



Appendix 1 – Urban Design Report

263-293 & 277-281 PENNANT HILLS ROAD
CARLINGFORD

October 2023

URBAN DESIGN REPORT

REVISION 2



PROJECT CONTACT

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CLIENT

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CONSULTANTS

Fender Katsalidis gratefully acknowledge the consultant team who were integral to the preparation of this design concept.

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Access:	AbeConsulting
BCA:	Jsquared
CPTED	APP
ESD/BASIX	Integreco
Landscape:	Urbis
Planner:	Planning Ingenuity
Services:	Meriton Services
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Rob Mirams is a Registered Architect in New South Wales and a member of the Australian Institute of Architects. Registration number is 7272. He is a qualified Architect with extensive experience in the design of residential housing developments of varying scale.

We confirm that Rob Mirams has directed the design of this residential project from masterplan to apartment design. He has worked alongside a professional consultant team to produce a development that is respectful of local planning and design controls.

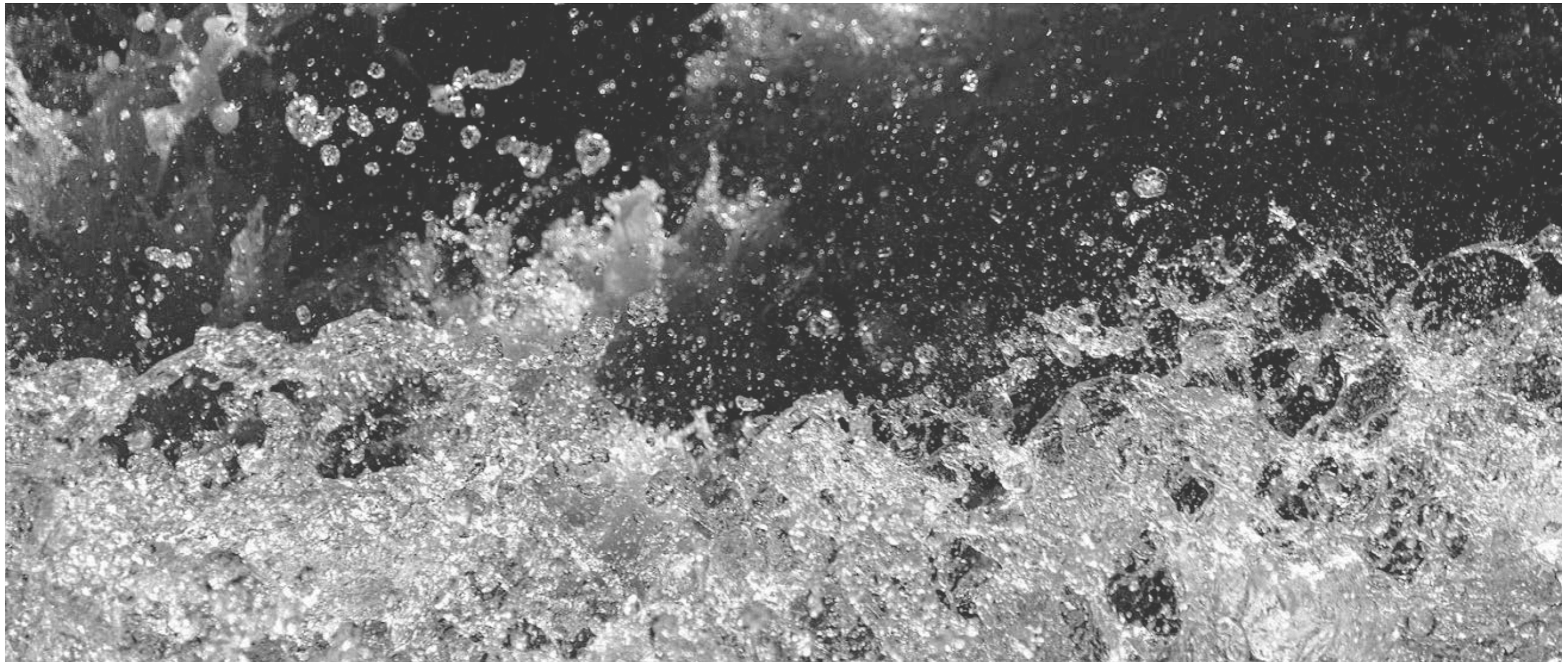
Fender Katsalidis Architects verify that the design quality principles and requirements set out in the State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development have been achieved.

Rob Mirams
Director
Registered Architect NSW, No. 7272

ACKNOWLEDGMENT OF COUNTRY

Fender Katsalidis acknowledges the Traditional Custodians of the land on which we operate, live and gather. We recognise their continuing connection to land, water and community. We pay respect to Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

The Fender Katsalidis team is made up of 160 designers and architects located across our three Australian studios in Melbourne, Sydney and Brisbane. Our practice is diverse and built around a broad and varied project portfolio including residential, commercial, hospitality, and retail projects. Our team is built on a strong and trusted foundation in the architecture and design industry. Our knowledge and expertise spans decades, while our experience and body of work is highly valued for its contribution and longstanding impact within the industry. Our unique offer includes a highly sophisticated integration of our architectural and interior design teams which allows us to take on and deliver projects of all scales, across all disciplines.

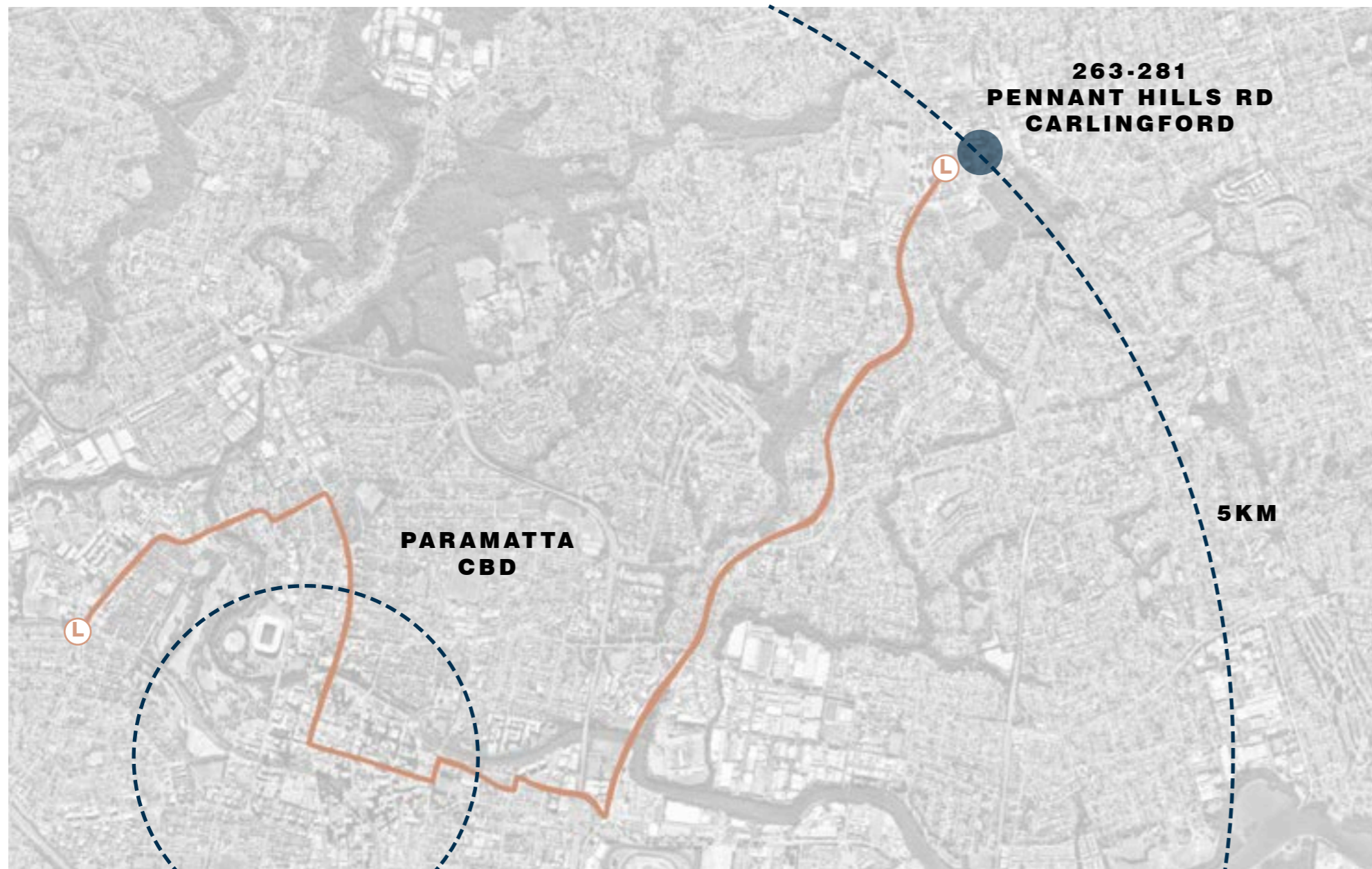




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1.0 INTRODUCTION



GREATER SITE CONTEXT

The site is located 24km north west of Sydney CBD and approximately 5km northeast of Parramatta CBD. It is within the Hills Shire District. Neighboring suburbs include Dundas, Telopea and North Rocks.

The site is well serviced by existing bus and road networks. The site will become increasingly accessible upon the completion of the Parramatta light rail and active transport links.

The Carlingford Station is today a recently completed terminus of the Stage 1 Parramatta Light Rail transport proposals.

2.0 SITE ANALYSIS

SITE LOCALITY (LOCAL)



LOCAL SITE CONTEXT

The precinct has a total site area of 27,897sqm and is one of the largest, single land holdings in the Carlingford locality.

The site's south-east boundary stretches approximately 250m along Pennant Hills Road, which is a dual-carriageway arterial road linking the suburb of Wahrooga in the northeast to the major central business district of Parramatta located in the southwest.

The site's northern boundary runs along Shirley Street which is a neighbourhood street. The boundary stretches approximately 185m along the internal street frontage from east to west and wraps around the corner at the north-western edge of the site. Its remaining boundaries are shared with neighbouring multi-residential dwellings along Shirley St and to its north, an open to sky car park area servicing several local retail outlets along Pennant Hills Road.

The Carlingford light rail station is located south-west within a 10min walking distance from site.

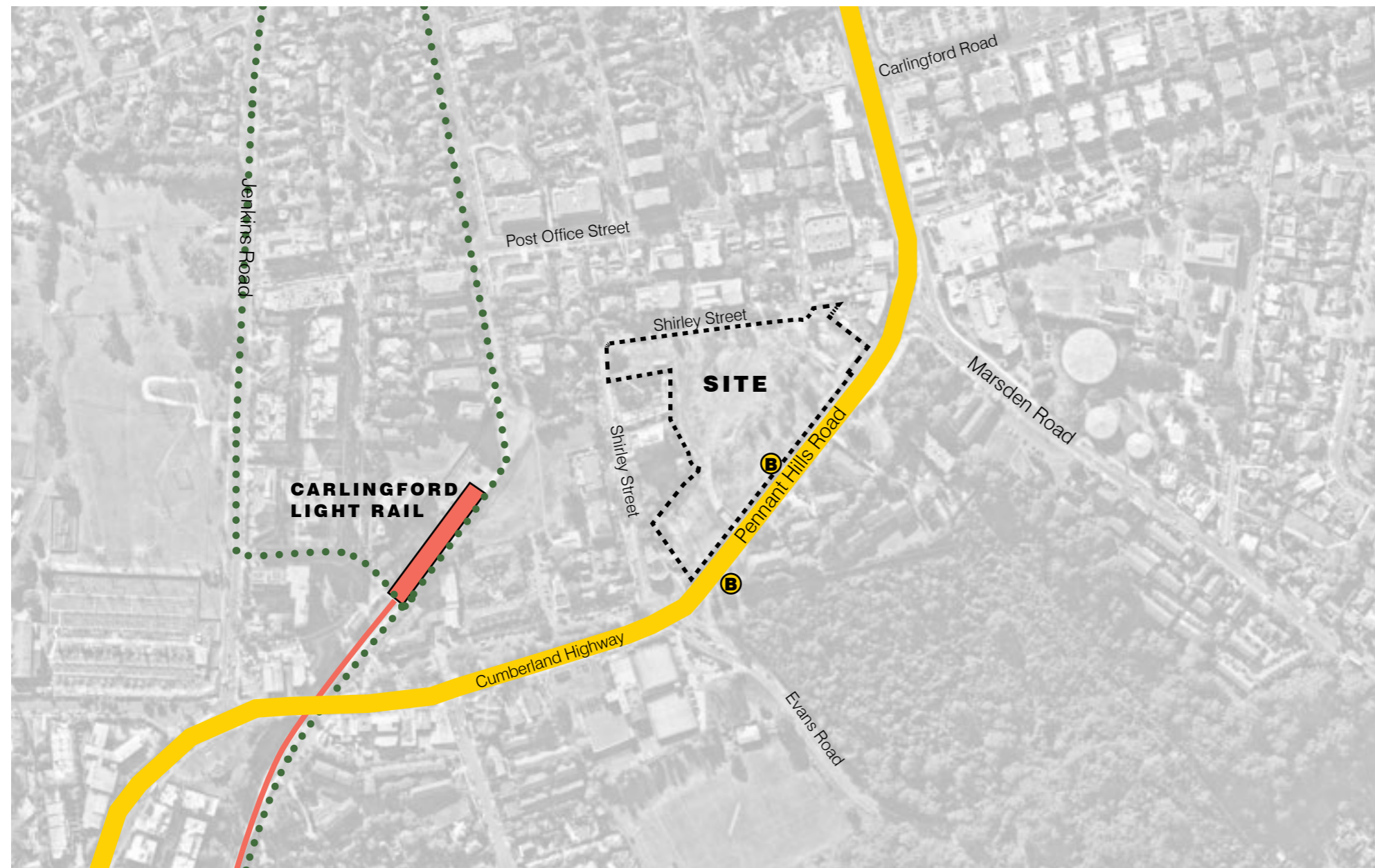
SITE CONNECTIVITY (ROAD NETWORK)






Site surrounding road networks.

- MAJOR ROAD / HIGHWAY
- PRIMARY ROAD
- SECONDARY ROAD / PEDESTRIAN NETWORK

SITE CONNECTIVITY (PUBLIC TRANSPORT)



Site proximity to public transport network.

-  BUS ROUTE
-  LIGHT RAIL (TRAIN)
-  BICYCLE NETWORK

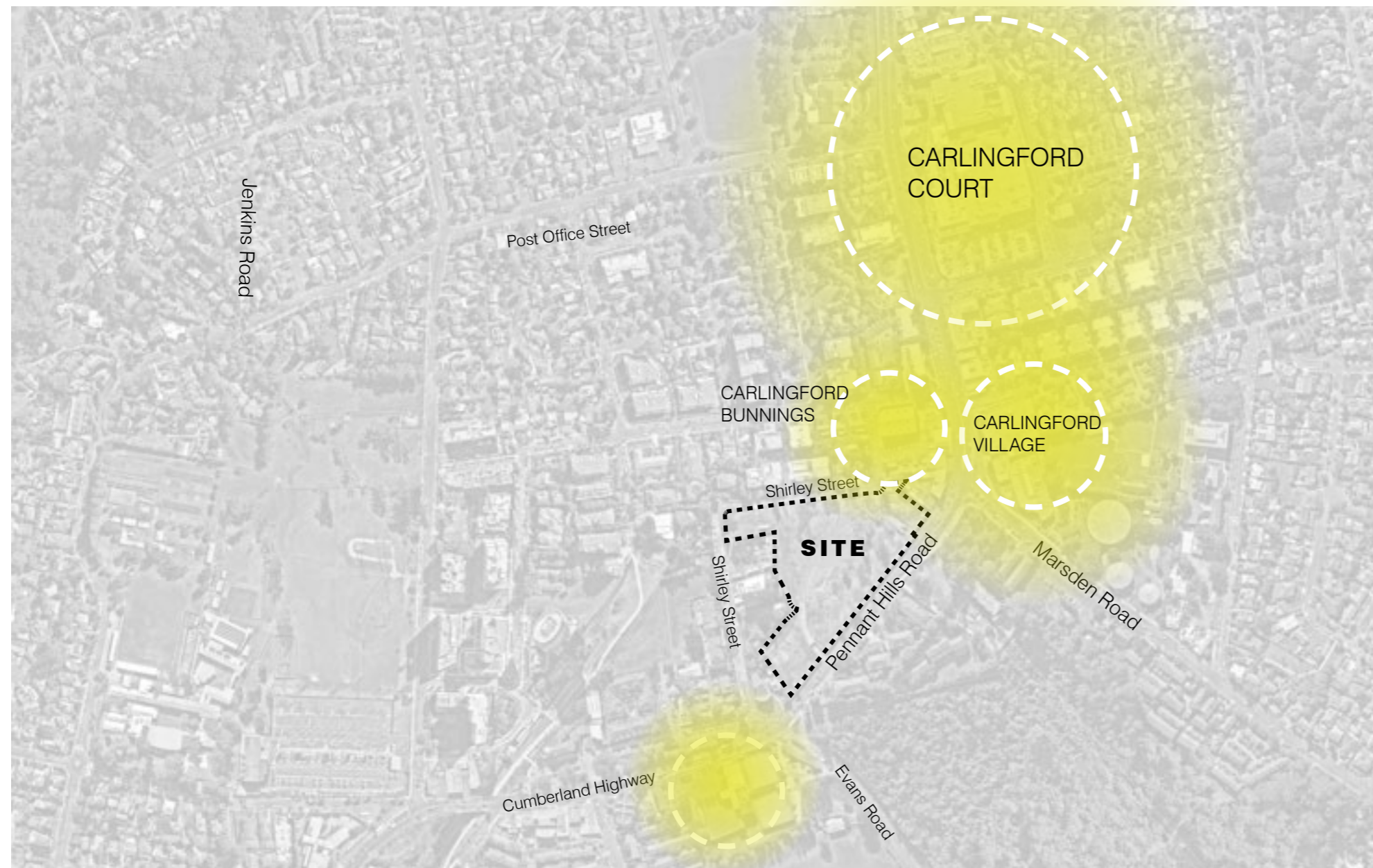
CIVIC USES



Site surrounding civic uses.

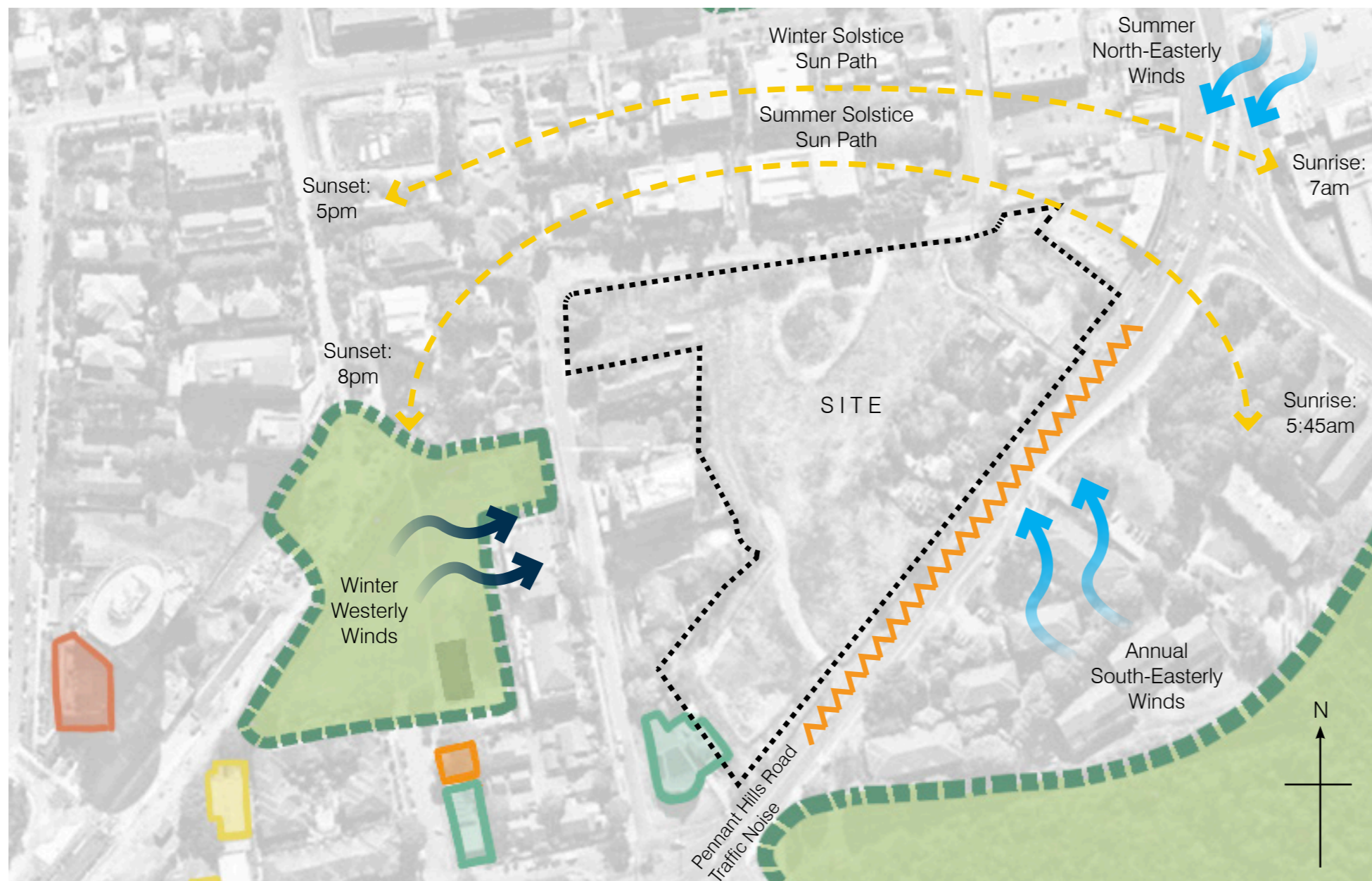
- CLINIC
- EDUCATION
- CHILDCARE
- PARK/RESERVE
- PARK AMENITIES

LOCAL ACTIVITY CENTRES



Site proximity to local activity centres.

SITE ENVIRONMENTAL FACTORS

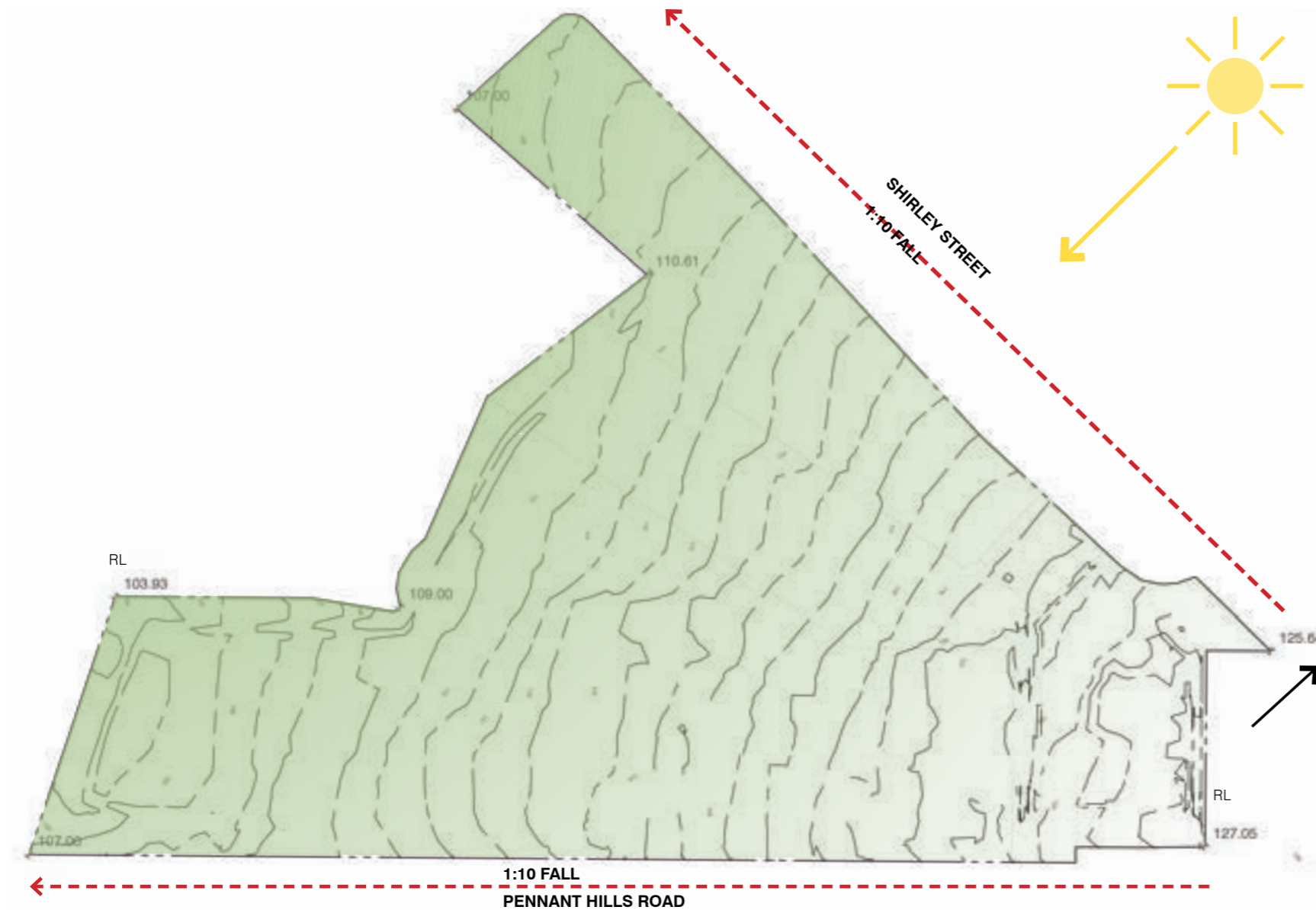


The site is primarily oriented toward both the south-east and northern aspects.

Significant traffic noise is generated from Pennant Hills Road which borders the site's longest frontage.

The site receives prominent winds from the south-easterly direction annually, stronger winds from the westerly direction during winter and cooler north-easterly winds during the summer.

SITE ATTRIBUTES

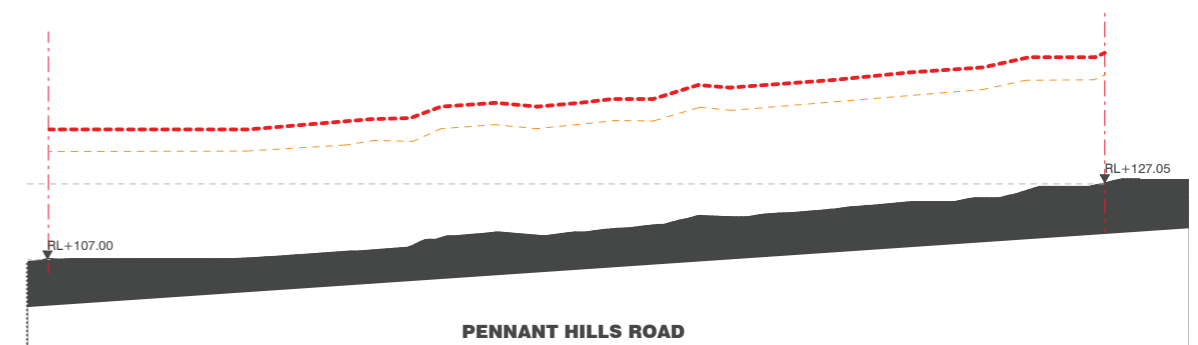


TOPOGRAPHY

The landscape falls approx. 20m across the site from the north-east down Pennant Hills Rd with a typical grade of approximately 1:10. Shirley St shares this gradient.

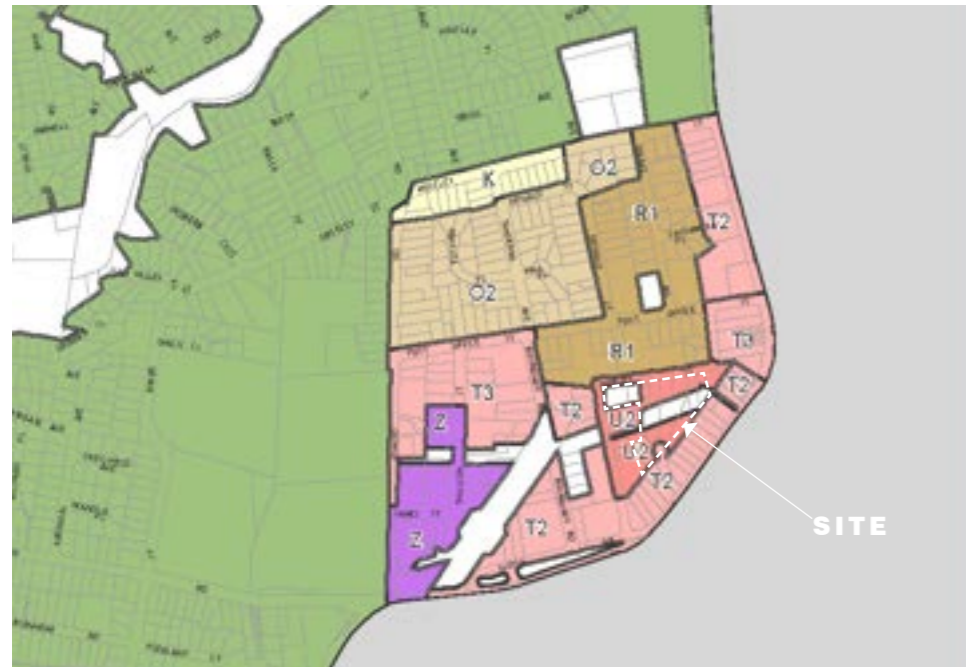
SOLAR

Solar amenity to the site poses a challenge for the design as the site falls steeply away toward the south. This orientates the site away from the light. Any height added to Shirley St overshadows its Pennant Hills Rd counterpart to the South.



SITE PLANNING CONTROLS

CONTEXT & REGULATORY PLANNING



01 HEIGHT OF BUILDINGS MAP

The subject site has a height control of 27m, as outlined in the Hills LEP 2012.

KEY
Maximum Building Height (m)

O1	7.0	S1	23.0
O2	8.0	S2	25.0
O3	9.0	S3	27.0
K	10.0	S4	28.0
M1	12.0	S5	30.0
MP	12.5	S6	30.0
N1	14.0	S7	30.0
O4	15.0	S8	37.0
O5	16.0	S9	45.0
P1	17.0	S10	46.0
P2	18.0	S11	50.0
O6	19.0	S12	54.0
O7	20.0	S13	57.0
SH	21.0	S14	68.0
R1	22.0		

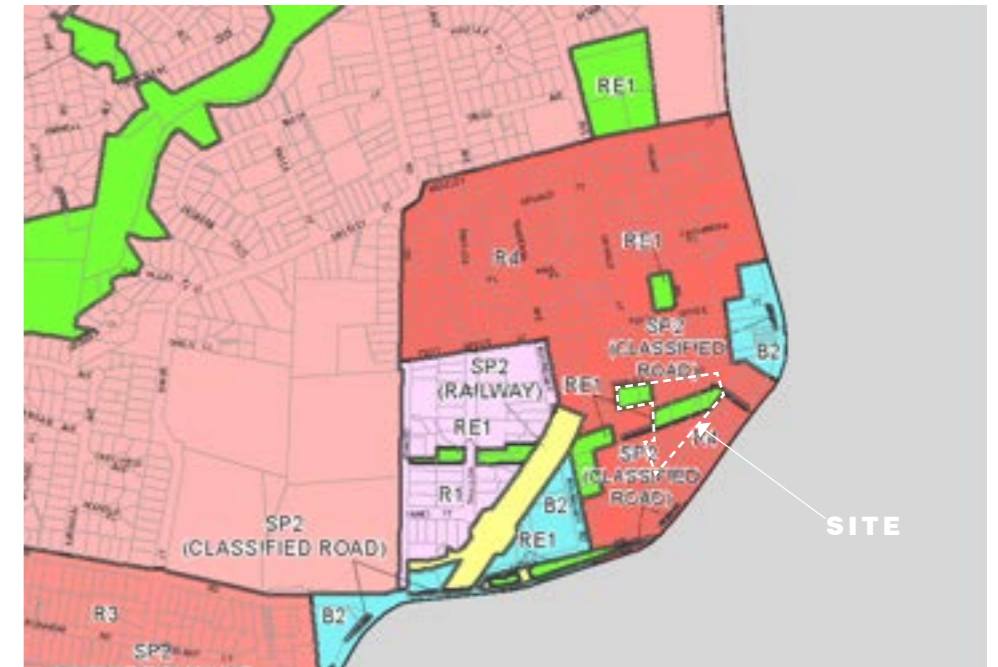


02 FLOOR SPACE RATIO MAP

The subject site has a FSR control of 2.3:1, as outlined in the Hills LEP 2012.

KEY
Maximum Floor Space Ratio (r:1)

A	0.2	S15	2.3
B	0.4	S16	2.7
C	0.5	S17	3.0
D	0.6	S18	3.8
E	0.8	S19	4.0
F	1.0	S20	5.0
G	1.48	S21	6.4
H	1.98		
I	2.3		
J	2.7		
K	3.0		
L	3.8		
M	4.0		
N	5.0		
O	6.4		



03 LAND ZONING MAP

The subject site has been zoned for High Density Residential, as outlined in the Hills LEP 2012.

KEY
Zone

R1	Neighbourhood Centre	RE1	High Density Residential
R2	Local Centre	RE2	Public Recreation
R3	Mixed Use	RE3	Private Recreation
R4	Business Development	RE4	Primary Production
R5	Enterprise Corridor	RE5	Rural Landscape
R6	Business Park	RE6	Forestry
R7	National Parks and Nature Reserves	RE7	Transition
R8	Environmental Conservation	RE8	Infrastructure
R9	Environmental Management	RE9	Tourist
R10	Environmental Living	RE10	Recreational Waterways
RI1	General Industrial		
RI2	Light Industrial		
RI3	General Residential		
R14	Low Density Residential		
R15	Medium Density Residential		

SITE OUTLOOK

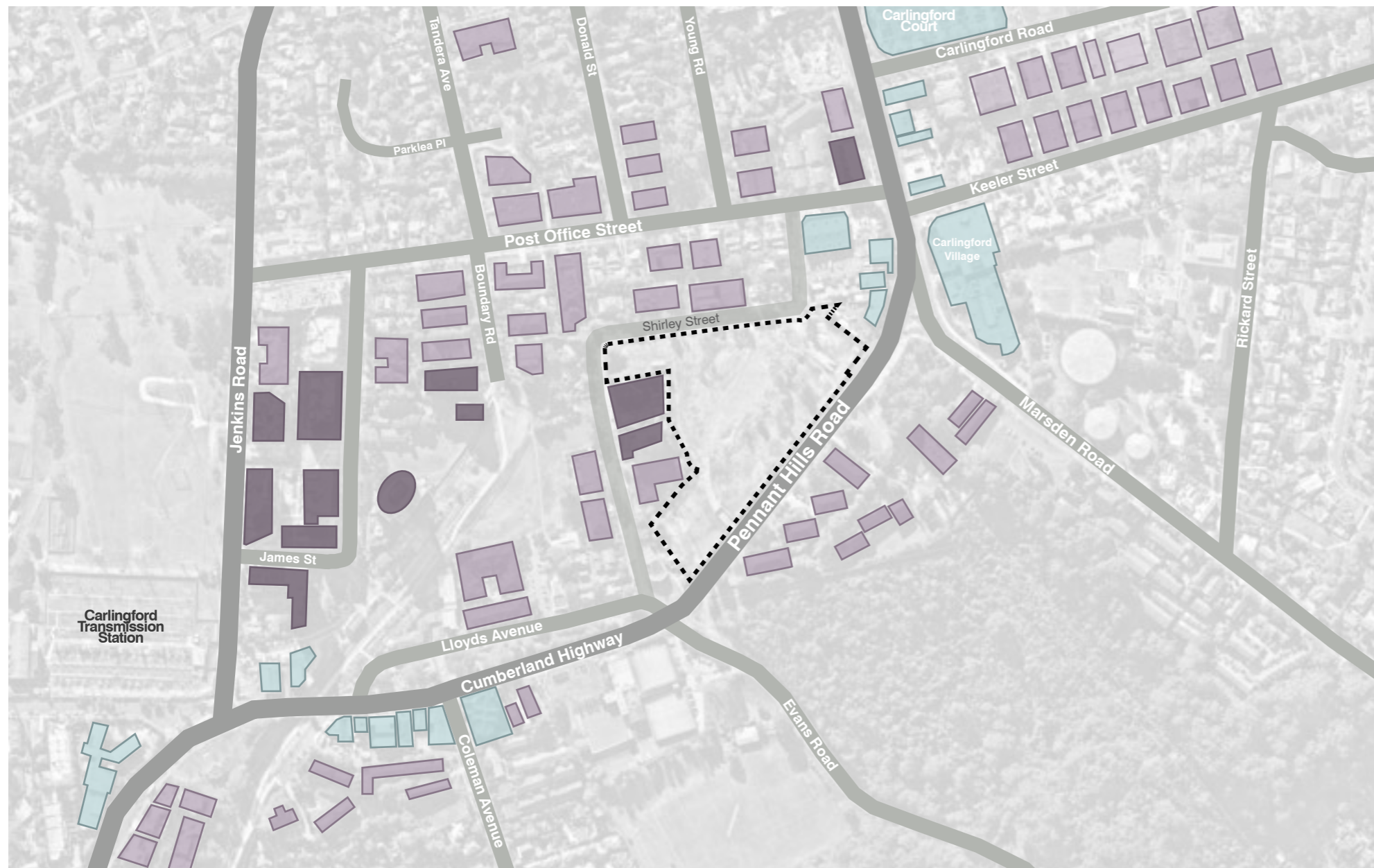


VISUAL CONNECTIONS

The site overlooks Galarangi Reserve to the south-east, the Hunts Creek Reserve to the north-west. Views of the city and major CBDs along the northern train line are a highlight of the south-east through north-easterly views.

Due to topographic changes in the landscape the site is also well positioned to overlook the sports grounds and naturally forming valley the the south.

SITE SURROUNDING BUILT FORM



SURROUNDING DENSITY

This diagram highlights the mixed use nature of the surrounding urban context. There is a concentration of residential development in the area.

Retail precincts occupy sections along Pennant Hills Road.

Multi-storey medium to higher density developments are concentrated to the south-west of the site.

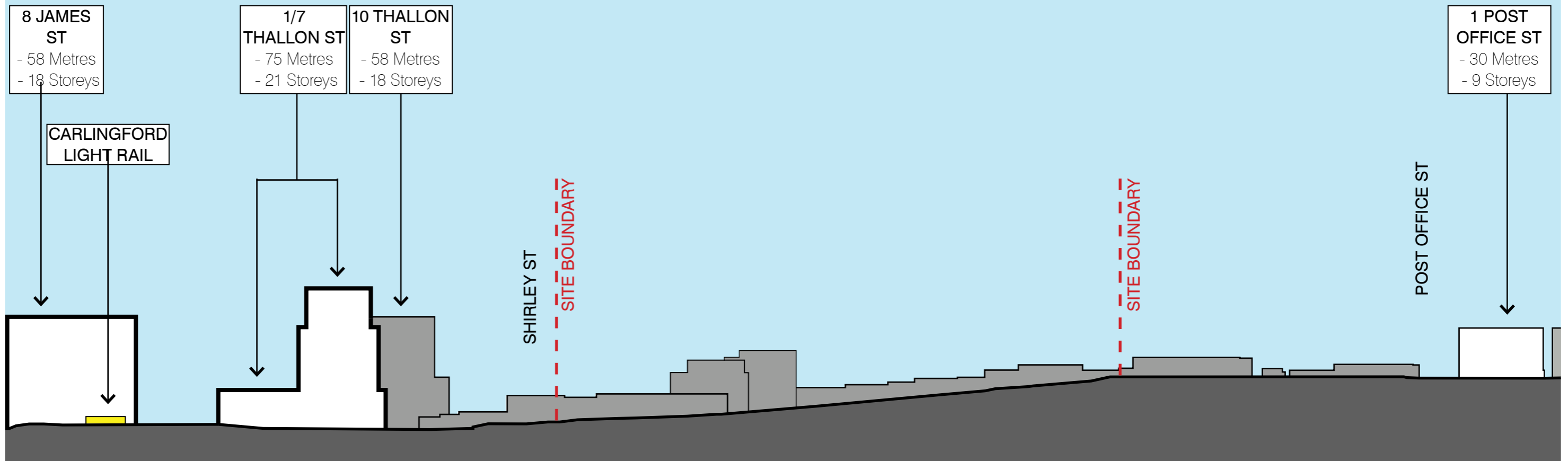
The section diagram on adjacent page displays surrounding building heights along Pennant Hills Road facing towards site.

- RETAIL / COMMERCIAL (1-2 STOREYS)
- MID-RISE RESIDENTIAL (2-8 STOREYS)
- HIGH-RISE RESIDENTIAL (9+ STOREYS)

BROADER PRECINCT SECTION



EXISTING CONDITION

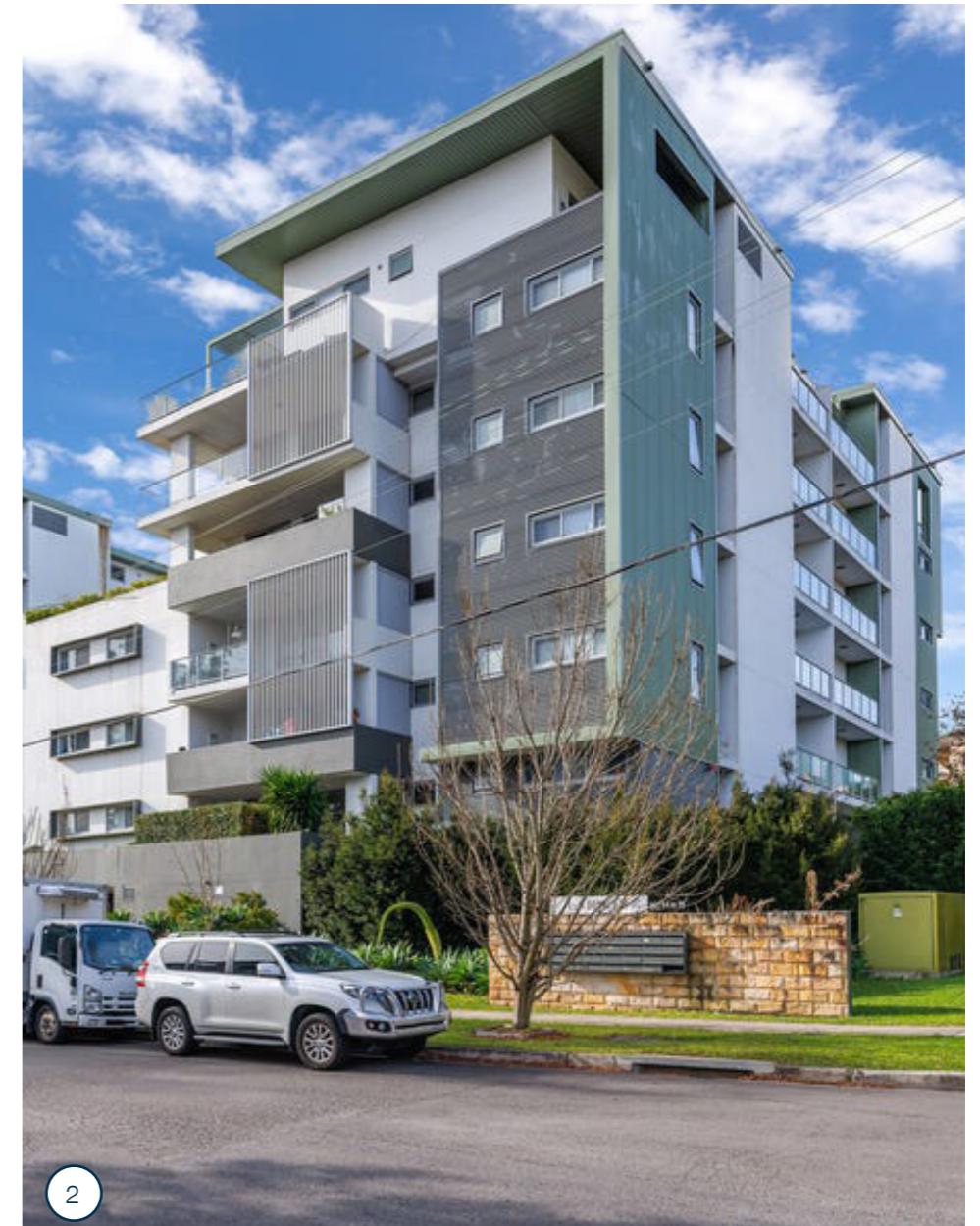


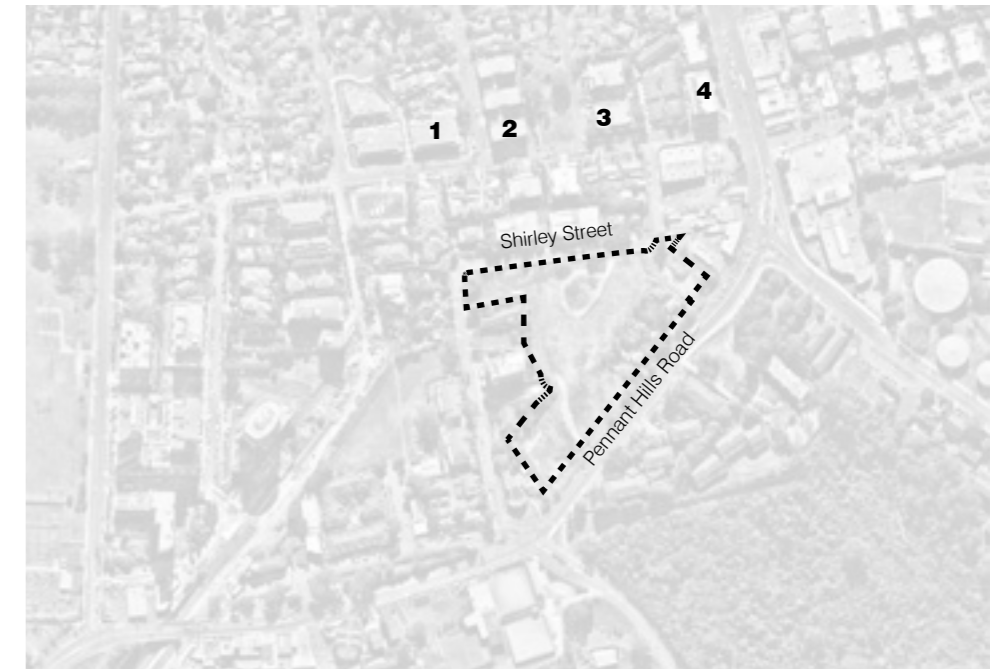
SITE SURROUNDING BUILT FORM (MEDIUM-HIGH DENSITY)

The developments illustrated opposite show examples of medium density housing built in the local area . The developments are within 500m of the subject site.

These developments range from 5 storeys to 9 storeys.

1. 19-23 Post Office St | 5 levels
2. 1 Donald St | 6 levels
3. 1-7 Young Rd | 5 levels
4. 1 Post Office St | 9 levels





SITE SURROUNDING BUILT FORM (HIGH DENSITY)

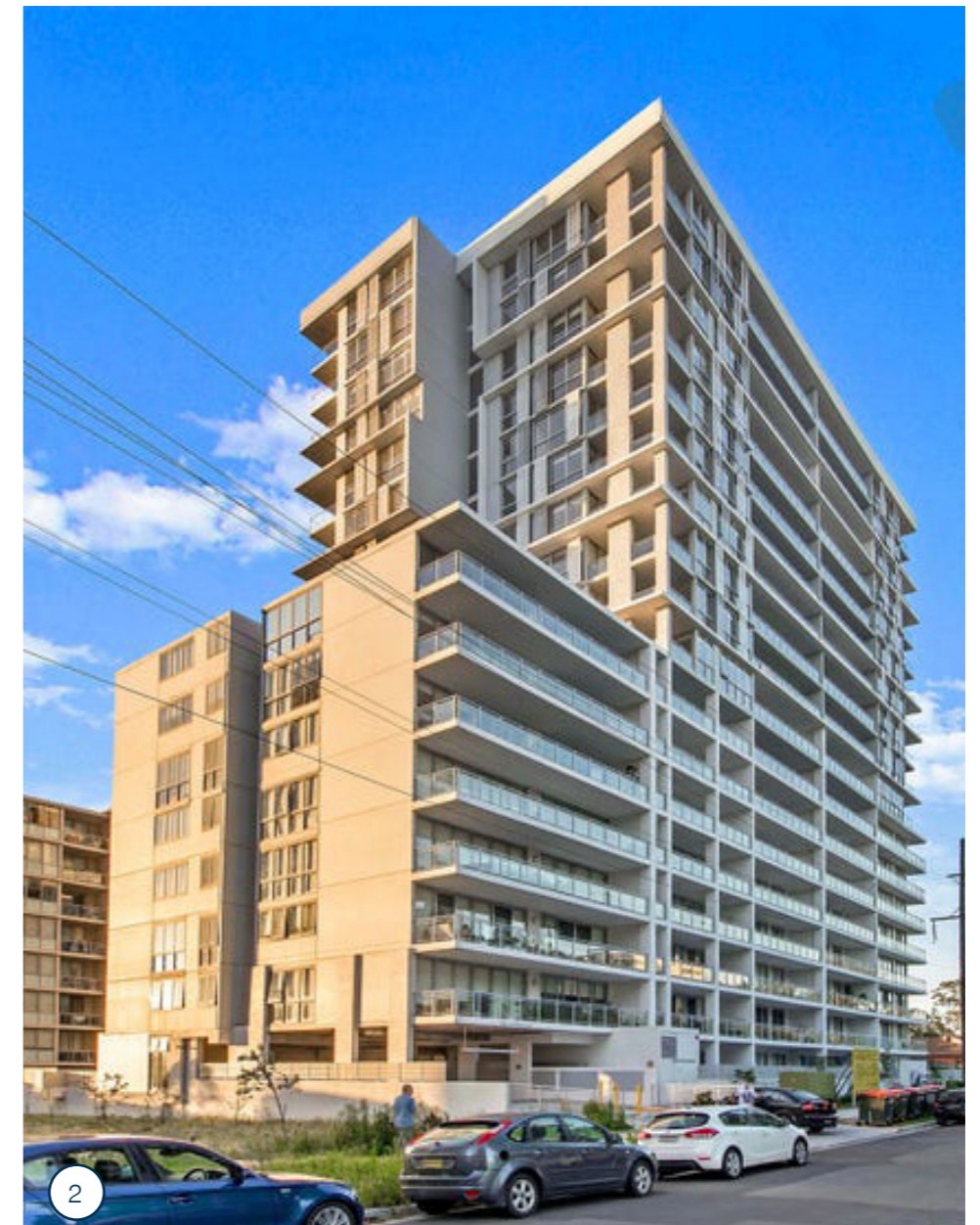
SURROUNDING DEVELOPMENT

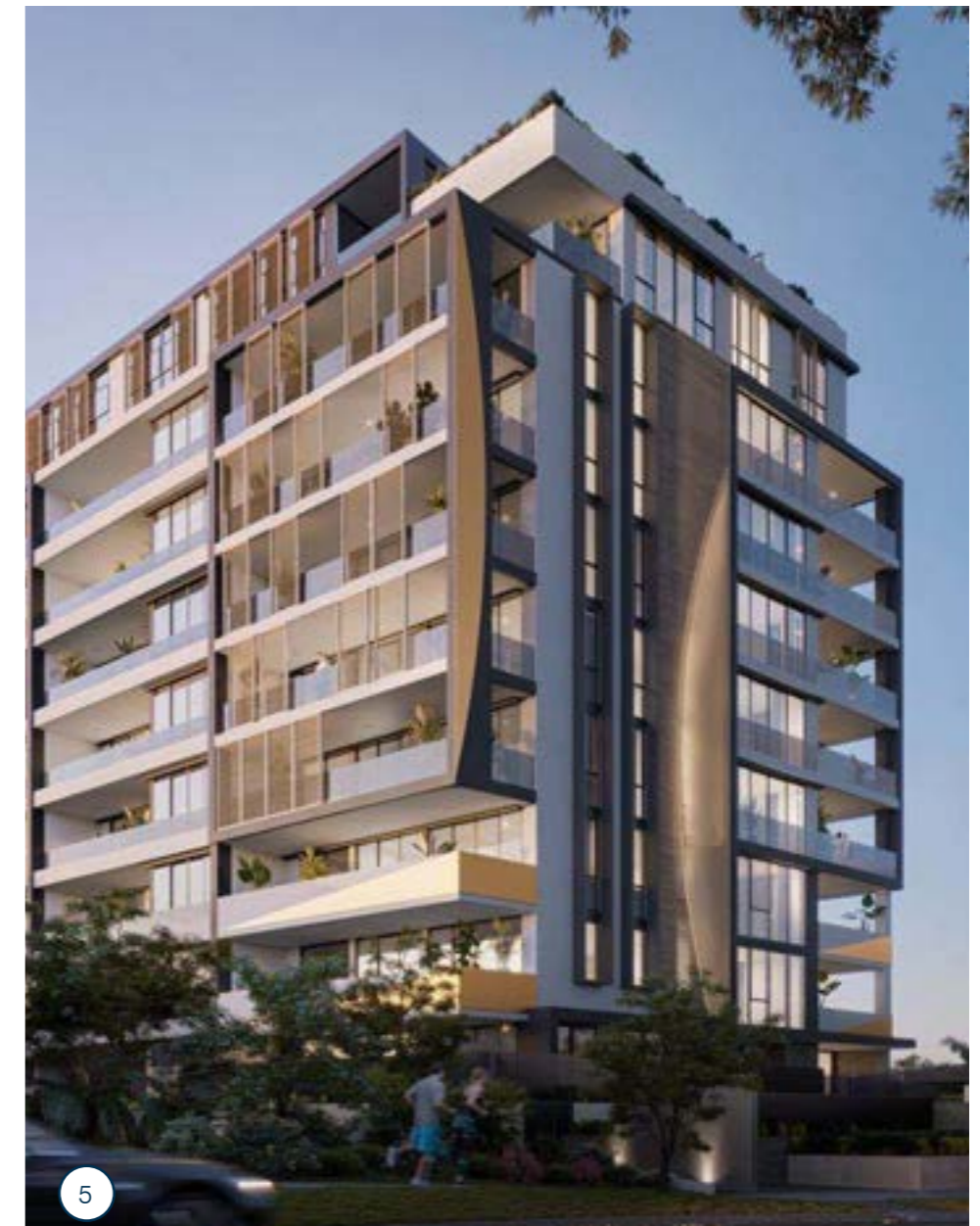
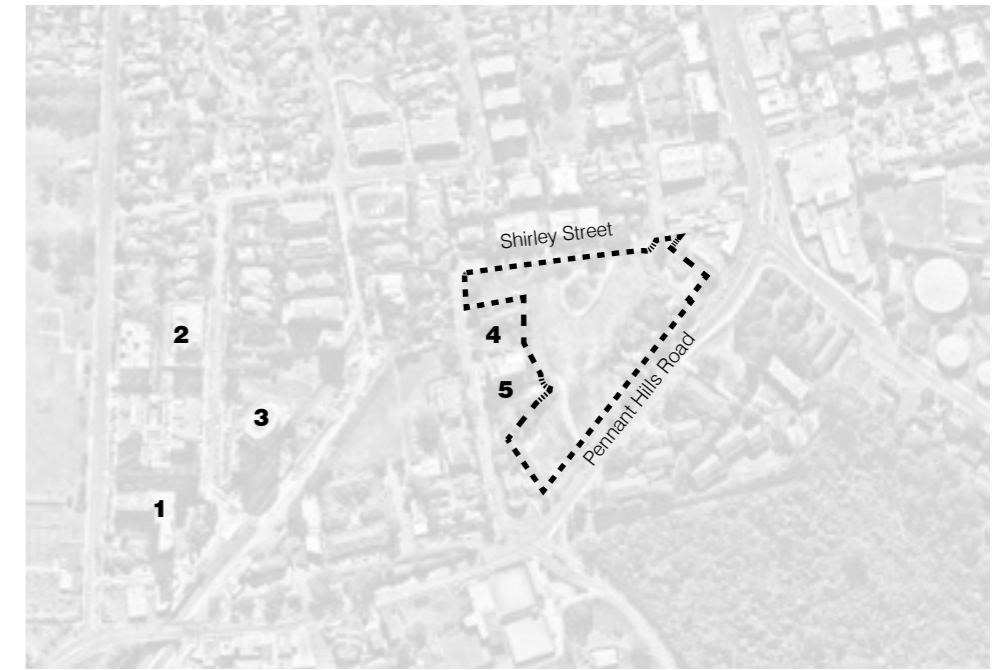
The developments illustrated on this page show examples of higher density multi residential buildings approved or built in the local area.

The scale of these developments respond to the growth planned by the light rail. The developments are within 500m of the subject site. These developments range from 9 storeys to 20 storeys.

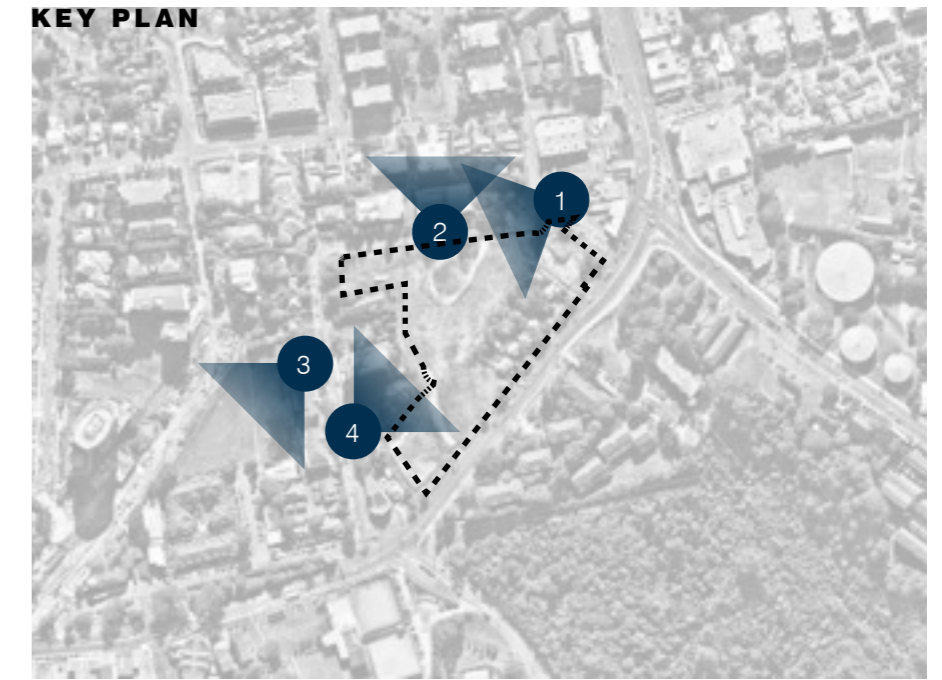
Buildings numbered 4 and 5 are direct neighbours of the site.

1. 8 James St | 18 levels - completed
2. 10 Thallon St | 18 levels - completed
3. 1/7 Thallon St | 20 levels - completed
4. 12 Shirley St | 10 levels - approved
5. 8-10 Shirley St | 9 levels - under construction





SITE SURROUNDING BUILT FORM (STREET CHARACTER)



Existing character and scale study

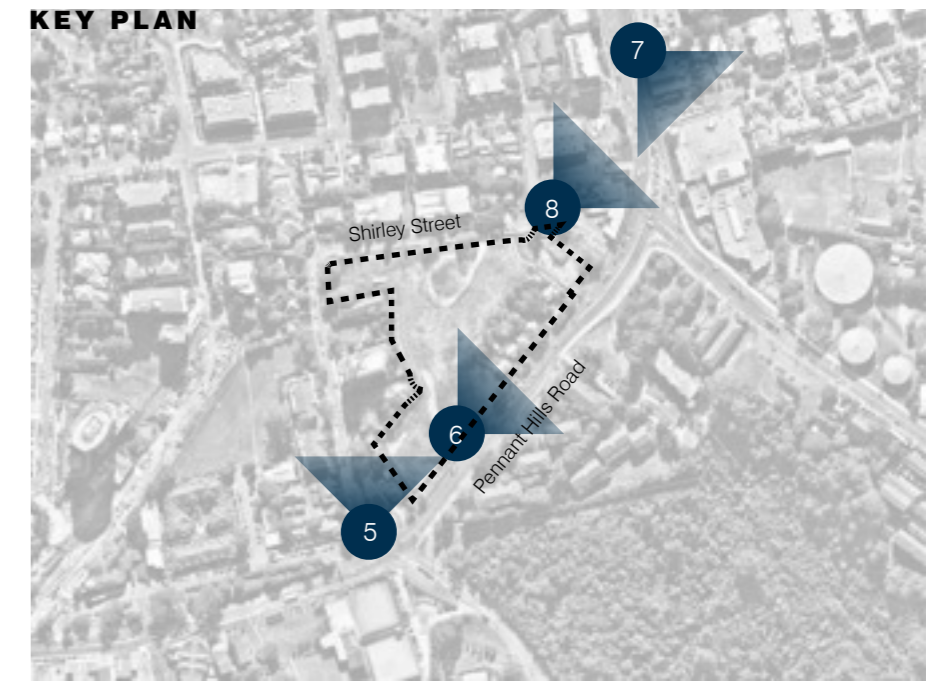
A photographic study was undertaken to explore the scale and typology of the adjoining streets.

This study shows the varying bulk and scale of the different street sections. Lower "three story walkup" style residence run along Shirley street. Denser developments can be seen towards the Light Rail station and directly adjacent to the subject site along Shirley St.

Images 7 and 8 show where the site adjoins the local retail precinct.

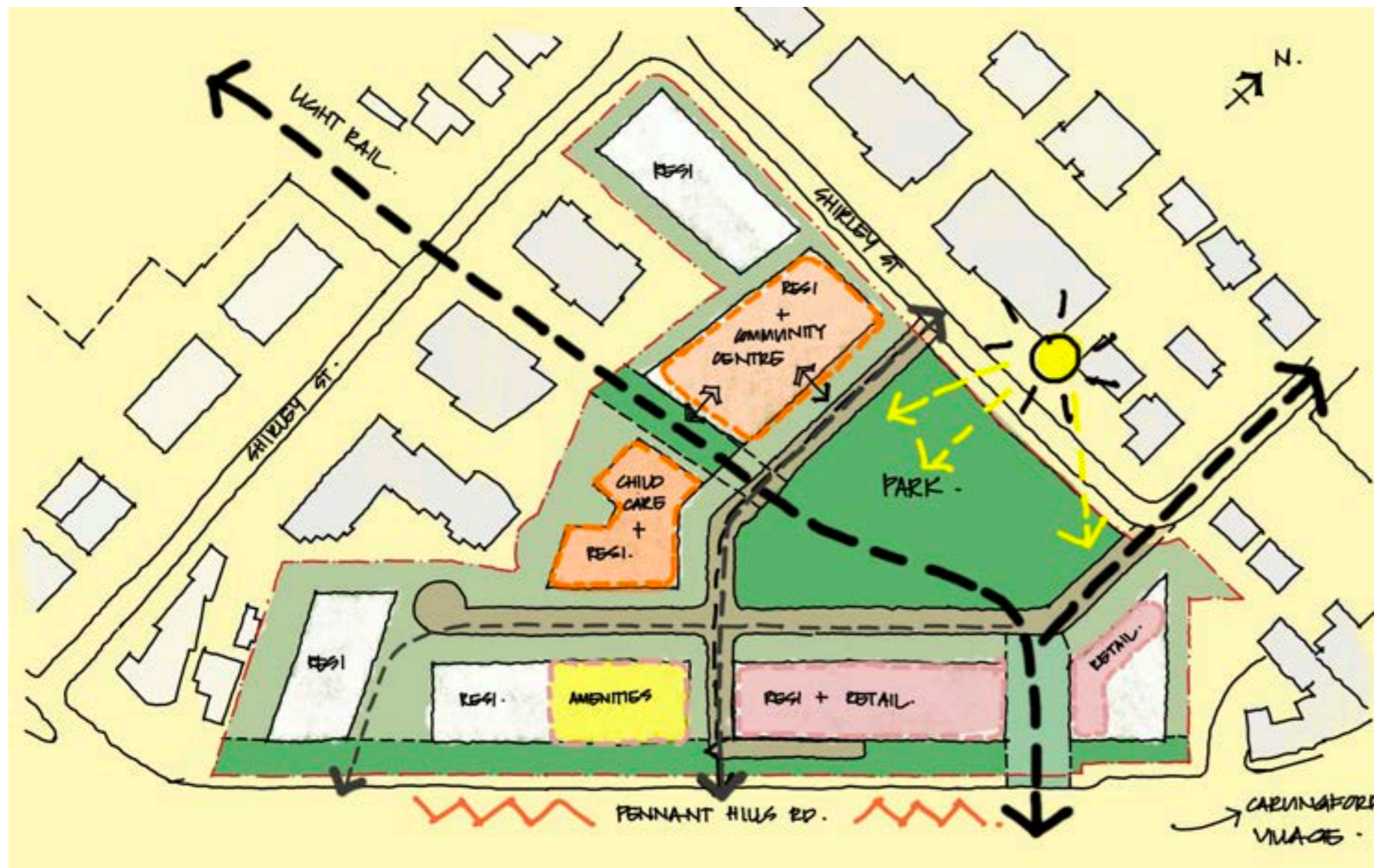


KEY PLAN



3.0 DESIGN RESPONSE

PROPOSED MASTERPLAN



THE PROPOSED MASTERPLAN

The primary principle of this master plan is placemaking. A network of pedestrian connections link Pennant Hills Road, Shirley Street and the light rail stop through the site. The nexus of these connections forms a natural heart to the precinct and becomes a village forecourt.

THE PLACEMAKER

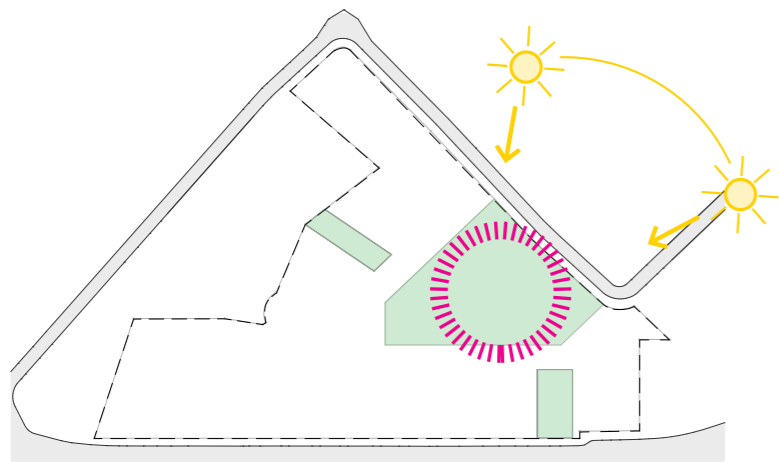
A large north-facing green open space is proposed in the heart precinct as an attractor to be surrounded by active uses. These uses include a community library, neighborhood shops, a cafe, a childcare center and residential communal amenities.

CONNECTORS

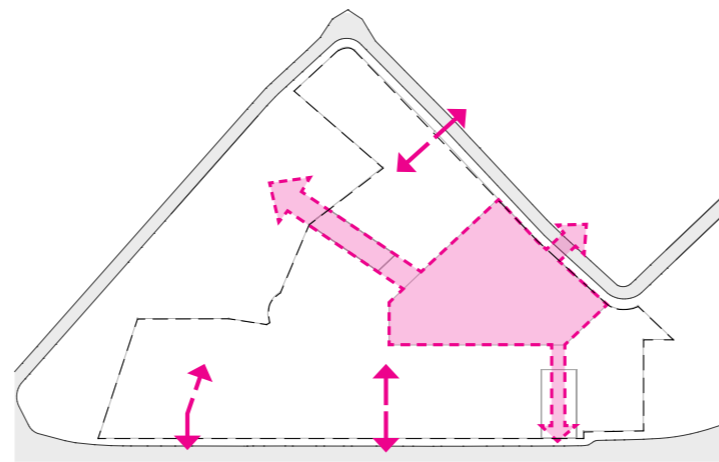
Vehicular access is provided from Shirley Street only. A new internal street is proposed to circulate through the site with ample street landscaping and visitor parking. Each building has basement car parking, separate loading and waste management areas.

STREET ACTIVATION

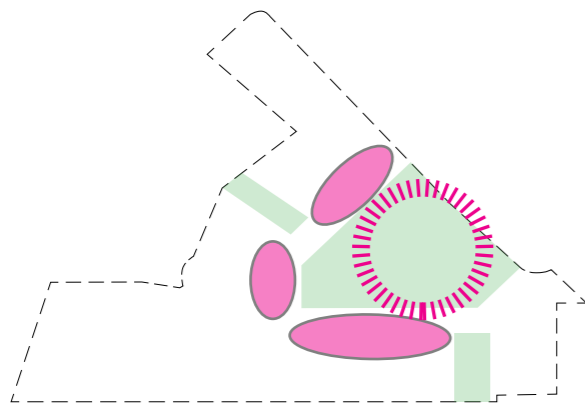
The proposed precinct is heavily vegetated along its streetscape to offer shading and definition along the internal street network. Bases of buildings are populated by community uses to encourage street activation and passive surveillance across the public realm.



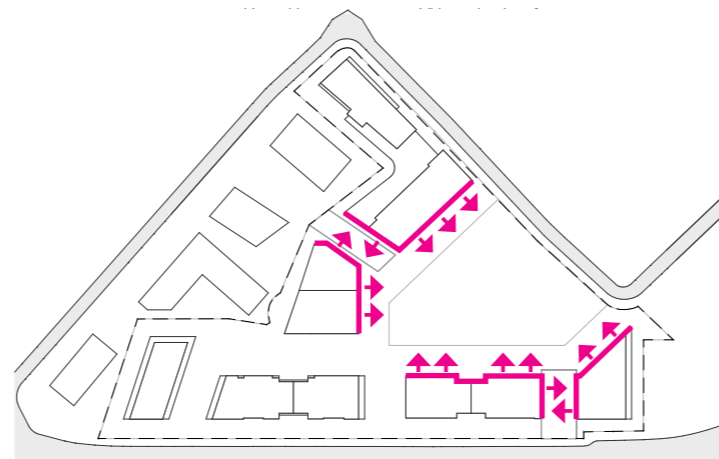
OPEN SPACE / ATTRACTOR



CONNECTION TO OPEN SPACE

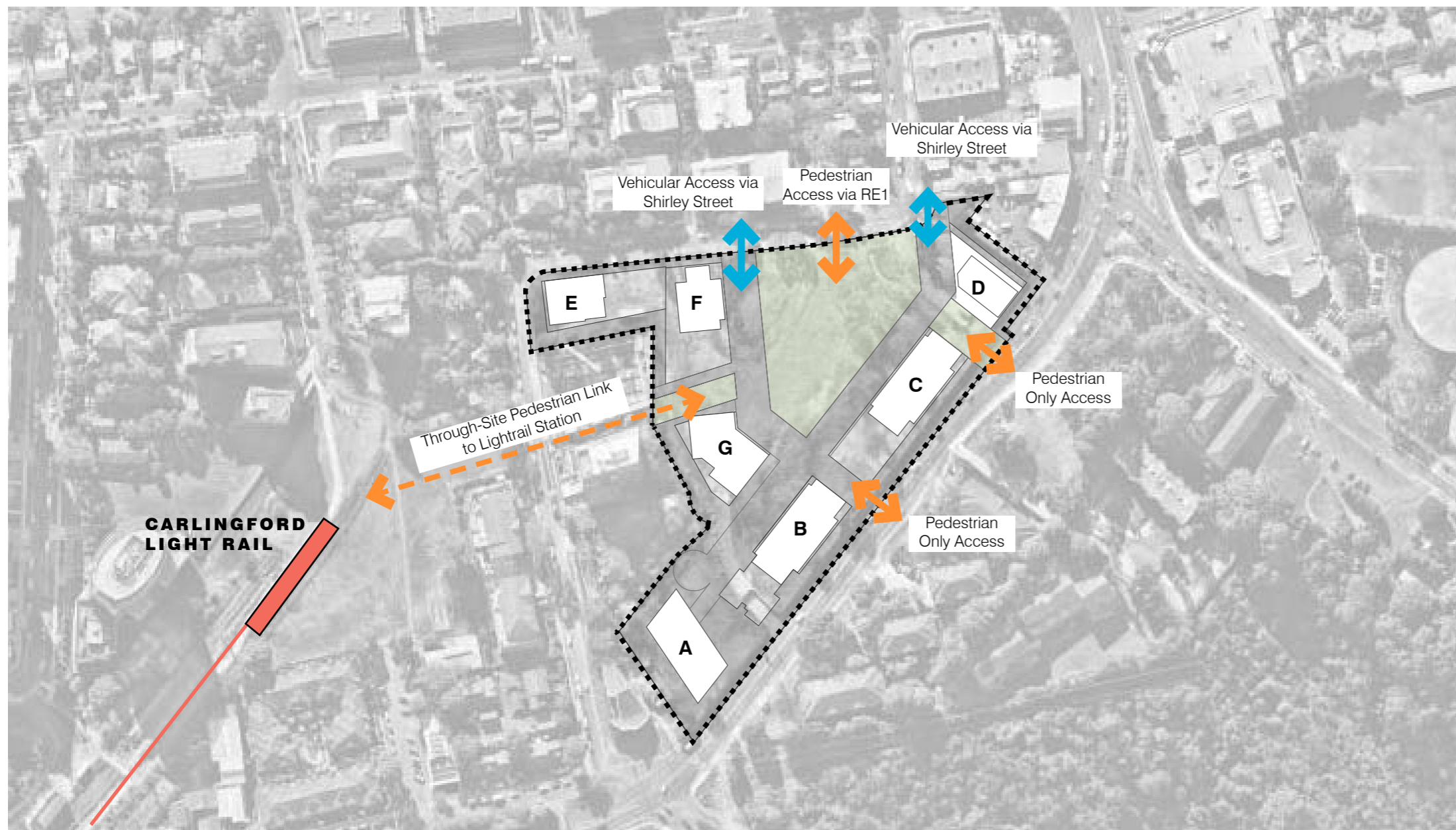


COMMUNITY USES AROUND ATTRACTOR



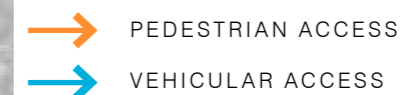
ACTIVE ENGAGEMENT TO OPEN SPACE

SITE ACCESS



There are 2no. of two-way vehicular access proposed into precinct is off Shirley Street. (Refer blue arrows).

4no. pedestrian only site access is proposed across the precinct. A key site pedestrian access are located along the western connection to the light rail station between Building G and F. 2no. secondary pedestrian access points are located along Pennant Hills Road, approximately 95m apart enabling greater pedestrian permeability through the precinct. The other main access into the precinct is along Shirley Street which opens the proposed park to the broader neighbourhood situated along the north.



SITE INTERNAL STREET NETWORK



The proposed internal street network is a two-street network connecting Buildings A, B, C, D, F and G.

All building servicing is located on the ground level from the internal street network, with the exception of Building E. Access into Building E is located directly off Shirley Street from the north.

The precinct proposes 3no. new carriageway entries off its Shirley Street boundary.

- MAJOR ROAD / HIGHWAY
- PRIMARY ROAD
- SECONDARY ROAD
- ▨ INTERNAL SITE ROAD

DEDICATED PUBLIC OPEN SPACE



Proposed dedication of public open space (RE1 zone) and public access easement connecting to Pennant Hills Road (R4). (highlighted in blue)

Total = 6050sqm

The proposed RE1 zone occupies 45m of 185m (or 24%) of street frontage along Shirley Street.

- DEDICATED PUBLIC OPEN SPACE
- BUILT FORM

PUBLIC AMENITIES



The precinct proposes a variety of uses within the base of the buildings. These include :-

- A community library
- Retail uses
- A childcare
- A supermarket
- A park (approx. 4700m2)

- DEDICATED AREA (RE1 ZONE)
- DEDICATED AREA (PUBLICLY ACCESSIBLE THROUGH-SITE LINK)
- LIBRARY
- RETAIL USE
- CHILDCARE
- SUPERMARKET

PROPOSED BUILT FORM (SETBACKS FROM BOUNDARY)



Diagram of proposed built form setbacks from site boundary.

- 10 METER BOUNDARY SETBACK
- 6 METER BOUNDARY SETBACK
- 4 METER BOUNDARY SETBACK
- BUILT FORM

PROPOSED BUILT FORM (SETBACKS FROM BLOCKS)

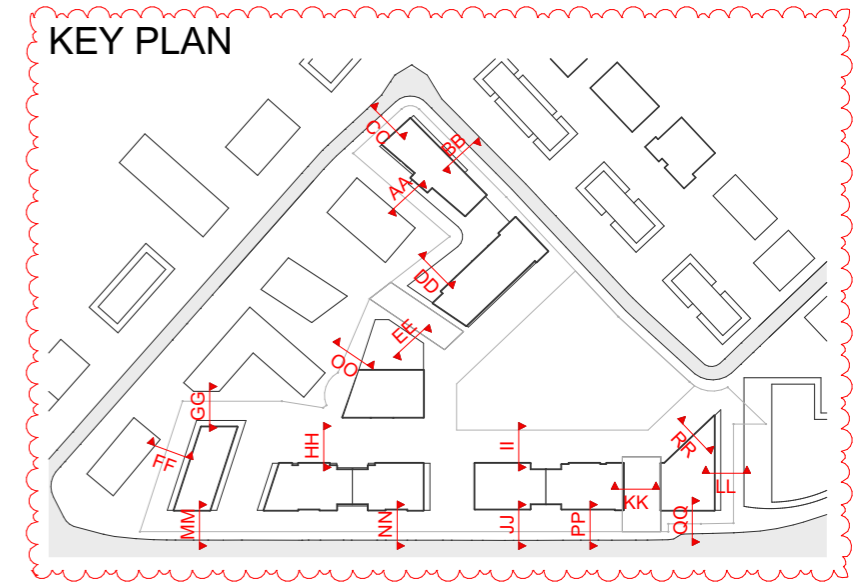


Diagram of setbacks between proposed built form towers.

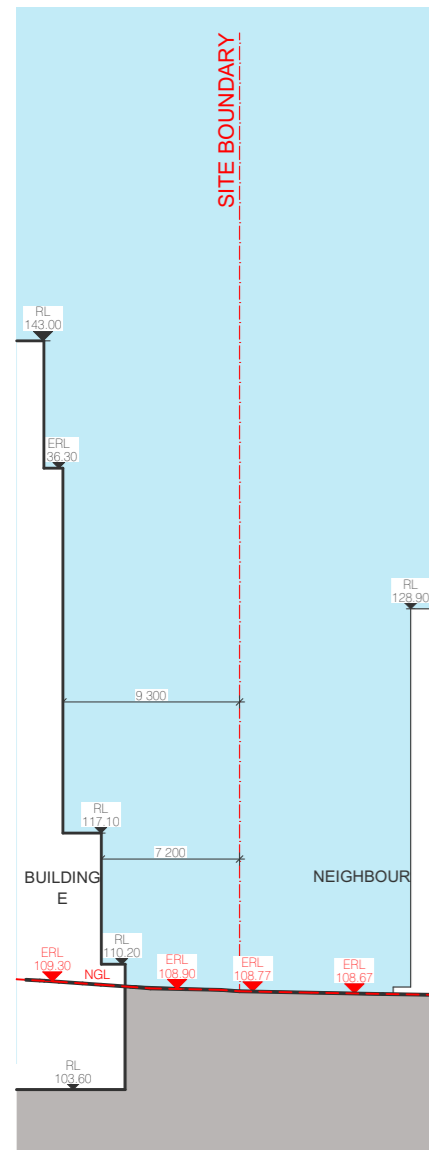
- ↔ BUILDING SEPARATION
- BUILT FORM

PROPOSED BUILT FORM SETBACKS FROM PRECINCT BOUNDARY

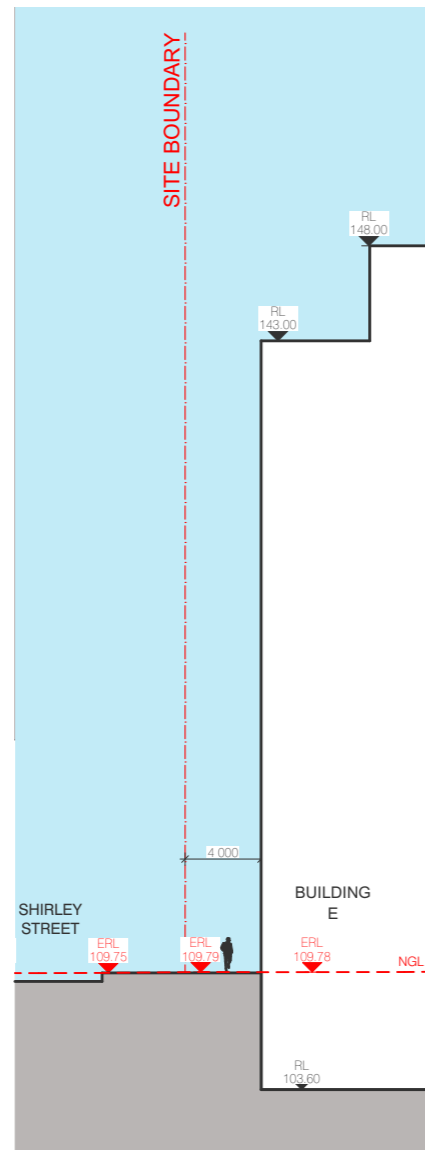
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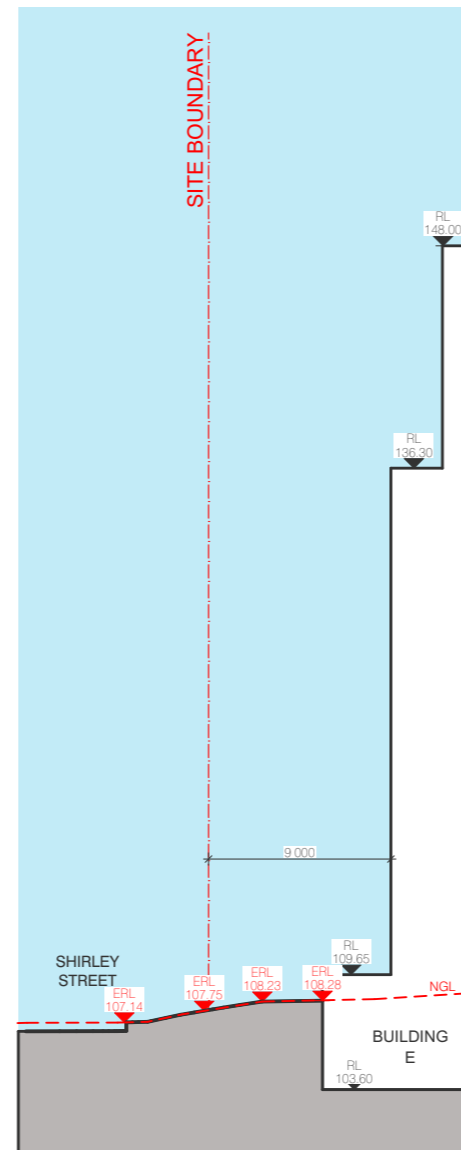
BOUNDARY CONDITIONS



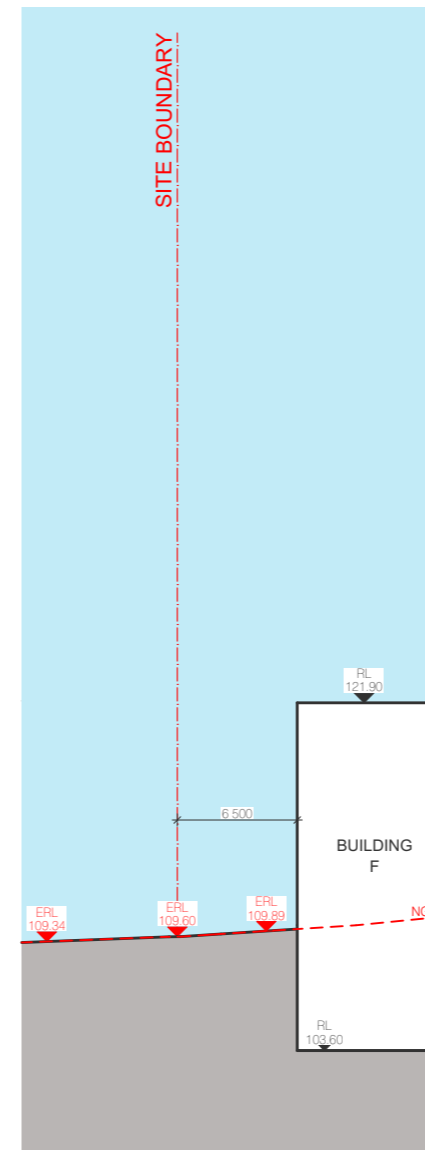
SECTION AA



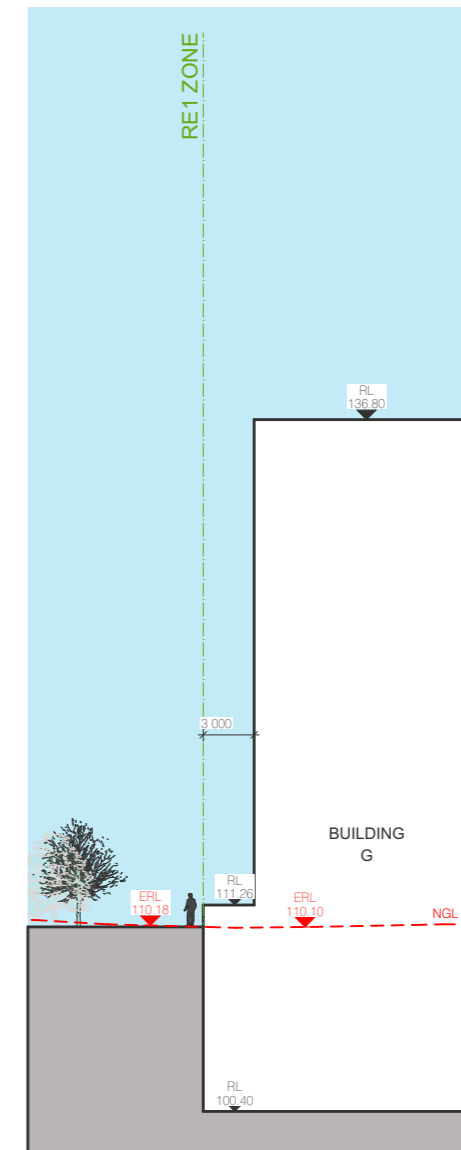
SECTION BB



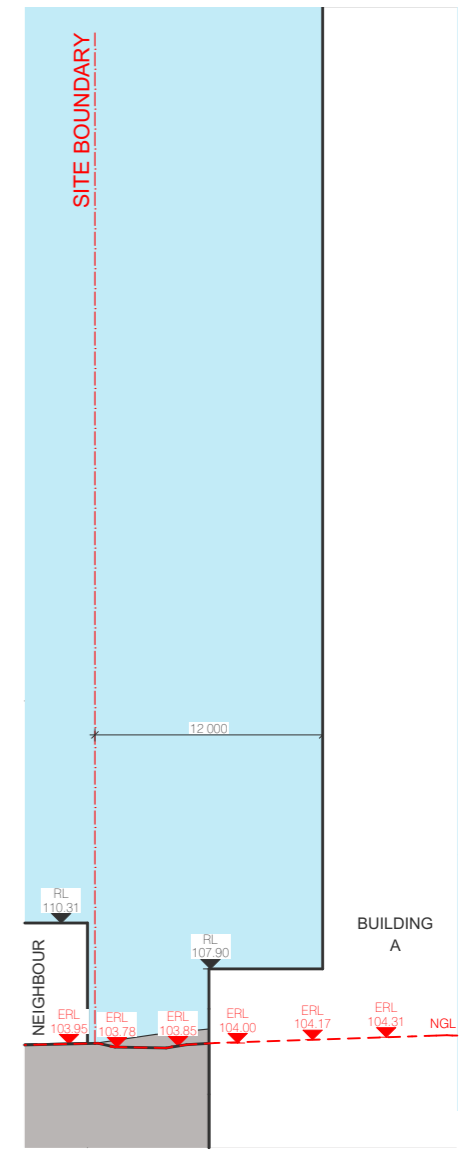
SECTION CC



SECTION DD

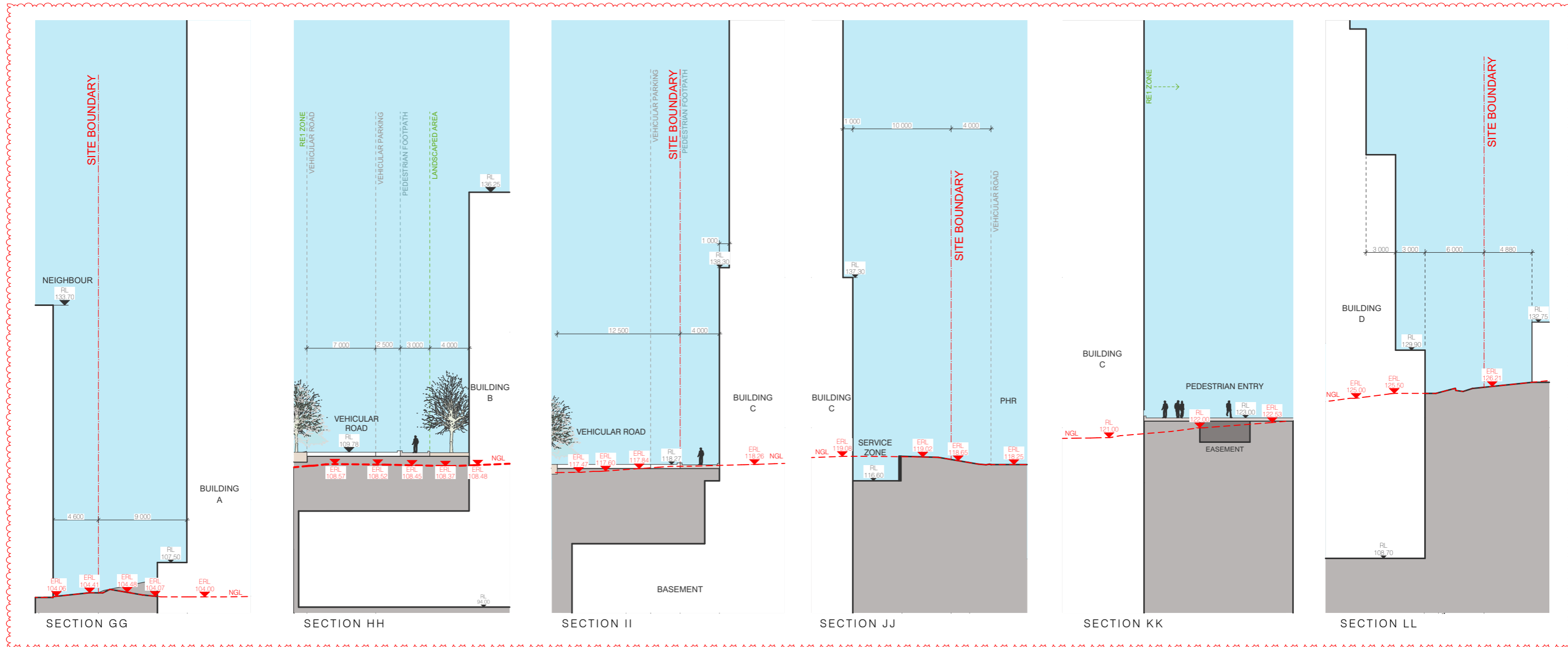
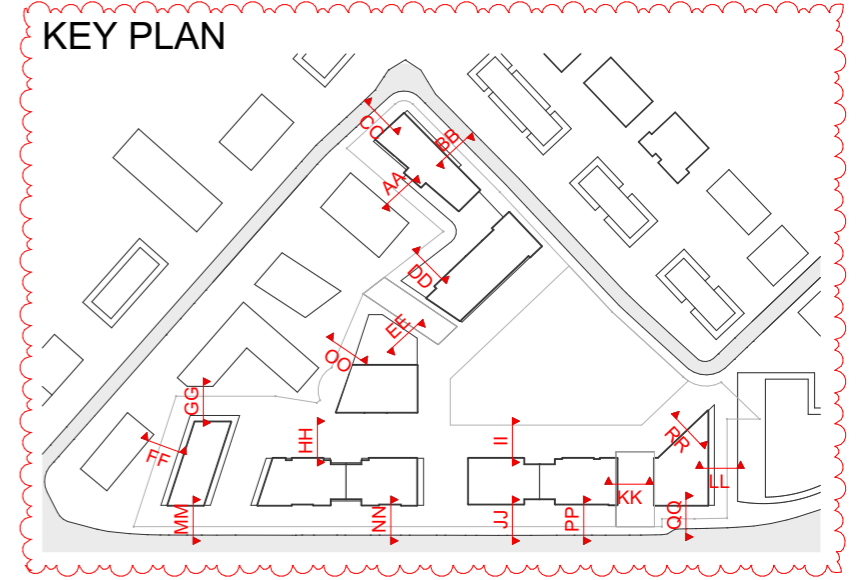


SECTION EE



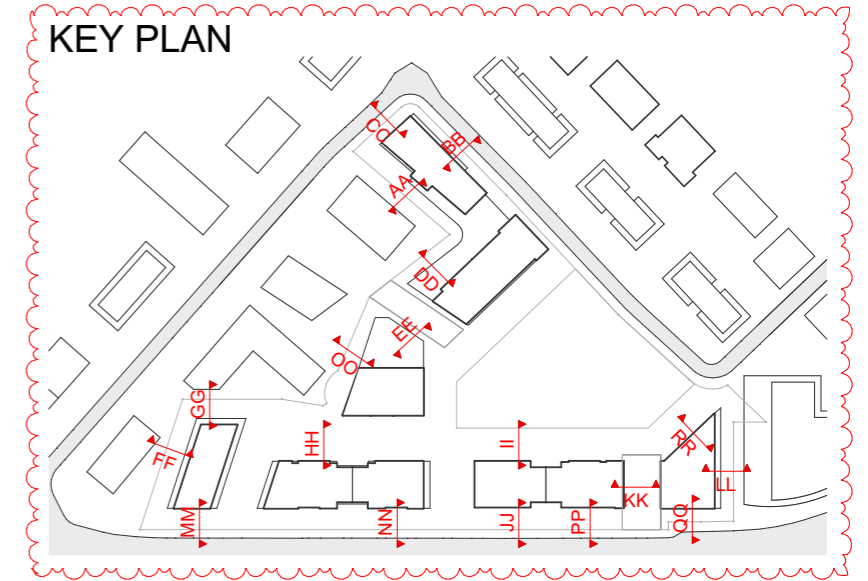
SECTION FF

UPDATED

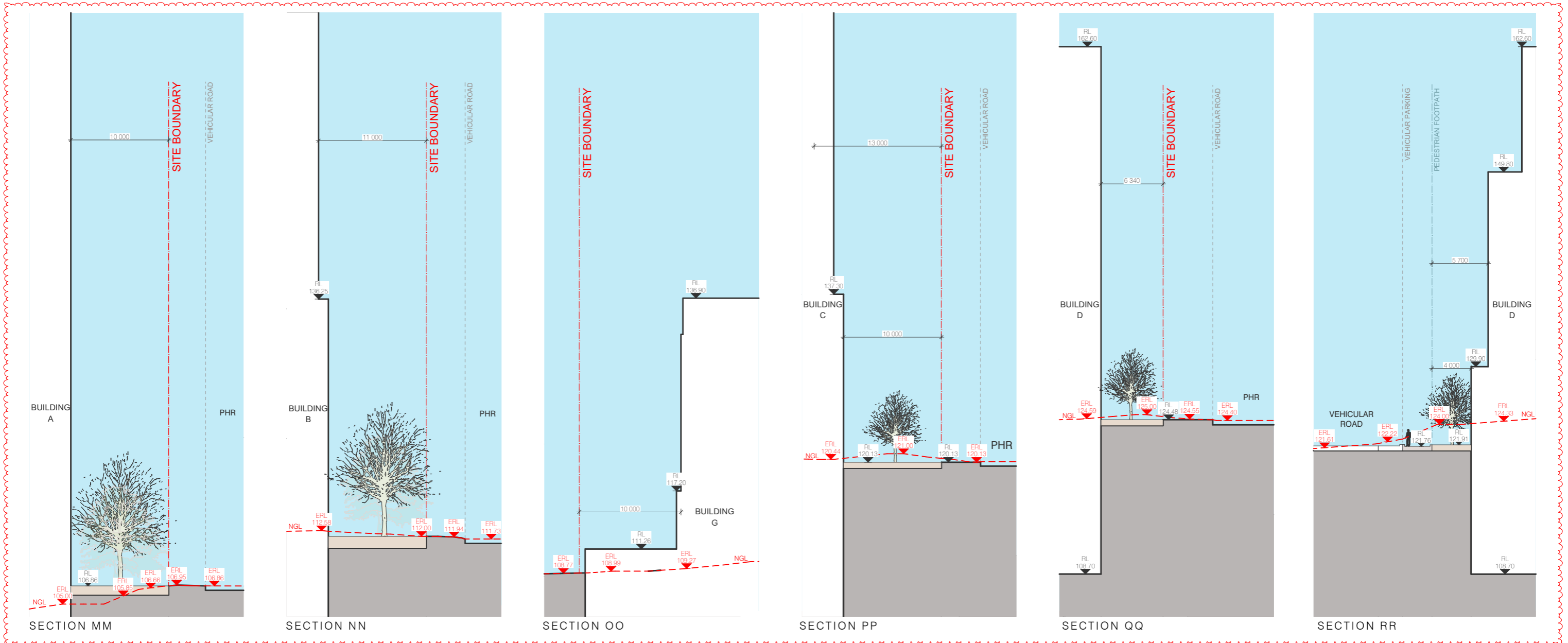


PROPOSED BUILT FORM SETBACKS FROM PRECINCT BOUNDARY

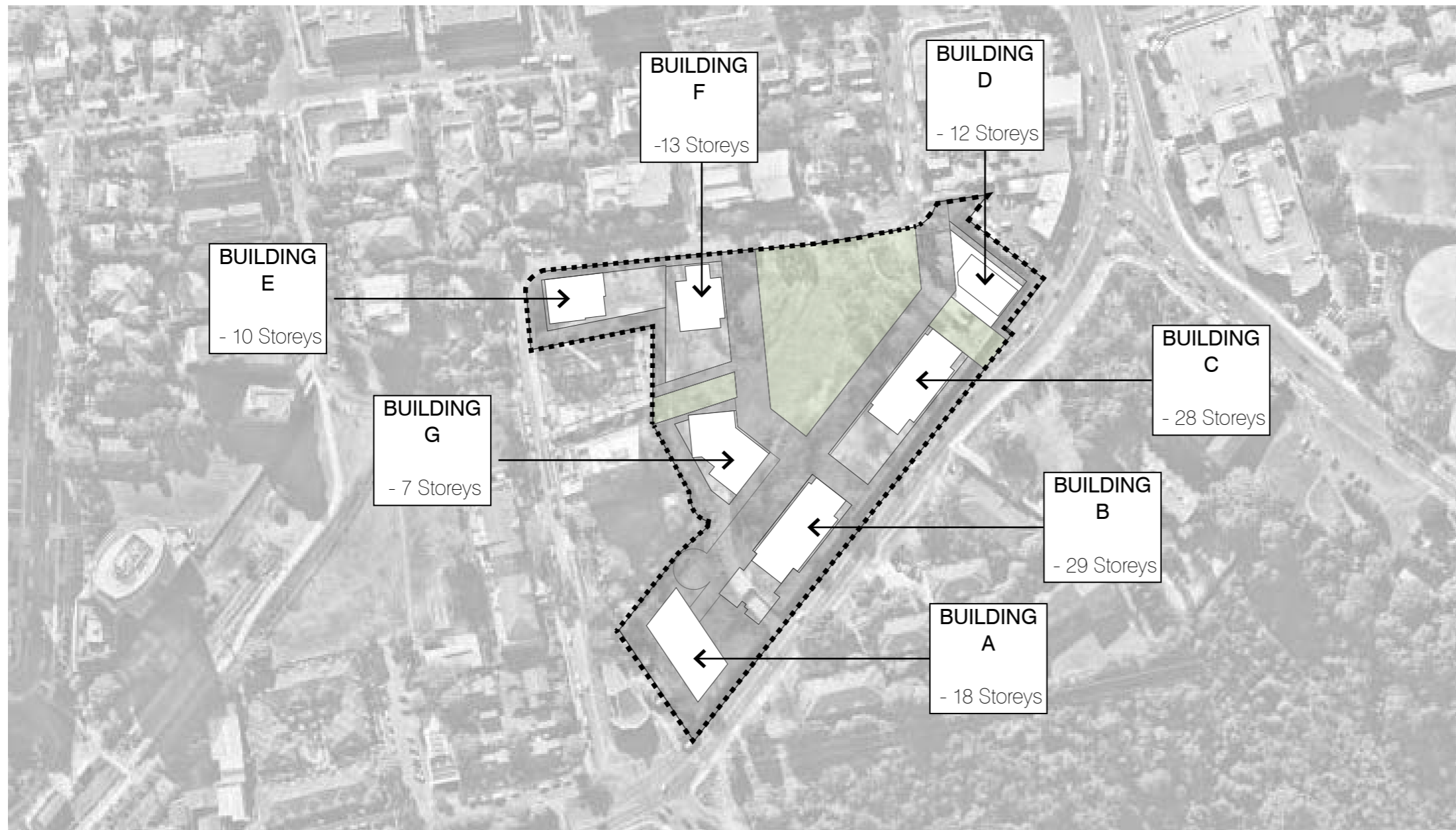
UPDATED



BOUNDARY CONDITIONS



PROPOSED BUILT FORM (HEIGHTS)



The proposed masterplan infills the gap between the broader precinct sectional analysis spanning from the Carlingford newly established light rail precinct up to Carlingford Village.

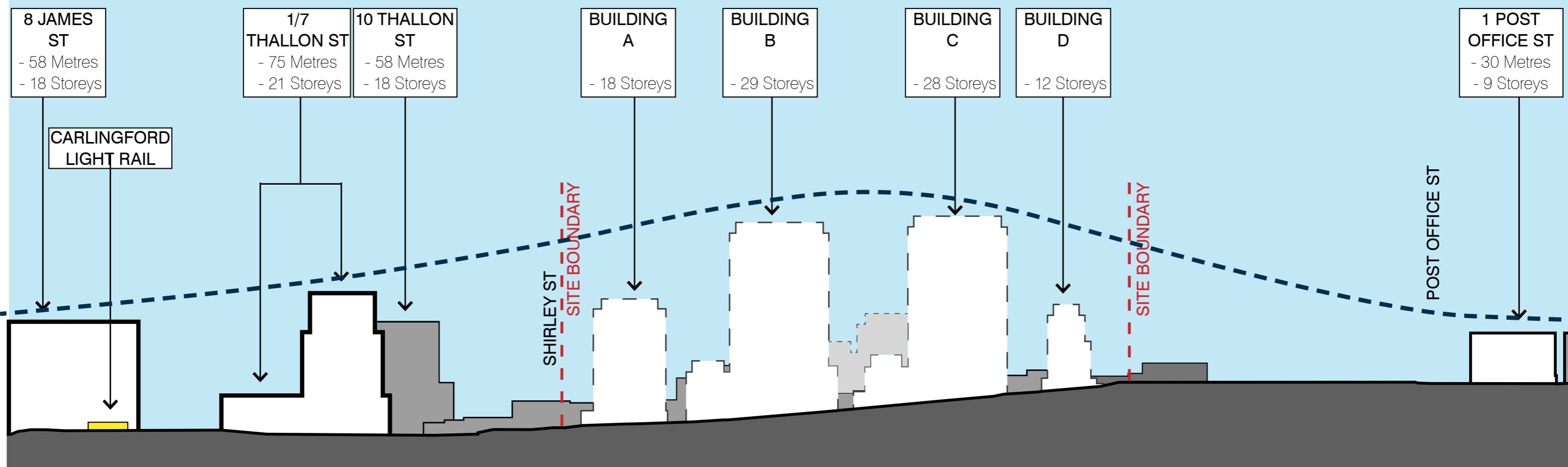
The proposed built forms along Pennant Hills Road steps up with the natural site contours and transitions back down to the activity hub located at the cross-junction of Pennant Hills Road and Marsden Road.

Building A

PROPOSED URBAN PRECINCT PENNANT HILLS ROAD SECTION

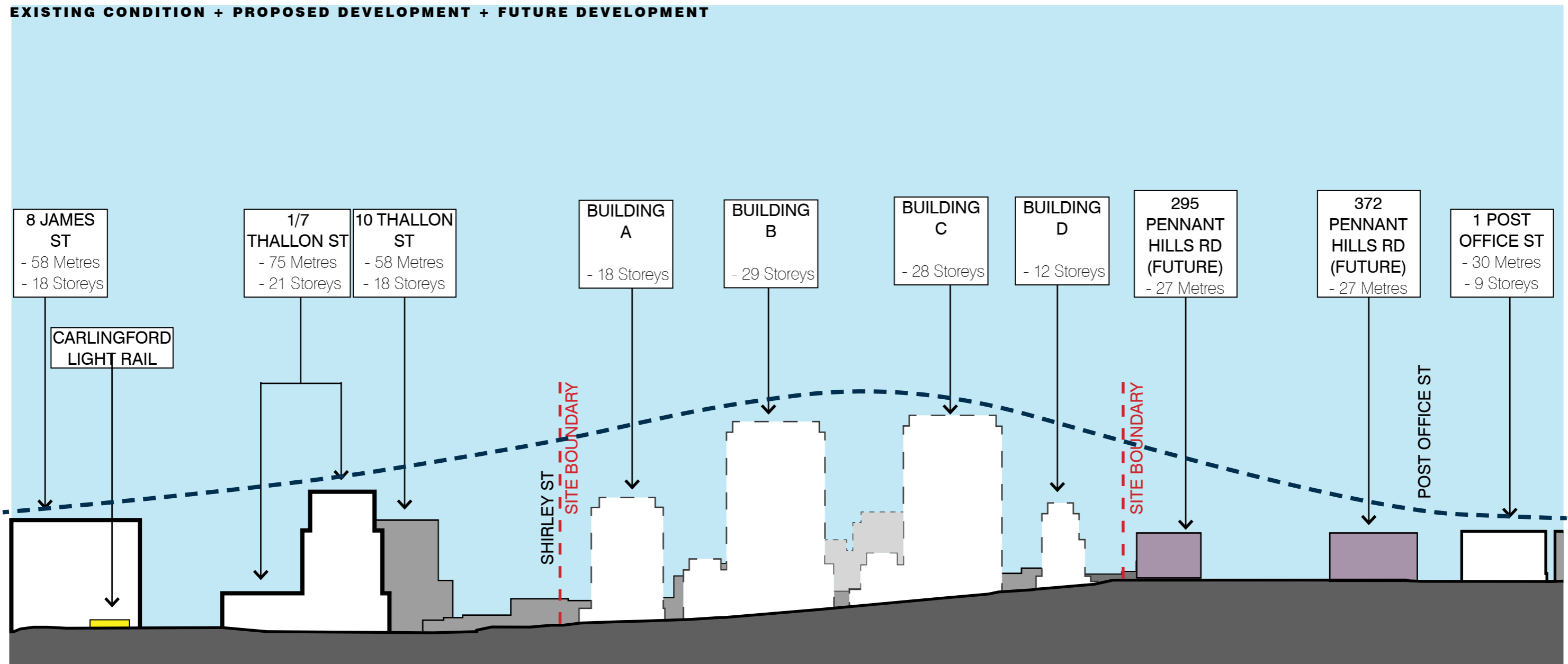


EXISTING CONDITION + PROPOSED DEVELOPMENT

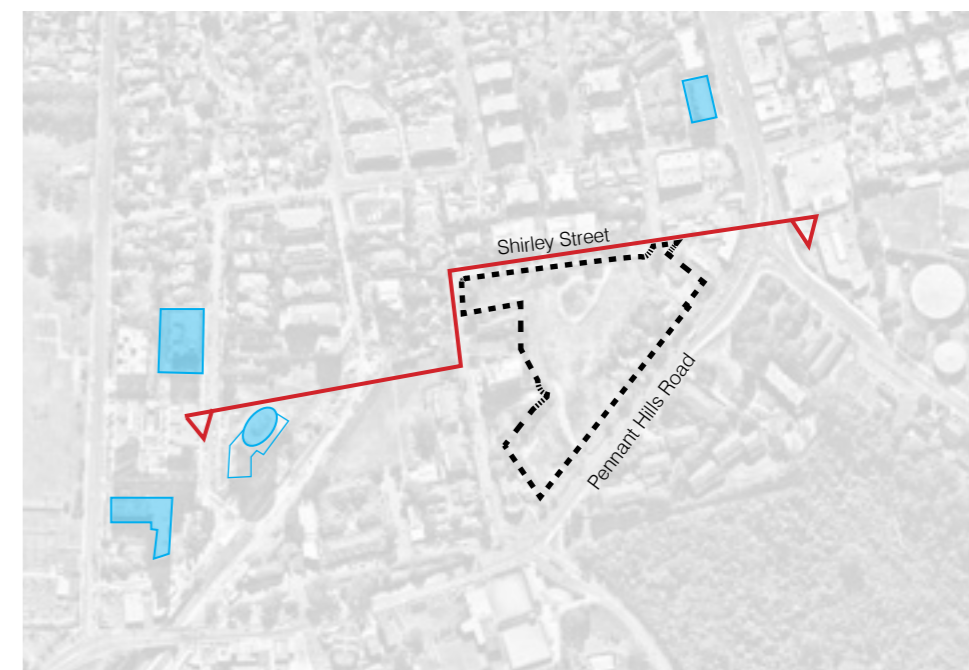


PROPOSED URBAN PRECINCT (FUTURE DEVELOPMENT) PENNANT HILLS ROAD SECTION

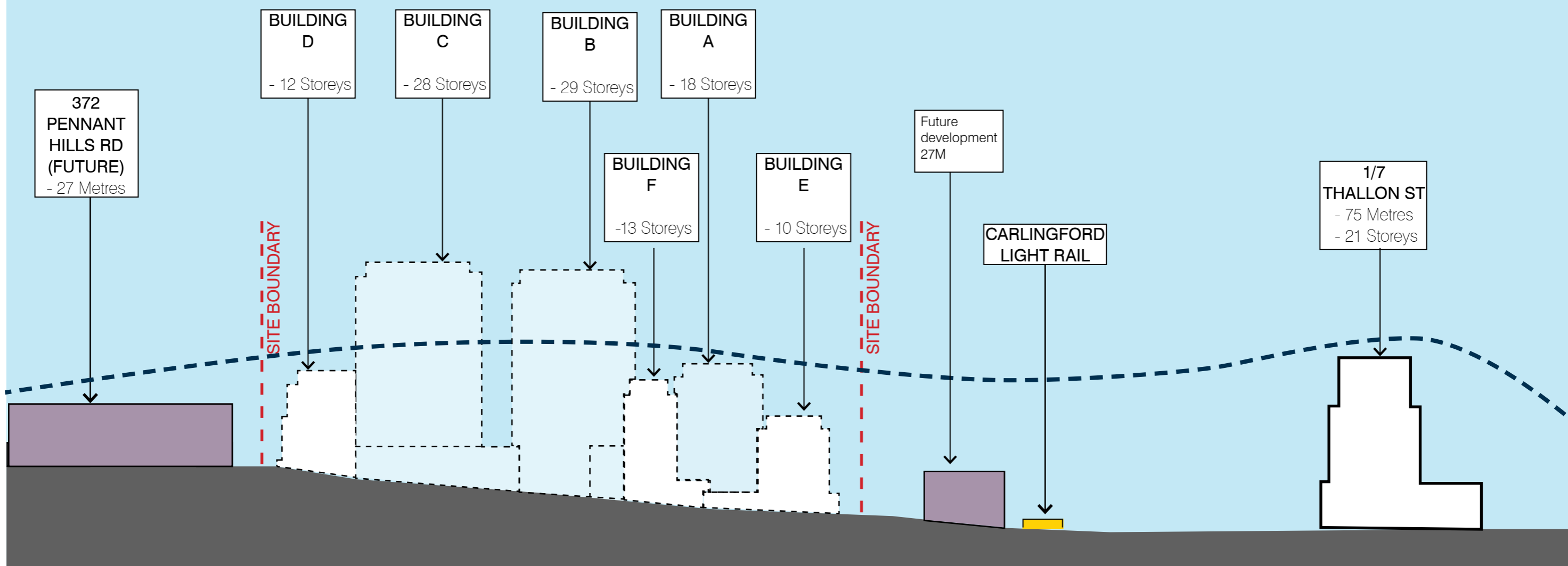
EXISTING CONDITION + PROPOSED DEVELOPMENT + FUTURE DEVELOPMENT



PROPOSED URBAN PRECINCT SHIRLEY STREET SECTION



EXISTING CONDITION + PROPOSED DEVELOPMENT



HOUSING DIVERSITY



DEVELOPMENT SUMMARY

Floor Space

Site Area	27,987 sqm
Allowable GFA	78,637 sqm
Proposed GFA	78,559 sqm

Allowable FSR	2.3:1
Proposed FSR	2.3:1

RESIDENTIAL MIX

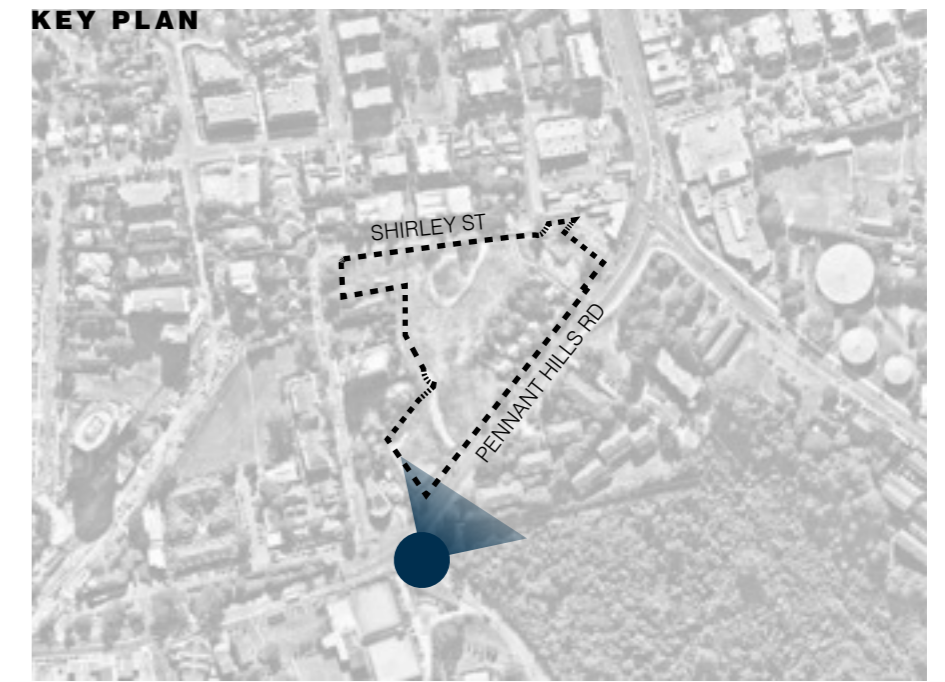
Dwellings	723 Units	
Comprising	26 x one bedroom apartments	4%
	129 x one + bedroom apartments	18%
	358 x two bedroom apartments	50%
	37 x two + bedroom apartments	5%
	141 x three bedroom apartments	20%
	32 x four bedroom apartments	4%

The overall development offers a diversity of apartment mix ranging from one bedrooms to four bedroom dwellings. Average floor areas per apartment range from 50m² one bedrooms up to 125m² four bedroom apartments.

TYPICAL BLOCK FLOOR PLATE ARRANGEMENT



KEY VISTAS - STREET VIEW 1

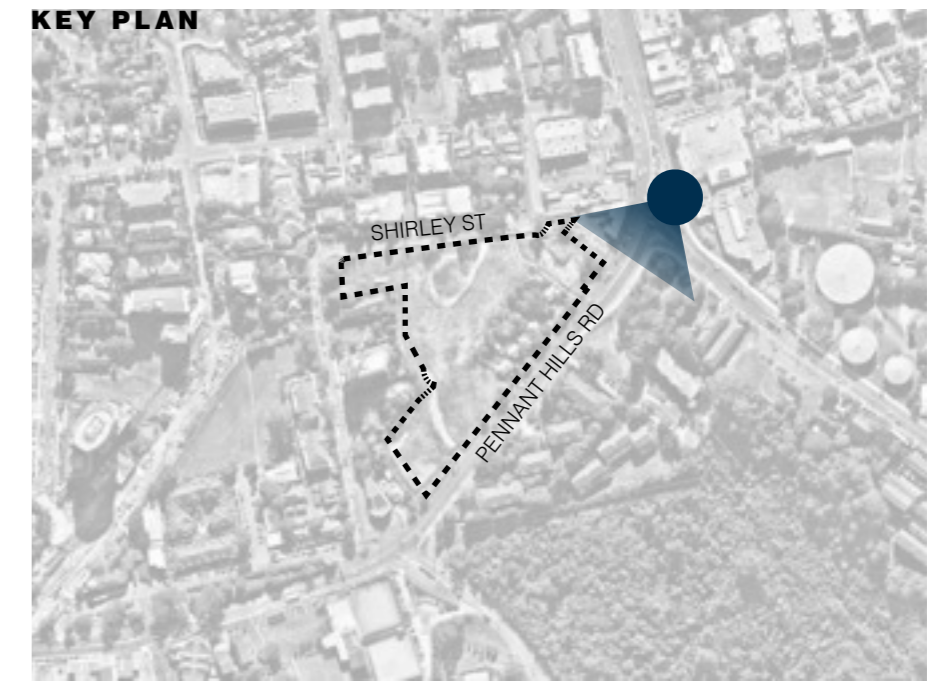


VIEW OF PROPOSED DEVELOPMENT FROM SOUTH-WEST CORNER SITE LOOKING UP PENNANT HILLS ROAD





KEY VISTAS - STREET VIEW 2

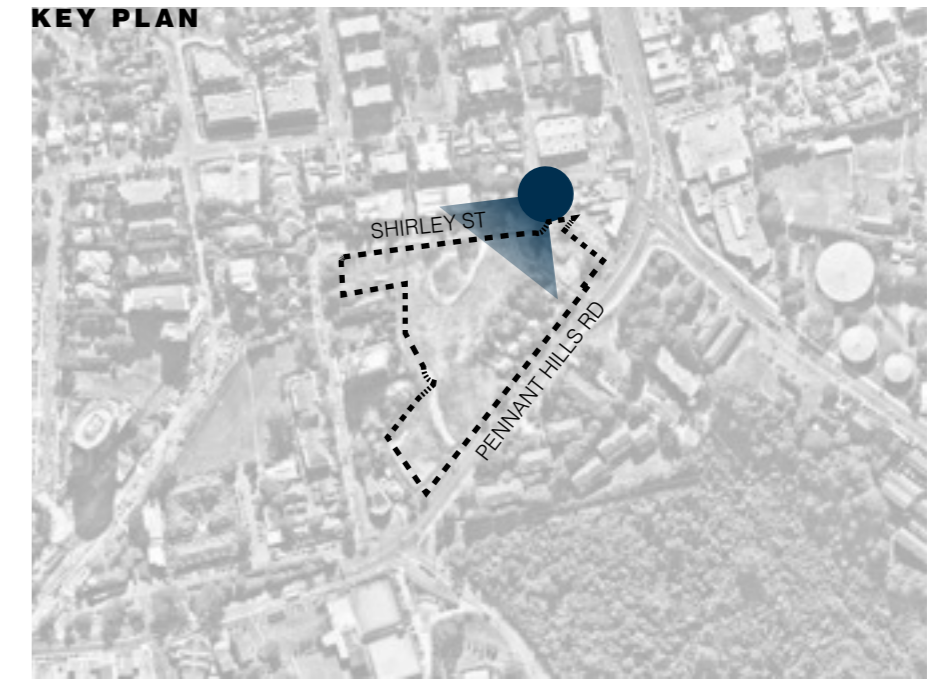


VIEW OF PROPOSED DEVELOPMENT FROM NORTH-EAST CORNER OF SITE FROM JUNCTION OF PENNANT HILLS ROAD AND MARSDEN ROAD





KEY VISTAS - NEIGHBOURHOOD VIEW 1

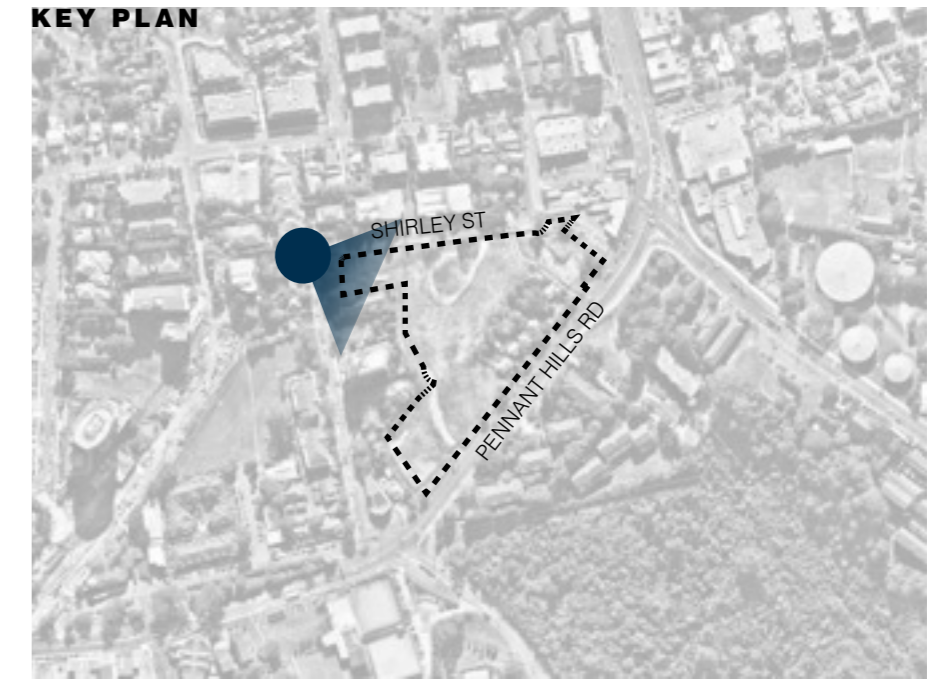


VIEW OF PROPOSED DEVELOPMENT FROM NORTH-EAST CORNER OF SHIRLEY STREET





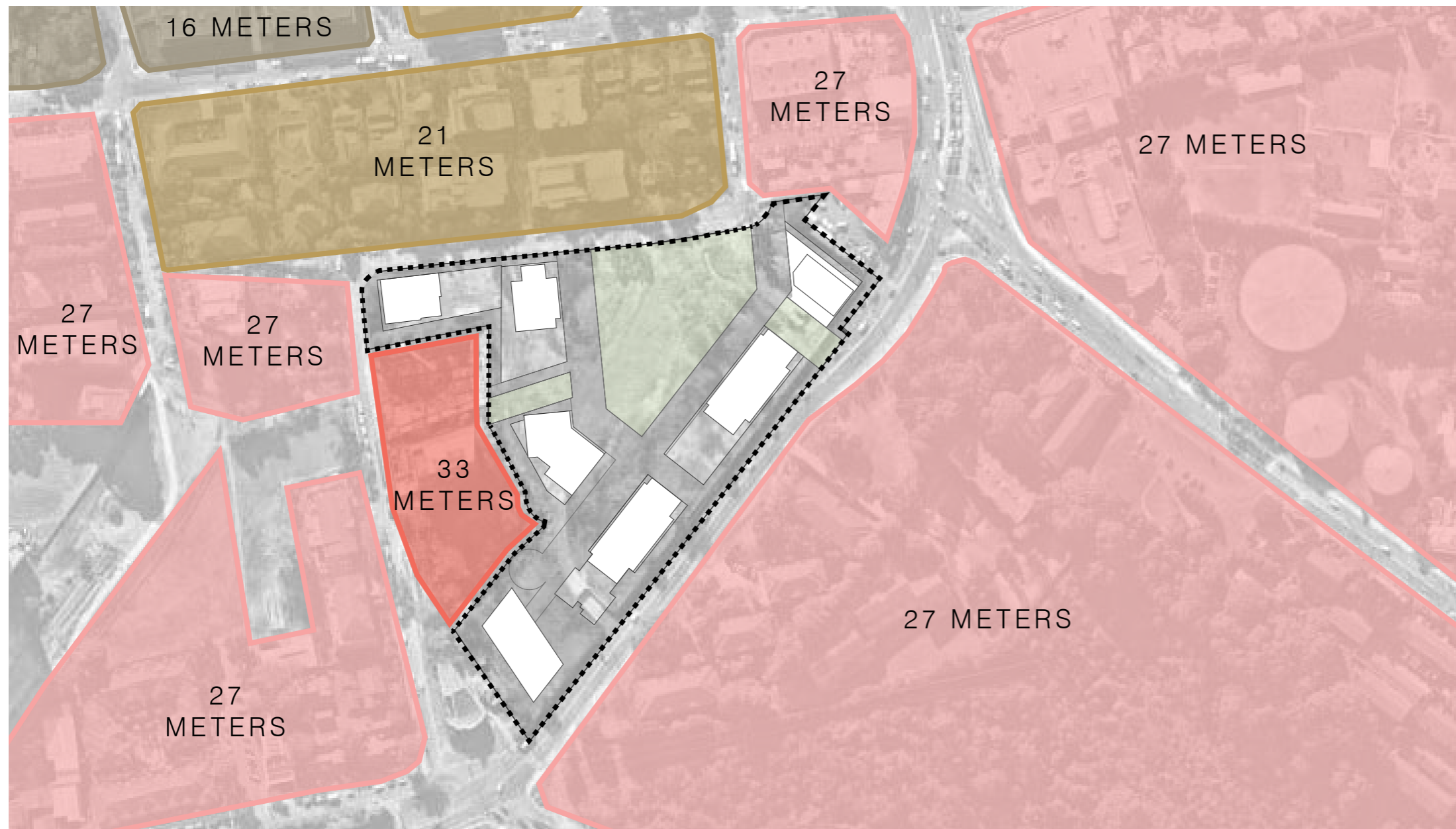
KEY VISTAS - NEIGHBOURHOOD VIEW 2



VIEW OF PROPOSED DEVELOPMENT FROM NORTH-WEST CORNER OF SHIRLEY STREET







- U2 - 33 METERS
- T2 - 27 METERS
- R1 - 21 METERS
- O2 - 16 METERS



VIEW OF PROPOSED DEVELOPMENT FROM SOUTH-WEST CORNER SITE LOOKING UP PENNANT HILLS ROAD WITH FUTURE 27M PLEP PLANNING ALLOWANCE TO ADJACENT SITE (OVERLAY IN WHITE FILL)



VIEW OF PROPOSED DEVELOPMENT FROM NORTH-EAST CORNER OF SITE FROM JUNCTION OF PENNANT HILLS ROAD AND MARSDEN ROAD WITH FUTURE 28M PLEP PLANNING ALLOWANCE TO ADJACENT SITE (OVERLAY)

OPEN SPACE SOLAR ACCESS

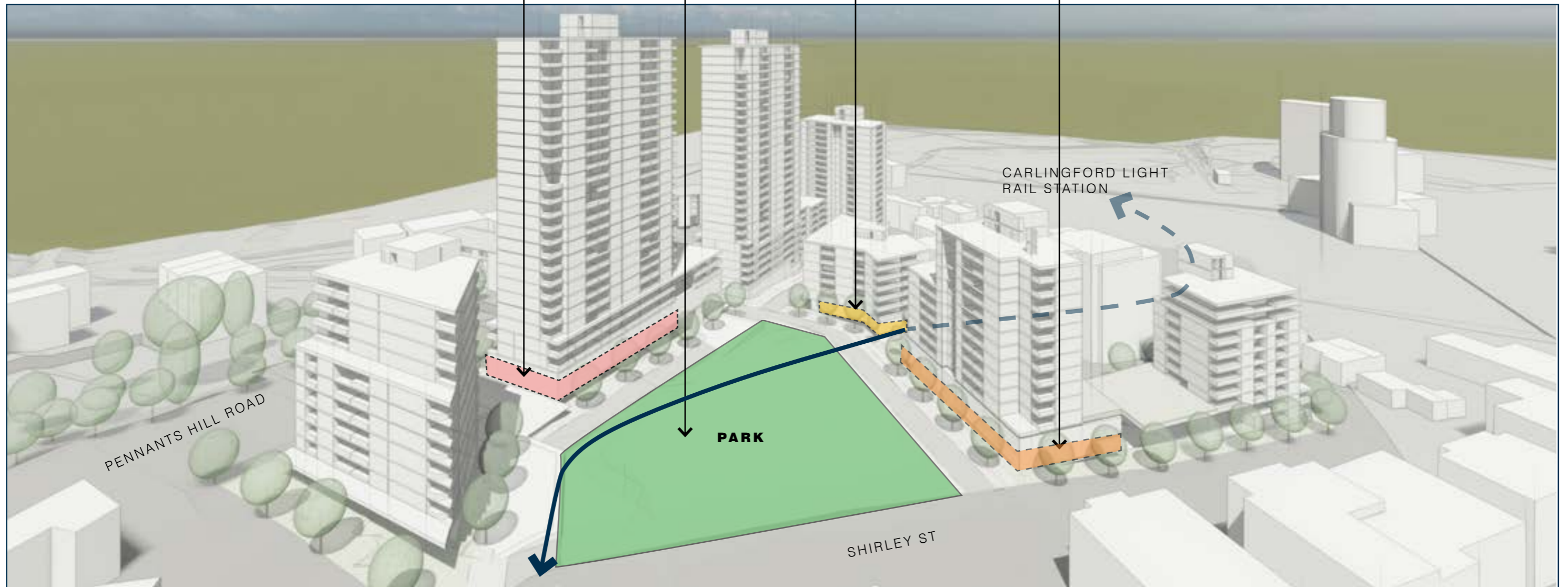
PROPOSED COMMUNITY LIBRARY	3000 sqm
PROPOSED CHILD CARE	600 sqm
PROPOSED PARK	4760 sqm

PROPOSED
SUPERMARKET

PROPOSED PARK
AREA = 4760sqm

PROPOSED
CHILD
CARE

PROPOSED
COMMUNITY
LIBRARY



UPDATED

SOLAR ACCESS TO RE1 ZONE

SHADOW DIAGRAMS LEGEND

- SHADOWS CAST BY EXISTING DA
- ADDITIONAL SHADOWS CAST BY PROPOSED DEVELOPMENT
- SHADOWS REDUCED FROM EXISTING DA
- SITE BOUNDARY
- RE1 ZONE



9AM / JUN 21 - EXISTING DA



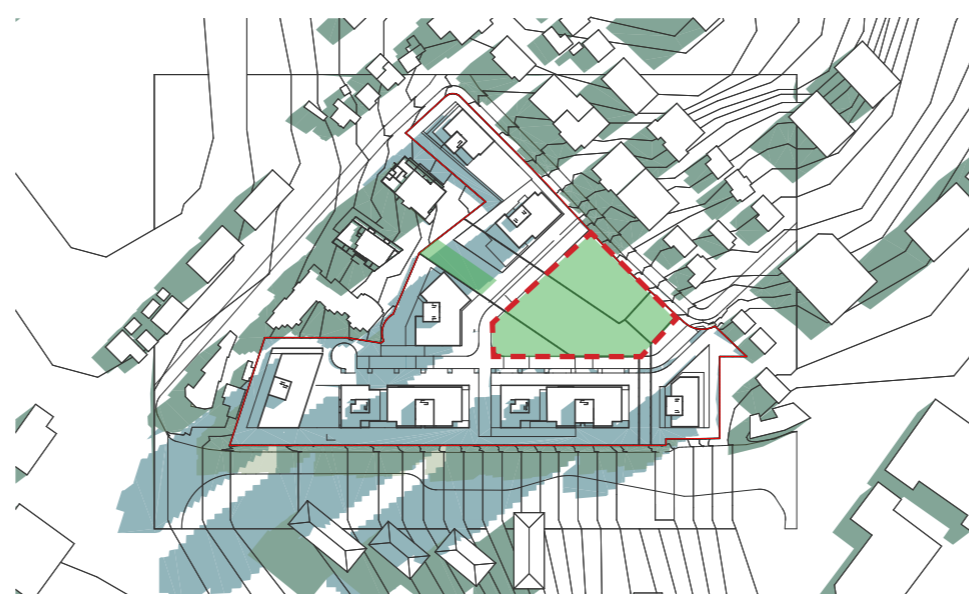
12PM / JUN 21 - EXISTING DA



3PM / JUN 21 - EXISTING DA



9AM / JUN 21 - PROPOSED DA



12PM / JUN 21 - PROPOSED DA

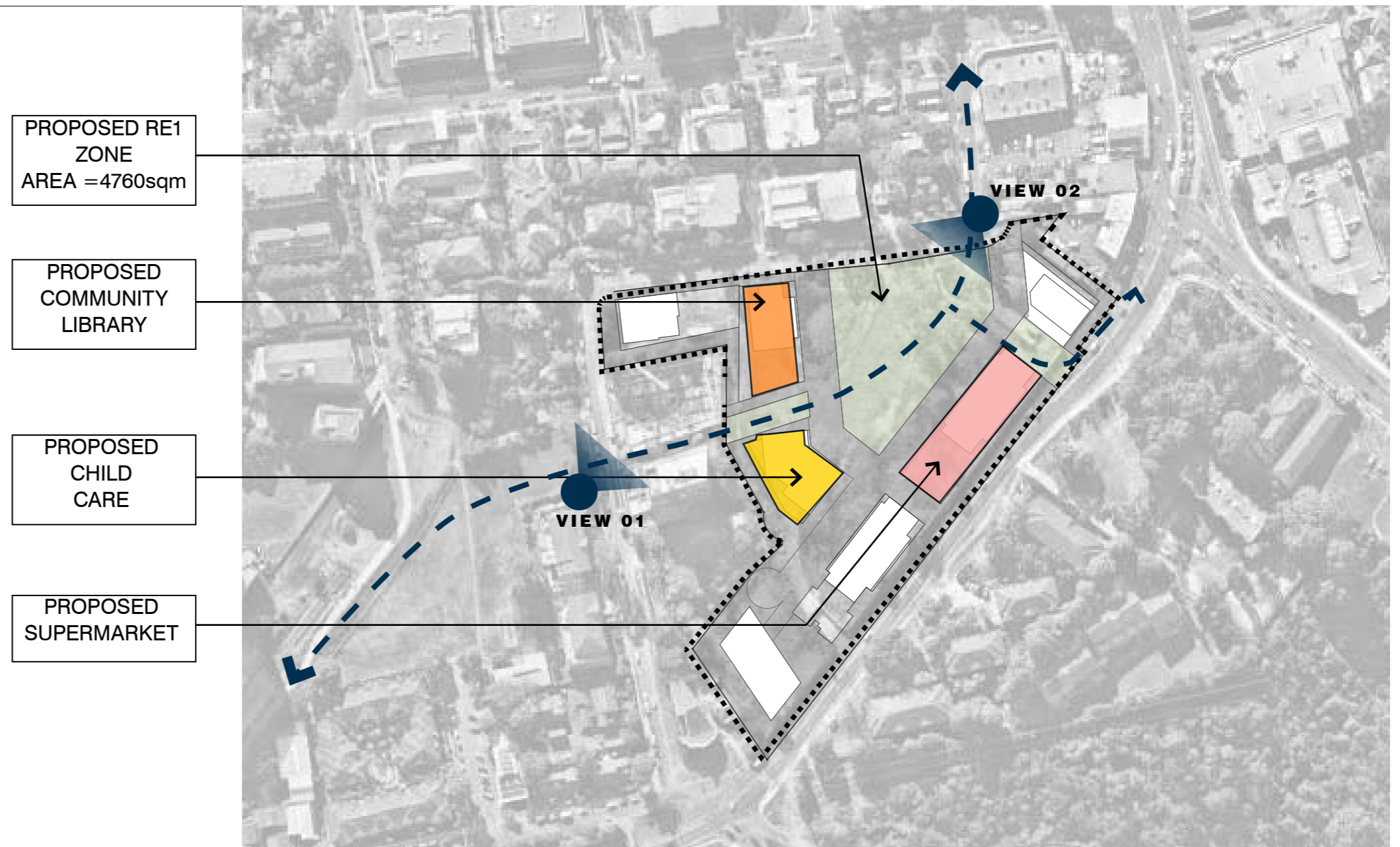


3PM / JUN 21 - PROPOSED DA

COMMUNITY BENEFITS

The proposed precinct offers a significant publicly accessible green open space. The new park is publicly accessible and surrounded by other civic uses for the community, such as a community library, located at the base of Building F and a childcare centre located in Building G. These uses are positioned along the diagonal axis of the north-east down to south-west corridor to the newly established Carlingford light rail precinct.

Other retail uses, such as a local supermarket is earmarked along the publicly accessible through-link towards Pennant Hills Road for community convenience and benefit.





View 01
View from Shirley St looking east towards proposed
pedestrian link to community library and child care



View 02
View from Shirley St looking west towards proposed
park and community library at base of Block E

5.0 CONCLUSION

The proposed Carlingford precinct's masterplan strengthens the ability to connect the broader precinct housing, local retail activity hubs and the newly established Carlingford light rail.

A new nexus of green open space is central to its network of connections. This attractor proposed in the form of an expansive green open space is positioned in a location offering maximum solar access to its site. The open space will improve the liveability, local amenity, and walkability for the local community.

The ground plane provides a mixture of compatible non-residential uses, in the form of a community library, a childcare centre, and a supermarket to create an active heart to the development.

The Carlingford Meriton development is set to bridge the broader growth and development of the local neighbourhood. Its envisioned high-quality landscaped network and its green open spaces will become the catalyst for establishing a sense of place and identity in Carlingford.

6.0 APPENDICES

PP01 - PLANNING DOCUMENTS

PP02 - REFERENCE DESIGN

PP03 - SHADOW STUDIES