

**principle 3:**

**built form &**

**scale**

# massing evolution.

The building design has evolved following ongoing consultation with the City of Wanneroo Design Review Panel and its planning officers. Increased side setbacks, articulation of the facades and softening of the building edges have resulted in a building form that responds positively to its setting and surrounds.

## DRP 1 - FEBRUARY 2022

Site planning relative to views, overshadowing and overlooking was supported, in addition to the treatment of vehicle parking and residents' amenities. The Panel expressed concern for overall bulk and scale; entry positioning and general appearance, acknowledging the design was preliminary and submitted on the basis early engagement in exploring site design responses.

## DRP 2 - MARCH 2022

Further clarify was sought from the Panel relating to height and setbacks. Additional height was proposed to provide for increased side setbacks and facade articulation. The Panel acknowledged efforts to address the concerns from DRP 1, but remained concerned for bulk and scale.

## DRP 3 - JUNE 2022

Further setback increases and the introduction of curves to the building edges further reduce the bulk and scape of the development, improving view corridors, reducing the extent of overshadowing of the public realm, creating additional space for ground level planting and providing a softer coastal aesthetic.



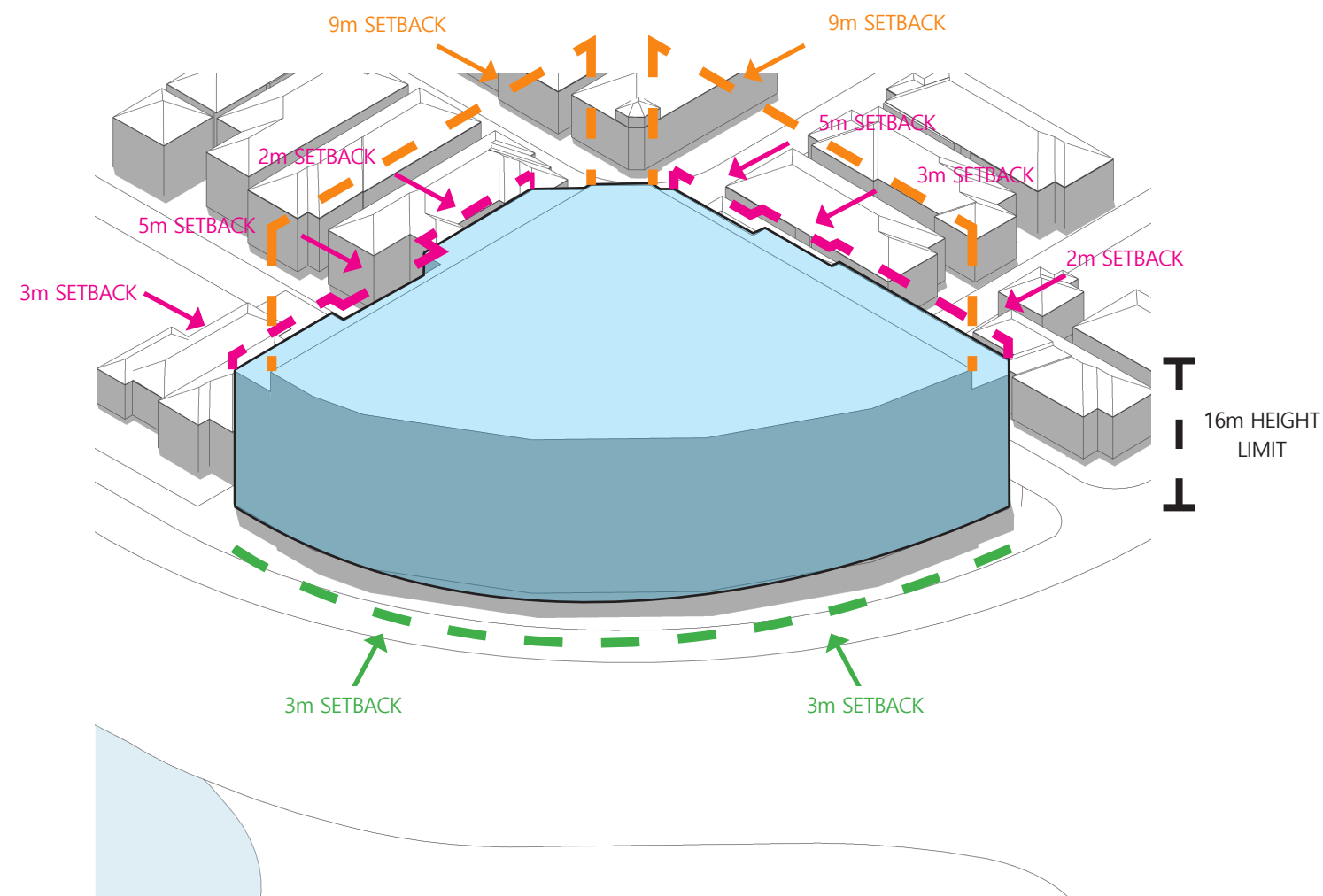
## DA - AUGUST 2022

Building bulk has been further addressed through increased balcony depth and wider recesses to the front façade.

Note that building height has been slightly increased to account for structural transfers and appropriate ceiling levels to the Lobby and ground level communal spaces, which accommodates the addition of a canopy that wraps the south-east corner and provides scale and shelter to the front entry and visitor parking area.

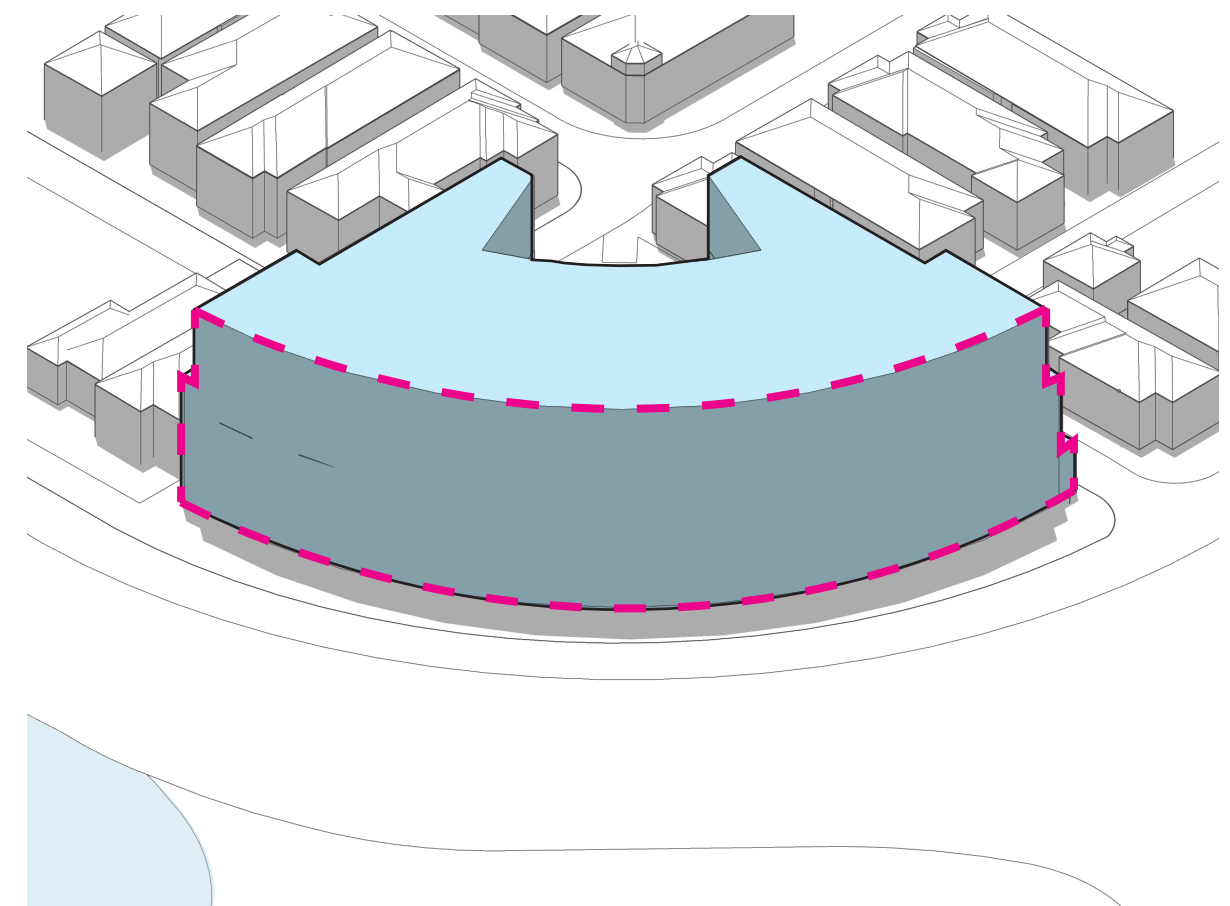


# design response.



## A. PERMISSIBLE BUILDING ENVELOPE

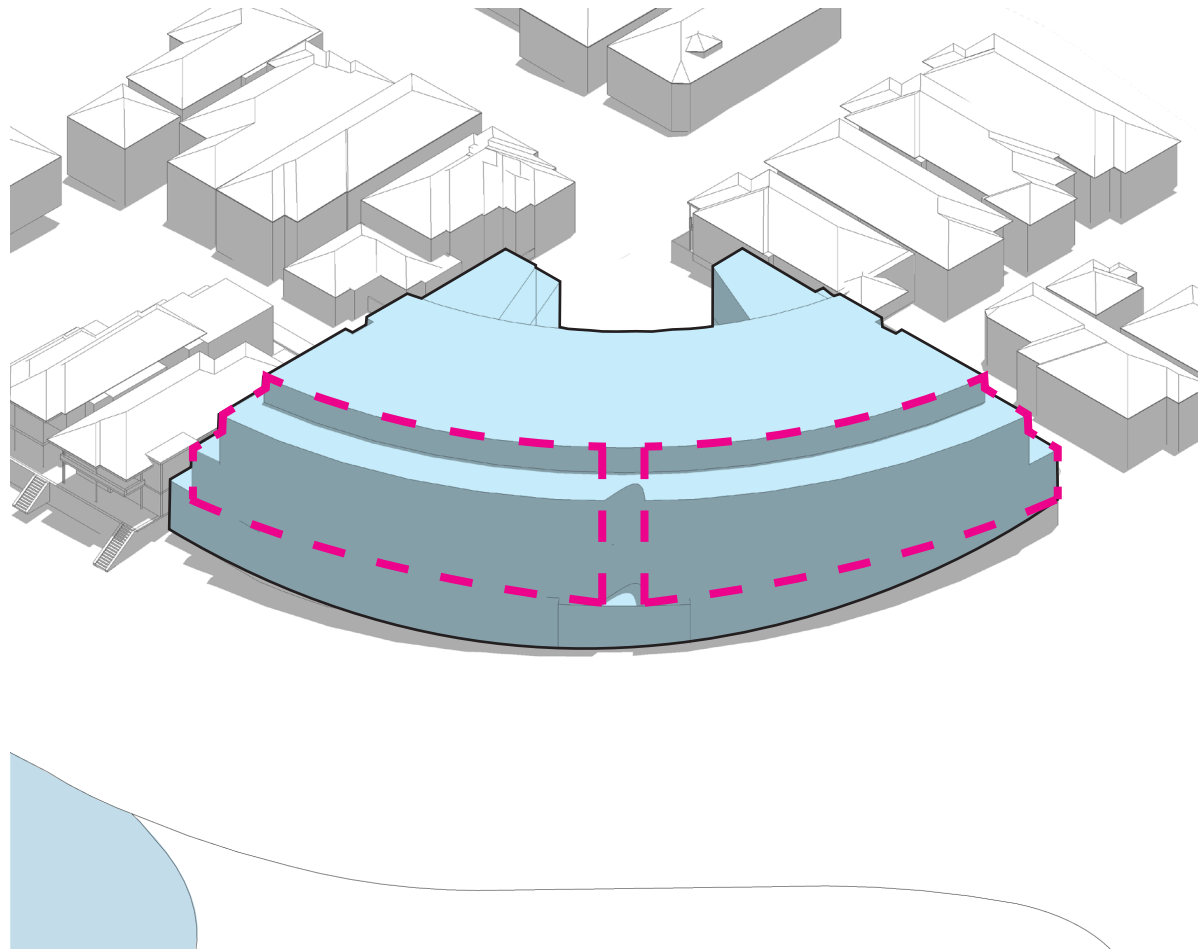
50 Alexandria View is zoned R160 with a site area of 3908sqm. Basic building envelope shown using primary controls table from **Design WA**.



## B. DRP-1 BUILDING ENVELOPE

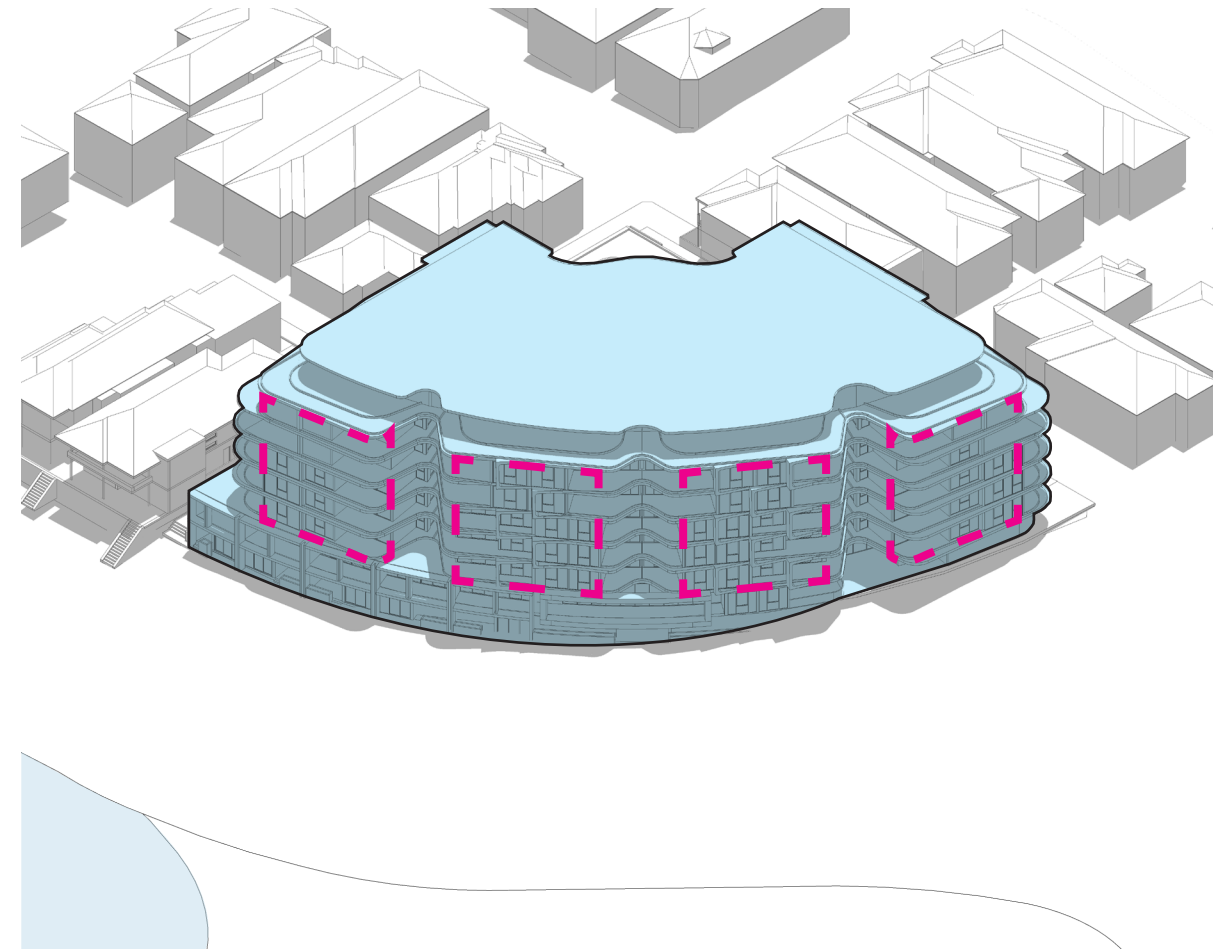
The first iteration saw the design built to the permissible envelope with further cut-outs to the rear of the site. An extra storey was added to the building also.

# design response.



## C. DRP-2 BUILDING ENVELOPE

Tiered side setbacks, recessing of the top floor and recesses in the front facade introduced to **reduce building bulk**, whilst increasing **access to natural light, cross ventilation and views**.



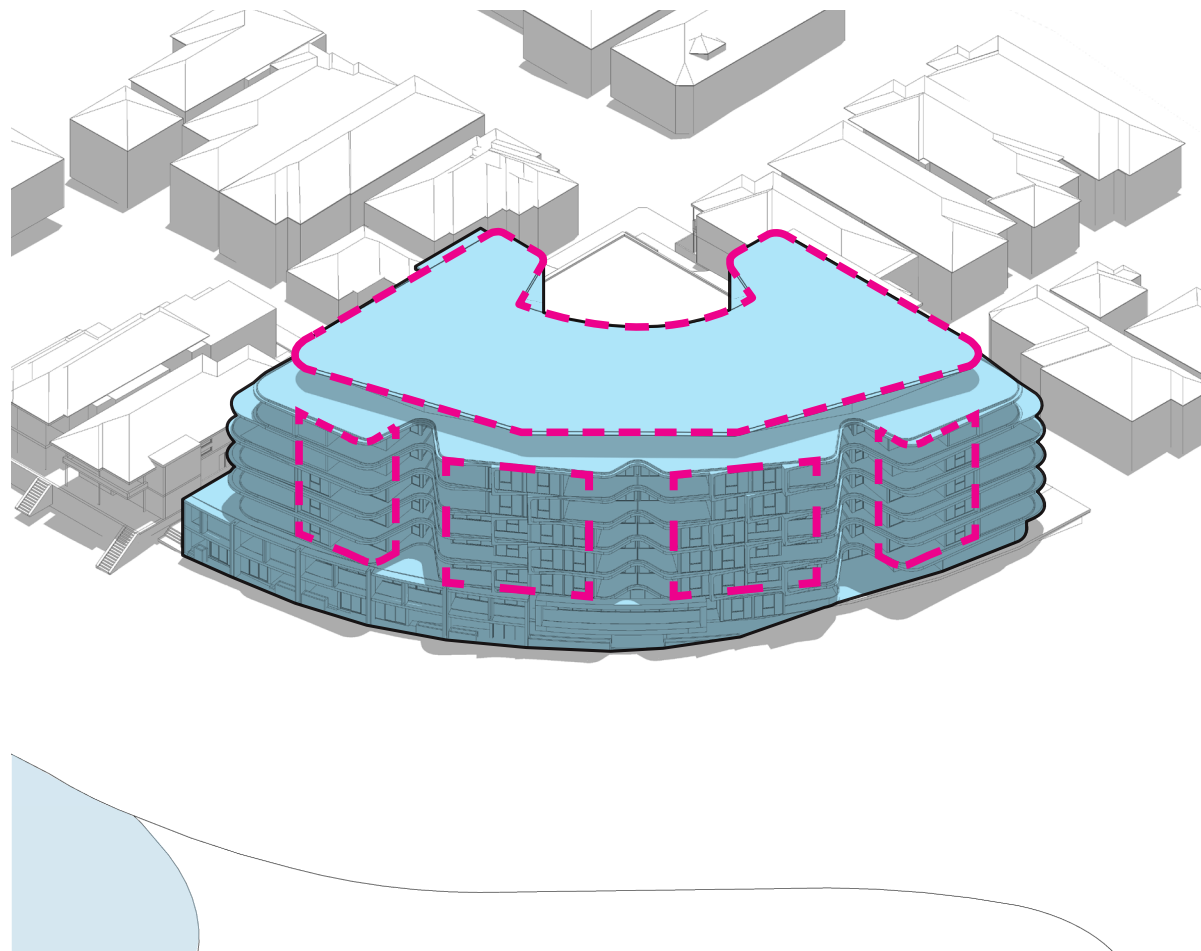
## D. DRP-3 BUILDING ENVELOPE

The profile of the main facade is punctuated by **significant recesses**, which serve to break up the building form and are suggestive of multiple buildings when viewed from the street.

A 4m side ground level setback to the north-western boundary, along with the introduction of two-storey townhouses at street level, enhances the relationship with the adjoining residences along Alexandria View.



# design response.



## E. DA BUILDING ENVELOPE

The profile of the main facade has been further softened by setting the windows to the furthest edges back into the balconies. The profile of the roof has also been reduced at the front and rear of the building.

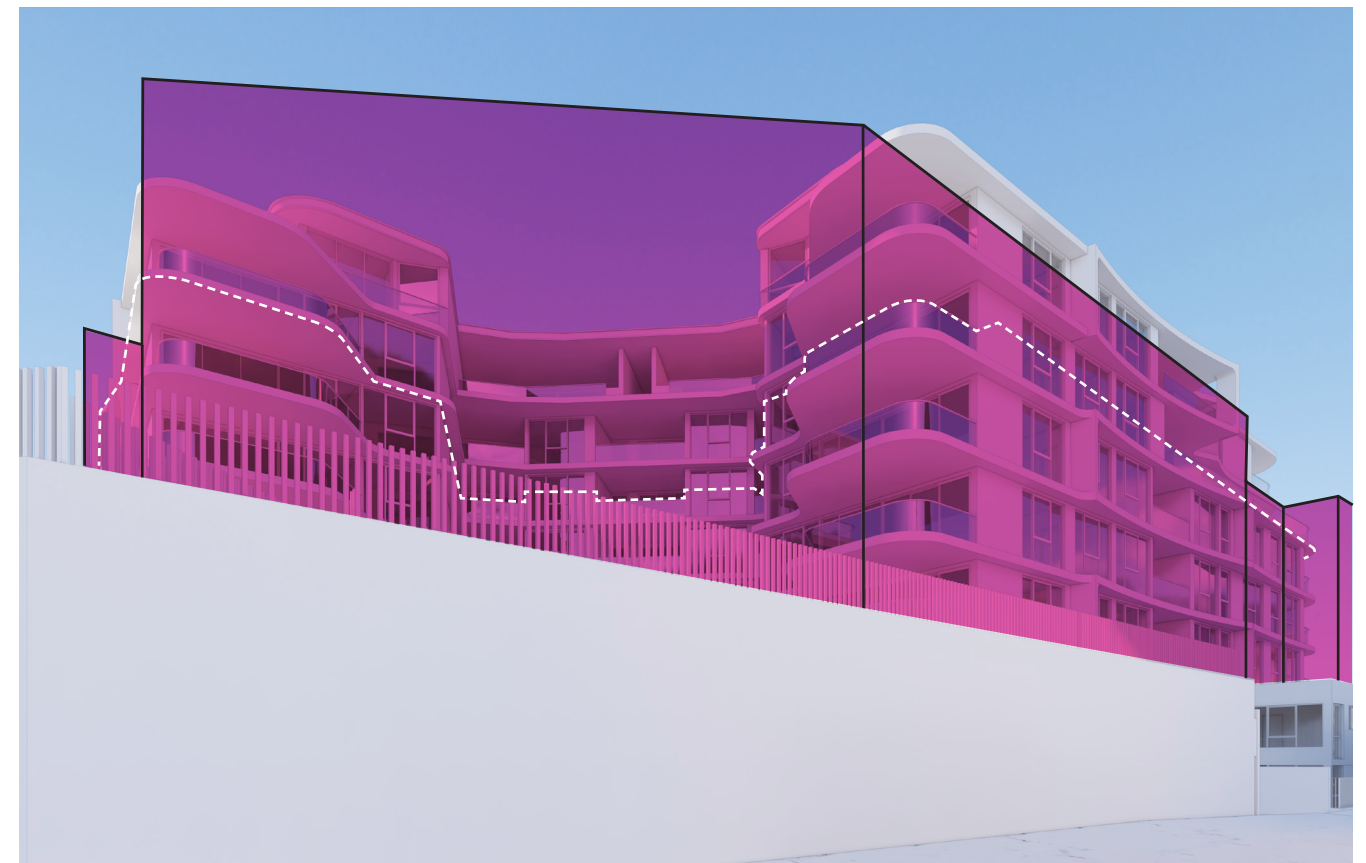


# design response.



## F. 16m HEIGHT LIMIT

The 16m permissible height limit follows the contours of the site, sloping down to the west of the site.



The volume of the permissible envelope is **reduced by ~13%** in the proposed form. This is achieved by introducing significant side setbacks, cut-outs and not building to the full extent at the rear of the site. Additional height beyond the permissible limit is offset by this reduction in the permissible building footprint.



# design response.



## G. THE TOWNHOUSE TYPOLOGY

The townhouse typology introduced to the west of the proposal relates to the character of the surrounding urban fabric and creates a transition between the neighbouring lots and the proposed multi-residential building.

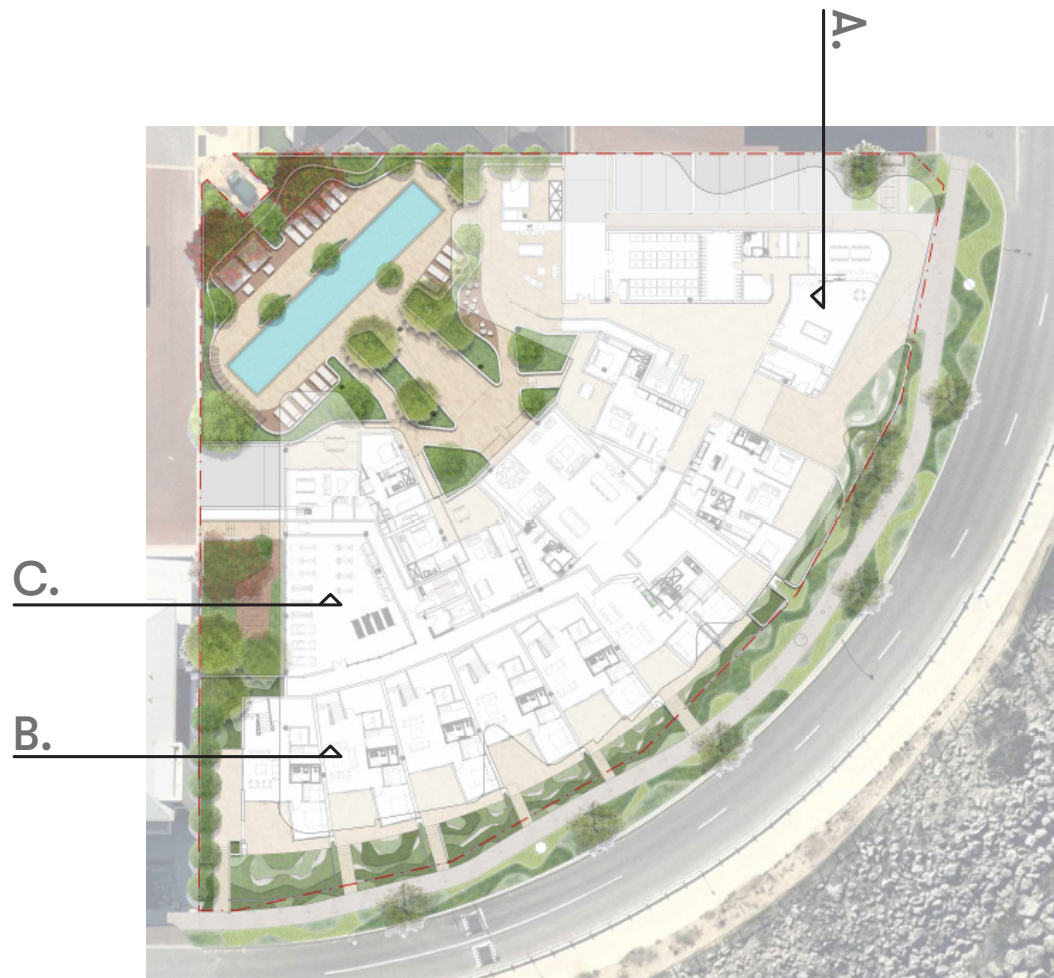


## H. A HIDDEN PENTHOUSE LEVEL

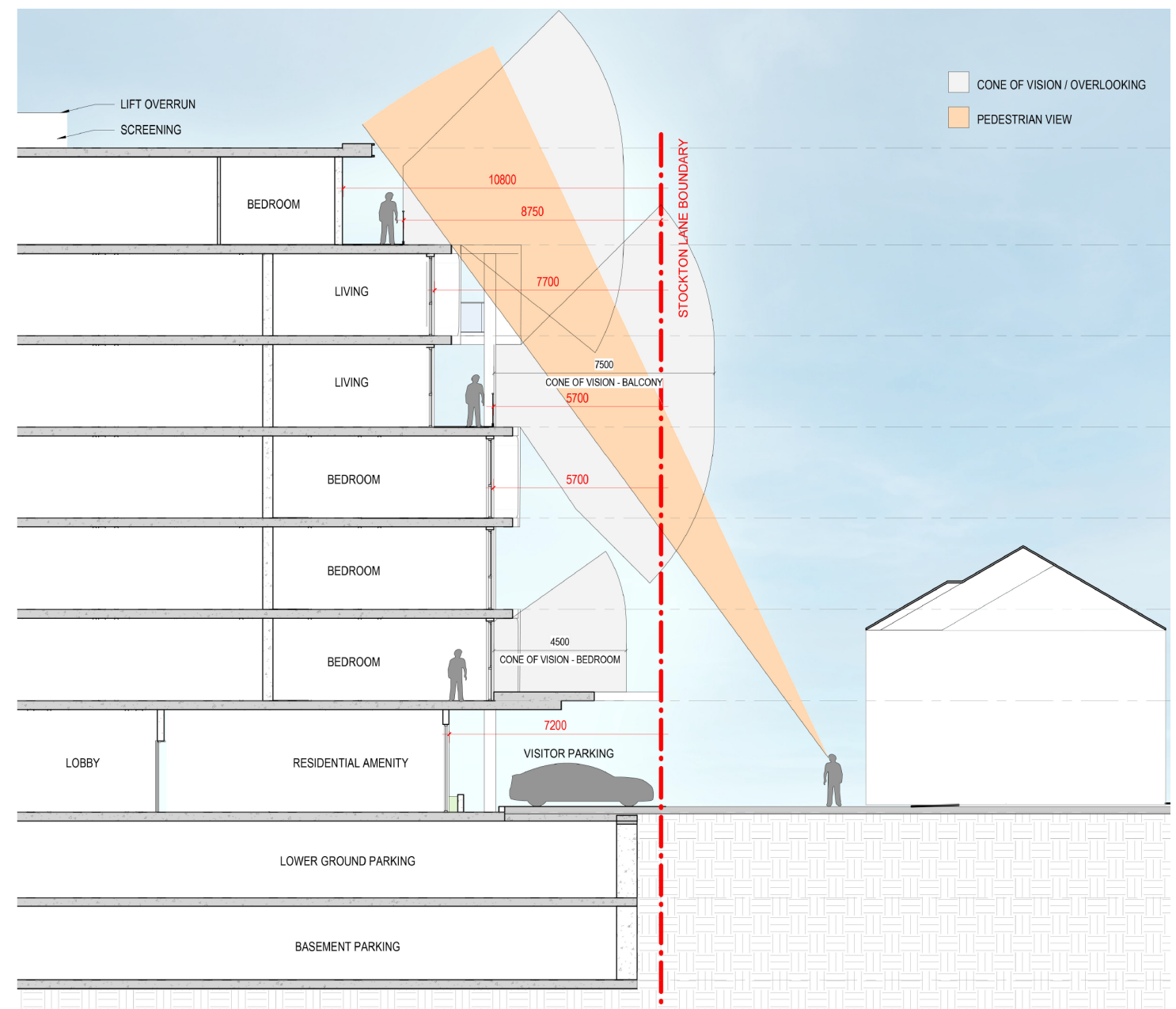
The top floor level is set back and hidden from street-view. This setback also limits the extent of overshadowing to the penultimate floor.



# visual impact assessment.



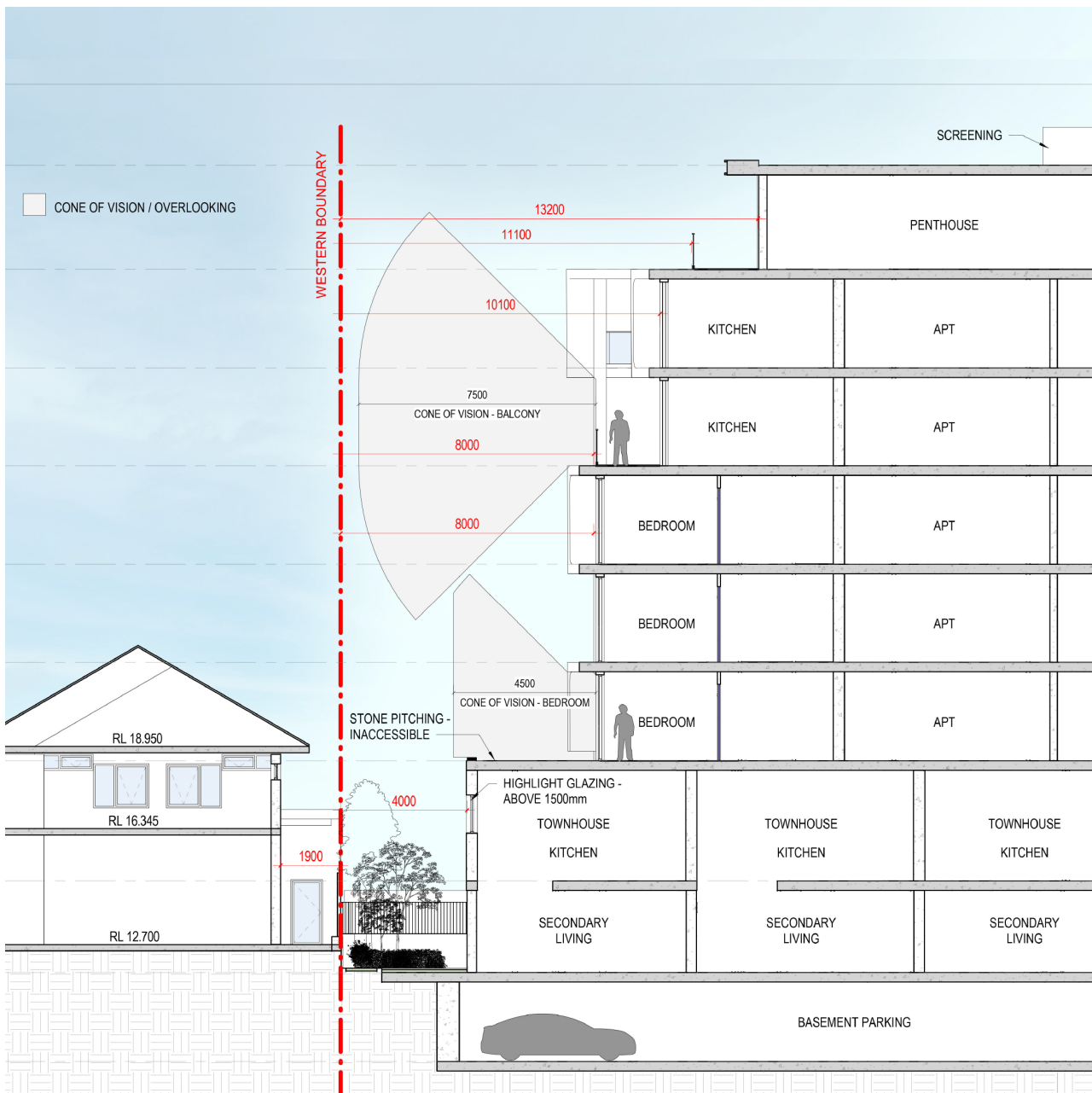
The tiered side setbacks reduce building bulk to promote more access to natural light and views without impeding on the privacy of neighbouring buildings.



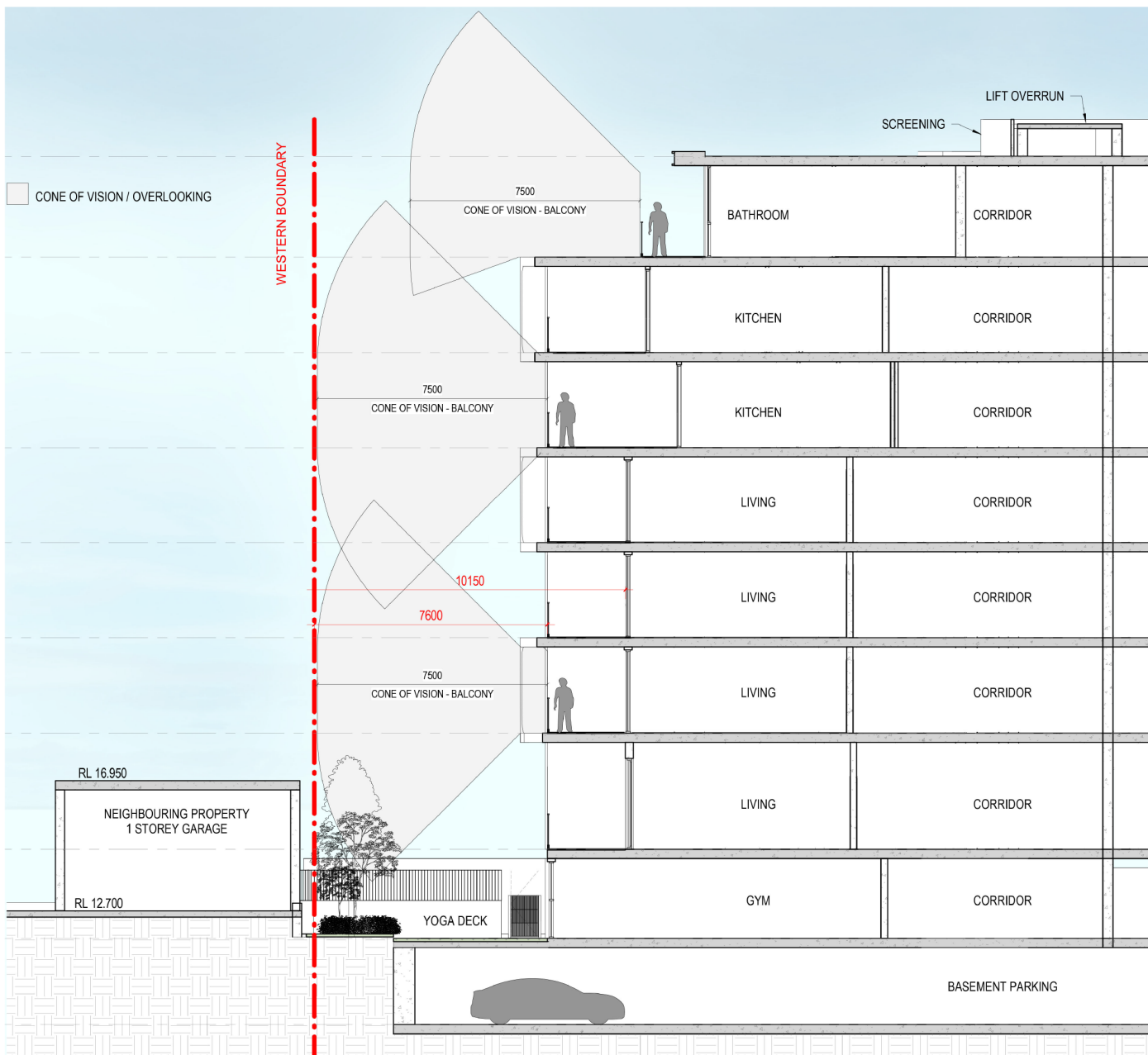
A. Eastern Boundary Section



# visual impact assessment.



B. Western Boundary Section 1



C. Western Boundary Section 2



# visual impact assessment.

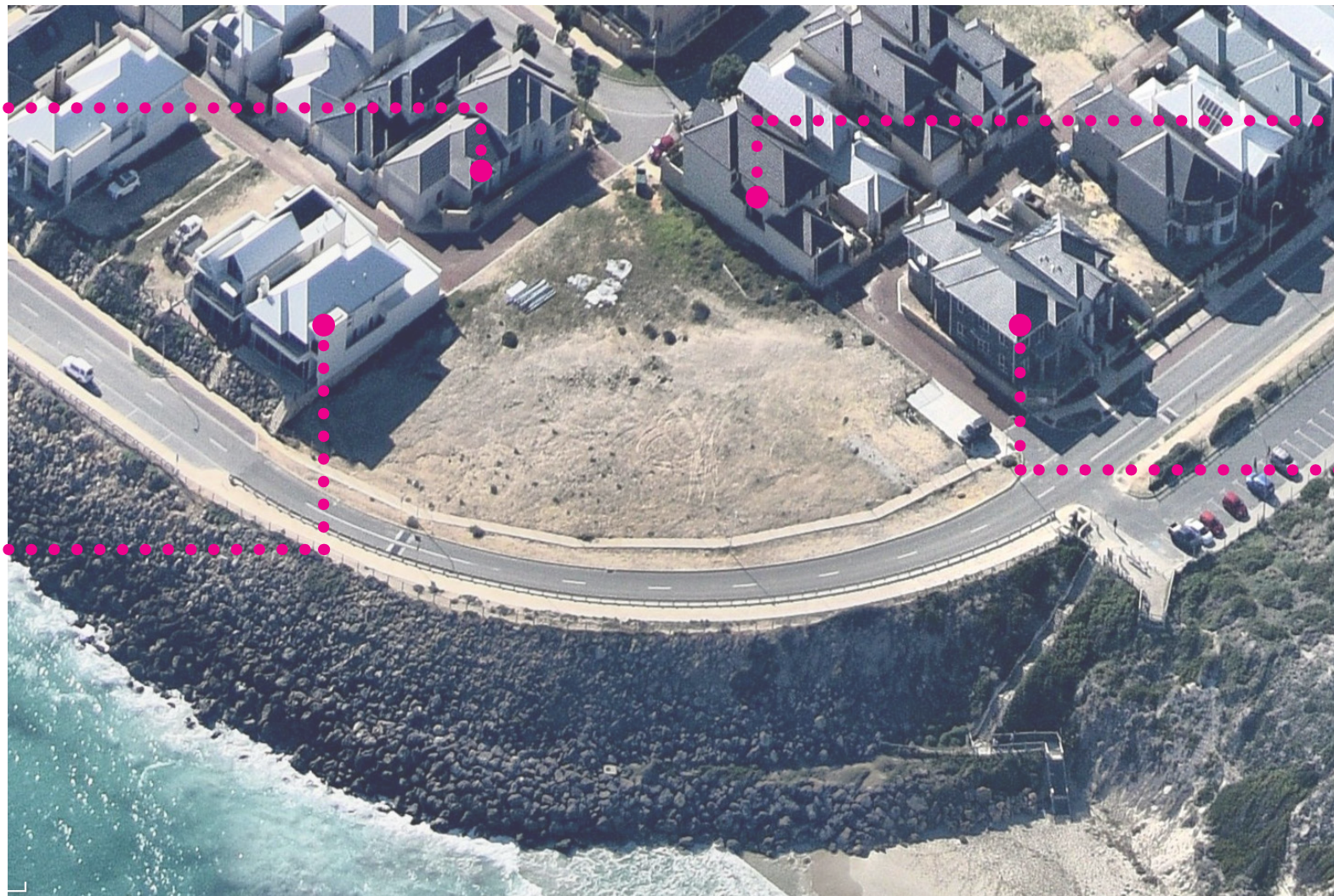
The view corridors assessed within the following pages have been selected due to their significance and affect on the immediate context of the proposal.



27 SHOREHAM TURN



64 ALEXANDRIA VIEW



1. 23 SHOREHAM TURN



40 ALEXANDRIA VIEW

Pedestrian view height at 1.75m.



# visual impact assessment.

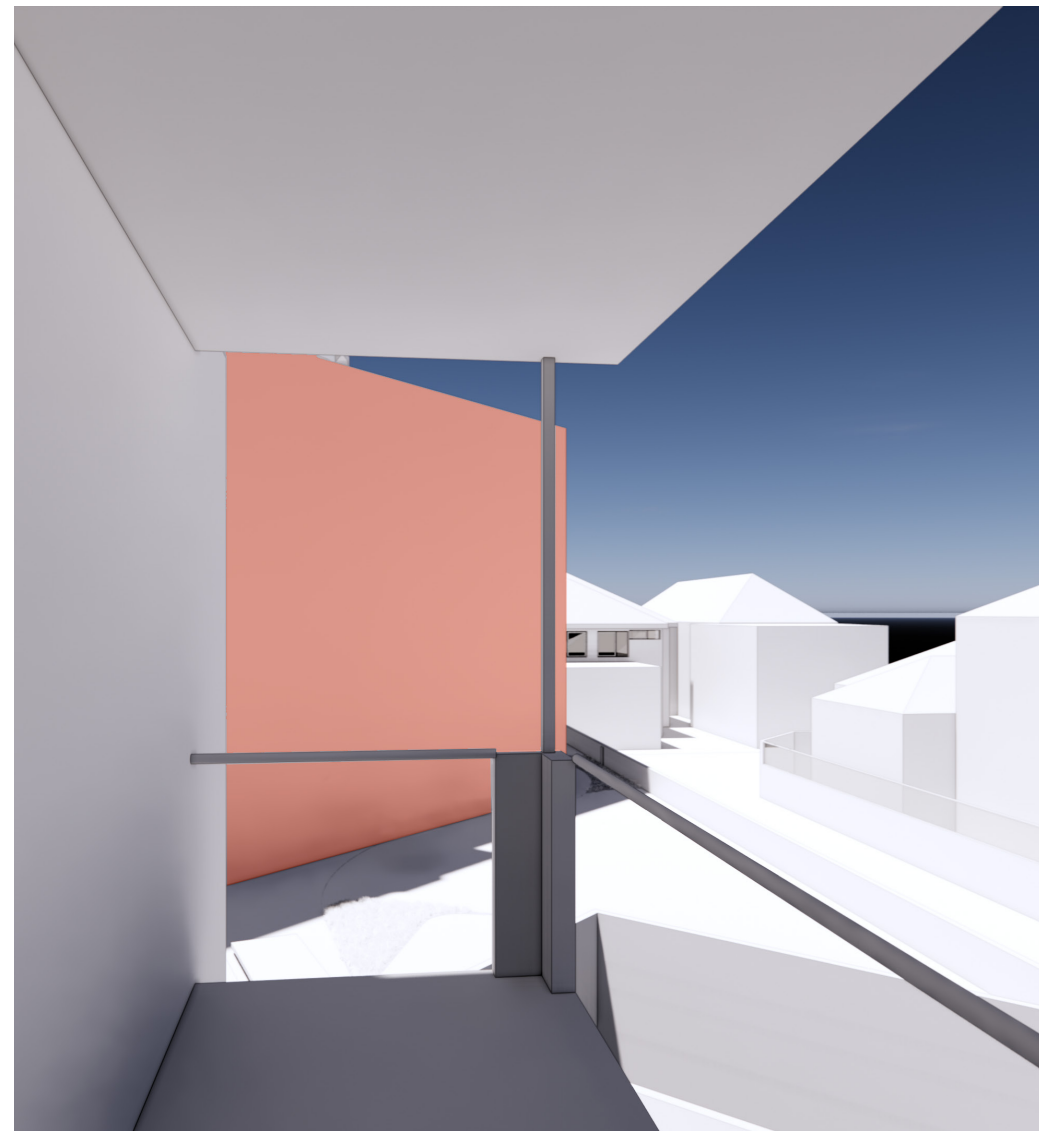
## 1. View From 23 Shoreham Turn

Based on the current proposal, ocean views remain unobstructed from the upper floor balcony of 23 Shoreham Turn, whereas a permissible building envelope would completely eliminate these views.

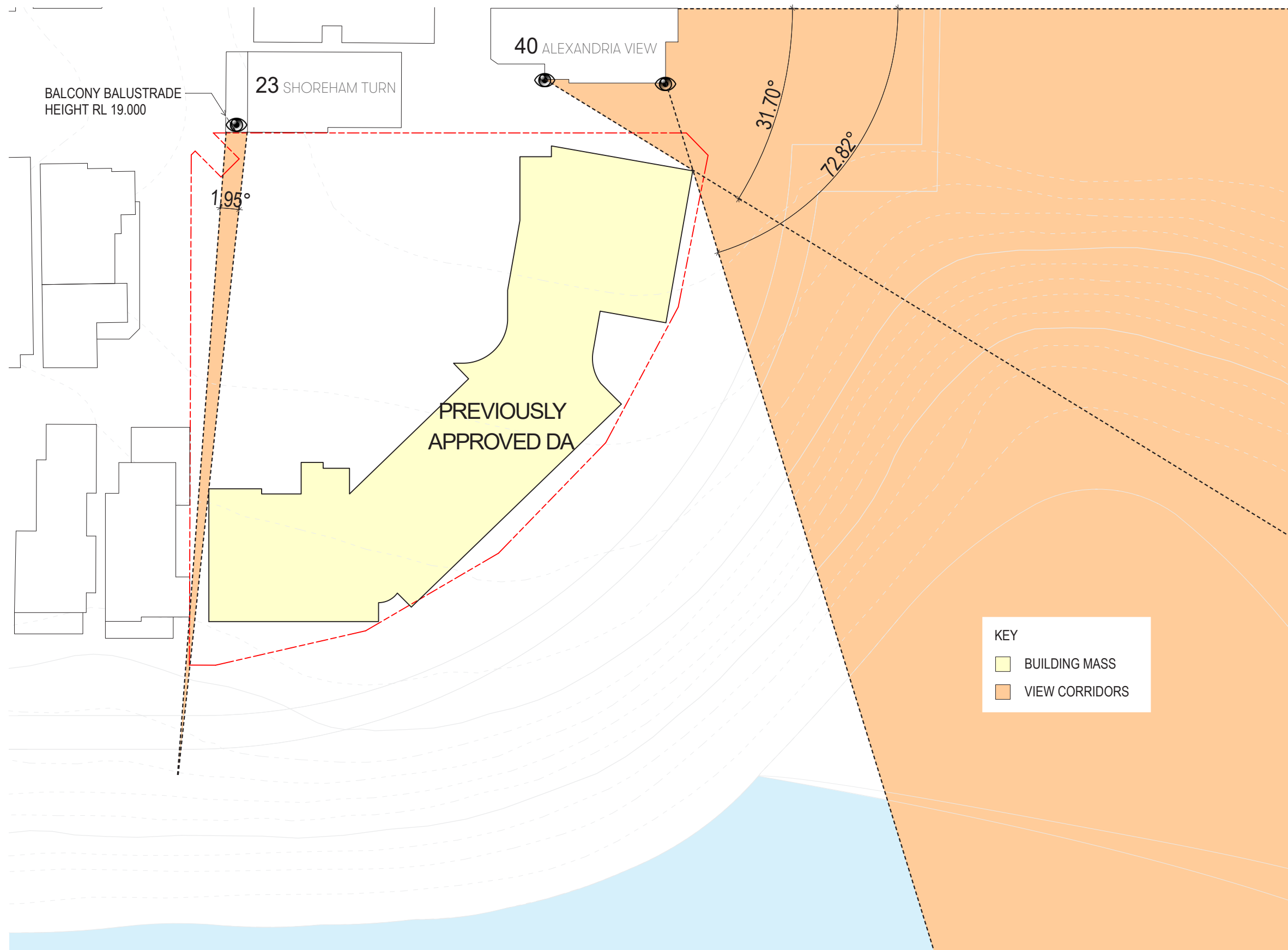
### PROPOSED DESIGN



### PERMISSIBLE ENVELOPE

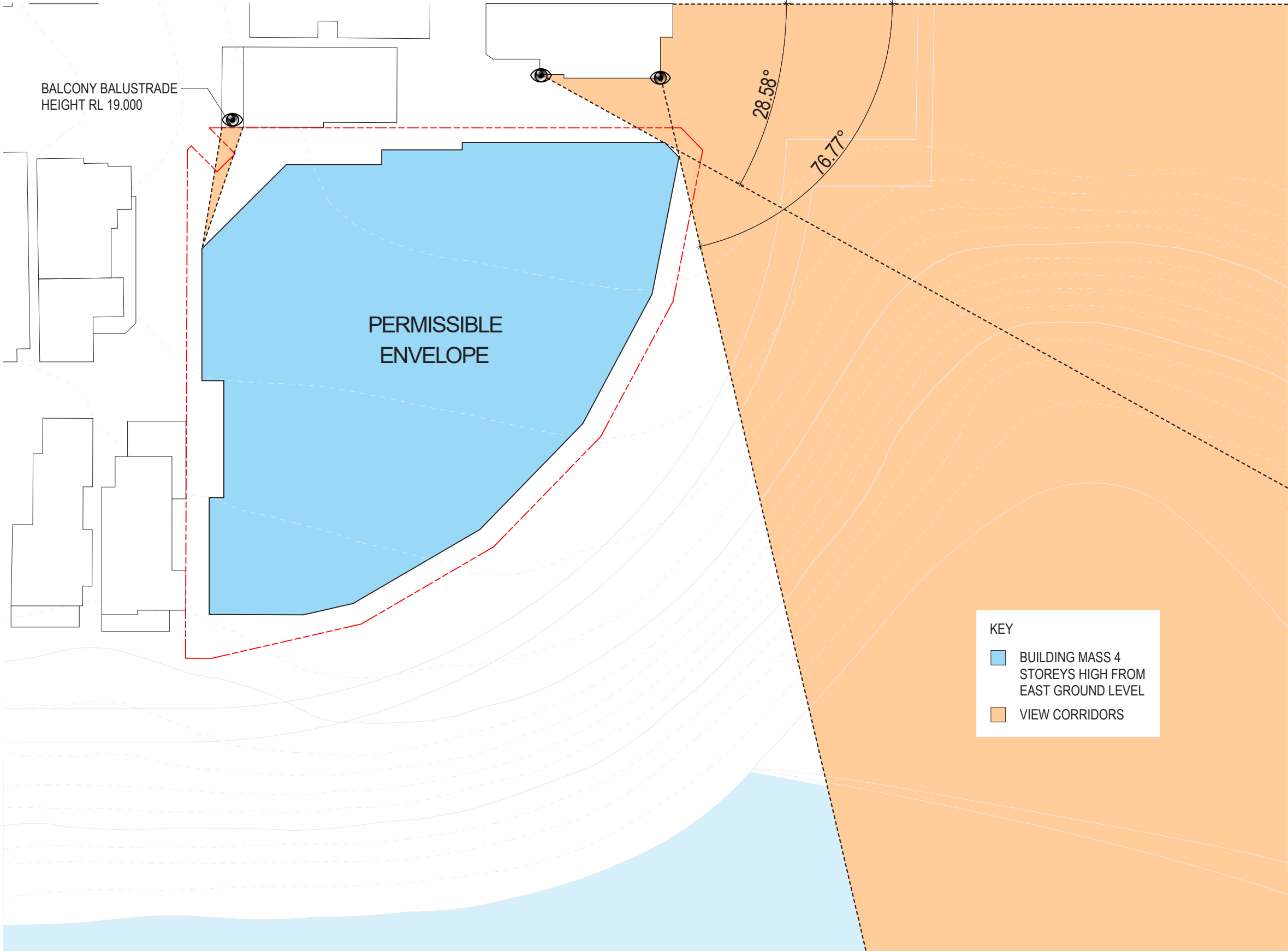


# visual impact assessment.



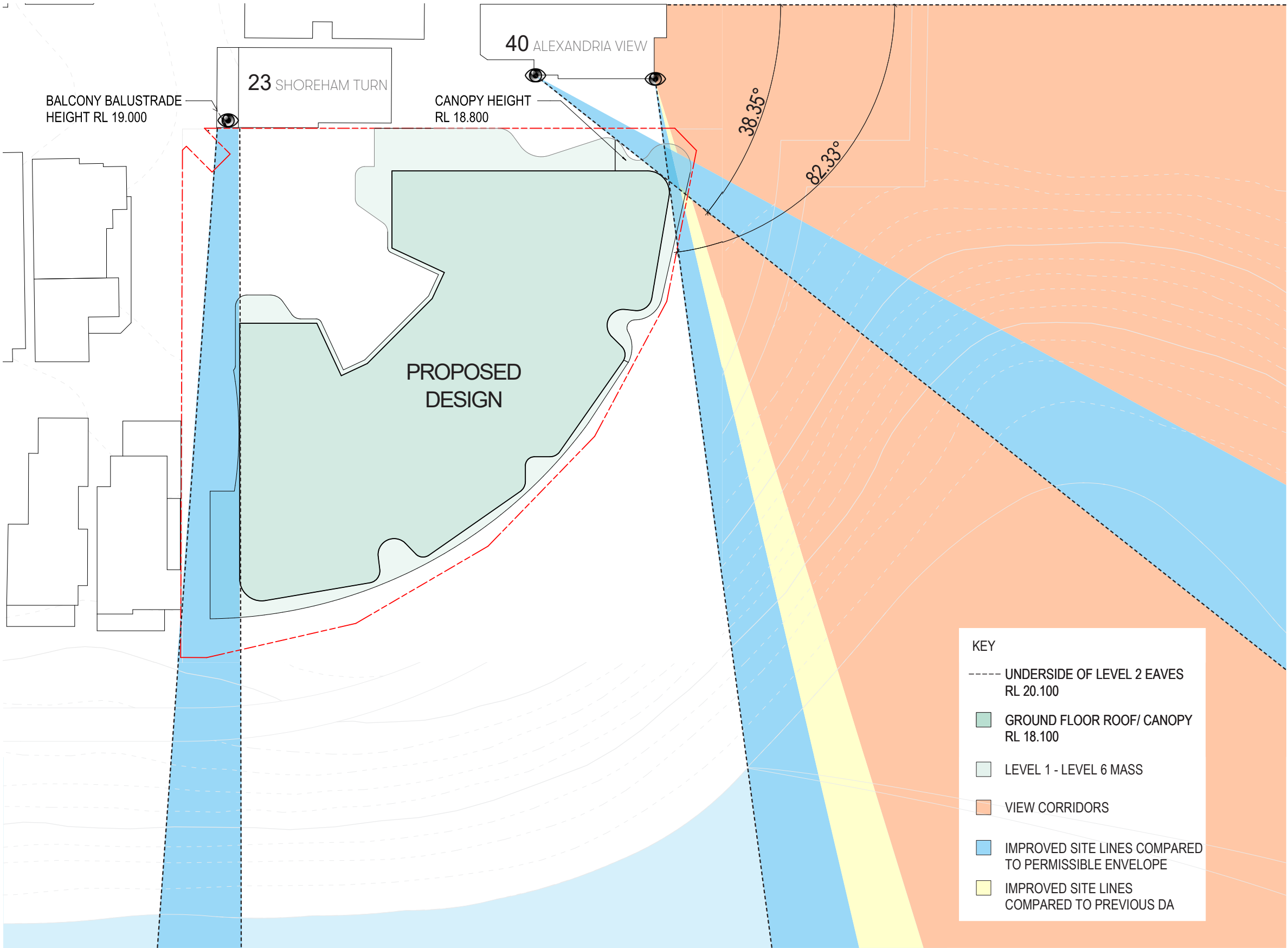


# visual impact assessment.



# visual impact assessment.

View corridors are significantly increased when compared to the permissible envelope and previously approved DA.

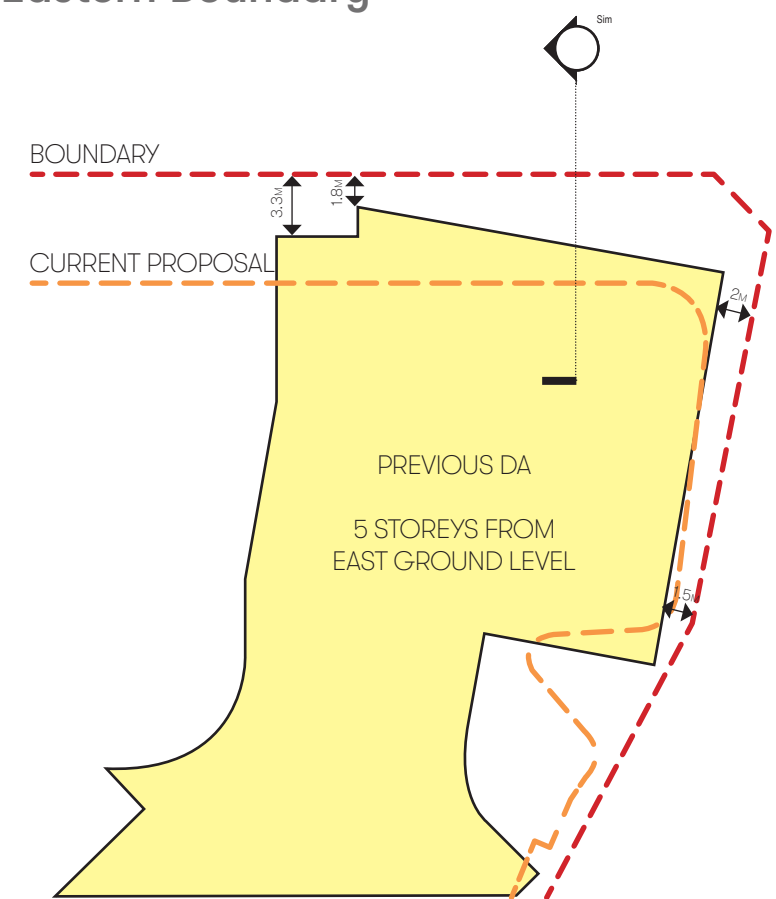




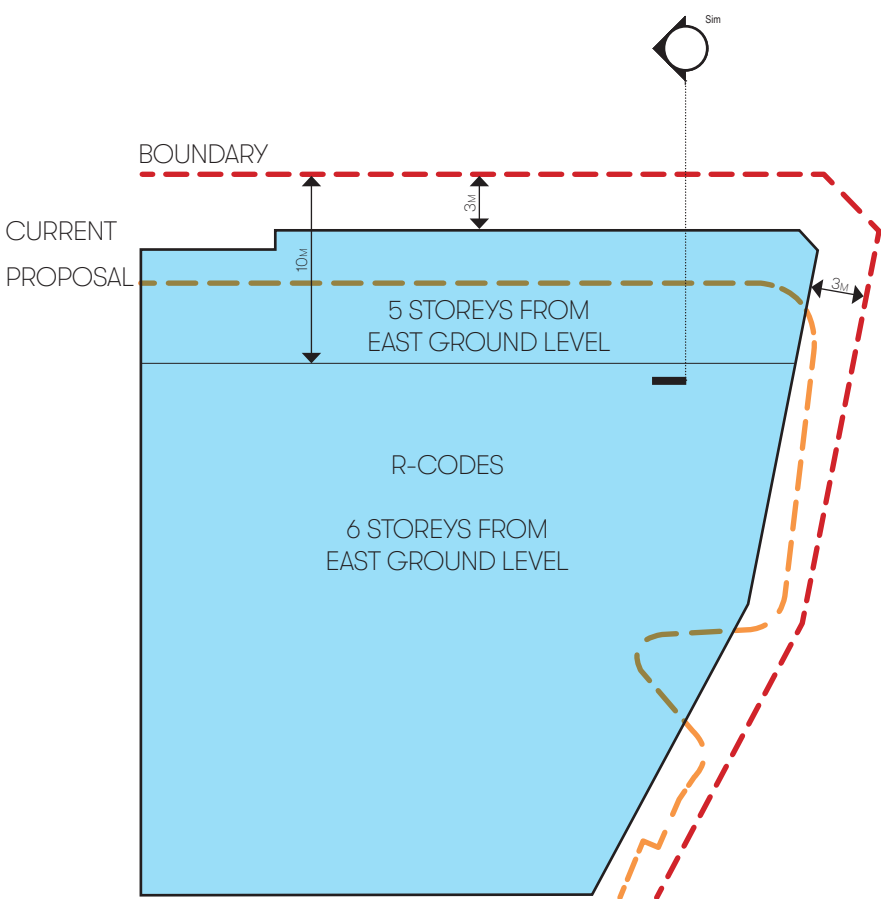
# street setbacks.

The following diagrams compare the setbacks proposed in this DRP 3 submission against those proposed at DRP 2 and the 2016 Development Approval.

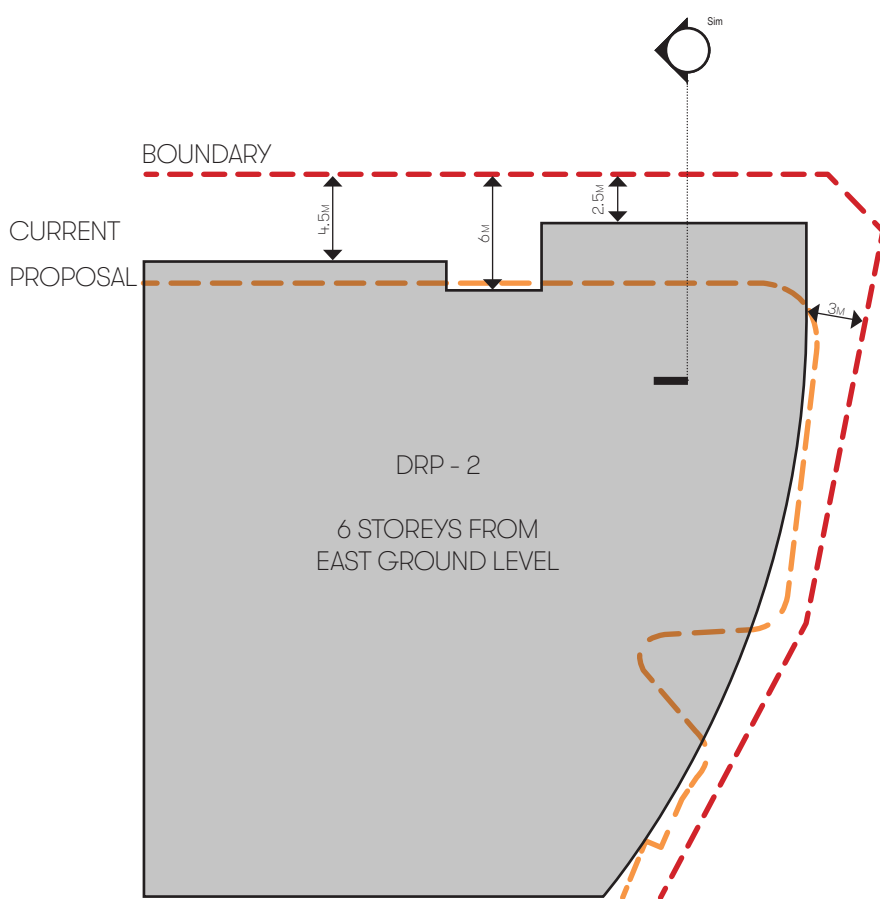
## Eastern Boundary



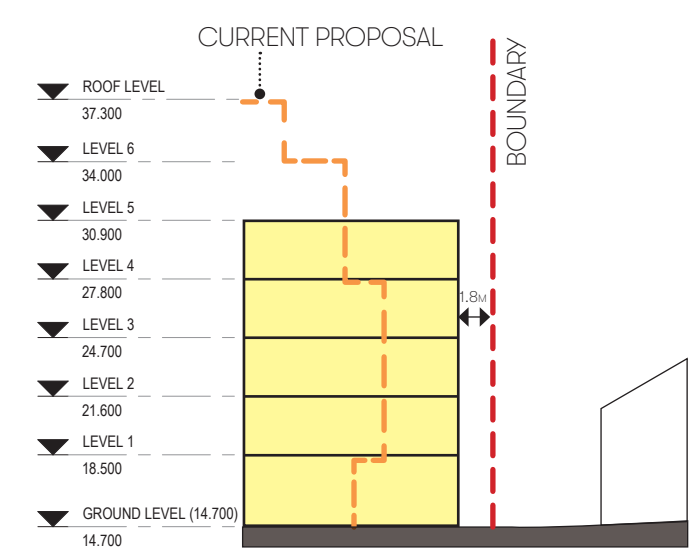
PREVIOUS DA SETBACKS PLAN EAST  
1:200



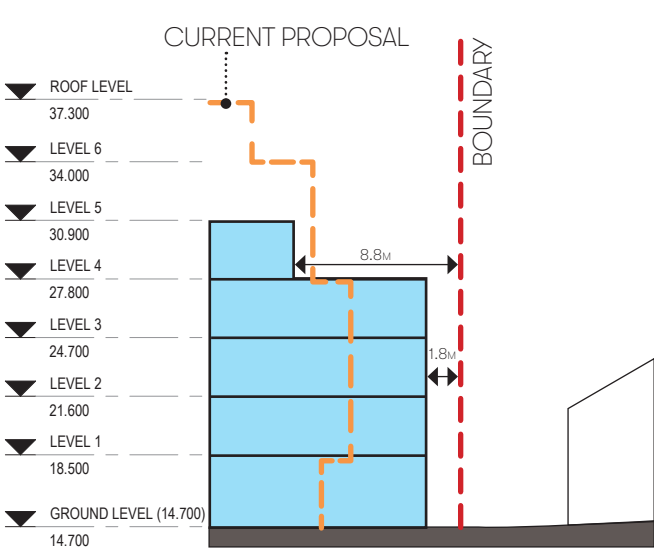
R-CODES SETBACKS PLAN EAST  
1:200



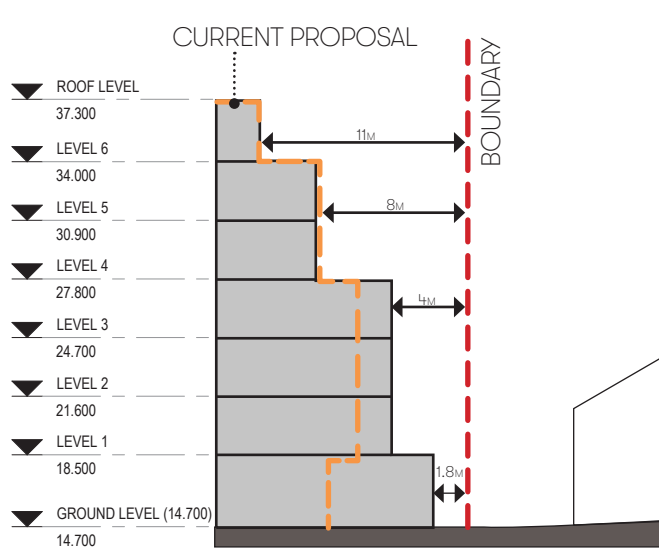
DRP-2 SETBACKS PLAN EAST  
1:200



SECTION - SETBACKS PREVIOUS - EAST DA  
1:200



SECTION - SETBACKS R-CODES EAST  
1:200

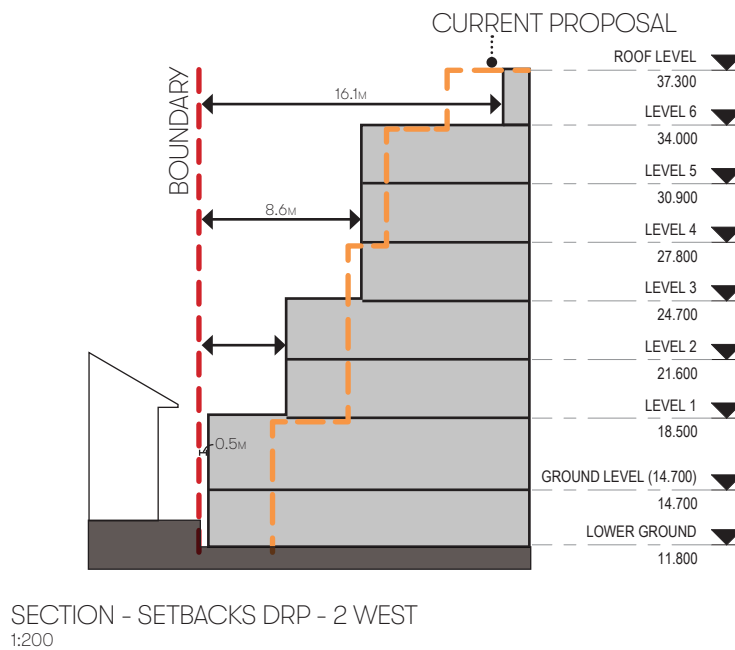
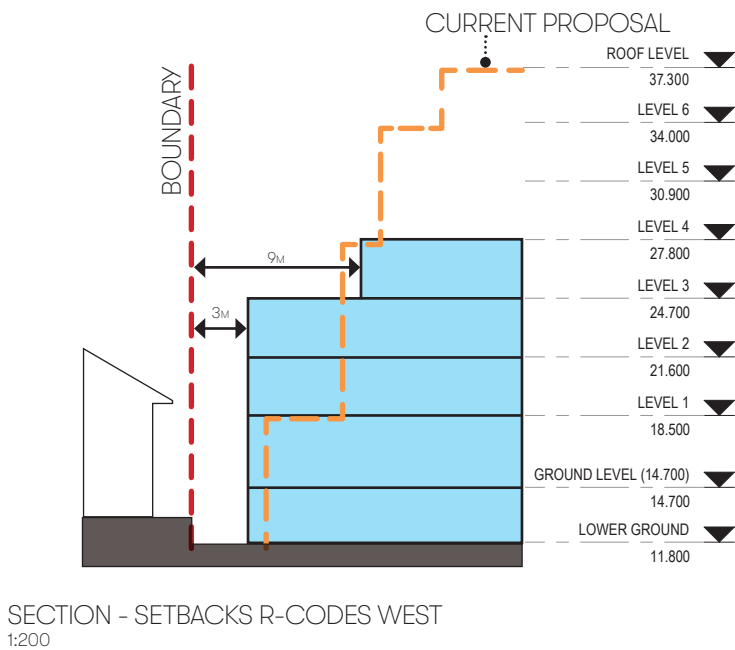
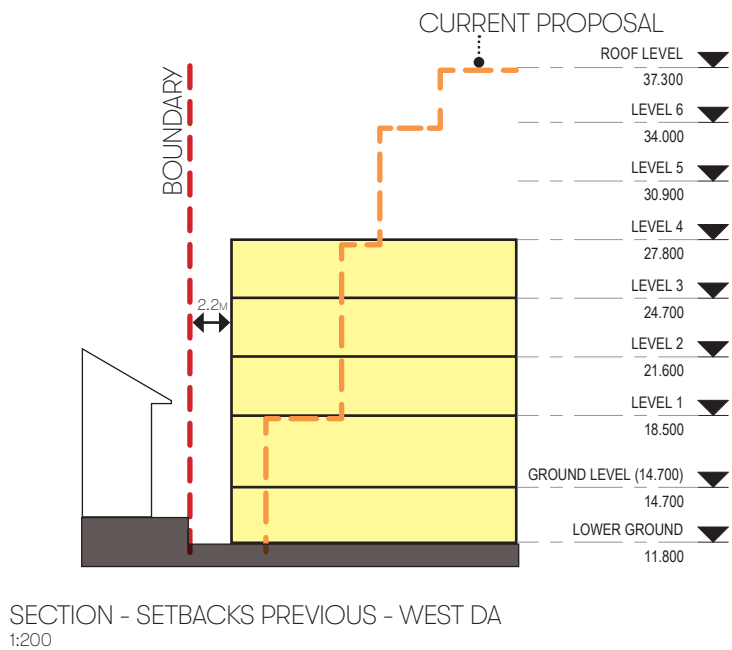
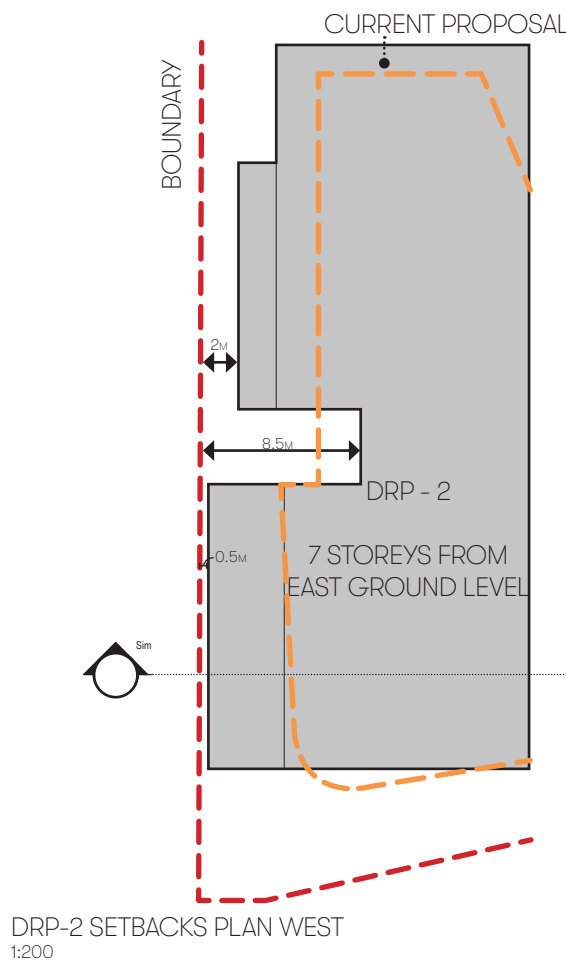
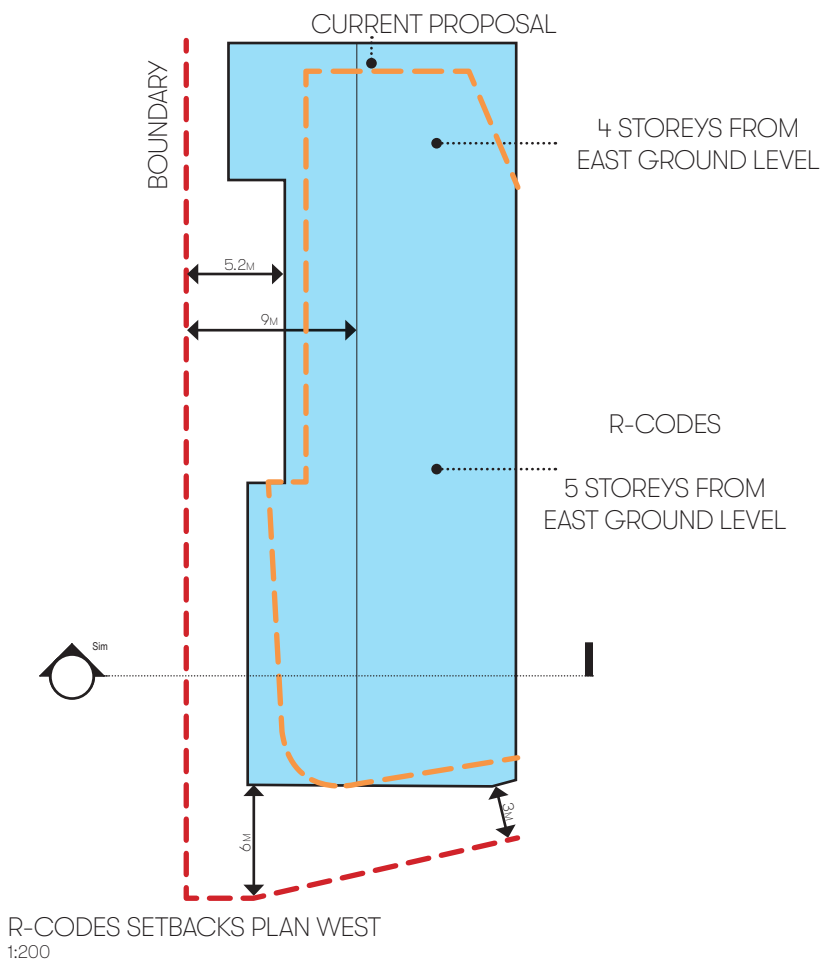
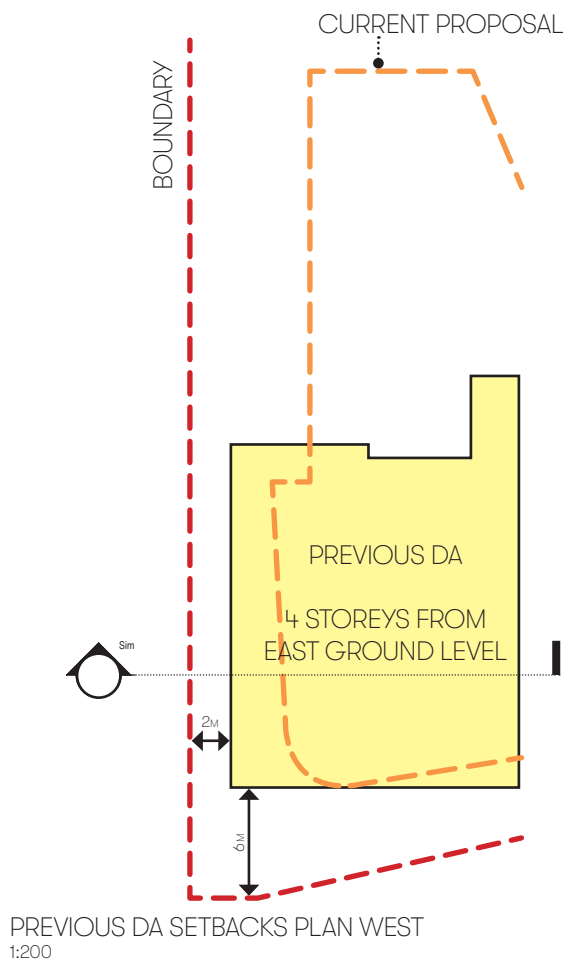


SECTION - SETBACKS DRP - 2 EAST  
1:200

# side setbacks.

“An enhanced and increased setback outcome to the western boundary and to the eastern façade.”

## Western Boundary



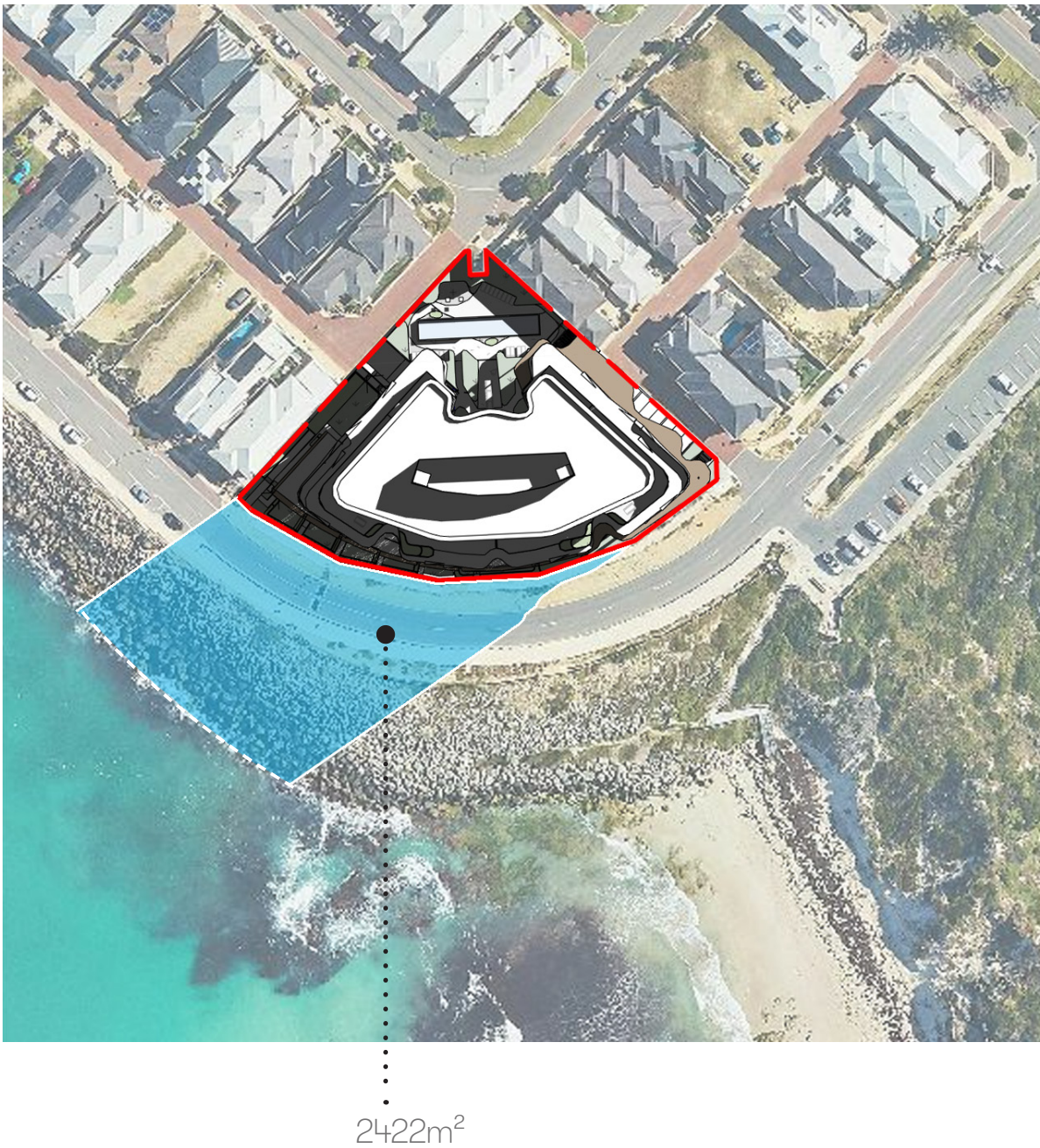


# winter solstice - june 21st.

“Ensure that the additional setback level does not increase overshadowing of the beach in comparison to DRP 01.”

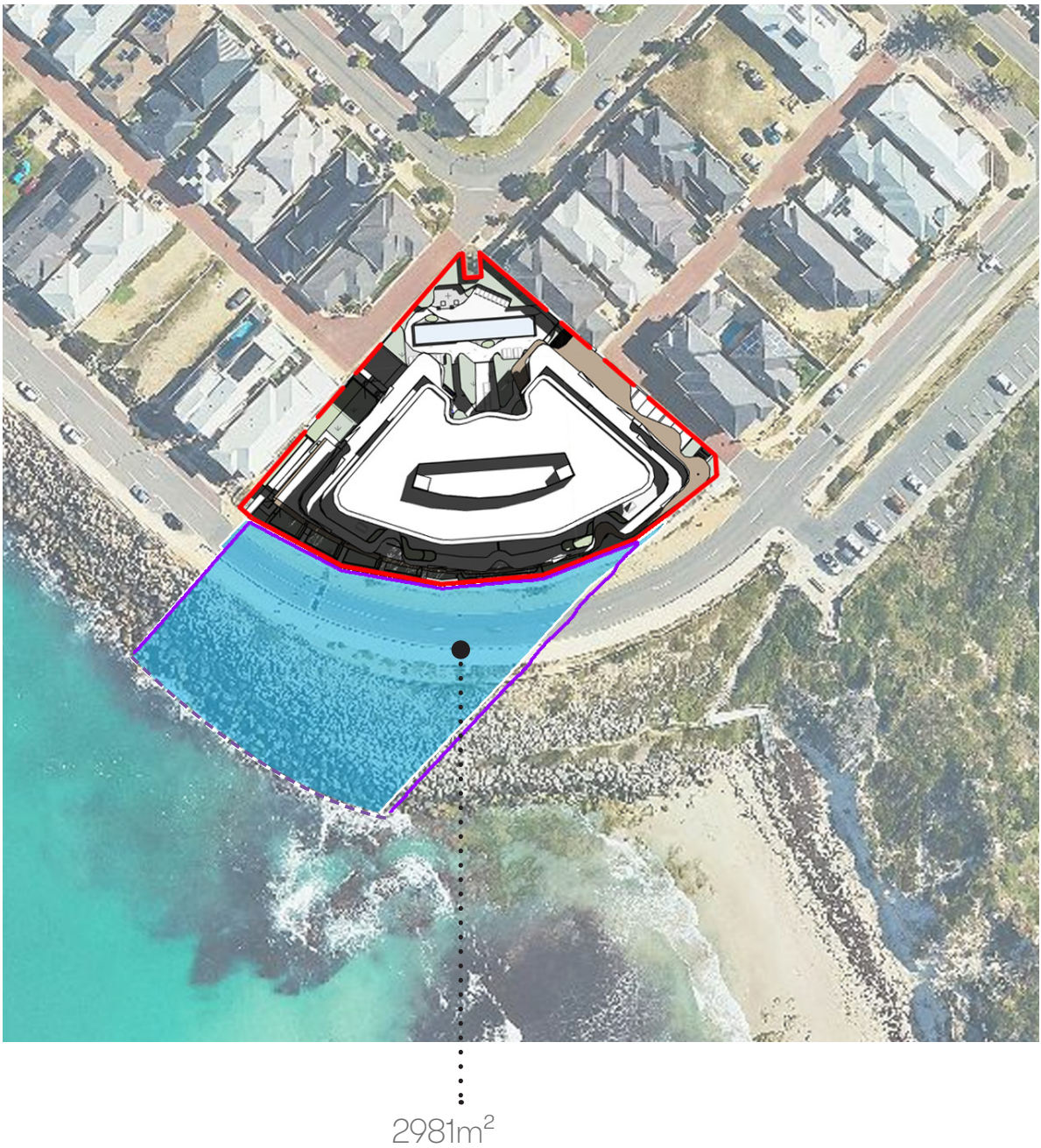
The following shadow analysis compares the extent of shadowing from the building against that proposed at DRP 1 with area reductions noted.

8am



Extent of shadow over water is not shown.

9am



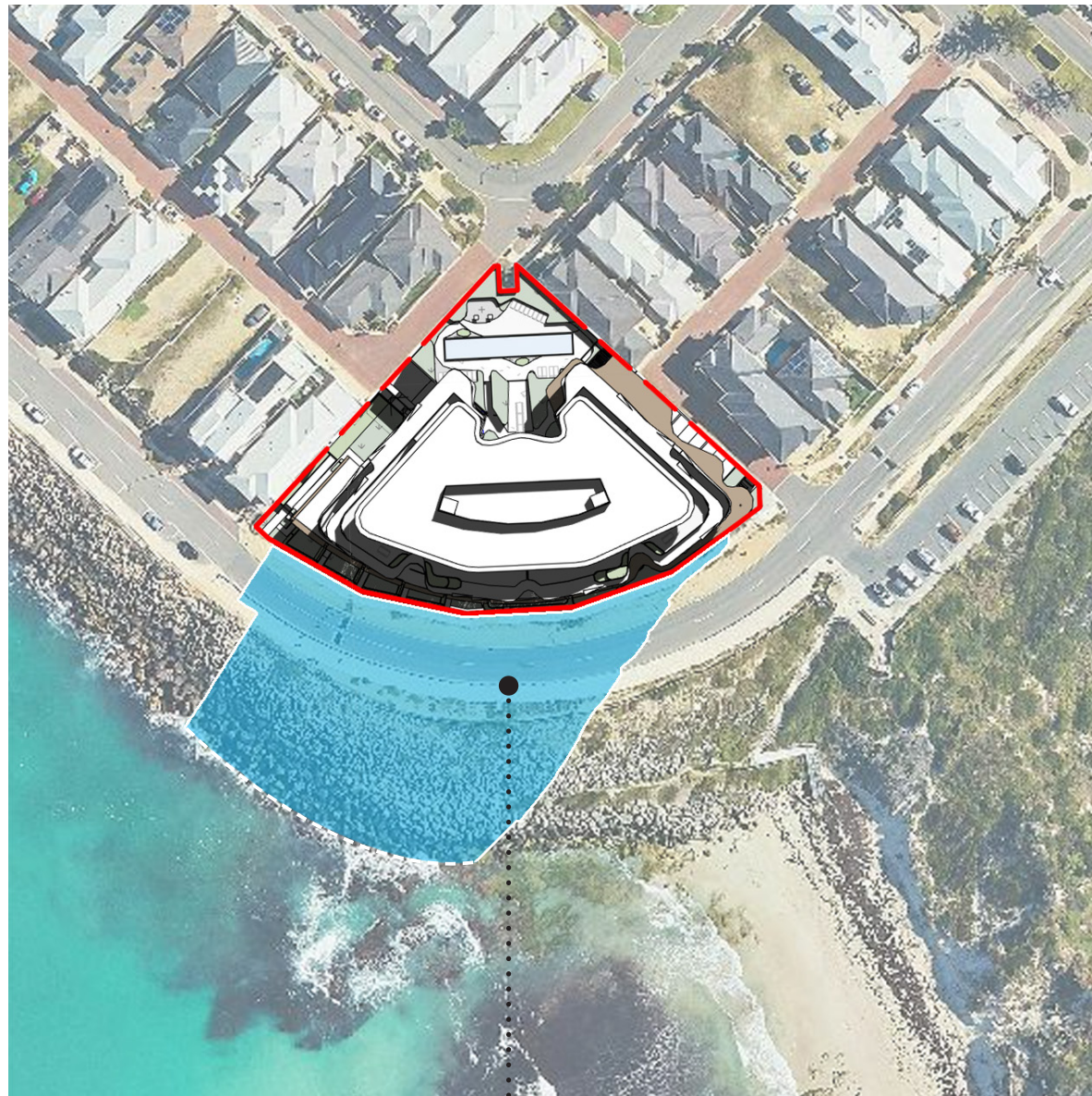
The current proposal has **reduced overshadowing by 13m<sup>2</sup>** from the DRP-1 proposal, as previously submitted to council.

- DRP-1 PROPOSAL
- CURRENT PROPOSAL



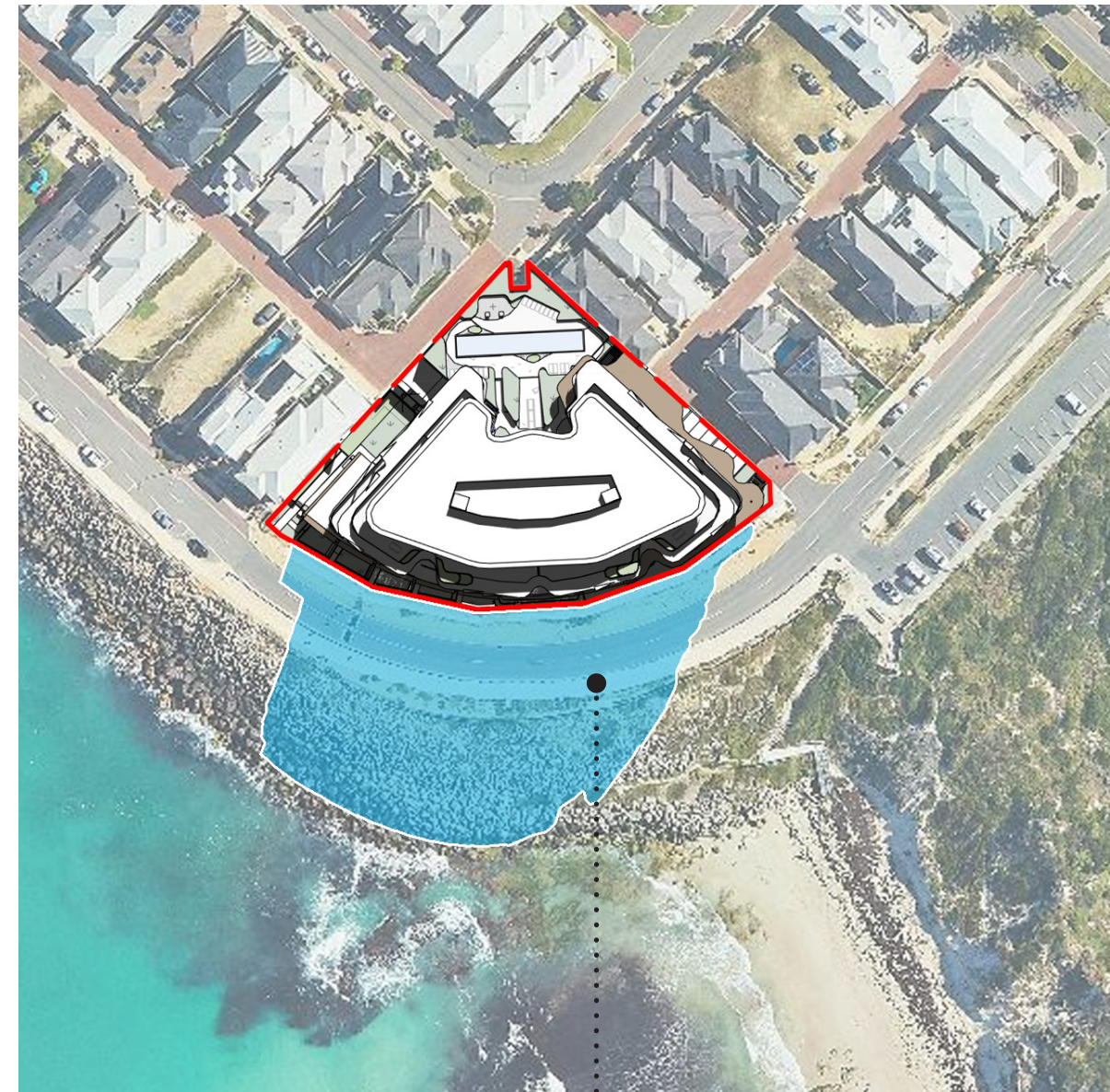
# winter solstice - june 21st.

10am



3339m<sup>2</sup>

11am



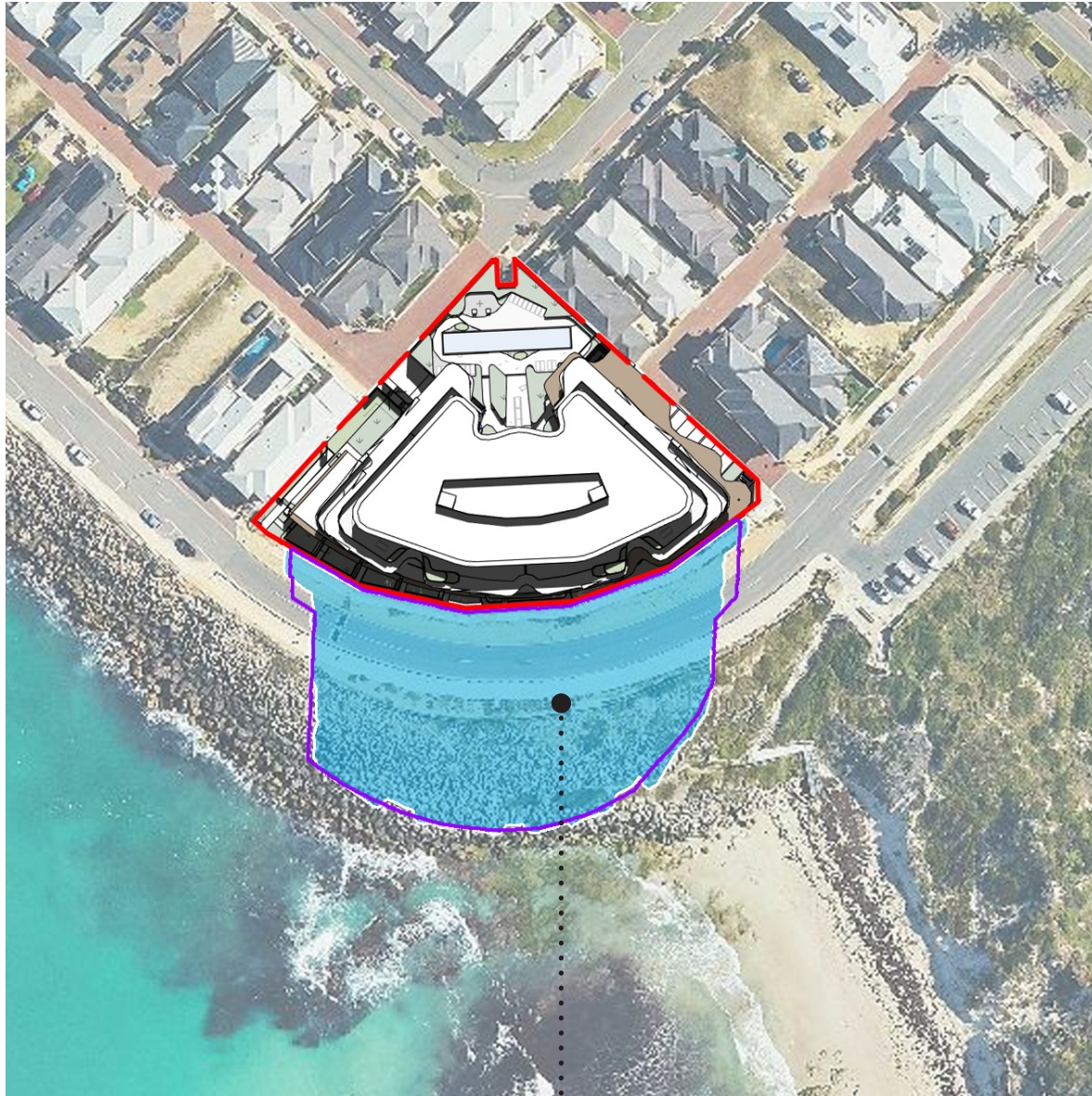
3478m<sup>2</sup>

Extent of shadow over water is not shown.



# winter solstice - june 21st.

12pm



3428m<sup>2</sup>

The current proposal has **reduced overshadowing by 12m<sup>2</sup>** from the DRP-1 proposal, as previously submitted to council.

— DRP-1 PROPOSAL

— CURRENT PROPOSAL

1pm

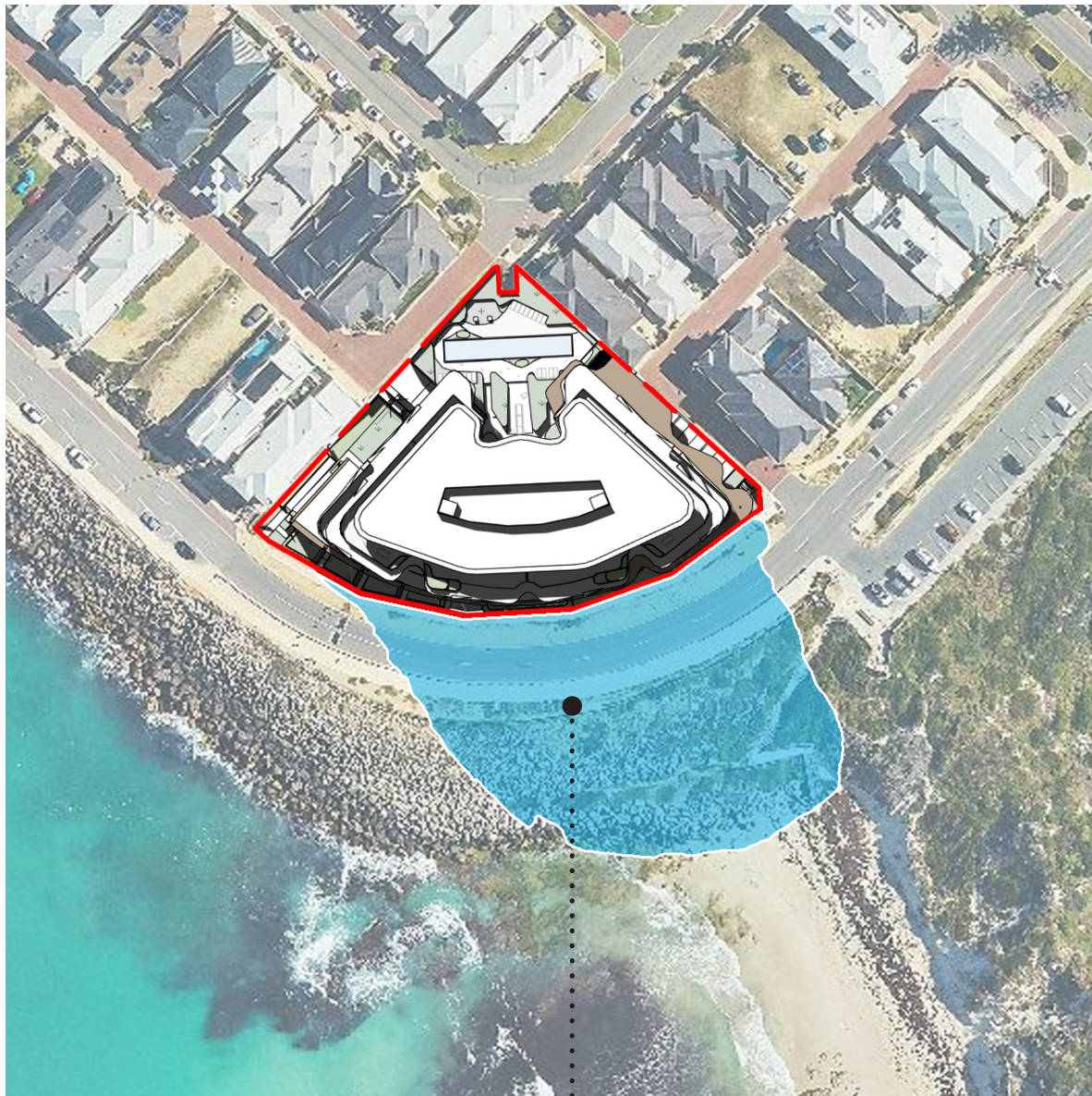


3340m<sup>2</sup>



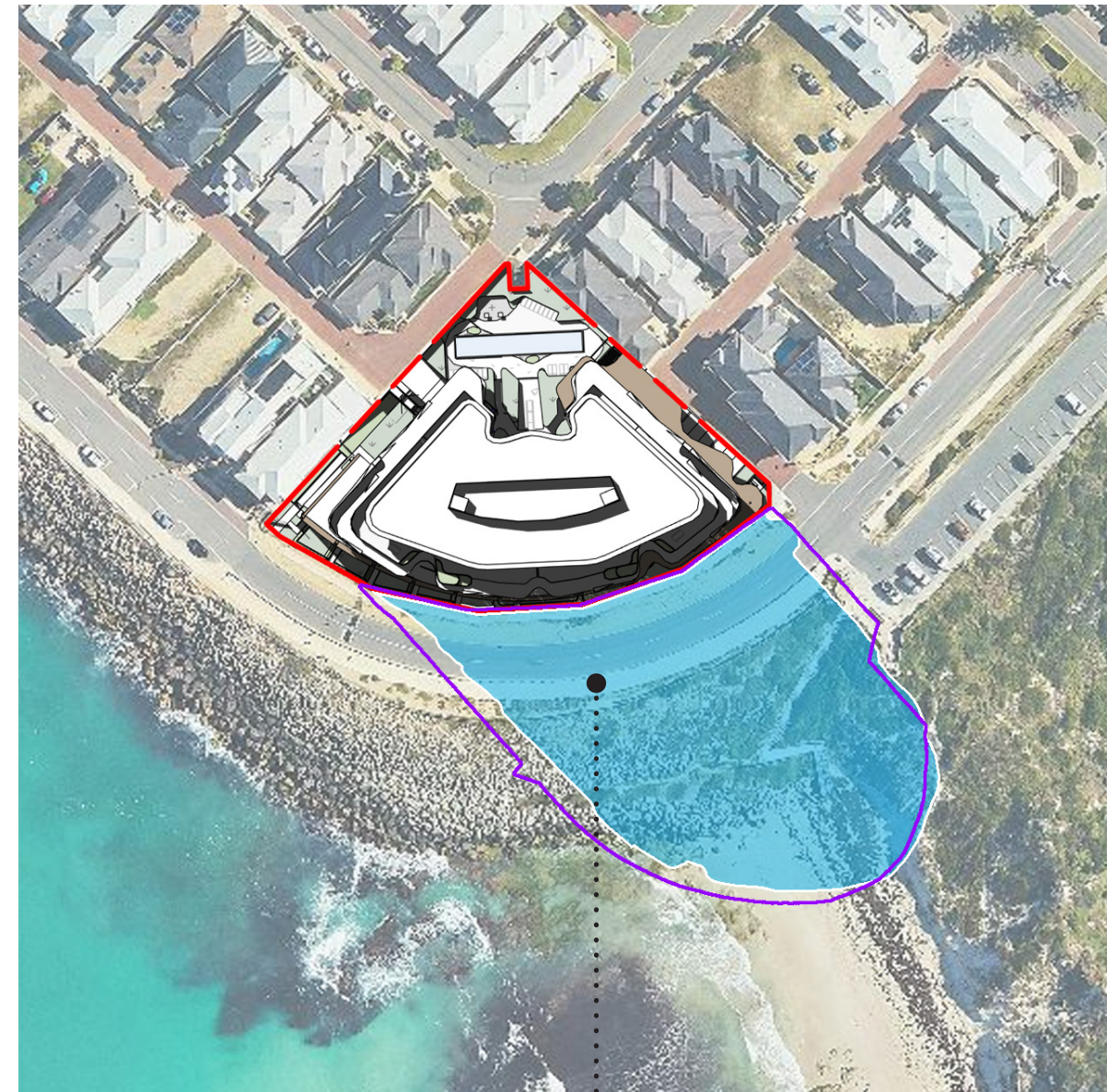
# winter solstice - june 21st.

2pm



3736m<sup>2</sup>

3pm



4466m<sup>2</sup>

The current proposal has **reduced overshadowing by 21m<sup>2</sup>** from the DRP-1 proposal, as previously submitted to council.

— DRP-1 PROPOSAL

— CURRENT PROPOSAL



# winter solstice - june 21st.

4pm



5462m<sup>2</sup>

5pm



5610m<sup>2</sup>



# overshadowing.

Summer Solstice - 21st December

Comparative overshadowing projections demonstrate the significant access to light provided to neighbouring properties as a result of providing generous setbacks to the northern end of the site.

8am



Overshadowing projected on the 21st December at 8am shows the current proposal casts **12% less shadow** to the neighbouring properties than what could have been developed based on the permissible envelope.

- CURRENT PROPOSAL
- PERMISSIBLE ENVELOPE

5pm

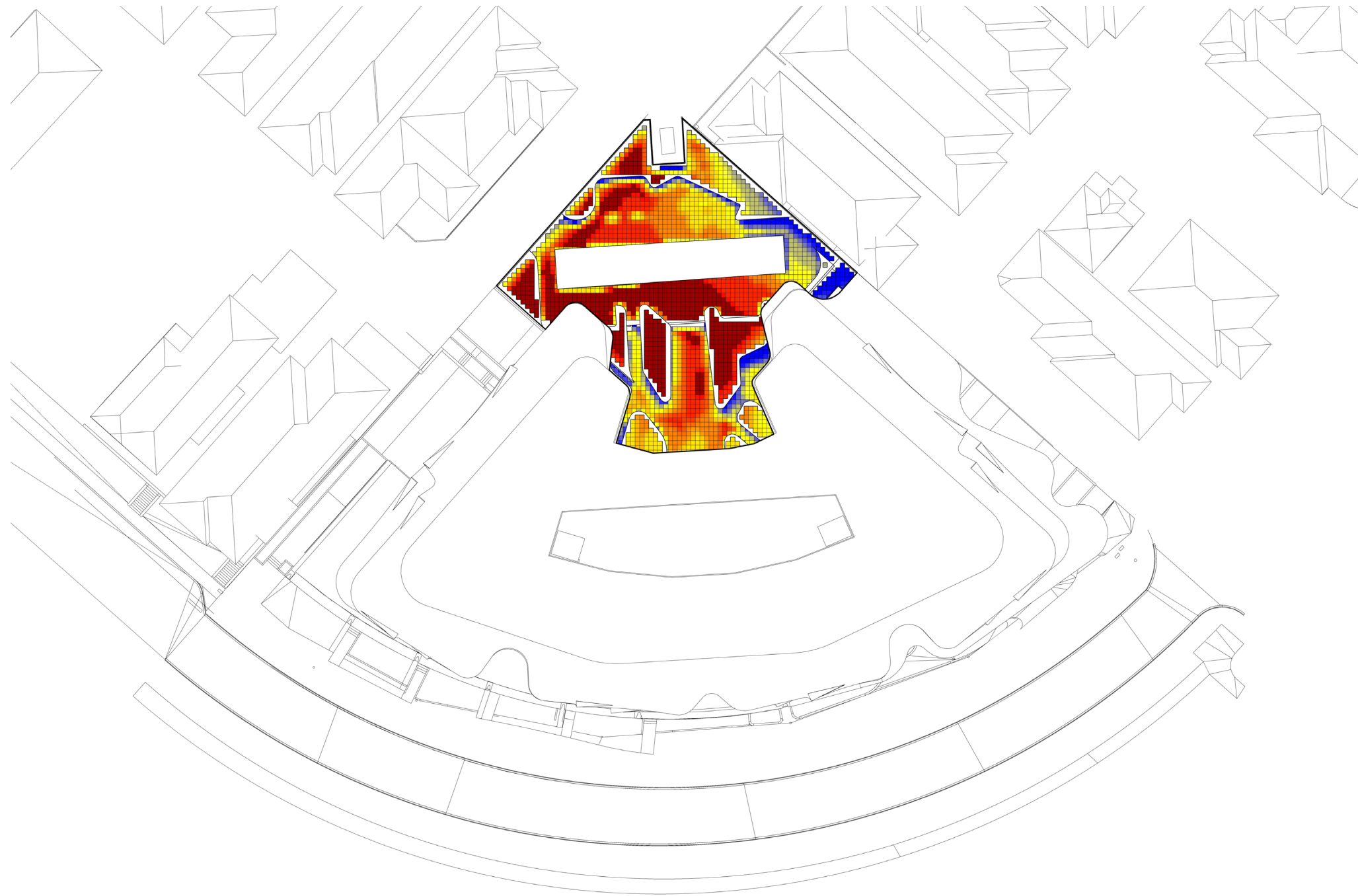
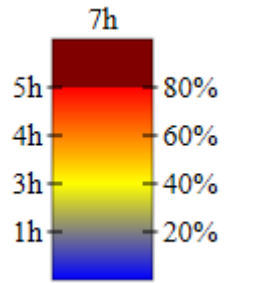


Overshadowing projected on the 21st December at 5pm shows the current proposal casts **22% less shadow** to the neighbouring properties than what could have been developed based on the permissible envelope.



# solar access.

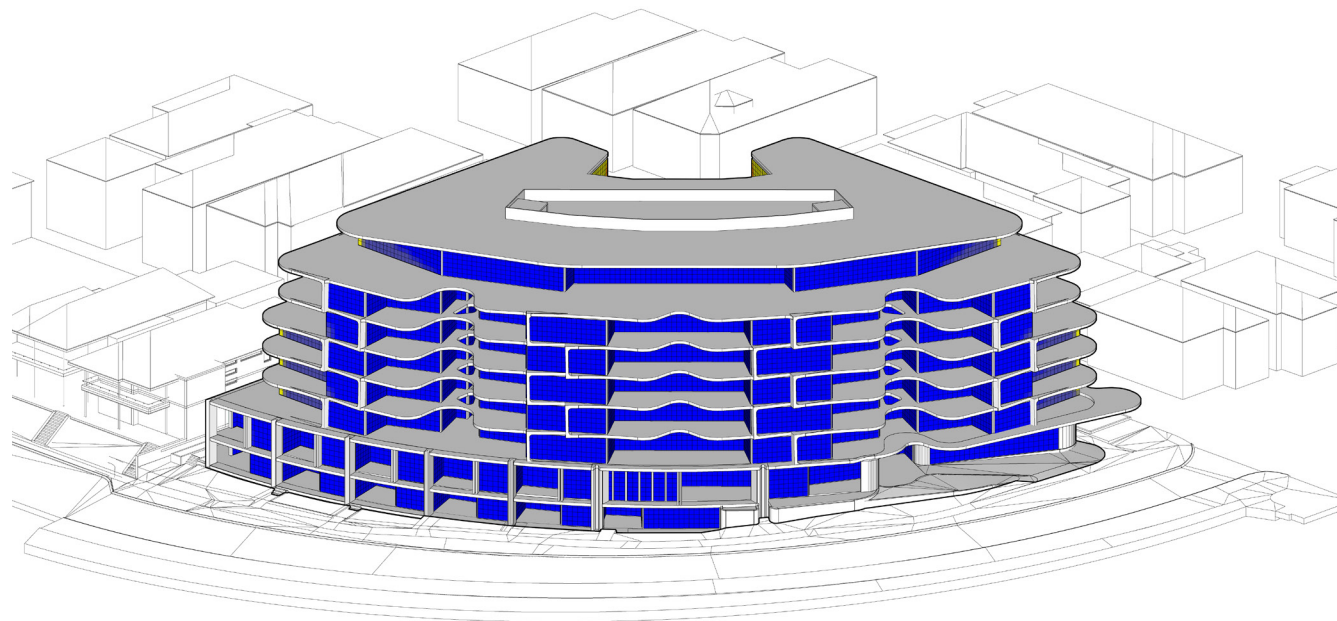
Solar Access To The Principal Communal Space -  
Winter Solstice 9am - 5pm



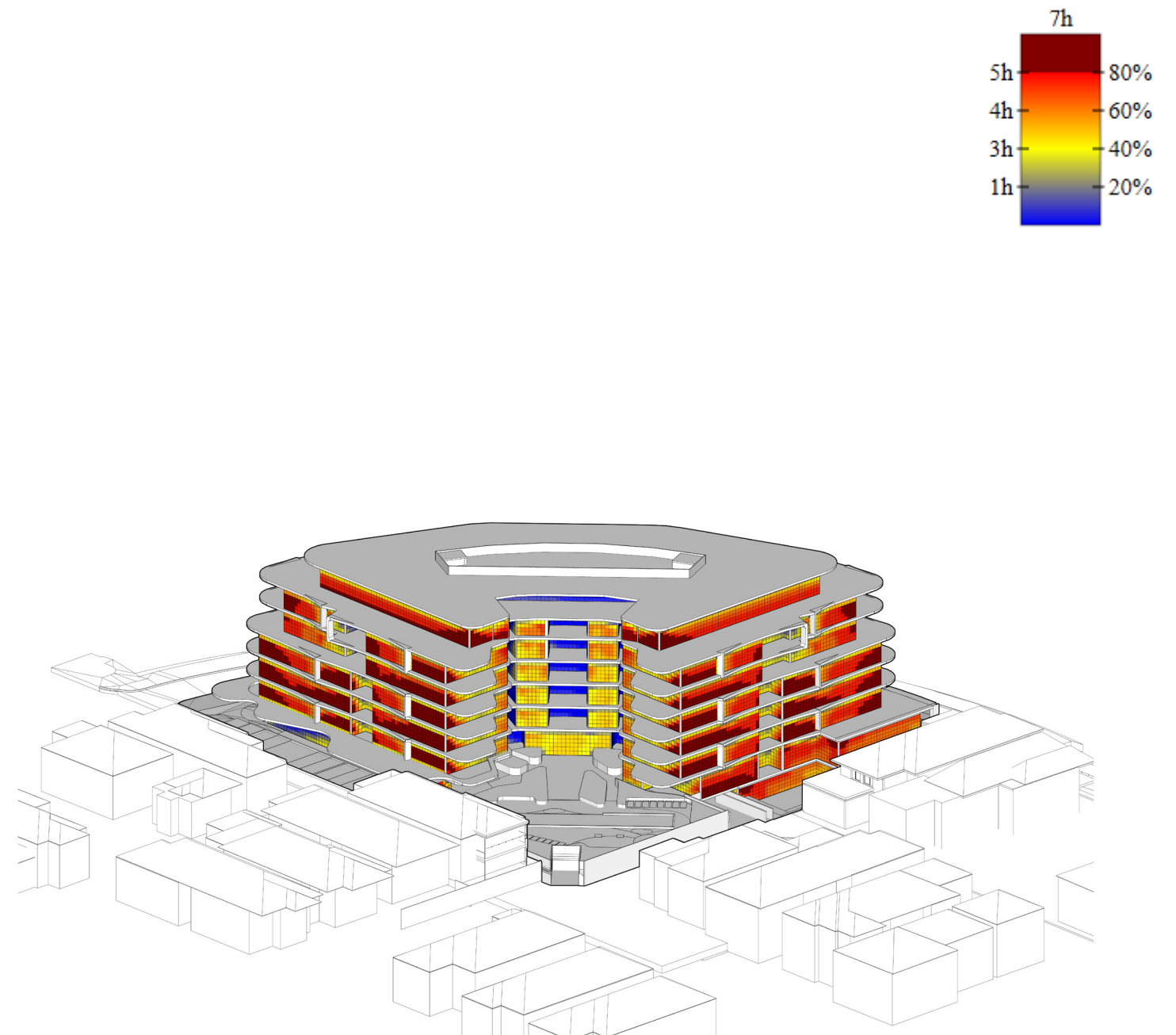
# solar analysis.

Winter Solstice 21st June 9am - 5pm

Habitable spaces to have direct access to natural light, with bedrooms and living spaces prioritised around the edges of the building envelope.



Access to northern sunlight is comprised by the constraints of the site orientation, with the broad primary street frontage facing due south. The proposal nonetheless offers at least 2 hours of winter sun to more than half of the dwellings.



**57% of dwellings within the proposal obtain at least 2 hours of direct sunlight between 9am & 3pm (21st June)**

\*(Design WA requires minimum 70%)



**principle 4:**

**functionality  
& build quality**

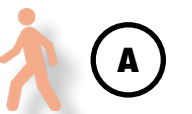
# pedestrian experience.

The combination of internal communal spaces with external landscape elements at ground level optimises the space made available, access to views, shelter, orientation and noise control, whilst providing opportunities for rooftop infrastructure otherwise lost to roof terraces. Durable materials and simple forms offer resilience against a harsh coastal environment and mitigate maintenance. Below ground carparking and on-site waste collection are feature so the development, which mitigate the impacts this high density development on the surrounding residents.



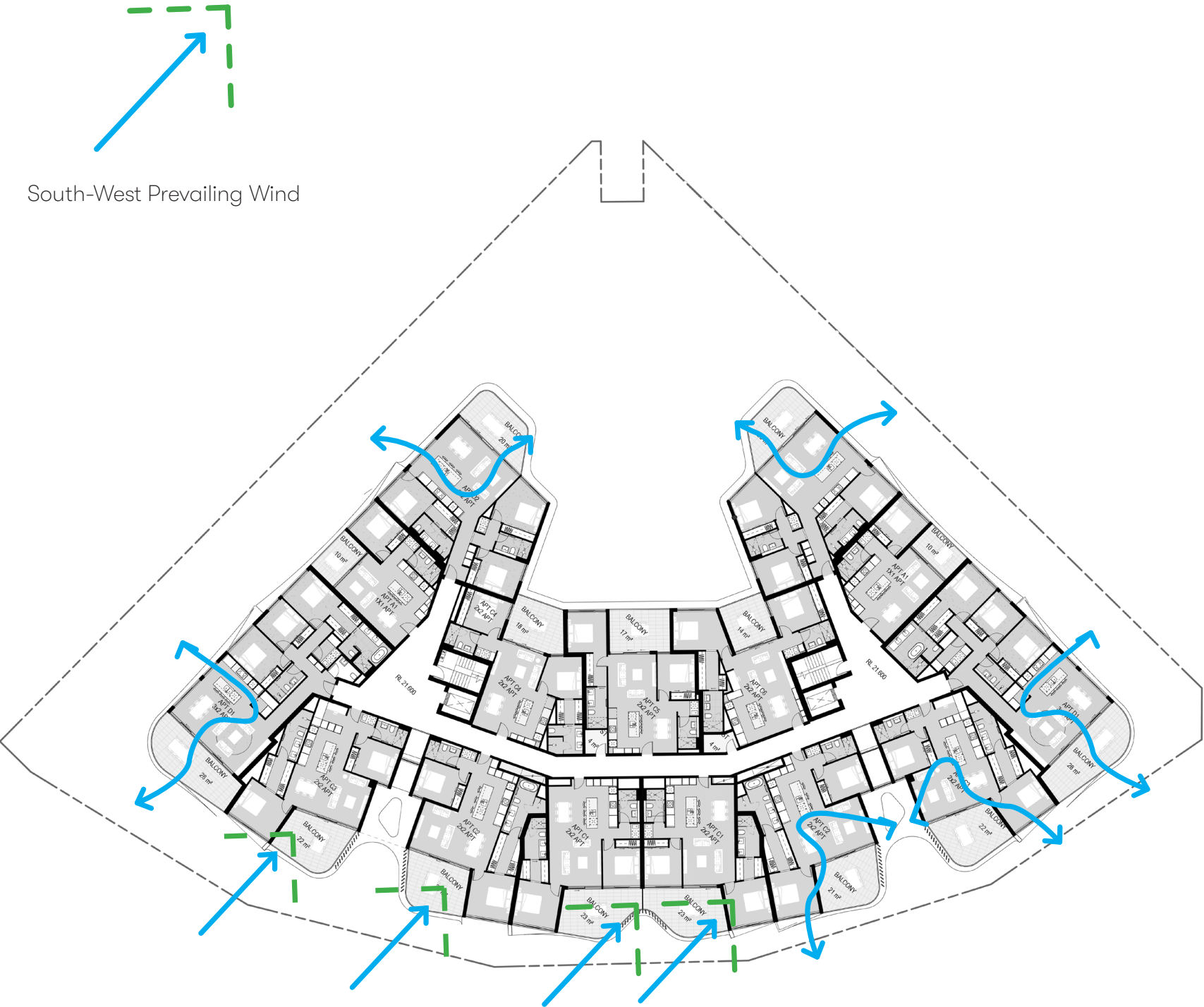
The inviting form of the entrance, emanated up the building, is strengthened by landscaped elements to direct pedestrian flow into the Lobby. Upon entering, views through to the pool area and the considered location of the ground floor amenities offer convenient access for residents. The building entry has also been positioned in close proximity to visitor and public parking, as well as beach access.

Combined Ground Floor Plan





# cross ventilation.



## a coastal breeze...

**73% of dwellings** across the proposal achieve natural ventilation, **exceeding the Design WA requirement of 60%.**

The broad frontage to the ocean presents an opportunity to capture prevailing southerly and south-westerly ocean breezes, which can be optimized through articulation of the façade in presenting multiple faces to winds in this prevailing arc. Highlight windows are also introduced to improved air circulation throughout the apartments.

Given the periodic severity of these prevailing winds, the provision of communal spaces to the leeward side of the development for passive use is an important alternative when ocean-facing balconies become uncomfortable to use.

LEVEL	COMPLYING APTS
Lower Ground Floor	6
Ground Floor	2
Level 1	10
Level 2	10
Level 3	10
Level 4	10
Level 5	10
Level 6	6
TOTAL	64 apts = 73%

# traffic impact assessment.

## Vehicle Trip Generation

The proposed development is expected to generate approximately 32 vehicles during the AM peak hour and 37 vehicles during the PM peak hour.

According to WAPC Transport Impact Assessment Guidelines, developments generating between 10 and 100 trips during the peak hour fall under the 'moderate impact' category and are not considered to have any substantial impact on the surrounding road network.

It should also be noted that the developer is primarily targeting empty-nesters as owner-occupiers. Accordingly, these peak-hour volumes are likely to be less likely to be attained. Furthermore, the Public Transport Authority provided advice to Cardno of longer term plans for new bus route 479, which will operate between Mindarie Marina and Clarkson Station via Catalina Estate. Once operational, this service will further mitigate the likelihood of attaining the above peak-hour movements.

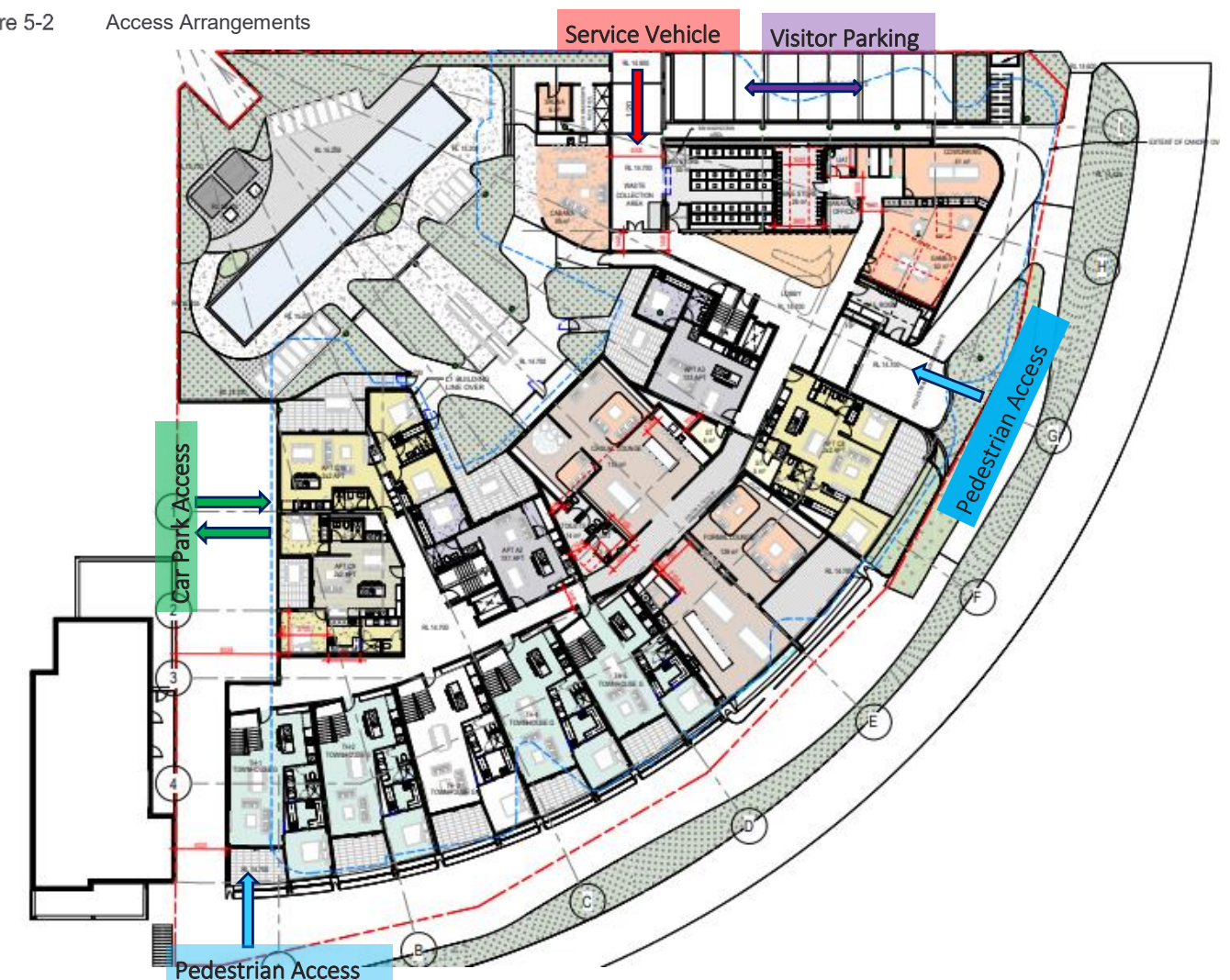
Walking and cycling facilities within the surrounding area are considered to be excellent, with many high-quality paths available providing good connectivity with the surrounding amenities, which are expected to favour the lifestyle aspirations of the target demographic and mitigate the reliance on motor vehicles.

## Parking

A feature of the Proposal is the concealment of all 147 residents' carbays within two levels of below-ground parking.

A further 9 visitor bays are proposed along Stockton Lane. The shortfall of 4 visitor parking bays can be adequately satisfied via the ample public off-street parking bays on Alexandria View adjacent to the Proposal.

Figure 5-2 Access Arrangements



Source: Hillam Architects

A full summary of the existing and anticipated traffic conditions and methodologies can be found in **Appendix E** - Traffic Impact Statement.



# waste management.

## Bin storage area

A bin storage area is proposed within the building at ground level, adjacent to Stockton Lane, for the storage of refuse and recyclables. This space has been sized for the estimated waste generation and the use of:

- Thirteen 660L refuse bins, collected twice each week; and
- Nine 660L recycling bins, collected once each week.

## Waste collection

It is proposed that waste collection is carried out by a private contractor due to the nature of the development and the sheer quantity of 240L residential refuse and recycling bins that would otherwise have to be collected by the City of Wanneroo.

The private contractor will collect using a rear-loader waste collection vehicle, which will reverse into the site from Stockton Lane and pull up adjacent to the Bin Storage Area to empty all bins before exiting the site in forward gear. This space also provides for bin wash-down by the building manager/caretaker. The ability for the private contractor's waste collection vehicle to access the Bin Storage Area in a safe manner has been assessed by Cardno and is included within their Transport Impact Statement (refer section 5.2.2 and Figure 5.3 therein).

This servicing method will preserve the amenity of the area by removing the requirement for bins to be presented to the laneway and on the verge on collection days and will reduce the noise generated in the process.

## Organic waste

The bin storage area will also provide sufficient space to accommodate three additional 240L FOGO bins, should the City of Wanneroo require the separation of food waste in the future. Kitchen caddies would be used within each dwelling to collect FOGO, which will then be taken by residents to the Bin Storage Area for depositing into the communal 240L lime-green-lidded FOGO bins.

## Bulk waste

Given the streetscape adjacent to the Proposal, placement of bulk waste on the verge for collection would be considered undesirable. Instead, bulk waste material will be removed from the development as it is generated and will be the responsibility of the resident. The bin collection area offers opportunities for organized skip bin collections between scheduled general and recycled waste collection days, or the temporary placement of bulky wastes such as white goods and mattresses, if required.

## Green waste

Green waste collection services will be provided by external contractors, as required. The building manager/caretaker will liaise with service providers to ensure an efficient and effective service is maintained. Removal of bulk waste and green waste will be monitored by the building manager/caretaker, who will assist as required.

## Management of all waste

As noted variously above, a building manager/caretaker will monitor and oversee all relevant aspects of waste management.

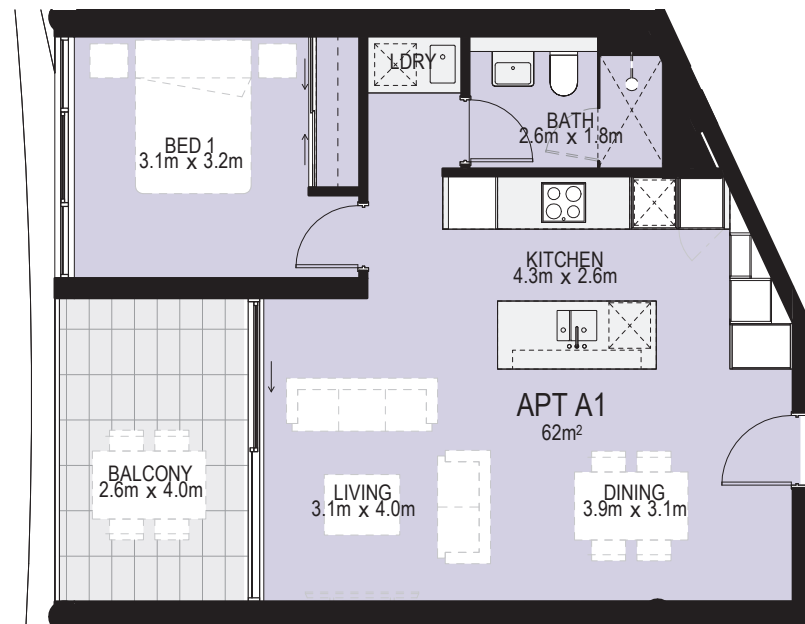
A full summary and further details relating to the above can be found in **Appendix F** - Waste Management Plan.

# dwelling mix.

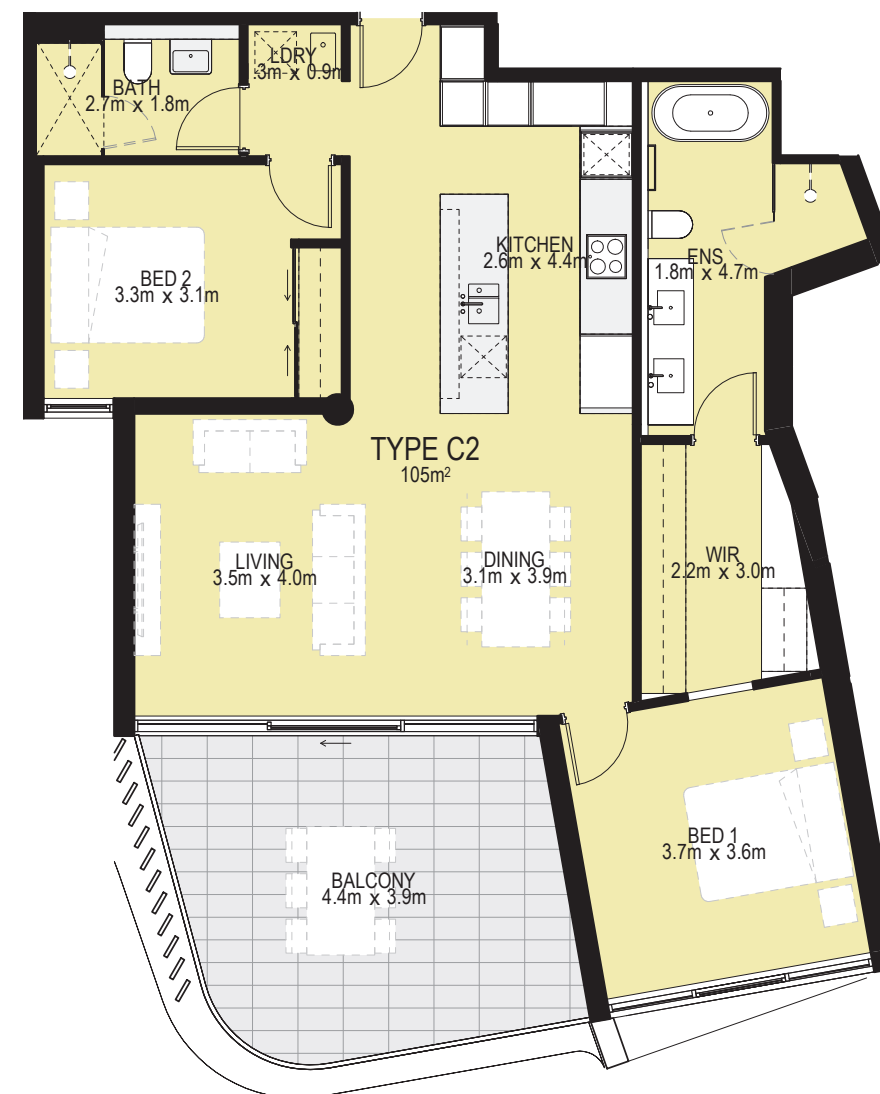
		LOWER GROUND	GROUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	TOTAL	ARCH AREA	TOTAL ARCH AREA	APT MIX	%
1x1 BED	Type A1			2	2	2				6	62	372	8	9
	Type A2		1							1	70	70		
	Type A3		1							1	68	68		
2x2 BED	Type C1			2	2	2	2	2		10	95	950	49	55
	Type C2			2	2	2	2	2		10	105	1050		
	Type C3			2	2	2	2	2		10	102	1020		
	Type C4			1	1	1	1	1		5	89	445		
	Type C5			1	1	1	1	1		5	89	445		
	Type C6			1	1	1	1	1		5	100	500		
	Type C7	1								1	95	95		
	Type C8		1							1	99	99		
	Type C9		1							1	100	100		
	Type C10		1							1	97	97		
3x2 BED	Type D1			2	2	2				6	143	858	20	23
	Type D2			2	2	2	2	2		10	121	1210		
	Type D3						2	2		4	155	620		
TOWNHOUSE	Type TH-1	1								1	159	159	5	6
	Type TH-2	1								1	158	158		
	Type TH-3	1								1	158	158		
	Type TH-4	1								1	154	154		
	Type TH-5	1								1	144	144		
PENTHOUSE	Type P1								2	2	165	330	6	7
	Type P2								2	2	165	330		
	Type P3								2	2	144	288		
TOTAL PER LEVEL		6	5	15	15	15	13	13	6	88		9720		
											PLOT RATIO	2.49		



# typical apartment layout.



TYPICAL 1x1  
APARTMENT PLAN



TYPICAL 2x2  
APARTMENT PLAN



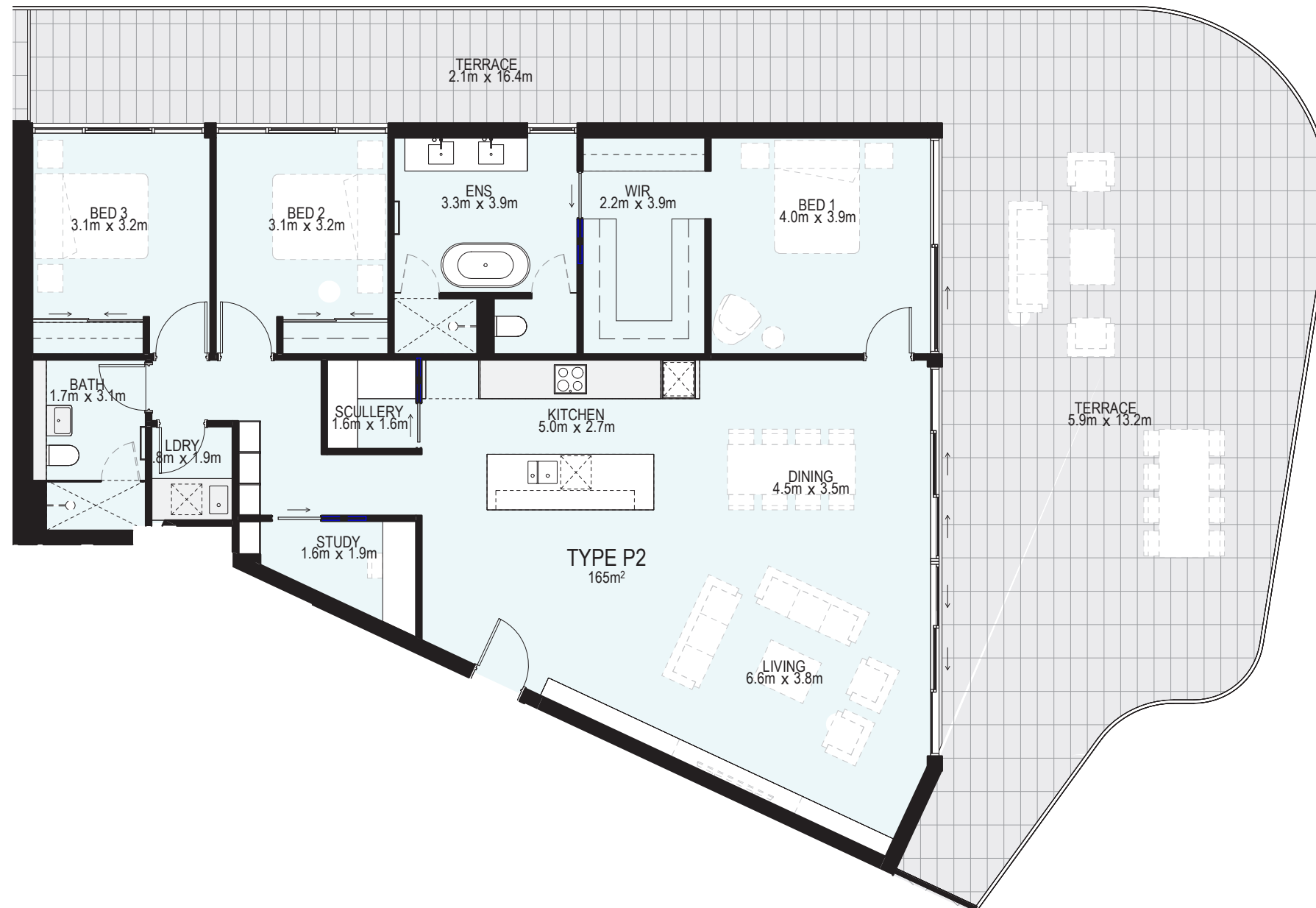
# typical apartment layout.



TYPICAL 3x2  
APARTMENT PLAN

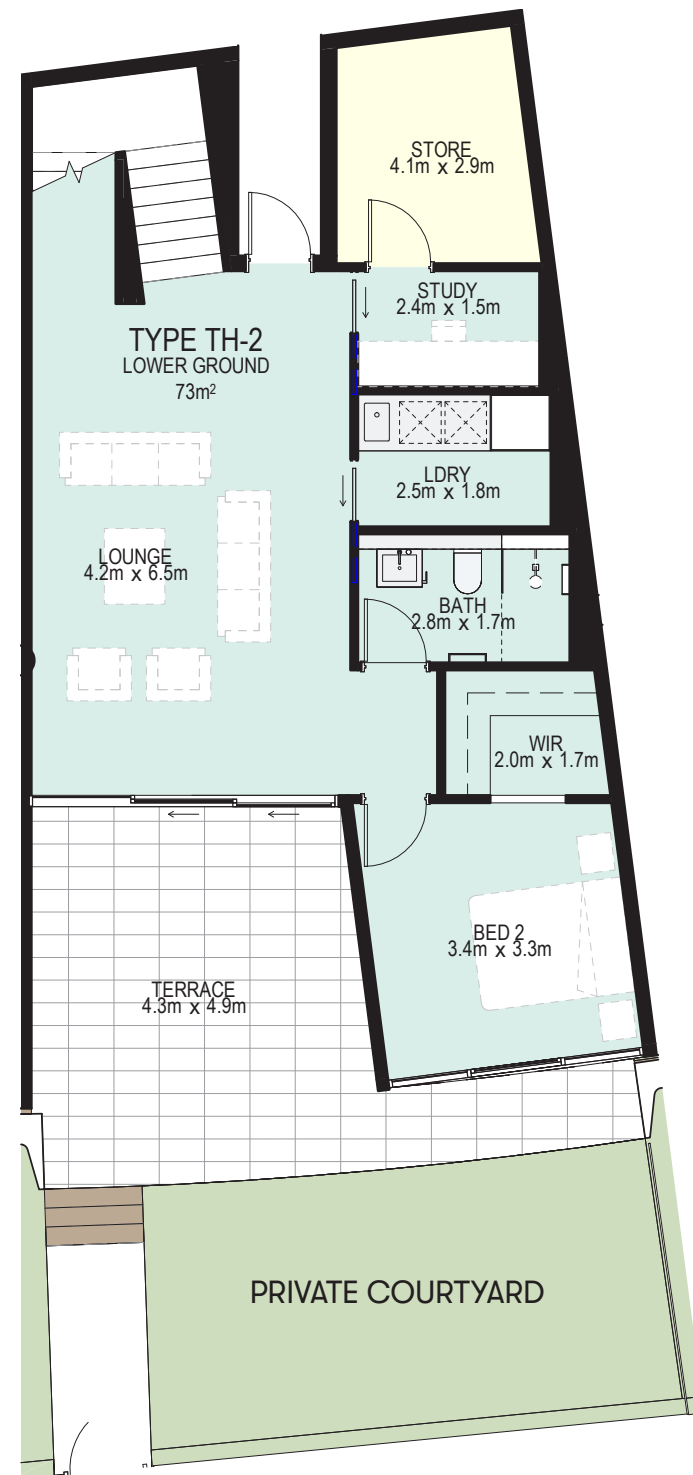


# typical apartment layout.

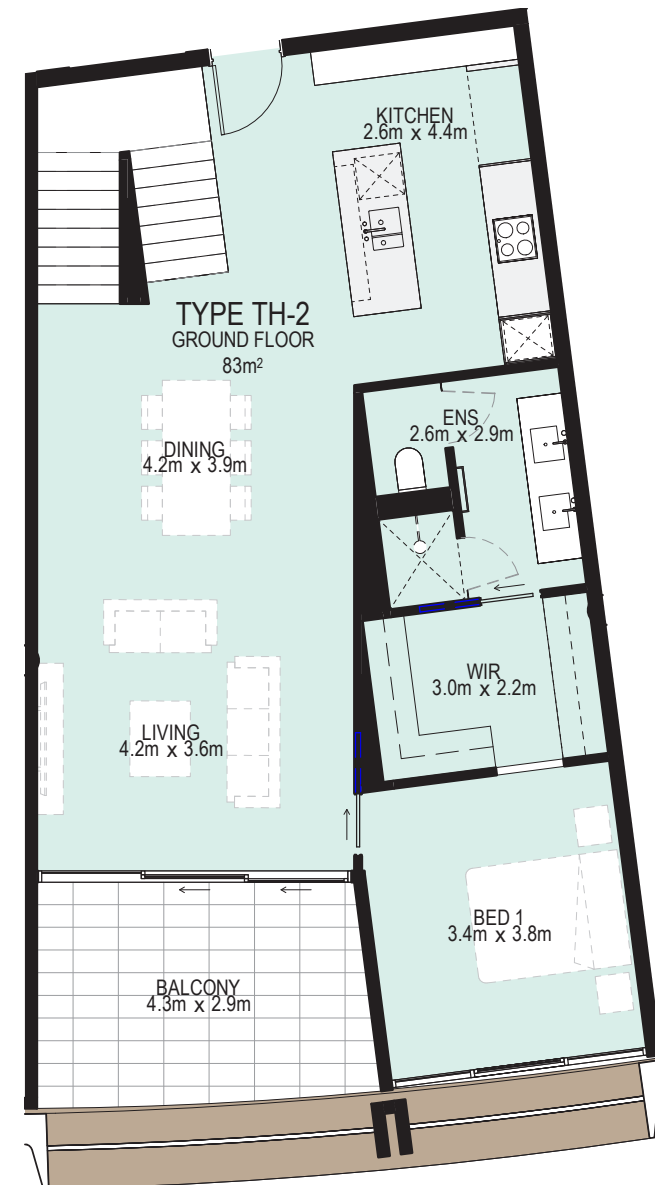


TYPICAL PENTHOUSE  
APARTMENT PLAN

# typical apartment layout.



TYPICAL TOWNHOUSE  
APARTMENT PLAN





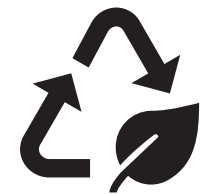
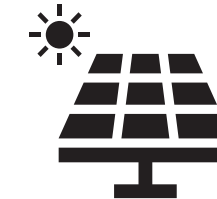
**principle 5:**

**sustainability**

# sustainability strategy.

Targeting 4 star Green Star Buildings v1 certified rating.

Exceeding the minimum compliance requirements for energy efficiency, the proposal shall and average a 8-star NatHERS rating and exceed a certified 4-Star Green Star Buildings rating, utilising a range of passive and active design initiatives.



## key initiatives

- High efficiency HVAC
- Centralised Systems
- Water efficient (High WELS) fittings
- Induction cooktops
- Smart metering
- Electric vehicle (EV) charging bays
- All electric building (no natural gas)

## passive design measures

- Good fabric insulation
- High performance glazing
- Improved energy efficiency requirements above NCC
- Passive solar design
- Cycling and EOT facilities
- Raised plant beds with diverse and native waterwise vegetation
- Sustainable, recycled and responsibly procured materials
- Low toxin material selection (low VOCs, formaldehyde)
- Building form maximises envelope, increasing natural light and cross-ventilation within apartments
- Deep recesses in the Southern facade enable airflow and sunlight into communal corridors
- Swimming pool protected from prevailing winds, reducing evaporation and water consumption

## renewable technology

- Install solar PV panels on the roof.
- 100% Green Power purchase

A full summary and further details relating to the above can be found in **Appendix H** - Sustainable Design Assessment Report.





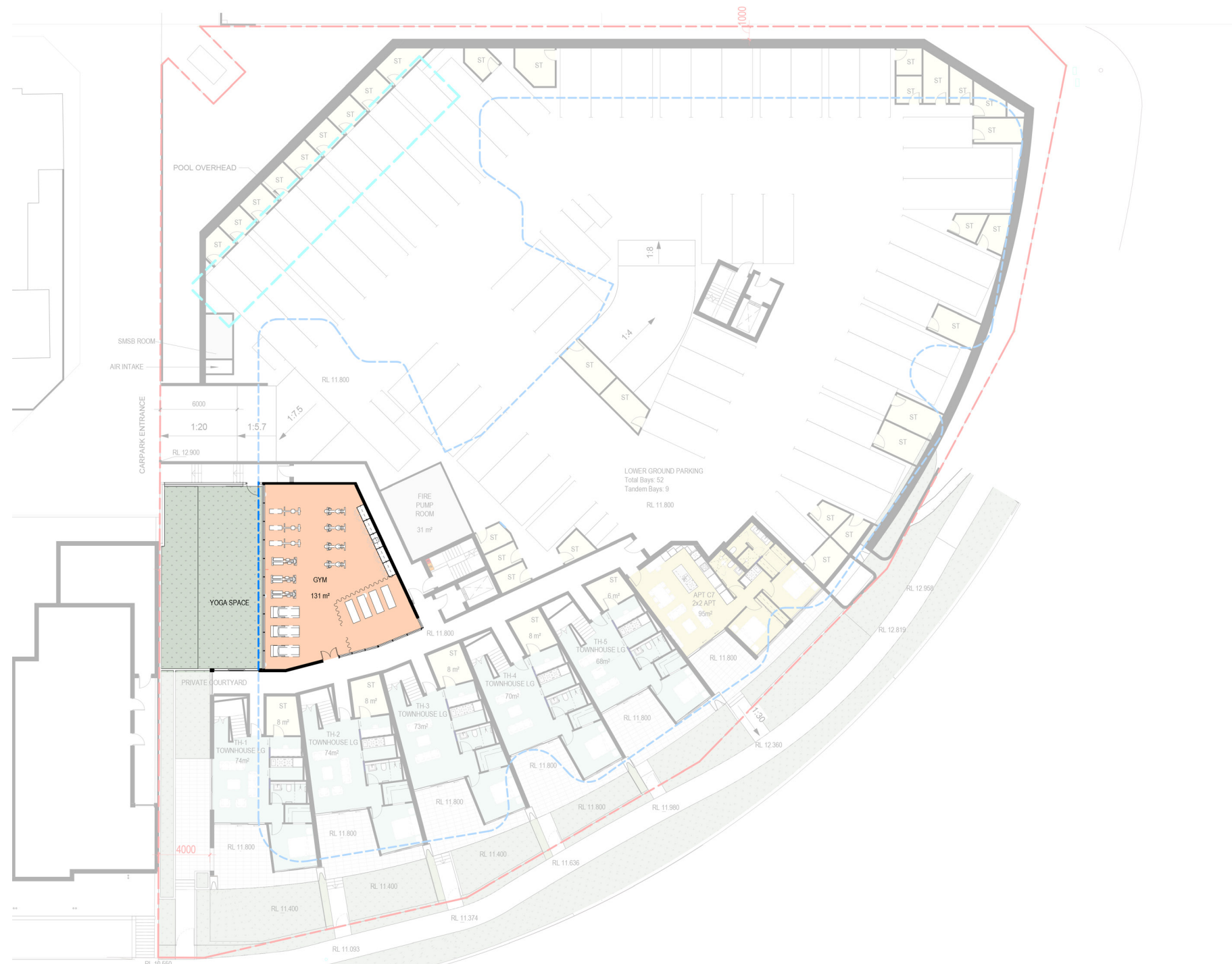
**principle 6:**

**amenity**

# residential amenity.

A total of **1620m<sup>2</sup>** has been allocated towards residential amenity.

Residents will enjoy the amenity of multiple communal spaces, all located at lower ground and ground level in a coordinated fashion that provides for an exceptional user experience. The combination of interconnected internal and external spaces offers a range of uses year-round, both social and private.



## Lower Ground Plan

At the lower ground level a private gym and secluded yoga deck are provided, both with a landscaped outlook.



Landscaping shown is artist's impression.



This architectural site plan illustrates a residential development with a variety of building types and amenities. The plan is color-coded to distinguish between different functional areas: orange for residential and communal spaces, yellow for townhouses, green for landscaping and outdoor areas, and grey for circulation and service areas.

**Key Features and Amenities:**

- Residential Amenities:** Includes a 40 m² Residential Amenity, a 6 m² Sauna, a Beach Washdown, a Waste Collection Area, a Bin Washdown Area, a Bin Store, a Bike Store, a Lobby, a Mail Room, a Pedestrian Main Entry, and a Coworking/Private Dining area (41 m²).
- Communal Spaces:** Features a 25m Pool, a Casual Lounge (30 m²), a Casual Dining area (56 m²), a Formal Lounge (58 m²), and a Formal Dining area (81 m²).
- Recreation and Relaxation:** Includes a Book Retreat (31 m²), a Casual Lounge (30 m²), and a Formal Lounge (58 m²).
- Service and Support:** Includes a UAT (5 m²), a Toilets area (14 m²), a Mail Room, a Pedestrian Main Entry, and a Fire Hydrant Booster.
- Landscaping and Outdoor Areas:** Includes a 25m Pool, a Beach Washdown, a Waste Collection Area, a Bin Washdown Area, a Bin Store, a Bike Store, a Lobby, a Mail Room, a Pedestrian Main Entry, and a Fire Hydrant Booster.

**Building Types and Units:**

- APT A3:** 1x1 APT (68m²)
- APT C9:** 2x2 APT (97m²)
- APT C10:** 2x2 APT (97m²)
- APT C2:** 2x2 APT (99m²)
- APT A2:** 1x1 APT (70m²)
- TH-1:** Townhouse G (80m²)
- TH-2:** Townhouse G (84m²)
- TH-3:** Townhouse G (85m²)
- TH-4:** Townhouse G (84m²)
- TH-5:** Townhouse G (70m²)

**Other Labels:**

- 9x VISITOR CARBAYS
- 9x VISITOR BICYCLE BAYS
- EXTENT OF CANOPY OVER
- RL 16.700, RL 15.200, RL 14.700, RL 14.900, RL 14.420
- 1:20 scale indicator
- L1 BUILDING LINE OVER

Significant resident amenities are provided, all with a focus on ocean, pool or landscaped outlooks.

Other key features include bicycle racks, secure parking and storerooms, as well as dual-wing secure lift access.

Shower/ washdown facilities for residents, pets and beach gear are included at the rear of the site near a side gate to allow immediate entrance from the beach.

- Spacious Lobby & Reception
- Formal Dining & Lounge Areas
- Casual Dining & Lounge Areas
- Library Area
- Games Areas
- Co-working/ Conference Area
- Study Pods
- Mailroom
- Communal Kitchens & Kitchenettes
- Cabana & BBQ
- Landscaped Pool Area
- Sauna
- Beach Washdown



# privacy.



## INTEGRATED SCREENING

Privacy between balconies is maintained through the use of integrated screens, which allow views out towards the ocean and controlled angled views.

- Views from balconies
- Privacy screening



# residents pool area.

A resort-style pool is the centrepiece of an expansive ground level outdoor space, framed by an outdoor living and dining space and a residents' gymnasium.



Landscaping shown is artist's impression.