lake foreshore.

The project comprises 2 north-south buildings over a basement car park, with generous separation between them to create one large, consolidated podium courtyard space. While the building could have been built to all street frontages as a traditional perimeter block form, the northern street wall was made discontinuous to provide relief to the longer street edge and allow the raised communal open space to be sunny and visually connected with the street. The break in the street wall also improves amenity to the apartments on the eastern side of the site, with extra units having access to the view and outlook over Lake Macquarie. In addition, it made it possible to maintain existing solar access to the southern neighbour.

A strong street edge

The project creates a strong positive street edge that activates the public realm. A series of double-height masonry 'portal' elements line The Esplanade and Howard Street frontages and define individual commercial premises, while the gaps between them provide access to residential entries, intertwining the life of the building with the activity of the street. On the King Street frontage to the north, the 'portal' elements transition into a continuous colonnade which steps the building with the fall in the land. The scale and spacing of these elements, coupled with an awning projecting over the footpath, reference the fine-grain rhythm of the existing local shops and help to visually mediate the height of the new building within the immediate context. Where The Esplanade

Corner element

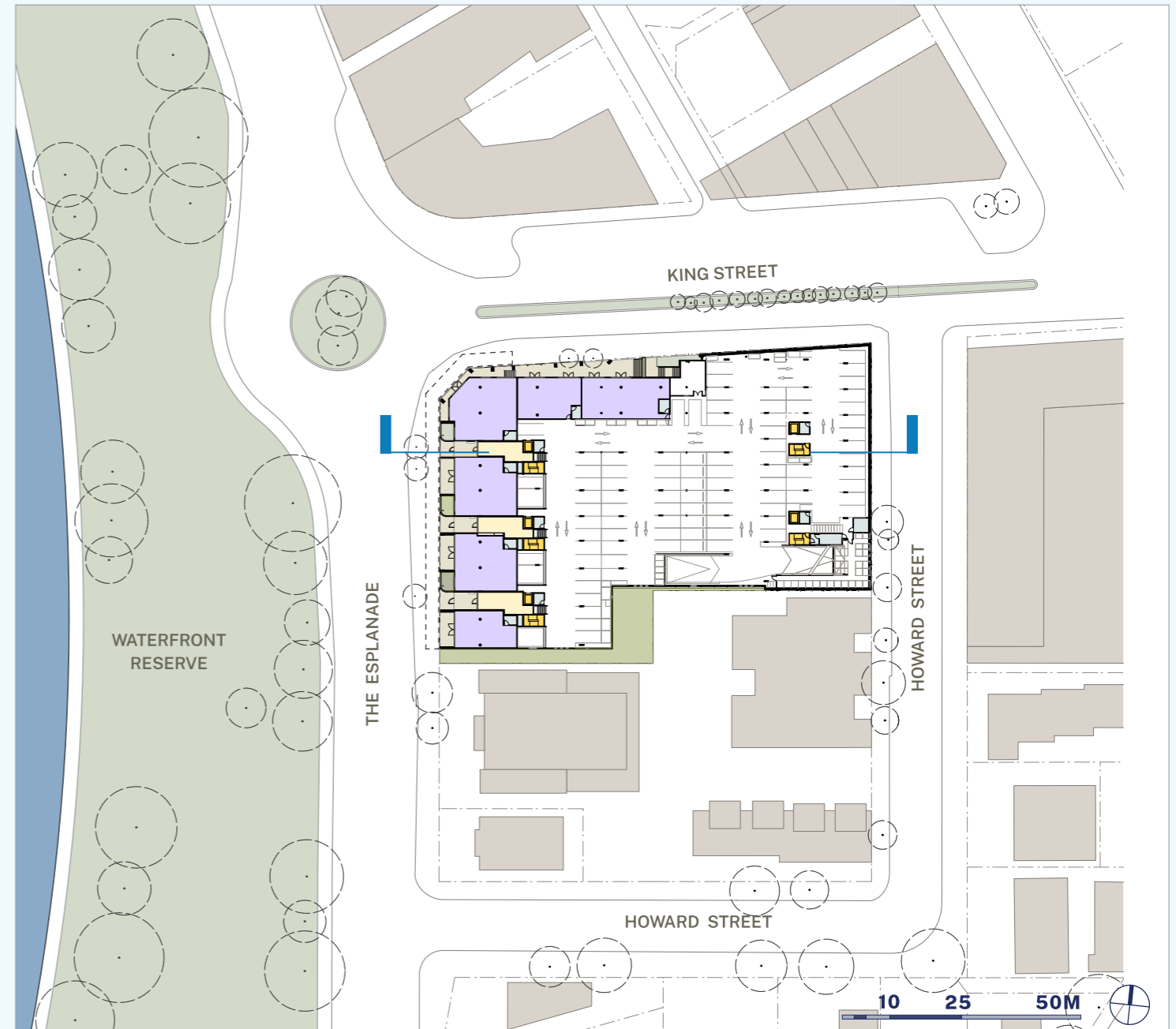
The curved corner element was refined with input from the local design review panel. This view also shows the break in the northern wall, allowing views out from the rear apartments and the courtyard.

elevation adjoins the existing apartment building to the south, the street wall height steps down to relate to that roof height. One level of parking sits above the natural ground level in the centre and west of the site, sleeved by retail frontage.

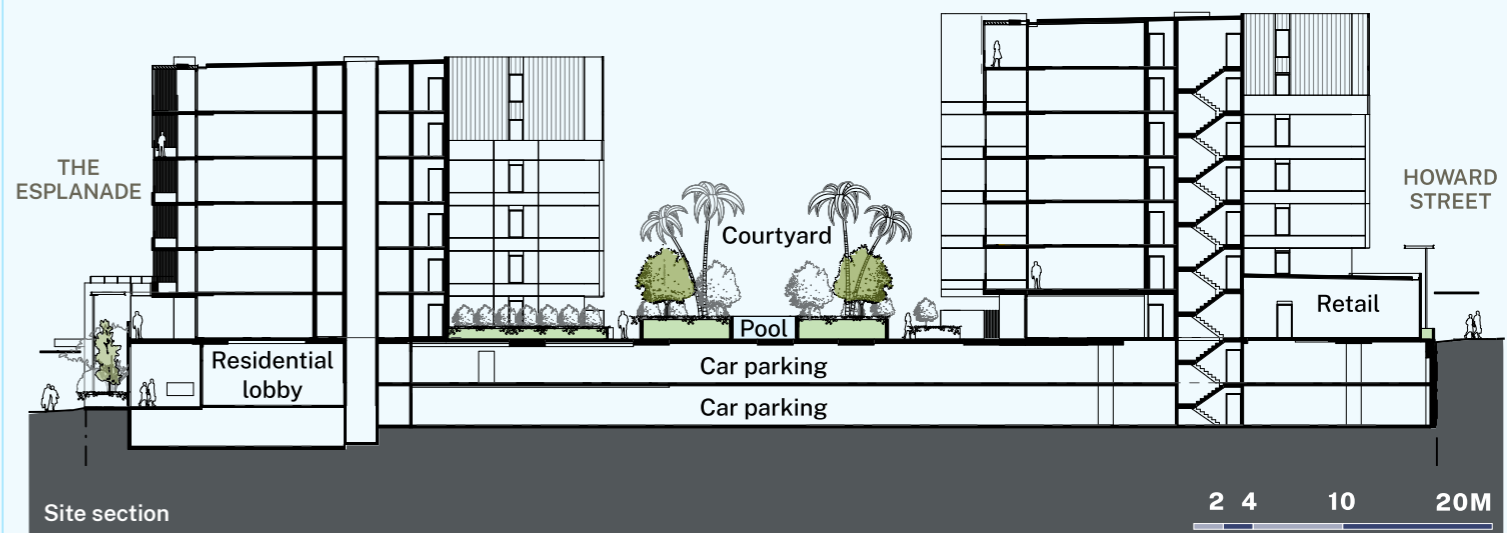
Working with the consent authority

The distinctive corner geometry marks the main street intersection of the town centre. The curved form of the upper-level balconies provides a point of difference from the more linear expression of the street elevations while maintaining consistency in the materials. The expression of the curved element was refined through the design review panel process, resulting in a built form which successfully 'holds' this important corner.

A thorough development assessment process allowed the architects to work proactively with the design review panel to resolve differences between competing planning controls. Rigorous testing and documentation of aspects such as solar access was able to demonstrate to the design review panel that the overall built form approach was appropriate while clearly articulating the amenity benefits for both the site and the neighbours.



Site plan
The lakefront corner site was formerly a service station



Site section

Sunny central courtyard

The central courtyard includes a gym pavilion and pool and provides the social focus for the development with all lift cores having direct and equitable access to this space. Deep planter boxes and fencing provide privacy to large private open spaces for podium-level apartments. Ample building separation ensures the remaining communal open space area is highly usable and well-landscaped to provide a positive outlook for upper-level apartments. The deep soil zone towards the southern boundary provides the opportunity to include larger canopy tree screen planting to soften the interface with the adjoining property.

Material expression

The building has a clear 'base, middle, top' composition with a different but complementary architectural language used for each part. Well-detailed blockwork 'frames' with black infill components and large windows strongly anchor the lower levels of the building with robust, tactile materials. Middle floors are expressed as steady, horizontal lines of painted-concrete balcony balustrades animated with fixed screens above handrail height. The uppermost floors become finer and lighter against the sky with fully glazed balustrades and a thin steel roof edge. The building changes its expression depending on its orientation, 'opening up' more to views and sunlight for living rooms, and 'closing down' to the rear for bedrooms. Colours are generally kept light, however tonal variation applied carefully to different building elements creates visual interest.

Base, middle, top
View from lakeside reserve.



Design integrity: design continuity was maintained during construction, carrying design intent through to completion. The architects attended weekly coordination meetings, responded to requests for information, and participated in design workshops with the builder.



Verdant outlook
The facade expression of the middle and top floors facing the street is repeated on the interior of the courtyard, with bedrooms provided with greater screening.

Blockwork portals
The street awning is articulated as a separate element in the building. Residential entries are defined between the retail tenancies with landscaping and varying materials.

Street interface

Each building includes multiple residential entries, helping to enliven the street edge. Residential entries are coupled with landscaped planter boxes, making each entrance clearly identifiable and welcoming. Internal lobbies are short and efficient, serving only 2 to 5 units per floor, yet are comfortable with excellent access to natural light and air via an operable window. The incorporation of multiple cores allows all apartments to access views over the lake or the courtyard, resulting in a greater proportion of dwellings crossing through the building to achieve natural cross-ventilation. The result is all units have desirable and saleable qualities, and none have compromised outlook or amenity.





Apartment amenity

Units are generally large in area and flexible in plan, with preference given to enhancing the quality of each apartment rather than achieving additional unit numbers. A mix of apartment types caters to different households and lifestyles. Generous 3-bedroom apartments directly above the retail tenancies benefit from extended private terraces. Similarly, corner units with increased frontage have large balconies. Upper floors neatly transition from two 3-bedroom units to one 1-bedroom and two 2-bedroom units within the same structural grid. Central units facing north to King Street include innovative internal planning to make the most of more-limited frontage.

Natural light and air
Internal corridors feature operable windows to either the courtyard or the street for natural daylight and ventilation.

Deep planters
Deep soil provision is complemented by additional green cover (planting on structures equal to an extra 8% of the site) providing a green outlook and privacy.

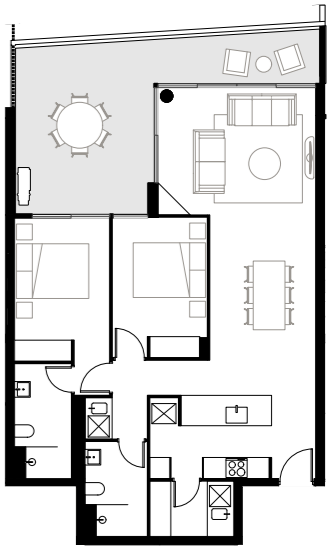


Typical apartment plans

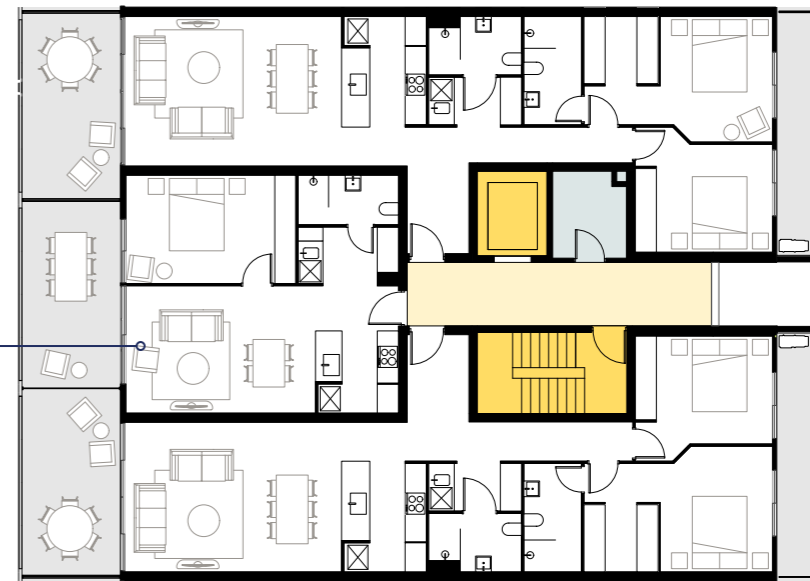
The north point and scale bar for all plans is included below. The private open space area changes depending on the particular level. Images: Stewart Architecture, MAKO Architecture.



2 bedroom
100 m² +
16 m² private
open space



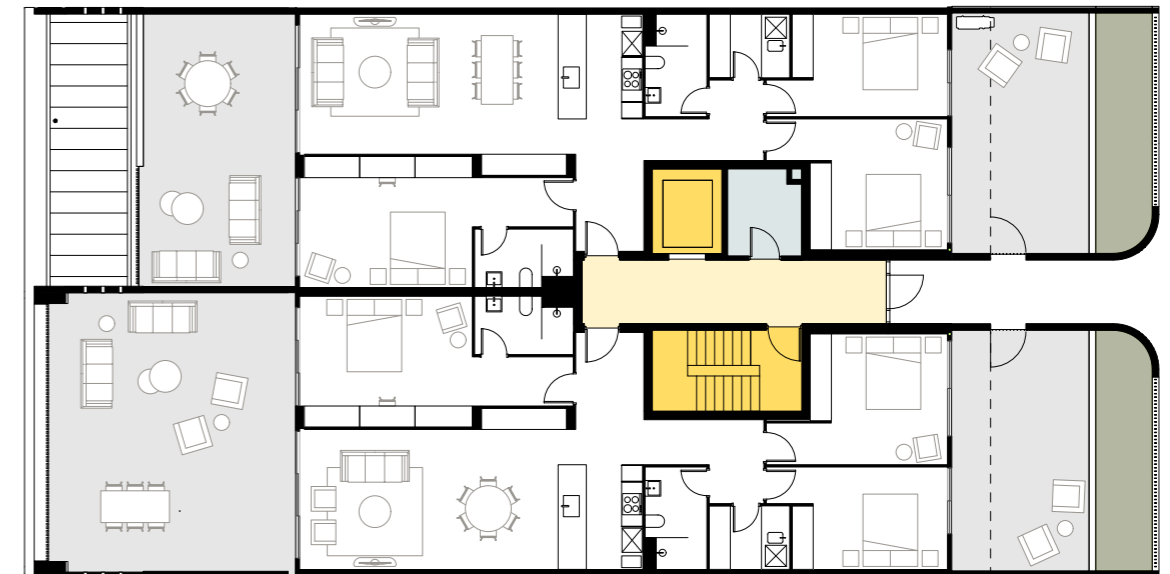
2 bedroom cross-through
100 m² +
25 m² private
open space



1 bedroom
57 m² +
17 m² private
open space

2 bedroom cross-through
100 m² +
25 m² private
open space

3 bedroom
127 m² + 79 m² private open space



3 bedroom cross-through – at podium level
127 m² + 100 m² private open space

LINE OF SIGHT TO THE APARTMENT DESIGN GUIDE (ADG)



ADG 3G PEDESTRIAN ACCESS AND ENTRIES OBJECTIVE 3G-2:

Access, entries and pathways are accessible and easy to identify

ADG 4F COMMON CIRCULATION AND SPACES OBJECTIVE 4F-1:

Common circulation spaces achieve good amenity and properly service the number of apartments

ADG 4S MIXED USE OBJECTIVE 4S-1:

Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement

OBJECTIVE 4S-2:

Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents

The quality of the street interface is one of the most impressive features of Water's Edge, and demonstrates the benefits of the shop-top typology. Ground floor retail spaces, framed by blockwork portals, alternate on the east and west facades with entries to the pedestrian lobbies. The northern street frontage is broken by a stair accessing the residential communal open space, and a retail colonnade navigating the one-storey street level change across the site. Nine separate retail spaces ensure a fine-grained, pedestrian-scaled rhythm.

Each of the 5 residential entries, recessed between the blockwork portals, is marked by a deep planter and contrasting materials and detailing. The entry sequence passes through a screened security point to an inner lobby. Each lift and stair core serves a maximum of 5 apartments per level, ensuring optimum apartment amenity. All common corridors are naturally lit and ventilated.

ADG 4A SOLAR AND DAYLIGHT ACCESS OBJECTIVE 4A-1:

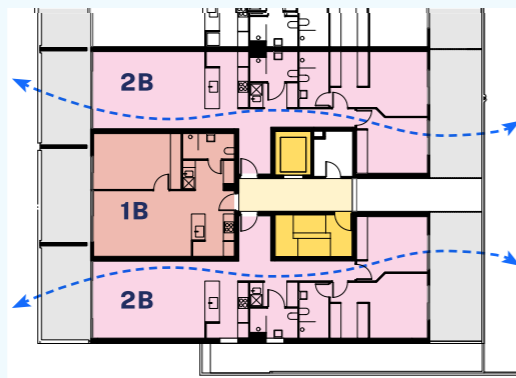
To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space

ADG 4B NATURAL VENTILATION OBJECTIVE 4B-3:

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

By arranging the built form in 2 rows on the eastern and western edges of the podium facing the central courtyard, rather than using a U-shaped courtyard type, the architects maximised the number of apartments receiving at least 2 hours of sun to living areas and private open space in midwinter, achieving well in excess of the minimum recommended by the ADG (90% of the total, rather than the minimum 70%). In addition, including multiple residential cores to maximise the number of cross-through apartments, as shown in the plan above, yields a high number of naturally cross-ventilated apartments; at 74%, again well in excess of the 60% ADG criteria minimum. Many of the cores only have 2 or 3 apartments per level.

Exceeding targets for solar access and natural cross-ventilation was a key objective to maximise liveability, appealing to residents who might be choosing an apartment as an alternative to a freestanding house. This is particularly important in a location such as Warners Bay, where many people desire an indoor-outdoor lifestyle.



Typical core cluster

Achieves natural cross ventilation to two-thirds of apartments, and natural daylight to common lobbies.



ADG 4D APARTMENT SIZE AND LAYOUT OBJECTIVE 4D-1

The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity

ADG 4E PRIVATE OPEN SPACE AND BALCONIES OBJECTIVE 4E-1:

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

The apartments within Water's Edge are typically generous, both internally and with the amount and distribution of private open space to increase liveability and attract downsizers. The ADG-recommended minimum internal area for a 2-bedroom apartment with 2 bathrooms is 75 m²; the 2-bedroom, 2-bathroom apartment most common at Water's Edge is 100 m². Similarly, the typical 3-bedroom apartment is 34% larger than the ADG minimum size.

Private open space is also provided well in excess of minimum ADG recommendations, with 1-bedroom apartment balconies ranging from 15 to 40 m², 2-bedroom balconies typically 23 m² instead of the ADG minimum of 10 m², and 3-bedroom balconies ranging from 78 to 100 m².

Within apartments, the planning is contemporary and functional, with generous storage, open-plan living and dining rooms connected to private open space, and adjoining kitchens with island benches. Many of the larger apartments include separate laundries. Unsurprisingly for a non-urban centre, provision of car parking is relatively high at over 2 cars per apartment, but bicycle storage is also provided to each apartment and to retail tenancies and visitors, to encourage residents to take advantage of the lakeside location.



Lakeside cover

Where the street awning stops to reflect the break in the north street wall and the one-storey change in level across the site, a colonnade provides weather protection to retail frontages. All photos: Simon Wood Photography.