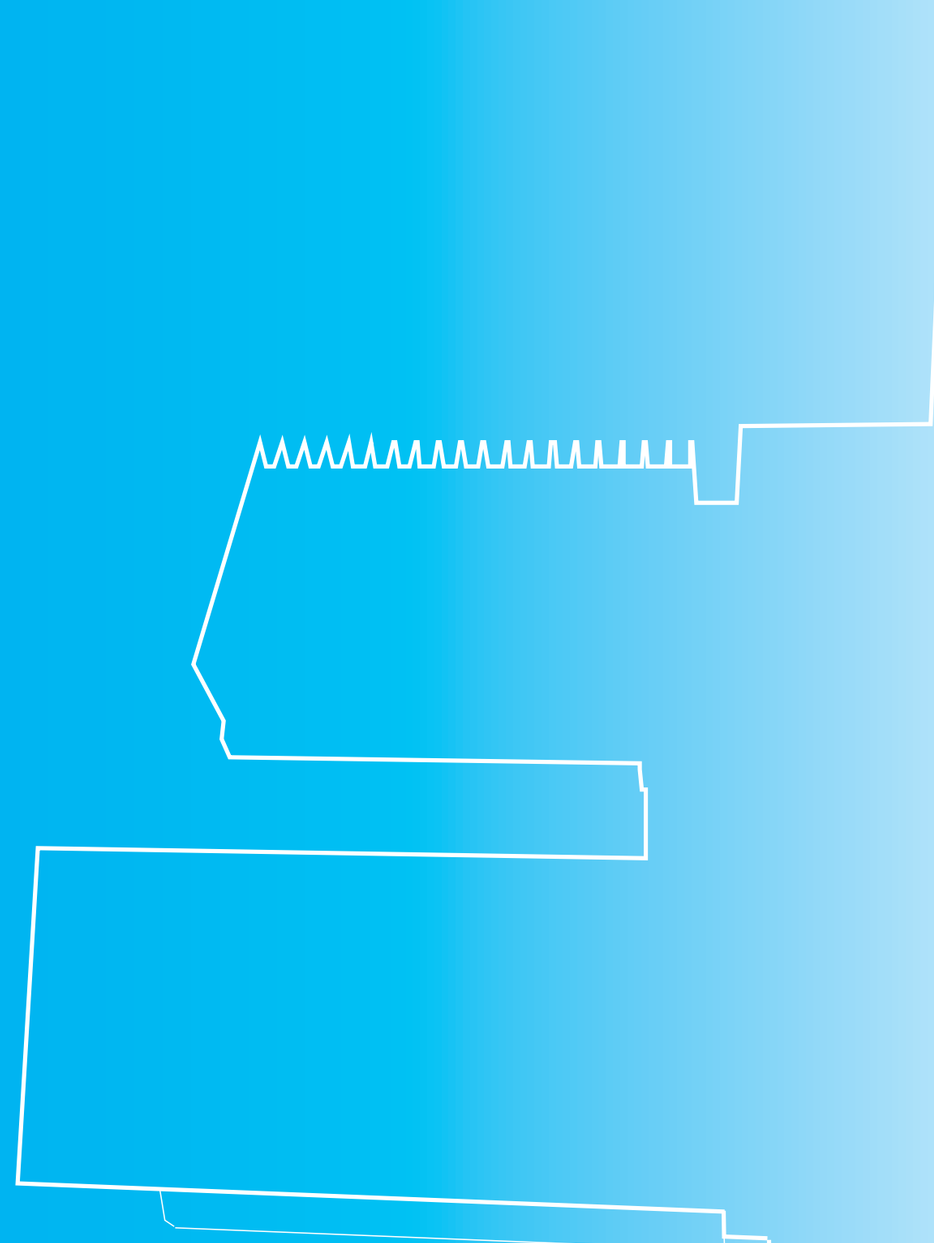
DESIGN EVOLUTION FOR A MIXED USE DEVELOPMENT ROZELLE VILLAGE VICTORIA ROAD, DARLING STREET + WATERLOO STREET, ROZELLE

FOR ROZELLE VILLAGE PTY LIMITED

APRIL 2012



STANISIC ASSOCIATES ARCHITECTS

PTW

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DESIGN EVOLUTION

The evolution of the proposed built form and floor space from the preliminary concept design represented in the PEAR to the proposed building form in the EA is described below. Refer also to excerpts from Volume 2 Architectural Design Report for Rozelle Village as noted.

PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT

The development is based on parameters in the Project Description and the Development Capacity Study which were submitted to the Department of Planning in January 2011 as part of the Preliminary Environmental Assessment Report (PEAR) and Request for Declaration of the site.

The proposed development represented in the PEAR, the subject of the DGRs, comprised two towers of 14 and 16 storeys at a maximum RL102 metres of residential use, and a flat top, 3 storey podium of non-residential use – primarily retail. The proposed potential maximum GFA for uses was 30,000 square metres residential; 20,000 square metres retail; 7,500 square metres commercial and; 3,500 square metres Balmain Leagues Club.

PRELIMINARY CONCEPT DESIGN

The preliminary concept represented in the Project Description of the PEAR had a total GFA of
40-45,000 square metres. The Development Capacity Study, however, provided justification for considering a development in excess of that represented in the concept with an FSR of 9.6:1 and GFA of 74,500 square metres, including as much as 44,000 square metres of residential in response to the planning context for more infill development, residential and non-residential demand, and public transport availability.

CONCEPT OPTIONS, GFA AND ESD

A range of concept options, with various building heights, built form, siting and GFA were investigated by the Design Architect. Opportunities to increase the potential development capacity of the development up to 60,000 square metres GFA were explored. The built form options included a single tower and two towers.

The ambition to achieve an exemplary standard of sustainable design with verifiable measures to demonstrate new benchmarks for lower energy consumption was investigated. The development is to achieve a 5-star Custom Green Star Rating (Australian Leadership) with an aspiration to 6-star (World Leadership). A 55,000 square metres GFA was established as the appropriate development capacity necessary to fund the leading environmental technologies and initiatives such as micro-cogeneration, grey and black water recycling, high performance double glazing, biofitration and carbon community fund.

ARCHITECTURE REVIEW DESIGN PANEL

Selected concept options, with various building heights, built form and siting were presented over 12 weeks to the Architectural Design Review Panel (ADRP) as part of the proponent-led Peer Review Process. It was generally accepted by the eminent architectural members of the ADRP that increasing density on urban sites - such as the Rozelle site - adequately serviced by public transport connected to employment centres with high levels of community activity was a sound principle to deliver more sustainable environments. The Rozelle site, in addition to satisfying local needs, had a key role in achieving environmental, economic and sustainable goals for the city. Refer to pages 7 to 19 of this report.

EVALUATION CRITERIA

A matrix of evaluation criteria relating to public and private benefit was established in discussion with the ADRP. The criteria considered the concept options in relation to both the metropolitan and local context. While all concept options scored well in the metropolitan context category because of the support for strategic planning vision premised on ecological sustainability, support for Sydney Metropolitan Plan 2038, increased housing, increased denisty, increased community facilities and support for public transport systems, Options J, K and L scored best in the local context category.

The distinguishing criteria for local context included minimising building bulk and mass on the skyline, minimising overshadowing of residential properties and public spaces, minimising traffic impacts on adjoining streets, providing appropriate public interface to Victoria Road, Waterloo Street and Darling Street to integrate forms with the local environment, minimizing impact of vehicular entry/exits on the public domain, minimising view loss to adjoining properties from vantage points and minimising wind, noise and reflectivity impacts. Refer to page 20 of this report.

PREFERRED CONCEPT OPTION

The final concept option lodged with the Project Application with various building heights, built form and siting evolved from the Panel selected preferred Concept Options K and L. Refer to pages 18 and 19 of this report.

The height and siting of towers was adjusted in the final concept option to achieve a better urban design balance of mass, height and form. The final concept option also has exemplary architectural and environmental merit, achieving SEPP 65 compliance for the residential towers particularly with regard to building separation, solar access and cross ventilation; slender building forms; appropriate public interface; activated pedestrian environment; and direct river, bay and harbour views.

PROPOSED BUILDING FORM

The proposed building form, defined in the control plan and sections in the Project Application has 55,000 square metres of GFA equivalent to an FSR of 6.7:1 comprising 30,000 square metres of residential (304 strata units) and 25,000 square metres of non-residential (retail and commercial, including the Balmain Leagues Club). The maximum tower heights of 26 and 32 storeys, 123.90m and 144.90m AHD respectively, were established from the viewpoint of public and private constraints, primarily the maintenance of solar access to the historic landscape setting of the iconic Callan Park, the maintenance of reasonable solar access to primary private open space of the neighbouring dwellings and the limits of development capacity. Refer to pages 22 and 23 of this report.

The maximum stepped podium heights to Waterloo Street and Victoria Road of 3 and 6 storeys respectively, were determined by the interface of the podium to the adjoining built form, movement system and street character. It conforms to the urban design and architecture guiding design principles established by the ADRP and outlined in its report of 20 February 2012.

IMPACT ANALYSIS

The tower heights are supported by extensive architectural and urban design studies and amenity impact analysis. The proposed built form – its height, configuration and siting - was refined to optimize design quality, principles of SEPP 65, environmental performance and minimise adverse impacts on the surrounding neighbourhood. The primary impacts of the proposed built form, in particular mass and bulk, shadow, overlooking and view on nearby residents have been defined and analysed in the EA.

ENVELOPE + SITING

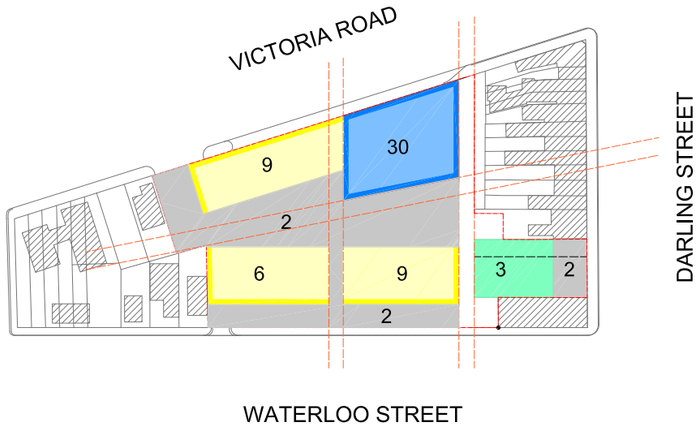
In order to achieve optimal design and amenity outcomes for the proposed development and the surrounding context, ten (10) envelope and siting options were developed and evaluated. Options included combinations of low, mid and high-rise forms. This process put aside all previous propositions for this site to assist in understanding how each option responds to the following key built form and urban design issues:

- height, bulk + scale
- orientation + layout
- impact on the adjoining properties
- separation between buildings on the site
- views to and from the site
- solar access to surrounding properties

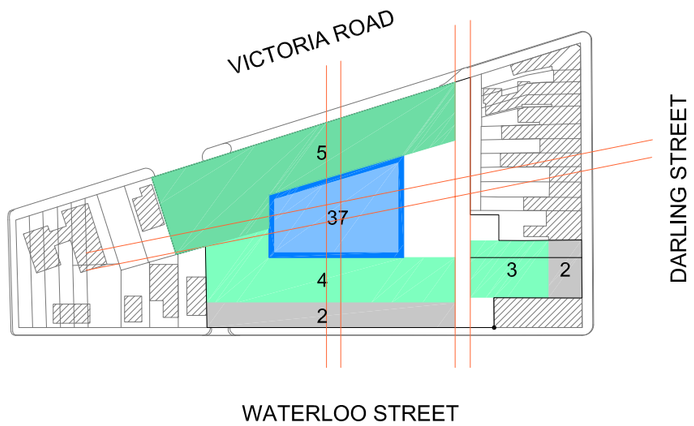
Each option was evaluated in terms of public and private benefit criteria, with particular emphasis on the public benefit (metropolitan / local context). in order to identify the preferred option for the site. In addition, this process assisted in the formulation a series of key design principles that were used as the basis for the development of the design concept.

The following pages show options A-G + J and the preferred options K + L.

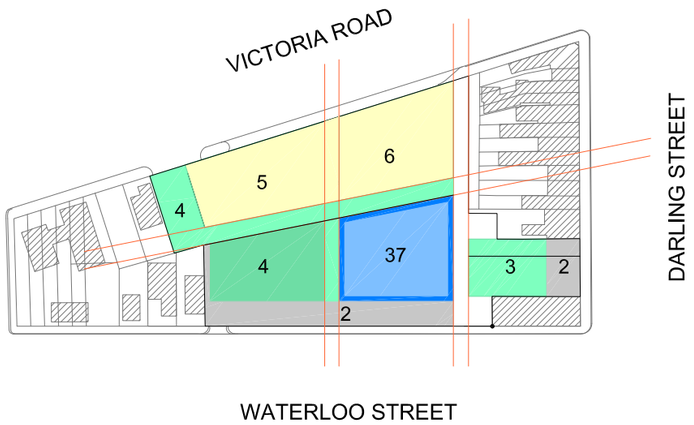
OPTION A



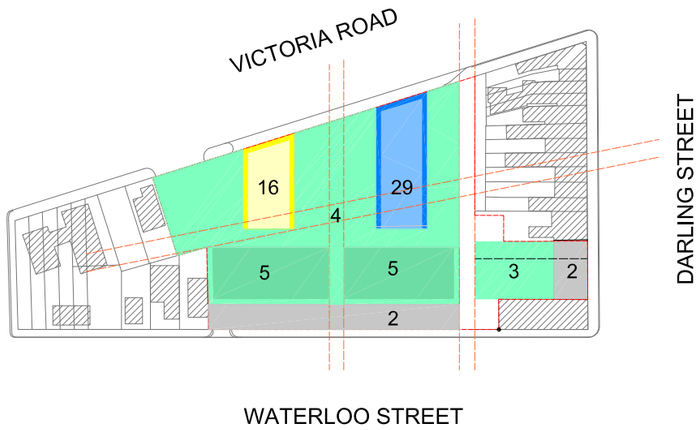
OPTION D



OPTION G

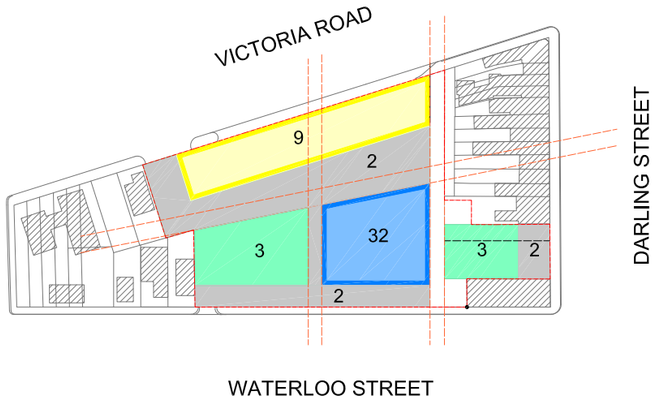


OPTION B

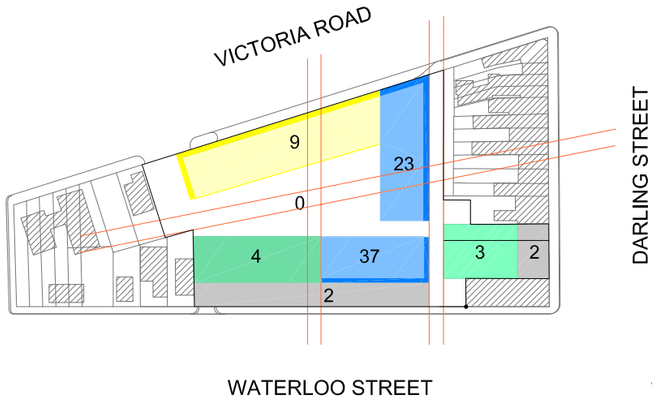


OPTION E

There is no Option H or I



OPTION C



OPTION F

ENVELOPE OPTIONS SUMMARY

OPTION J

OPTION K

OPTION L

DEVELOPMENT PARAMETERS

These ten (10) envelope and siting options investigated how to distribute 55,000sqm of gross floor space (6.7 - 7:1) and a diversity of uses on the site based upon the Development Capacity Study prepared by Inspire, submitted with the Preliminary Environmental Assessment Report to the Department of Planning and Infrastructure.

The following parameters were consistent in each option:

- pedestrian network on the ground plane providing pedestrian connections to and from the site
- low rise forms (2-4 storeys) along Waterloo Street
- low rise form (2-3 storeys) to Darling Street
- extension of Darling Lane (Heritage Lane)

PEER REVIEW PROCESS

An Architectural Design Review Panel (Panel) was established by Rozelle Village Pty Limited, in consultation with the Department of Planning and Infrastructure, as part of a Design Review Process. The role of the panel was to review the architectural proposal at various stages of the design process with particular attention to built form, urban design, residential amenity, SEPP 65, public domain and pedestrian environment related to the Director General's Requirements issued by the Department on 5th April 2011 for the development.

The Panel consisted of four eminent architects/urban designers - all with recognized high level skills and experienced in the field of architecture - nominated by Rozelle Village Pty Ltd. The Panel was specifically requested to 'comment on the appropriateness and design quality of the proposal and specific requirements for project variations.'

STANISIC ASSOCIATES, the project design Architect, met regularly with the Panel over a period of 3 months during the development of the design concept, the envelope and siting options, building form and the final preferred proposal. The final proposal was based on preferred envelope and siting options of the Panel and developed by STANISIC ASSOCIATES. It was presented to the Panel prior to lodgement of the Environmental Assessment. Refer to Section 18 - ADRP Report to see the Architectural Design Review Panel Report.

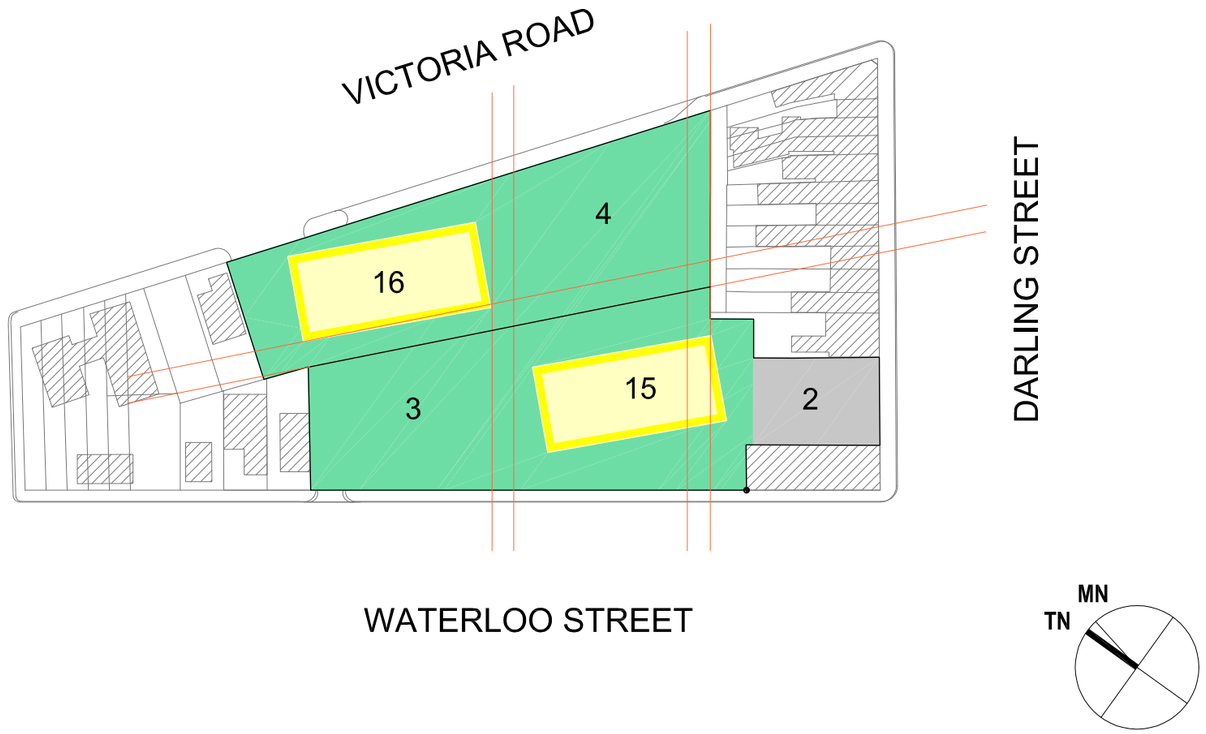
ENVELOPE + SITING

ENVELOPE STUDIES - OPTION A

Option A accompanied the Preliminary Environmental Assessment Report, submitted to the Department of Planning and Infrastructure which formed the basis of the declaration of this development as a major project. This option is flat top podium and two high-rise forms. The two high rise forms of a similar height do not orientate to north, the view or street. The podium does not adjust to the surrounding residential context. The roof of the podium has the potential to be a green roof. There is a two storey transitional form to Darling Street.

The building footprints of the two towers are approximately 24m deep which limit light and ventilation to apartments. The high-rise forms are offset to maximise visual and acoustic privacy between buildings and limit overshadowing of surrounding residential properties. The orientation of the high-rise form adjacent to Waterloo Street still presents a wide face to south-west which has the potential to overshadow residential properties on Waterloo Street.

The two high-rise forms have a residential address to the nearest adjacent street.



	EXISTING	1 - 2
	GROUND	
	LOW RISE	1 - 2
		3 - 5
	MID RISE	6-16
	HIGH RISE	17 +

SITE AREA 8197 sqm

0 10 20 40 60 80 100M

VIEW FROM WEST

VIEW FROM EAST

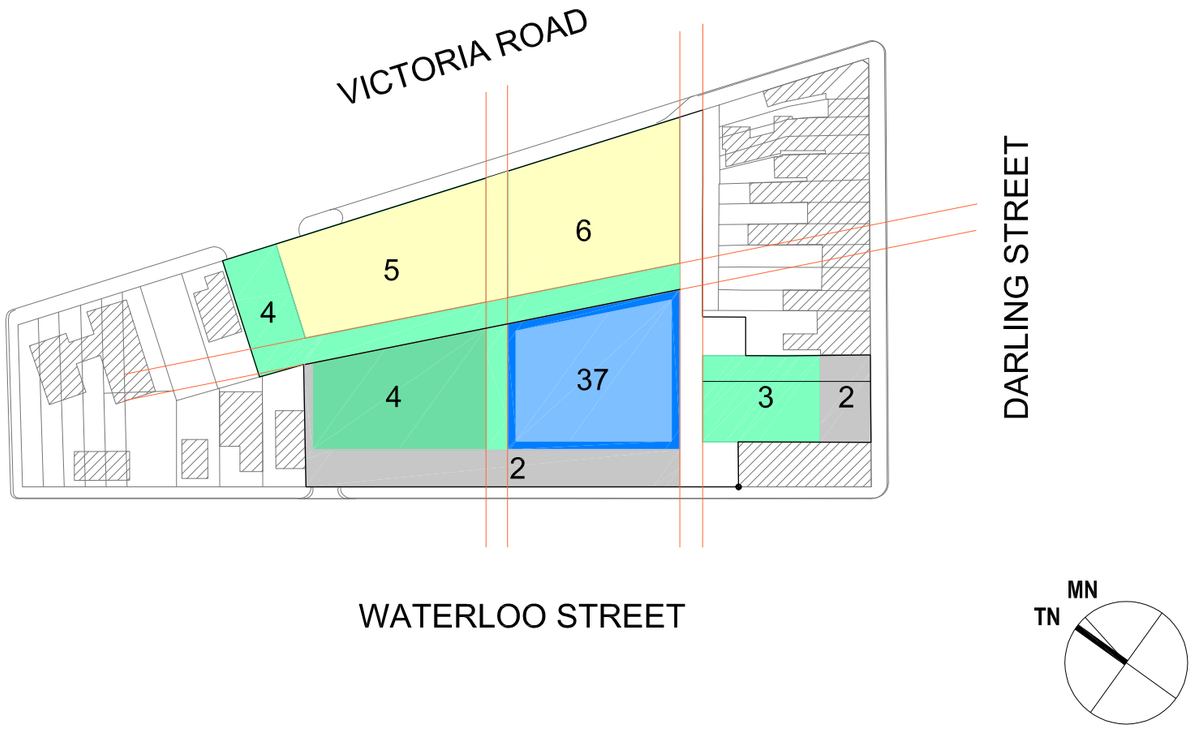
ENVELOPE STUDIES - OPTION B

Option B is a hybrid form comprising a stepped podium, a mid-rise street wall to Victoria Road and a high-rise tower adjacent to Waterloo Street / Darling Street. The pedestrian network divides the site into four quadrants and informs the location of the mid and high-rise forms. The high-rise form occupies the south-western quadrant and the mid-rise street edge form occupies the two north-eastern quadrants. The podium is stepped to adjust to the surrounding context and topography, with lower forms to the north-western boundary and Waterloo Street.

The high-rise form orientates to Darling Lane and Waterloo Street. It has a deep, square footprint that would require substatial articulation in order to maxise light and ventilation to apartments. The mid-rise form steps down with the topography along Victoria Road and forms a barrier to the green communal space that is located on the roof of the podium. This mid-rise form is too deep for residential uses.

A low-rise, two storey infill form is located along Darling Street, setting back to three storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.

The high-rise form has a residential address to Waterloo Street.



	EXISTING	1 - 2
	GROUND	
	LOW RISE	1 - 2
		3 - 5
	MID RISE	6-16
	HIGH RISE	17 +

SITE AREA 8197 sqm

0 10 20 40 60 80 100M

VIEW FROM WEST

VIEW FROM EAST

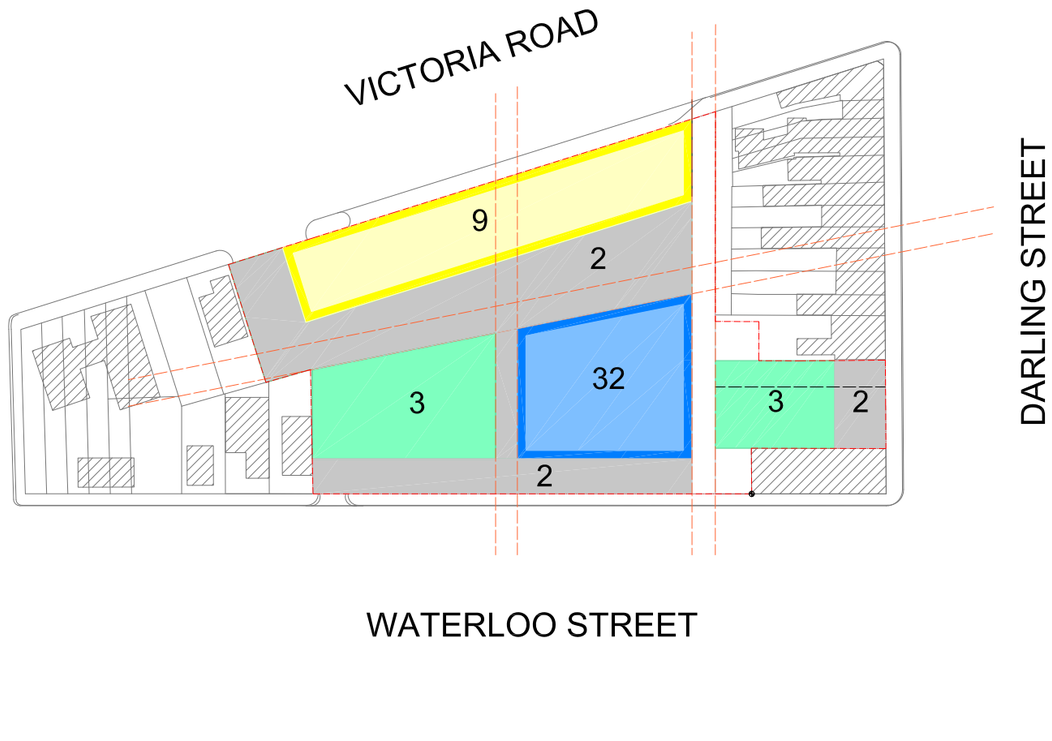
ENVELOPE STUDIES - OPTION C

Option C is a hybrid form comprising a stepped podium, a slender mid-rise street wall form to Victoria Road and a high-rise tower adjacent to Waterloo Street / Darling Street. The pedestrian network divides the site into four quadrants and informs the location of the mid and high-rise forms. The high-rise form occupies the south-western quadrant and the mid-rise street edge form occupies the two north-eastern quadrants. The podium is stepped to adjust to the surrounding context and topography, with lower forms to the north-western boundary and Waterloo Street.

The high-rise form orientates to Darling Lane and Waterloo Street. It has a deep, square footprint that would require substatial articulation in order to maxise light and ventilation to apartments. The mid-rise form presents a continuous street wall to Victoria Road, increasing in height as the topography falls towards Iron Cove. The slenderness of this mid-rise form makes it suitable for residential uses with an excellent northern orientation. It also forms a barrier to the green communal space that is located on the roof of the podium.

A low-rise, two storey infill form is located along Darling Street, setting back to three storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.

The high-rise form has a residential address to Waterloo Street and the mid-rise form to Victoria Road.

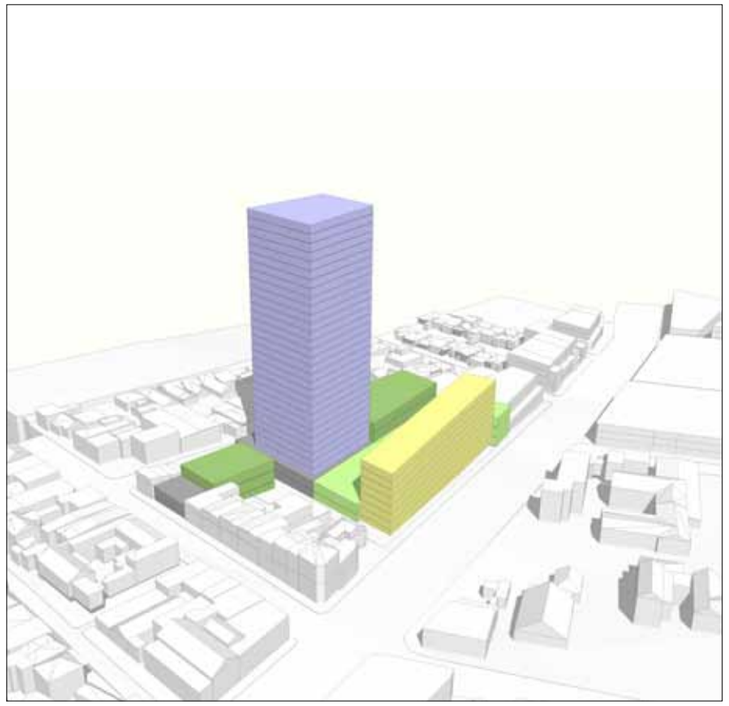


	EXISTING	1 - 2
	GROUND	
	LOW RISE	1 - 2
		3 - 5
	MID RISE	6-16
	HIGH RISE	17 +

SITE AREA 8197 sqm

0 10 20 40 60 80 100M

VIEW FROM WEST



VIEW FROM EAST

ENVELOPE STUDIES - OPTION D

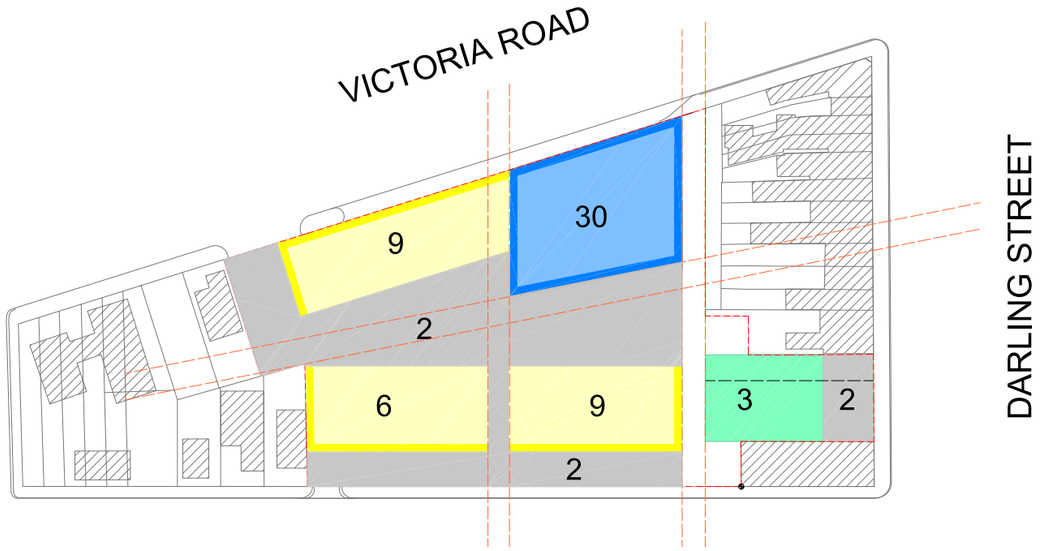
Option D is a hybrid perimeter form comprising a flat-top podium, part slender mid-rise street wall and high-rise form to Victoria Road and two mid-rise forms setback from Waterloo Street. The pedestrian network divides the site into four quadrants and informs the location of the mid and high-rise forms. The high-rise form occupies the south-eastern quadrant and the mid-rise forms occupy the remaining three quadrants. The low-rise podium has a height that is consistent with the surrounding context adjacent to the north-western boundary and Waterloo Street.

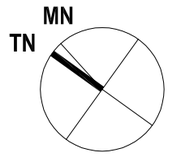
The high-rise form orientates to Victoria Road and Darling Lane. It has a deep, square footprint that would require substatial articulation in order to maxise light and ventilation to apartments. The mid-rise forms also orientate to the street.

The forms along Victoria Road form a strong street edge, with the form stepping down Victoria Road towards Iron Cove, the high-rise form a prominent marker along this Corridor. The perimeter form creates a large green communal courtyard on the roof of the podium.

A low-rise, two storey infill form is located along Darling Street, setting back to three storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.

The high-rise form has a residential address to Victoria Road and Darling Lane and the mid-rise forms to Victoria Road and Waterloo Street.





	EXISTING	1 - 2
	GROUND	
	LOW RISE	1 - 2
		3 - 5
	MID RISE	6-16
	HIGH RISE	17 +

SITE AREA 8197 sqm

0 10 20 40 60 80 100M

VIEW FROM WEST

VIEW FROM EAST

ENVELOPE STUDIES - OPTION E

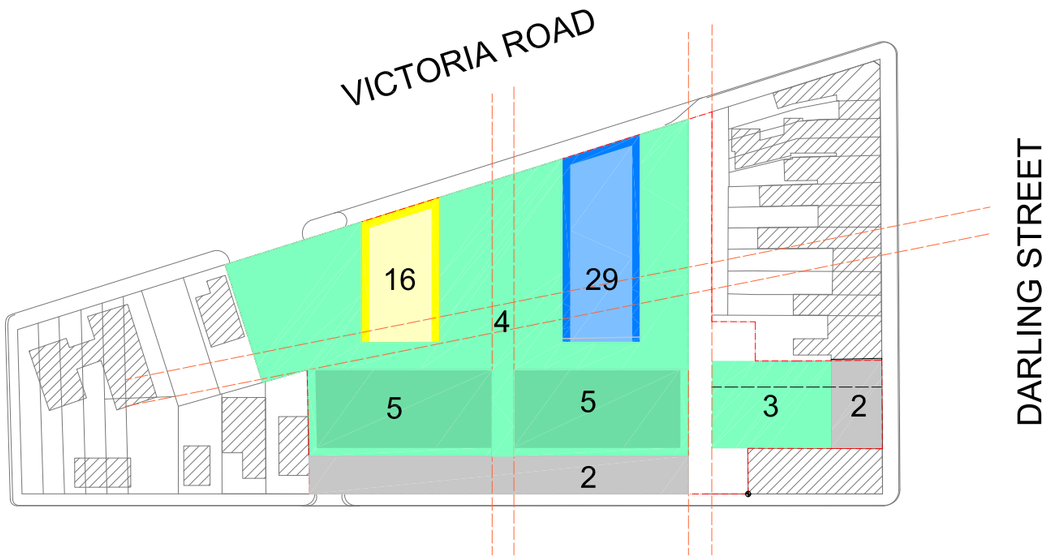
Option E is a hybrid form comprising a stepped podium, and slender mid-rise and high rise forms. The pedestrian network of passageways divides the site into four quadrants but the mid and high-rise forms are not informed by this structure. The high-rise form is located at the highest point of the site adjacent to Darling Lane. The low-rise podium steps down to two storeys at Waterloo Street onsistent with the surrounding context.

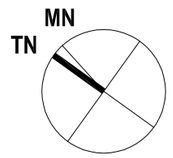
The mid and high-rise form orientate north-east / south-west, perpendicular to Waterloo Street and parallel to Darling Lane. These taller forms have a slender footprint that maxise light and ventilation to apartments. However, the mid-rise form will overshadow the high-rise form at lower levels.

The podium forms a strong edge to Victoria Road, with the taller elements stepping down Victoria Road towards Iron Cove. There is a green roof on top of the podium.

A low-rise, two storey infill form is located along Darling Street, setting back to three storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.

The high-rise form has a residential address to Victoria Road and Darling Lane and the mid-rise form to Victoria Road.

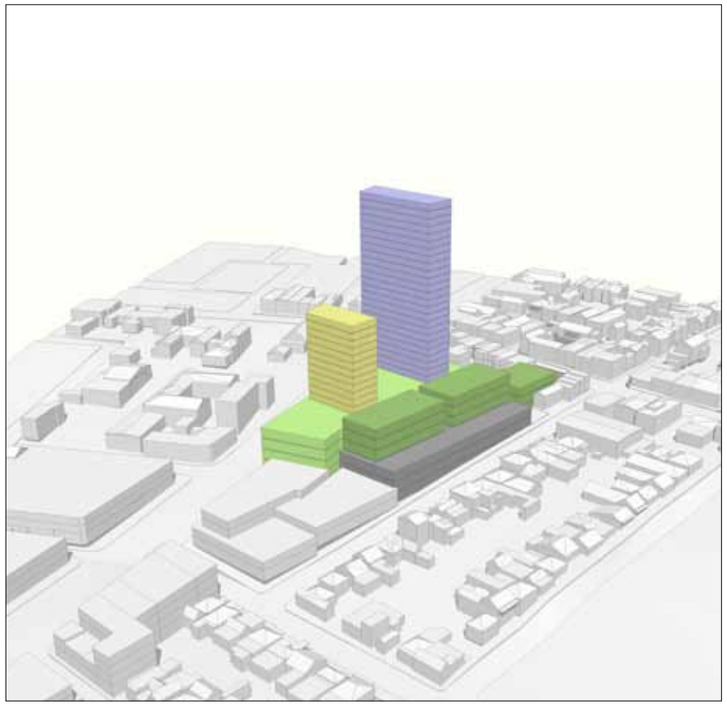




	EXISTING	1 - 2
	GROUND	
	LOW RISE	1 - 2
		3 - 5
	MID RISE	6-16
	HIGH RISE	17 +

SITE AREA 8197 sqm

0 10 20 40 60 80 100M



VIEW FROM WEST

VIEW FROM EAST

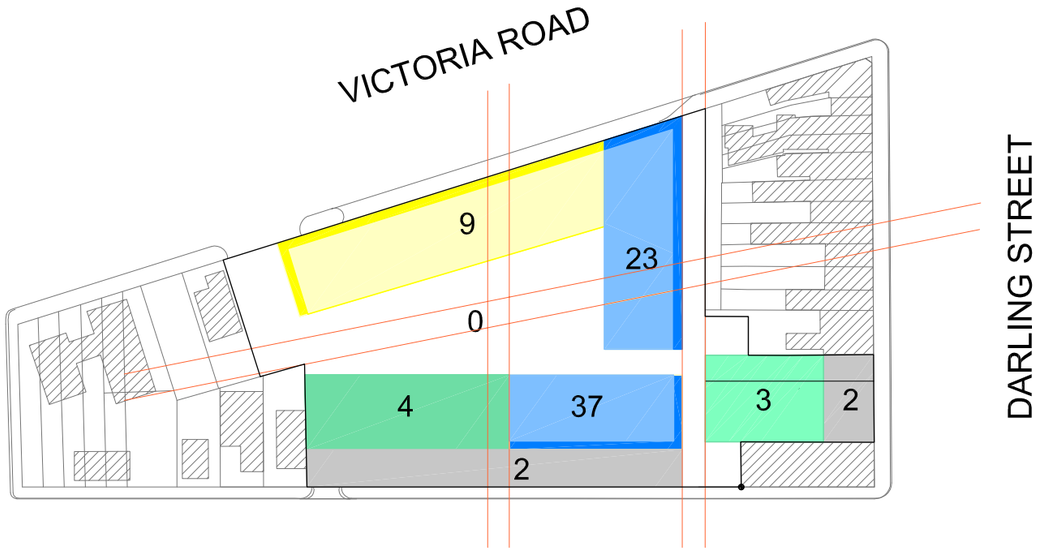
ENVELOPE STUDIES - OPTION F

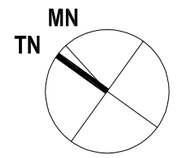
Option F is a perimeter form comprising slender mid-rise and high rise forms around a central plaza. The two high-rise form are located at the highest point of the site and orientate to Darling Lane and Waterloo Street. There is a low-rise form adjacent to Waterloo Street and to the north of the site to respond to the surrounding context.

The mid-rise form creates a strong street edge to Victoria Road, increasing in height as the topography falls towards Iron Cove. All of the forms are slender which maxise light and ventilation to apartments. However, at the lower levels of the high-rise forms, any apartments will be overshadowed by the mid-rise form.

A low-rise, two storey infill form is located along Darling Street, setting back to three storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.

The high-rise forms have a residential address to Waterloo Street and Darling Lane.





	EXISTING	1 - 2
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	LOW RISE	1 - 2
		3 - 5
	MID RISE	6-16
	HIGH RISE	17 +

SITE AREA 8197 sqm

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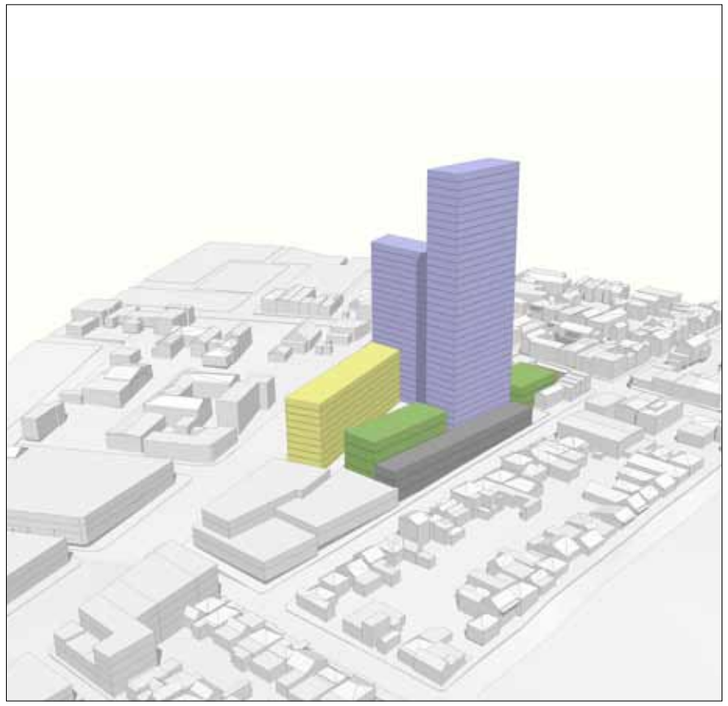


VIEW FROM WEST

VIEW FROM EAST

ENVELOPE + SITING

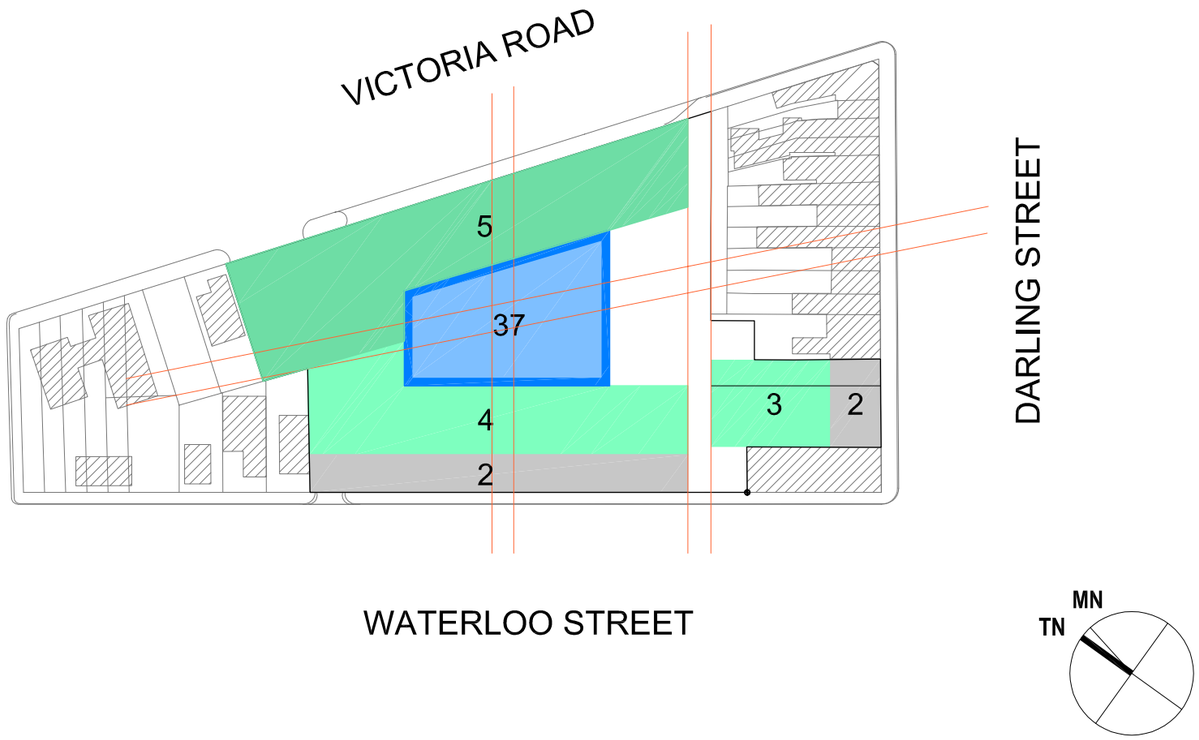
ENVELOPE STUDIES - OPTION G

Option F is a stepped podium and single tower with forecourt to Darling Lane. The single tower is located at the centre of the site independent of the pedestrian network to the podium.

The five storey podium forms an edge to Victoria Road, stepping down in height to two storeys at Waterloo Street to respond to the surrounding residential context.

The high-rise form has a deep, square footprint that would require substatial articulation in order to maxise light and ventilation to apartments. It has a residential address via the forecourt adjacent to Darling Lane, accessible from Victoria Road and Waterloo Street.

A low-rise, two storey infill form is located along Darling Street, setting back to three storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.



	EXISTING	1 - 2
	GROUND	
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	MID RISE	6-16
	HIGH RISE	17 +

SITE AREA 8197 sqm

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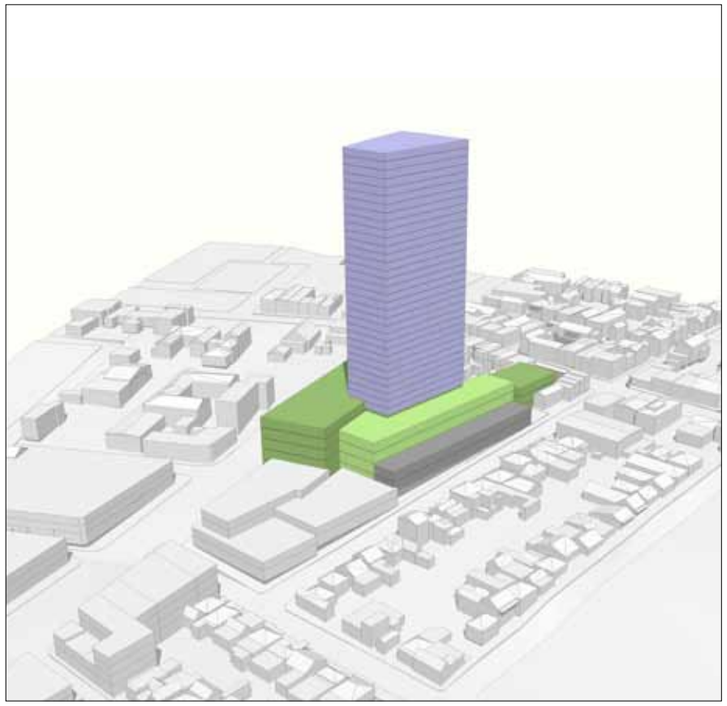


VIEW FROM WEST

VIEW FROM EAST

ENVELOPE STUDIES - OPTION J

Option J is a stepped podium with two high-rise forms. The taller high-rise form orientates to Waterloo Street and the lower high-rise form to Victoria Road.

The pedestrian network divides the site into four quadrants and informs the location of the high-rise forms. The taller high-rise form is located at the highest point of the site, in the south-western quadrant, adjacent to Waterloo and Darling Streets. The lower high-rise form is located in the north-eastern quadrant.

The lower high-rise form is setback to maintain a low-rise scale to Victoria Road. The four storey podium adjusts to the surrounding context, stepping down in height to two storeys at Waterloo Street. Along Victoria Road, the podium increases in height as the topography falls towards Iron Cove.

A low-rise, two storey infill form is located along Darling Street, setting back to four storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.

The taller high-rise form is split in two by a lobby, maximising light and ventilation to apartments. The high-rise forms are offset to maximise visual and acoustic privacy between buildings and limit overshadowing of surrounding residential properties. The orientation of the high-rised-rise form adjacent to Waterloo Street still presents a wide face to south-west which has the potential to overshadow some residential properties on Waterloo Street.

The taller high-rise form has a residential address to Waterloo Street and the lower high-rise form to Victoria Road.

VIEW FROM WEST

VIEW FROM EAST

0 10 20 40 60 80 100M

PTW

ENVELOPE STUDIES - OPTION K (PREFERRED OPTION)

Option K is a stepped podium with two high-rise forms - a variant of Option J. In this option, the eastern wing of the taller high-rise form swings out to orientate towards the city, but the western wing maintains an address to Waterloo Street. The lower high-rise form is parallel with, but setback from Victoria Road. The four storey height of the podium adjusts in scale to the surrounding context, stepping down in height to two storeys at Waterloo Street.

The pedestrian network divides the site into four quadrants and informs the location of the high-rise forms. The taller high-rise form is located at the highest point of the site adjacent to Waterloo and Darling Streets, bridging over two quadrants to the south-east and north-west. The lower high-rise form is located in the north-eastern quadrant. The lower high-rise form is setback to maintain a low-rise scale to Victoria Road. The four storey podium adjusts to the surrounding context, stepping down in height to two storeys at Waterloo Street. Along Victoria Road, the podium increases in height as the topography falls towards Iron Cove.

A low-rise, two storey infill form is located along Darling Street, setting back to four storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.

The taller high-rise form is split in two by a lobby, maximising light and ventilation to apartments. The high-rise forms are offset to maximise visual and acoustic privacy between buildings and limit overshadowing of surrounding residential properties. The orientation of the west wing of the taller high-rise form still presents a wide face to south-west which has the potential to overshadow some residential properties on Waterloo Street.

The taller high-rise form has a residential address to Waterloo Street and the lower high-rise form to Victoria Road.

VIEW FROM WEST

VIEW FROM EAST

0 10 20 40 60 80 100M

ENVELOPE STUDIES - OPTION L (PREFERRED OPTION)

Option L is a stepped podium with two high-rise forms - a variant of Option K. In this option, the eastern wing of the taller high-rise form swings out to orientate towards the city and the western wing also orientates to true north. The lower high-rise form is parallel with, but setback from Victoria Road. The four storey height of the podium adjusts in scale to the surrounding context, stepping down in height to two storeys at Waterloo Street.

The pedestrian network divides the site into four quadrants and informs the location of the high-rise forms. The taller high-rise form is located at the highest point of the site adjacent to Waterloo and Darling Streets, bridging over two quadrants to the south-east and north-west. The lower high-rise form is located in the north-eastern quadrant. The lower high-rise form is setback to maintain a low-rise scale to Victoria Road. The four storey podium adjusts to the surrounding context, stepping down in height to two storeys at Waterloo Street. Along Victoria Road, the podium increases in height as the topography falls towards Iron Cove.

A low-rise, two storey infill form is located along Darling Street, setting back to four storeys. This form is compatible with the existing building heights along Darling Street, which generally have very high parapets.

The taller high-rise form is split in two by a lobby, maximising light and ventilation to apartments. The high-rise forms are offset to maximise visual and acoustic privacy between buildings and limit overshadowing of surrounding residential properties. With an orientation to true north, the west wing minimises overshadowing to residential properties on Waterloo Street.

The taller high-rise form has a residential address to Waterloo Street and the lower high-rise form to Victoria Road. In the podium, the location of the core of the taller high-rise form reduces the clear floor plate available for a major supermarket.

VIEW FROM WEST

VIEW FROM EAST

0 10 20 40 60 80 100M

EVALUATION CRITERIA

A matrix was developed that was used as the basis for an evaluation of the public and private benefits of each envelope and siting option. The public benefit considered both the proposed development in relation to the metropolitan and local context.

The evaluation illustrates options K and L are preferred, as they offer a better public benefit at a metropolitan and local scale. It also shows that there are some negative implications in relation to the private benefit including reduced efficiency of residential cores and impact on the loading dock functionality.

Options K + L, the preferred options, were developed further and formed the basis of the proposal presented in the Project Application. The detailed design was developed in consultation with the Architectural Design Review Panel.

PUBLIC BENEFIT	A	B	C	D	E	F	G	J	K	L
METROPOLITAN CONTEXT										
• support strategic planning vision premised on ecological sustainability										
• support Sydney Metropolitan Plan 2036 and Inner West Subregional Strategy 2005										
• satisfy increased housing targets										
• realise greater intensity of development										
• satisfy increased community facilities and activities										
• develop a sustainable and liveable community										
• support and promote viable public transport systems										
• achieve SEPP 65 compliance for solar access, natural ventilation and south facing living areas										

LOCAL CONTEXT										
• minimise building bulk and mass on the skyline										
• minimise overshadowing of residential properties and public spaces										
• minimise traffic impacts on adjoining streets										
• provide appropriate public interface to Victoria Road, Waterloo Street and Darling Street to integrate forms with local environment										
• maintain pedestrian and visual permeability, spatial system and daylight to pedestrian environment										
• minimise impact of vehicular entry/exits on public domain										
• minimise view loss to adjoining properties from vantage points										
• minimise wind, noise and reflectivity impacts										

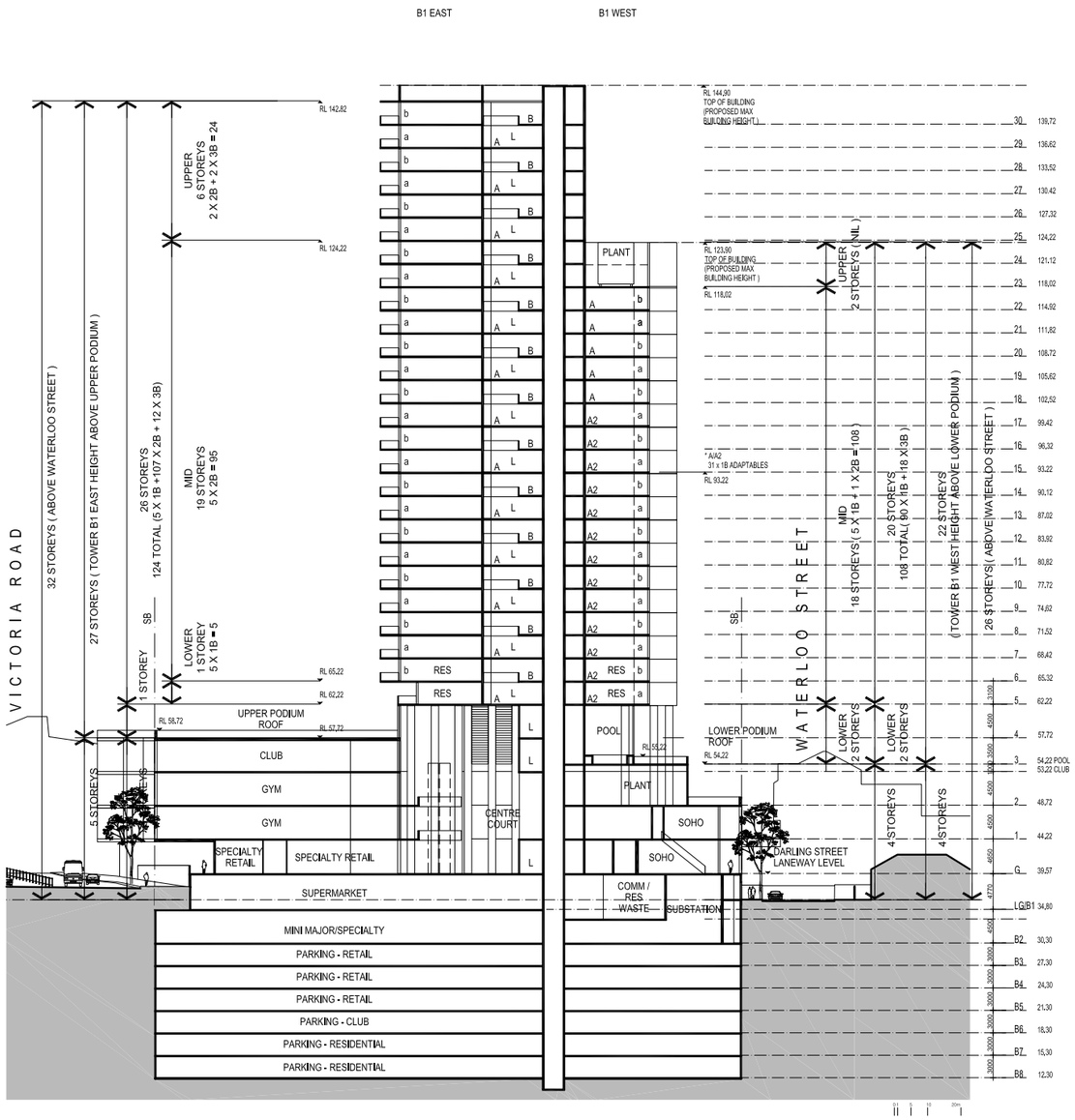
PRIVATE BENEFIT	A	B	C	D	E	F	G	J	K	L
• provide convenient address and entry lobby to residential										
• provide mixed use environment										
• maximise efficiency of residential core(s) – lifts, lobbies, egress stairs										
• minimise impact of cores on loading dock functionality										
• integrate passive design and green infrastructure										
• maintain views and outlook from buildings										
• no impact on aircraft movements										

POOR
SATISFACTORY
GOOD

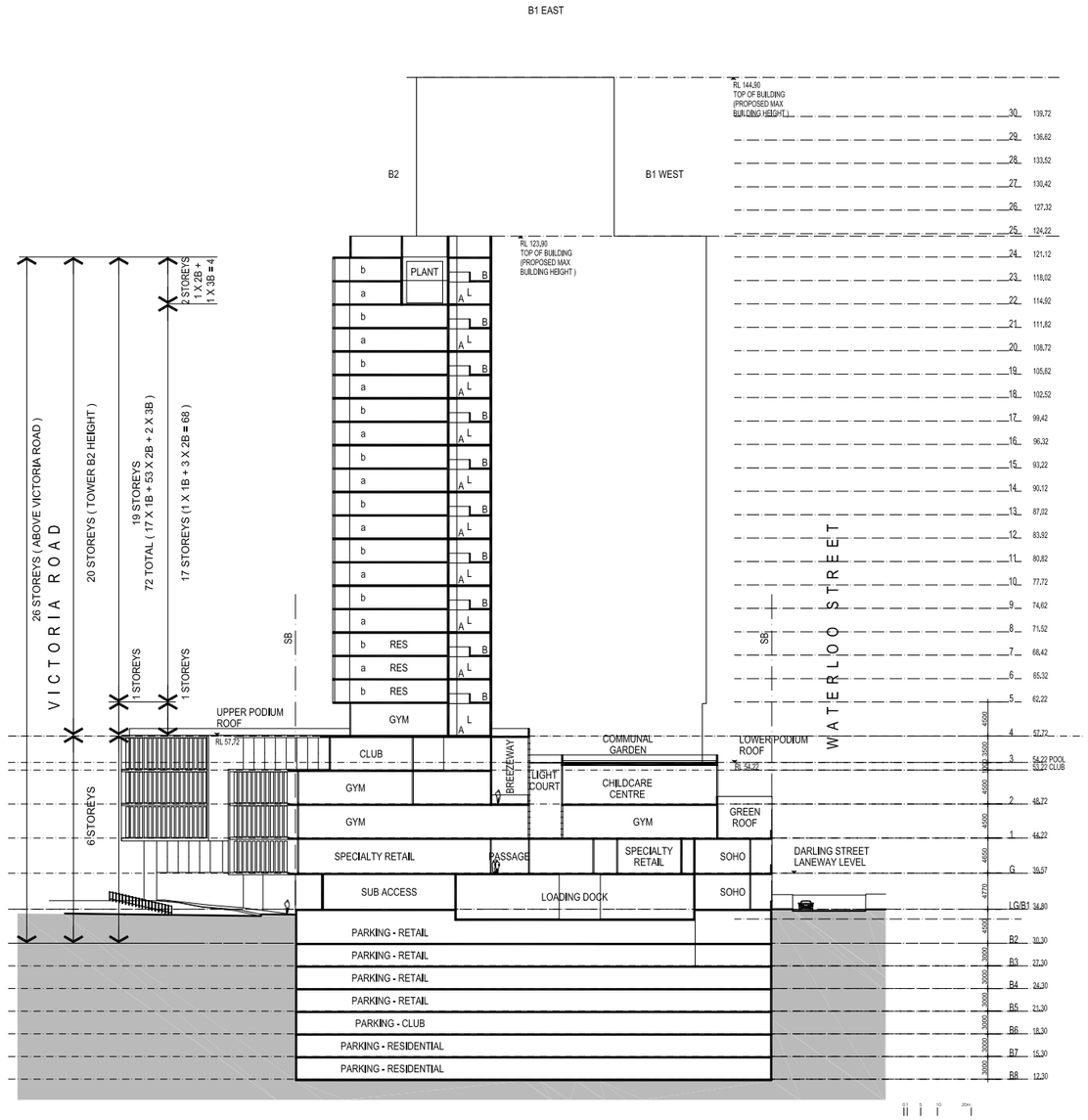
	B1 EAST	B1 WEST	B2	TOTAL	TOTAL %
SOLAR ACCESS 70%	5/5	2/6	4/4	11/15	73%
CROSS VENTILATION 60%	5/5	2/6	3/4	12/15	70%
SOUTH FACING 10%	-/5	-/6	-/4	-/15	-

CONTROL PLAN

CONTROL PLAN + SECTIONS



TOWER B1 east / west CONTROL SECTION



TOWER B2 CONTROL SECTION

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