## 07 DESIGN PRINCIPLES + CONCEPT

The preferred envelope and siting option is Option K + L (stepped podium with two high-rise forms) and provides a clear design direction with which to develop the design concept for the development.

An analysis of the location, streetscape and site as well investigation of numberous envelope and siting options has formulated a number of key planning, urban design, environmental and architecture principles.

### PLANNING PRINCIPLES

- To realise the development potential of this strategically important location and to take advantage of its proximity to the Sydney CBD and good public transport.
- Better integrate the site with the immediately surrounding area including connections to Darling Street and Victoria Road.
- Creation of a large number of new full time jobs and new construction jobs.
- The construction of a retail offer that will complement and enhance existing retail provision within the Rozelle Commercial Precinct.
- The provision of a mix of residential accommodation that provides housing opportunities for a range of groups.
- Develop and operate the site in a way that minimises impacts on nearby residents.
- Incorporate the principles of Ecologically Sustainable Development (ESD) to ensure the site is designed and constructed in a sustainable way.
- Offer a range of community facilities to complement the retail, residential and commercial development proposed.

Source: Environmental Assessment Report prepared by Urbis

## URBAN DESIGN PRINCIPLES

- Maintain not less than 3 hours/day of sunlight throughout the year to 50% of useable private open space adjacent to primary living areas for residential properties affected by the development.
- The forms should minimise additional overshadowing of the public domain.
- The low-rise form is to be related in scale to the built form of the Rozelle neighbourhood.
- The built form is to minimise the visual impact of bulk.
- The ground plane is to directly connect residents and visitors to each of the streets and Victoria Road with ease, convenience and high levels of amenity.
- The ground plane is to be permeable, accessible and connected for residents and the community.
- The address of each residential building is to be distinctive and accessible from the closest public street.
- A through site link available to the public 24/7 is to interconnect Victoria Road and Waterloo Street on approximately the same alignment as the existing through site link.
- Activated street frontages are to be maximised, including to the through site link referred to above.
- High impact vehicular access including loading docks and garbage service is to be from Victoria Road.

## ENVIRONMENTAL PRINCIPLES

- The development is to achieve an exemplary standard of sustainable design with verifiable measures to demonstrate new benchmarks for lower energy and water usage.
- The development is to be a hybrid environment which couples passive environmental systems and high performance techologies to improve the comfort of residents and reduce the life-cycle carbon footprint.
- The total life-ycle carbon footprint of the development, including operational and embodied, is to be reduced by 30%
- The total operational energy is to be reduced by 50%.
- The total embodied energy is to be reduced by 30-35%.
- The development is to achieve a 5-star Green Star Rating (Australian Excellence) with an aspiration to 6-star (World Leadership).
- Potable water use is to be reduced by 65%.
- The maximum thermal comfort performance for units is to be 30MJ/m2 per annum (min. 6-star and average 7.5 star NatHERS).
- Stormwater runoff to meet minimum reduction targets.
- The development should deliver a resonsible and liveable community that is economically properous, socially engaging and environmentally accountable (in accordance with Green Star Communities Framework).

Source: ESD Report, prepared by Cundall (Jan 2012)

## ARCHITECTURAL PRINCIPLES

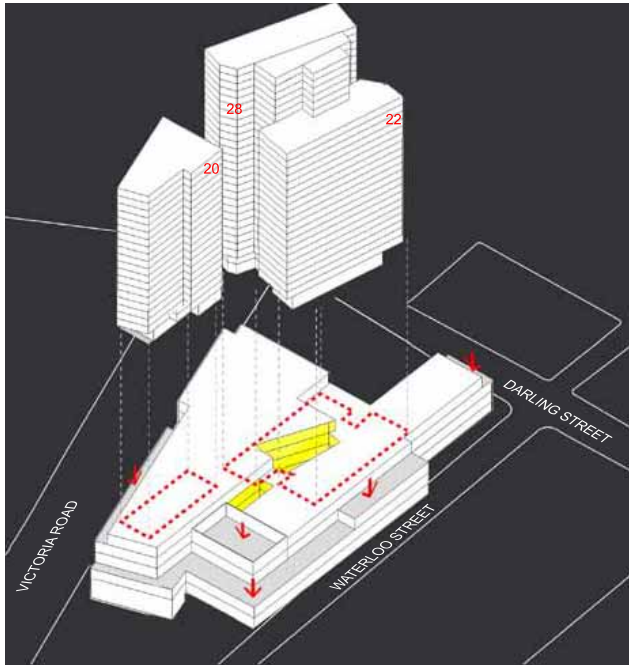
- The high-rise tower forms are to be designed with high levels of articulation to achieve a distinctive and memorable architectural character.
- The low-rise podium form are to ameliorate the effects of bulk and height of the development.
- The low-rise podium form are to take into account the bulk and scale of adjoining development and form a reasonable architectural relationship between new and existing structures of cultural value.
- The architecture is to use high quality, long life materials minimising maintenance.
- The high-rise forms are to be slender blocks that create an ‘ensemble’ of forms to the Rozelle skyline.
- The high-rise tower forms are to be positioned with regards to solar access, overshadowing, view, building separation and setbacks to ensure that the amenity of existing and new dwellings is optimised.
- The residential lobbies are to be designed for biofiltration utilising biowalls and evaporative cooling.

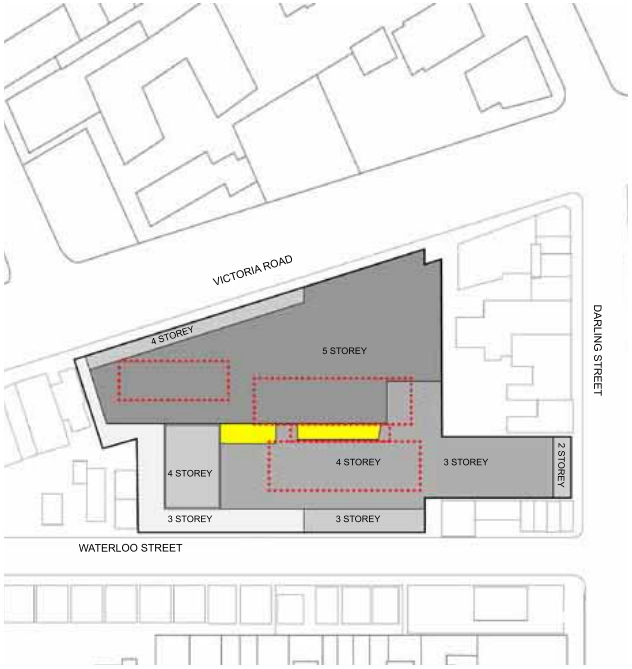
## ADJUST PODIUM

The scale of the podium is further adjusted to relate to the low-rise two storey height along Waterloo Street. An additional step is introducted into the podium along Victoria Road, which responds to the sloping topography which walls from Darling Street towards Iron Cove.

A child care centre, including a large external terrace is located on the top of the podium in the north-western quadrant taking advantage of excellent solar access.

The scale of the infill form at Darling Street is further reduced by stepping down in height in response to the predominant two storey parapet height.



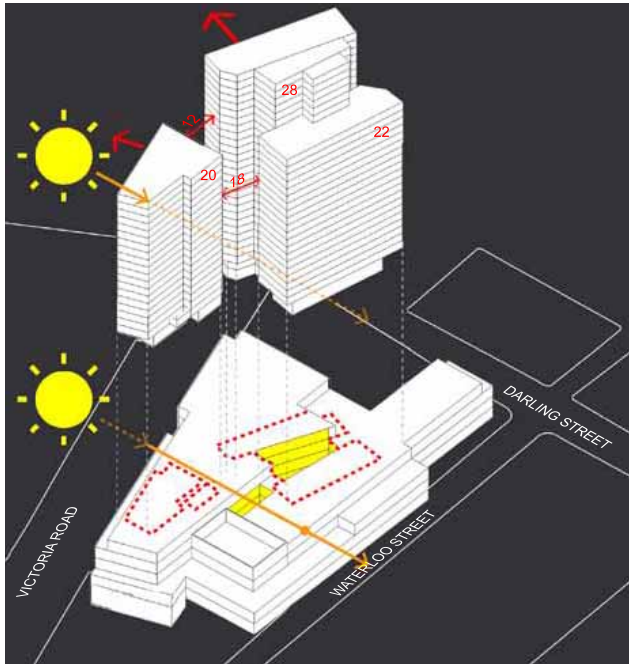



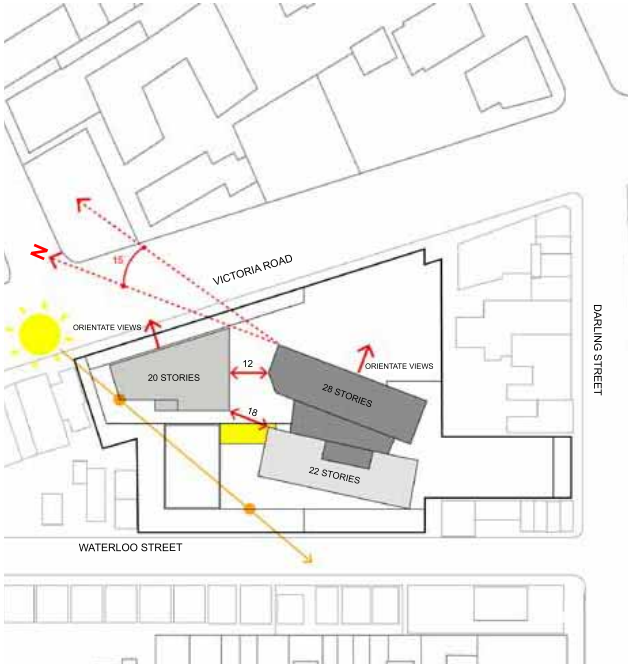

## DEFINE FLOOR PLATES

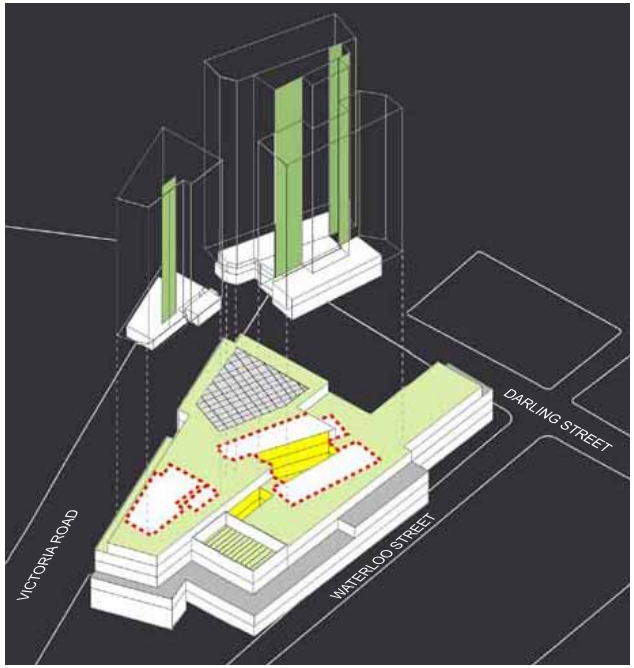
The east form of the split block form is rotated 15 degrees east of true north to maximise views of the city and harbour and whilst ensuring apartments achieve 3 hours of solar access. The west form of the split block is rotated to true north in order to reduce the visual bulk and maintain 3 hours of sunlight to residential properties in Waterloo Street at the winter solstice.

The single block form is aligned with Victoria Road to engage with the street and reduce the visual bulk of the split block form. The north-west edge of this footprint establishes the furthermost point at which 3 hours of solar access is maintained to residential properties in Waterloo Street at the winter solstice.

The northern elevation of the split block form is adjusted to maintain separation of 12m between non-habitable rooms and 18m between a non-habitable and habitable room in order to satisfy SEPP 65.



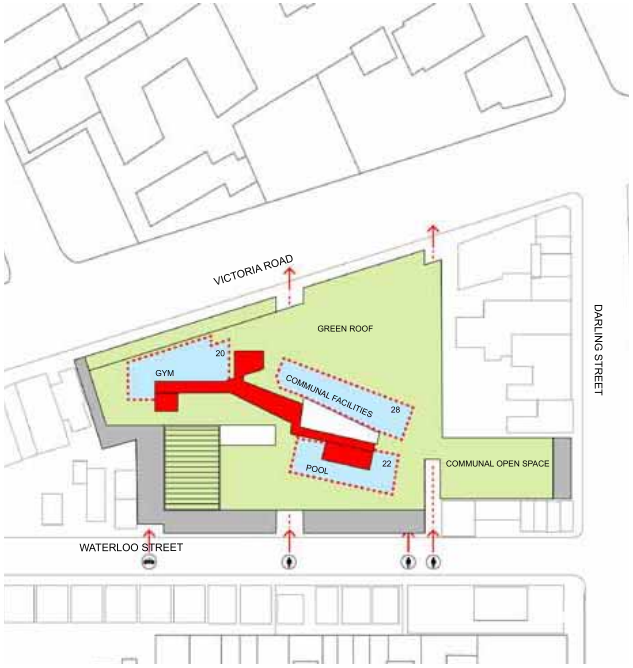



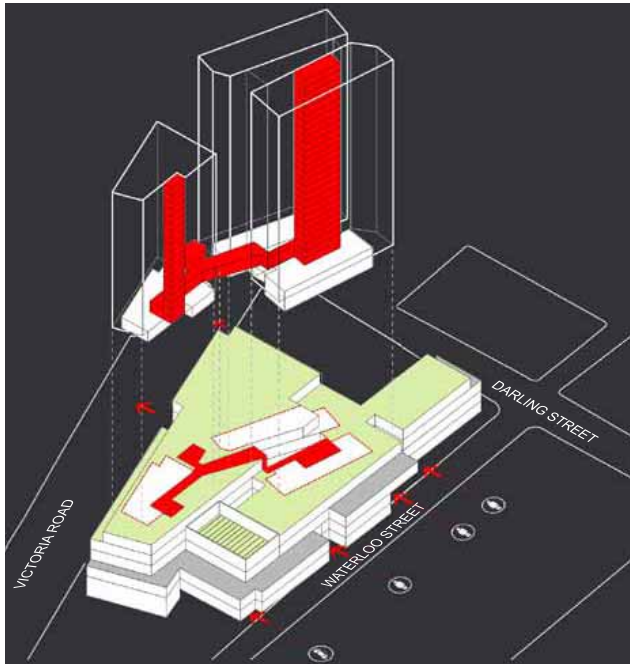

## INTEGRATE COMMUNAL OPEN SPACE + GREEN ROOF + BIOFILTRATION

A green roof is introduced on the roof of the podium adjacent to Victoria Road. Photovoltaic cells are added in the south-eastern corner of the green roof and on the roof of the split block form to create energy that can be used for common area lighting.

A communal open space is added at the base of the split block form, acoustically separated from the noise along the Victoria Road Corridor by the step in the podium.

A biofiltration system, developed as part of an overall environmental strategy is developed within the residential lobby of each tower. This system consists of green wall planting within a two storey high lobby space. Air that is introducted into the lobby by a grille is filtered and the fresh air is vented into apartment, to increase the air quality and comfort to residents.




## LINK TOWERS + COMMUNAL FACILITIES

A residential lobby providing access to the single block form is introduced along Victoria Road and a primary residential lobby is added at Waterloo Street, adjacent to the Darling Lane extension. A pedestrian link is introducted above the communal open space that physically connects the two high-rise forms. Residents have the flexibility to enter of leave their apartment via Victoria Road, Waterloo Darling Streets. The single block form has an address to Victoria Road and the split block form to Waterloo Street.

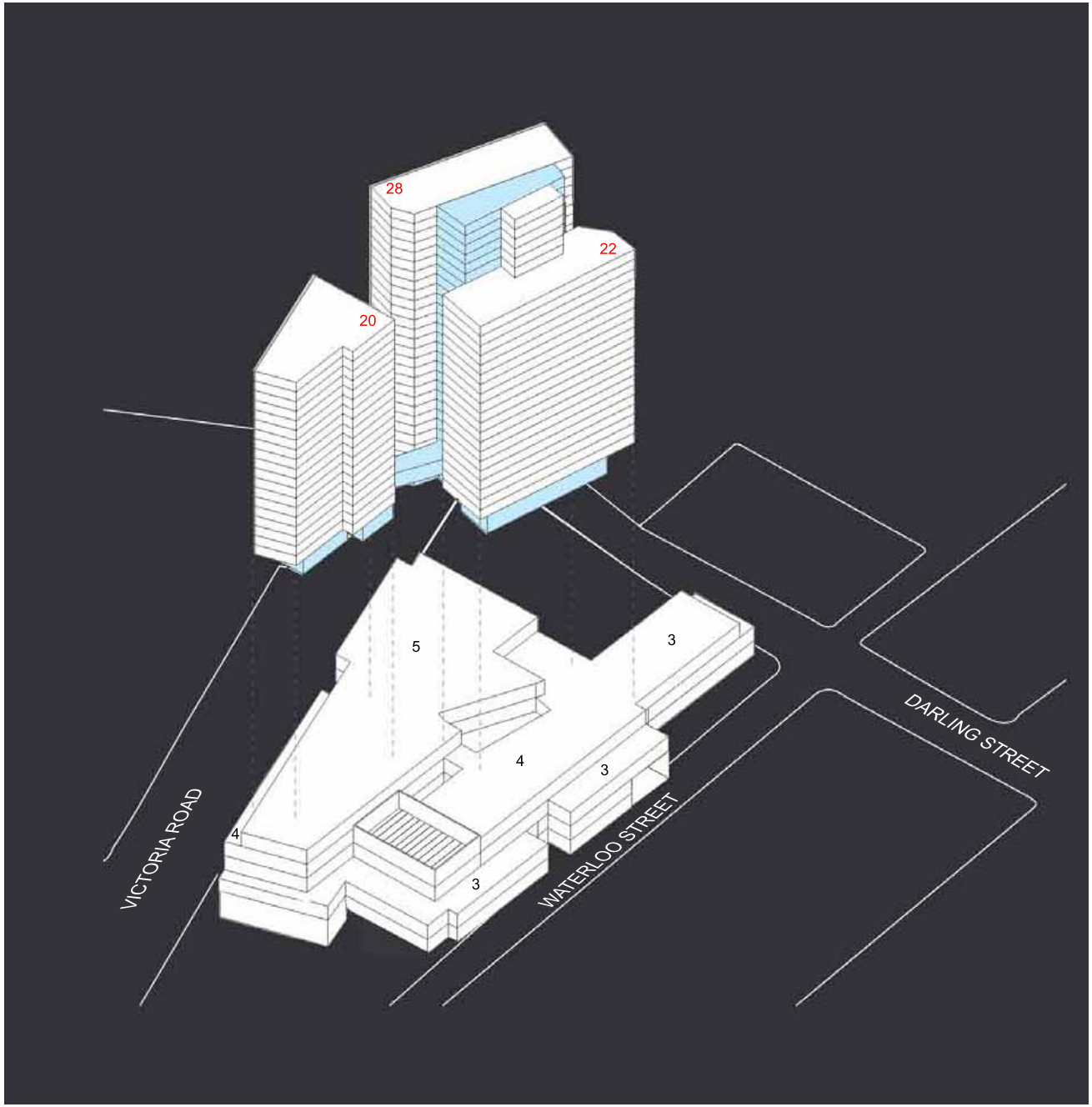
A common room and gymnasium for residents is added at the base of the high-rise forms. A 25m long lap pool is located below the west form of the split block form, taking advantage of the north / west aspect.

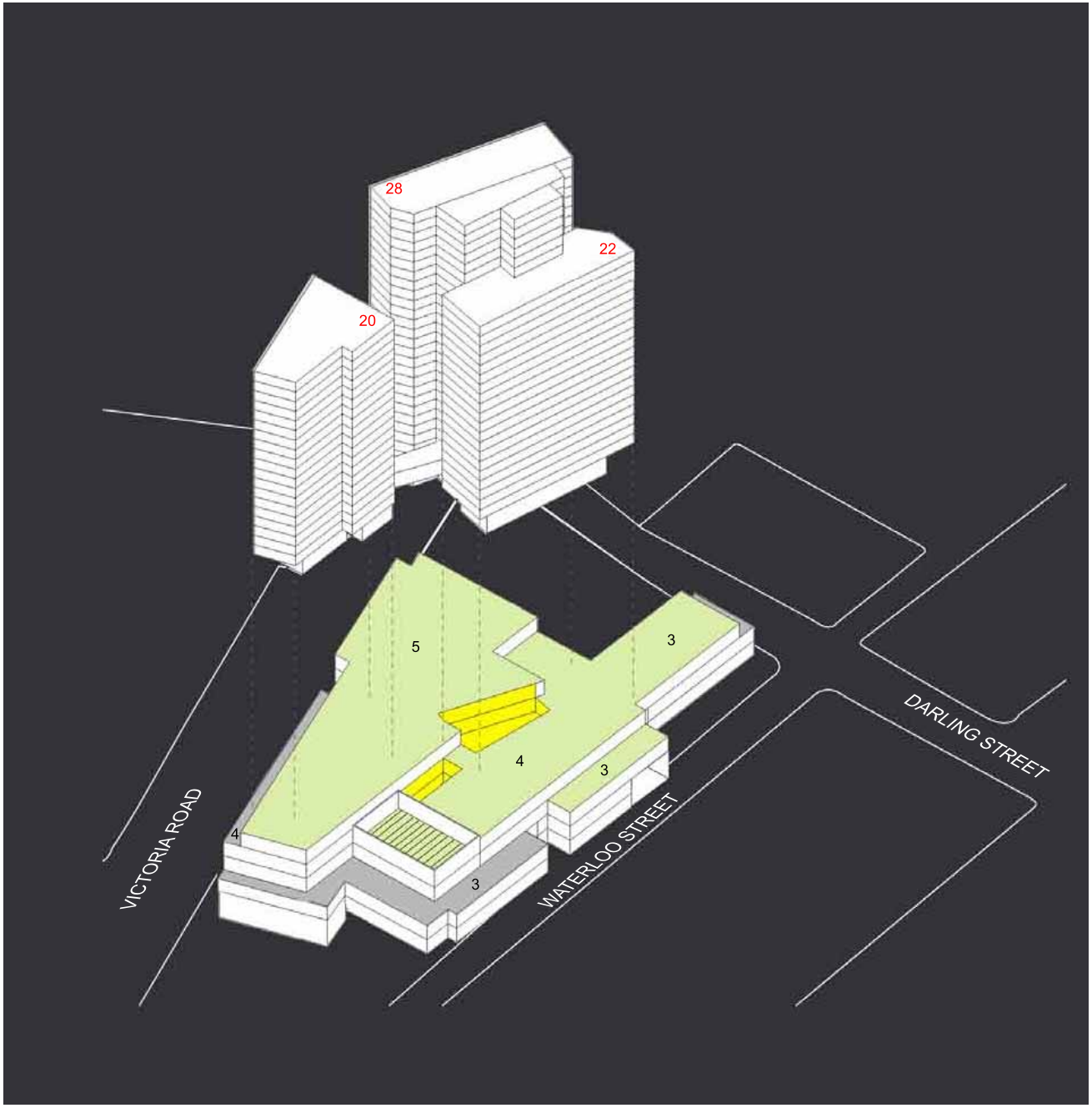
## BUILDING ENVELOPE

The development is a unique hybrid of three forms: the low-rise podium that “belongs” to the local community and the high-rise single and split block forms that “belong” to the city (harbour + city).

The low-rise forms adjust to the surrounding low-rise context and the high-rise forms maximise amenity for apartments whilst minimising overshadowing and excessive bulk and scale.

This development successfully integrates a variety of uses, taking advantage of the location, orientation and site.



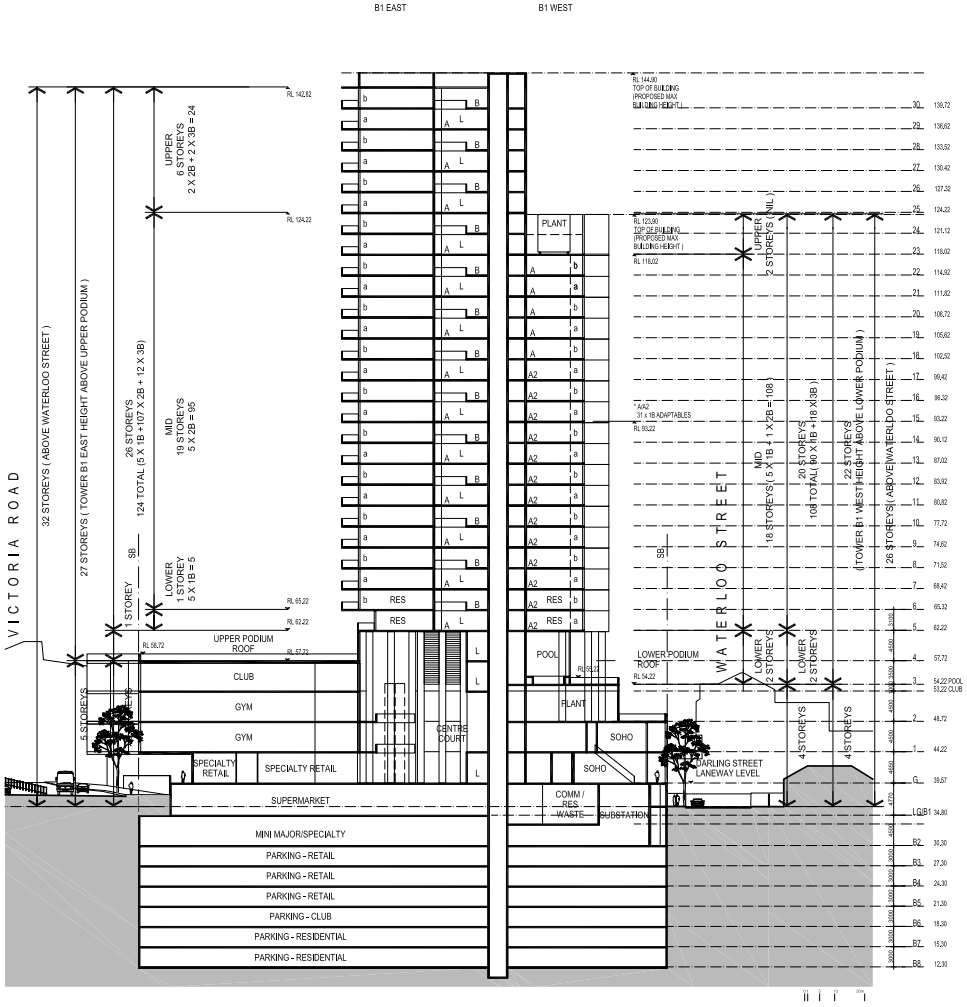



## BUILDING ENVELOPE

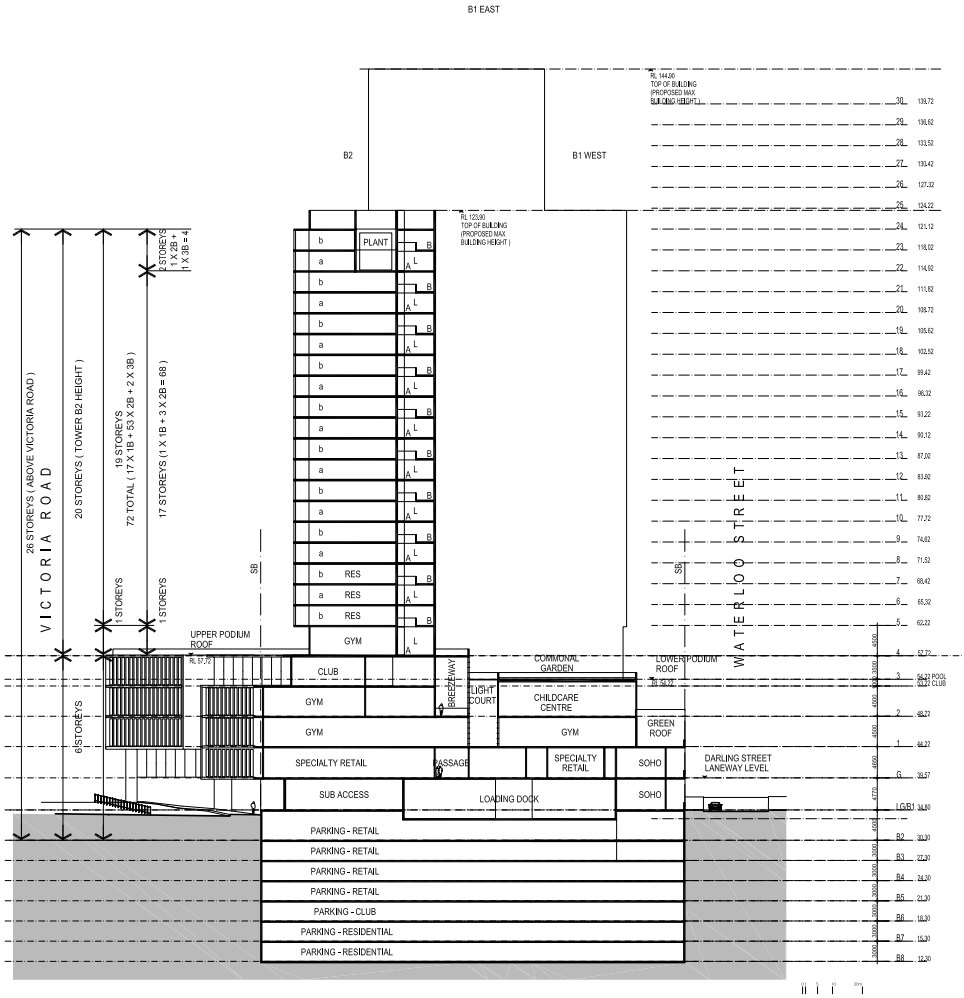
The building envelope is for two high-rise forms, a single block and a split block, on top of a stepped podium with a FSR of 6.7:1. The single block is 20 storeys in height and the split block form 22 and 26 storeys in height above the podium. The podium steps from 5 storeys at Victoria Road to 3 storeys along Waterloo Street.


| | B1 EAST | B1 WEST | B2 | TOTAL | TOTAL % |
|---|---|---|---|---|---|
| SOLAR ACCESS 70% | 5/5 | 2/6 | 4/4 | 11/15 | 73% |
| CROSS VENTILATION 60% | 5/5 | 2/6 | 3/4 | 12/15 | 70% |
| SOUTH FACING 10% | -/5 | -/6 | -/4 | -/15 | - |

CONTROL PLAN




TOWER B1 east / west CONTROL SECTION




TOWER B2 CONTROL SECTION

## 08 MASSING

### TOWER + PODIUM

The built form is appropriate to the adjacent future residential developments, contributing to the character of the streetscape and providing internal amenity and outlook. The built form is essentially lower (podium) elements and taller (tower) elements.

The mass and bulk of the building has been reduced by the following design tactics:

- location of residential in two towers sitting on the podium platform, separated by a 12-18m gap (SEPP 65 compliant).
- definition of tower B1 east/west as a split block tower and tower B2 as a single block tower, with slender block elements having widths between 10 -15 metres.
- rotation of tower B1 east/west away from the street defining podium to reduce its visual impact on pedestrians.
- definition of two elements – lower (podium) level and upper (tower) level – and use of quality materials such as coloured precast concrete and unitised double glazed curtain wall.
- differentiation of the tower elements of each tower with white, grey and blue/grey unitised double glazing units.
- high level articulation on the broad NE and NW facades of towers emphasising deep balconies, sunhoods, balcony projections, acoustic soffit paneling and glass balustrades and fritted balustrade overhangs.

Views of the proposed tower and podium are shown on the following pages.

### STREETSCAPE INTERFACE

The podium on Waterloo Street is 2-3 storeys, stepping with the street to respond to the existing 2 storey residential dwellings on Waterloo street and Rozelle/ Balmain neighbourhood. The podium steps up from 2-3 storeys on Waterloo Street to 4 to 6 storeys on Victoria Road to define a stronger urban edge to the development and shield the roof terrace open spaces from traffic noise. The stepped podium varies in height from 2 to 6 storeys (RL 44.22 to RL 57.72) above the adjacent street level.

The interface of the lower (podium elements) to the adjoining streets is shown in the following elevations.

VIEW FROM NORTH (VICTORIA ROAD)

The podium has been articulated to step down Victoria Road with the topopgraphy. The solid and horizontal expression of of the podium is contrasted with the vertical expression of the glass high-rise forms. The podium utilises materials such as coloured precast concrete. The podium is responsive to the surrounding residential context by stepping down to the north and across the site to Waterloo Street.

The gymnasium, balmain leagues club and child care centre open out to the north to take advantage of the aspect and view over Iron Cove.

VIEW FROM NORTH (VICTORIA ROAD)

Coloured interlay glass ribbons emphasize the horizontal expression to the podium, an appropriate character to the eight lane Victoria Road Corridor. These blades also mask the retail tenancies behind, creating a uniform appearance to the street. These ribbons are broken at the east / west passageway further reducing the visual bulk of the podium and permitting visual connections from inside the podium to the Rozelle Public School opposite the site.

The rotation of tower B1 east/west away from the street defining podium reduces the visual impact of the tower on pedestrians.

The soffits of balconies of the high-rise forms are lined with a perforated composite panel to absorb traffic noise and to emphasise the deep balcony space.

VIEW FROM NORTH EAST (VICTORIA ROAD)

The two high-rise forms are separated with a gap ranging from 12m to 18m. The B1 east tower is oriented towards the city to make a physical gesture to it, whilst maximising views. The bulk and scale of the broad north east facade of the tower is reduced by emphasising deep balconies, sunhoods, balcony projections, acoustic soffit paneling, glass balustrades and fritted balustrade overhangs.The top four storeys of B1 east tower varies with a change in the mix to further reduce bulk and scale.

A two storey pedestrian bridge link connects the two towers above the communal open space. The structure of the high-rise forms penetrate through the podium and inform the spatial organisation and movement. Victoria Road is activated by the Balmain Leagues Club entry and ‘hall of fame, entry to the retail and primary residential lobby to B2 tower.

The split block high-rise form is setback from Victoria Road to reinforce the low-rise scale of Rozelle Commercial Neighbourhood. The verticality and slenderness of the high-rise form is emphasised by using unitised double glazed curtain walls, incorporating clear, tinted and translucent glass.

VIEW FROM SOUTH-EAST (VICTORIA ROAD)

## VIEW FROM SOUTH-EAST (VICTORIA ROAD)

The bulk and scale of the broad NE facade of the towers is reduced by emphasising deep balconies, sunhoods, balcony projections, acoustic soffit paneling and glass balustrades and fritted balustrade overhangs.

## VIEW FROM EAST (DARLING STREET)

The B1 east/west split block tower has slender block elements having widths between 10 -15 metres. The vertical expression is emphasised by the green wall of the residential lobby.

## VIEW FROM SOUTH (DARLING STREET)

Low-rise SOHO step down Waterloo Street and are responsive to the surrounding residential context and maintains a two to three storey height the street. A two storey high residential entry forecourt marks the residential entry to the split block high-rise form along Waterloo Street.

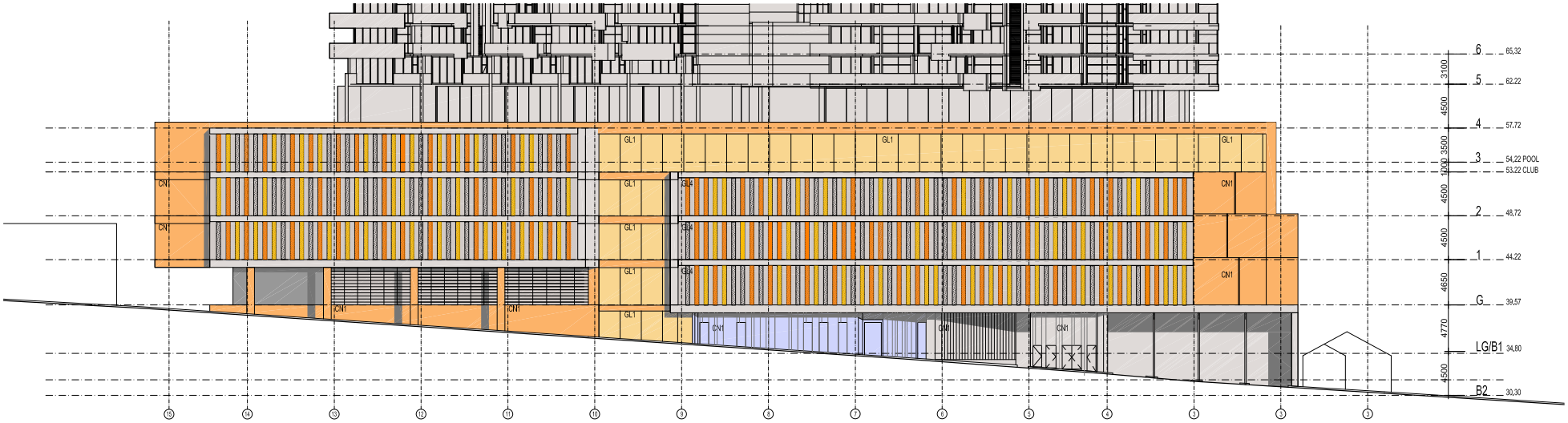
A two storey elevation has been maintained to Darling Street, with a community room and green wall surrounding a tennis court setback from the street.

## VIEW FROM SOUTH-WEST (WATERLOO STREET)

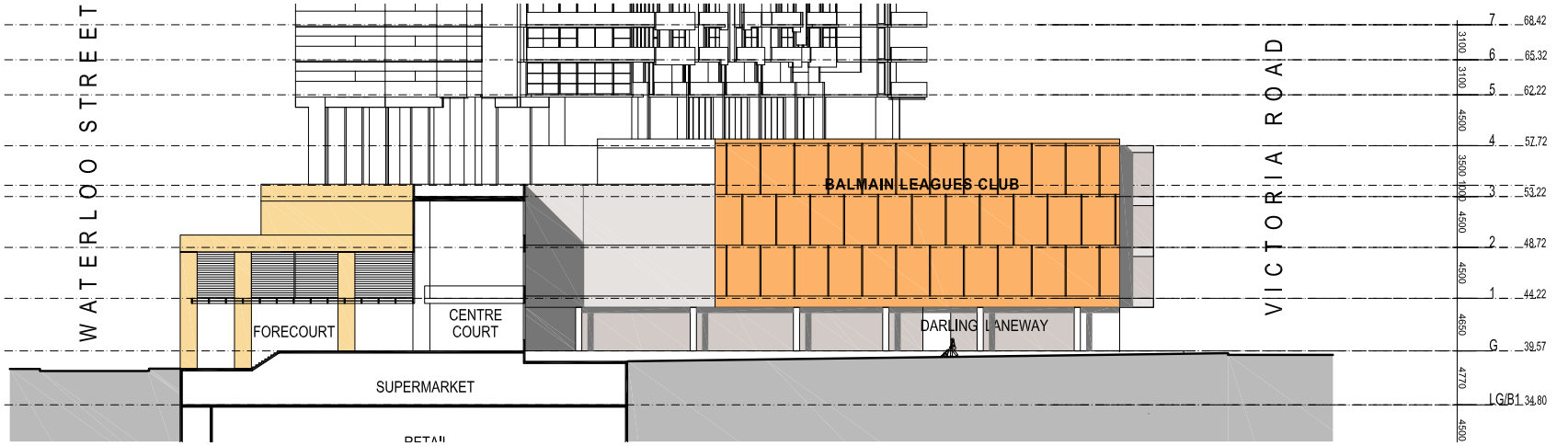
Low-rise two storey SOHO units address Waterloo Street, stepping with the topography to Darling Street. The high-rise forms are setback from Waterloo Street minimising overshadowing to surrounding residential properties. The podium is punctuated by a pedestrian mid-block connection mid-block along Waterloo Street and at Darling Lane. These connections increase the permeability of the ground plane as visual connections to the surrounding context.

The western elevation is a glass curtain wall with double glazed units to provide continuity of material and expression to the high-rise forms. The western elevation is articulated by loggias, spandrel panels, ledges, clear and tinted glass. The western elevation of the single block high-rise form is translucent glass and concrete, to respond to the orientation and differentiate the two high-rise forms. The bulk and scale of this broad face has been further reduced by introducing a strong vertical slot that divides the elevation in two distinct pieces.

Services and plant have been integrated within the form of the building, both at the tops of the high-rise forms and within the podium.

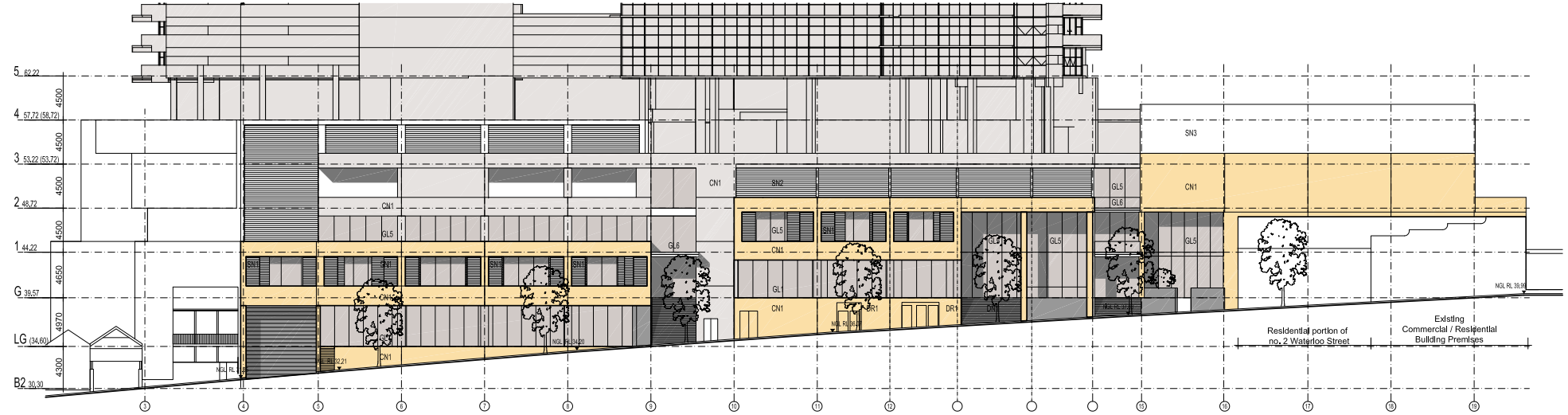



SOUTH-EAST ELEVATION (VICTORIA ROAD)

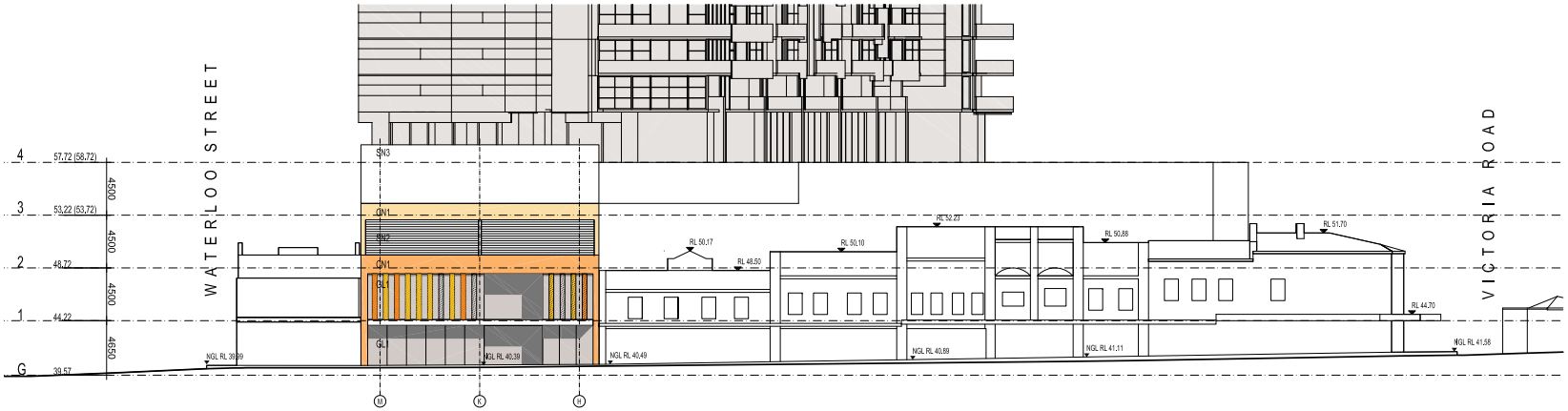



DARLING LANE ELEVATION

**STREETSCAPE INTERFACE**




NORTH-EAST ELEVATION (WATERLOO STREET)




SOUTH-EAST ELEVATION (DARLING STREET)

**STREETSCAPE INTERFACE**