

BVN

HOMES NSW

29 FLORIDA STREET
SYLVANIA (SSD-83258708)

AR-DA-00R-XX
SSDA ARCHITECTURAL DESIGN REPORT

REVISION 05

09.12.25



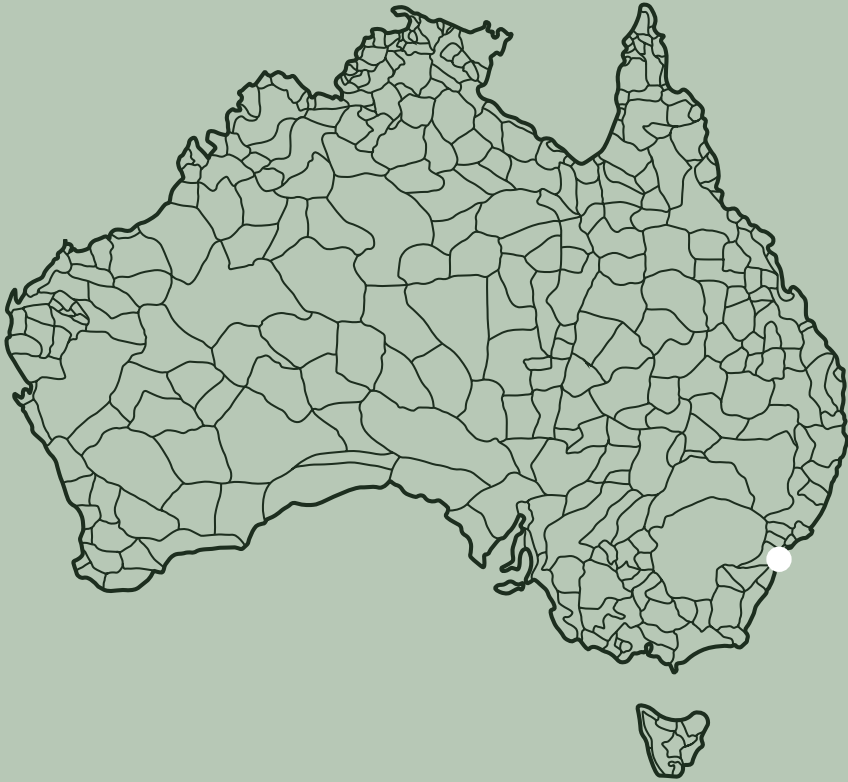
BVN pays respect to the Gadigal people of the Eora Nation, the Traditional Custodians of the lands on which this project is located. We recognise their continuous connection to this place.

We honour the clans, nations, families that have always been connected to this site, and respect the diverse Aboriginal and Torres Strait Islander peoples that call this place home.

DOCUMENT NO.
AR-DA-00R-XX

DOCUMENT CONTROL

DATE	REV	FOR
21.10.2025	1	DRAFT FOR INFORMATION
24.10.2025	2	SSDA REPORT SUBMISSION
03.11.2025	3	SSDA REPORT SUBMISSION
05.11.2025	4	SSDA REPORT SUBMISSION
09.12.2025	5	SSDA REPORT SUBMISSION



PURPOSE OF THIS DOCUMENT

This Architectural Design Statement has been prepared by BVN Architecture on behalf Homes NSW (the Applicant) in support of a State Significant Development Application (SSDA).

The project is designed to accommodate both social and market housing and includes:

- Removal of the existing residential dwellings on the site in two phases.
- A new 9 storey social housing building with single storey basement in Phase 01 of the development
- Six market housing buildings between 6-10 storeys in three lots in Phase 02 of the development
- Significantly enhanced public domain, including outdoor seating areas, new landscaped areas and public through site links both north/south and east/west across site.
- A new internal private road to serve the proposed market housing development.

This design report addresses the specific project requirements provided in the Secretary’s Environmental Assessment Requirements (SEARs) issued by the Department of Planning and Environment (DPE).

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1.1 EXECUTIVE SUMMARY

The redevelopment of 29 Florida Street Sylvania will deliver 484 new residences as part of the Commonwealth Government’s Housing Australia Future Fund (HAFF).

It is conceived as a ‘tenure blind’ development that includes both social and market housing in a staged development.

Existing low density social housing established in the 1980s will be demolished for 8 new apartment buildings and basement carparking. The proposal include the subdivision of the site : a market housing lot at 14,996m2 site area, a new 1,916m2 road reserve servicing the market housing lot, and a 4,854m2 social housing lot.

The proposed masterplan has been developed around a series of interconnecting landscaped spaces that move as a network across the site from northwest to southeast. A second landscape-based move increases perimeter setbacks to preserve landscape buffers at the site’s edges. Building footprints have then been located to preserve these spaces and retain good solar access. The subsequent architectural response develops the 'building clusters' that result, establishing a variety of characters across the site.

While the overall strategy is to limit the distinction between social and market housing within the development, the social housing component is located at the southern end of the site where its impact on existing buildings can be limited if it were to be developed in the initial stage.



1.2 DEVELOPMENT SUMMARY

29 FLORIDA STREET, SYLVANIA	
SITE AREA	21,692 M2
MAXIMUM PERMISSIBLE FSR	2.86:1
MAXIMUM PERMISSIBLE GFA	62,235 M2
PERMISSIBLE HEIGHT	28.6m
SOCIAL HOUSING DEVELOPMENT LOT	4,854 M2
MARKET HOUSING DEVELPOMENT LOT	14,995 M2
SHARED PRIVATE ROAD RESERVE	1,916 M2

PUBLIC REALM & LANDSCAPE COMPLIANCE	
LANDSCAPED AREA 30% SITE AREA EXCL ROAD RESERVE - 5,962 M2	11,478 M2
DEEP SOIL 15% SITE AREA EXCL ROAD RESERVE - 2,966 M2	6611 M2
COMMUNAL OPEN SPACE 25% MARKET AREA - 4,978 M2	MARKET 6,784.5 M2 SOCIAL 1,237.5 M2 TOTAL 8,022.3 M2

SOCIAL HOUSING		
GFA	12,353.5 M2	
1 BED	77	48%
2 BED	60	38%
3 BED	22	14%
TOTAL NO. UNITS	159	
2 HOURS SOLAR	110	69%
NO SOLAR	17	11%
CROSS VENTILATION	108	68%
PARKING	76 RESIDENTIAL	
BICYCLE PARKING	27	

MARKET HOUSING		
GFA	32, 494 M2	
1 BED	52	16%
2 BED	218	67%
3 BED	55	17%
TOTAL NO. UNITS	325	
2 HOURS SOLAR	246	74%
NO SOLAR	16	5%
CROSS VENTILATION	215	66%

TOTAL DEVELOPMENT		
GFA	44,848 M2	
1 BED	129	26.6%
2 BED	278	57.4%
3 BED	77	16%
TOTAL NO. UNITS	484	

1.2 DEVELOPMENT SUMMARY



MARKET HOUSING BUILDING 1		
GFA	16,494M2	
1 BED	24	14%
2 BED	123	73%
3 BED	21	13%
TOTAL NO. UNITS	168	
2 HOURS SOLAR	130	77%
NO SOLAR	9	5%
CROSS VENTILATION	100	60 %
PARKING	250 RESIDENTIAL	
BICYCLE PARKING	33	

MARKET HOUSING BUILDING 2		
GFA	5,600 M2	
1 BED	7	13%
2 BED	31	60%
3 BED	14	27%
TOTAL NO. UNITS	52	
2 HOURS SOLAR	39	75%
NO SOLAR	7	13%
CROSS VENTILATION	44	85 %
PARKING	79 RESIDENTIAL	
BICYCLE PARKING	8	

MARKET HOUSING BUILDING 3		
GFA	10,400 M2	
1 BED	21	21%
2 BED	64	61%
3 BED	20	19%
TOTAL NO. UNITS	105	
2 HOURS SOLAR	77	73%
NO SOLAR	0	0%
CROSS VENTILATION	71	68 %
PARKING	156 RESIDENTIAL	
BICYCLE PARKING	22	

1.3 SEARS ADDRESSED IN THIS REPORT

This report addresses the following SEARS requirements:

SEARS	DESCRIPTION	REPORT SECTION
ITEM 5 DESIGN QUALITY	a. Demonstrate how the development will achieve:	SECTION 02 - SITE
	• Design excellence in accordance with any applicable EPI provisions	CONTEXT & ANALYSIS
	• Good design in accordance with the seven objectives for good design in Better Placed.	SECTION 03 - DESIGN INTENT
	b. Demonstrate that the development:	
	• Where required by an EPI or concept approval, or where proposed, has been subject to a competitive design process, carried out in accordance with an endorsed brief and Design Excellence Strategy;	SECTION 04 - PROPOSED DEVELOPMENT
	• Or: in all other instances, has been reviewed by the State Design Review Panel (SDRP) where required under the NSW SDRP: Guidelines for Project Teams.	APPENDIX 02 - RESPONSE TO STATE DESIGN REVIEW PANEL COMMENTARY
	c. Recommendations of the jury and Design Integrity Panel (where a competitive design process has been held) or the SDRP are to be addressed prior to lodgement.	
ITEM 6 BUILT FORM AND URBAN DESIGN	a. Demonstrate how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality. Where relevant explain and illustrate the application of any bonuses under an EPI.	SECTION 03 - DESIGN INTENT
	b. If relevant, provide an assessment of the development against	SECTION 04 - PROPOSED DEVELOPMENT
	• The design principles for seniors housing set out in Schedule 8 of State Environmental Planning Policy (Housing) 2021 (Housing SEPP) and the Seniors Housing Design Guide.	APPENDIX 01 - ADG COMPLIANCE TABLE
	• The design principles for residential apartment development set out in Schedule 9 of the Housing SEPP and the Apartment Design Guide (ADG). This should include a table which demonstrates how each dwelling (including affordable dwellings) performs against the ADG design criteria.	
	c. If affordable housing is proposed, provide a floorplan outlining the gross floor area and dwellings that are provided as affordable housing.	

SEARS	DESCRIPTION	REPORT SECTION
ITEM 7 ENVIRONMENTAL AMENITY	a. Assess amenity impacts on the surrounding locality, including solar access, visual privacy, view loss and view sharing, as well as wind, lighting and reflectivity impacts. A high level of environmental amenity for any surrounding residential or other sensitive land uses must be demonstrated.	SECTION 04 - PROPOSED DEVELOPMENT
	b. Provide a solar access analysis of the overshadowing impacts of the development within the site, on surrounding properties and public spaces (during winter solstice) at hourly intervals between 9am and 3pm, comparing the proposed development, existing situation and where applicable, a development with no bonuses applied.	
ITEM 8 VISUAL IMPACT	a. Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development.	SECTION 04 - PROPOSED DEVELOPMENT
	b. If the proposal would result in significant visual impact not anticipated by the planning controls, provide a visual impact assessment that addresses the visual impacts of the development on the existing catchment.	

1.4 PLANNING CONTEXT

STRATEGIC PLANNING CONTEXT

The maximum floor space ratio (FSR) control and maximum building height under the current Sutherland Shire LEP is 1.6:1 and 16m,.

The site is located in a low and mid rise housing area, therefore the standards under Chapter 6 of the Housing SEPP apply, with a maximum FSR of 2.2:1 and building height of 22m under the low and mid rise housing controls.

A 30% affordable housing bonus applied under the Housing SEPP results in a maximum FSR control of 2.86:1 and a maximum building height of 28.6m.

	SUTHERLAND COUNCIL LEP	LMR	30% BONUS UNDER HOUSING SEPP	MAXIMUM HEIGHT AND GFA PERMITTED UNDER HOUSING SEPP
BUILDING HEIGHT	16m	22m	Additional 6.6m	28.6m
FSR	1.6 : 1	16m	Additional 0.66	2.86 : 1 (62,325 m2 GFA)



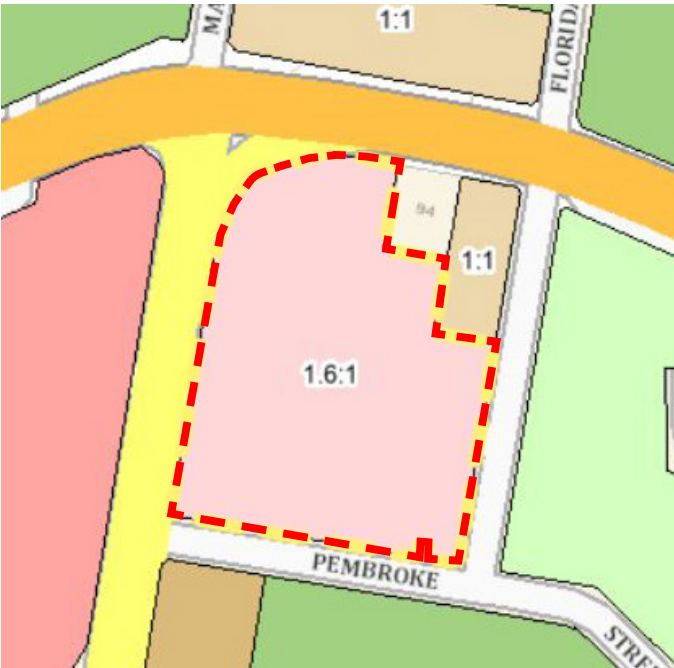
ZONING

The site is zoned R4 High Density Residential under the Sutherland Local Environmental Plan 2015 (Sutherland LEP).



HEIGHT OF BUILDINGS

Sutherland LEP: 16m
LMR: 22m
Housing SEPP: 28.6m

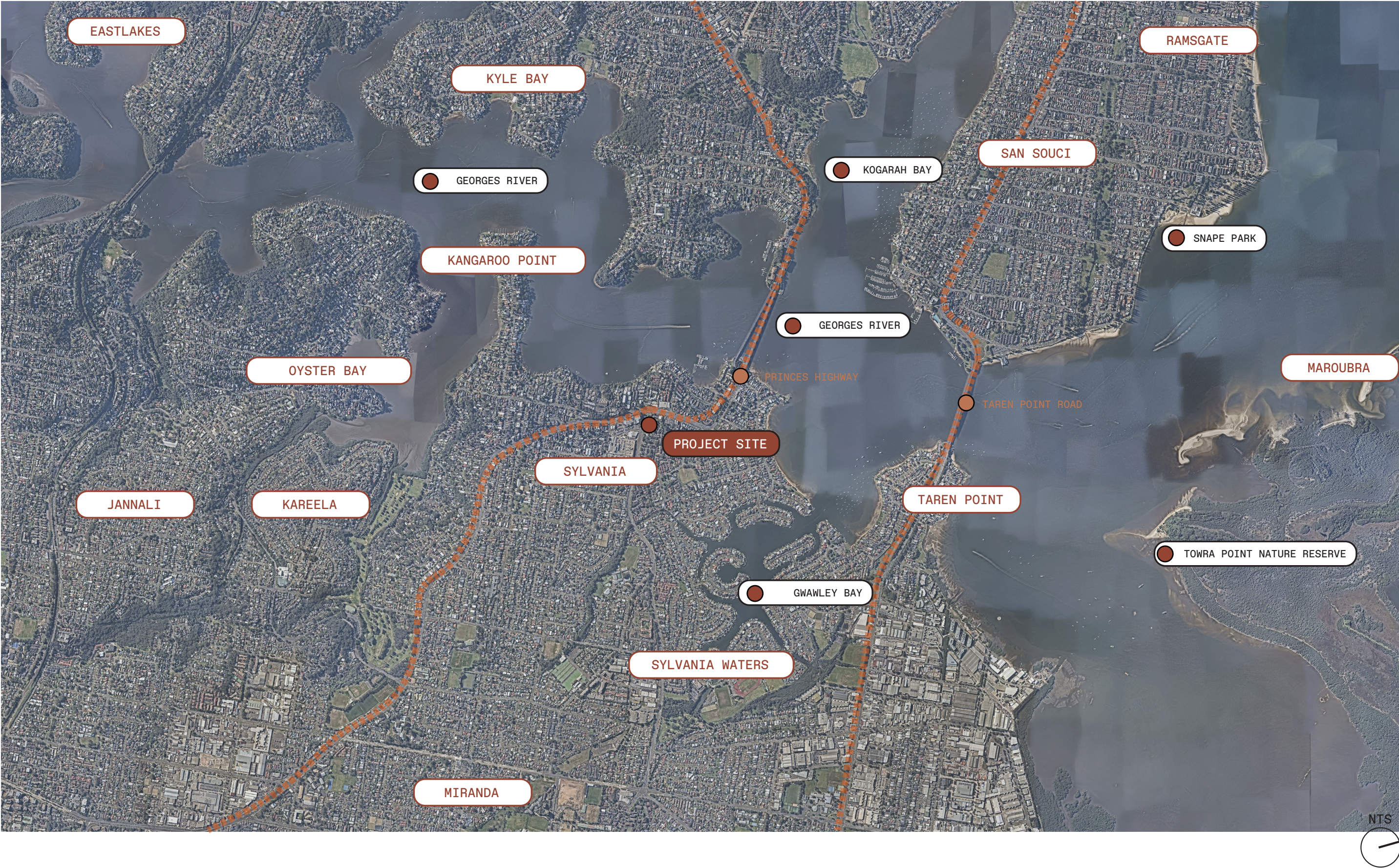


FLOOR SPACE RATIO

Sutherland controls; 1.6:1
LMR: 2.2:1
Housing SEPP: 2.86:1

02

2.1 SITE LOCATION



2.1 SITE LOCATION



2.2 THE SITE

The subject site is located at 29 Florida Street Sylvania and is bordered to the north and west by two major arterial roads - Princes Highway and Port Hacking Road.

The surrounding context comprises predominantly mid to low scale residential uses along Pembroke Street to the south and Florida Street to the east. Southgate Shopping Centre - located across from Port Hacking road and approximately a 5-10 minute walk from the site. T is a key retail centre for the precinct and is earmarked for significant upgrade development in the near future.

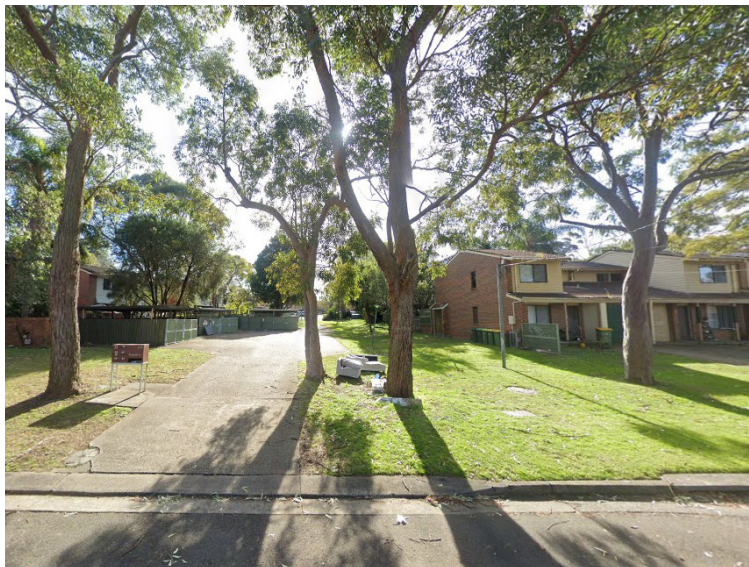
Key site characteristics addressed by this proposal are:

- New public connections through the site
- A new privately owned internal one-way shared zone serving the new
- The retention of key significant trees within and around the site
- New public open spaces and pathways connecting Florida Street to Port Hacking Road, and Pembroke Street to Pacific Highway.

29 FLORIDA STREET SYLVANIA	
LGA	SUTHERLAND COUNCIL
ZONING	R4 RESIDENTIAL
EXISTING DWELLINGS	83 SOCIAL HOUSING DWELLINGS
HERITAGE	NOT IDENTIFIED AS BEING WITHIN A HERITAGE CONSERVATION AREA
FLOODING	SUBJECT TO FLOODING UNDER 1% AEP AND PARTIALLY SUBJECT TO PROBABLE MAXIMUM FLOOD LEVELS TO SOUTHWEST EDGE OF SITE ALONG PEMBROKE STREET
SITE AREA	21,792 M2



2.2 THE SITE



2.3 CULTURAL LAYERS FRAMEWORK

BVN have worked closely with Winson Kerr and Jiwah throughout the SSDA phase to establish a Country-centred design framework based upon three key principles.

These principles have been drawn upon to inform the building expression and landscape strategies including planting selection, noting that further opportunities to embed Country into the fabric, experience and identity of the proposal will be developed further during future consultation with local community.

1. KINSHIP NETWORKS

- Celebrating kinship through habitat creation, planting of endemic ecologies, exploring integrated wayfinding, places for water to store and retention of existing trees.
- Explorations of ways of connecting natural ecologies with humans and non-humans in a built environment.

2. CELEBRATING SALTWATER

- Opportunities for the integration of art within the architecture and landscapes and material change that speak to changing waterways, ecologies and geologies.
- The landscape as an invitation for water, humans and non-humans to reconnect and access the site equitably.

3. EMBRACING WONDER AND CURIOSITY

- What stories can we share of this place that existed before colonisation?
- Layers of geological histories and materials as elements of play
- Not over-designed; space for play and discovery



HAWKESBURY SANDSTONE



ASHFIELD SHALE



CREEKS AND WETLANDS



WETLAND VEGETATION

2.4 UNDERSTANDING COUNTRY

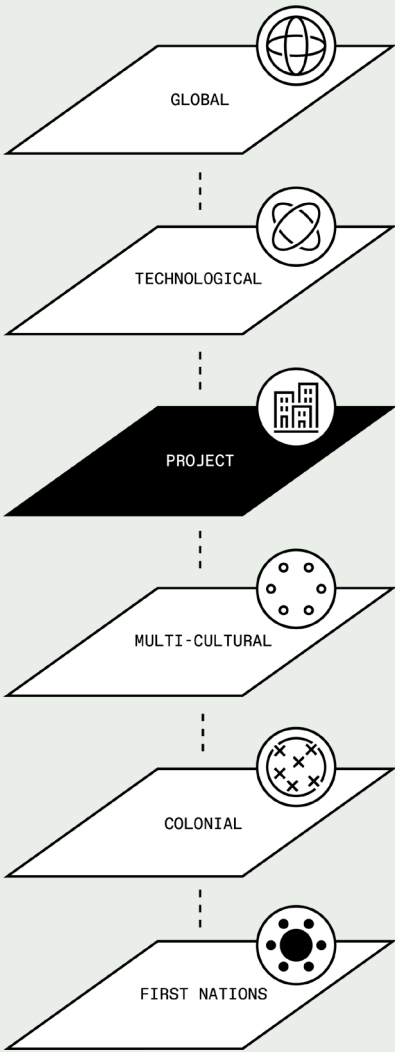
THE 'LAYERS OF INFLUENCE' DIAGRAM AIMS TO SUMMARISE THE POTENTIAL SYMBIOTIC NATURE OF THE CONTEXT IN WHICH THE FUTURE PROJECT SITS. AT EACH STAGE, IT IS IMPORTANT TO QUESTION, ACKNOWLEDGE AND EMBED THE STORY OF PLACE AND PEOPLE, TO INFORM THE CONSIDERATION, ARTICULATION AND DESIGN OF THE PROJECT.

BVN’s Designing with Country process consists of three distinct phases as follows:

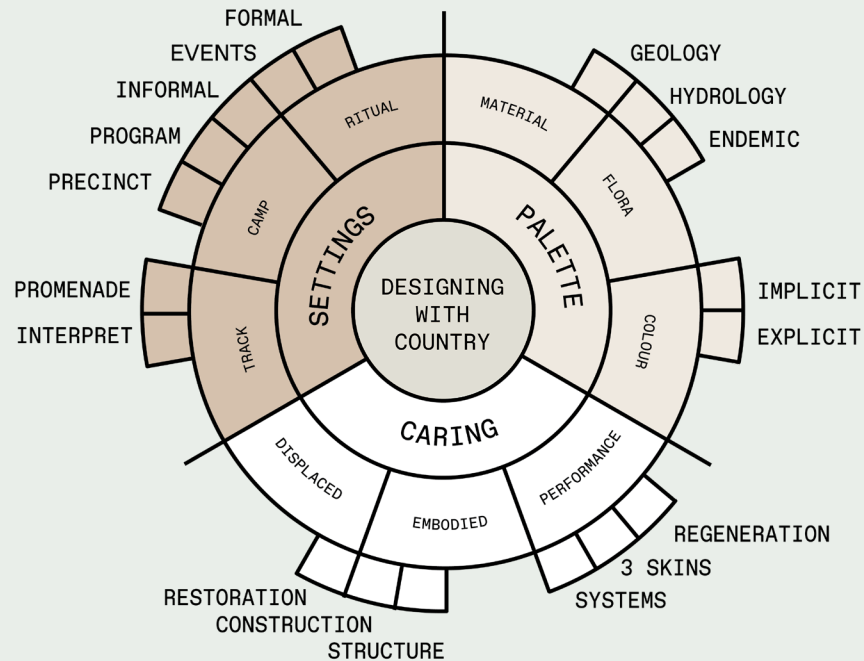
The first phase is the formulation of a Framework that sets out the context of the project site in relation to the Country to which it belongs.

The second phase is a focused investigation to reveal Opportunities in relation to the project. Our Opportunities Lens looks through the concepts of Spatial Settings (Track, Camp and Ritual), Country Palettes (material, color, flora) and Caring for Country (energy and carbon).

The third phase defines the specific Propositions. It starts by laying down an accessible narrative and a Proposition Diagram that establishes a clear direction for the project drawn directly from the coding associated with the Opportunities Lens.



CONTEMPORARY MAP OF SYDNEY 2025



PRELIMINARY COUNTRY RESEARCH SUMMARY

1. People of the Gwea are the Traditional Owners along the Tuoerah (Georges River) and Kamay (Botany Bay.) Prior to colonisation, the Gweagal people lived on the southern shoreline of the Georges River- near the mouth of the river at Botany Bay.
2. Food in the area was abundant and diverse- testament to the from ecologically rich environment including: Dry sclerohyll forests, Shale sandstone forest, Coastal heathlands & scrub, Georges river estuary and mangrove system.
3. Due to the abundance of resources, the Gweagal people rarely dispersed from their Country.
4. Gweagal territory has a wealth of petroglyphs, charcoal & ochre paintings, as well as countless rock overhangs and caves that were used as dwellings.
5. Rock shelter overhangs were moulded and carved so water would drop from the shelter roof into 'sandstone bowls.'
6. Dwellings had rock shelving for storage that had been smoothed with clay; a very sacred material for the people of Gwea who were considered guardians of white clay pits.
7. The Gweagal People were the first Aboriginal people of the east coast of Australia to encounter Captain Cook - at Kurnell. The Gweagal people generally ignored Cook and the explorers and thought they were malevolent pale-skinned ghosts.
8. Gweagal people purposely planted cabbage tree palms in clusters for shade and harvesting food.
9. The Dharawal women are believed to have invented the hand fishing line using plaited hair or twine of the cabbage tree palm, a ground turban shell hook/barra and a stone sinker/ngammul.
10. Sutherland House was a historic mansion which overlooked Gwawley bay at Sylvania, it was owned by Thomas Holt. Holt made his fortunes from forestries and extracting sacred shell middens for lime in the Sylvania area.
11. Infants were rubbed with fish oil, often wrapped in paper bark or possum fur and carried in a pitchi or coolamon/gulima Animal fat/ngarrum or fish oils were rubbed over their bodies to protect themselves from mosquitoes and flies

2.4 UNDERSTANDING COUNTRY

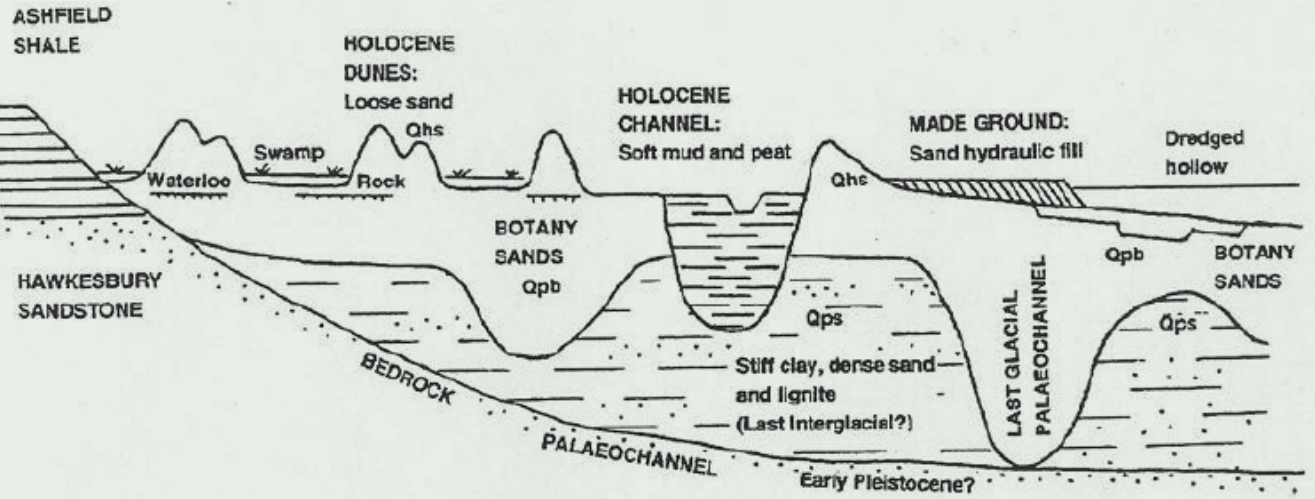
Geology & Hydrology

The site sits within the catchment of Botany Bay and in close promixity to the of the Botany-Lachlan Wetlands system which is characterised by low-lying swamps and saltmarshes. The project site also sits within the Botany Sands Aquifer.

The Botany Sands Aquifer is a layer of wind-blown sand that has accumulated over a weathered and eroded surface and acts as a giant sponge which is comprised of sand, organic peat, silt, clay and shell fragments. The porous sand is able to absorb vast quantities of rainwater whilst other elements are filtered out, creating a vast amount of underground reserve of groundwater.

The natural springs of wetlands has been a resource for people and animals in the Sydney area for thousands of years and was an essential source of drinking water for the establishing city. These important habitats serve as nurseries and feeding grounds for fish, crustaceans, and birds, act as natural filters to improve water quality by trapping sediments and nutrients, protect coastlines from erosion and storms, and sequester carbon.

The site sits predominantly on Hawkesbury Sandstone - a quartz-lithic to quartz-rich sandstone with conglomerate, mudstone and siltstone that has extensive distribution in the Sydney Basin. Overlying this, there are layers of alluvial soils and clay deposits, particularly in the lower-lying areas and river valleys, such as those around Woollooware and Georges River. These sediments were deposited by ancient river systems and provide fertile ground for vegetation.



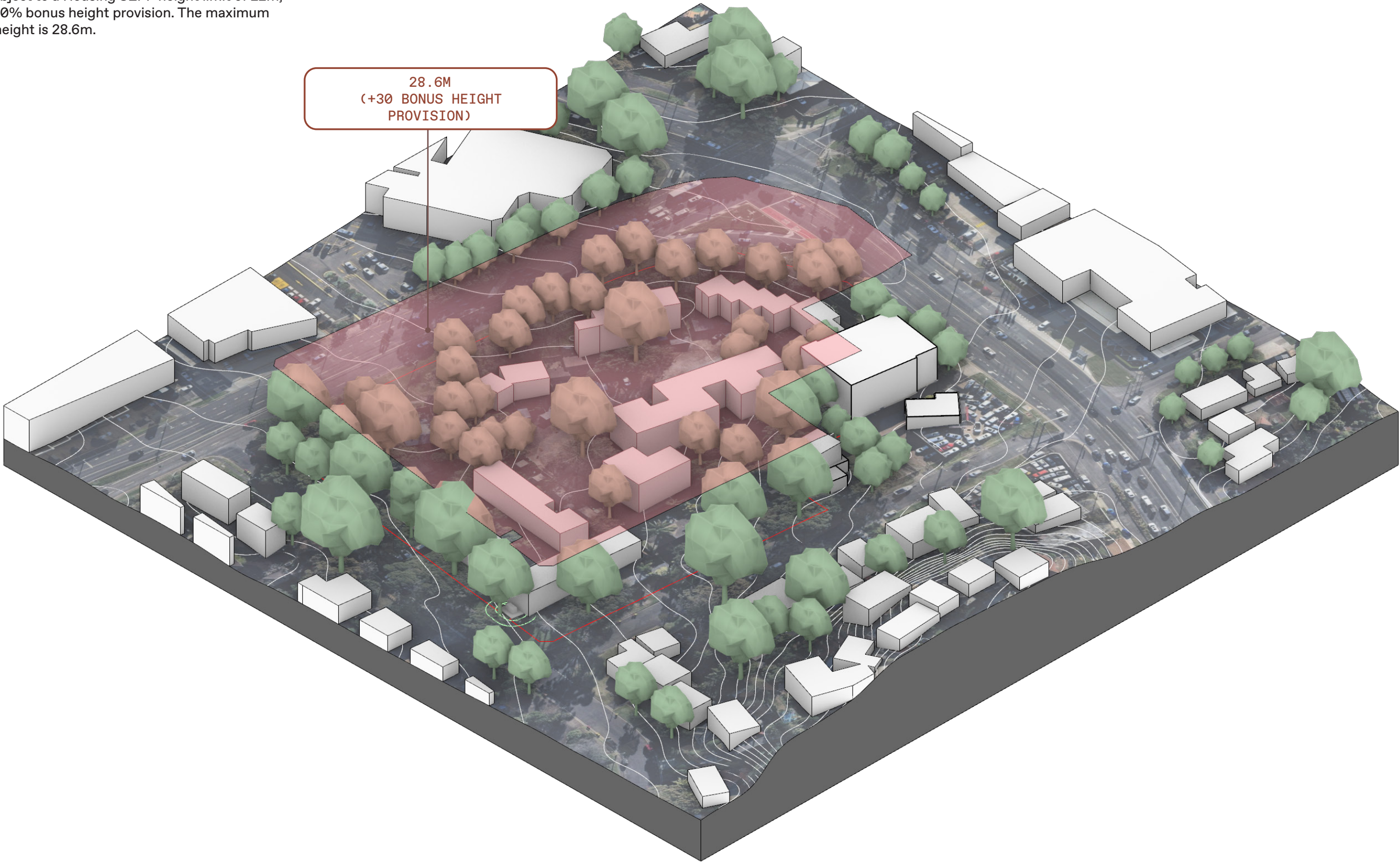
SECTION THROUGH THE BOTANY AQUIFER NORTH-EAST TO SOUTH-WEST
SOURCE: MCNALLY AND JANKOWSKI 1998



2.5 SITE ANALYSIS & KEY CONSTRAINTS

HEIGHT

The site is subject to a Housing SEPP height limit of 22m, as well as a 30% bonus height provision. The maximum permissible height is 28.6m.



2.5 SITE ANALYSIS & KEY CONSTRAINTS

SETBACKS

The Sutherland DCP specifies a minimum 7.5m setback to all primary and secondary frontages, unless an alternative has been provided in a specific locality strategy. The site is also subject to a minimum 3m basement excavation setback from all boundaries.

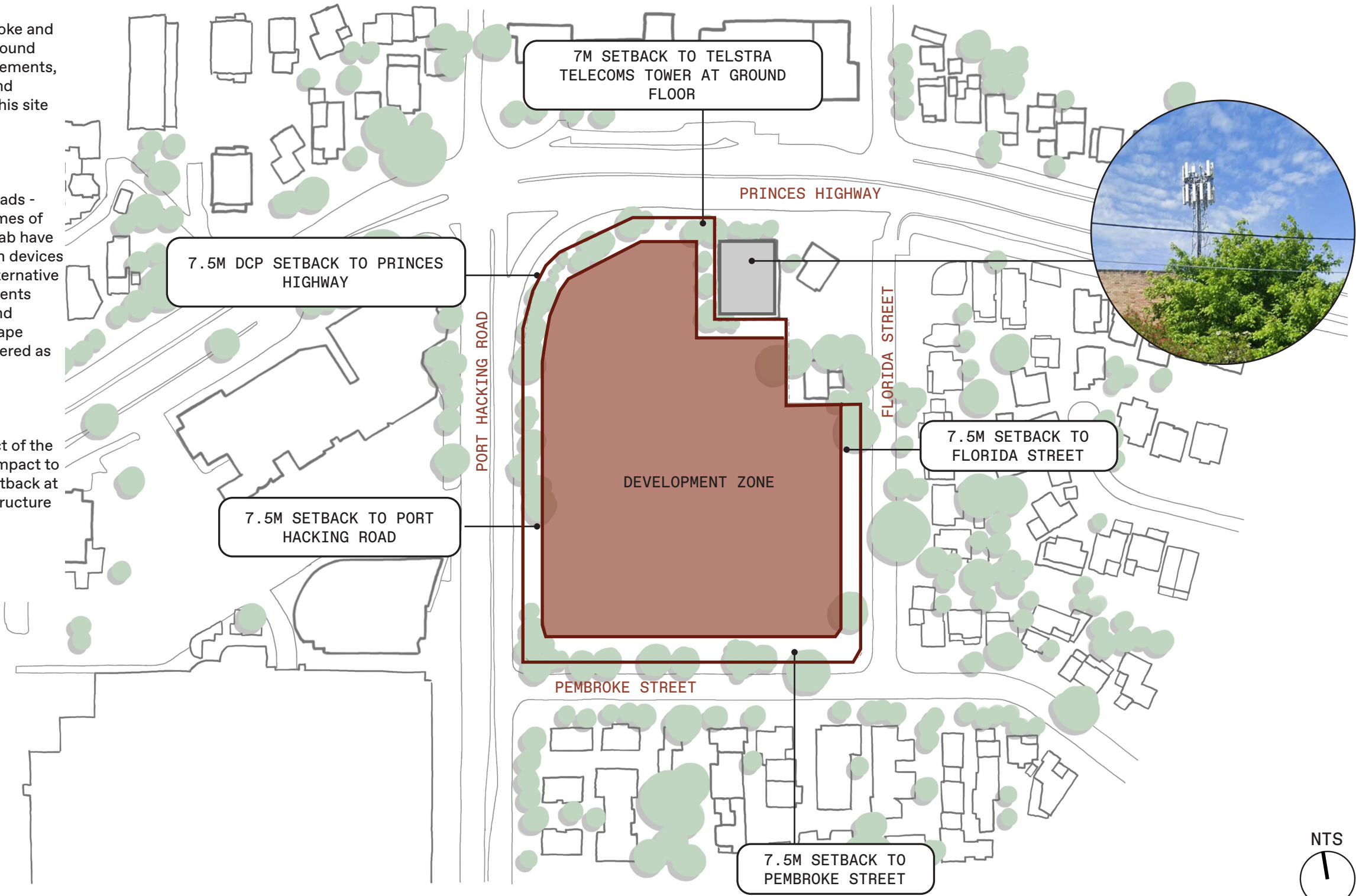
The adjoining Telstra site at the corner of Pembroke and Princes Highway is subject to a 7m setback at ground level to comply with electromagnetic field requirements, and is not subject to any specific setbacks beyond require minimum distances for fire separation. This site has commercial zoning at the present time.

ACOUSTICS

The site is bordered by two significant arterial roads - Princes Highway and Port Hacking Road. Outcomes of an acoustic impact assessment prepared by E-Lab have not necessitated the use of acoustic amelioration devices such as winter gardens, acoustic screening or alternative means of naturally ventilating residential apartments however, building siting, internal arrangement and additional setbacks to allow for generous landscape buffers to mitigate noise concerns will be considered as part of the proposal.

ADJACENT SITES

An EMF study has been conducted on the impact of the Telstra Telecom Tower, returning no significant impact to the proposed development sites beyond a 7m setback at lower levels. Visual impact of the telecom infrastructure is to be considered.



2.5 SITE ANALYSIS & KEY CONSTRAINTS

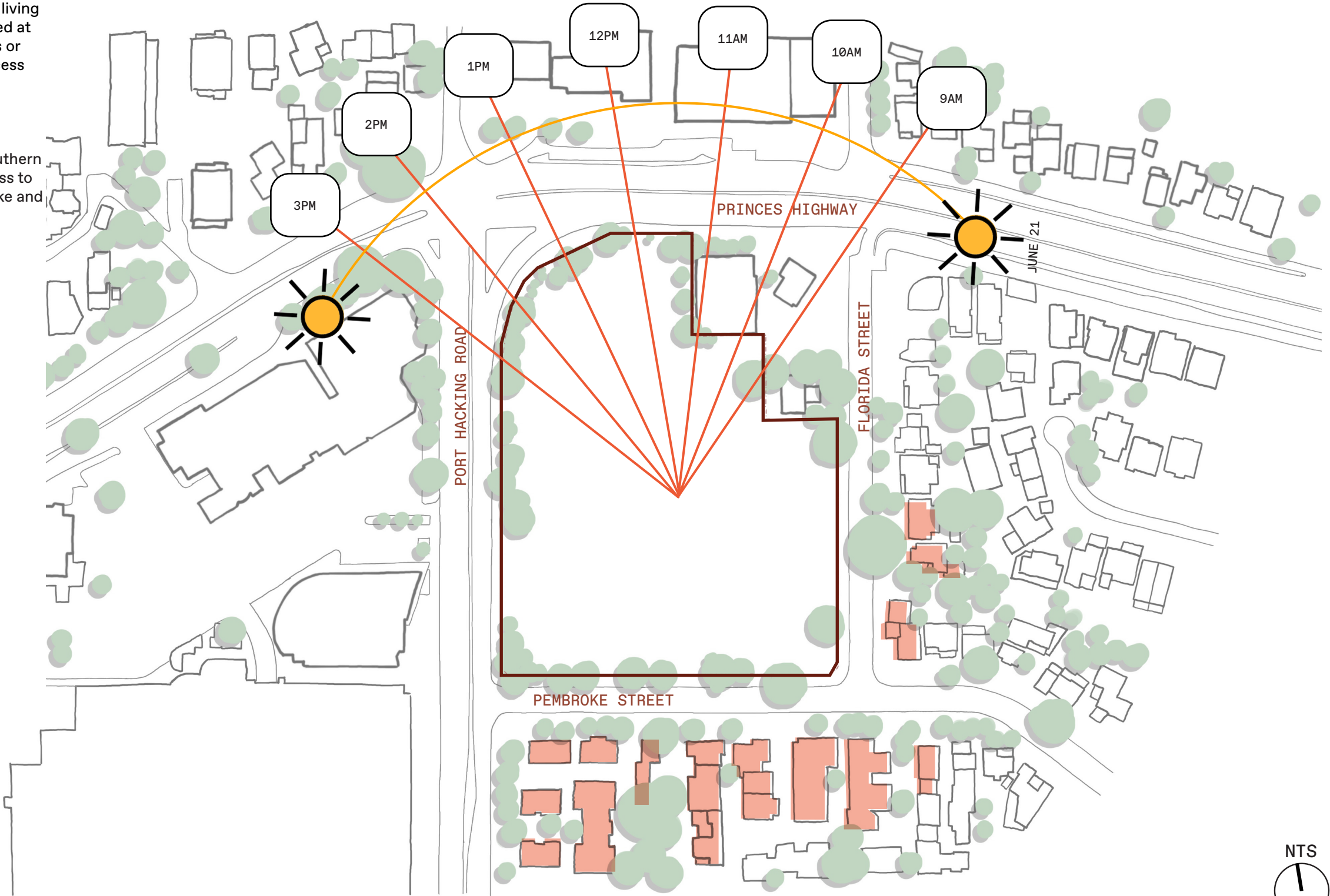
ENVIRONMENTAL CONDITIONS

The site's orientation provide optimal conditions offer opportunities in maximising light access to the north, east, and west façades, while avoiding south-facing units.

A slightly angled relationship to true north requires living rooms - particularly on eastern facades- to be placed at the facade line, with limited additional obstructions or depth added to the facade that will inhibit solar access into living spaces and private open space.

OVERSHADOWING

Building heights, particularly to the eastern and southern boundaries consider overshadowing and solar access to neighbouring residential developments on Pembroke and Florida Street



2.5 SITE ANALYSIS & KEY CONSTRAINTS

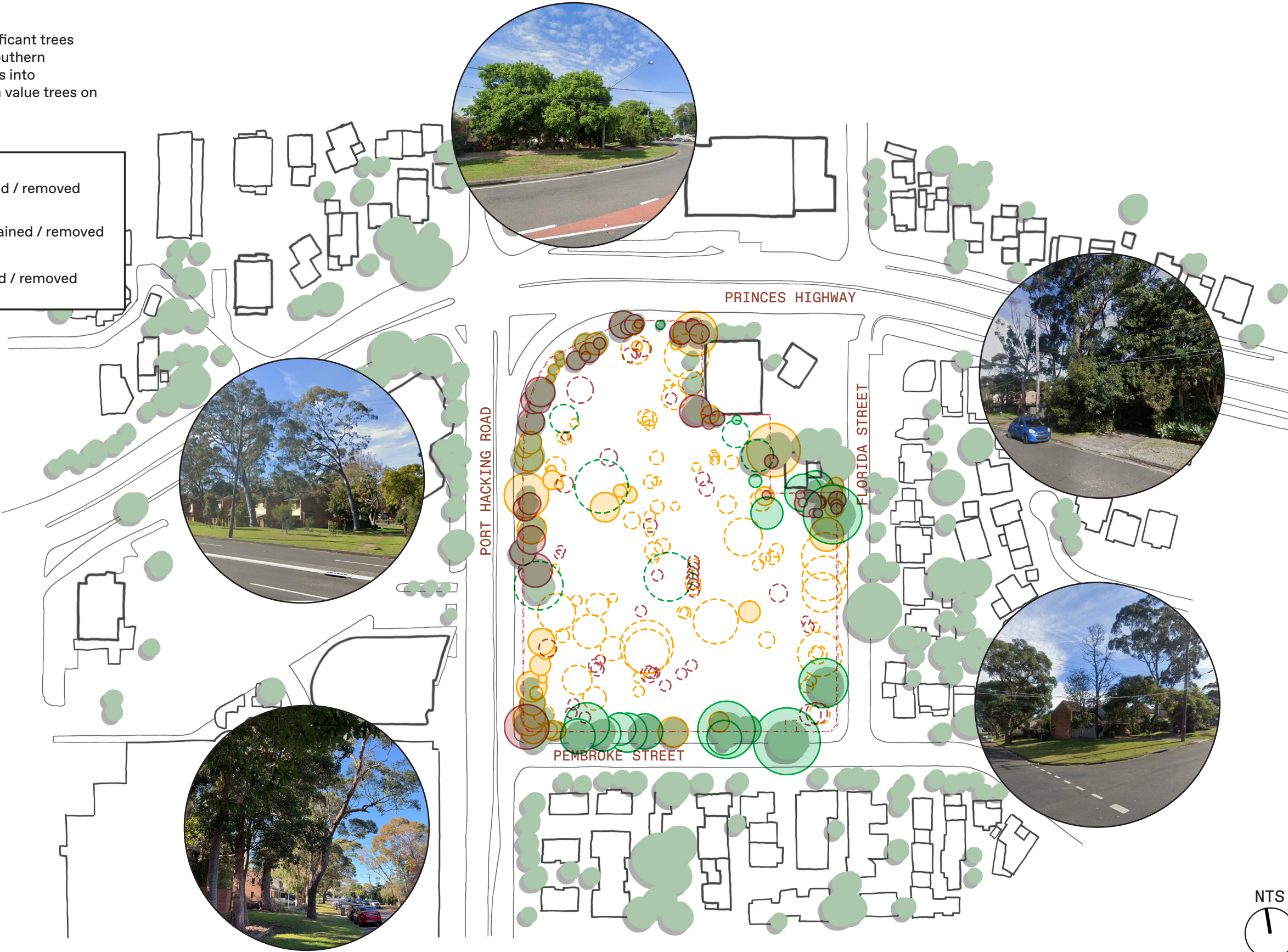
ESTABLISHED TREES

There are a number of high value and significant trees on site, bordering primarily the western, southern and eastern boundaries. The proposal takes into consideration maximising retention of high value trees on site.

High retention value retained / removed

Medium retention value retained / removed

Low retention value retained / removed



2.5 SITE ANALYSIS & KEY CONSTRAINTS

EXISTING ROADS

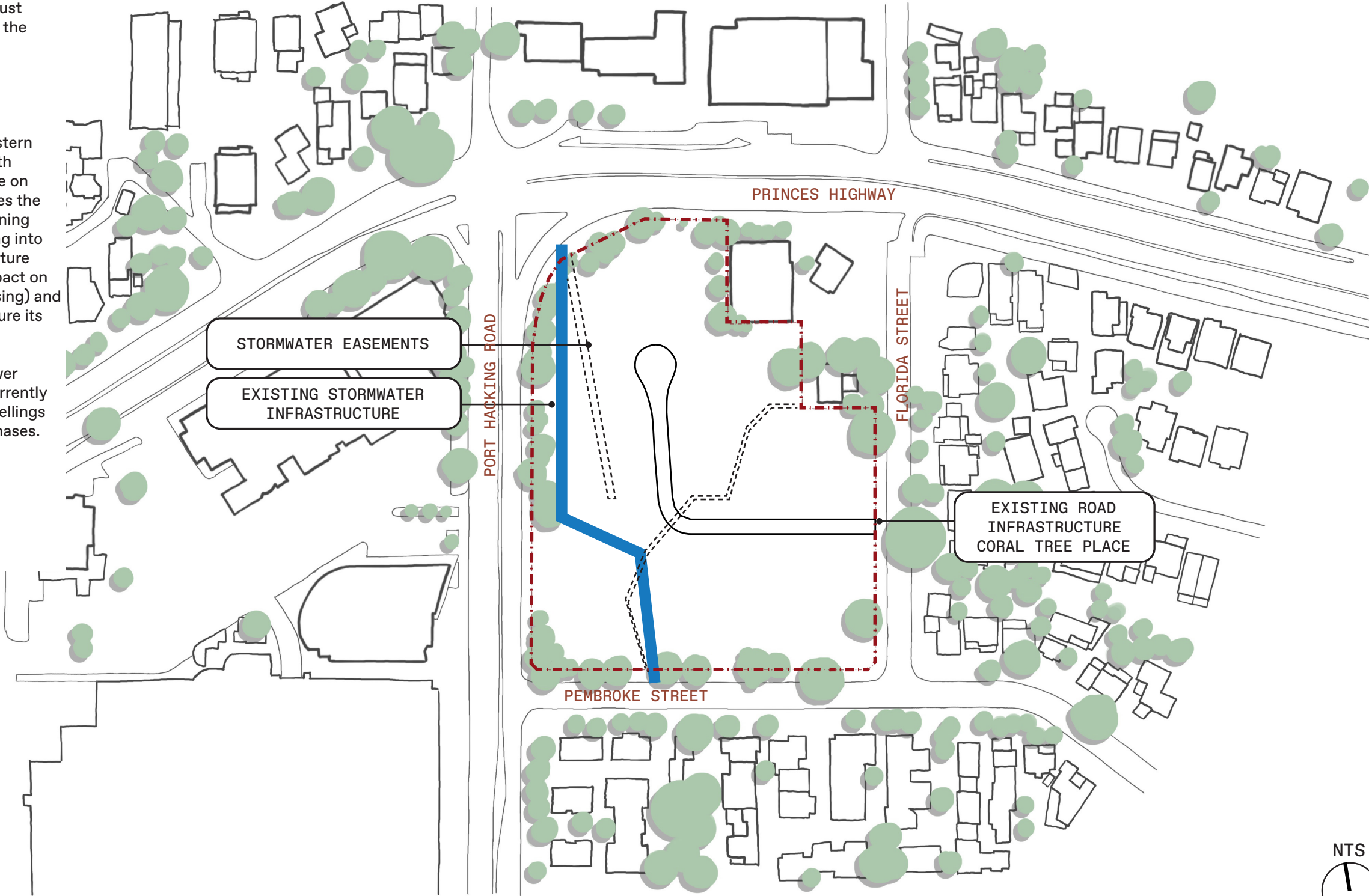
Staging of the social and market housing components of the development is a key consideration in the master plan and building arrangement of the proposal.

Coral Tree Place is the primary access, servicing and waste collection passage through the site and must be retained during the construction of Stage 1 of the development.

EXISTING HYDRAULIC INFRASTRUCTURE

Existing survey information has revealed the western stormwater easement is currently misaligned with the location of existing stormwater infrastructure on site. The existing stormwater easement pre-dates the relocated existing stormwater infrastructure running parallel along Port Hacking Drive, and then kinking into the site. Relocation of this stormwater infrastructure will have cost implications, and considerable impact on construction programme for Stage 1 (social housing) and therefore, the master plan proposal seeks to ensure its retention during this stage.

Some redirection and adjustment of existing sewer infrastructure from Pembroke Street which is currently servicing the northern portion of the existing dwellings will also need consideration in detailed design phases.



2.5 SITE ANALYSIS & KEY CONSTRAINTS

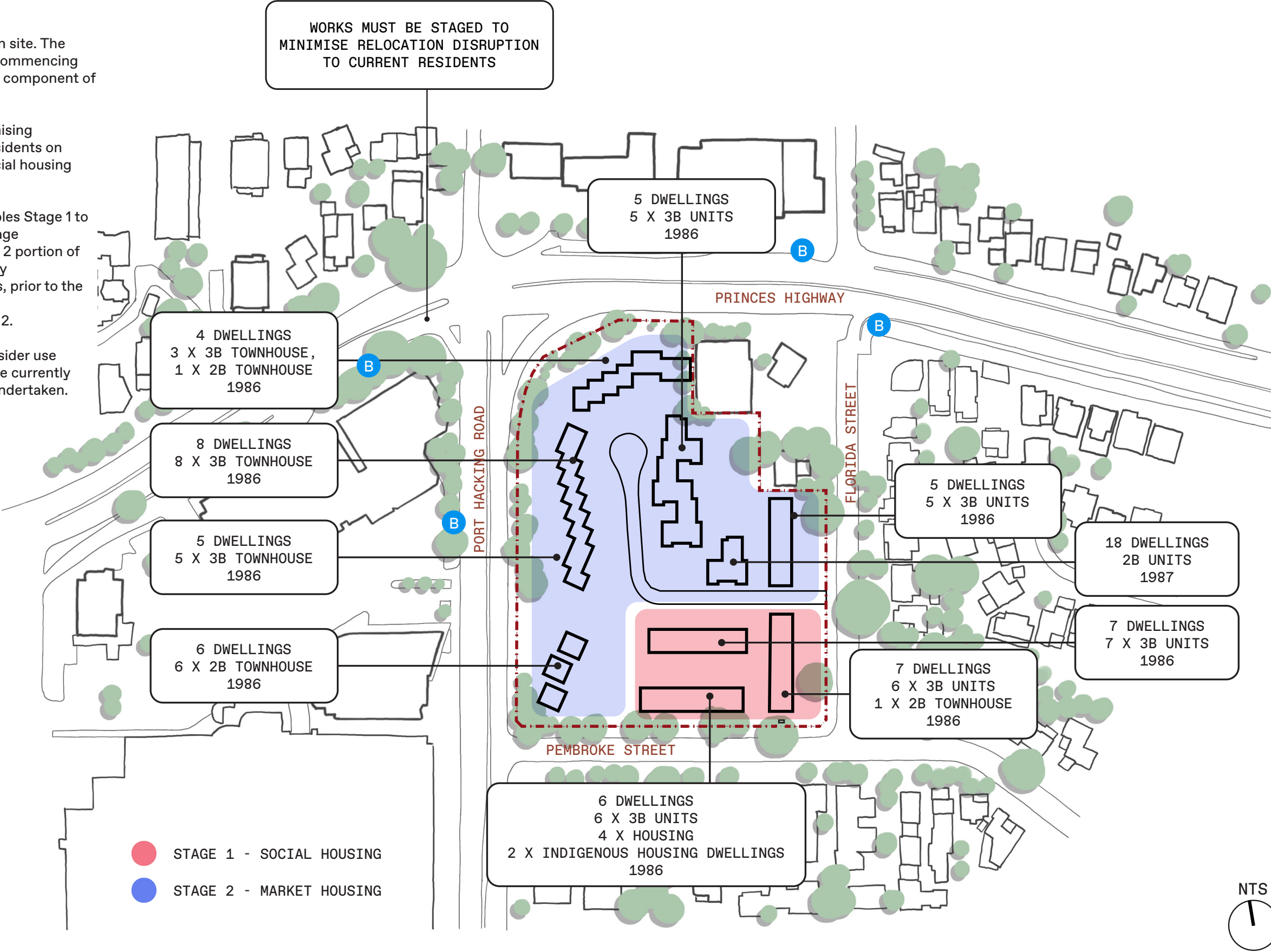
STAGING

There are currently 83 existing dwellings on site. The development will occur in two key stages commencing with the construction of the social housing component of the development.

A key criteria for the development is minimising displacement of existing social housing residents on site during the construction of the new social housing component of the development.

This informed a design approach that enables Stage 1 to be completed and operational ahead of Stage 2. This allows tenants residing in the Stage 2 portion of the site for the opportunity to move directly into the newly completed Stage 1 dwellings, prior to the commencement of construction on the developer-owned market housing in Stage 2.

Staging of the development also must consider use of existing road and hydraulic infrastructure currently serving the site while Stage 01 works are undertaken.



2.5 SITE ANALYSIS & KEY CONSTRAINTS

FLOODING

The site is subject to flooding under 1% AEP and partially subject to probable maximum flood levels to southwest edge of site along Pembroke street

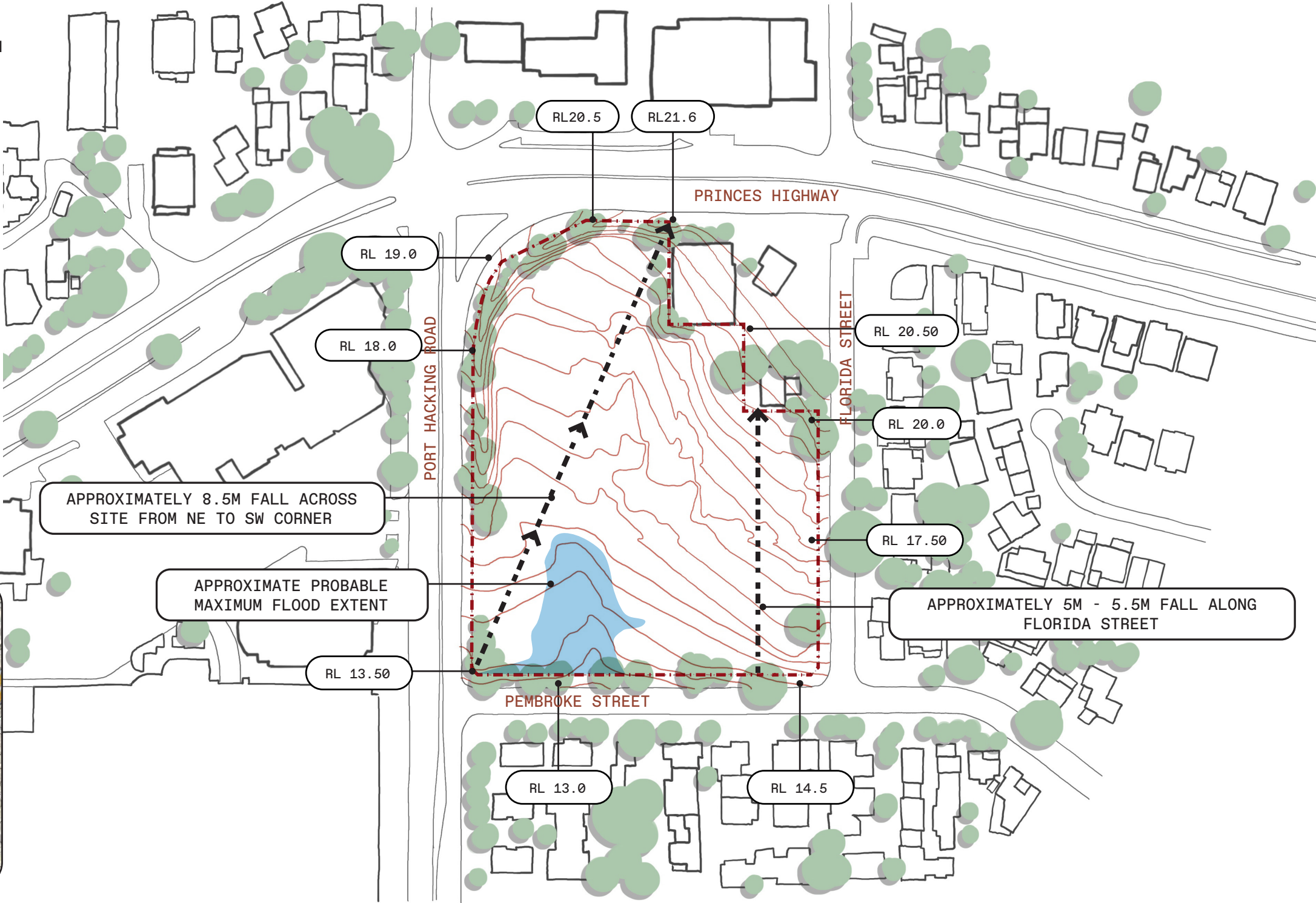
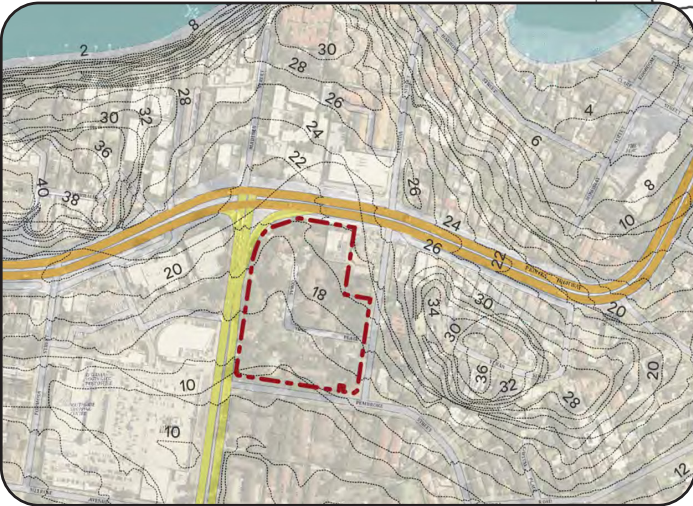
To meet flood planning requirements provided by Mott MacDonald, all of the proposed buildings on the site have been lifted above natural ground level and some of the basement carpark entries ramp up to meet required flood planning levels, prior to descending into the basement levels. Architectural and landscape design strategies were employed to sensitively address and integrate the raised edges within the public realm and surrounding context.

Overland flow paths from the north of the site are managed sensitively through a new swale landscape - both providing the required path of movement for stormwater, while celebrating water and providing amenity to the precinct.

This necessary elevation of the ground plane also influenced the overall building height. As a result, there are minor encroachments above the maximum permissible height.

TOPOGRAPHY

There is a significant fall across the site from highest corner to the NE fronting Princes Highway to the lowest point at the intersection of Florida and Port Hacking Road to the SW.



03

3.1 DESIGN PRINCIPLES

At the outset of the project, a set of both quantitative and qualitative benchmarks was established to guide decision-making and assess the outcomes throughout the design and development process

Four key design principles were established in early phases of the project and formed the basis of assesement criteria against which each of the massing and site arrangement options was tested against. These were grouped based on both qualitative and quantitative outcomes for the project including:

- 1. Clarity and Simplicity in Delivery
- 2. Creating Homes for All
- 3. Neighbourhood making
- 4. Design with Care



CLARITY & SIMPLICITY
IN DELIVERY

- 1. MINIMISES DISPLACEMENT: REDUCES THE NUMBER OF DISPLACED TENANTS DURING CONSTRUCTION
- 2. MINIMISES PLANNING RISK: ALLOWS FOR COMPLIANCE WITH KEY PLANNING CONTROLS
- 3. MINIMISES BUILD COST: REDUCES CONSTRUCTION COMPLEXITY, MAXIMISES REPETITION
- 4. MINIMISES EXCAVATION AND EXTENT OF BASEMENT
- 5. DEVELOPMENT FLEXIBILITY: PROVIDES FLEXIBILITY FOR FUTURE MARKET DEVELOPMENT WITHIN THE SITE



CREATING HOMES FOR
ALL

- 1. PROVIDING HOUSING: APARTMENT YIELD, APARTMENT MIX, GFA, SPATIAL EFFICIENCY
- 2. QUALITY FOR ALL: EQUALITY OF AMENITY AND HOUSING QUALITY REGARDLESS OF TENURE
- 3. APARTMENT AMENITY: MAXIMISING SOLAR ACCESS AND CROSS VENTILATION
- 4. APARTMENT SIZE AND SHAPE: MAXIMISES NUMBER OF WELL-PROPORTIONED APARTMENTS



NEIGHBOURHOOD
MAKING

- 1. ENHANCE COMMUNITY: CREATING SHARED SPACES AND MOMENTS FOR INTERACTION
- 2. INTEGRATES INTO ITS CONTEXT: BUILDING FORMS THAT RESPOND TO CURRENT AND FUTURE CONTEXT
- 3. BEING A GOOD NEIGHBOUR: MAINTAINS AMENITY TO SURROUNDING BUILDINGS AND PUBLIC SPACES
- 4. PUBLIC REALM: MAXIMISE OPPORTUNITIES FOR GREAT PUBLIC SPACES
- 5. COMPOSITIONAL DELIGHT: BUILDING FORMS ARRANGED ON SITE TO ALLOW FOR LAYERED VISTAS AND SPATIAL DIVERSITY



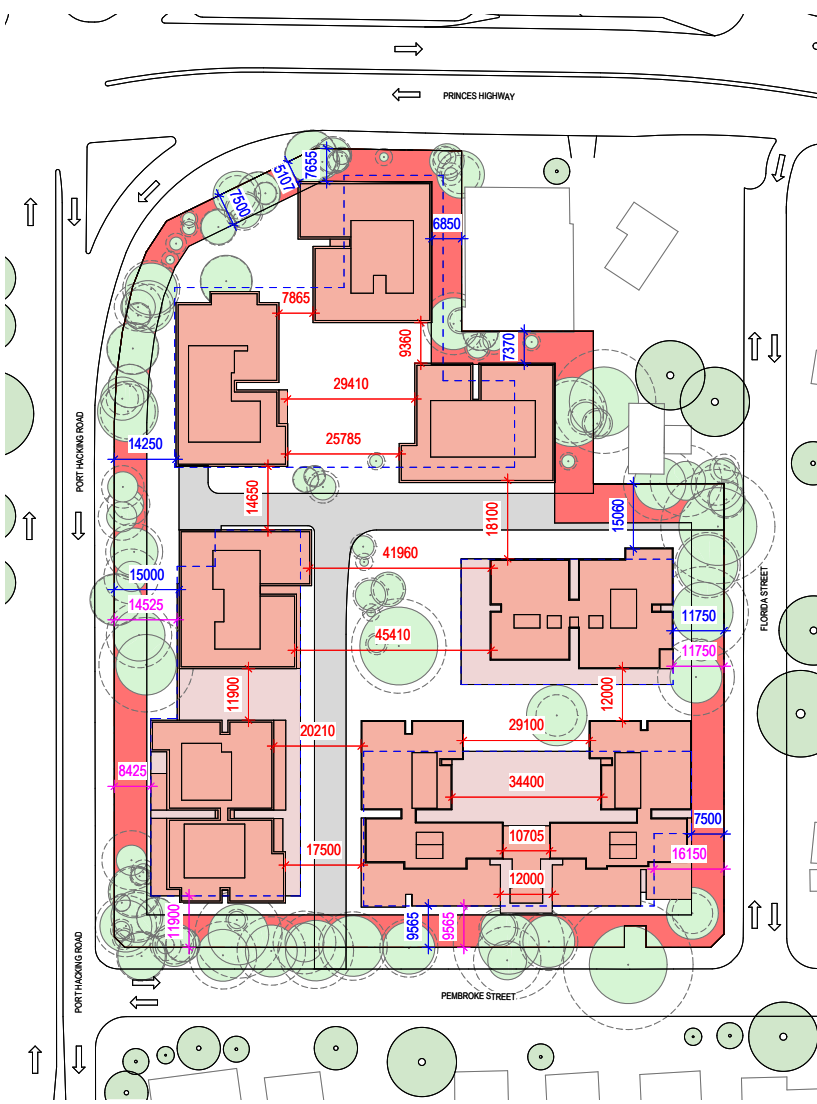
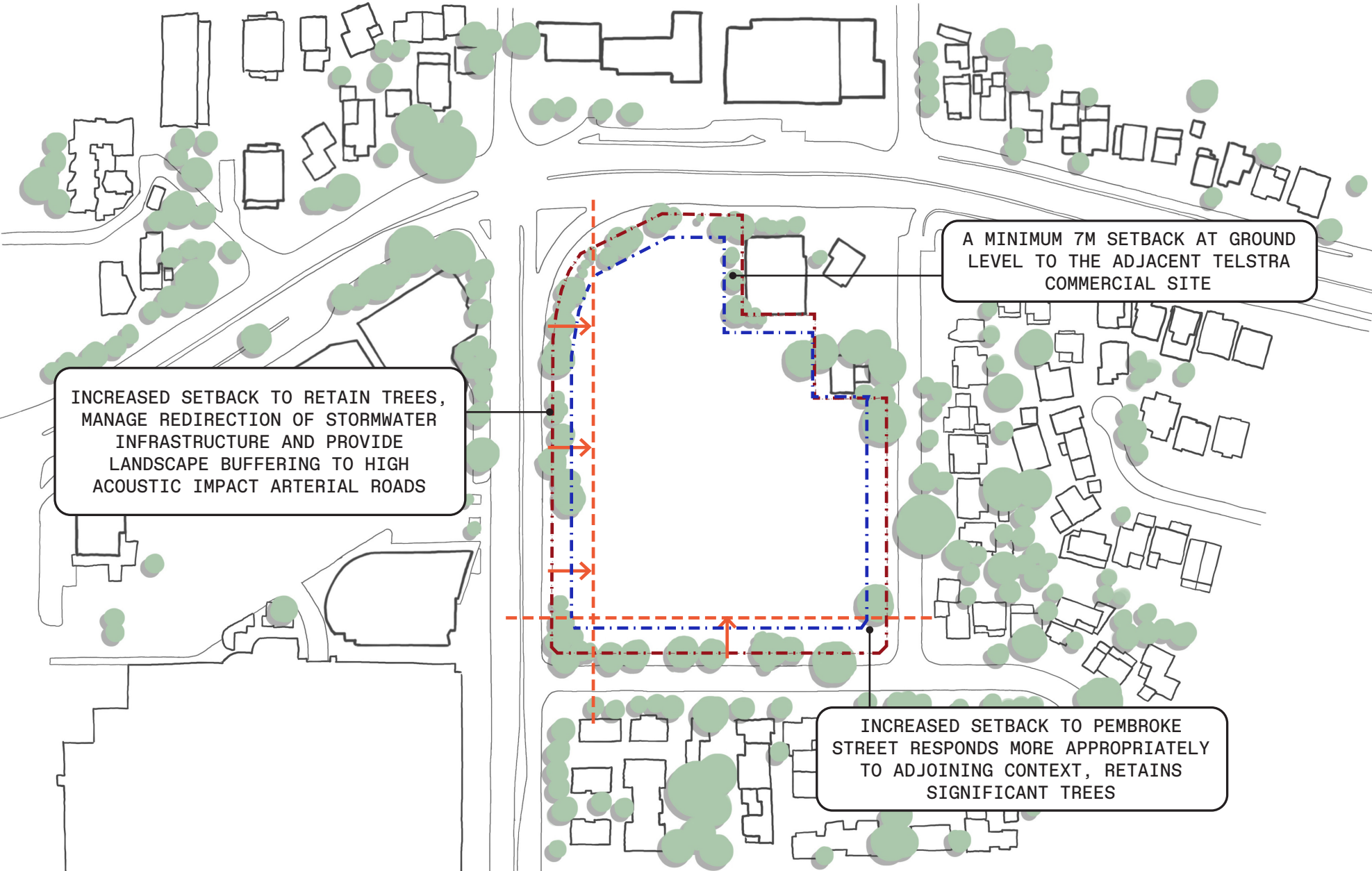
DESIGN WITH CARE

- 1. CONNECTING WITH NATURE: CREATE OPPORTUNITIES FOR QUALITY OPEN SPACES AND DEEP SOIL ZONES
- 2. PROTECTING LANDSCAPES: PROTECTING SIGNIFICANT TREES AND LANDSCAPE FEATURES
- 3. EASE OF ACCESS: STREAMLINING VEHICULAR ACCESS, WASTE REMOVAL, BUILDING SERVICES ACROSS THE ENTIRE DEVELOPMENT
- 4. LOW MAINTENANCE: MINIMISES MAINTENANCE AND BUILDING MANAGEMENT REQUIREMENTS

3.2 KEY MOVES

01 INCREASE SETBACKS TO RETAIN EXISTING TREES
AND PROVIDE ACOUSTIC BUFFERING TO THE WEST

In addition to significant efforts made to reduce the impact to existing tenants and minimise displacement, the retention of existing significant trees on the site has central to the siting and placement of building form on site. Increased setbacks to the northern and western boundaries to retain existing trees and provide additional buffers from acoustic impacts of adjacent major arterial roads. 7.5m setbacks required by the Sutherland DCP on the west have been increased to between 11m - 15.05m. Setbacks to Pembroke have increased to 9.5m.



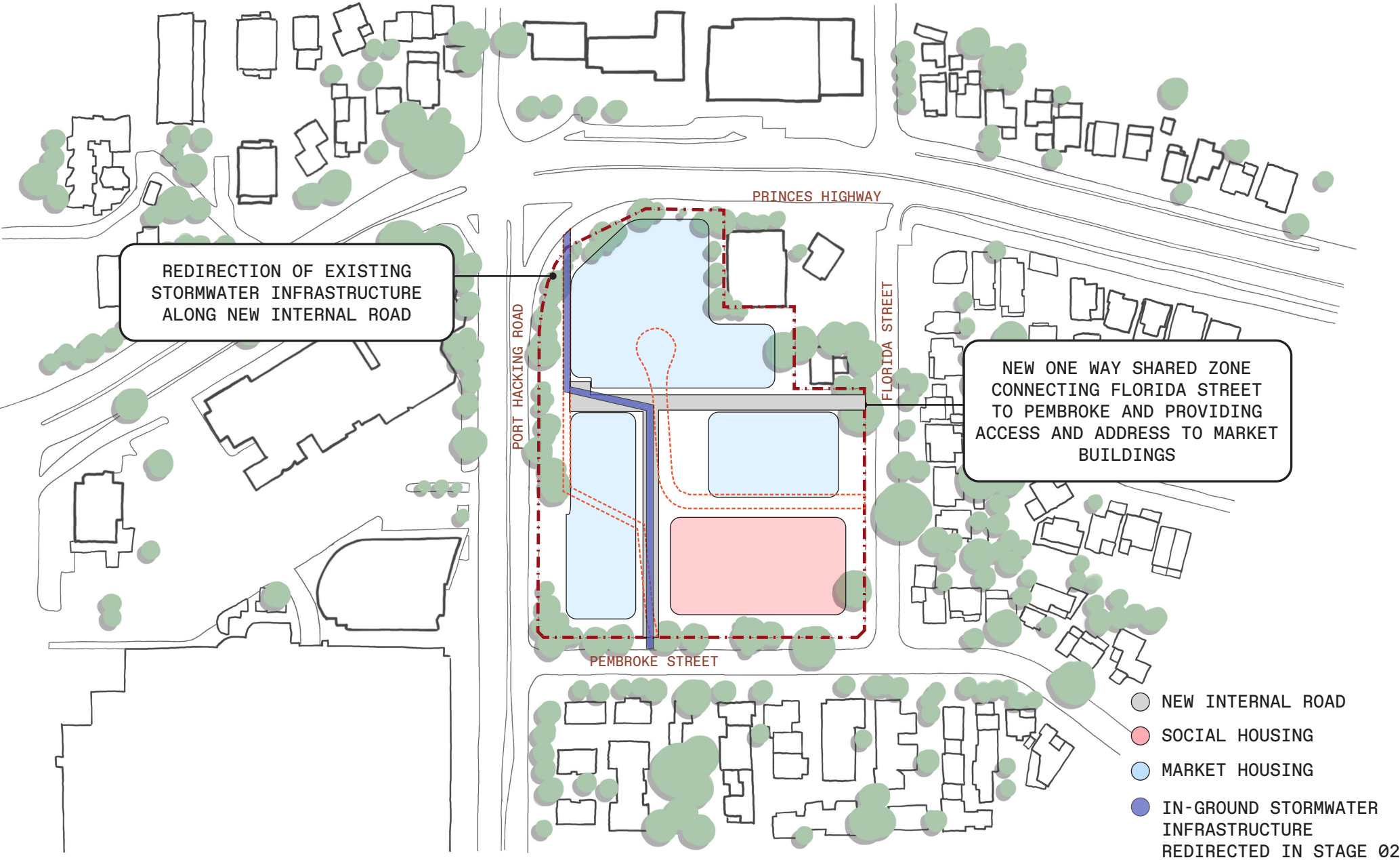
DRAWING INDICATING PROPOSED SETBACKS IN EXCESS OF REQUIRED DCP7.5M SETBACKS FROM PRIMARY AND SECONDARY STREETS.

3.2 KEY MOVES

02 INTERNAL VEHICULAR ACCESS

A new internal one way shared zone connecting Florida Street to Pembroke Street and redirection of existing stormwater infrastructure divides the market housing lot into three consolidated blocks.

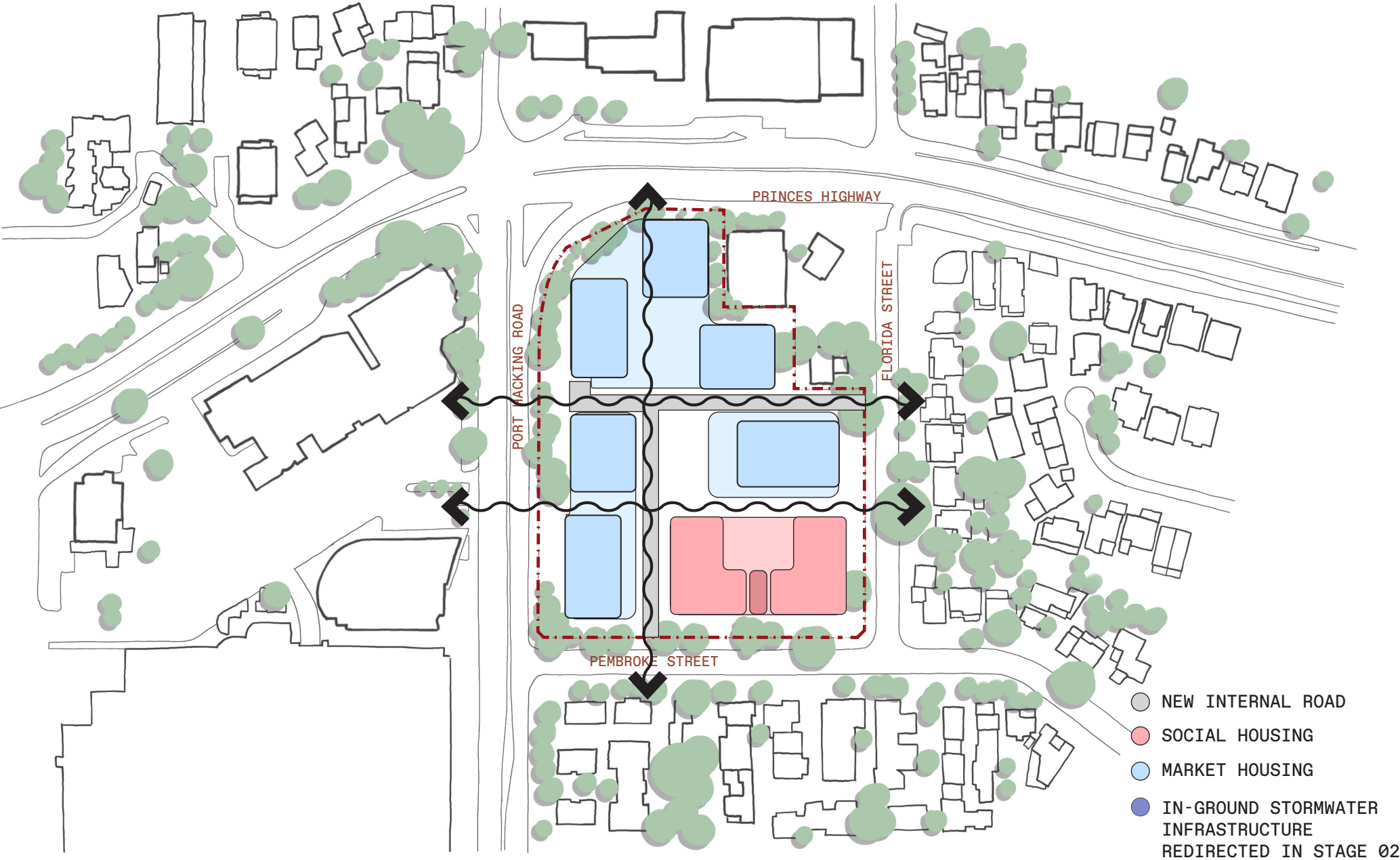
To simplify staging and future development flexibility, proposed basements to all developments do not extend below the proposed internal road.



3.2 KEY MOVES

03 POROUS & PERMEABLE

New public through site links and visual connections across the site break down the building mass and form, stitching the buildings into the broader context and providing visual permeability across the site.



3.2 KEY MOVES

04 CONNECTED OUTDOOR SPACES

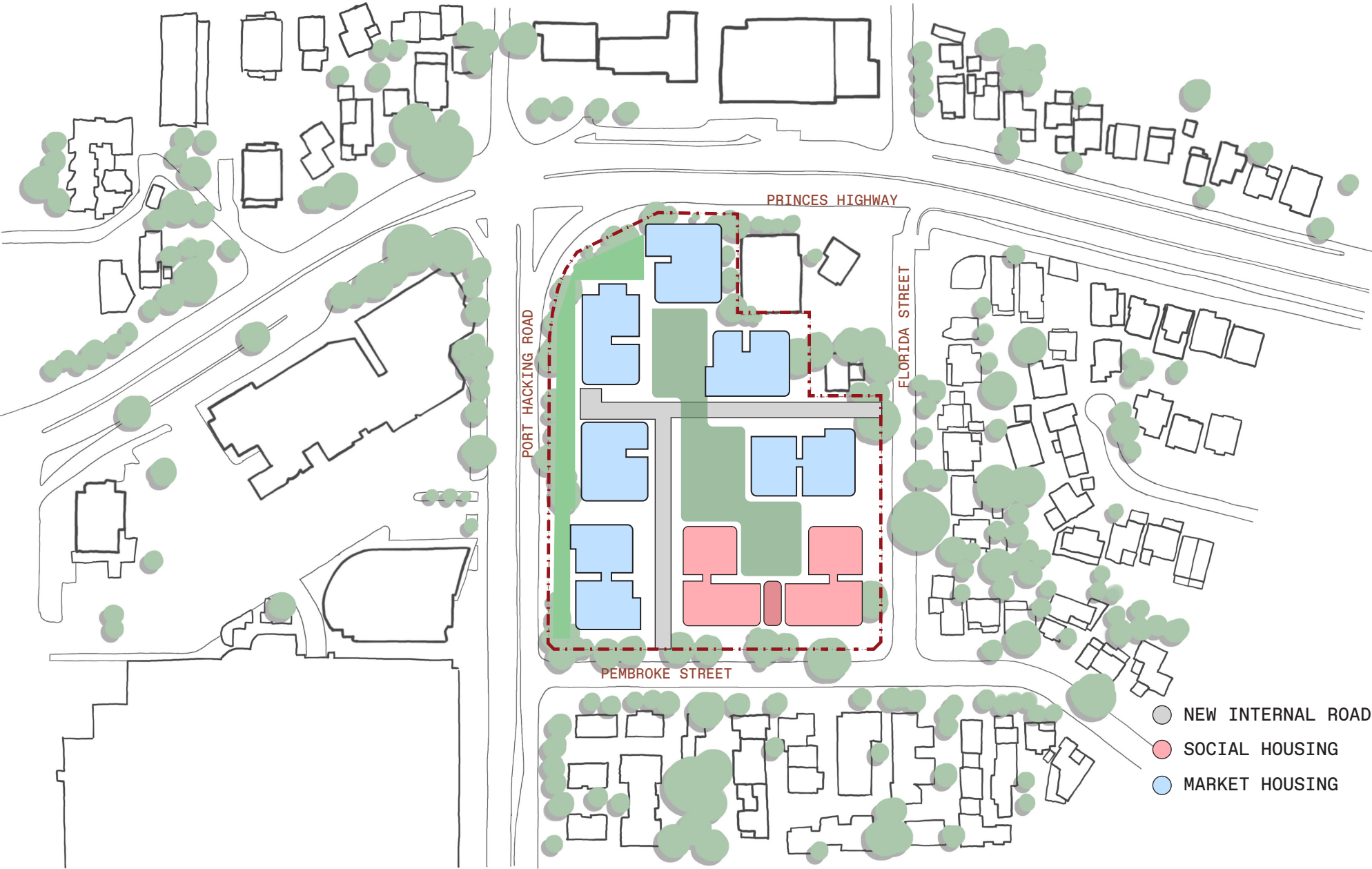
Major central green spaces form a new green heart to the precinct. These spaces are intended as stitched and connected publically accessible spaces with diverse uses and programming to create active and vibrant outdoor areas that are shared by all. Passive delineation of spaces leveraging the site topography to subtly define communal areas.



3.2 KEY MOVES

05 ARTICULATED MASSES

The forms, articulation and architectural language of buildings within each of the three zones are differentiated to provide diversity across the large site, however a common use of brick materiality and hues that reference the clays and stone found locally will provide consistency. A consistent articulation of vertical slots break down the building masses into discrete volumes and provide solar and cross ventilation amenity. Buildings are aligned to ensure sightlines across the site east to west and north to south.



3.2 KEY MOVES

06 THREE CLUSTERS

Master planning considers the varying site character from the intersection of Princes Hwy and Port Hacking Rd to the north, to the quieter suburban context and green character at the south and east

The site has deep proportions approximately 190m x 140m with 4 road frontages. It currently houses a ranges of building forms 2-4 storeys accommodating social housing arranged around a central vehicle cul-de-sac accessway.

The master plan response proposes to replace the existing cul-de-sac with a new through accessway

connecting to Pembroke and Florida St that will better connect the new community to its context and divide the deep site into three smaller identifiable building clusters, each with its own character:

- the northern cluster
- the western bar
- the village green



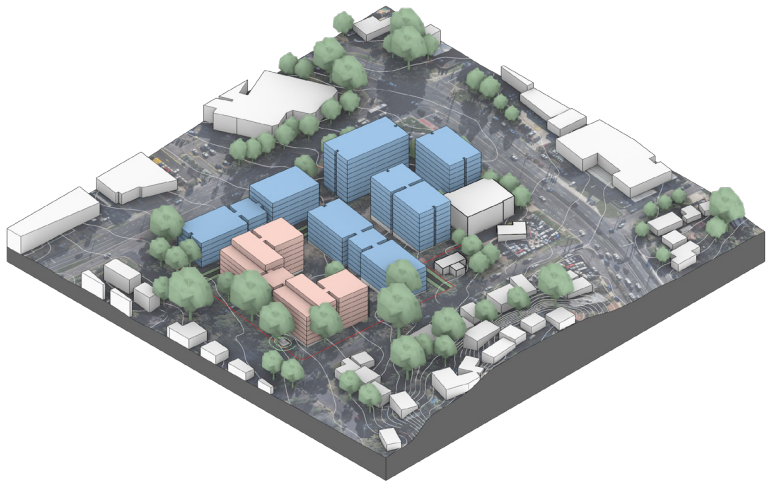
3.3 MASSING & FORM

The proposal generally complies with the maximum permissible height of 28.6m and does not meet the maximum permissible GFA.

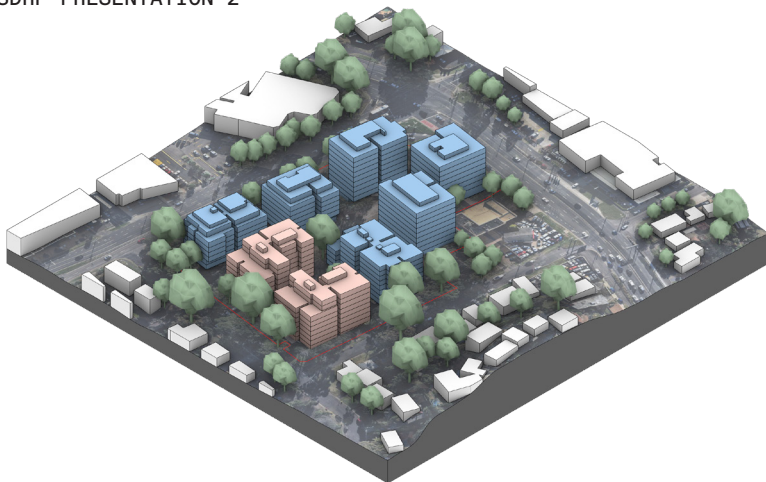
Through the deign review process with the SDRP the massing has been refined to open up the ground plane, utilising more compact building footprint and studying the optimal orientation for solar access to open spaces.

Part of this study was additional height to northern buildings where the impact would be limited, however, the proposal as submitted retains generally compliant heights to limit non compliances.

MASSING PRESENTED AS PART OF SDRP PRESENTATION 1



MASSING PRESENTED AS PART OF SDRP PRESENTATION 2



04

4.1 VISUALISATIONS



VIEW FROM CORNER OF PEMBROKE AND FLORIDA STREET

4.1 VISUALISATIONS



VIEW FROM NORTHERN CLUSTER

4.1 VISUALISATIONS



VIEW TO NORTHERN CLUSTER

4.2 PLANNING & ARRANGEMENT

STAGING PLAN

The development will be delivered in two key stages, and as part of the SSDA submission will include the subdivision of the broader site into two distinct lots.

The social housing component will be delivered in the first stage, with a total lot area of 4,954m2. The following will be provided as part of Stage 1:

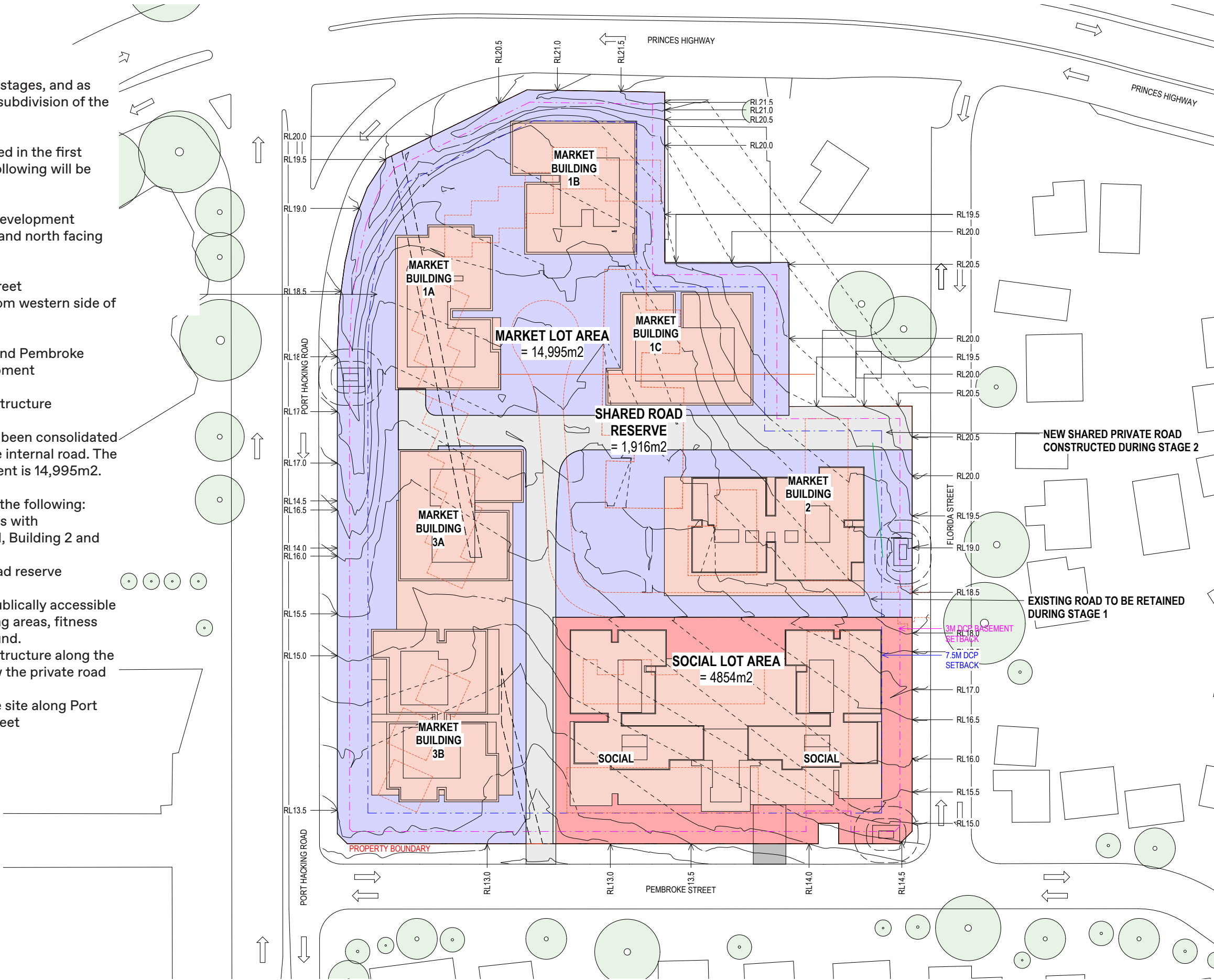
- New 9 storey social housing residential development with single level underground basement and north facing communal open space
- Retention of key significant trees
- New driveway entries from Pembroke Street
- Temporary site works to provide entry from western side of development from existing levels
- Primary entry from Florida Street
- New substation at the corner of Florida and Pembroke Street serving the social housing development
- Retention of existing road infrastructure
- Minor redirection of existing sewer infrastructure

The market housing development areas have been consolidated into one larger area, including the new private internal road. The total lot area for the market housing component is 14,995m2.

The market housing development comprises the following:

- 6 x 7-9 storey market residential buildings with consolidated basements below Building 1, Building 2 and Building 3.
- New internal private shared zone and road reserve servicing the market housing
- Extensive public realm works and new publically accessible private open spaces including new seating areas, fitness areas, walking tracks and public playground.
- Redirection of existing stormwater infrastructure along the Port Hacking Road interface to the below the private road reserve.
- A new kiosk substation to the west of the site along Port Hacking Road, and another to Florida Street

- MARKET HOUSING LOT
- SOCIAL HOUSING LOT
- SHARED ROAD RESERVE
- PROPOSED MASSING



4.2 PLANNING & ARRANGEMENT

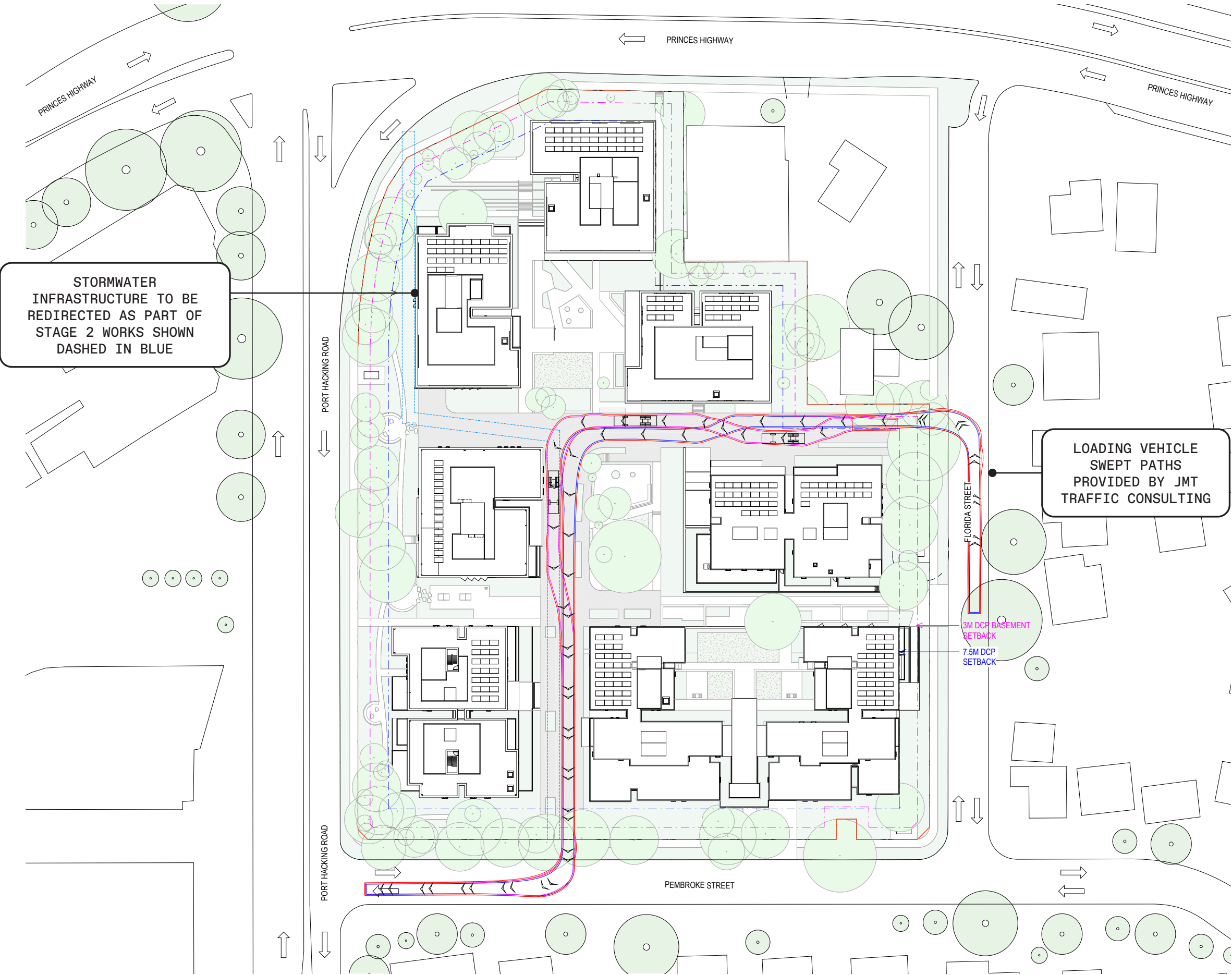
PROPOSED SITE PLAN - STAGE 1

The social housing component will be delivered in Stage 1 of the development. It is sited and designed to minimise displacement and disruption to existing tenants who will remain on site during the phased construction of the building.



4.2 PLANNING & ARRANGEMENT

PROPOSED SITE PLAN - STAGE 2



4.2 PLANNING & ARRANGEMENT

TYPICAL RESIDENTIAL PLAN
LEVEL 04



This site plan illustrates the proposed development at 1000 West 10th Street. The project is bounded by Port Hacking Road to the west, Florida Street to the east, and Pembroke Street to the south. The plan shows multiple building footprints, each with detailed room layouts and area calculations. Key features include:

- Setbacks:** A 3M DCP Basement Setback and a 7.5M DCP Setback are indicated by dashed lines.
- Streets:** Port Hacking Road, Florida Street, and Pembroke Street are shown with traffic flow arrows.
- Building Details:** Various building footprints are shown, including residential units, a communal open space, a covered communal area, and a terrace. Specific rooms like 'BULKY WASTE', 'FIRE TANK', and 'FIRE PUMP ROOM' are labeled.
- Landscaping:** The plan includes numerous trees and green spaces, with references to landscape documentation.
- Area Calculations:** Numerous area calculations are provided for individual rooms and building footprints, such as '28-M 86.1 m²' and '18-S 49.9 m²'.

4.2 PLANNING & ARRANGEMENT

TYPICAL RESIDENTIAL PLAN
LEVEL 06



4.2 PLANNING & ARRANGEMENT

TYPICAL RESIDENTIAL PLAN
LEVEL 09



This architectural site plan illustrates the layout of a development. The plan features several building footprints with internal room divisions and labels such as 'STORAGE', 'MAIN SWITCH', 'COMMS', 'PLANT', 'CP EXHAUST', 'FIRE PUMP ROOM', 'FIRE TANK', 'WASTE', 'BULKY WASTE', 'CP SUPPLY', 'CWB', and 'WASTE'. The buildings are situated within a defined area, with setbacks indicated by dashed lines: a 3M DCP BASEMENT SETBACK (pink) and a 7.5M DCP SETBACK (blue). The site is bordered by 'PORT HACKING ROAD' to the west and 'PEMBROKE STREET' to the south. A north arrow is located in the bottom left corner, and a scale bar is positioned at the bottom center. The plan also shows parking spaces, landscaping with trees, and a pedestrian path along the southern boundary.

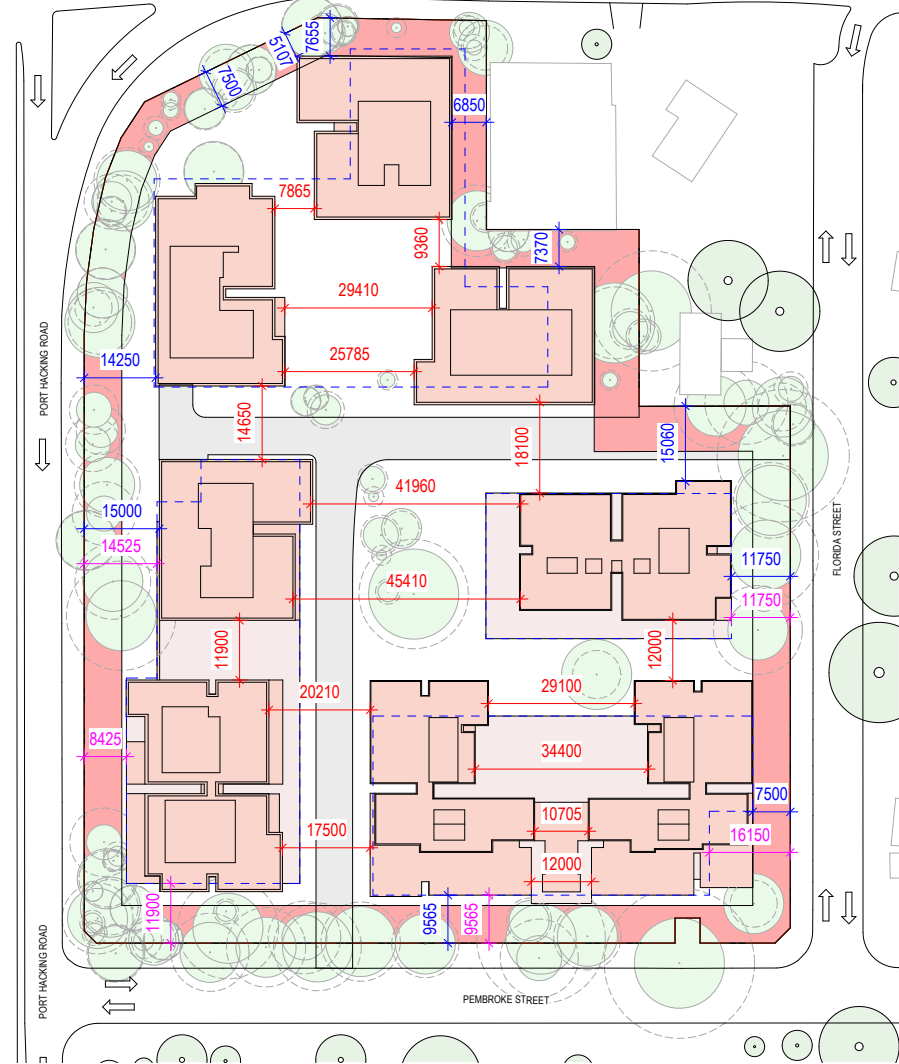
4.2 PLANNING & ARRANGEMENT

TREE RETENTION

The proposal seeks to retain as many existing site trees as possible. This has been achieved through increased in setbacks from the minimum required DCP setbacks, particularly to the west and southern boundaries.

This also provides a significant acoustic buffer from the western boundary along Port Hacking Road. The loss of development area resulting from these increased setbacks is approximately 1800m2, reducing the overall development area of the project to ensure the retention of mature and high value trees.

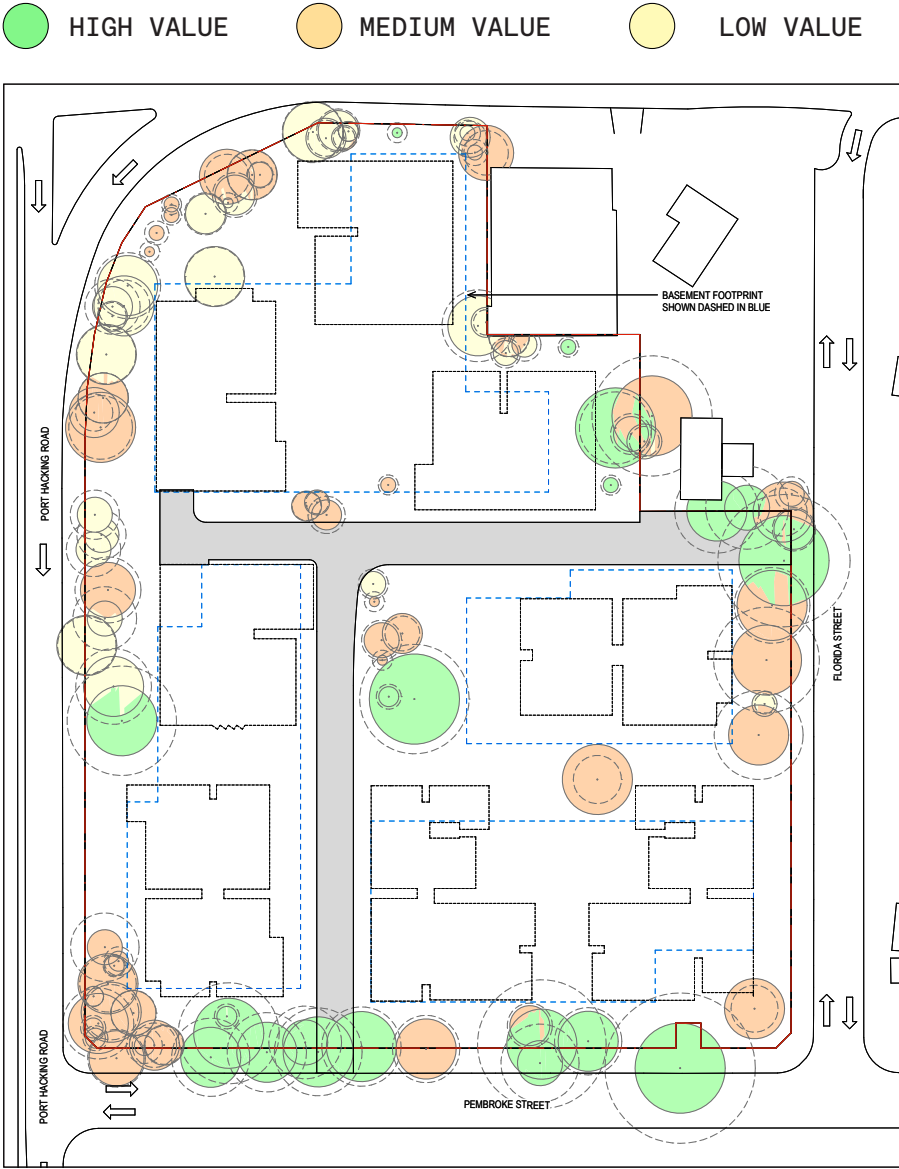
Built form and basement footprints have been adjusted to maximise deep soil and allow for retention of existing trees on the perimeter and within the site.



DRAWING INDICATING PROPOSED SETBACKS IN EXCESS OF REQUIRED DCP7.5M SETBACKS FROM PRIMARY AND SECONDARY STREETS.



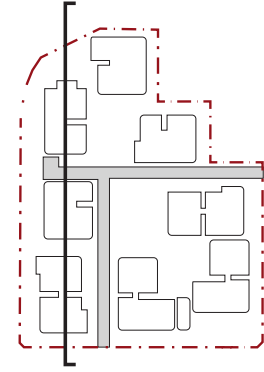
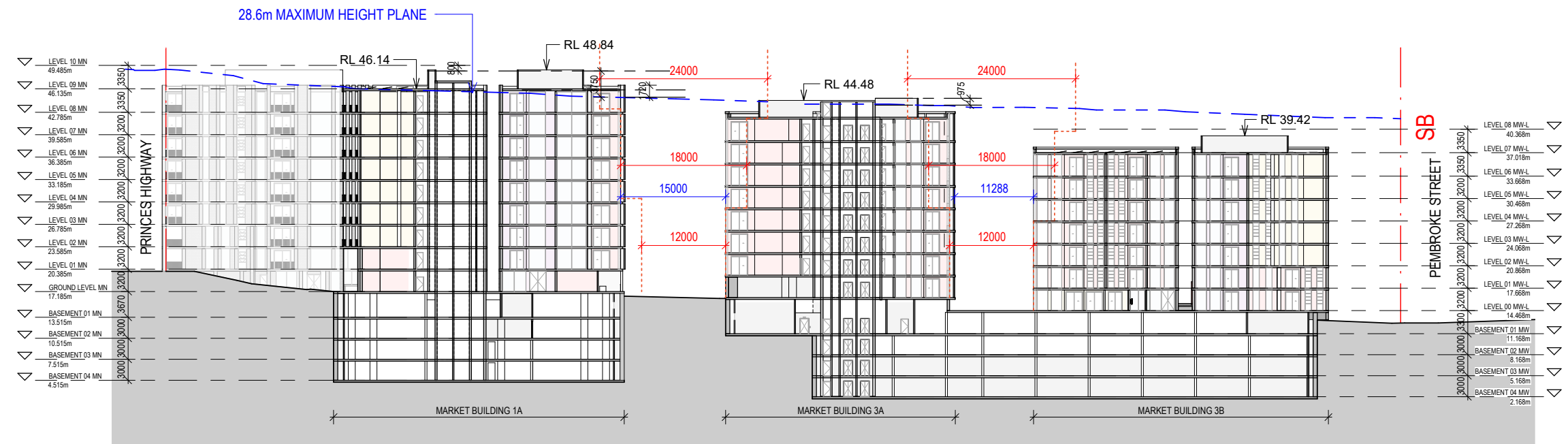
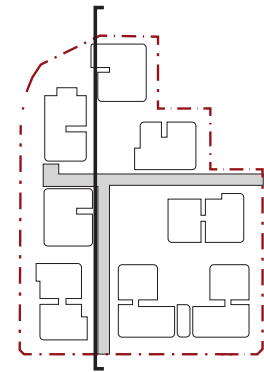
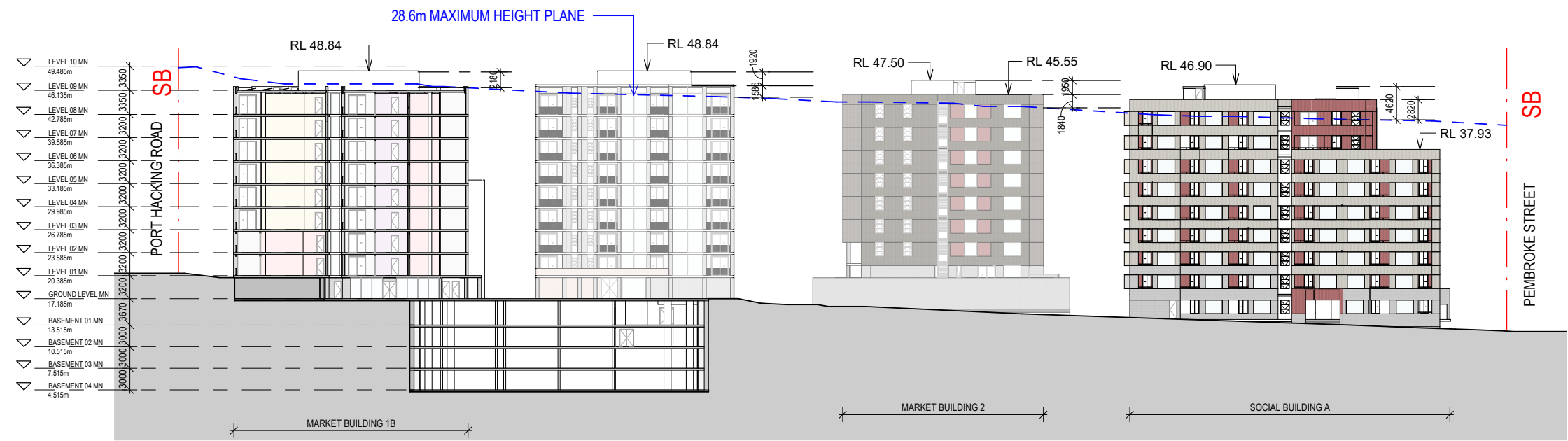
DRAWING INDICATING PROPOSED RETENTION OF ALL TREES (SHOWN GREEN) ON SITE AND PROPOSED REMOVAL OF TREES (SHOWN RED).



DRAWING INDICATING TREE RETENTION BASED ON VALUE DETERMINED BY ARBORIST REPORT.

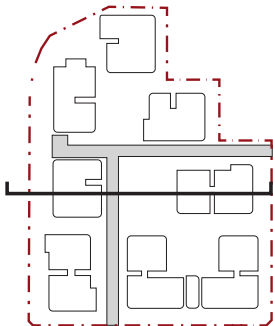
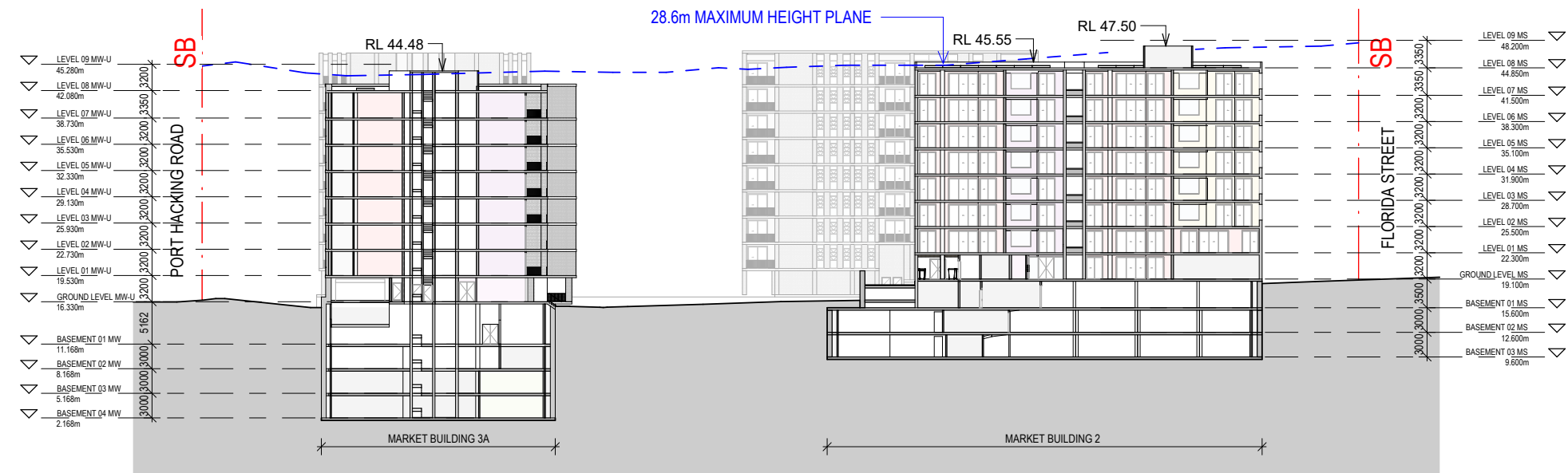
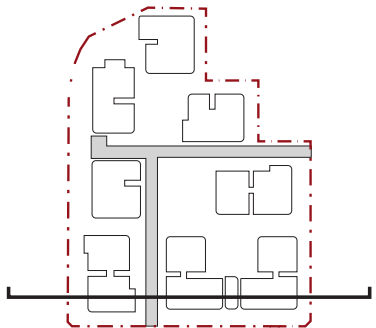
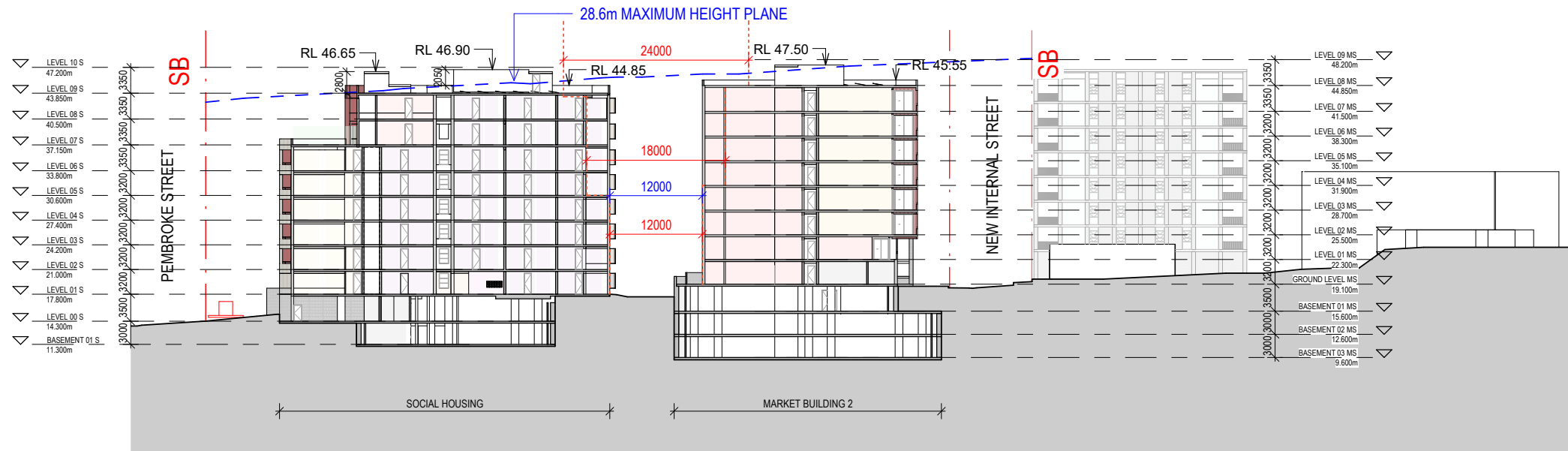
4.2 PLANNING & ARRANGEMENT

SECTIONS
NOTE: ADDITIONAL SECTIONS PROVIDED AS PART OF ARCHITECTURAL DRAWING PACKAGE

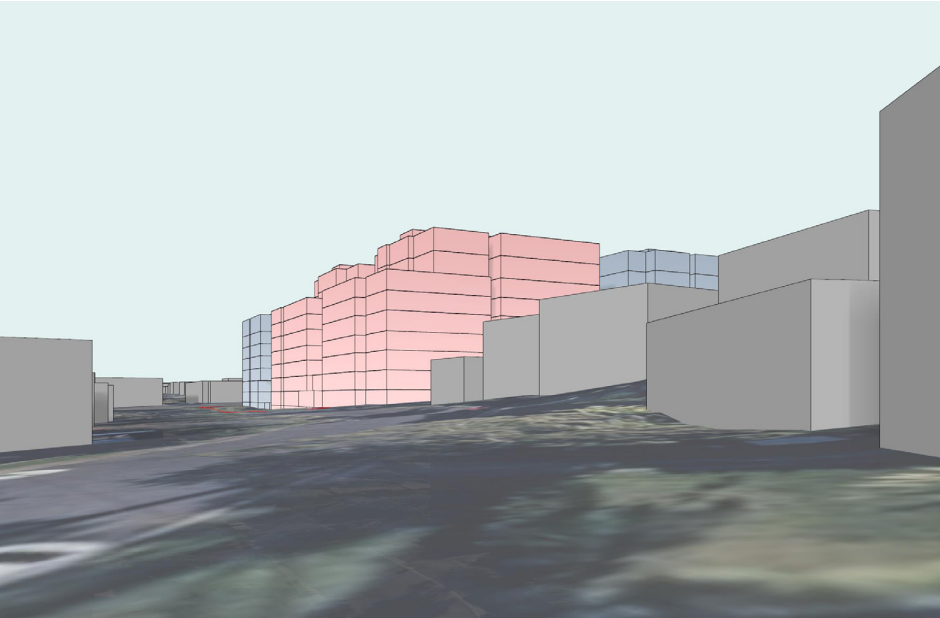


4.2 PLANNING & ARRANGEMENT

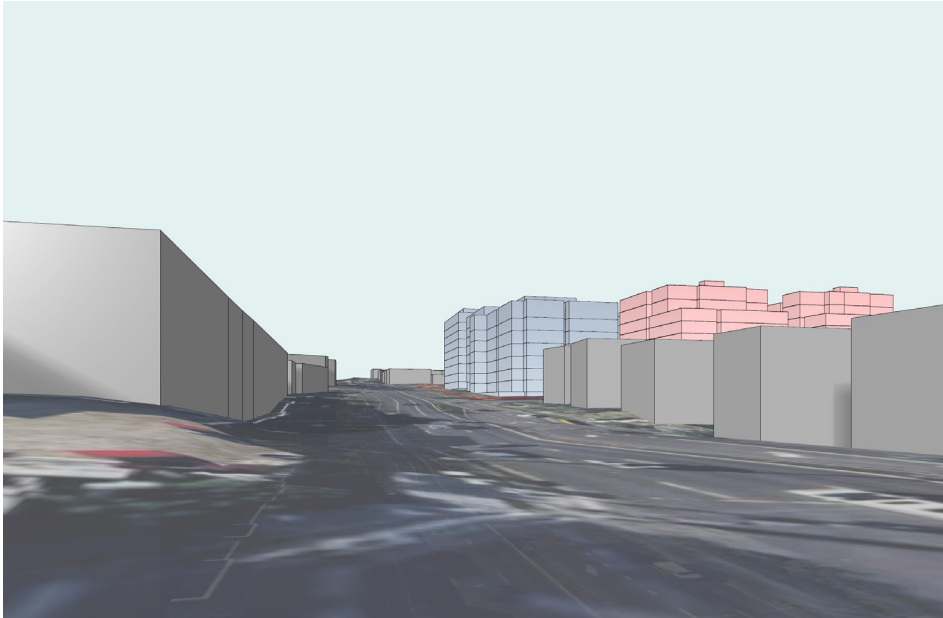
SECTIONS
NOTE: ADDITIONAL SECTIONS PROVIDED AS PART OF ARCHITECTURAL DRAWING PACKAGE



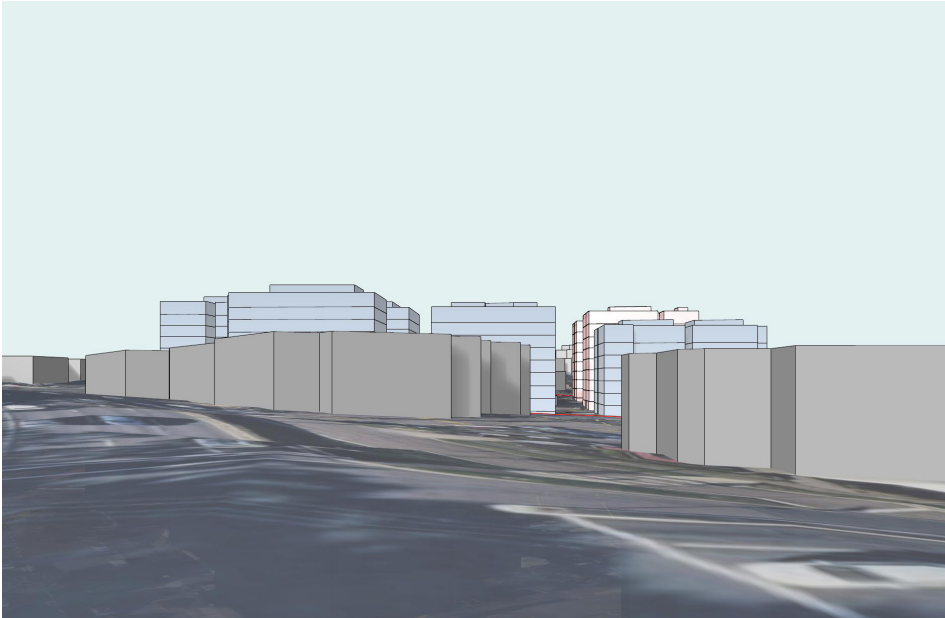
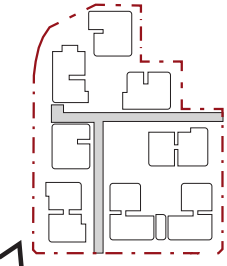
4.3 VIEW ANALYSIS



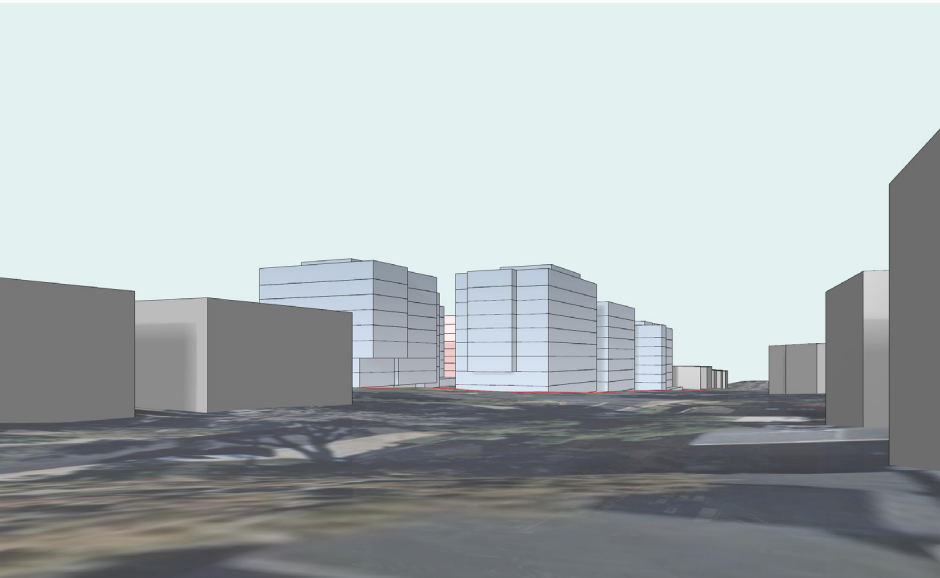
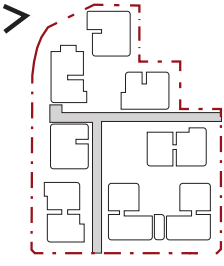
VIEW FROM PEMBROKE STREET LOOKING WEST



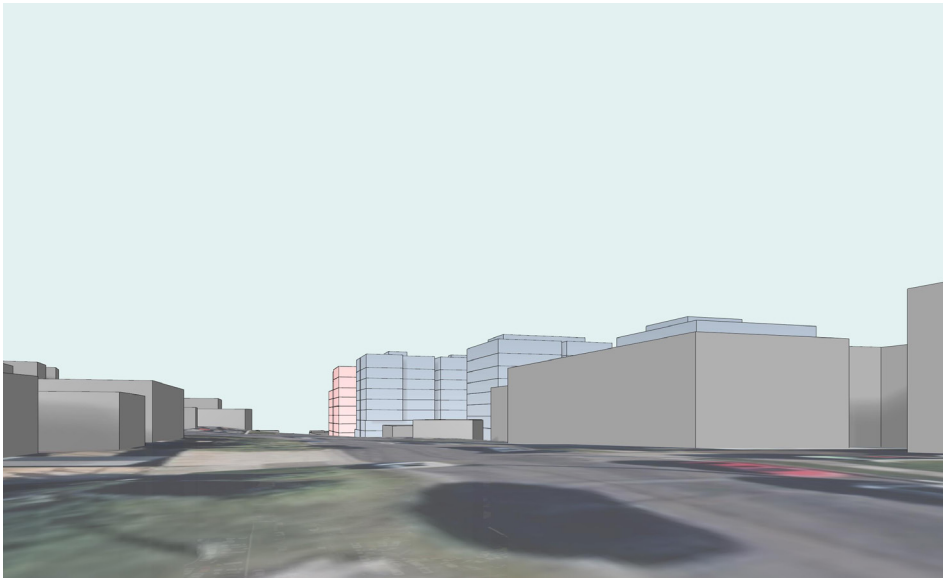
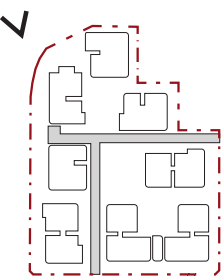
VIEW FROM PORT HACKING ROAD LOOKING NORTH



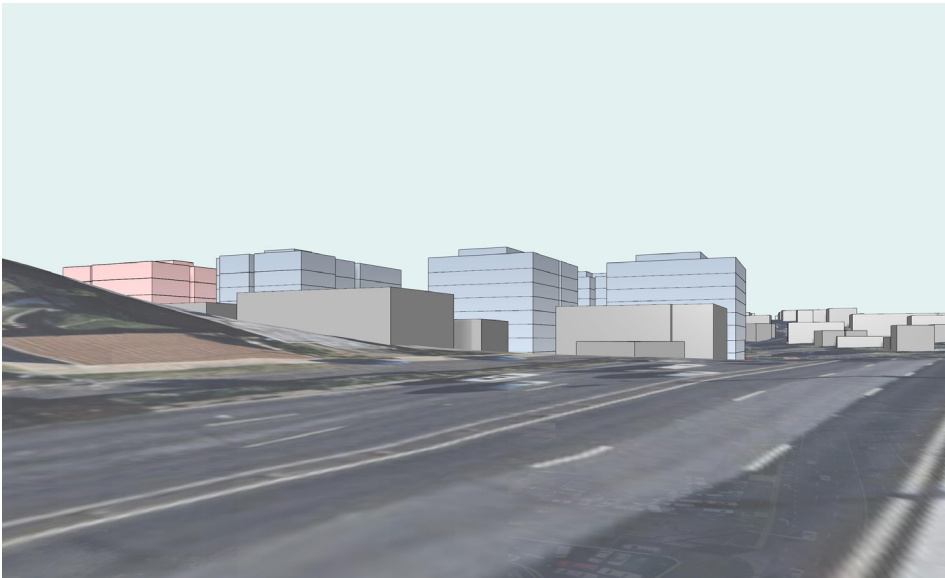
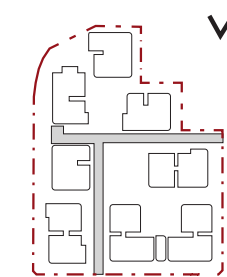
VIEW FROM PRINCES HIGHWAY LOOKING EAST



VIEW FROM PORT HACKING ROAD LOOKING SOUTH



VIEW FROM PORT HACKING ROAD LOOKING NORTH



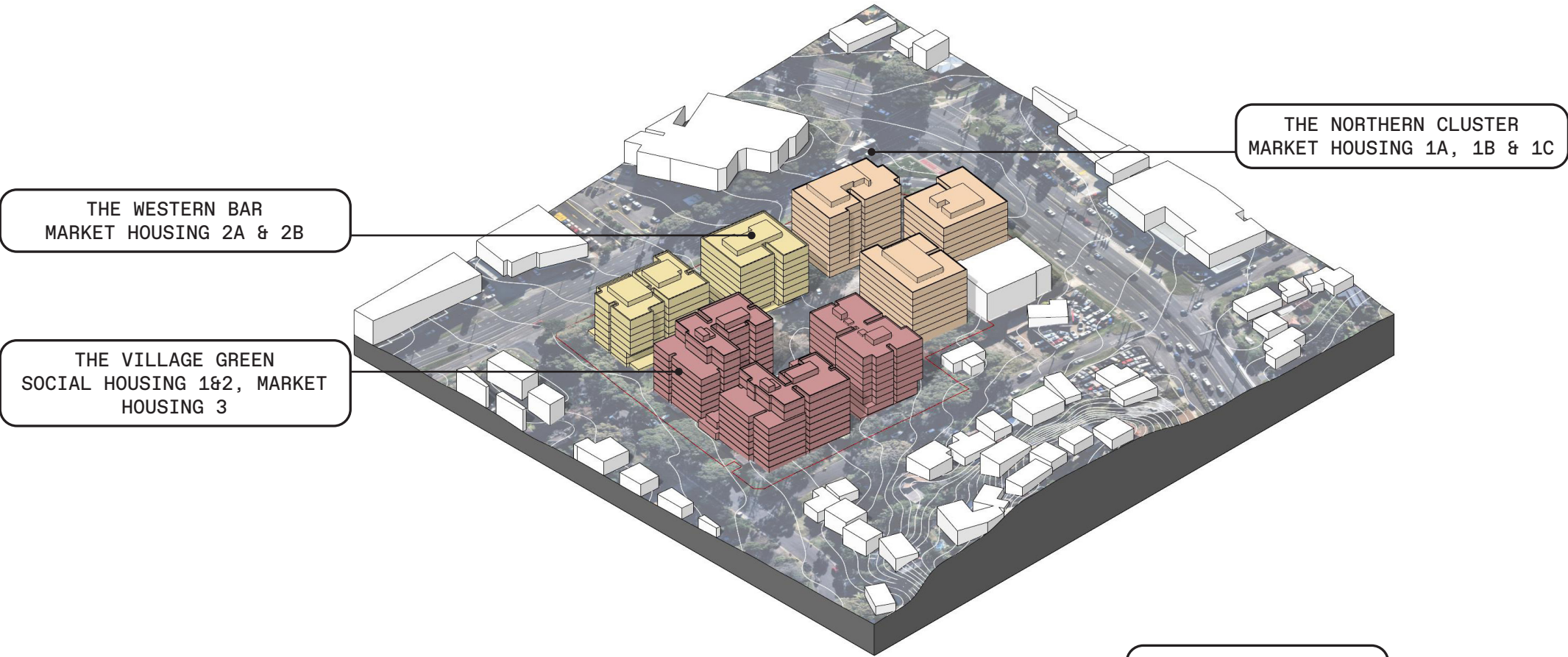
VIEW FROM PRINCES HIGHWAY LOOKING WEST



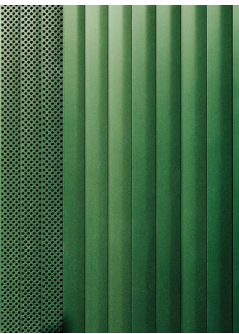
4.4 FACADE

The facade strategy has been considered site-wide to create a series of related and complementary clusters of buildings that break down the scale of the development into smaller villages around a series of connected green spaces.

Borrowing of architectural elements and colours across the precinct ties the buildings together, while maintaining a unique identity to each cluster. Across the precinct, a masonry plinth mitigates level differences, lifting the buildings up to the flood planning levels and grounding each of the buildings into the sloping topography.



LAYERING & RHYTHM



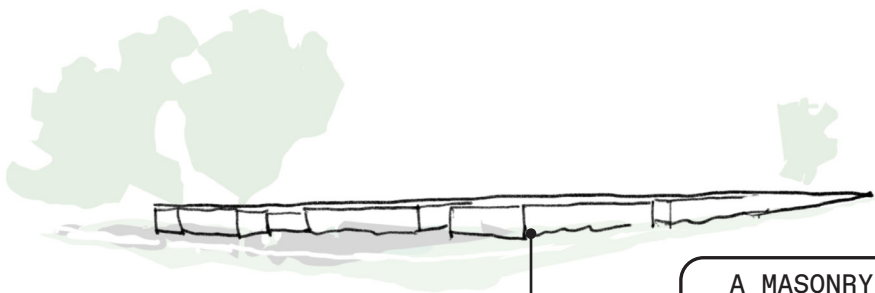
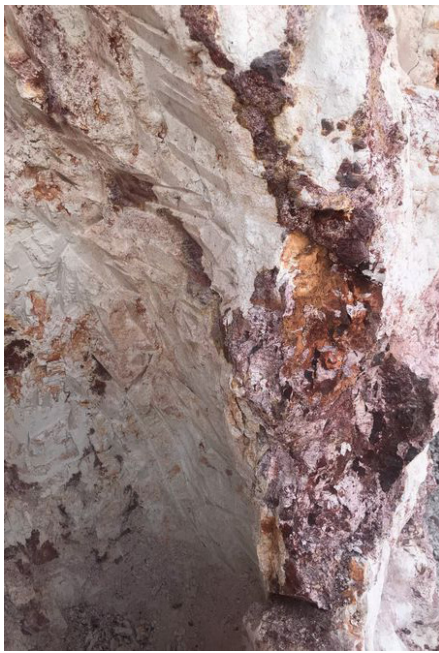
ARTICULATION & DEPTH



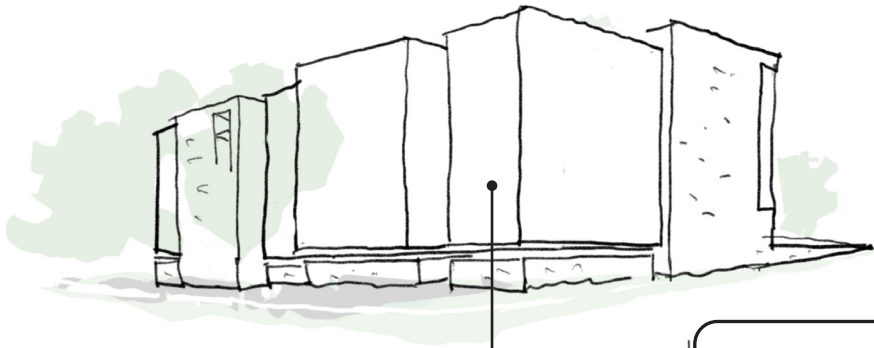
WARMTH & TACTILITY

TEXTURE AND FINE GRAIN DETAIL

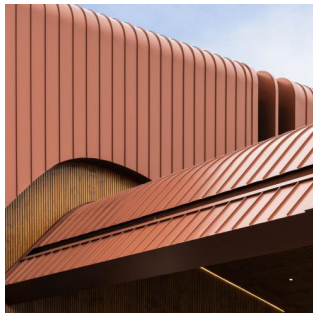
4.4 FACADE STRATEGY & MATERIALITY -THE VILLAGE GREEN



A MASONRY PLINTH LIFTS THE BUILDING FROM THE SLOPING TOPOGRAPHY



LIGHTWEIGHT METAL ELEMENTS PERCH ABOVE



STANDING SEAM CLADDING SIMILAR TO LYSAGHT ENSEAM-COLORBOND ARIES OR EQUIV



- COLORBOND SOUTHERLY
- COLORBOND DUNE
- COLORBOND GULLY
- COLORBOND WALLABY

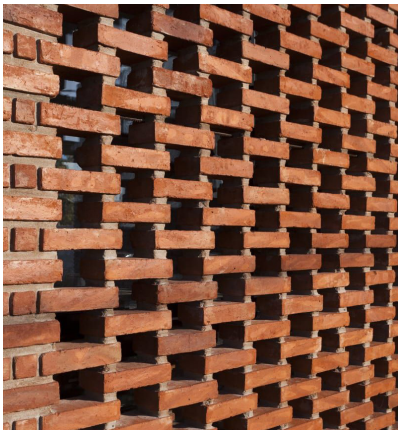
PLEAT CLADDING; STRATCO NINELINE OR EQUIVALENT



METAL WALL CLADDING TO BALCONY INTERIORS; LYSAGHT 'EXPRESSION' INTERLOCKING WALL SYSTEM OR EQUIV. COLOUR SIMILAR TO COLORBOND ARIES OR EQUIVALENT



BRICK; SAN SELMO SMOKED - OPAQUE SLATE OR EQUIV



HIT & MISS AND TEXTURED BRICKWORK TO THE MASONRY PLINTH

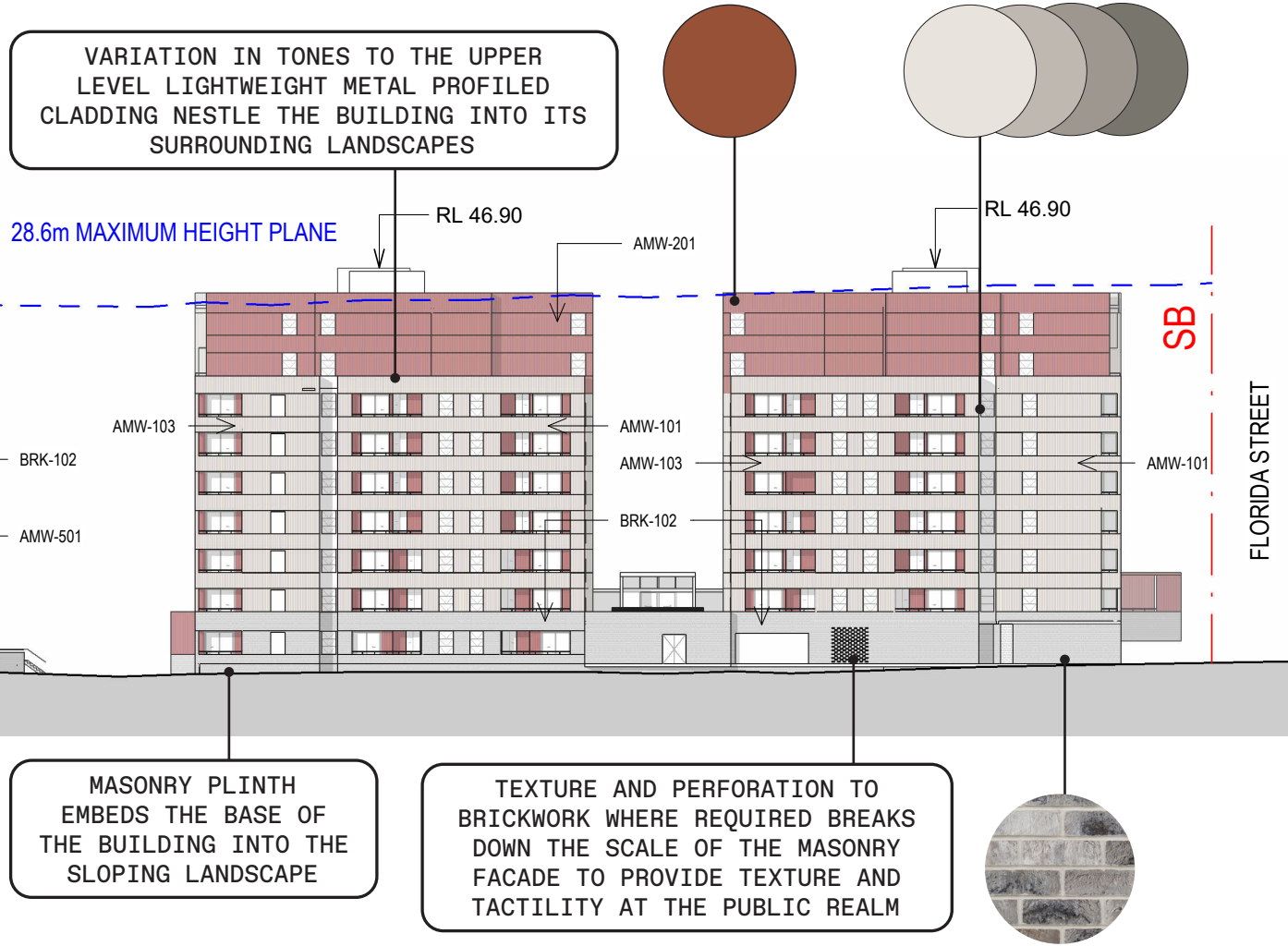
The central cluster includes the social housing development and the central market housing building (Market Building 3). Both of these buildings are designed as lightweight metal buildings, with expressed horizontal bands and punched windows perched above a masonry plinth. Subtle variation in clay tones of the metal buildings are inspired by the site's geology. A feature deep red elements sits above the street wall to Pembroke Street.

This colour is then threaded through the cluster in balconies through metal wall cladding, window framing and colouring to entry awnings and communal structures.

- The envelopes are comprised of the following elements:
- A stepping brick veneer base; stitching the development into the surrounding precinct at an appropriate scale and relationship to neighbouring houses
 - Full height glazing to residential corridors

- Acoustic screening to plant areas on rooftops. Profiled metal cladding to window walls on upper residential levels with expressed horizontal banding articulated through subtle increases in depth of horizontal banding.
- Solid metal clad balustrades to 780mm datum with horizontal railing above
- Profiled metal cladding to privacy screens as required
- On upper levels, standing seam cladding such as Enseam in a deep red colouring equivalent to Colorbond 'Aries'
- Typical window systems to all residential facades, 750mm high brick or metal spandrels to sill height, vision glazing to fixed glazed windows and operable awning windows. Window sizes are typical across the development and coordinated to meet ADG natural ventilation requirements for habitable spaces.
- Textured, and hit and miss brickwork to the masonry plinth

4.4 FACADE STRATEGY & MATERIALITY - THE VILLAGE GREEN



SOUTH ELEVATION



FACADE ASSEMBLY

PAVERS ON PEDESTALS TO BALUSTRADES

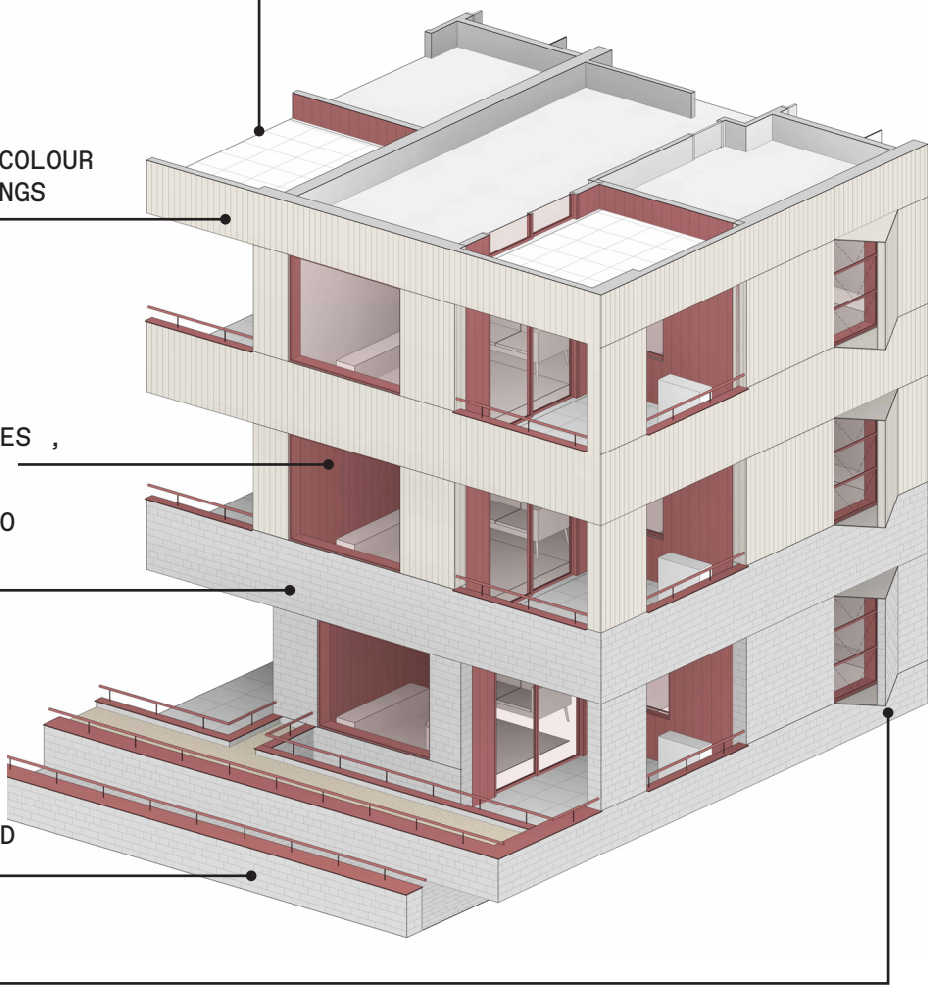
LIGHTWEIGHT 'PLEAT METAL CLADDING TO WINDOW WALL; COLOUR TONE VARIES ACROSS BUILDINGS

METAL CLADDING TO BALCONY WALLS SIMILAR TO LYSAGHT EXPRESSION, COLORBOND ARIES , PAINTED SOFFIT

BRICK VENEER BALUSTRADE TO 780MM WITH METAL RAILING ABOVE

MASONRY PLINTH AND PLANTED EDGE TO FLORIDA STREET; SAN SELMO OPAQUE SLATE OR EQUIV

PRIVACY SCREENING



4.4 FACADE STRATEGY & MATERIALITY - THE NORTH CLUSTER



The three buildings in the north cluster (Market Building 1) are organised around a publically accessible communal courtyard. Colonnades and projecting awnings supported by brick piers express entries into the building off this central courtyard where above, projecting concrete ledges and brick veneer facade panels give a sense of depth and play and providing horizontal sunshading.

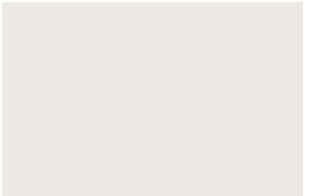
The three building envelopes are comprised of the following elements:

- A solid masonry base with shopfront glazing to building entries. These are also marked with single height colonnades with brick piers.

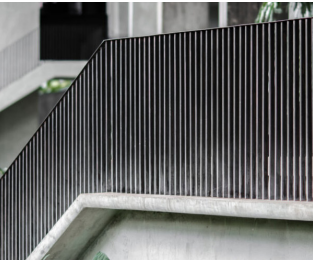
- Full height vertical brick piers with expressed painted projecting concrete slab edges.
- Metal palisade balustrades to all balconies
- Typical window systems to all residential facades; Full height operable windows consisting of fixed glazed window to 780mm, and three awning windows above and full height vision glazing to fixed windows.
- Brick cladding to solid facade infill panels
- Full height glazing to residential corridors
- Acoustic screening to plant areas on rooftops



BRICK; TO MATCH AUSTRAL LA PALOMA - WHITE



PAINTED CONCRETE SLAB

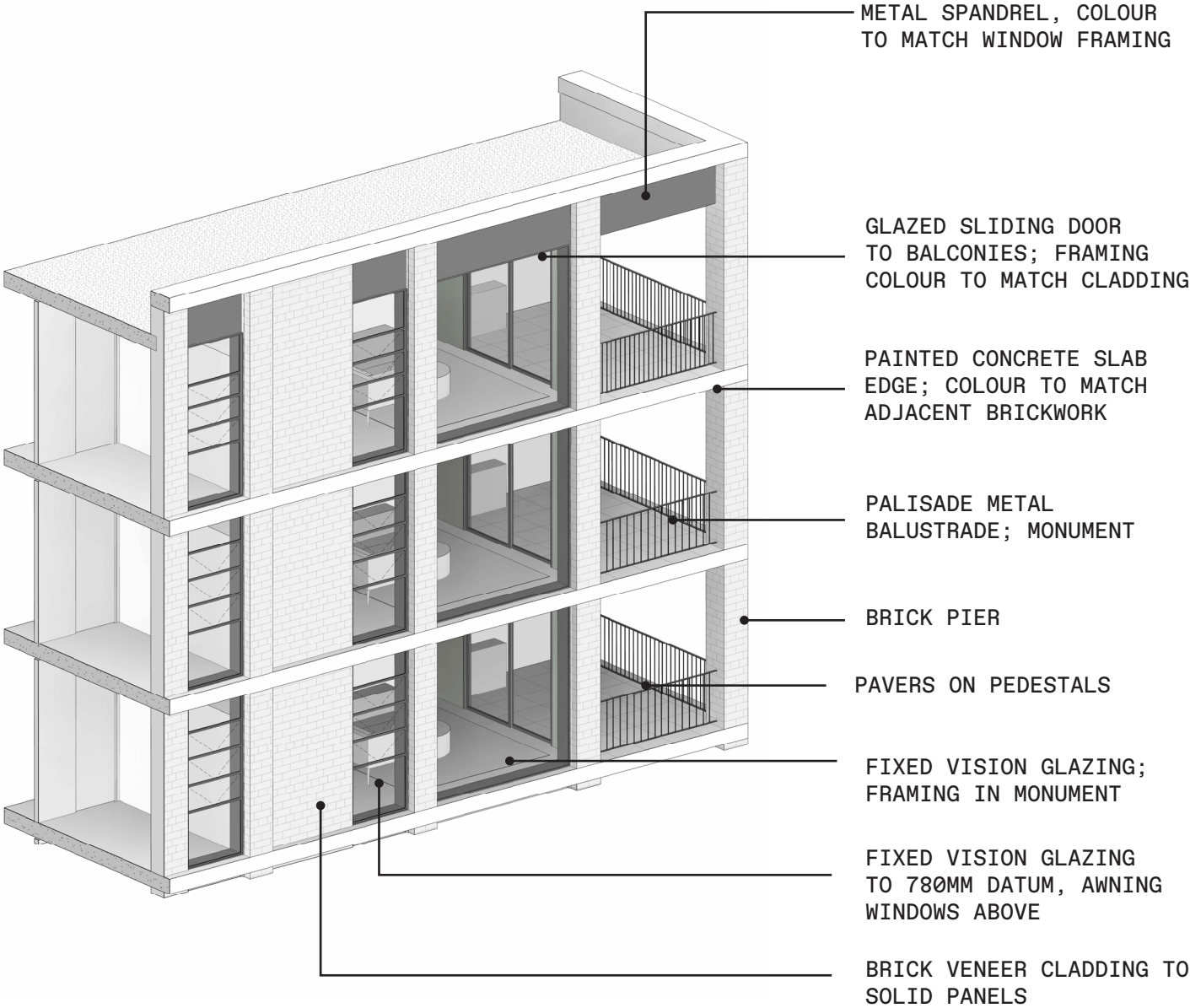


METAL PALISADE BALUSTRADE



METAL FRAMING & BALUSTRADE

FACADE ASSEMBLY



4.4 FACADE STRATEGY & MATERIALITY - THE WESTERN BAR



The two buildings facing Port Hacking Road are fully brick buildings with flush expressed concrete slabs. Repetition, order and clear vertical rhythm unites the two blocks into legible masses and tied to the masonry quality of the northern cluster. Vertical breaks in the building, external bridge connections and overhanging upper levels break down the building form.

The building envelopes are comprised of the following elements:

- Expressed vertical brick veneer cladding with vertical brick piers and expressed painted projecting concrete slab edges.
- Metal palisade balustrades to all balconies
- Typical window systems to all residential facades; Full height operable windows consisting of fixed glazed window to 780mm, and three awning windows above and full height vision glazing to fixed windows.

- Market Building 3B utilises external bridges to break up the building mass and provide cross ventilation across the slot. Planters adjacent to the palisade extend the bridges out to provide protection from inclement weather.



BRICK; SAN SELMO SMOKED - OPAQUE SLATE OR EQUIV



METAL PALISADE BALUSTRADE

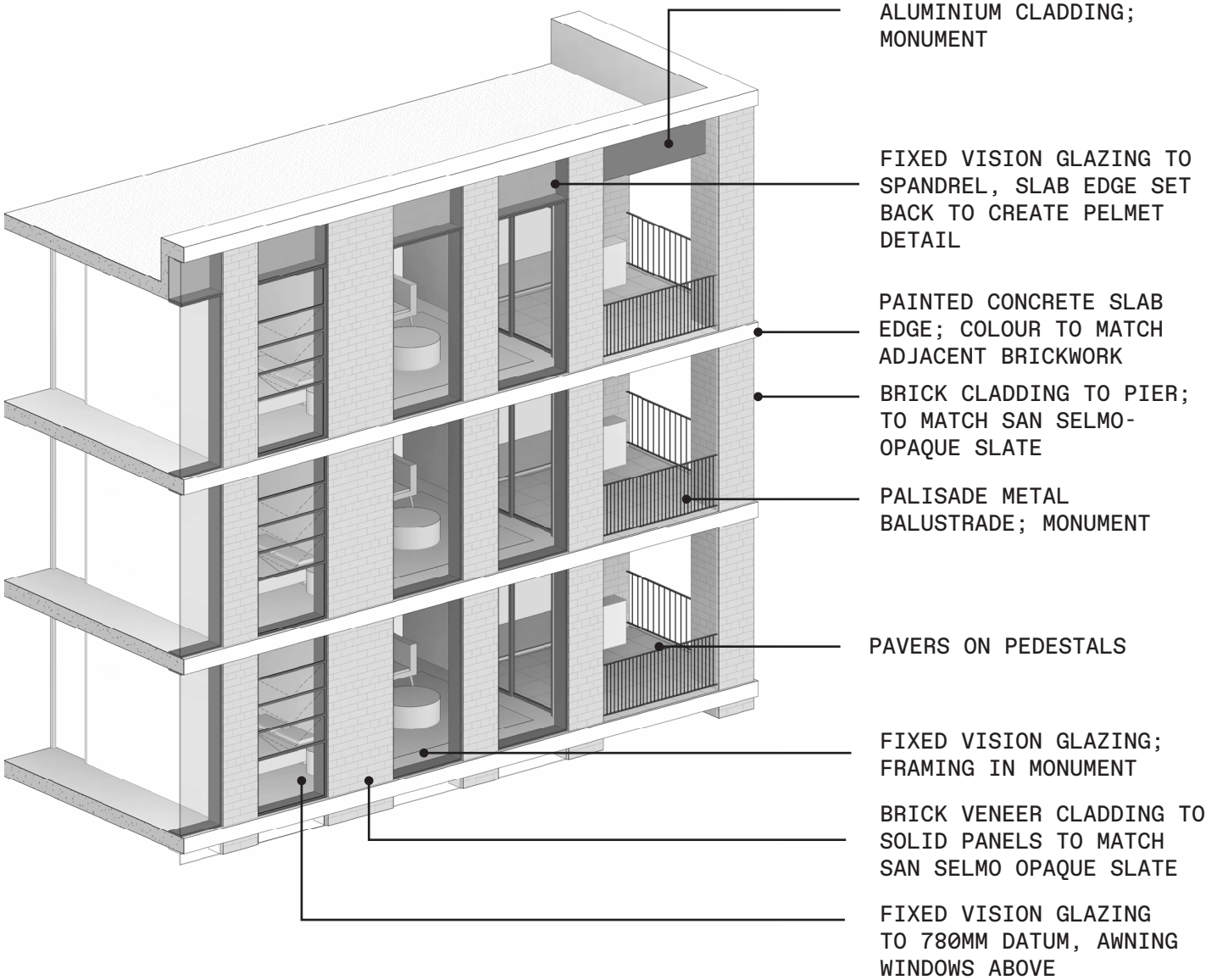


PAINTED CONCRETE SLAB



METAL FRAMING & BALUSTRADE

FACADE ASSEMBLY



4.5 LANDSCAPE & PUBLIC REALM

REFER TO LANDSCAPE ARCHITECTURE REPORT PROVIDED BY TURF LANDSCAPE FOR FURTHER DETAIL

The proposed masterplan has been developed around a series of interconnecting landscaped spaces that move as a network across the site from northwest to southeast. This strategy is in conjunction with a second strategy to preserve landscape buffers around the perimeter of the site. Building footprints have then been located to preserve these spaces and retain good solar access.

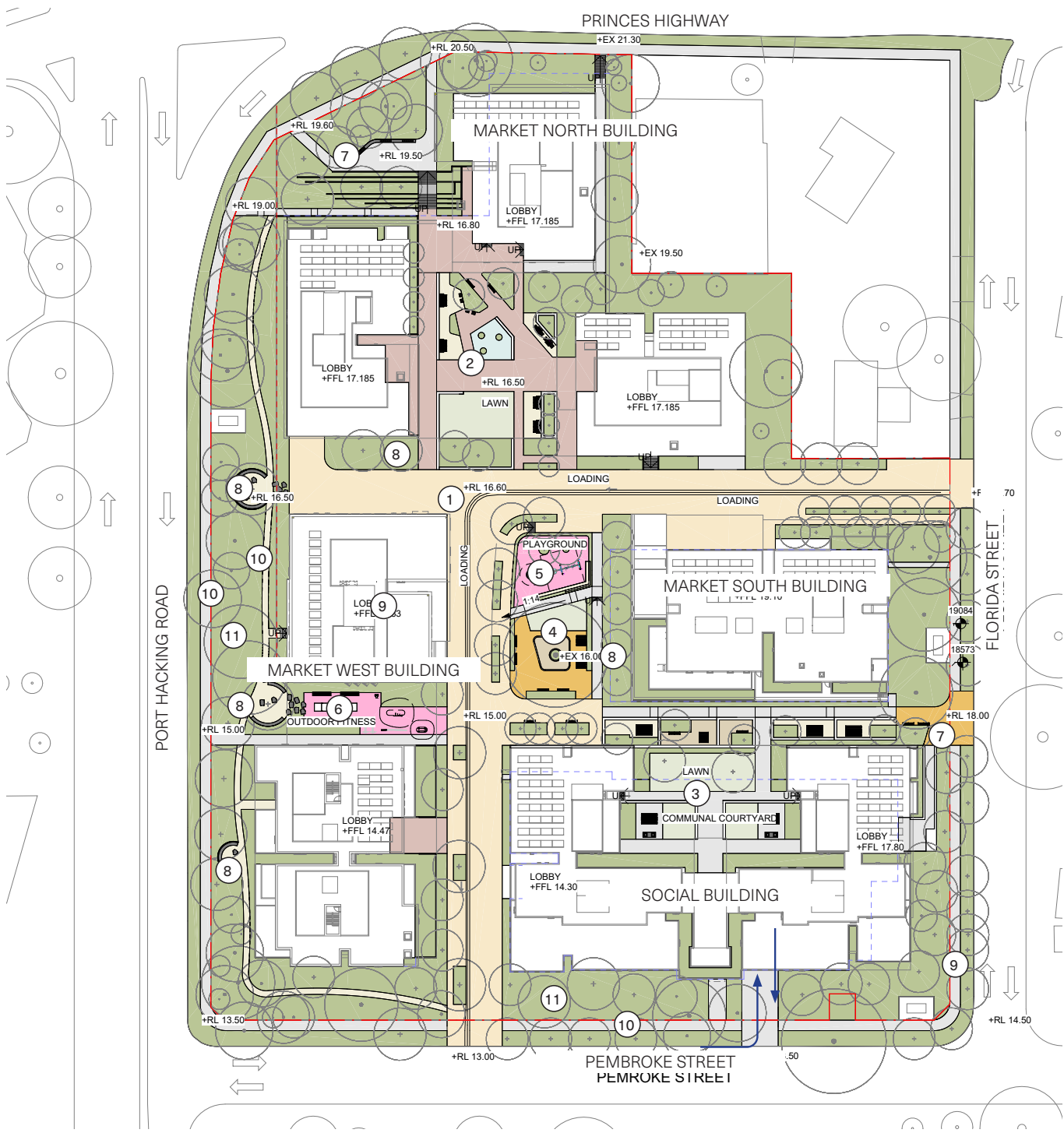
The landscape design response for each space considers its role in the development. At the northwest, this takes the form of a terracing garden forming a buffer to the busy intersection. At the centre of the site a playground located around an existing tree provides a place for activity and social interaction, in contrast to quieter passive courtyard spaces closer to apartments.

IMAGE : TURF



Pedestrian movement is facilitated across the site - from east to west and north to south. A new shared accessway is treated to provide traffic calming and privileges pedestrian movement. Landscape and deep soil allowance exceed minimum requirements. Planting palette utilises native species, WSUD and drought tolerant planting.

The landscape design relies on shifts in level to negotiate the topography and delineate spaces and public / private domain without the need for fences. Planters are located to provide privacy to ground floor apartments but allow surveillance. Overland flows and level transitions are integrated into the landscape levels and control the flow of water through raingardens and ensure accessibility across the development.



SITE PLAN: TURF

- | | |
|----------------------|---------------------|
| ① Shared Zone | ⑥ Outdoor Fitness |
| ② Communal Plaza | ⑦ Entry Plaza |
| ③ Communal Courtyard | ⑧ Seating Node |
| ④ Central Park | ⑨ Gardens |
| ⑤ Playground | ⑩ Proposed Footpath |
| | ⑪ Native Forest |



4.6 'BETTER PLACED' OBJECTIVES

The below responses outline the way the project meets the objectives established in the NSW Government 'Better Placed' initiative. These are described more comprehensively in Appendix A of this report - Design Verification Statement.

OBJECTIVE 1. Better fit contextual, local and of its place Good design in the built environment is informed by and derived from its location, context and social setting. It is place-based and relevant to and resonant with local character, heritage and communal aspirations. It also contributes to evolving and future character and setting. The proposal provides needed social and market housing to respond to demand in southern Sydney. The increased height and density is suitable for the site location adjacent to main roads and proximity to Southgate shopping centre. The new buildings which will replace the existing buildings are generally compliant with planning height limits and density controls. Integral to the masterplanning response, a central green space is formed at the centre of the site where a significant existing tree is retained. Further open landscaped spaces link to this central space maintaining connection to landscape through the development. The site plan sets up visual axes across the site east/west and north/south that open the development to the surrounding neighborhood, inviting public circulation and improving surveillance and safety.	OBJECTIVE 2. Better performance sustainable, adaptable and durable Environmental sustainability and responsiveness is essential to meet the highest performance standards for living and working. Sustainability is no longer an optional extra, but a fundamental aspect of functional, whole of life design. The proposal includes both social and market housing and limits the distinction between social and market housing to create a single sustainable community. Changes in level imply delineation rather than fences. The social housing component will have priority in terms of staging and as a result has been located at the southern end of the site where impact on existing buildings can be limited and enable relocation of existing residents once it is completed to then enable development of the rest of the site. The development is generally compliant with ADG objectives for cross ventilation and solar amenity to apartments and deep soil zones. Building orientation and planning limits the number of non-solar apartments below ADG minimums. Window to wall ratios have been considered in conjunction with BASIX advice.	OBJECTIVE 3. Better for community inclusive, connected and diverse The design of the built environment must seek to address growing economic and social disparity and inequity, by creating inclusive, welcoming and equitable environments. Incorporating diverse uses, housing types and economic frameworks will support engaging places and resilient communities. While the proposed development consists of social and market housing - providing a range of housing choice - it is designed to read as a 'tenure-blind' development where the architectural distinction between the two is minimised. The mix of apartment types responds to Homes NSW's brief based on anticipated demand and social mix. Different types of communal spaces are located through the heart of the development that will provide opportunity for community interaction. Areas for play, seating, gathering and cooking are provided.	OBJECTIVE 4. Better for people safe, comfortable and liveable The built environment must be designed for people with a focus on safety, comfort and the basic requirement of using public space. The many aspects of human comfort which affect the usability of a place must be addressed to support good places for people. Key to consideration of safety within the site are the creation of pedestrian through-site links, clear sightlines east to west and north to south and the creation of a new pedestrian and vehicle accessway that connects through to surrounding streets rather than an internal cul-de-sac. The new accessway will include traffic calming strategies to ensure pedestrian hierarchy. Carpark entries are located away from areas of high pedestrian movement and building entries. Ground floor apartments are raised above the adjoining footpaths and level of outdoor spaces, providing separation while maintaining surveillance. Where possible, ground floor apartments are able to connect directly to the street limiting areas with little activity or surveillance.	OBJECTIVE 5. Better working functional, efficient and fit for purpose Having a considered, tailored response to the program or requirements of a building or place, allows for efficiency and usability with the potential to adapt to change. Buildings and spaces which work well for their proposed use will remain valuable and well-utilised. The development is generally compliant with ADG objectives for cross ventilation and solar amenity to apartments Building orientation and planning limits the number of non-solar apartments below ADG minimums. Apartment planning provides clear, rational and repeated layouts with good amenity and that are easily furnished. Corridors are generally open ended or have access to natural light and outlook. The social housing component includes a dedicated communal pavilion in addition to external communal space. A significant number of mature trees are retained at the edges and within the site that contribute to the amenity and outlook. Landscape and deep soil zones exceed required minimum areas. Building mass is located to ensure good solar access to outdoor spaces.	OBJECTIVE 6. Better value creating and adding value Good design generates ongoing value for people and communities and minimises costs over time. Creating shared value of place in the built environment raises standards and quality of life for users, as well as adding return on investment for industry. The proposal development delivers "Better Value" by ensuring that investment in the built environment provides long-term social, environmental, and economic benefits for both the community and the broader urban context. The design approach prioritises efficient land use, high-quality public domain, and adaptable built form outcomes that support a resilient and enduring neighbourhood. At the core of the proposal is a commitment to maximising community benefit through the integration of diverse housing typologies, high levels of amenity, and access to shared open spaces. These elements contribute to improved liveability and create opportunities for social interaction, wellbeing, and community development.	OBJECTIVE 7. Better look and feel engaging, inviting and attractive The built environment should be welcoming and aesthetically pleasing, encouraging communities to use and enjoy local places. The feel of a place, and how we use and relate to our environments is dependent upon the aesthetic quality of our places, spaces and buildings. The visual environment should contribute to its surroundings and promote positive engagement. The proposal delivers a high-quality built form and public domain that enhances the character, comfort, and visual appeal of the surrounding area. The design prioritises architectural clarity, thoughtful material selection, and a cohesive landscape strategy to create an environment that feels welcoming, legible, and well-considered. The architectural language of the proposed development responds to the master planning strategy of 'building clusters' that seeks to establish a diversity of character across the site. Utilising a variety of materials, colours and textures, each of the clusters has an identifiable facade expression, however the use of masonry to varying extents in each of these facade strategies provides cohesion across the development and consistency in approach to the stepping site topography.
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05

5.1 RESIDENTIAL AMENITY

SOLAR ACCESS

All of the buildings comply within the development comply with the minimum ADG solar access requirement. Overall, the site is at an optimal orientation for solar access into the east and west facades of the buildings. The massing and arrangement of the buildings on site optimise solar access into residential units, and in addition the internal arrangement of living spaces and apartment mix minimises the number of south facing units across the development.

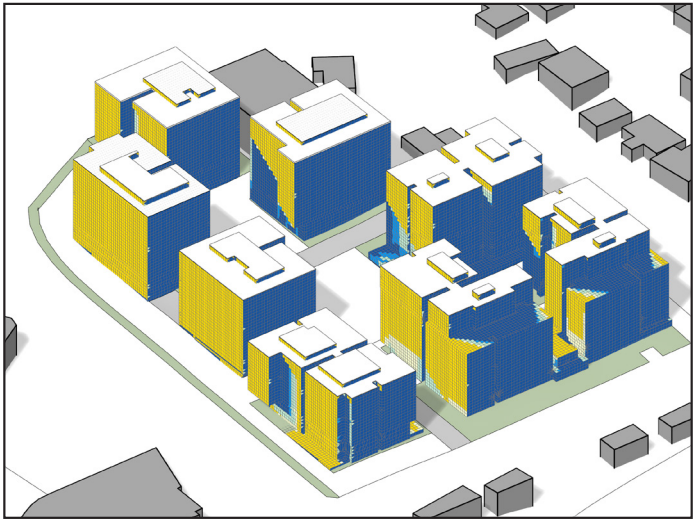
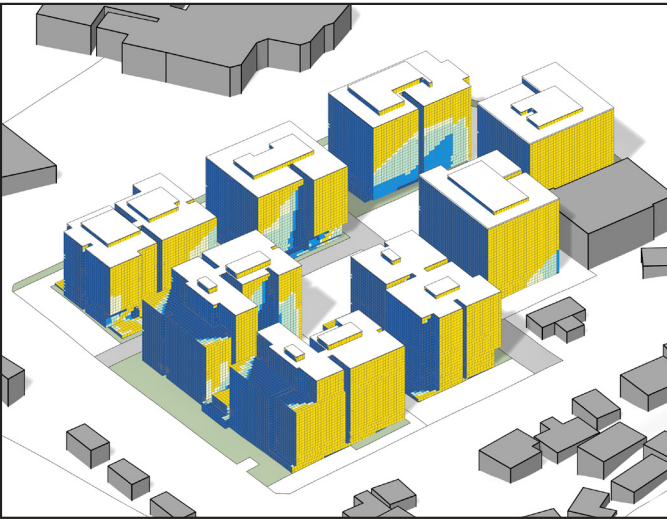
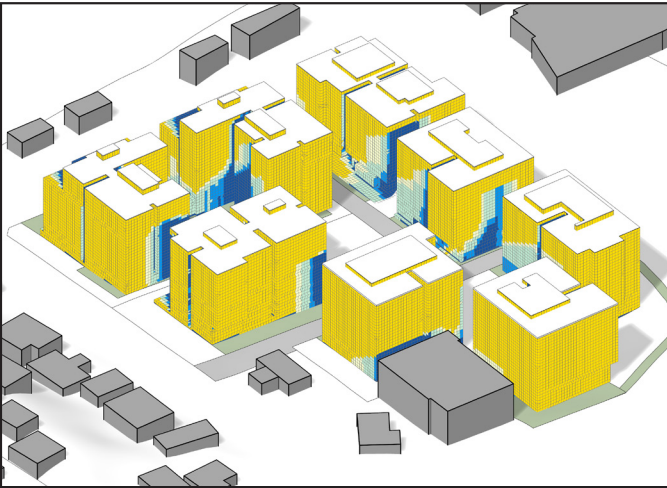
A number of measures have been taken to further improve amenity into these apartments including increased internal apartment areas, expansive and wider balconies providing visual outlook to the adjacent green spaces and maximising cross ventilation of apartments.

On eastern facades, all living rooms are pushed to the facade to maximise solar access to resolve a slightly oblique relationship to north on this edge.

Modularised and typical window widths, and in some buildings an increase sill height work to reduce the window to wall ration and improve the building envelope's thermal performance to reduce the need for reliance on additions to the facade while maintaining thermal comfort internally.

SSDA_SOCIAL HOUSING SOLAR ACCESS			SOLAR ACCESS - MARKET HOUSING TOTAL		
SOLAR ACCESS	Count	Percentage	SOLAR	Count	Percentage
NO SOLAR	17	11%	NO SOLAR	16	5%
MORE THAN 2HRS	110	69%	MORE THAN 2HR	246	76%
LESS THAN 2HRS	32	20%	LESS THAN 2HR	63	19%
Grand total: 159			Grand total: 325		

INDICATES FACADE AREAS ACHIEVING MINIMUM 2 HOURS OF SOLAR ACCESS BETWEEN 9-3PM, JUNE 21ST

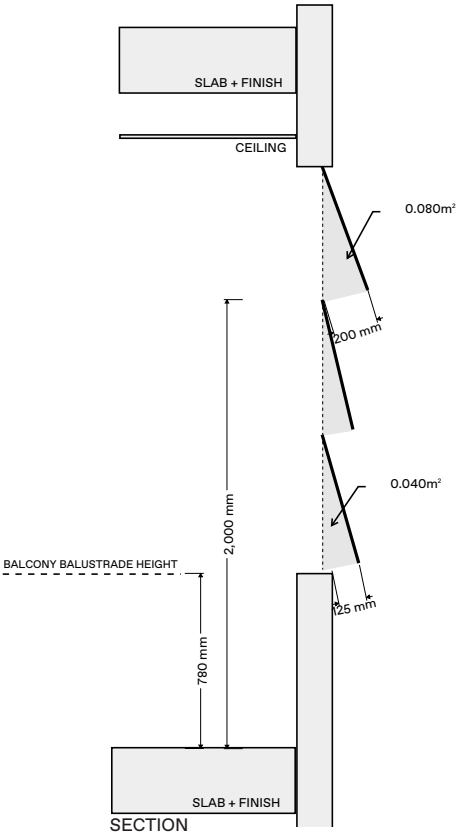


NATURAL & CROSS VENTILATION

All buildings within the development comply with minimum ADG requirements for cross ventilation. Access to and movement of fresh air is central to the design of the apartments and the arrangement of the residential floor plate. Generous slots between buildings across the development both provide relief along the longer elevations while providing cross ventilation pathways through the site.

Cross ventilation compliance drawings have been provided as part of the Architectural Drawing submission in the submission for SSDA. Openings to achieve natural ventilation requirements have been carefully considered to ensure adequate ventilation to habitable spaces.

SSDA_SOCIAL HOUSING CROSS VENTILATION			SSDA_CV - MARKET HOUSING TOTAL		
CROSS VENTILATION	Count	Percentage	CROSS VENTILATION	Count	Percentage
Yes	108	68%	Yes	215	66%
No	51	32%	No	110	34%
Grand total: 159			Grand total: 325		



Three awning windows within a standard module, each opening to a maximum of 120mm below 1700mm and 200mm above, to comply with BCA requirements for protected openings achieve the required natural ventilation requirement of 5% of the internal living space.

In some cases (Market Building 2, Market building 3B) external bridges and 2m wide slots within the building have been utilised to provide cross ventilation to longer apartment floors. Two of the four apartments adjacent to these slots have been counted as cross ventilated.

This strategy has been verified through wind engineering analyses completed by E-Lab.

Further to this, cross ventilated clerestory skylights to the upper level of buildings in the northern cluster (Market Building 1) have been adopted to provide cross ventilation to these units.



5.2 COMMUNAL OPEN SPACE

COMMUNAL OPEN SPACE

The proposal complies with the minimum 25% provision for communal open space for the market and social housing components and a minimum 50% of these areas receives 2 hours of direct sunlight on June 21 between 9-3pm.

These areas have been calculated based on two consolidated lots - social housing and market housing and exclude the area of the shared road reserve.

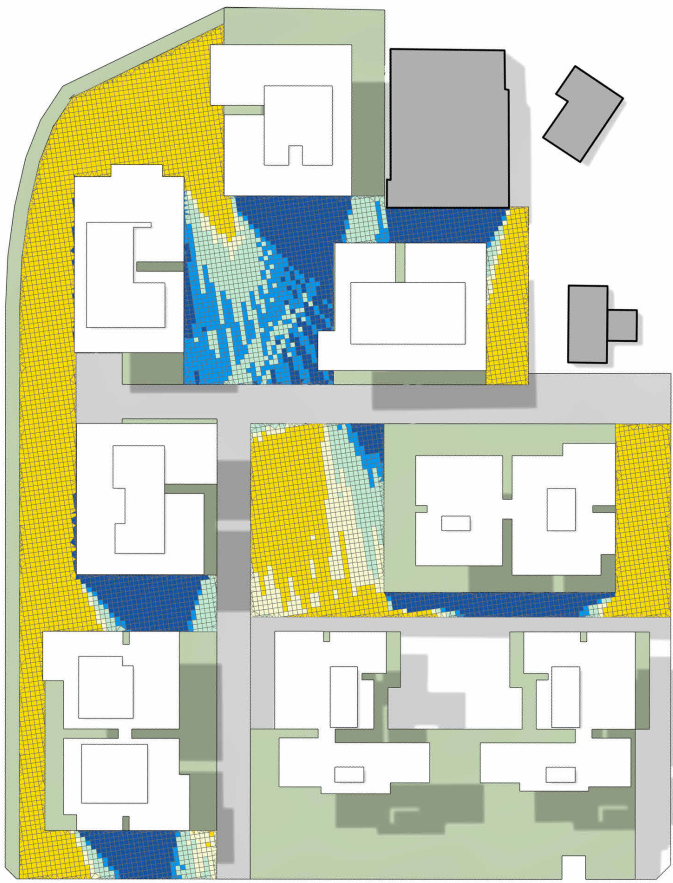
including the shared road reserve will be maintained and managed by future developer), the communal open spaces are publically accessible and designed to be tenure blind. View corridors and passive surveillance from adjacent from adjacent residential buildings ensure safety and improve amenity to these public areas.



5 OPEN COMMUNAL AREA

SITE AREA	21,692m2
SITE AREA (excluding road)	19,776m2
MARKET AREA	14,995m2
MARKET COS MIN 25% OF SITE	3,748m2
SOCIAL AREA	4,854m2
SOCIAL COS MIN 25% OF SITE	1,214m2

OPEN COMMUNAL SPACE AREA SCHEDULE	
Name	Area
Open Communal M	6784.75 m²
Open Communal S	1237.54 m²
	8022.30 m²



MARKET AREA	14,995m2
MARKET COS PROVIDED	6,784m2
MARKET COS ≥ 2HRS	3,896m2 (57.4%)

- INDICATES COMMUNAL AREAS ACHIEVING MINIMUM 2 HOURS OF SOLAR ACCESS BETWEEN 9-3PM, JUNE 21ST
- INDICATES COMMUNAL AREAS ACHIEVING MINIMUM 2 HOURS OF SOLAR ACCESS BETWEEN 9-3PM, JUNE 21ST



SOCIAL AREA	4,908m2
SOCIAL COS PROVIDED	1,237m2
SOCIAL COS ≥ 2HRS	687m2 (54%)

5.3 HEIGHT COMPLIANCE

BUILDING HEIGHTS

The proposed building heights are provided in the diagram (right) These heights have been measured from Level 00 of each of the buildings.

MARKET HOUSING BUILDING 3A

- LEVEL 00 RL 16.33
- RESIDENTIAL PARAPET RL 42.87
- TOP OF PLANT RL 44.48
- BUILDING HEIGHT TO PARAPET 26.54M
- TOTAL BUILDING HEIGHT 28.15M

MARKET HOUSING BUILDING 3B

- LEVEL 00 RL 14.468
- RESIDENTIAL PARAPET RL 37.81
- TOP OF PLANT RL 39.72
- BUILDING HEIGHT TO PARAPET 23.342M
- TOTAL BUILDING HEIGHT 28.252M

NOTHERN CLUSTER BUILDING 1A/1B/1C

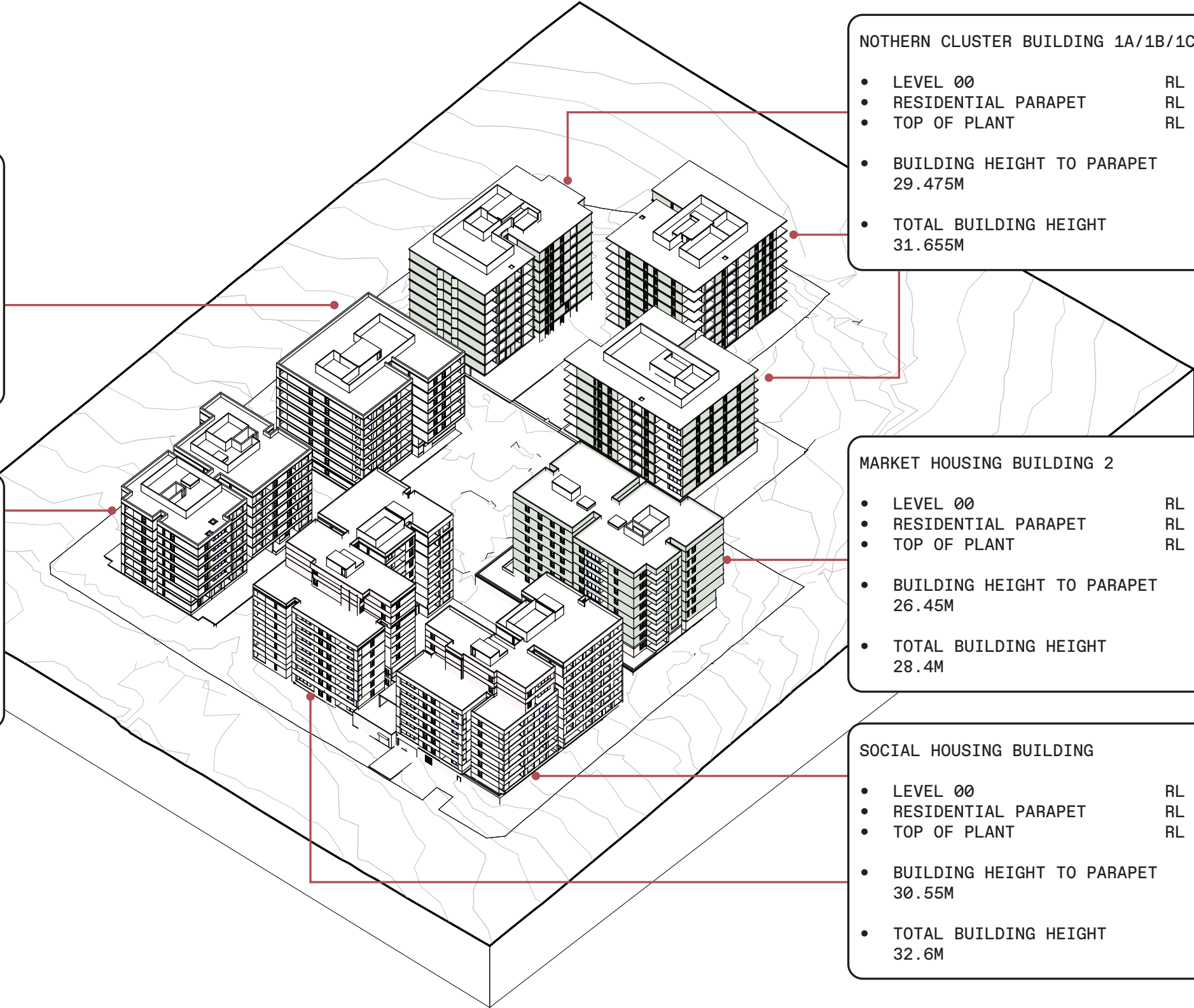
- LEVEL 00 RL 17.185
- RESIDENTIAL PARAPET RL 46.66
- TOP OF PLANT RL 48.84
- BUILDING HEIGHT TO PARAPET 29.475M
- TOTAL BUILDING HEIGHT 31.655M

MARKET HOUSING BUILDING 2

- LEVEL 00 RL 19.1
- RESIDENTIAL PARAPET RL 45.55
- TOP OF PLANT RL 47.50
- BUILDING HEIGHT TO PARAPET 26.45M
- TOTAL BUILDING HEIGHT 28.4M

SOCIAL HOUSING BUILDING

- LEVEL 00 RL 14.3
- RESIDENTIAL PARAPET RL 44.85
- TOP OF PLANT RL 46.90
- BUILDING HEIGHT TO PARAPET 30.55M
- TOTAL BUILDING HEIGHT 32.6M



5.3 HEIGHT COMPLIANCE

MAXIMUM PERMISSIBLE HEIGHT

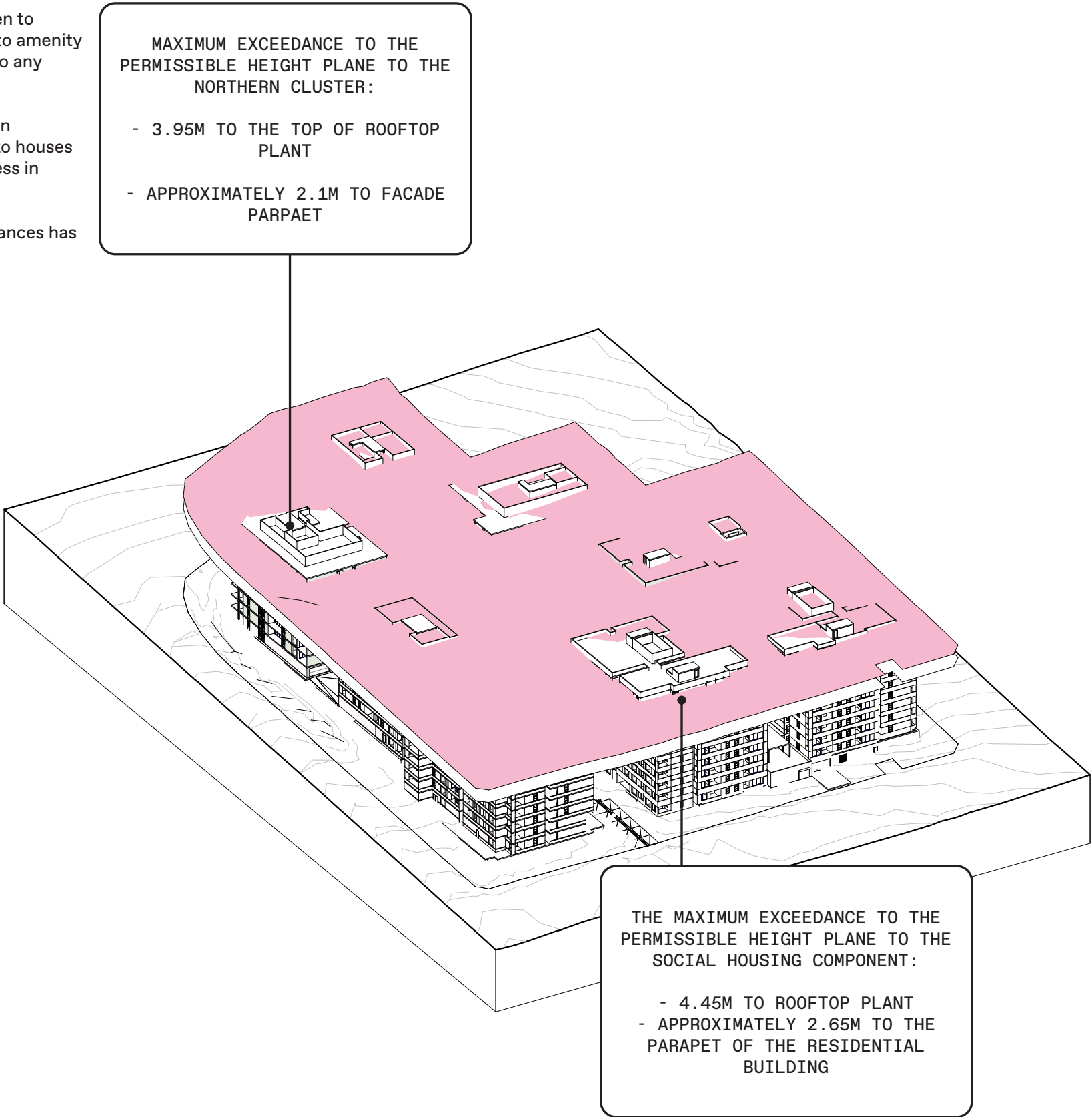
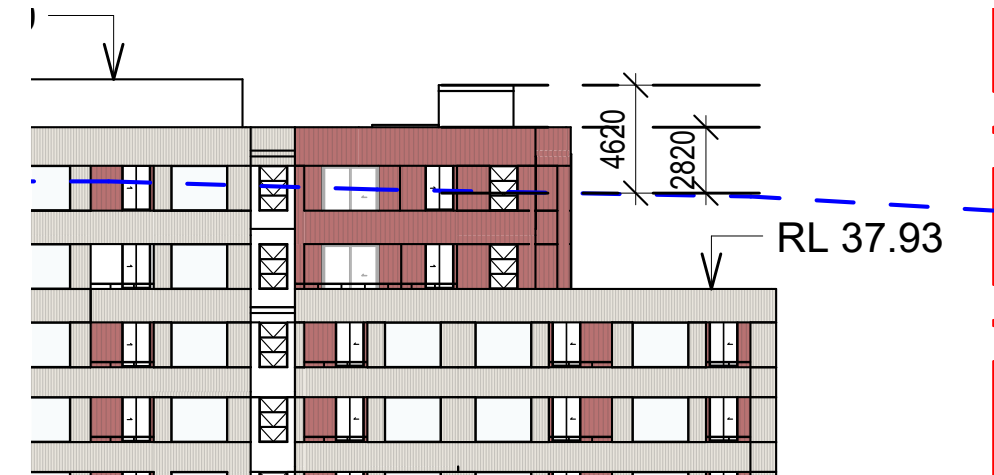
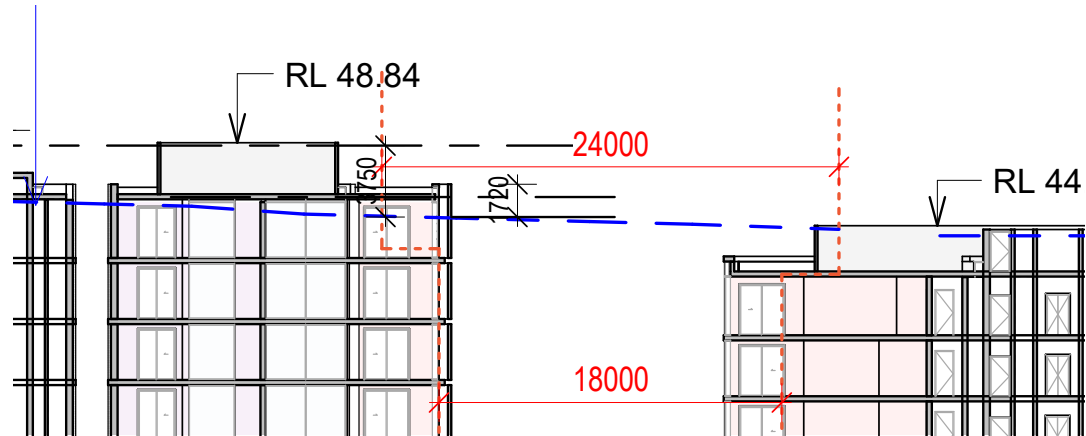
The development largely complies with the maximum permissible height of 28.6m across the site, however, there are some minor areas of non compliances to Market Building 1 and the Social housing component of the development.

These are largely due to the need for the ground floor levels of the development to comply with flood planning levels and mitigate overland flow requirements from the north of the site and, the complexity in resolving a significant drop in topography across the site while maintaining equitable access and connected outdoor spaces. These occur only at corners of buildings.

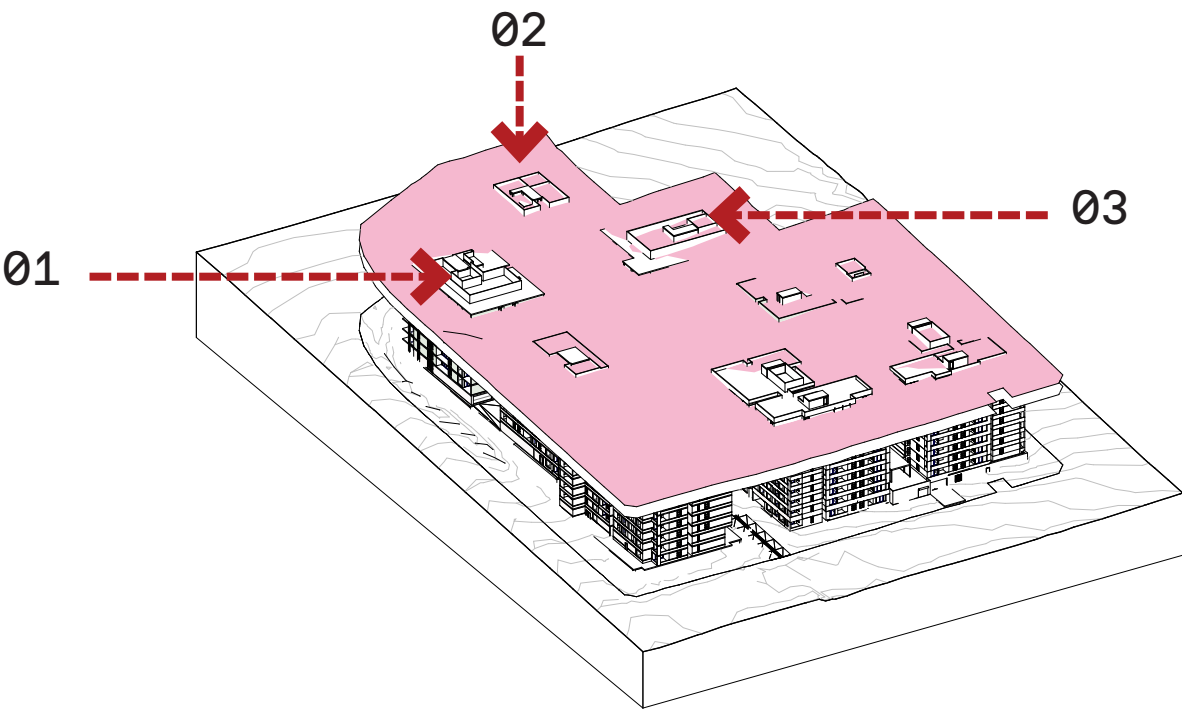
Overshadowing analysis has been undertaken to ensure these areas have no adverse impact to amenity within the development and more crucially to any neighbouring developments to the site.

The social housing development sets back on Pembroke Street to ensure daylight access to houses on adjacent sites retain 2 hours of solar access in winter.

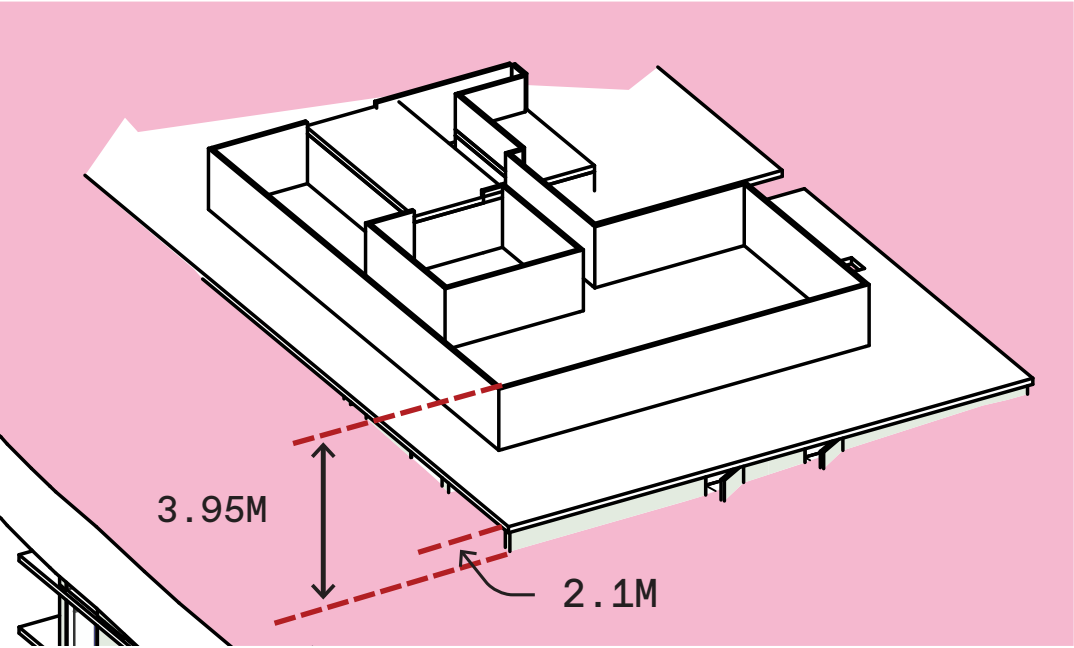
A detailed assessment of height non compliances has been provided on the following pages.



5.3 HEIGHT COMPLIANCE



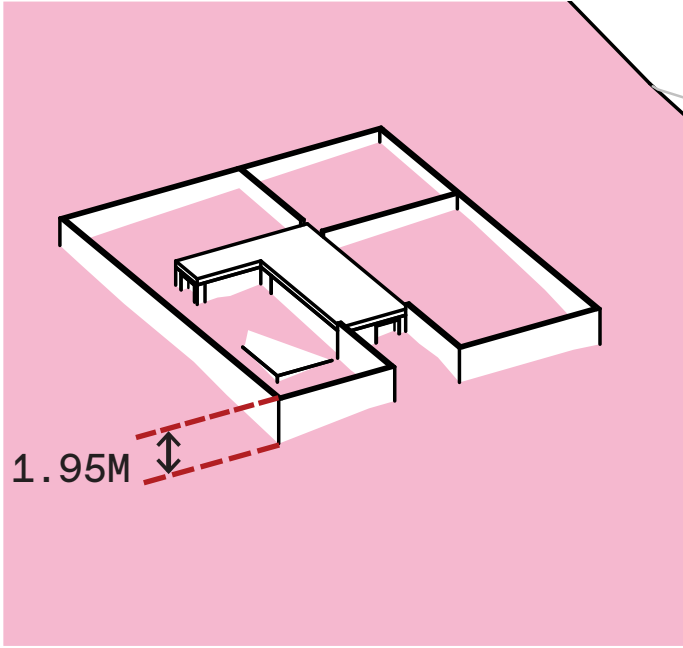
01
NORTH CLUSTER - BUILDING 1A



MAXIMUM EXCEEDANCE TO THE PERMISSIBLE
HEIGHT PLANE

- 3.95M TO TOP OF ROOFTOP PLANT
- 2.1M TO THE PARAPET

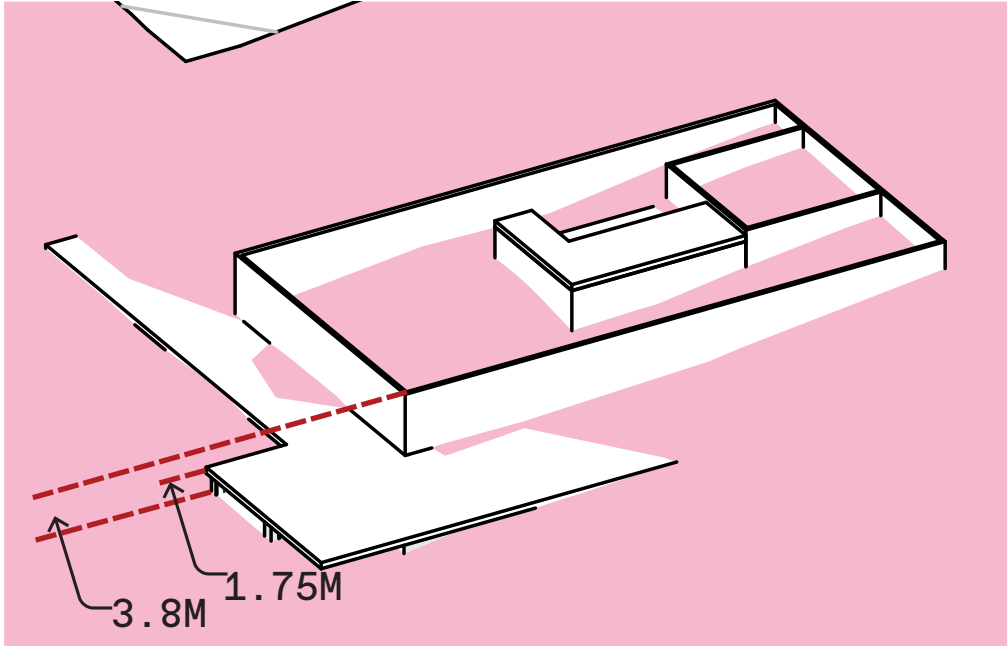
02
NORTH CLUSTER - BUILDING 1B



MAXIMUM EXCEEDANCE TO THE PERMISSIBLE
HEIGHT PLANE

- 1.95M TO TOP OF ROOFTOP PLANT

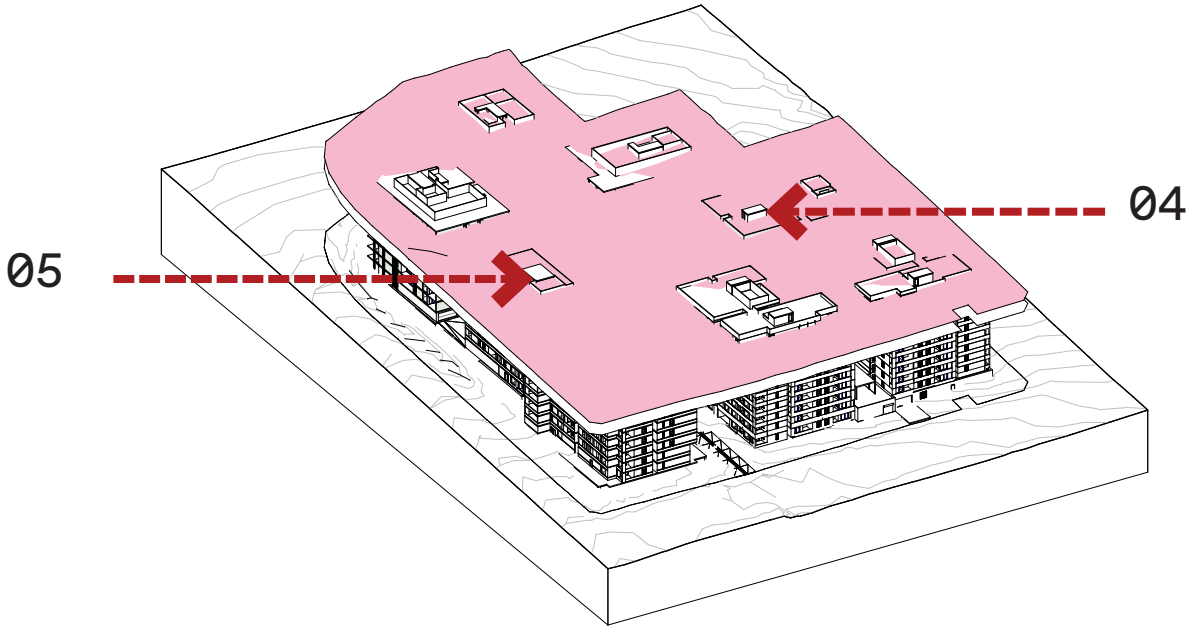
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NORTH CLUSTER - BUILDING 1B



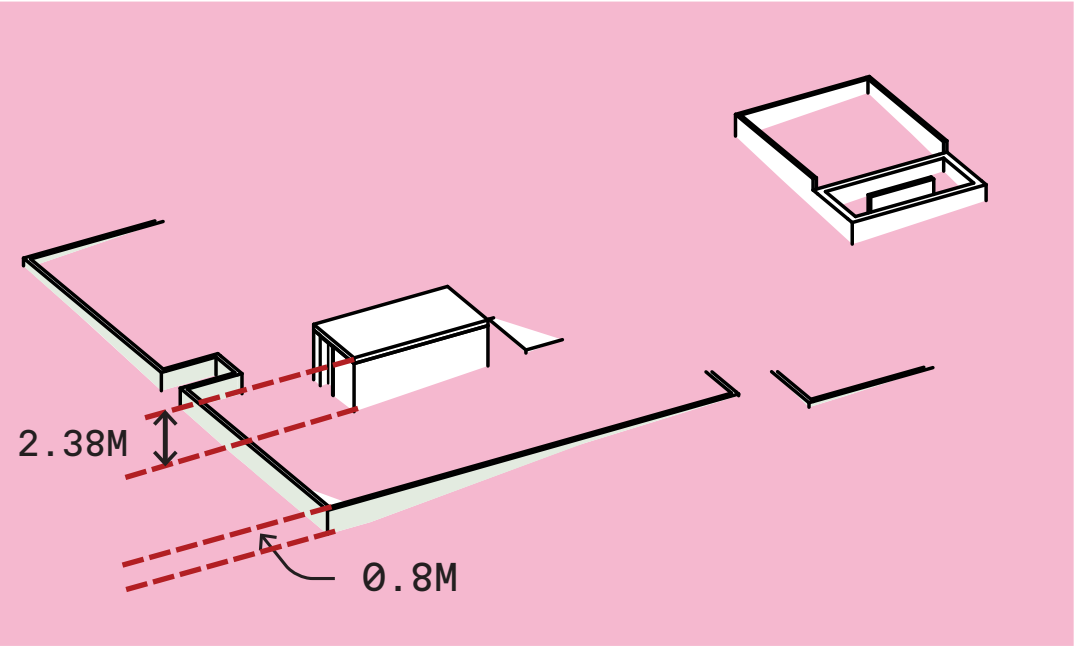
MAXIMUM EXCEEDANCE TO THE PERMISSIBLE
HEIGHT PLANE

- 3.8 TO TOP OF ROOFTOP PLANT
- 1.75M TO TOP OF FACADE PARAPET

5.3 HEIGHT COMPLIANCE



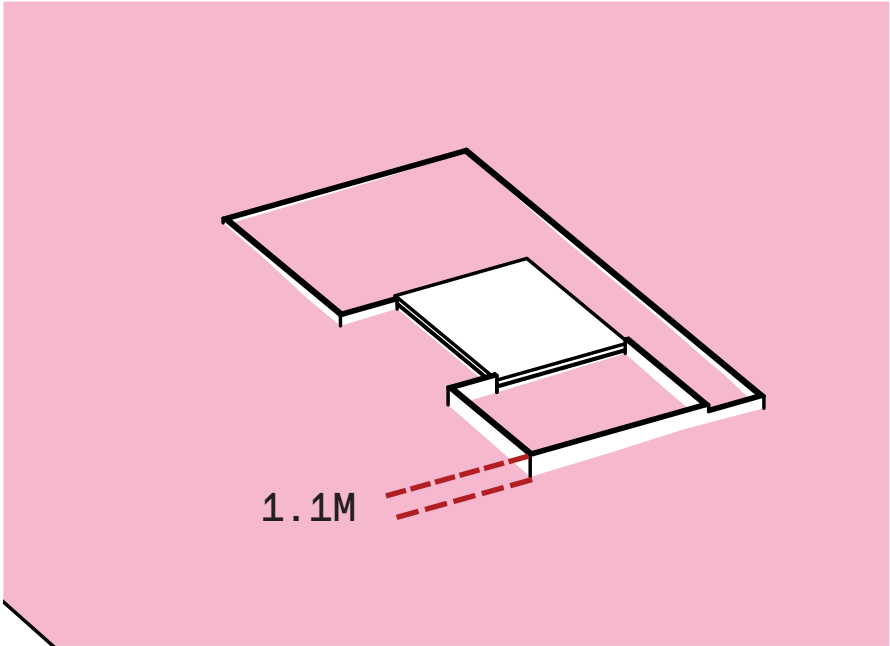
04
BUILDING 2



MAXIMUM EXCEEDANCE TO THE PERMISSIBLE
HEIGHT PLANE

- 2.38M TO TOP OF ROOFTOP PLANT
- 0.8M TO THE PARAPET

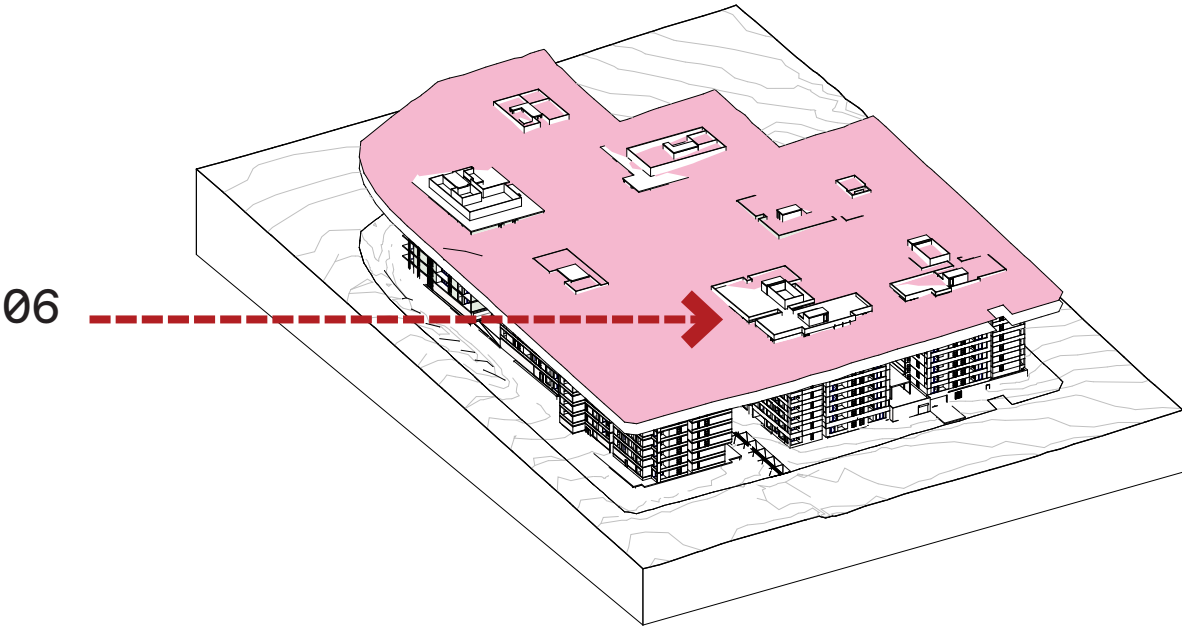
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WESTERN BAR - BUILDING 3B



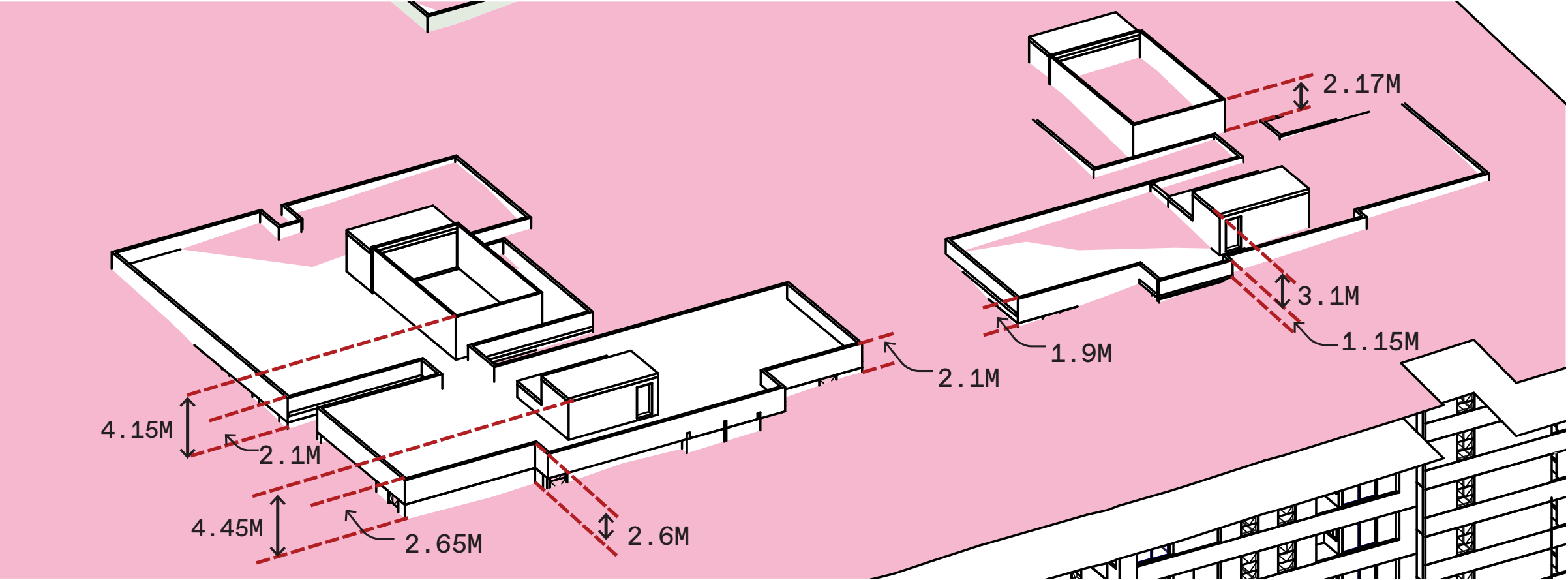
MAXIMUM EXCEEDANCE TO THE PERMISSIBLE
HEIGHT PLANE

- 1.1M TO TOP OF ROOFTOP PLANT

5.3 HEIGHT COMPLIANCE



06
SOCIAL HOUSING



MAXIMUM EXCEEDANCE TO
THE PERMISSIBLE HEIGHT
PLANE FOR SOCIAL HOUSING
COMPONENT

- 4.45M TO TOP OF ROOFTOP
PLANT
- 2.65M TO THE PARAPET

5.4 OVERSHADOWING

OVERSHADOWING DIAGRAMS - JUNE 21



0900



1000



1100



1200



1300



1400



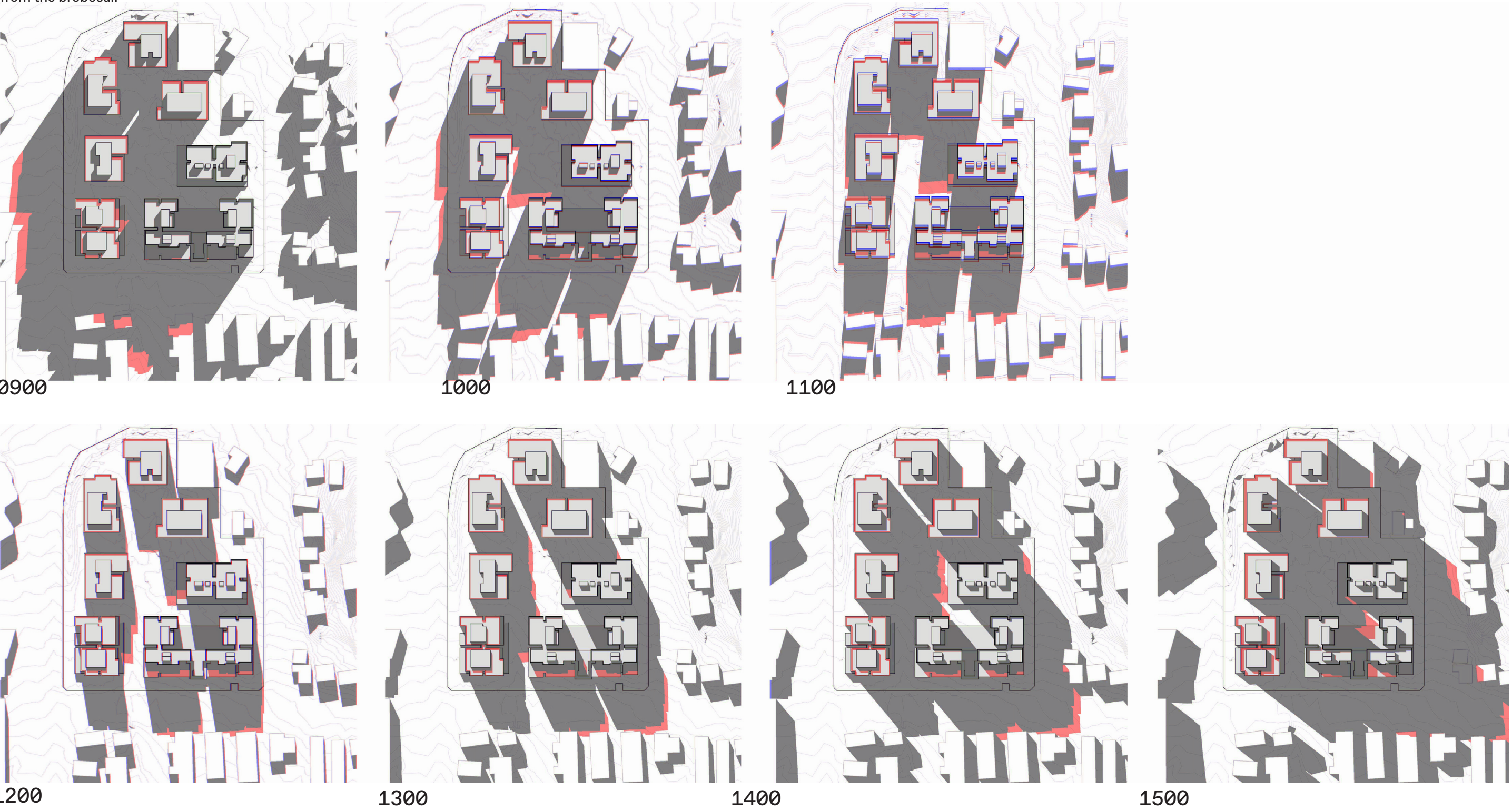
1500

5.4 HEIGHT COMPLIANCE & OVERSHADOWING

OVERSHADOWING DIAGRAMS - JUNE 21

The below diagram indicates the difference in overshadowing across the site when comparing a fully compliant height scheme, with the proposal - which has some minor exceedances to height. Differences in overshadowing are shown in red, reflecting no adverse impact to neighbouring developments or properties from the proposal.

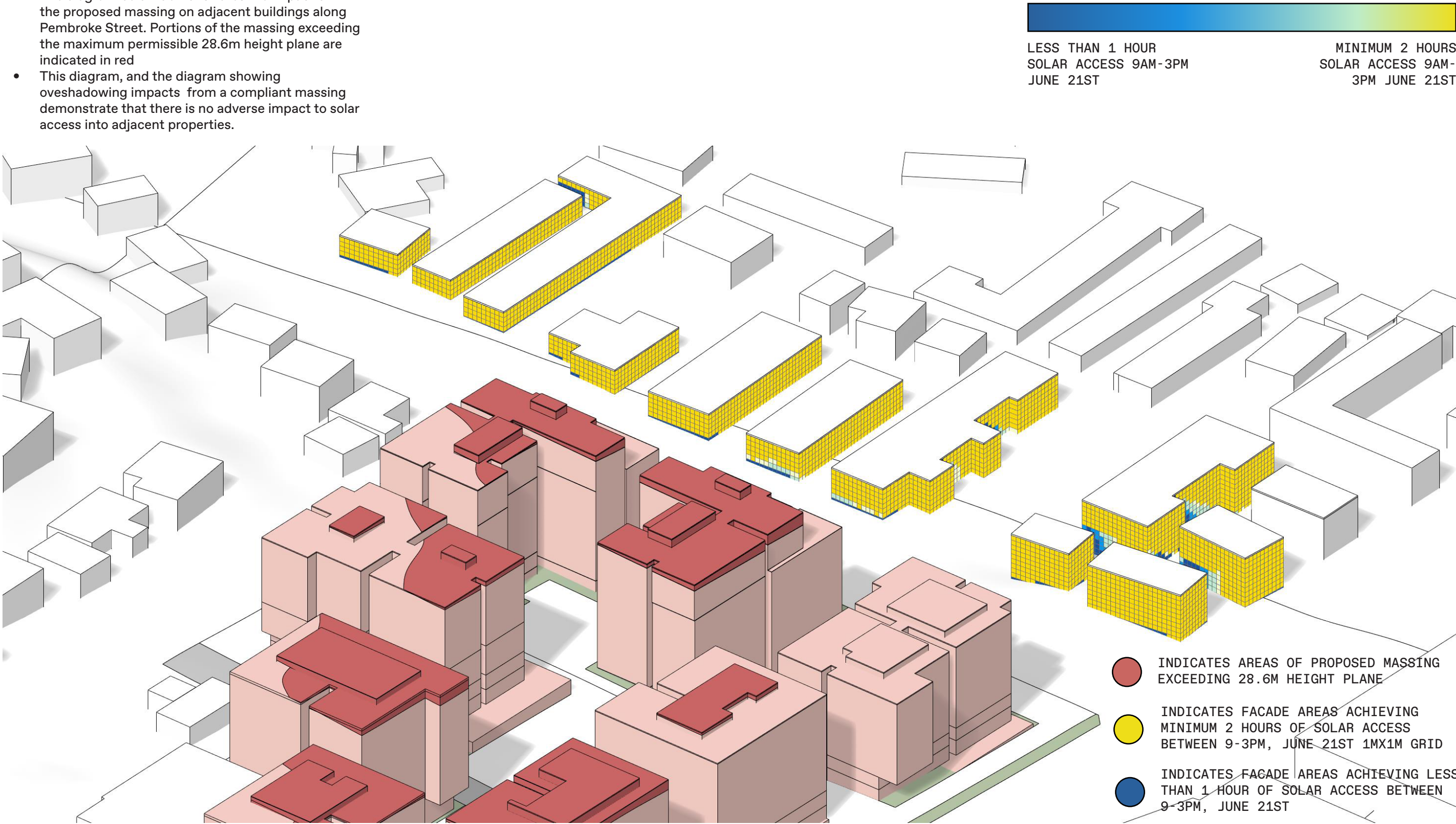
INDICATES AREAS OF ADDITIONAL OVERSHADOWING RESULTING FROM PROPOSED DEVELOPMENT ABOVE PERMISSIBLE HEIGHT PLANE



5.4 OVERSHADOWING

OVERSHADOWING TO NEIGHBOURING DEVELOPMENTS
ON PEMBROKE STREET - JUNE 21

- The diagram below demonstrates the impact of the proposed massing on adjacent buildings along Pembroke Street. Portions of the massing exceeding the maximum permissible 28.6m height plane are indicated in red
- This diagram, and the diagram showing overshadowing impacts from a compliant massing demonstrate that there is no adverse impact to solar access into adjacent properties.

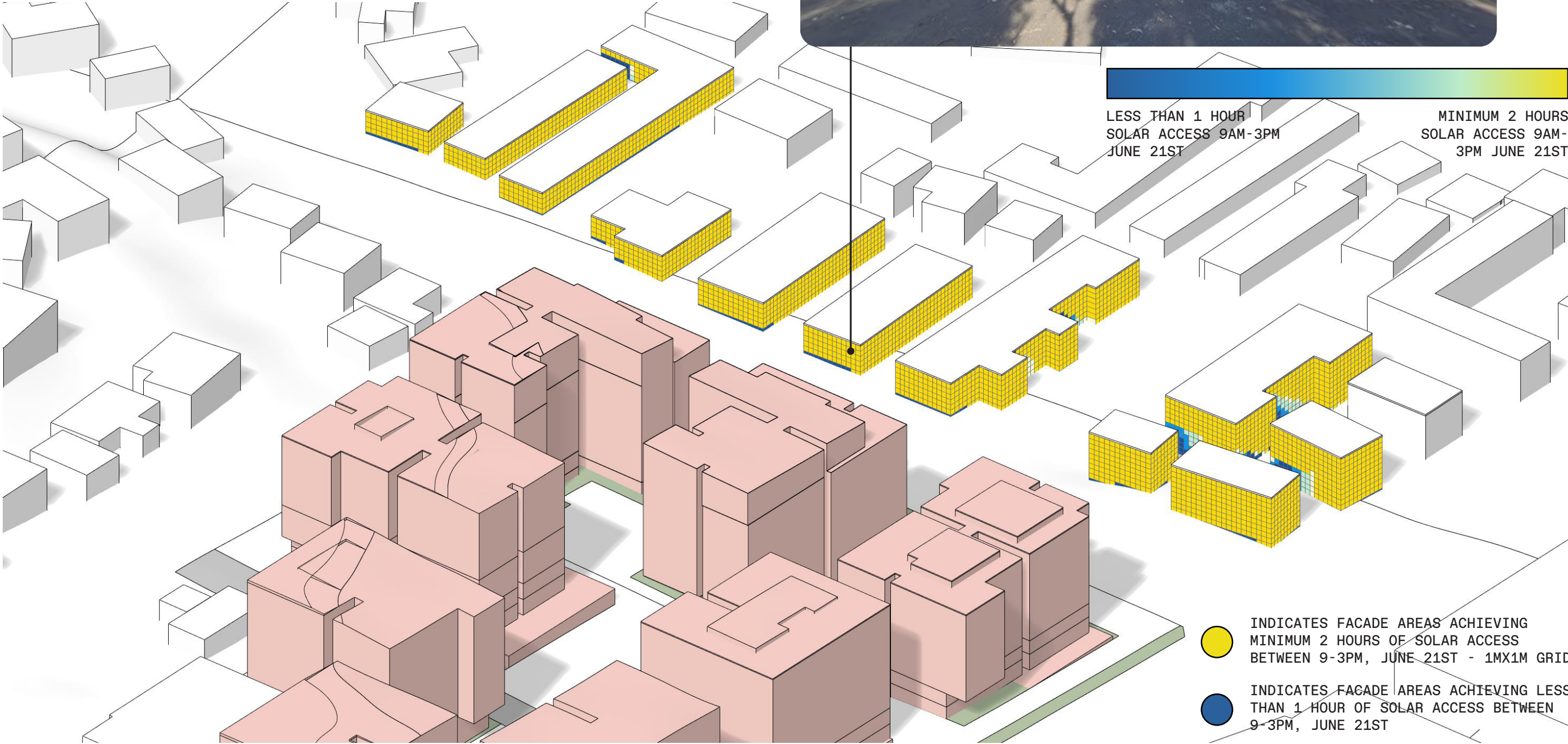


5.4 OVERSHADOWING

OVERSHAODWING TO NEIGHBOURING DEVELOPMENTS ON PEMBROKE STREET

- The diagram below demonstrates the impact of a compliant height massing on neighbouring properties. Portions that exceed the maximum permissible height have been removed.
- The impact of the increased height exceeding the height plane is minimal to the adjacent properties.
- Areas where the massing causes some additional overshadowing are only to lower portions of the building where there is no glazing.

AREAS OF MINOR TO OVERSHADOWING OF ADJACENT PROPERTIES RESULTING FROM PROPOSED MASSING EXCEEDING THE HEIGHT PLANE OCCUR TO SOLID FACADE AREAS OF EXISTING DWELLINGS, ALREADY IMPACTED BY EXISTING FENCE LINES. THESE DWELLINGS RELY ON EAST AND WEST FACING WINDOWS FOR SOLAR ACCESS.



5.5 BUILDING SEPARATION & SETBACKS

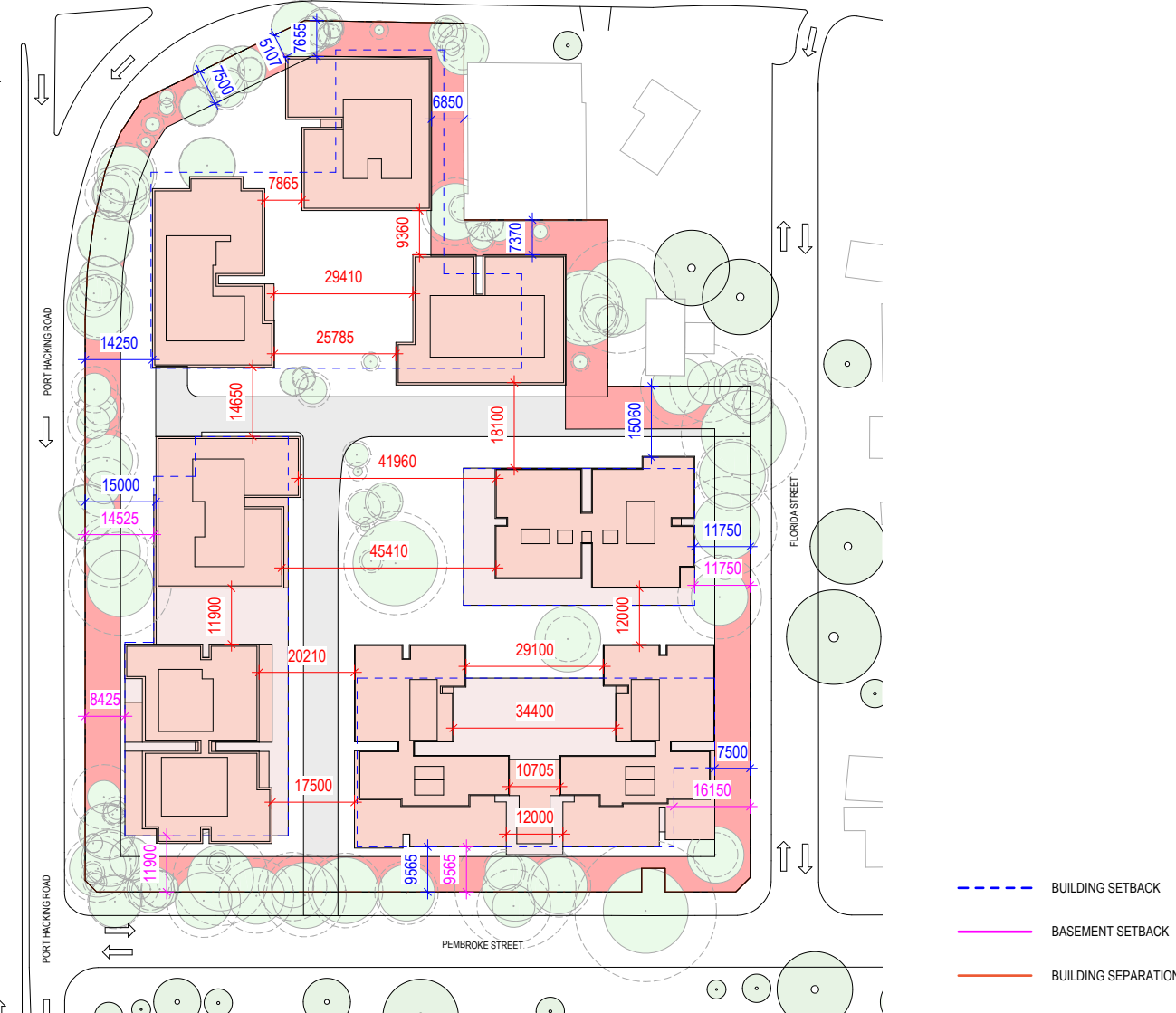
The proposal generally complies with all required Sutherland DCP setbacks from primary and secondary street frontages. A minor non compliance to the northern most point of the site to Market Building 1B occurs where the building corner is 5.5m from the closest boundary.

To the western, northwestern and southern boundaries, building setbacks exceed the DCP requirements, a significant effort made to retain the existing established trees.

This has had a considerable impact on the developable area on site- reducing this by approximately 1800m2 across the entire development.

Further to this, the proposal offers a significant area of publically accessible open spaces and exceeds the minimum deep soil and landscaped area requirements in the Sutherland DCP and ADG. Communal open spaces are designed to be tenure blind, passively surveilled by adjacent buildings and provide considerable amenity to the precinct and broader community.

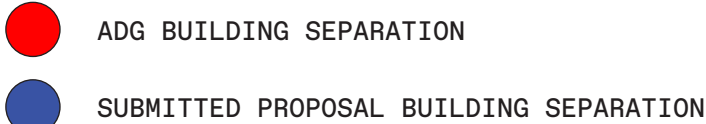
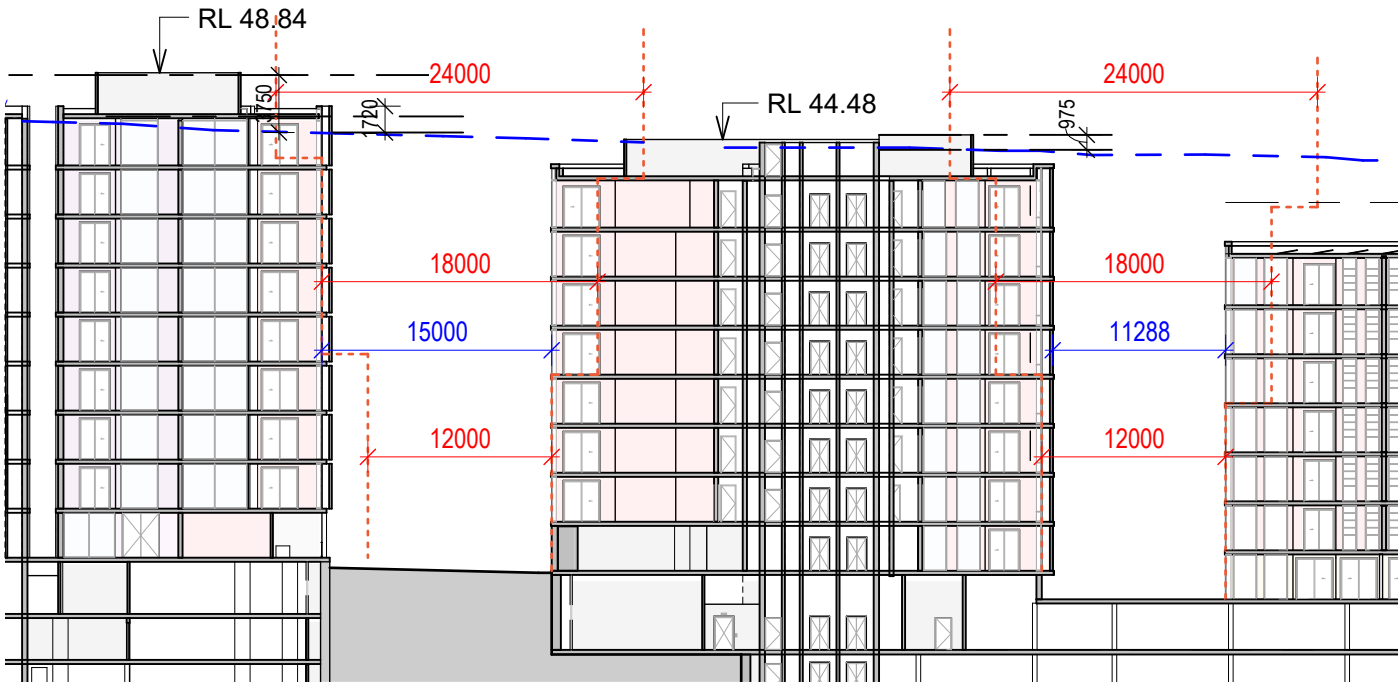
Non compliances at upper levels to ADG building separation distances have been managed through offsetting of windows from habitable spaces of adjacent facades and well considered integration of angled privacy screening into the building envelope. These non compliances generally only occur where primary habitable spaces from one development, are within minimum separation distances of secondary bedrooms.



MARKET BUILDING 1A

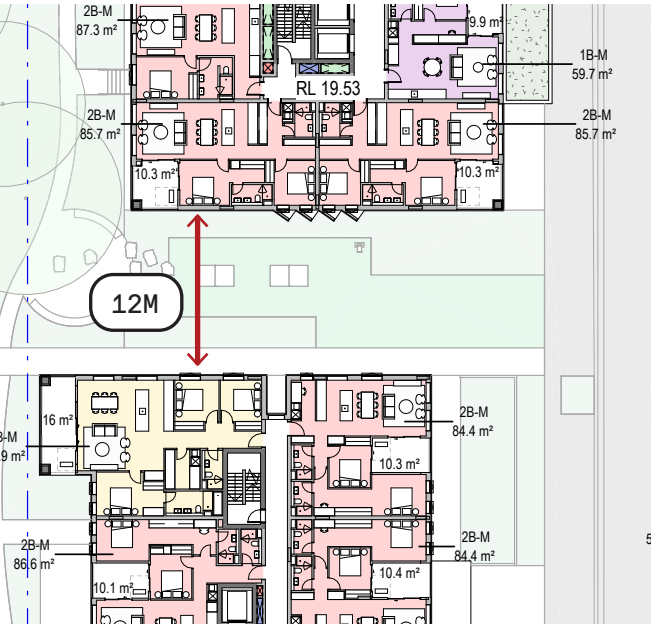


MARKET BUILDING 3B



PRIVACY SCREENING TO SOUTHERN FACADES OF BUILDING 1A MITIGATE PRIVACY CONCERNS WHERE BUILDINGS DON'T COMPLY WITH ADG BUILDING SEPARATION REQUIREMENTS AT UPPER LEVELS

MARKET BUILDING 3A



MARKET BUILDING 3B

5.6 APARTMENT PLANNING

APARTMENT PLANNING

The development is generally compliant with ADG objectives for cross ventilation and solar amenity to apartments Building orientation and planning limits the number of non-solar apartments below ADG minimums.

Apartment planning provides clear, rational and repeated layouts with good amenity and that are easily furnished. Corridors are generally open ended or have access to natural light and outlook.

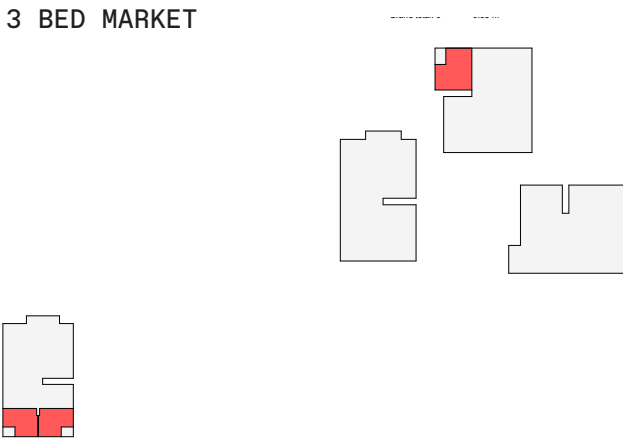
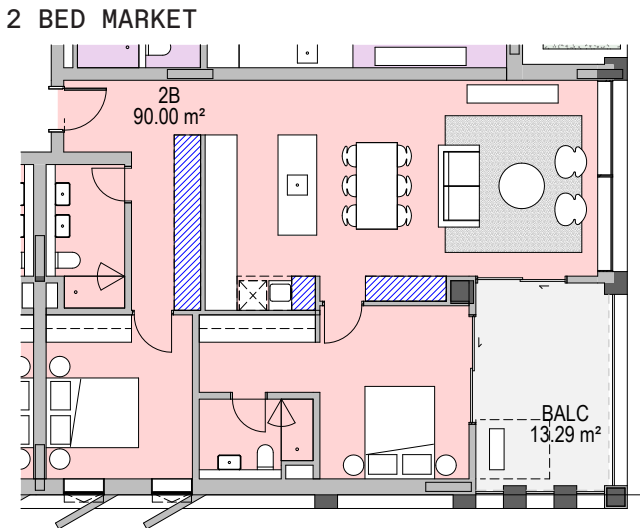
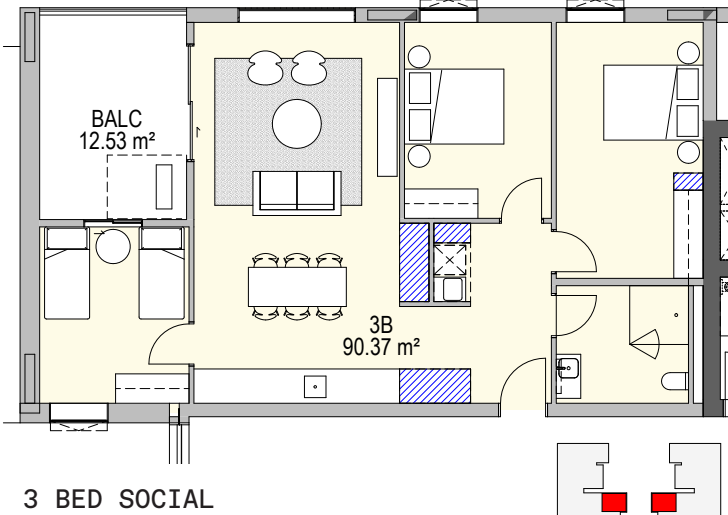
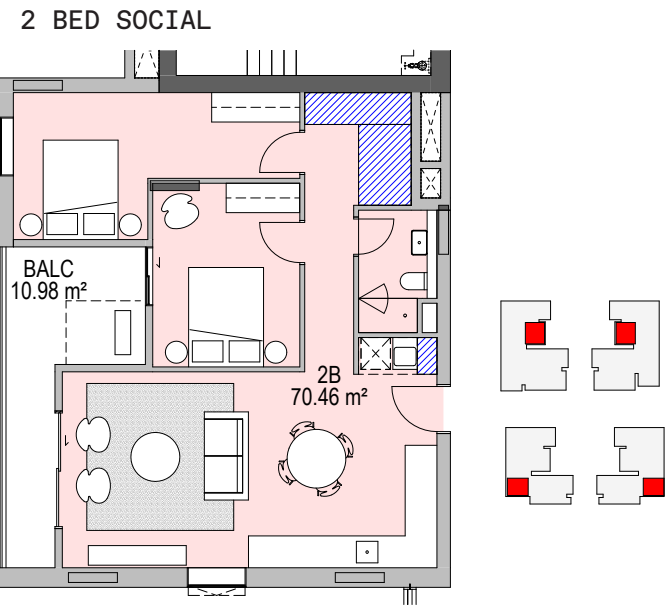
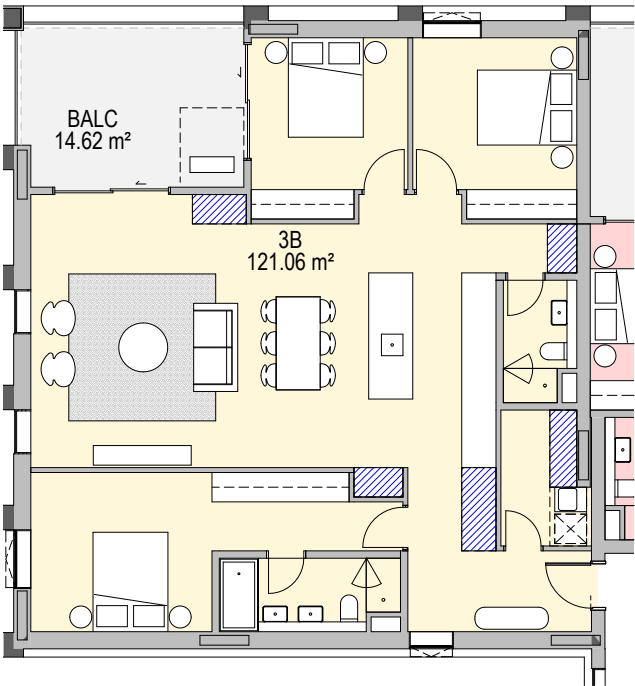
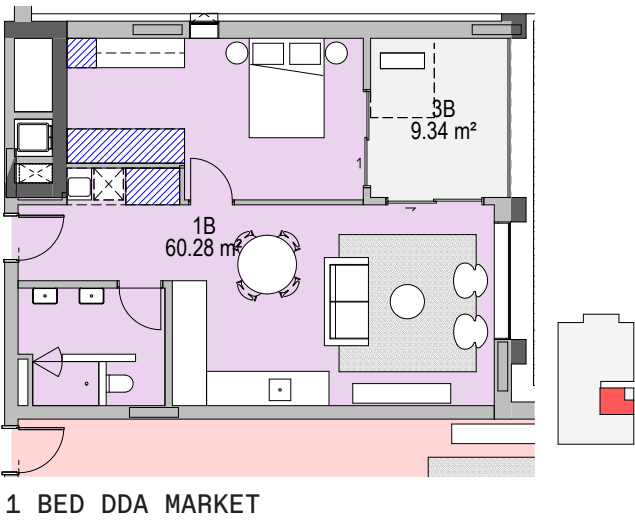
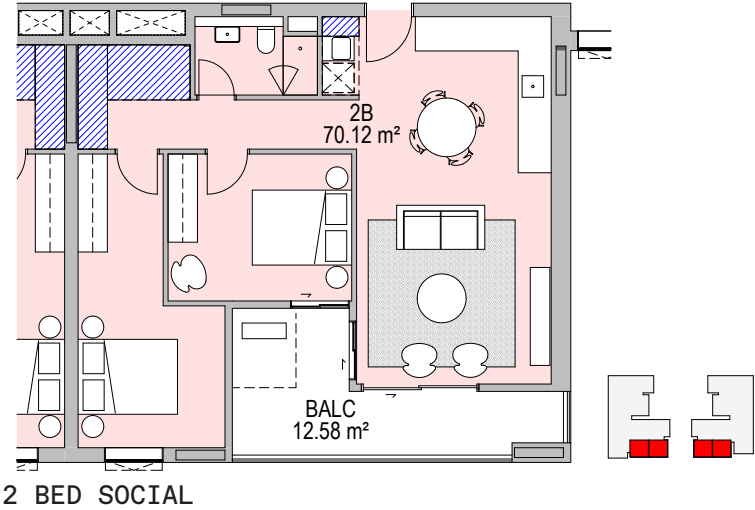
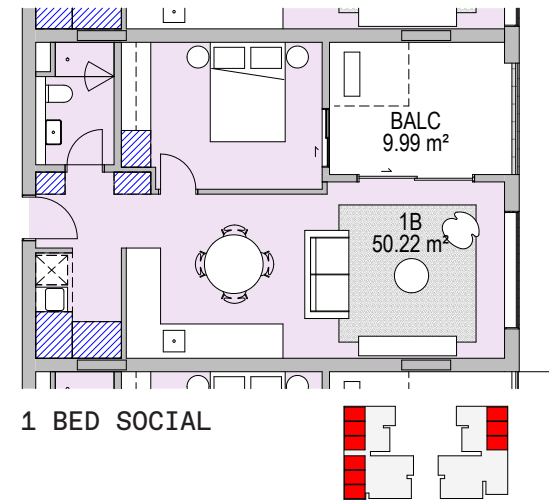
The majority of apartments exceed minimum apartment areas and dimensions to provide increased amenity. Privacy devices are integrated in the façade modelling where separation distances are reduced.

The majority of apartments have allowance for storage volume minimums to be achieved within the apartment rather than rely on make up in basements.

The social housing component includes a dedicated communal pavilion in addition to external communal space. A significant number of mature trees are retained at the edges and within the site that contribute to the amenity and outlook. Landscape and deep soil zones exceed required minimum areas. Building mass is located to ensure good solar access to outdoor spaces.

A 3200mm floor to floor for typical residential levels and 3350mm for upper levels provides sufficient clearance to simplify construction and compliance with DBPA requirements.

SAMPLE OF TYPICAL APARTMENTS



5.7 SERVICING & LOGISTICS

The proposed waste management and loading strategy has been developed through a series of workshops involving the client and consultant teams, including specialists in waste management, traffic engineering, landscape design, and town planning. The proposed loading and waste strategy has been presented to Sutherland Council and discussed at a series of workshops with HNSW.

For further detail, refer to the accompanying Traffic Management Plan and Operational Waste Management Plan

STAGE 1 - SOCIAL HOUSING

The social housing component, delivered in Stage 1 will function as a standalone and independent building from a loading and waste perspective.

The proposed carpark entry occurs of Pembroke Street. Its location is determined by the following factors:

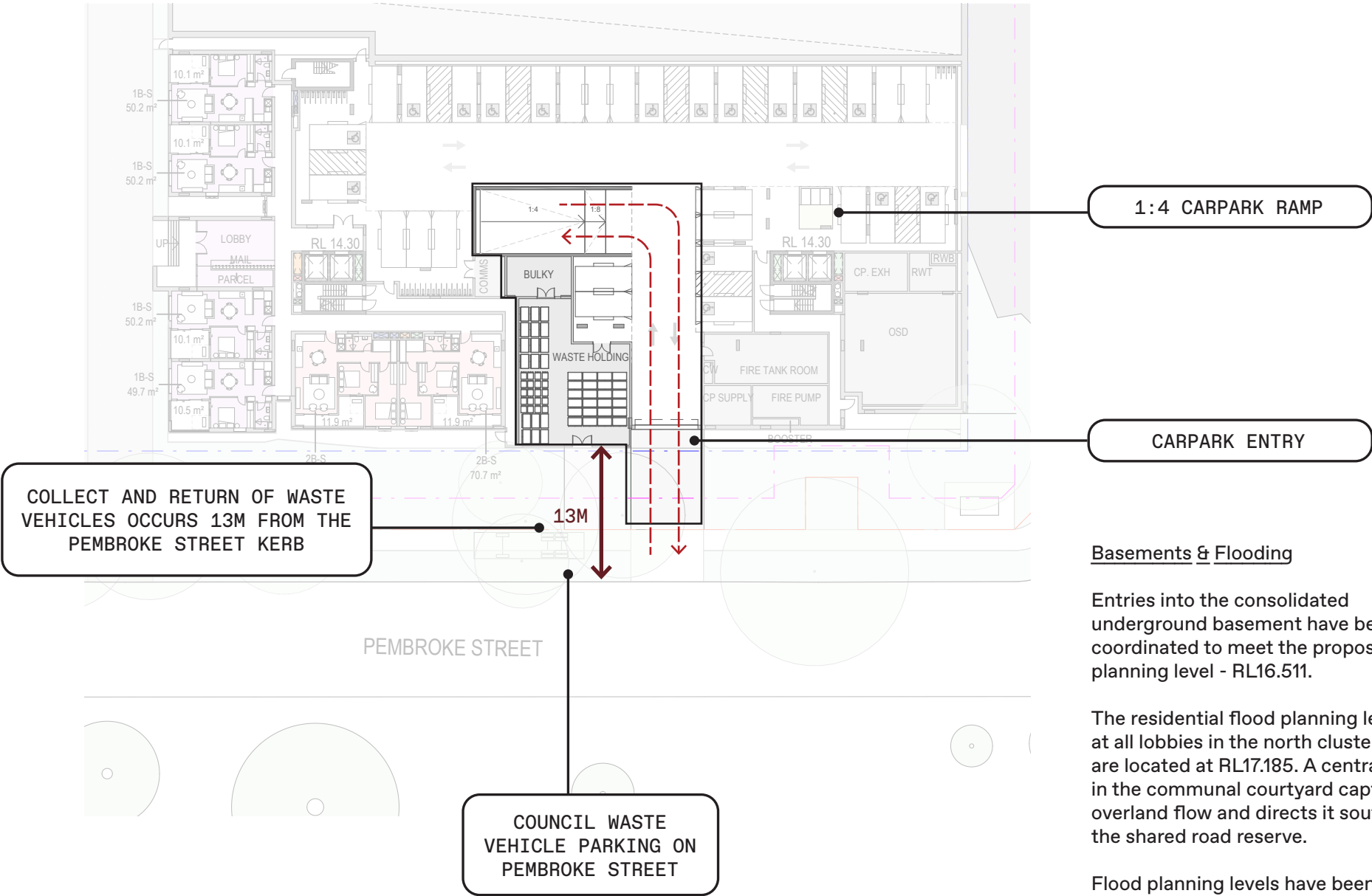
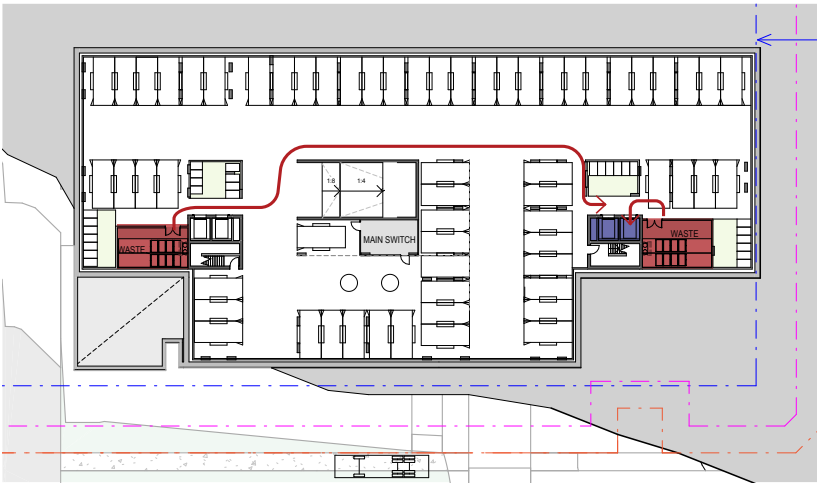
- 1. Avoiding entry into the basement in areas where the site is subject to probable maximum flood levels.
- 2. Alignment with existing road levels to minimise impact to the public realm and ensure cars can entry without impacting clearances to levels above.
- 3. Maximising activation along Pembroke Street. This has been achieved by sleeving additional residential functions to the west and southwestern corner of the site to minimise the extent of basement above visible from street level. A number of preliminary studies were undertaken of waste collection vehicles entering the site and parking within the building footprint. This has a considerable impact on the height of the exposed basement wall and results an inactive frontage.
- 4. Maximising the retention of existing significant trees long Pembroke Street.



Waste collection

- Waste vehicles serving the social housing development will be provided on-street vehicle parking along Pembroke Street within reallocated parking areas adjacent to the site. A collect and return strategy is proposed, whereby Council waste collection teams will be able to collect waste bins from the waste holding room within the building footprint, unload waste into the vehicle and then return empty bins to the holding area.
- The location of entries into the waste holding area from the external facade have been located to both minimise impact to existing significant trees, as well as the reduce the distance that Council waste collection teams will need to travel to retrieve bins.

- Waste chutes terminate at the lowest level basement within secure rooms, ensuring all waste is managed internally and securely.
- At designated collection times, Building Management is responsible for transferring bins from internal bin rooms on the lower basement level where waste chute discharge rooms are located, to the waste holding area. The endorsed strategy will utilise the eastern residential lifts on the lower basement level for this transfer at appropriate times to minimise disruption to tenants.



Basements & Flooding

Entries into the consolidated underground basement have been coordinated to meet the proposed flood planning level - RL16.511.

The residential flood planning level is met at all lobbies in the north cluster which are located at RL17.185. A central swale in the communal courtyard captures overland flow and directs it south along the shared road reserve.

Flood planning levels have been provided by Mott MacDonald

5.7 SERVICING & LOGISTICS

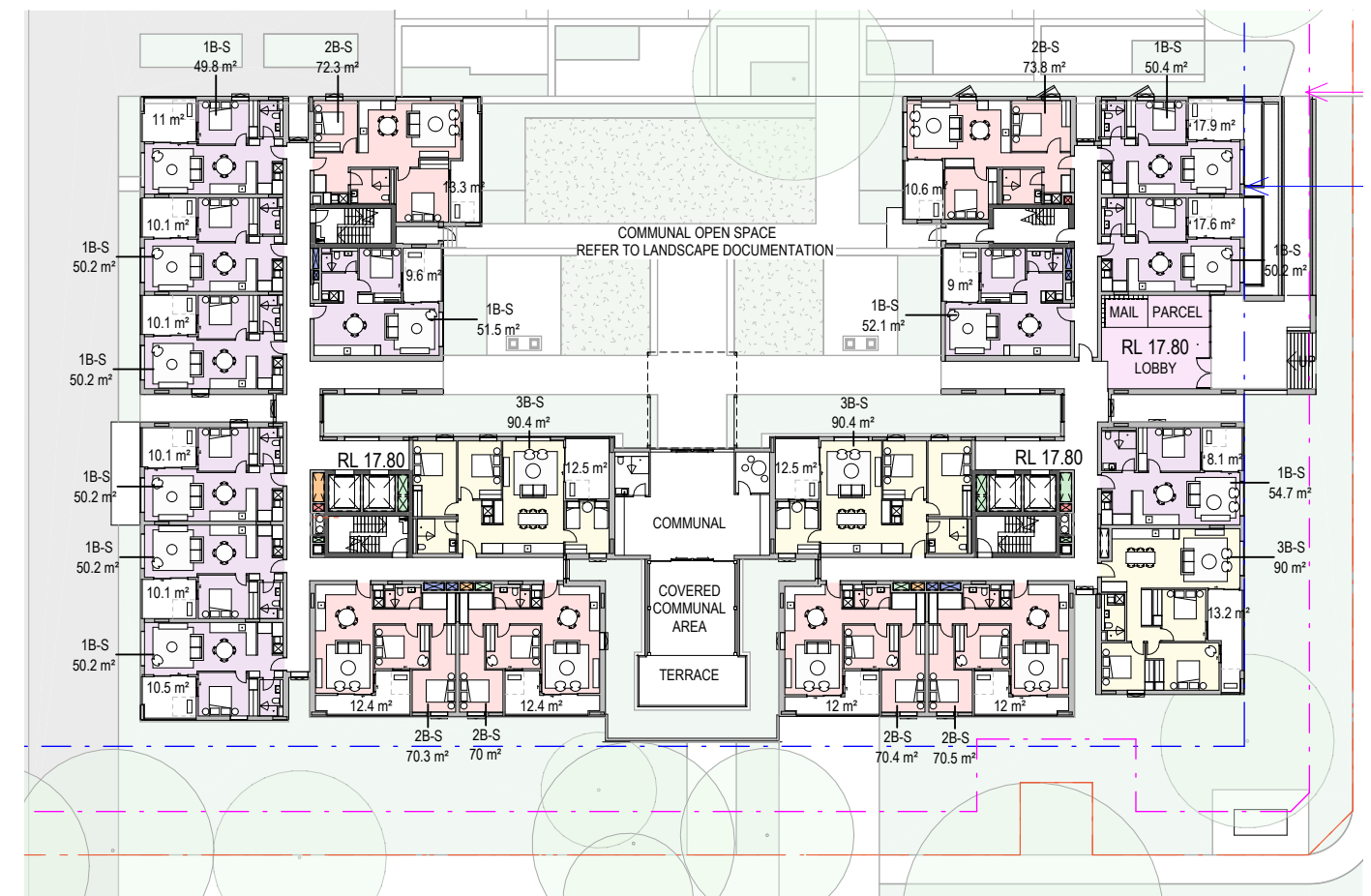
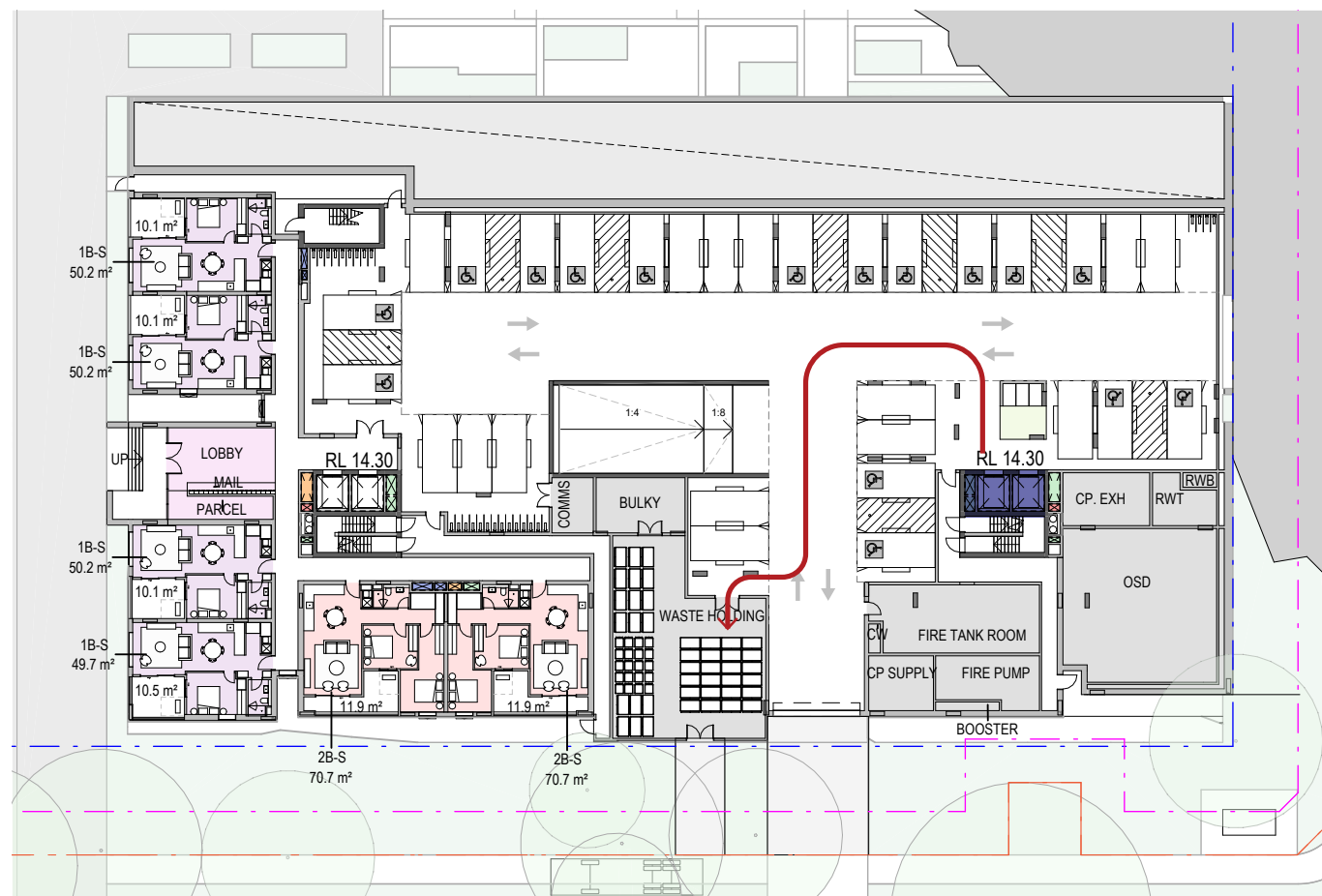
Basements & Flooding

Flooding compliance for the social housing component is largely set by flood planning levels and street interfaces at the entry into the development from Florida Street.

- To meet these levels, and provide a natural and comfortable entry into the building from the Florida Street arrival forecourt, this residential entry is set at RL17.8.
- To the west of the site where entry occurs a level lower where apartments are sleeved onto the western and south-western edge of the upper basement level, the planning level
- Entry into the basement occurs at Pembroke Street where the prescribed flood planning level is RL 13.844. The upper basement level is set to RL14.0

residential lobby meets the flood planning level. Apartments facing the future shared road reserve do not have entries directly off the street to mitigate water ingress into the basement levels. Balustrades to these apartments form flood barriers exceeding the required flood planning level

- Entry into the basement occurs at Pembroke Street where the prescribed flood planning level is RL 13.844. The upper basement level is set to RL14.0



5.7 SERVICING & LOGISTICS

STAGE 2 - MARKET HOUSING

The market housing component is serviced entirely from a new internal private road reserve, intended to be managed and maintained by the market developer. The new road is proposed as a one-way shared zone at 10km/hour with entry from Florida Street and exit at Pembroke.

Road design and adjacent flood planning levels for residential lobbies and carpark enters have been coordinated with both Mott Macdonald and JMT consulting. The endorsed strategy prioritises the following:

- 1. Activation of street frontages with residential uses and minimising extent of blank facade to servicing and logistics areas
- 2. Integration of shared roadway with landscape and public realm
- 3. No basement footprint extending below the proposed roadway; in some cases resulting in narrow basement footprints to maximise deep soil and retain existing significant trees.
- 4. Coordination with flood planning levels and avoiding entry into the basement in areas where the site is subject to probable maximum flood levels.
- 5. Provision of dedicated hoist within the basement footprint to transfer waste between levels to mitigate impact to tenants.
- 6. Separation of car and loading vehicular movement to minimise impact to shared zone and crossovers



MARKET HOUSING BUILDING 1

Waste collection

- In the northern cluster, waste chutes on residential levels discharge into waste chute rooms on Level 02 of the development.
- There are three waste discharge rooms; two of these with linear track collection systems, and one with a carousel where space constraints and efficient basement planning required further consideration.
- Waste is then transferred from these waste holding areas, via a dedicated hoist to a waste holding area at Site Level 05.
- Collection occurs from this at grade waste holding area to dedicated loading zones on the new internal road reserve by the Council waste team. Vehicles do not enter the building.

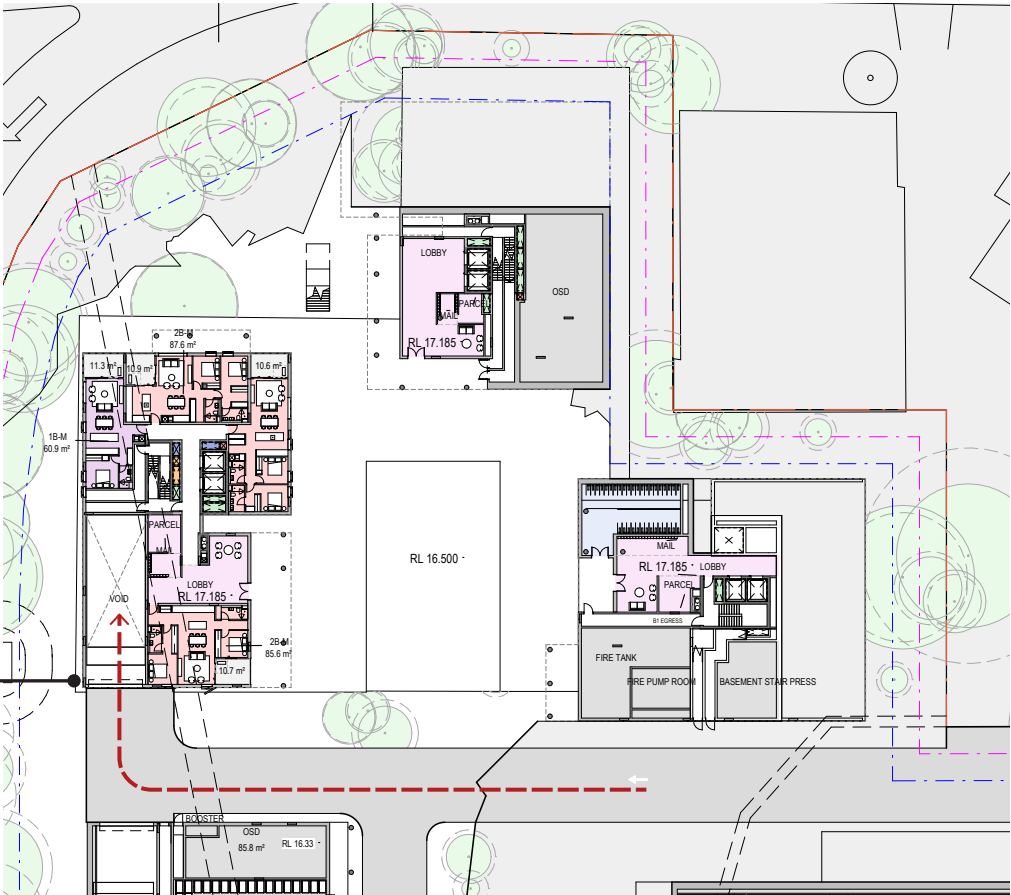
- Cars enter the basement parking areas from the western edge of the site, where the shared zone extends between Market Building 1A and 3A. The basement has a maximum grade of 1:4.

Basements & Flooding

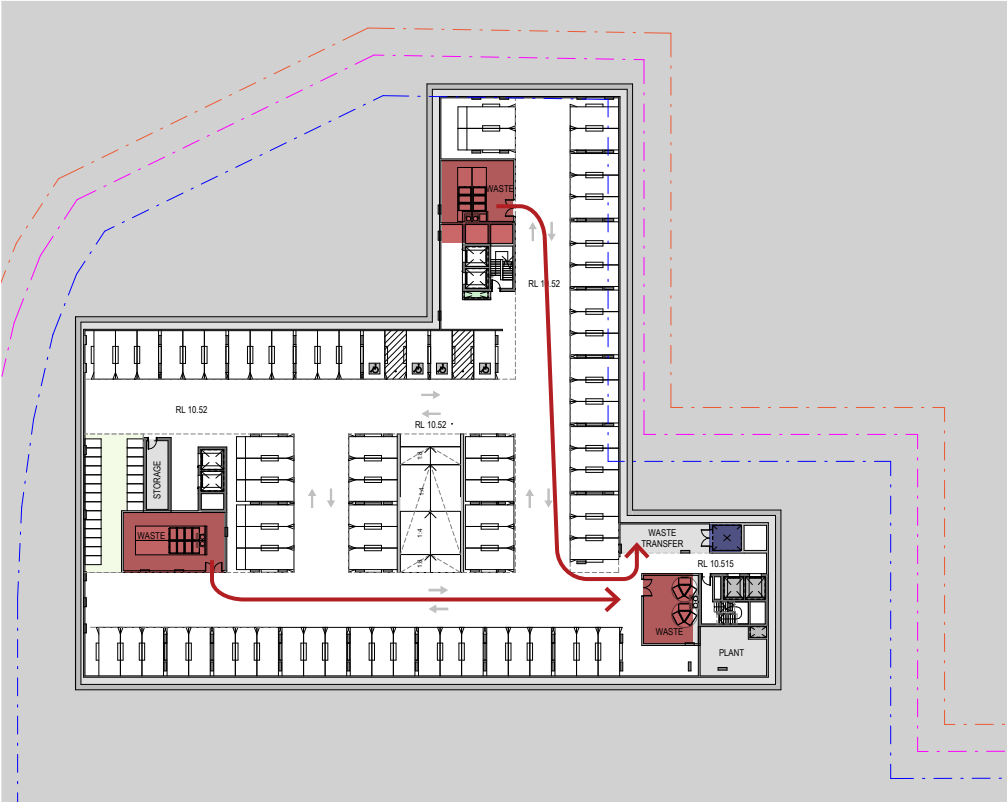
Entries into the consolidated underground basement have been coordinated to meet the proposed flood planning level - RL16.511.

The residential flood planning level is met at all lobbies in the north cluster which are located at RL17.185. A central swale in the communal courtyard captures overland flow and directs it south along the shared road reserve.

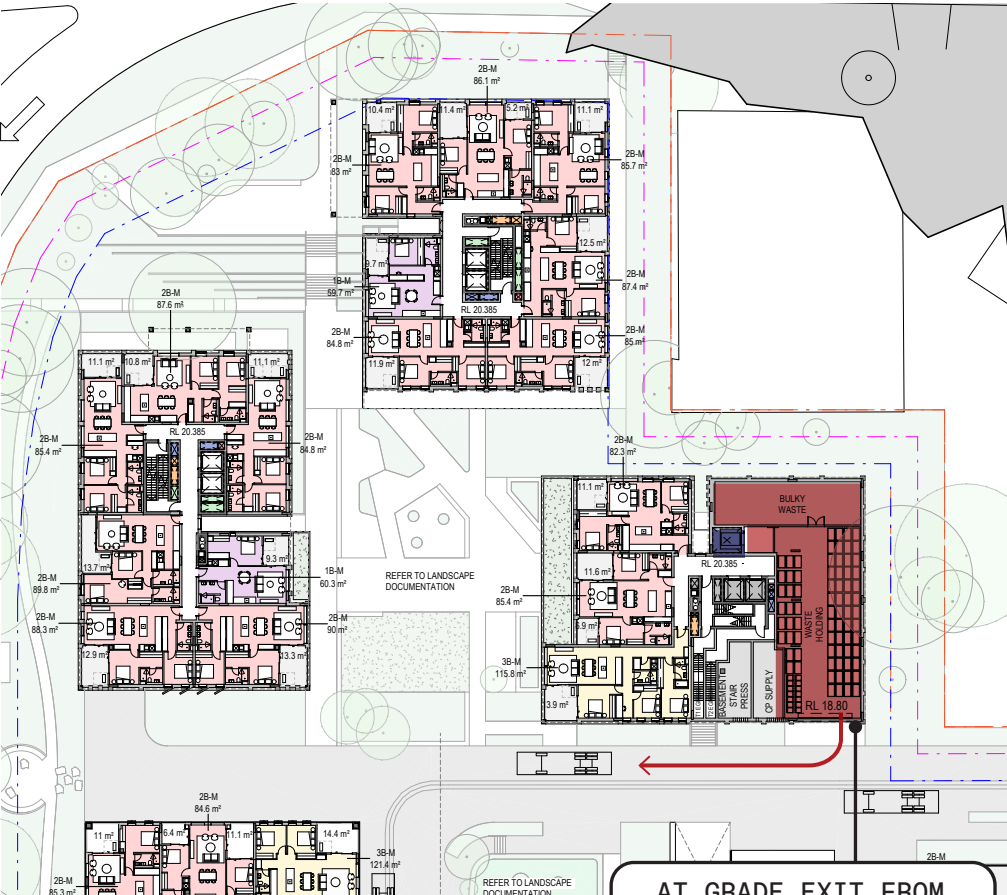
Flood planning levels have been provided by Mott MacDonald



SITE LEVEL 04



SITE LEVEL 02



SITE LEVEL 05

AT GRADE EXIT FROM
WASTE HOLDING TO
SHARED ROAD RESERVE

5.7 SERVICING & LOGISTICS

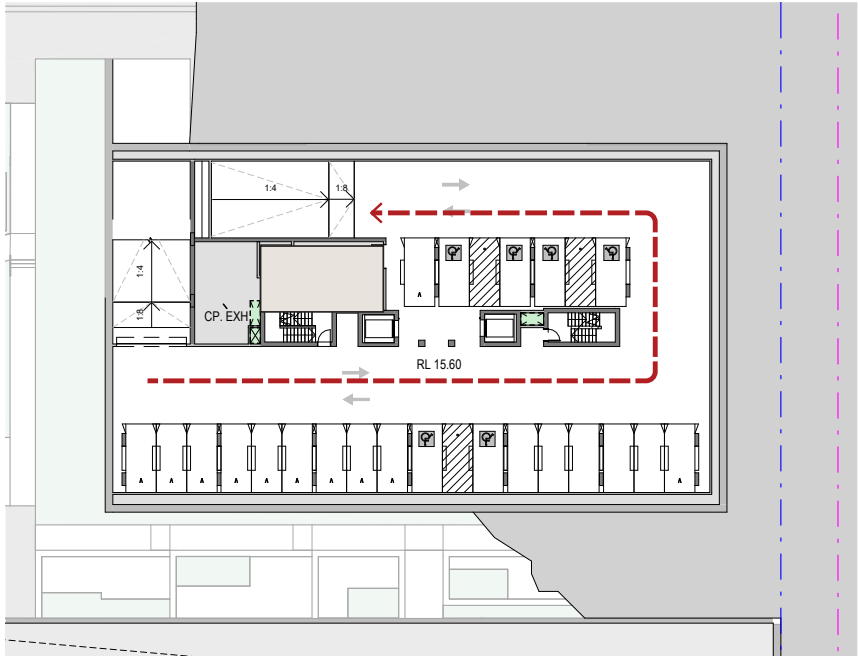
MARKET HOUSING BUILDING 2

Waste Collection

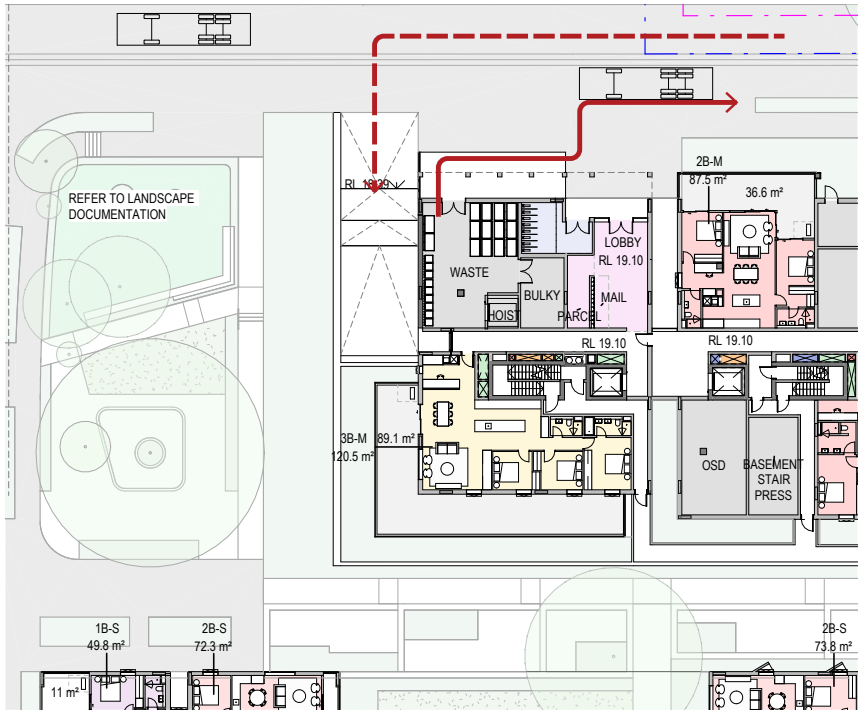
- Collection occurs from this at grade waste holding area to dedicated loading zones on the new internal road reserve by the Council waste team. Vehicles do not enter the building.
- A gentle ramp is required to mitigate the subtle level difference from this area to the loading zone on the new road reserve. This is integrated into the landscape at the front of the building with low level planters.
- Waste chutes on residential levels discharge into waste chute rooms on the first basement level of Market Housing Building 2.
- Separate chutes for general and recycling chutes discharge into two carousel systems at the base of the chutes.
- Waste is transferred directly from the waste chute discharge area in the basement level via a hoist up to the waste holding room.

Basements & Flooding

- Entry into the consolidated underground basement have been coordinated to meet the proposed flood planning level. The carpark ramp is graded up to meet an RL 18.39, before descending into the basement levels.
- To minimise the impact of built form on the surrounding precinct, entry into the carpark occurs at the bottom of the ramp. A new wall alongside this carpark ramp forms the backdrop to a significant public space
- The residential lobby and waste holding areas are located at RL19.1 to meet the required flood planning level and protect basements from water ingress via the residential lifts.

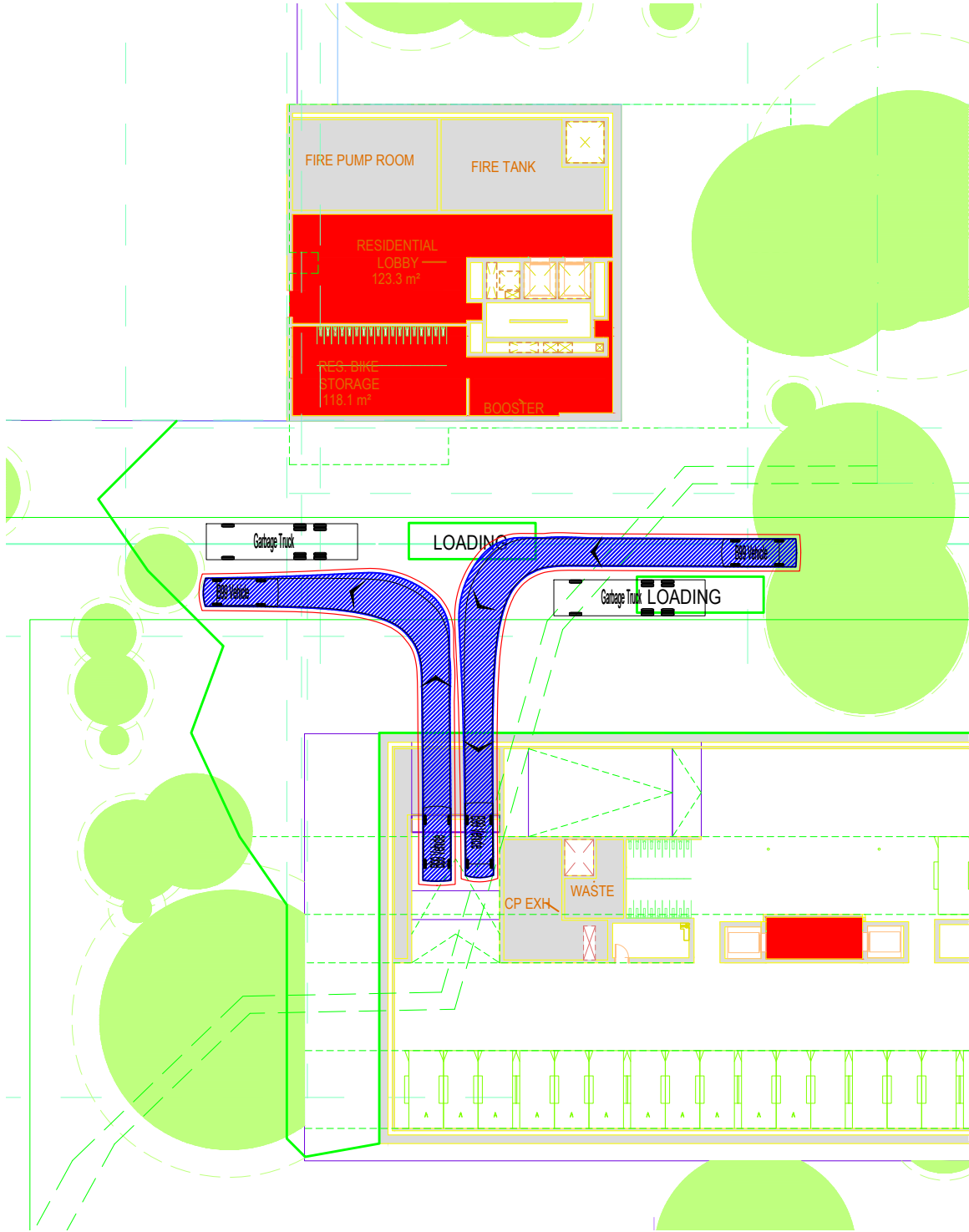


SITE LEVEL 04



SITE LEVEL 05

SWEPT PATH ANALYSIS FOR BASEMENT ENTRIES INTO MARKET BUILDING 2 HAVE BEEN PROVIDED BY JMT CONSULTING
LOADING ZONES FOR WASTE AND REMOVALIST VEHICLES HAVE BEEN INDICATED WITHOUT IMPEDING FLOW OF TRAFFIC ALONG THE ONE WAY SHARED ROAD RESERVE ENTERING FROM FLORIDA STREET



5.7 SERVICING & LOGISTICS

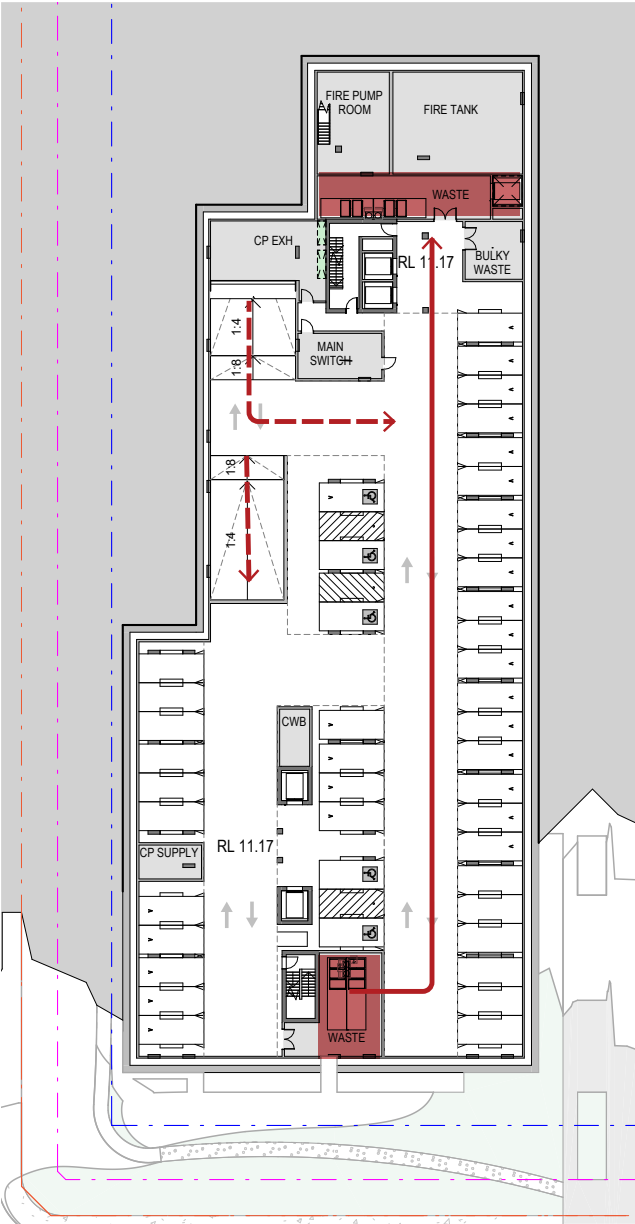
MARKET HOUSING BUILDING 3

Waste Collection

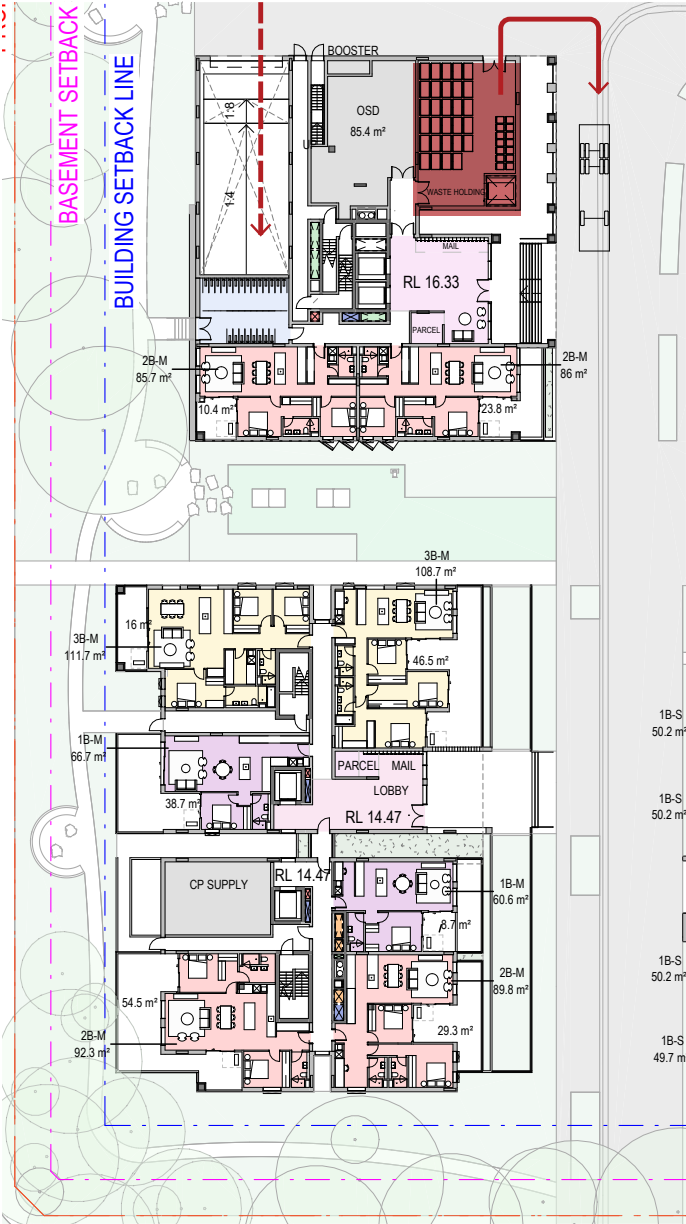
- A single general and single recycling waste chute is located in each building core in Market West 2.
- In Building 2A (North) this discharges at the street level directly into the waste holding room. In Building 2B (South) waste discharges into the first basement level, and building management is responsible for transferring this waste to a dedicated hoist at the north end of the basement, directly into the waste holding area on the upper level
- Waste is then collected at grade from the northern edge, and transferred to Council waste vehicles parked in dedicated loading zones on the private road reserve.
- Waste vehicles do not enter the building footprint, and is collected and returned to this room.

Basements & Flooding

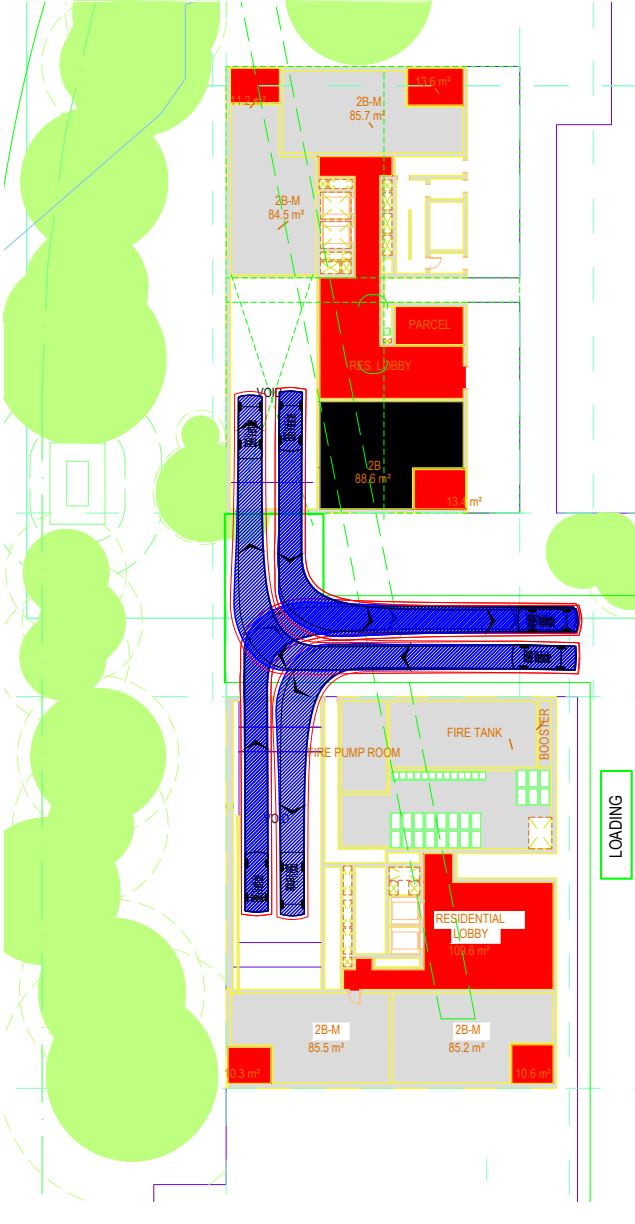
- Entry into the consolidated underground basement have been coordinated to meet the proposed flood planning level. The carpark ramp enters at the north of the site via a shared zone between Market Building 1.
- Due to overall flood mitigation measures, the basement carpark entry can enter into the site without needing to meet a crest flood planning level. To mitigate the significant level drop, a higher floor to floor is provided at the northern end of the basement.
- The basement footprint is significantly modified to maintain existing significant trees on the western boundary.
- Residential flood planning levels are met for both lobbies. At grade entry is provided by utilising the natural slope in topography at higher levels, and additional stairs have been provided connecting from the private road reserve.



SITE LEVEL 03



SITE LEVEL 04

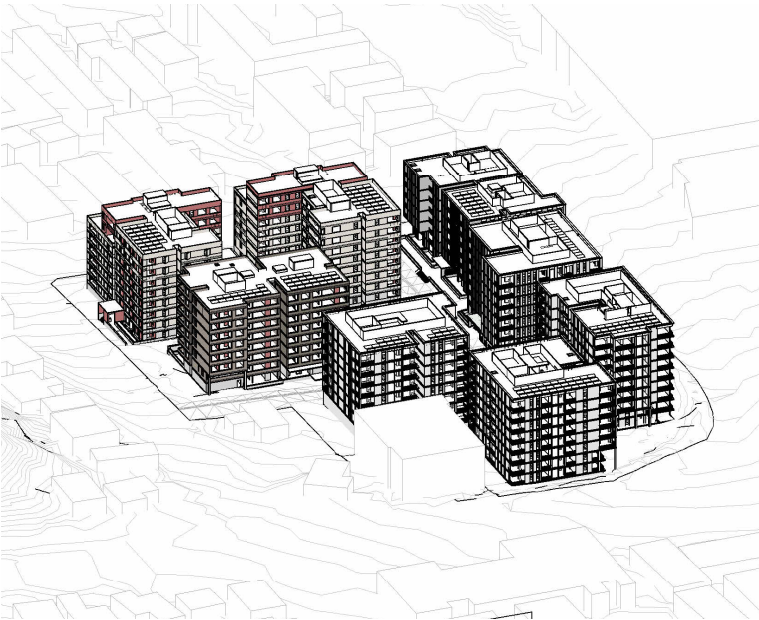


5.8 SUN EYE VIEW

SUN EYE VIEW DIAGRAMS HAVE BEEN PROVIDED AS PART OF THE ARCHITECTURAL DRAWING SUBMISSION - JUNE 21ST



0900



1000



1100



1200



1300



1400



1500

5.9 ESD

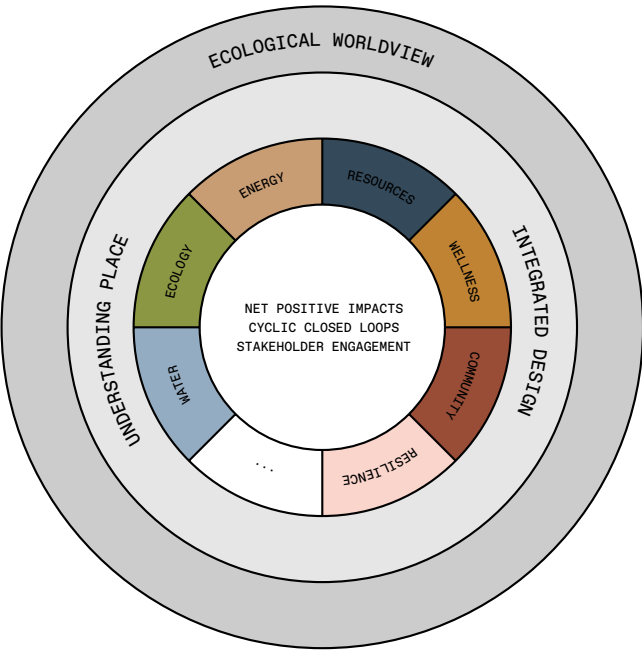
Throughout the development of the proposal, the design team have worked to a set of core sustainability principles that have informed strategic decisions. These have been informed and driven also by the LAHC Design Requirements for social housing; passive design, Net Zero, Targetting minimum 7 Star NatHERS rating as an average, compliance with all BASIX requirements, healthy home targets and daylighting targets. Project principles include:

- Low embodied carbon
- Modularity
- Regeneration
- Biophilia
- Electrification
- Social Sustainability
- Passive Principles

For further detail on the sustainability strategies and environmental performance targets, please refer to the Sustainability Report submitted as part of this application.

BVN Regenerative practice framework

- The balance opposing aspects of sustainability such as embodied and operational energy is core to BVN's regenerative framework
- The framework considers the building's full life-cycle, including the end of life and circularity of the building fabric with broader ecological, economical and social impacts beyond the site.



LOW EMBODIED CARBON

Structural optimisaton, lightweight façade and internal wall systems such as speedpanels, green concrete and alternatives to materials that have green initiatives will be considered in the development of this project. a commitment to targeting locally sourced sustainable materials. This is complemented by opportunities to explore the reuse of existing materials salvaged throughout the staged demolition of the existing buildings to be utilised in new build as well as landscape elements in future development.



MODULARITY

A streamlined envelope and structural grid reduced complexity, enabling material efficiency. The simple, orthogonal buildings reduce external surface area and opportunites for a prefabricated and modular system can be explored. Windows in the development are standardised for social and market housing lots.Each of these contributing to reduced embodied carbon, shorter construction program, and higher thermal performance.



REGENERATION

Alongside minimising our direct impacts via low embodied carbon, passive, and efficient design, the development provides new green spaces, and favours products that employ ecological offsets which improve biodiversity beyond the site boundary.



BIOPHILIA

Opportunities for significant garden beds and green spaces have been designed into the public and communal spaces. The proposal far exceeds the requirement for landscaped space and deep soil.



ELECTRIFICATION

A fully electrified building supplemented with photovoltaics placed upon available roof spaces.



SOCIAL SUSTAINABILITY

Social sustainability and community building is inherent within mixed tenure developments such as this. The proposal seeks to find ways to bring communities together and ensure equitable access to shared facilities. Communal amenity is considered on a precinct wide basis - allowing for a diversity of offering across a number of buildings and encouraging movement throughout the site. The buildings are designed to be tenure blind, and there are deliberately no clear fences or gated delineation between developments.



PASSIVE PRINCIPLES

An optimised window to wall ratio has been a key development and modular window strategy to maximise natural ventilation and cross ventilation to the development. The overall proposal exceeds the minimum compliance for cross ventilation.

Bays have also generally narrowed to reduce the extent of glazing and enable the building to accommodate varying aspects without significant adjustment or additions to the facade.



DESIGN VERIFICATION STATEMENT



DESIGN VERIFICATION STATEMENT

This design verification statement has been prepared by BVN on behalf of Homes NSW to accompany a State Significant Design Application for the proposed development of 29 Florida Street Sylvania

The proposal also adopts the uplift in permissible gross floor area and height on the site under the provisions of the Housing SEPP. The development will provide 484 new apartments including 159 social housing units.

Verification and Qualifications

BVN are registered as Architects in New South Wales and are enrolled in the Division of Chartered Architects in the register of Architects pursuant to the Architect Act 1921.

Nominated Architects

7115 Julian Ashton, 7053 Matthew Blair, 7151 Phillip Rossington, 7439 Peter Titmuss, 10447 Alison Bounds, 10705 Catherine Skinner, 8011 William Dowzer

Statement of Design

BVN have been responsible for the design of the project since its inception and have worked with related professionals and experts in respect of the matter. The project has been designed to provide a development that is respectful of local planning and design controls.

With reference to the Application's supporting documentation, this Statement demonstrates that the Design Quality Principles set out in Schedule 1 of State Environmental Planning Police No.65 - Design Quality of Residential Flat Development and the Apartment Design Guide are achieved for the residential component of the proposed development.

Yours sincerely,



Peter Titmuss
Principal
Registration Number 10447



VIEW FROM NORTH CLUSTER TO NEW PUBLICALLY ACCESSIBLE COMMUNAL SPACES

DESIGN VERIFICATION STATEMENT

DESIGN QUALITY PRINCIPLES

PRINCIPLE NO.1: CONTEXT AND NEIGHBOURHOOD CHARACTER

- 1. Good design responds and contributes to its context, which is the key natural and built features of an area, their relationship and the character they create when combined and also includes social, economic, health and environmental conditions.
- 2. Responding to context involves identifying the desirable elements of an area’s existing or future character.
- 3. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.
- 4. Consideration of local context is important for all sites, including sites in the following areas
 - Established areas
 - Areas undergoing change
 - Areas identified for change.

The proposal provides needed social and market housing to respond to demand in southern Sydney. The increased height and density is suitable for the site location adjacent to main roads and proximity to Southgate shopping centre. The new buildings which will replace the existing buildings are generally compliant with planning height limits and density controls.

Master planning considers the varying site character from the intersection of Princes Hwy and Port Hacking Rd to the north, to the quieter suburban context and green character at the south and east. The site has deep proportions approximately 190m x 140m with 4 road frontages. It currently houses a ranges of building forms 2-4 storeys accommodating social housing arranged around a central vehicle cul-de-sac accessway. The masterplan response proposes to replace the existing cul-de-sac with a new through accessway connecting to Pembroke and Florida St that will better connect the new community to its context and divide the deep site into three smaller identifiable building clusters, each with its own character:

- the northern cluster
- the western bar
- the village green

The Princes Hwy and Port Hacking Rd to the north and west are 6-lane arterial roads with challenging pedestrian connectivity and vehicle access. In contrast, the other street frontages - Florida Street and Pembroke Street - are quiet suburban streets in a predominantly low-rise residential neighborhood. In response, the proposed building forms step down with the site from the north to south. Additional setbacks at the south help to limit shadowing impacts on existing surrounding lower scale houses and retain groupings of significant trees that contribute to the existing street character.

Integral to the masterplanning response, a central green space is formed at the centre of the site where a significant existing tree is retained. Further open landscaped spaces link to this central space maintaining connection to landscape through the development. The site plan sets up visual axes across the site east/west and north/south that open the development to the surrounding neighborhood, inviting public circulation and improving surveillance and safety.

While the overall strategy is to limit the distinction between social and market housing within the development, the social housing component is located at the southern end of the site where its impact on existing buildings can be limited if it were to be developed in the initial stage. The significant fall across the site from north to south requires a number of building levels to be established to minimise cut and fill.

PRINCIPLE NO.2: BUILT FORM AND SCALE

- Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.
- 5. Good design also achieves an appropriate built form for a site and the building’s purpose in terms of the following—building alignments and proportions, building type, building articulation, the manipulation of building elements.
 - 6. Appropriate built form—
 - Defines the public domain, and
 - Contributes to the character of streetscapes and parks, including their views and vistas, and
 - Provides internal amenity and outlook.

The proposed height and density is generally compliant with local planning controls. Setbacks to street edges are increased beyond planning controls to retain trees and vegetation buffers. This enables a line of mature gum trees to Pembroke Street, a green edge to Port Hacking Road and other significant trees at Florida Street. Mature trees at the centre of the site are retained to form a key central green space in the new site plan. To the north and south of this space, secondary green courts structure the built form in those areas of the site. A new pedestrian-friendly accessway is proposed to connect Florida Street to Pembroke Street through the site providing access to buildings within the site (noting that vehicle access off the Princes Hwy and Port Hacking Rd is not feasible). The new accessway divides the large site into three zones:

- 1. The northern cluster,
- 2. The western bar
- 3. The village green.

The forms, articulation and architectural language of buildings within each of the three zones are differentiated to provide diversity across the large site, however a common use of brick materiality and hues that reference the clays and stone found locally will provide consistency. A consistent articulation of vertical slots break down the building masses into discrete volumes and provide solar and cross ventilation amenity Buildings are aligned to ensure sightlines across the site east to west and north to south.



VIEW FROM CORNER OF PEMBROKE AND FLORIDA STREET

DESIGN VERIFICATION STATEMENT

Northern Cluster

To the north, a cluster of three buildings define a single courtyard which connects each of the entries. The architectural language of the buildings around the courtyard begins as a colonnaded edge defining the public domain and is extruded into the vertical language of each of the buildings. Closer spacing of vertical elements is provided for privacy where required while maintaining solar access. At this part of the site, there is potential for views over Georges River and the fenestration is opened to allow this opportunity. These buildings are setback from the busy intersection of Princes Hwy and Port Hacking Rd, where a new green buffer is created in the form of a terraced garden. A publicly accessible path and stairs provides pedestrian access into the site.

Western Bar

Along the west two solid brick buildings address Port Hacking Road. An increased setback will retain the existing vegetation buffer between street and building. A break in the building forms permits permeability and vistas through the site.

Village Green

At the south east of the site, a mix of social and market buildings are proposed around two green spaces. The building height along the south has been studied and a setback to the upper levels introduced to minimise the perceived bulk of the built form and minimise impact of overshadowing on houses along Pembroke St. The sloping topography is benched with a masonry plinth which holds the lighter weight metal-clad building forms and contains the basement loading and carparking.

Horizontal datums order the buildings taking a 800mm high solid balcony and floating handrail to balance privacy and outlook. Different hues articulate different building masses, with a contrasting ochre colour used to pick out reveals, details and entrances and generally unify the composition. Breaks in the building form bring visual relief and avoid the sense of ‘closed’ outdoor spaces.



PRINCIPLE NO.3: DENSITY

- 1. **Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.**
- 2. **Appropriate densities are consistent with the area’s existing or projected population.**
- 3. **Appropriate densities are sustained by the following—**
 - Existing or proposed infrastructure,
 - Public transport
 - Access to jobs,
 - Community facilities
 - The Environment.

The increased density in this site is appropriate given its location adjacent main roads and proximity to facilities and potential employment in the adjacent Southgate shopping centre. The proposal is well within floor space planning controls. Proposed building heights are generally consistent with the planning intent for height controls however there are minor exceedances due to the sloping site. Potential amenity issues resulting from density are offset by providing breaks in building forms to provide clear sightlines across the site, retaining significant existing trees both to the site perimeter and within the site and organising building mass so that good solar access can be maintained to key outdoor areas.

PRINCIPLE NO.4: SUSTAINABILITY

- 1. **Good design combines positive environmental, social and economic outcomes.**
- 2. **Good sustainable design includes—**
 - Use of natural cross ventilation and sunlight for the amenity and liveability of residents, and
 - Passive thermal design for ventilation, heating and cooling, which reduces reliance on technology and operation costs.
- 3. **Good sustainable design also includes the following—**
 - Recycling and reuse of materials and waste,
 - Use of sustainable materials,
 - Deep soil zones for groundwater recharge and vegetation.

Social sustainability

The proposal includes both social and market housing and limits the distinction between social and market housing to create a single sustainable community. Changes in level imply delineation rather than fences. The social housing component will have priority in terms of staging and as a result has been located at the southern end of the site where impact on existing buildings can be limited and enable relocation of existing residents once it is completed to then enable development of the rest of the site.

Environmental design

The development is generally compliant with ADG objectives for cross ventilation and solar amenity to apartments and deep soil zones. Building orientation and planning limits the number of non-solar apartments below ADG minimums. Window to wall ratios have been considered in conjunction with BASIX advice. Increased setbacks and location of green areas enable retention of a key existing trees and vegetation buffers and the proposed linked green spaces will form a green corridor through the site. WSUD strategies will be key to the landscape design, benefitting from the fall in the topography. Allowances exceed required minimums for landscaped area and deep soil.

The use of standard floor plans and façade approaches across building groupings will enable efficiency of cost and material use across the apartments. Electrification and rooftop PVs are integrated into the design.

DESIGN VERIFICATION STATEMENT

PRINCIPLE NO.5: LANDSCAPE

- 1. Good design recognises that landscape and buildings operate together as an integrated and sustainable system, resulting in development with good amenity.
- 2. A positive image and contextual fit of well designed development is achieved by contributing to the landscape character of the streetscape and neighbourhood.
- 3. Good landscape design enhances the development’s environmental performance by retaining positive natural features that contribute to the following—
 - the local context
 - co-ordinating water and soil management
 - solar access
 - micro-climate
 - tree canopy
 - habitat values
 - preserving green networks
- 4. Good landscape design optimises the following—
 - usability
 - privacy and opportunities for social interaction
 - equitable access
 - respect for neighbours’ amenityt
- 5. Good landscape design provides for practical establishment and long term management.

The proposed masterplan has been developed around a series of interconnecting landscaped spaces that move as a network across the site from northwest to southeast This strategy is in conjunction with a second strategy to preserve landscape buffers around the perimeter of the site. Building footprints have then been located to preserve these spaces and retain good solar access.

The landscape design response for each space considers its role in the development. At the northwest, this takes the form of a terracing garden forming a buffer to the busy intersection. At the centre of the site a playground located around an existing tree provides a place for activity and social interaction, in contrast to quieter passive courtyard spaces closer to apartments.

Pedestrian movement is facilitated across the site - from east to west and north to south. A new shared accessway is treated to provide traffic calming and privileges pedestrian movement. Landscape and deep soil allowance exceed minimum requirements. Planting palette utilises native species, WSUD and drought tolerant planting.

The landscape design relies on shifts in level to negotiate the topography and delineate spaces and public / private domain without the need for fences. Planters are located to provide privacy to ground floor apartments but allow surveillance. Overland flows and level transitions are integrated into the landscape levels and control the flow of water through raingardens and ensure accessibility across the development.

PRINCIPLE NO.6: AMENITY

- 6. Good design positively influences internal and external amenity for residents and neighbours.
- 7. Good amenity contributes to positive living environments and resident well-being.
- 8. Good amenity combines the following—
 - appropriate room dimensions and shapes,
 - access to sunlight,
 - natural ventilation,
 - outlook,
 - visual and acoustic privacy,
 - storage,
 - indoor and outdoor space,
 - efficient layouts and service areas,
 - ease of access for all age groups and degrees of mobility.

The development is generally compliant with ADG objectives for cross ventilation and solar amenity to apartments Building orientation and planning limits the number of non-solar apartments below ADG minimums. Apartment planning provides clear, rational and repeated layouts with good amenity and that are easily furnished. Corridors are generally open ended or have access to natural light and outlook.

The majority of apartments exceed minimum apartment areas and dimensions to provide increased amenity. Privacy devices are integrated in the façade modelling where separation distances are reduced. The majority of apartments have allowance for storage volume minimums to be achieved within the apartment rather than rely on make up in basements.

The social housing component includes a dedicated communal pavilion in addition to external communal space. A significant number of mature trees are retained at the edges and within the site that contribute to the amenity and outlook. Landscape and deep soil zones exceed required minimum areas. Building mass is located to ensure good solar access to outdoor spaces.

PRINCIPLE NO.7: SAFETY

- 1. Good design optimises safety and security within the development and the public domain.
- 2. Good design provides for quality public and private spaces that are clearly defined and fit for the intended purpose.
- 3. Opportunities to maximise passive surveillance of public and communal areas promote safety.
- 4. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

Key to consideration of safety within the site are the creation of pedestrian through-site links, clear sightlines east to west and north to south and the creation of a new pedestrian and vehicle accessway that connects through to surrounding streets rather than an internal cul-de-sac.

The new accessway will include traffic calming strategies to ensure pedestrian hierarchy. Carpark entries are located away from areas of high pedestrian movement and building entries. Ground floor apartments are raised above the adjoining footpaths and level of outdoor spaces, providing separation while maintaining surveillance.

Where possible, ground floor apartments are able to connect directly to the street limiting areas with little activity or surveillance.

DESIGN VERIFICATION STATEMENT



PRINCIPLE NO.8: HOUSING DIVERSITY AND SOCIAL INTERACTION

- 1. Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.
- 2. Well designed residential apartment development responds to social context by providing housing and facilities to suit the existing and future social mix.
- 3. Good design involves practical and flexible features, including—
 - different types of communal spaces for a broad range of people, and
 - opportunities for social interaction among residents.

While the proposed development consists of social and market housing - providing a range of housing choice - it is designed to read as a ‘tenure-blind’ development where the architectural distinction between the two is minimised. The mix of apartment types responds to Homes NSW’s brief based on anticipated demand and social mix.

Different types of communal spaces are located through the heart of the development that will provide opportunity for community interaction. Areas for play, seating, gathering and cooking are provided.

PRINCIPLE NO.9: AESTHETICS

- 1. Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure.
- 2. Good design uses a variety of materials, colours and textures.
- 3. The visual appearance of well designed residential apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

The architectural language of the proposed development responds to the master planning strategy of 'building clusters' that seeks to establish a diversity of character across the site. Utilising a variety of materials, colours and textures, each of the clusters has an identifiable facade expression, however the use of masonry to varying extents in each of these facade strategies provides cohesion across the development and consistency in approach to the stepping site topography.

ADG COMPLIANCE TABLE

B

ADG COMPLIANCE TABLE

3A SITE ANALYSIS				
OBJECTIVE 3A-1	SITE ANALYSIS ILLUSTRATES THAT DESIGN DECISIONS HAVE BEEN BASED ON OPPORTUNITIES AND CONSTRAINTS OF THE SITE CONDITIONS AND THEIR RELATIONSHIP TO THE SURROUNDING CONTEXT			
		YES	NO	NOTES
Design Guidance	Each element in the Site Analysis Checklist should be addressed (see Appendix 1)	✓		

3B ORIENTATION				
OBJECTIVE 3B-1	BUILDING TYPES AND LAYOUTS RESPOND TO THE STREETScape AND SITE WHILE OPTIMISING SOLAR ACCESS WITHIN THE DEVELOPMENT			
		YES	NO	NOTES
Design Guidance	Buildings along the street frontage define the street, by facing it and incorporating direct access from the street (see figure 3B.1)	✓		Opportunities for entrances directly off the street have been incorporated into the design as often as possible where site topography and flooding levels were appropriate. The majority of ground floor apartments achieve larger private open spaces.
	Where the street frontage is to the east or west, rear buildings should be orientated to the north	✓		Given site conditions and site porosity, there are no 'rear' buildings within the development
	Where the street frontage is to the north or south, overshadowing to the south should be minimised and buildings behind the street frontage should be orientated to the east and west (see figure 3B.2)	✓		South facing apartments have been limited across the development.
OBJECTIVE 3B-2	OVERSHADOWING OF NEIGHBOURING PROPERTIES IS MINIMISED DURING MIDWINTER			
Design Guidance	Living areas, private open space and communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access	✓		This has generally been achieved. Compliance with solar access requirements for each building has been provided as part of the architectural drawing set and summarised in the development matrix
	Solar access to living rooms, balconies and private open spaces of neighbours should be considered	✓		
	Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%	✓		Overshadowing to neighbouring developments has been addressed in Section 5 of the architectural design report. As the team does not have detailed facade / fenestration information, solar access diagrams have been conducted on 3D models. These determine that there are no adverse effect to neighbouring properties, particularly to the south of the development along pembroke Street. All adjacent developments maintain 2 hours of solar access in mid winter between 9-3pm.
	If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy	✓		Setbacks to the south have been increased, and building forms step back on upper levels along Pembroke Street.
	Overshadowing should be minimised to the south or downhill by increased upper level setbacks	✓		As above
	It is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development	✓		This has been achieved to all boundaries where possible. Increased setbacks to Pembroke Street where buildings are not perpendicular have been accommodated.
	A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings	✓		N/A

ADG COMPLIANCE TABLE

3C PUBLIC DOMAIN INTERFACE				
OBJECTIVE 3C-1	TRANSITION BETWEEN PRIVATE AND PUBLIC DOMAIN IS ACHIEVED			
		YES	NO	NOTES
Design Guidance	Terraces, balconies and courtyard apartments should have direct street entry, where appropriate	✓		Ground floor apartments have direct street access where possible.
	Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings (see figure 3C.1)	✓		This has been achieved according to figure 3C.1
	Upper level balconies and windows should overlook the public domain	✓		Passive surveillance has been achieved through careful consideration of the building massing and arrangement on site. All buildings engage with the public domain with active facades, while ensuring privacy for the residential units through landscape at lower levels.
	Front fences and walls along street frontages should use visually permeable materials and treatments. The height of solid fences or walls should be limited to 1m	✓		There are no fences proposed as part of the development
	Length of solid walls should be limited along street frontages	✓		This has been achieved where possible. Where plant areas are required to be at ground floor, landscape, and facade treatment has been carefull considered to ensure these facades do not present as blank walls to the street.
	Opportunities should be provided for casual interaction between residents and the public domain. Design solutions may include seating at building entries, near letter boxes and in private courtyards adjacent to streets	✓		This is a key element of the design, addressed throughout the architectural and landscape design report.
	In developments with multiple buildings and/or entries, pedestrian entries and spaces associated with individual buildings/entries should be differentiated to improve legibility for residents, using a number of the following design solutions: • Architectural detailing • Changes in materials • Plant species • Colours	✓		Addressed in the architectural design report and landscape report. Awnings and entries are provided at all entries to mark arrival points and provide protection from inclement weather.
	Opportunities for people to be concealed should be minimised	✓		Passive surveillance and CPTED has been considered
OBJECTIVE 3C-2	AMENITY OF THE PUBLIC DOMAIN IS RETAINED AND ENHANCED			
Design Guidance	Planting softens the edges of any raised terraces to the street, for example above sub-basement car parking	✓		This has been achieved on all edges of buildings where sub basement car parking has been required due to complex site levels and topography.
	Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are providedw	✓		This has been provided and indicated on general arrangement drawings.
	The visual prominence of underground car park vents should be minimised and located at a low level where possible	✓		Noted, and considered as part of facade expression or placed on rooftops.
	Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view	✓		This has been achieved where possible. New substation kiosks are located in discrete locations and outside of clear view lines across the site.
	Ramping for accessibility should be minimised by building entry location and setting ground floor levels in relation to footpath levels	✓		Ground floor levels were raised to meet flood requirements where required across the site.
	Durable, graffiti resistant and easily cleanable materials should be used	✓		All ground floor levels of the buildings are masonry

ADG COMPLIANCE TABLE

OBJECTIVE 3C-2	AMENITY OF THE PUBLIC DOMAIN IS RETAINED AND ENHANCED			
		YES	NO	NOTES
Design Guidance	Where development adjoins public parks, open space or bushland, the design positively addresses this interface and uses a number of the following design solutions: • street access, pedestrian paths and building entries which are clearly defined • paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space • minimal use of blank walls, fences and ground level parking	✓		No fences are proposed
	On sloping sites protrusion of car parking above ground level should be minimised by using split levels to step underground car parking	✓		This has not been considered as part of this development due to the long and narrow basement footprints resulting from site constraints and maintaining of significant trees. The maximum protrusion of basement carparking is at the southwest corner of the site and is below 2m.
3D COMMUNAL AND PUBLIC OPEN SPACE				
OBJECTIVE 3D-1	AN ADEQUATE AREA OF COMMUNAL OPEN SPACE IS PROVIDED TO ENHANCE RESIDENTIAL AMENITY AND TO PROVIDE OPPORTUNITIES FOR LANDSCAPING.			
		YES	NO	NOTES
Design Criteria	Communal open space has a minimum area equal to 25% of the site (See figure 3D.3)	✓		Refer Public Realm and Landscape drawings prepared as part of SSDA Architectural Drawing Submission
	Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter)	✓		Refer Public Realm and Landscape drawings prepared as part of SSDA Architectural Drawing Submissionz
Design Guidance	Communal open space should be consolidated into a well-designed, easily identified and usable area	✓		Refer Public Realm and Landscape drawings prepared as part of SSDA Architectural Drawing Submissionz
	Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions	✓		Refer Landscape plans prepared by Turf.
	Communal open space should be co-located with deep soil areas	✓		This has been achieved. Refer Landscape plans prepared by Turf.
	Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies	✓		Achieved where possible. All communal spaces connected visually and through direct pathways. Refer Landscape drawings.
	Where communal open space cannot be provided at ground level, it should be provided on a podium or roof		✓	No communal space on rooftops has been briefed by HNSW. Communal space is provided at ground level.
	Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they should: • provide communal spaces elsewhere such as a landscaped roof top terrace or a common room • provide larger balconies or increased private open space for apartments • demonstrate good proximity to public open space and facilities and/or provide contributions to public open space	✓		N/A Communal space requirements have been achieved

ADG COMPLIANCE TABLE

OBJECTIVE 3D-2		COMMUNAL OPEN SPACE IS DESIGNED TO ALLOW FOR A RANGE OF ACTIVITIES, RESPOND TO SITE CONDITIONS AND BE ATTRACTIVE AND INVITING.		
		YES	NO	NOTES
Design Criteria	Facilities are provided within communal open spaces and common spaces for a range of age groups (see also 4F Common circulation and spaces), incorporating some of the following elements: • seating for individuals or groups • barbecue areas • play equipment or play areas • swimming pools, gyms, tennis courts or common rooms	✓		Refer Landscape plans prepared by Turf.
	The location of facilities responds to microclimate and site conditions with access to sun in winter, shade in summer and shelter from strong winds and down drafts	✓		Refer Landscape plans prepared by Turf.
	Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks	✓		Screening to rooftop plant has been included in the proposal.
OBJECTIVE 3D-3		COMMUNAL OPEN SPACE IS DESIGNED TO MAXIMISE SAFETY.		
Design Guidance	Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy. Design solutions may include: • bay windows • corner windows • balconies	✓		All communal spaces are overlooked by habitable spaces. Corner balconies have been included where possible. All buildings in the proposal are clustered around communal areas.
	Communal open space should be well lit	✓		Further development of this item will be considered in future stages.
	Where communal open space/facilities are provided for children and young people they are safe and contained	✓		Achieved through passive surveillance and fencing to areas for children such as the central playground. Refer landscape drawings.
OBJECTIVE 3D-4		PUBLIC OPEN SPACE, WHERE PROVIDED, IS RESPONSIVE TO THE EXISTING PATTERN AND USES OF THE NEIGHBOURHOOD.		
Design Guidance	The public open space should be well connected with public streets along at least one edge	✓		Public open spaces are connected to adjacent streets. Refer landscape architecture report and drawings provided by Turf.
	The public open space should be connected with nearby parks and other landscape elements	✓		N/A There are no adjacent parks or landscape elements.
	Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid	✓		Open spaces in the precinct are all visually and physically connected.
	Solar access should be provided year round along with protection from strong winds	✓		Achieved through building arrangement o site.
	Opportunities for a range of recreational activities should be provided for people of all ages	✓		Diverse activities are accounted for across the precinct. Each open space is directly tuned to its surrounding context and appropriate for its setting.
	A positive address and active frontages should be provided adjacent to public open space	✓		The precinct is purposefully open and connected. Refer Public Realm and Landscape drawings prepared as part of SSDA Architectural Drawing Submission.
	Boundaries should be clearly defined between public open space and private areas	✓		

ADG COMPLIANCE TABLE

3E DEEP SOIL ZONES											
OBJECTIVE 3E-1	DEEP SOIL ZONES PROVIDE AREAS ON THE SITE THAT ALLOW FOR AND SUPPORT HEALTHY PLANT TREE GROWTH. THEY IMPROVE RESIDENTIAL AMENITY AND PROMOTE MANAGEMENT OF WATER AND AIR QUALITY.										
		YES	NO	NOTES							
Design Criteria	Deep soil zones are to meet the following minimum requirements.		✓		Refer Public Realm and Landscape drawings prepared as part of SSDA Architectural Drawing Submission. Deep soil figures are provided below. These exceed the minimum DCP 15% requirement. <table><tr><th colspan="2">DEEP SOIL AREA SCEDULE</th></tr><tr><th>Name</th><th>Area</th></tr><tr><td>DEEP SOIL</td><td>6611 m²</td></tr></table>	DEEP SOIL AREA SCEDULE		Name	Area	DEEP SOIL	6611 m²
	DEEP SOIL AREA SCEDULE										
	Name	Area									
	DEEP SOIL	6611 m²									
	Site Area	Min Dimensions				Deep Soil Zone (% of site area)					
	< 650 m2	-				7%					
650-1000 m2	3m										
>1500 m2	6m										
>1500 m2 with significant existing tree cover	6m										
Design Guidance	On some sites it may be possible to provide larger deep soil zones, depending on the site area and context: 10% of the site as deep soil on sites with an area of 650m2 - 1,500m2 15% of the site as deep soil on sites greater than 1,500m2		✓		AS ABOVE. Refer Public Realm and Landscape drawings prepared as part of SSDA Architectural Drawing Submission.						
	Deep soil zones should be located to retain existing significant trees and to allow for the development of healthy root systems, providing anchorage and stability for mature trees. Design solutions may include: - basement and sub basement car park design that is consolidated beneath building footprints - use of increased front and side setbacks - adequate clearance around trees to ensure long term health - co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil		✓		The retention of significant trees and coordination of existing sit services is the most notable site constraint and consideration in the arrangement and placement of buildings on site. Basement carparks have been adjusted and reduced to ensure existing significant trees have been retained. Considerable setbacks, particularly to the south and west of the site maximise these opportunities. A large public space and expansive deep soil zone in the centre of the site surrounds an existing high value tree.						
	Achieving the design criteria may not be possible on some sites including where: - the location and building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres) - there is 100% site coverage or non-residential uses at ground floor level Where a proposal does not achieve deep soil requirements, acceptable stormwater management should be achieved and alternative forms of planting provided such as on structure		✓		N/A This has been achieved as part of the proposal						

ADG COMPLIANCE TABLE

3F VISUAL PRIVACY				
OBJECTIVE 3F-1	ADEQUATE BUILDING SEPARATION DISTANCES ARE SHARED EQUITABLY BETWEEN NEIGHBOURING SITES, TO ACHIEVE REASONABLE LEVELS OF EXTERNAL AND INTERNAL VISUAL PRIVACY			
		YES	NO	NOTES
Design Criteria	Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:		✓	The proposal is generally compliant with ADG building separation distances between primary habitable spaces. Minor non-compliances of secondary windows (study / storage windows) to be dealt with through angled privacy screening. Consideration to the internal planning and offsetting of windows in adjacent buildings where ADG building separation is not met has been adopted to ensure no direct view into habitable spaces is possible. This has been addressed in Section 5 of the architectural design report.
	Building height	Habitable rooms and balconies		
	up to 12m (4 storeys)	6m		
	up to 25m (5-8 storeys)	9m		
	over 25m (9+ storeys)	12m		
Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2)				
Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties				
Design Guidance	Generally one step in the built form as the height increases due to building separations is desirable. Additional steps should be careful not to cause a 'ziggurat' appearance		✓	A set in the Pembroke Street social housing building has been adopted to maintain solar access into neighbouring developments. This has been addressed in solar access diagrams and overshadowing studies in section 5.
	For residential buildings next to commercial buildings, separation distances should be measured as follows: • for retail, office spaces and commercial balconies use the habitable room distances • for service and plant areas use the non-habitable room distances		✓	N/A
	New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include: • site layout and building orientation to minimise privacy impacts (see also section 3B Orientation) • on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)		✓	Refer Public Realm and Landscape drawings prepared as part of SSDA Architectural Drawing Submission. Buildings have been arranged on site through increased setbacks. Non compliances to building separation have been addressed in Section 5 of the architectural design report.

ADG COMPLIANCE TABLE

OBJECTIVE 3F-1		ADEQUATE BUILDING SEPARATION DISTANCES ARE SHARED EQUITABLY BETWEEN NEIGHBOURING SITES, TO ACHIEVE REASONABLE LEVELS OF EXTERNAL AND INTERNAL VISUAL PRIVACY		
		YES	NO	NOTES
Design Guidance	Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)			N/A
	Direct lines of sight should be avoided for windows and balconies across corners	✓		Windows and balconies in adjacent buildings have been offset to mitigate privacy and overlooking.
	No separation is required between blank walls			N/A
OBJECTIVE 3F-2		SITE AND BUILDING DESIGN ELEMENTS INCREASE PRIVACY WITHOUT COMPROMISING ACCESS TO LIGHT AND AIR AND BALANCE OUTLOOK AND VIEWS FROM HABITABLE ROOMS AND PRIVATE OPEN SPACE		
Design Guidance	Communal open space, common areas and access paths should be separated from private open space and windows to apartments, particularly habitable room windows. Design solutions may include: • setbacks • solid or partially solid balustrades to balconies at lower levels • fencing and/or trees and vegetation to separate spaces • screening devices • bay windows or pop out windows to provide privacy in one direction and outlook in another • raising apartments/private open space above the public domain or communal open space • planter boxes incorporated into walls and balustrades to increase visual separation • pergolas or shading devices to limit overlooking of lower apartments or private open space • on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels to windows and/or balconies	✓		Landscape zones have been incorporated to increase visual separation to Ground Floor unit windows.
	Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas	✓		
	Balconies and private terraces should be located in front of living rooms to increase internal privacy	✓		This has been impemented where possible. However, in some cases this impact solar access compliance and therefore living rooms have been moved to the facade.
	Windows should be offset from the windows of adjacent buildings	✓		Where possible. Minor non-compliances of secondary windows (study / storage windows) to be dealt with by translucent glass / angled window treatments.
	Recessed balconies and/or vertical fins should be used between adjacent balconies	✓		Adjacent balconies are separated by full height walls.

ADG COMPLIANCE TABLE

3G PEDESTRIAN ACCESS AND ENTRIES				
OBJECTIVE 3G-1	BUILDING ENTRIES AND PEDESTRIAN ACCESS CONNECTS TO AND ADDRESS THE PUBLIC DOMAIN			
		YES	NO	NOTES
Design Guidance	Multiple entries (including communal building entries and individual ground floor entries) are provided to activate the street edge	✓		This has been incorporated where possible and appropriate. Each core has a separated entry.
	Entry locations relate to the street and subdivision pattern and the existing pedestrian network	✓		
	Building entries are clearly identifiable. Communal entries are clearly distinguishable from private entries	✓		Entires are all signified by awnings and landscape elements.
	Where street frontage is limited and multiple buildings are located on the site, a primary street address is provided with clear sight lines and pathways to secondary building entries	✓		Entries to the market housing component are all accessed from the new internal road.
OBJECTIVE 3G-2	ACCESS, ENTRIES AND PATHWAYS ARE EQUITABLE AND EASY TO IDENTIFY			
Design Guidance	Building access areas including lift lobbies, stairwells and hallways are clearly visible from the public domain and communal spaces	✓		
	The design of ground floors and underground car parks minimise level changes along pathways and entries	✓		Ground floor levels were raised to meet flood requirements. These are generally requiring 350mm-500mm level mitigation to meet provided residential flood planning levels from the project civil engineer.
	Steps and ramps are integrated into the overall building and landscape design	✓		
	For large developments ‘way finding’ maps should be provided to assist visitors and residents (see figure 4T.3)	✓		To be considered in future design development
	For large developments electronic access and audio/video intercom should be provided to manage access	✓		To be considered in future design development
OBJECTIVE 3G-3	PEDESTRIAN LINKS THROUGH DEVELOPMENTS PROVIDE ACCESS TO STREETS AND CONNECT DESTINATIONS			
Design Guidance	Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport	✓		Addressed as part of both architecture and landscape design.
	Pedestrian links should be direct, have clear sight lines, be overlooked by habitable rooms or private open spaces of dwellings, be well lit and contain active uses, where appropriate	✓		
3H VEHICLE ACCESS				
OBJECTIVE 3H-1	VEHICLE ACCESS POINTS ARE DESIGNED AND LOCATED TO ACHIEVE SAFETY, MINIMISE CONFLICTS BETWEEN PEDESTRIANS AND VEHICLES AND CREATE HIGH QUALITY STREETSCAPES			
		YES	NO	NOTES
Design Guidance	Car park access is integrated with the building’s overall facade, design solutions may include: - the materials and colour palette minimise visibility from the street - security doors or gates at entries that minimise voids in the facade - where doors are not provided, the visible interior reflects the facade design and the building services, pipes and ducts are concealed	✓		All car parking entries are incorporated into the building facade and materiality; continuing the masonry plinth expression across the development. Hit and miss brick and opening for ventilaiton into carparks has been incorporated.
	Car park entries are located behind the building line	✓		All car parking entries address this item

ADG COMPLIANCE TABLE

OBJECTIVE 3H-1		VEHICLE ACCESS POINTS ARE DESIGNED AND LOCATED TO ACHIEVE SAFETY, MINIMISE CONFLICTS BETWEEN PEDESTRIANS AND VEHICLES AND CREATE HIGH QUALITY STREETSCAPES		
		YES	NO	NOTES
Design Guidance	Vehicle entries are located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout	✓		Achieved where possible.
	Car park entry and access is located on secondary streets or lanes where available	✓		The social housing component of the proposal is a standalone building serviced from Pembroke Street and built as part of Stage 1 of the development. This minimises the displacement of existing infrastructure during construction. All servicing of the market housing development occurs from the new internal shared road reserve.
	Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided	✓		Achieved where possible. All vehicular entires occur from internal private shared zone where no setbacks are applicable.
	Access point locations avoid headlight glare to habitable rooms	✓		There are no access point locations subject to headlight glare
	Adequate separation distances are provided between vehicular entries and street intersections	✓		Addressed as part of the proposal. Minimised crossovers and separation of public entries from vehicular movement has been prioritised.
	The width and number of vehicle access points is limited to the minimum	✓		
	Visual impact of long driveways is minimised through changing alignments and screen planting			N/A
	The requirement for large vehicles to enter or turnaround within the site is avoided	✓		Achieved as part of the proposal.
	Garbage collection, loading and servicing areas are screened	✓		This item is addressed in the servicing and logistics sections of Section 5. Waste rooms are all wthin the building footprint. A collect and return strategy has been adopted into the OWMP.
	Clear sight lines should be provided at pedestrian and vehicle crossings	✓		Addressed as part of the submission. Refer to landscape architecture report provided by Turf
	Traffic calming devices such as changes in paving material or textures should be used where appropriate	✓		
	Pedestrian and vehicle access should be separated and distinguishable. Design solutions may include: • changes in surface materials • level changes • the use of landscaping for separation	✓		
3J BICYCLE AND CAR PARKING				
OBJECTIVE 3J-1		CAR PARKING IS PROVIDED BASED ON PROXIMITY TO PUBLIC TRANSPORT IN METROPOLITAN SYDNEY AND CENTRES IN REGIONAL AREAS		
		YES	NO	NOTES
Design Criteria	For development in the following locations: • on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or • on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less The car parking needs for a development must be provided off street	✓		Refer to traffic report by JMT Consulting. Parking is in accordance with the DCP.

ADG COMPLIANCE TABLE

OBJECTIVE 3J-1		CAR PARKING IS PROVIDED BASED ON PROXIMITY TO PUBLIC TRANSPORT IN METROPOLITAN SYDNEY AND CENTRES IN REGIONAL AREAS		
		YES	NO	NOTES
Design Guidance	Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site			N/A
	Where less car parking is provided in a development, council should not provide on street resident parking permits			N/A
OBJECTIVE 3J-2		PARKING AND FACILITIES ARE PROVIDED FOR OTHER MODES OF TRANSPORT		
Design Guidance	Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters	✓		Motorbike parking has been allowed for generally throughout the precinct. Oppor
	Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas	✓		Achieved as part of the proposal. Bike parking occurs at ground floor for all of the buidings in the development.
	Conveniently located charging stations are provided for electric vehicles, where desirable	✓		EV parking to be provided in line with Sutherland Council DCP.
OBJECTIVE 3J-3		CAR PARK DESIGN AND ACCESS IS SAFE AND SECURE		
Design Guidance	Supporting facilities within car parks, including garbage, plant and switch rooms, storage areas and car wash bays can be accessed without crossing car parking spaces	✓		Achieved as part of the proposal.
	Direct, clearly visible and well lit access should be provided into common circulation areas	✓		
	A clearly defined and visible lobby or waiting area should be provided to lifts and stairs	✓		
	For larger car parks, safe pedestrian access should be clearly defined and circulation areas have good lighting, colour, line marking and/or bollards	✓		To be considered in future design development.
OBJECTIVE 3J-4		VISUAL AND ENVIRONMENTAL IMPACTS OF UNDERGROUND CAR PARKING ARE MINIMISED		
Design Guidance	Excavation should be minimised through efficient car park layouts and ramp design	✓		Achieved as part of the proposal and in consideration of maximising existing trees as per SDRP advice.
	Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles	✓		Achieved as part of the proposal.
	Protrusion of car parks should not exceed 1m above ground level. Design solutions may include stepping car park levels or using split levels on sloping sites	✓		Ground floor levels were raised to meet flood requirements where required. Stepping car park levels treated with landscaped edges.
	Natural ventilation should be provided to basement and sub-basement car parking areas	✓		Where possible (ie single storey basement).
	Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design	✓		Achieved as part of the proposal and incorporated into facade and landscape strategies.

ADG COMPLIANCE TABLE

OBJECTIVE 3J-5	VISUAL AND ENVIRONMENTAL IMPACTS OF ON-GRADE CAR PARKING ARE MINIMISED			
Design Guidance	On-grade car parking should be avoided	✓		
	Where on-grade car parking is unavoidable, the following design solutions are used: • parking is located on the side or rear of the lot away from the primary street frontage • cars are screened from view of streets, buildings, communal and private open space areas • safe and direct access to building entry points is provided • parking is incorporated into the landscape design of the site, by extending planting and materials into the car park space • stormwater run-off is managed appropriately from car parking surfaces • bio-swales, rain gardens or on site detention tanks are provided, where appropriate • light coloured paving materials or permeable paving systems are used and shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures from large areas of paving			N/A - No on-grade car parking is proposed
OBJECTIVE 3J-6	VISUAL AND ENVIRONMENTAL IMPACTS OF ABOVE GROUND ENCLOSED CAR PARKING ARE MINIMISED			
Design Guidance	Exposed parking should not be located along primary street frontages			N/A - No above ground car parking is proposed
	Screening, landscaping and other design elements including public art should be used to integrate the above ground car parking with the facade. Design solutions may include: • car parking that is concealed behind the facade, with windows integrated into the overall facade design (approach should be limited to developments where a larger floor plate podium is suitable at lower levels) • car parking that is ‘wrapped’ with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage (see figure 3J.9)			N/A
	Positive street address and active frontages should be provided at ground level	✓		

ADG COMPLIANCE TABLE

4A SOLAR AND DAYLIGHT ACCESS																																																																																											
OBJECTIVE 4A-1	TO OPTIMISE THE NUMBER OF APARTMENTS RECEIVING SUNLIGHT TO HABITABLE ROOMS, PRIMARY WINDOWS AND PRIVATE OPEN SPACE																																																																																										
		YES	NO	NOTES																																																																																							
Design Criteria	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas		✓	Refer solar access diagrams for each building and development matrix drawing for overall compliance figures. All buildings achieve solar compliance, with the exception of the social building at 69% <table><tr><th colspan="3">SSDA, SOCIAL HOUSING SOLAR ACCESS</th></tr><tr><th>SOLAR ACCESS</th><th>Count</th><th>Percentage</th></tr><tr><td>NO SOLAR</td><td>17</td><td>11%</td></tr><tr><td>MORE THAN 2HRS</td><td>110</td><td>69%</td></tr><tr><td>LESS THAN 2HRS</td><td>32</td><td>20%</td></tr><tr><td colspan="3">Grand total: 159</td></tr></table><table><tr><th colspan="3">SOLAR ACCESS - MARKET BUILDING 1</th></tr><tr><th>SOLAR</th><th>Count</th><th>Percentage</th></tr><tr><td>NO SOLAR</td><td>9</td><td>5%</td></tr><tr><td>MORE THAN 2HR</td><td>130</td><td>77%</td></tr><tr><td>LESS THAN 2HR</td><td>29</td><td>17%</td></tr><tr><td colspan="3">Grand total: 168</td></tr></table><table><tr><th colspan="3">SOLAR ACCESS - MARKET BUILDING 2</th></tr><tr><th>SOLAR</th><th>Count</th><th>Percentage</th></tr><tr><td>NO SOLAR</td><td>7</td><td>13%</td></tr><tr><td>MORE THAN 2HR</td><td>39</td><td>75%</td></tr><tr><td>LESS THAN 2HR</td><td>6</td><td>12%</td></tr><tr><td colspan="3">Grand total: 52</td></tr></table><table><tr><th colspan="3">SOLAR ACCESS - MARKET BUILDING 3</th></tr><tr><th>SOLAR</th><th>Count</th><th>Percentage</th></tr><tr><td>MORE THAN 2HR</td><td>77</td><td>73%</td></tr><tr><td>LESS THAN 2HR</td><td>28</td><td>27%</td></tr><tr><td colspan="3">Grand total: 105</td></tr></table><table><tr><th colspan="3">SOLAR ACCESS - MARKET HOUSING TOTAL</th></tr><tr><th>SOLAR</th><th>Count</th><th>Percentage</th></tr><tr><td>NO SOLAR</td><td>16</td><td>5%</td></tr><tr><td>MORE THAN 2HR</td><td>246</td><td>76%</td></tr><tr><td>LESS THAN 2HR</td><td>63</td><td>19%</td></tr><tr><td colspan="3">Grand total: 325</td></tr></table>	SSDA, SOCIAL HOUSING SOLAR ACCESS			SOLAR ACCESS	Count	Percentage	NO SOLAR	17	11%	MORE THAN 2HRS	110	69%	LESS THAN 2HRS	32	20%	Grand total: 159			SOLAR ACCESS - MARKET BUILDING 1			SOLAR	Count	Percentage	NO SOLAR	9	5%	MORE THAN 2HR	130	77%	LESS THAN 2HR	29	17%	Grand total: 168			SOLAR ACCESS - MARKET BUILDING 2			SOLAR	Count	Percentage	NO SOLAR	7	13%	MORE THAN 2HR	39	75%	LESS THAN 2HR	6	12%	Grand total: 52			SOLAR ACCESS - MARKET BUILDING 3			SOLAR	Count	Percentage	MORE THAN 2HR	77	73%	LESS THAN 2HR	28	27%	Grand total: 105			SOLAR ACCESS - MARKET HOUSING TOTAL			SOLAR	Count	Percentage	NO SOLAR	16	5%	MORE THAN 2HR	246	76%	LESS THAN 2HR	63	19%	Grand total: 325		
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	In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter	✓		Addressed above																																																																																							
	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	✓		Addressed above																																																																																							
Design Guidance	The design maximises north aspect and the number of single aspect south facing apartments is minimised	✓		Addressed above																																																																																							
	Single aspect, single storey apartments should have a northerly or easterly aspect	✓		Achieved where possible in the design and arrangement of buildings on the site																																																																																							
	Living areas are best located to the north and service areas to the south and west of apartments	✓																																																																																									
	To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used: dual aspect apartments, shallow apartment layouts, two storey and mezzanine level apartments, bay windows	✓																																																																																									
	To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m2 of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	✓		Compliance is reflected in ADG compliance drawings provided as part of the Architectural drawing submission and supported by sun eye views.																																																																																							
	Achieving the design criteria may not be possible on some sites. This includes: where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source; on south facing sloping sites; where significant views are oriented away from the desired aspect for direct sunlight Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective			N/A																																																																																							
OBJECTIVE 4A-2	DAYLIGHT ACCESS IS MAXIMISED WHERE SUNLIGHT IS LIMITED																																																																																										
Design Guidance	Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms	✓		Clerestory windows are only utilised as secondary light or ventilaiton where required to meet compliance.																																																																																							

ADG COMPLIANCE TABLE

	Where courtyards are used : • use is restricted to kitchens, bathrooms and service areas • building services are concealed with appropriate detailing and materials to visible walls • courtyards are fully open to the sky • access is provided to the light well from a communal area for cleaning and maintenance • acoustic privacy, fire safety and minimum privacy separation distances (see section 3F Visual privacy) are achieved			N/A
OBJECTIVE 4A-2	DAYLIGHT ACCESS IS MAXIMISED WHERE SUNLIGHT IS LIMITED			
		YES	NO	NOTES
Design Guidance	Opportunities for reflected light into apartments are optimised through: • reflective exterior surfaces on buildings opposite south facing windows • positioning windows to face other buildings or surfaces (on neighbouring sites or within the site) that will reflect light • integrating light shelves into the design • light coloured internal finishes	✓		
OBJECTIVE 4A-3	DESIGN INCORPORATES SHADING AND GLARE CONTROL , PARTICULARLY FOR WARMER MONTHS			
Design Guidance	A number of the following design features are used: • balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas • shading devices such as eaves, awnings, balconies, pergolas, external louvres and planting • horizontal shading to north facing windows • vertical shading to east and particularly west facing windows • operable shading to allow adjustment and choice • high performance glass that minimises external glare off windows, with consideration given to reduced tint glass or glass with a reflectance level below 20% (reflective films are avoided)	✓		

4B NATURAL VENTILATION				
OBJECTIVE 4B-1	ALL HABITABLE ROOMS ARE NATURALLY VENTILATED			
		YES	NO	NOTES
Design Guidance	The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms	✓		
	Depths of habitable rooms support natural ventilation	✓		
	The area of unobstructed window openings should be equal to at least 5% of the floor area served	✓		
	Light wells are not the primary air source for habitable rooms	✓		
	Doors and openable windows maximise natural ventilation opportunities by using the following design solutions: • adjustable windows with large effective openable areas • a variety of window types that provide safety and flexibility such as awnings and louvres • windows which the occupants can reconfigure to funnel breezes into the apartment such as vertical louvres, casement windows and externally opening doors	✓		
OBJECTIVE 4B-2	THE LAYOUT AND DESIGN OF SINGLE ASPECT APARTMENTS MAXIMISES NATURAL VENTILATION			
Design Guidance	Apartment depths are limited to maximise ventilation and airflow (see also figure 4D.3)	✓		

ADG COMPLIANCE TABLE

	Natural ventilation to single aspect apartments is achieved with the following design solutions: • primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation) • stack effect ventilation / solar chimneys or similar to naturally ventilate internal building areas or rooms such as bathrooms and laundries • courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation and avoid trapped smells	✓																																																																													
OBJECTIVE 4B-3	THE NUMBER OF APARTMENTS WITH NATURAL CROSS VENTILATION IS MAXIMISED TO CREATE A COMFORTABLE INDOOR ENVIRONMENT FOR RESIDENTS																																																																														
		YES	NO	NOTES																																																																											
Design Criteria	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	✓		Refer cross ventilation diagrams for each building and development matrix drawing for overall compliance figures. The design fully complies with cross ventilation requirements. This has been achieved in some cases with through deep building slots and ventilated clerestory windows. <table><tr><th colspan="3">SSDA_SOCIAL HOUSING CROSS VENTILATION</th></tr><tr><th>CROSS VENTILATION</th><th>Count</th><th>Percentage</th></tr><tr><td>Yes</td><td>108</td><td>68%</td></tr><tr><td>No</td><td>51</td><td>32%</td></tr><tr><td colspan="3">Grand total: 159</td></tr></table><table><tr><th colspan="3">SSDA_CV - MARKET HOUSING 1</th></tr><tr><th>CROSS VENTILATION</th><th>Count</th><th>Percentage</th></tr><tr><td>Yes</td><td>100</td><td>60%</td></tr><tr><td>No</td><td>68</td><td>40%</td></tr><tr><td colspan="3">Grand total: 168</td></tr></table><table><tr><th colspan="3">SSDA_CV - MARKET HOUSING 3</th></tr><tr><th>CROSS VENTILATION</th><th>Count</th><th>Percentage</th></tr><tr><td>Yes</td><td>71</td><td>68%</td></tr><tr><td>No</td><td>34</td><td>32%</td></tr><tr><td colspan="3">Grand total: 105</td></tr></table><table><tr><th colspan="3">SSDA_CV - MARKET HOUSING 2</th></tr><tr><th>CROSS VENTILATION</th><th>Count</th><th>Percentage</th></tr><tr><td>Yes</td><td>44</td><td>85%</td></tr><tr><td>No</td><td>8</td><td>15%</td></tr><tr><td colspan="3">Grand total: 52</td></tr></table><table><tr><th colspan="3">SSDA_CV - MARKET HOUSING TOTAL</th></tr><tr><th>CROSS VENTILATION</th><th>Count</th><th>Percentage</th></tr><tr><td>Yes</td><td>215</td><td>66%</td></tr><tr><td>No</td><td>110</td><td>34%</td></tr><tr><td colspan="3">Grand total: 325</td></tr></table>	SSDA_SOCIAL HOUSING CROSS VENTILATION			CROSS VENTILATION	Count	Percentage	Yes	108	68%	No	51	32%	Grand total: 159			SSDA_CV - MARKET HOUSING 1			CROSS VENTILATION	Count	Percentage	Yes	100	60%	No	68	40%	Grand total: 168			SSDA_CV - MARKET HOUSING 3			CROSS VENTILATION	Count	Percentage	Yes	71	68%	No	34	32%	Grand total: 105			SSDA_CV - MARKET HOUSING 2			CROSS VENTILATION	Count	Percentage	Yes	44	85%	No	8	15%	Grand total: 52			SSDA_CV - MARKET HOUSING TOTAL			CROSS VENTILATION	Count	Percentage	Yes	215	66%	No	110	34%	Grand total: 325		
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	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line			N/A - no cross-through apartments proposed.																																																																											
Design Guidance	The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths	✓		No cross through apartments have been proposed. The planning of residential apartments maximises dual aspect units.																																																																											
	In cross-through apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side) (see figure 4B.4)			N/A - no cross-through apartments proposed.																																																																											
	Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow	✓		Considered as part of the internal planning of the residential apartments.																																																																											
	Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow	✓		This has been achieved through the internal planning and building massing. Slots through the building are aso utilised for cross ventilation																																																																											

ADG COMPLIANCE TABLE

4C CEILING HEIGHTS				
OBJECTIVE 4C-1		CEILING HEIGHT ACHIEVES SUFFICIENT NATURAL VENTILATION AND DAYLIGHT ACCESS		
		YES	NO	NOTES
Design Criteria	Measured from finished floor level to finished ceiling level, minimum ceiling heights are:		✓	Typical level floor to floor heights are 3200mm. At the top residential level of each building, or where terraces are above habitable spaces, a 3350mm floor to floor has been adopted.
	Habitable rooms	2.7m		
	Non-habitable	2.4m		
	For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area		
	Attic spaces	1.8m at edge of room with a 30 degree minimum ceiling slope		
	If located in mixed used areas	3.3m for ground and first floor to promote future flexibility of use		
Design Guidance	Ceiling height can accommodate use of ceiling fans for cooling and heat distribution		✓	
OBJECTIVE 4C-2		CEILING HEIGHT INCREASES THE SENSE OF SPACE IN APARTMENTS AND PROVIDES FOR WELL PROPORTIONED ROOMS		
		YES	NO	NOTES
Design Guidance	A number of the following design solutions can be used: - the hierarchy of rooms in an apartment is defined using changes in ceiling heights and alternatives such as raked or curved ceilings, or double height spaces - well proportioned rooms are provided, for example, smaller rooms feel larger and more spacious with higher ceilings - ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor and coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist		✓	These items will be considered in future stages of design development.
OBJECTIVE 4C-3		CEILING HEIGHTS CONTRIBUTE TO THE FLEXIBILITY OF BUILDING USE OVER THE LIFE OF THE BUILDING		
Design Guidance	Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses (see figure 4C.1)		✓	Not considered as part of this development. All functions are residential

ADG COMPLIANCE TABLE

4D APARTMENT SIZE AND LAYOUT					
OBJECTIVE 4D-1	CEILING HEIGHT ACHIEVES SUFFICIENT NATURAL VENTILATION AND DAYLIGHT ACCESS				
		YES	NO	NOTES	
Design Criteria	Apartments are required to have the following minimum internal areas:		✓		All units comply with minimum required apartment area. Refer architectural plans for detailed apartment layouts.
	Studio	35m2			
	1 bedroom	50m2			
	2 bedroom	70m2			
	3 bedroom	90m2			
	The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m2 each				
	A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m2 each				
	Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms	✓		Windows in external walls have been sized to achieve this target. The majority of apartments will exceed this target when external windows are combined with openings into adjacent balconies.	
Design Guidance	Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)		✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.
	A window should be visible from any point in a habitable room		✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.

OBJECTIVE 4D-2	ENVIRONMENTAL PERFORMANCE OF THE APARTMENT IS MAXIMISED			
		YES	NO	NOTES
Design Criteria	Habitable room depths are limited to a maximum of 2.5 x the ceiling height	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.
	In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	✓		
Design Guidance	Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths			N/A No apartmnts have greater than maximum room depths. All ceilings in habitable spaces to be 2.7m
	All living areas and bedrooms should be located on the external face of the building	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.

ADG COMPLIANCE TABLE

OBJECTIVE 4D-3	APARTMENT LAYOUTS ARE DESIGNED TO ACCOMMODATE A VARIETY OF HOUSEHOLD ACTIVITIES AND NEEDS			
Design Criteria	Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.
	Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.
	Living rooms or combined living/dining rooms have a minimum width of: • 3.6m for studio and 1 bedroom apartments • 4m for 2 and 3 bedroom apartments	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.
	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts			N/A - no cross-through apartments proposed.
Design Guidance	Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.
	All bedrooms allow a minimum length of 1.5m for robes	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans. Main bedrooms have a minimum of 1.8m

4E PRIVATE OPEN SPACE AND BALCONIES				
OBJECTIVE 4E-1	APARTMENTS PROVIDE APPROPRIATELY SIZED PRIVATE OPEN SPACE AND BALCONIES TO ENHANCE RESIDENTIAL AMENITY			
		YES	NO	NOTES
Design Criteria	All apartments are required to have primary balconies as follows:		✓	Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans. All balconies achieve the minimum habitable areas, and allow for additional area to provide for AC condensors as briefed by HNSW.
	Dwelling Type	Minimum Area		
	Studio apartments	4m2		
	1 bedroom apartments	8m2		
	2 bedroom apartments	10m2		
	3+ bedroom apartments	12m2		
	The minimum balcony depth to be counted as contributing to the balcony area is 1m			
	For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m2 and a minimum depth of 3m			✓ Due to setback zones / landscaping to mitigate raised Ground Floor for flood planning, 7x Ground Floor units across the development comply to the minimum area for dwelling type, however do not achieve minimum area of 15m2 and a minimum depth of 3m. These units are adjacent communal open space and Jellicoe Park.
Design Guidance	Increased communal open space should be provided where the number or size of balconies are reduced			N/A - No balcony areas are reduced.
	Storage areas on balconies is additional to the minimum balcony size			N/A - All storage is located within apartments or in the basement

ADG COMPLIANCE TABLE

	Balcony use may be limited in some proposals by: - consistently high wind speeds at 10 storeys and above - close proximity to road, rail or other noise sources - exposure to significant levels of aircraft noise - heritage and adaptive reuse of existing buildings - In these situations, Juliet balconies, operable walls, enclosed wintergardens or bay windows may be appropriate, and other amenity benefits for occupants should also be provided in the apartments or in the development or both. Natural ventilation also needs to be demonstrated			N/A There are no limitations on balcony uses and Juliet balconies have not been proposed. Acoustic information provided by E-Lab does not require any acoustic attenuation to balconies or habitable spaces.
OBJECTIVE 4E-2	PRIMARY PRIVATE OPEN SPACE AND BALCONIES ARE APPROPRIATELY LOCATED TO ENHANCE LIVEABILITY FOR RESIDENTS			
Design Guidance	Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.
	Private open spaces and balconies predominantly face north, east or west	✓		
	Primary open space and balconies should be orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms	✓		

OBJECTIVE 4E-3	PRIVATE OPEN SPACE AND BALCONY DESIGN IS INTEGRATED INTO AND CONTRIBUTES TO THE OVERALL ARCHITECTURAL FORM AND DETAIL OF THE BUILDING			
		YES	NO	NOTES
Design Guidance	Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are designed to allow views and passive surveillance of the street while maintaining visual privacy and allowing for a range of uses on the balcony. Solid and partially solid balustrades are preferred	✓		Achieved as part of the proposal and reflected in architectural drawings and typical apartment plans.
	Full width full height glass balustrades alone are generally not desirable			N/A
	Operable screens, shutters, hoods and pergolas are used to control sunlight and wind			N/A No operable screening are proposed
	Balustrades are set back from the building or balcony edge where overlooking or safety is an issue			N/A There are no overlooking or safety issues requiring setbacks.
	Downpipes and balcony drainage are integrated with the overall facade and building design	✓		N/A
	Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design	✓		Air-conditioning units located on balconies are considered to be set back from balustrade / facade edges.
	Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and integrated in the building design	✓		
	Ceilings of apartments below terraces should be insulated to avoid heat loss	✓		Additional floor to floor heights of 3350mm has been provided to manage these instances.
	Water and gas outlets should be provided for primary balconies and private open space	✓		To be considered in future design development.
OBJECTIVE 4E-4	PRIVATE OPEN SPACE AND BALCONY DESIGN MAXIMISES SAFETY			
Design Guidance	Changes in ground levels or landscaping are minimised	✓		Ground floor levels were raised to meet flood requirements where required. Changes in these levels are mitigated by landscape treatment. All ground levels are DDA compliant.
	Design and detailing of balconies avoids opportunities for climbing and falls	✓		There are no areas where a foothold is possible below 780mm.

ADG COMPLIANCE TABLE

4F COMMON CIRCULATION AND SPACES				
OBJECTIVE 4F-1	COMMON CIRCULATION SPACES ACHIEVE GOOD AMENITY AND PROPERLY SERVICE THE NUMBER OF APARTMENTS			
		YES	NO	NOTES
Design Criteria	The maximum number of apartments off a circulation core on a single level is eight		✓	The maximum number of apartments off a central core in the social housing development (Social Housing building 1) is 11 units. 2 lifts are provided in this building core. Lifts open into a generous lift lobby, with access to natural light. Light is provided at the end of all corridors within this building.
	For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	✓		Achieved as part of the proposal
Design Guidance	Greater than minimum requirements for corridor widths and/ or ceiling heights allow comfortable movement and access particularly in entry lobbies, outside lifts and at apartment entry doors	✓		Minimum 2m lobbies at residential lifts and 1600mm typically for residential corridors has been provided.
	Daylight and natural ventilation should be provided to all common circulation spaces that are above ground	✓		All common circulation spaces have multiple points access to daylight.
	Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors	✓		
	Longer corridors greater than 12m in length from the lift core should be articulated. Design solutions may include: • a series of foyer areas with windows and spaces for seating • wider areas at apartment entry doors and varied ceiling heights	✓		
	Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments	✓		
Design Guidance	Direct and legible access should be provided between vertical circulation points and apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines	✓		Lengths of corridor are broken by external corridors that provide relief and natural light.
	Tight corners and spaces are avoided	✓		
	Circulation spaces should be well lit at night	✓		As required, subject to further design development.
	Legible signage should be provided for apartment numbers, common areas and general wayfinding	✓		As required, subject to further design development.
	Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided	✓		As required, subject to further design development.
	In larger developments, community rooms for activities such as owners corporation meetings or resident use should be provided and are ideally co-located with communal open space		✓	Not requested by design brief for the market housing component of this development. The social housing component has a 75m2 communal room, with access to private outdoor space and terrace. A meeting room and DDA bathroom has been provided.
	Where external galleries are provided, they are more open than closed above the balustrade along their length	✓		

ADG COMPLIANCE TABLE

4G STORAGE				
OBJECTIVE 4G-1	ADEQUATE, WELL DESIGNED STORAGE IS PROVIDED IN EACH APARTMENT			
		YES	NO	NOTES
Design Criteria	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:		✓	To reduce pressure on basement extents, and limit required excavation, the majority of storage for all apartments has been located within the units. Where required, some basement storage has been provided to supplement this storage where the full amount has not been accommodated within the unit. These are located in easily identifiable, consolidated areas within basement areas.
	Dwelling Type	Storage size		
	Studio apartments	4m3		
	1 bedroom apartments	6m3		
	2 bedroom apartments	8m3		
	3 bedroom apartments	10m3		
At least 50% of the required storage is to be located within the apartment				
Design Guidance	Storage is accessible from either circulation or living areas		✓	
	Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proof and screened from view from the street			N/A No storage is being proposed on balconies.
	Left over space such as under stairs is used for storage			N/A
OBJECTIVE 4G-2	ADDITIONAL STORAGE IS CONVENIENTLY LOCATED, ACCESSIBLE AND NOMINATED FOR INDIVIDUAL APARTMENTS			
		YES	NO	NOTES
Design Guidance	Storage not located in apartments is secure and clearly allocated		✓	Dedicated, lockable storage is provided in basement areas where apartments do not meet 100% storage requirement.
	Storage is provided for larger and less frequently accessed items, where practical			Not proposed as part of the development; subject to future design development if required
	Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages so that allocated car parking remains accessible		✓	Achieved as part of the proposal and reflected in architectural drawings
	If communal storage rooms are provided they should be accessible from common circulation areas of the building			N/A No communal storage rooms have been proposed

ADG COMPLIANCE TABLE

4H ACOUSTIC PRIVACY				
OBJECTIVE 4H-1	NOISE TRANSFER IS MINIMISED THROUGH THE SITING OF BUILDINGS AND BUILDING LAYOUT			
		YES	NO	NOTES
Design Guidance	Adequate building separation is provided within the development and from neighbouring buildings/adjacent uses (see also section 2F Building separation and section 3F Visual privacy)	✓		Refer Environemntal impact statement
	Window and door openings are generally orientated away from noise sources	✓		No apartment entries open onto communal areas or directly into lobbies.
	Noisy areas within buildings including building entries and corridors should be located next to or above each other and quieter areas next to or above quieter areas	✓		
	Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources	✓		Achieved as part of the proposal and reflected in architectural drawings
	The number of party walls (walls shared with other apartments) are limited and are appropriately insulated	✓		As required, subject to further design development.
	Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces and circulation areas should be located at least 3m away from bedrooms	✓		Achieved as part of the proposal and reflected in architectural drawings
OBJECTIVE 4H-2	NOISE IMPACTS ARE MITIGATED WITHIN APARTMENTS THROUGH LAYOUT AND ACOUSTIC TREATMENTS			
Design Guidance	Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions: - rooms with similar noise requirements are grouped together - doors separate different use zones - wardrobes in bedrooms are co-located to act as sound buffers	✓		As required, subject to further design development.
	Where physical separation cannot be achieved noise conflicts are resolved using the following design solutions: - double or acoustic glazing - acoustic seals - use of materials with low noise penetration properties - continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements	✓		As required, subject to further design development.

ADG COMPLIANCE TABLE

4J NOISE AND POLLUTION				
OBJECTIVE 4J-1	IN NOISY OR HOSTILE ENVIRONMENTS THE IMPACTS OF EXTERNAL NOISE AND POLLUTION ARE MINIMISED THROUGH THE CAREFUL SITING AND LAYOUT OF BUILDINGS			
		YES	NO	NOTES
Design Guidance	To minimise impacts the following design solutions may be used: • physical separation between buildings and the noise or pollution source • residential uses are located perpendicular to the noise source and where possible buffered by other uses • non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses and communal open spaces • non-residential uses are located at lower levels vertically separating the residential component from the noise or pollution source. Setbacks to the underside of residential floor levels should increase relative to traffic volumes and other noise sources • buildings should respond to both solar access and noise. Where solar access is away from the noise source, nonhabitable rooms can provide a buffer • where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferable (see figure 4J.4) • landscape design reduces the perception of noise and acts as a filter for air pollution generated by traffic and industry	✓		Achieved as part of the proposal and reflected in architectural drawings. Increased building setbacks and landscape buffers have been proposed particularly along Port Hacking Road. Acoustic impacts have been assessed by E-Lab and no additional noise attenuation has been deemed necessary to meet compliance for residential units.
	Achieving the design criteria in this Apartment Design Guide may not be possible in some situations due to noise and pollution. Where developments are unable to achieve the design criteria, alternatives may be considered in the following areas: • solar and daylight access • private open space and balconies • natural cross ventilation			N/A
OBJECTIVE 4J-2	APPROPRIATE NOISE SHIELDING OR ATTENUATION TECHNIQUES FOR THE BUILDING DESIGN, CONSTRUCTION AND CHOICE OF MATERIALS ARE USED TO MITIGATE NOISE TRANSMISSION			
Design Guidance	Design solutions to mitigate noise include: • limiting the number and size of openings facing noise sources • providing seals to prevent noise transfer through gaps • using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens) • using materials with mass and/or sound insulation or absorption properties e.g. solid balcony balustrades, external screens and soffits	✓		Acoustic impacts have been assessed by E-Lab and no additional noise attenuation has been deemed necessary to meet compliance for residential units.

ADG COMPLIANCE TABLE

4K APARTMENT MIX				
OBJECTIVE 4K-1	A RANGE OF APARTMENT TYPES AND SIZES IS PROVIDED TO CATER FOR DIFFERENT HOUSEHOLD TYPES NOW AND INTO THE FUTURE			
		YES	NO	NOTES
Design Guidance	A variety of apartment types is provided	✓		The project brief for mix has been provided by HNSW. Refer to unit mix drawings for each building and development matrix for total development yield.
	The apartment mix is appropriate, taking into consideration: - the distance to public transport, employment and education centres - the current market demands and projected future demographic trends - the demand for social and affordable housing - different cultural and socioeconomic groups	✓		The project brief for mix has been provided by HNSW.
	Flexible apartment configurations are provided to support diverse household types and stages of life including single person households, families, multi-generational families and group households	✓		The project brief for mix has been provided by HNSW. A diverse range of apartment types has been allowed for.
OBJECTIVE 4K-2	THE APARTMENT MIX IS DISTRIBUTED TO SUITABLE LOCATIONS WITHIN THE BUILDING			
Design Guidance	Different apartment types are located to achieve successful facade composition and to optimise solar access (see figure 4K.3)	✓		Achieved has part of the proposal.
	Larger apartment types are located on the ground or roof level where there is potential for more open space and on corners where more building frontage is available	✓		Generally considered as part of the proposal. This has also taken into consideration consistency of building stack to minimise construction complexity. Generally, all apartments stack directly.
4L GROUND FLOOR APARTMENTS				
OBJECTIVE 4L-1	STREET FRONTAGE ACTIVITY IS MAXIMISED WHERE GROUND FLOOR APARTMENTS ARE LOCATED			
		YES	NO	NOTES
Design Guidance	Direct street access should be provided to ground floor apartments	✓		Ground floor apartments have direct street access where possible.
	Activity is achieved through front gardens, terraces and the facade of the building. Design solutions may include: - both street, foyer and other common internal circulation entrances to ground floor apartments - private open space is next to the street - doors and windows face the street	✓		Achieved as part of the proposal through entry and foyers at street level with awnings and adjacent landscape. Private open spaces extending to street edges on both sides of the buildings where possible.
	Retail or home office spaces should be located along street frontages			N/A
	Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for conversion into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor amenities for easy conversion		✓	Not considered as part of this proposal. The development is entirely residential.

ADG COMPLIANCE TABLE

OBJECTIVE 4L-2	DESIGN OF GROUND FLOOR APARTMENTS DELIVERS AMENITY AND SAFETY FOR RESIDENTS			
		YES	NO	NOTES
Design Guidance	Privacy and safety should be provided without obstructing casual surveillance. Design solutions may include: • elevation of private gardens and terraces above the street level by 1-1.5m (see figure 4L.4) • landscaping and private courtyards • window sill heights that minimise sight lines into apartments • integrating balustrades, safety bars or screens with the exterior design	✓		
	Solar access should be maximised through: • high ceilings and tall windows • trees and shrubs that allow solar access in winter and shade in summer	✓		Solar access has been maximised. 2.7m high ceilings in habitable spaces and windows to ceiling height have been proposed throughout the precinct. Deciduous trees are proposed; refer to landscape architecture report provided by Tuf.
4M FACADES				
OBJECTIVE 4M-1	BUILDING FACADES PROVIDE VISUAL INTEREST ALONG THE STREET WHILE RESPECTING THE CHARACTER OF THE LOCAL AREA			
		YES	NO	NOTES
Design Guidance	Design solutions for front building facades may include: • a composition of varied building elements • a defined base, middle and top of buildings • revealing and concealing certain elements • changes in texture, material, detail and colour to modify the prominence of elements	✓		Refer to Section 4 of the Architectural Design Report and Design Verification Statement. The precinct has been designed as clusters, each responding the its unique setting while at the same time adopting complementary material palettes.
	Building services should be integrated within the overall facade	✓		Rooftop services are screened and setback from the facade edge. Services (eg carpark supply areas, and ventilation to basement stair pressurisation) have been incorporated into masonry elements in the building podiums.
	Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. Design solutions may include: • well composed horizontal and vertical elements • variation in floor heights to enhance the human scale • elements that are proportional and arranged in patterns • public artwork or treatments to exterior blank walls • grouping of floors or elements such as balconies and windows on taller buildings	✓		Refer to Section 4 of the Architectural Design Report and Design Verification Statement.
	Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights	✓		Refer to Section 4 of the Architectural Design Report and Design Verification Statement. Masonry elements tie the development into the adjacent precinct.
	Shadow is created on the facade throughout the day with building articulation, balconies and deeper window reveals	✓		This has been incorporated where possible and appropraite to maintain solar access into residential units.
OBJECTIVE 4M-2	BUILDING FUNCTIONS ARE EXPRESSED BY THE FACADE			
Design Guidance	Building entries should be clearly defined	✓		Building entieres are marked be awnings and landscape treatment
	Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height	✓		All buildings have been designed in the round and respond appropriately.

ADG COMPLIANCE TABLE

4N ROOF DESIGN				
OBJECTIVE 4N-1	ROOF TREATMENTS ARE INTEGRATED INTO THE BUILDING DESIGN AND POSITIVELY RESPOND TO THE STREET			
		YES	NO	NOTES
Design Guidance	Roof design relates to the street. Design solutions may include: • special roof features and strong corners • use of skillion or very low pitch hipped roofs • breaking down the massing of the roof by using smaller elements to avoid bulk • using materials or a pitched form complementary to adjacent buildings	✓		A flat roof is proposed that articulation the strong composition of the blocks.
	Roof treatments should be integrated with the building design. Design solutions may include: • roof design proportionate to the overall building size, scale and form • roof materials compliment the building • service elements are integrated	✓		
OBJECTIVE 4N-2	OPPORTUNITIES TO USE ROOF SPACE FOR RESIDENTIAL ACCOMMODATION AND OPEN SPACE ARE MAXIMISED			
Design Guidance	Habitable roof space should be provided with good levels of amenity. Design solutions may include: • penthouse apartments • dormer or clerestory windows • openable skylights			N/A No habitable roof spaces are proposed.
	Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations			No open space provided on roof tops.
OBJECTIVE 4N-3	ROOF DESIGN INCORPORATES SUSTAINABILITY FEATURES			
Design Guidance	Roof design maximises solar access to apartments during winter and provides shade during summer. Design solutions may include: • the roof lifts to the north • eaves and overhangs shade walls and windows from summer sun	✓		
	Skylights and ventilation systems should be integrated into the roof design	✓		Clerestory windows where required for solar or ventilation compliance are discrete and set back from building edges.
4O LANDSCAPE DESIGN				
OBJECTIVE 4O-1	LANDSCAPE DESIGN IS VIABLE AND SUSTAINABLE			
		YES	NO	NOTES
Design Guidance	Landscape design should be environmentally sustainable and can enhance environmental performance by incorporating: • diverse and appropriate planting • bio-filtration gardens • appropriately planted shading trees • areas for residents to plant vegetables and herbs • composting • green roofs or walls	✓		RRefer Landscape plans and report prepared by Turf
	Ongoing maintenance plans should be prepared	✓		As required, subject to future development.

ADG COMPLIANCE TABLE

OBJECTIVE 40-1	LANDSCAPE DESIGN IS VIABLE AND SUSTAINABLE			
		YES	NO	NOTES
Design Guidance	Microclimate is enhanced by: • appropriately scaled trees near the eastern and western elevations for shade • a balance of evergreen and deciduous trees to provide shading in summer and sunlight access in winter • shade structures such as pergolas for balconies and courtyards	✓		Refer Landscape plans and report prepared by Turf
	Tree and shrub selection considers size at maturity and the potential for roots to compete (see Table 4)	✓		Refer Landscape plans and report prepared by Turf
OBJECTIVE 40-2	LANDSCAPE DESIGN CONTRIBUTES TO THE STREETScape AND AMENITY			
Design Guidance	Landscape design responds to the existing site conditions including: • changes of levels • views • significant landscape features including trees and rock outcrops	✓		Refer Landscape plans and report prepared by Turf
	Significant landscape features should be protected by: • tree protection zones (see figure 4O.5) • appropriate signage and fencing during construction	✓		
	Plants selected should be endemic to the region and reflect the local ecology	✓		
4P PLANTING ON STRUCTURES				
OBJECTIVE 4P-1	APPROPRIATE SOIL PROFILES ARE PROVIDED			
		YES	NO	NOTES
Design Guidance	Structures are reinforced for additional saturated soil weight	✓		Refer Landscape plans prepared by Turf Subject to further design development.
	Soil volume is appropriate for plant growth, considerations include: • modifying depths and widths according to the planting mix and irrigation frequency • free draining and long soil life span • tree anchorage	✓		
	Minimum soil standards for plant sizes should be provided in accordance with Table 5	✓		
OBJECTIVE 4P-2	PLANT GROWTH IS OPTIMISED WITH APPROPRIATE SELECTION AND MAINTENANCE			
Design Guidance	Plants are suited to site conditions, considerations include: • drought and wind tolerance • seasonal changes in solar access • modified substrate depths for a diverse range of plants • plant longevity	✓		Refer Landscape specification prepared by Turf. Subject to further design development.
	A landscape maintenance plan is prepared	✓		
		Irrigation and drainage systems respond to: • changing site conditions • soil profile and the planting regime • whether rainwater, stormwater or recycled grey water is used	✓	

ADG COMPLIANCE TABLE

OBJECTIVE 4P-3	PLANTING ON STRUCTURES CONTRIBUTES TO THE QUALITY AND AMENITY OF COMMUNAL AND PUBLIC OPEN SPACES			
		YES	NO	NOTES
Design Guidance	Building design incorporates opportunities for planting on structures. Design solutions may include: • green walls with specialised lighting for indoor green walls • wall design that incorporates planting • green roofs, particularly where roofs are visible from the public domain • planter boxes Note: structures designed to accommodate green walls should be integrated into the building facade and consider the ability of the facade to change over time	✓		Green walls or roofs items have not been proposed as part of the proposal. Planters have been incorporated into the development adjacent to external bridges and on top of awnings.
4Q UNIVERSAL DESIGN				
OBJECTIVE 4Q-1	UNIVERSAL DESIGN FEATURES ARE INCLUDED IN APARTMENT DESIGN TO PROMOTE FLEXIBLE HOUSING FOR ALL COMMUNITY MEMBERS			
		YES	NO	NOTES
Design Guidance	Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features	✓		Achieved as part of the proposal. Refer to unit mix drawings for each building provided as part Architectural Drawings.
OBJECTIVE 4Q-2	A VARIETY OF APARTMENTS WITH ADAPTABLE DESIGNS ARE PROVIDED			
Design Guidance	Adaptable housing should be provided in accordance with the relevant council policy	✓		Achieved as part of the proposal. Refer to unit mix drawings for each building provided as part Architectural Drawings. `
	Design solutions for adaptable apartments include: • convenient access to communal and public areas • high level of solar access • minimal structural change and residential amenity loss when adapted • larger car parking spaces for accessibility • parking titled separately from apartments or shared car parking arrangements	✓		
OBJECTIVE 4Q-3	APARTMENT LAYOUTS ARE FLEXIBLE AND ACCOMMODATE A RANGE OF LIFESTYLE NEEDS			
Design Guidance	Apartment design incorporates flexible design solutions which may include: • rooms with multiple functions • dual master bedroom apartments with separate bathrooms • larger apartments with various living space options • open plan ‘loft’ style apartments with only a fixed kitchen, laundry and bathroom	✓		Achieved as part of the proposal. Refer to unit mix drawings for each building provided as part Architectural Drawings. Apartments in market housing component are all significantly oversized from ADG minimums.
4Q ADAPTIVE REUSE				
OBJECTIVE 4R-1	NEW ADDITIONS TO EXISTING BUILDINGS ARE CONTEMPORARY AND COMPLEMENTARY AND ENHANCE AN AREA'S IDENTITY AND SENSE OF PLACE			
		YES	NO	NOTES
Design Guidance	Design solutions may include: • new elements to align with the existing building • additions that complement the existing character, siting, scale, proportion, pattern, form and detailing • use of contemporary and complementary materials, finishes, textures and colours			N/A

ADG COMPLIANCE TABLE

OBJECTIVE 4R-1	NEW ADDITIONS TO EXISTING BUILDINGS ARE CONTEMPORARY AND COMPLEMENTARY AND ENHANCE AN AREA'S IDENTITY AND SENSE OF PLACE			
		YES	NO	NOTES
Design Guidance	Additions to heritage items should be clearly identifiable from the original building			N/A
	New additions allow for the interpretation and future evolution of the building			N/A
OBJECTIVE 4R-2	ADAPTED BUILDINGS PROVIDE RESIDENTIAL AMENITY WHILE NOT PRECLUDING FUTURE ADAPTIVE REUSE			
Design Guidance	Design features should be incorporated sensitively into adapted buildings to make up for any physical limitations, to ensure residential amenity is achieved. Design solutions may include: • generously sized voids in deeper buildings • alternative apartment types when orientation is poor • using additions to expand the existing building envelope			N/A
	Some proposals that adapt existing buildings may not be able to achieve all of the design criteria in this Apartment Design Guide. Where developments are unable to achieve the design criteria, alternatives could be considered in the following areas: • where there are existing higher ceilings, depths of habitable rooms could increase subject to demonstrating access to natural ventilation, cross ventilation (when applicable) and solar and daylight access (see also sections 4A Solar and daylight access and 4B Natural ventilation) • alternatives to providing deep soil where less than the minimum requirement is currently available on the site • building and visual separation – subject to demonstrating alternative design approaches to achieving privacy • common circulation • car parking • alternative approaches to private open space and balconies			N/A

4S MIXED USE				
OBJECTIVE 4S-1	MIXED USE DEVELOPMENTS ARE PROVIDED IN APPROPRIATE LOCATIONS AND PROVIDE ACTIVE STREET FRONTAGES THAT ENCOURAGE PEDESTRIAN MOVEMENT			
		YES	NO	NOTES
Design Guidance	Mixed use development should be concentrated around public transport and centres			N/A
	Mixed use developments positively contribute to the public domain. Design solutions may include: • development addresses the street • active frontages are provided • diverse activities and uses • avoiding blank walls at the ground level • live/work apartments on the ground floor level, rather than commercial			N/A
OBJECTIVE 4S-2	RESIDENTIAL LEVELS OF THE BUILDING ARE INTEGRATED WITHIN THE DEVELOPMENT, AND SAFETY AND AMENITY IS MAXIMISED FOR RESIDENTS			
Design Guidance	Residential circulation areas should be clearly defined. Design solutions may include: • residential entries are separated from commercial entries and directly accessible from the street • commercial service areas are separated from residential components • residential car parking and communal facilities are separated or secured • security at entries and safe pedestrian routes are provided • concealment opportunities are avoided	✓		
	Landscaped communal open space should be provided at podium or roof levels	✓		Communal open space provided at ground

ADG COMPLIANCE TABLE

4T AWNINGS AND SIGNAGE				
OBJECTIVE 4T-1	AWNINGS ARE WELL LOCATED AND COMPLEMENT AND INTEGRATE WITH THE BUILDING DESIGN			
		YES	NO	NOTES
Design Guidance	Awnings should be located along streets with high pedestrian activity and active frontages	✓		Awnings are provided at all residential lobbies
	A number of the following design solutions are used: • continuous awnings are maintained and provided in areas with an existing pattern • height, depth, material and form complements the existing street character • protection from the sun and rain is provided • awnings are wrapped around the secondary frontages of corner sites • awnings are retractable in areas without an established pattern	✓		
	Awnings should be located over building entries for building address and public domain amenity	✓		
	Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure	✓		
	Gutters and down pipes should be integrated and concealed	✓		Subject to further design development.
	Lighting under awnings should be provided for pedestrian safety	✓		Subject to further design development.
OBJECTIVE 4T-2	SIGNAGE RESPONDS TO THE CONTEXT AND DESIRED STREETScape CHARACTER			
Design Guidance	Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development	✓		Subject to further design development.
	Legible and discrete way finding should be provided for larger developments	✓		Subject to further design development.
	Signage is limited to being on and below awnings and a single facade sign on the primary street frontage	✓		Subject to further design development.
4U ENERGY EFFICIENCY				
OBJECTIVE 4U-1	DEVELOPMENT INCORPORATES PASSIVE ENVIRONMENTAL DESIGN			
		YES	NO	NOTES
Design Guidance	Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access)	✓		Generally achieved across the development. Refer Solar Access diagrams and Development Matrix for compliance summary.
	Well located, screened outdoor areas should be provided for clothes drying	✓		
OBJECTIVE 4U-2	DEVELOPMENT INCORPORATES PASSIVE SOLAR DESIGN TO OPTIMISE HEAT STORAGE IN WINTER AND REDUCE HEAT TRANSFER IN SUMMER			
Design Guidance	A number of the following design solutions are used: • the use of smart glass or other technologies on north and west elevations • thermal mass in the floors and walls of north facing rooms is maximised • polished concrete floors, tiles or timber rather than carpet • insulated roofs, walls and floors and seals on window and door openings • overhangs and shading devices such as awnings, blinds and screens	✓		Subject to further design development.

ADG COMPLIANCE TABLE

OBJECTIVE 4U-2	DEVELOPMENT INCORPORATES PASSIVE SOLAR DESIGN TO OPTIMISE HEAT STORAGE IN WINTER AND REDUCE HEAT TRANSFER IN SUMMER			
		YES	NO	NOTES
Design Guidance	Provision of consolidated heating and cooling infrastructure should be located in a centralised location (e.g. the basement)			N/A Not briefed as part of the development
OBJECTIVE 4U-3	ADEQUATE NATURAL VENTILATION MINIMISES THE NEED FOR MECHANICAL VENTILATION			
Design Guidance	A number of the following design solutions are used: • rooms with similar usage are grouped together • natural cross ventilation for apartments is optimised • natural ventilation is provided to all habitable rooms and as many non-habitable rooms, common areas and circulation spaces as possible	✓		

4V WATER MANAGEMENT AND CONSERVATION				
OBJECTIVE 4V-1	POTABLE WATER USE IS MINIMISED			
		YES	NO	NOTES
Design Guidance	Water efficient fittings, appliances and wastewater reuse should be incorporated	✓		Refer to Landscape plans and report prepared by Turf. Further items are subject to future design development and/or addressed as part of Environmental Impact Statement and BASIX assessment.
	Apartments should be individually metered	✓		
	Rainwater should be collected, stored and reused on site	✓		
	Drought tolerant, low water use plants should be used within landscaped areas	✓		
OBJECTIVE 4V-2	URBAN STORMWATER IS TREATED ON SITE BEFORE BEING DISCHARGED TO RECEIVING WATERS			
Design Guidance	Water sensitive urban design systems are designed by a suitably qualified professional	✓		
	A number of the following design solutions are used: • runoff is collected from roofs and balconies in water tanks and plumbed into toilets, laundry and irrigation • porous and open paving materials is maximised • on site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits	✓		Refer to report by JHA Engineers / Turf Landscape Architects. Rainwater reused for irrigation. Porous and open paving materials to be proposed - on deep soil zones.
OBJECTIVE 4V-3	FLOOD MANAGEMENT SYSTEMS ARE INTEGRATED INTO SITE DESIGN			
Design Guidance	Detention tanks should be located under paved areas, driveways or in basement car parks	✓		Refer to report by Mott Macdonald. Detention tanks have been incorporated within building footprint to maximise deep soil and tree retention.
	On large sites parks or open spaces are designed to provide temporary on site detention basins	✓		

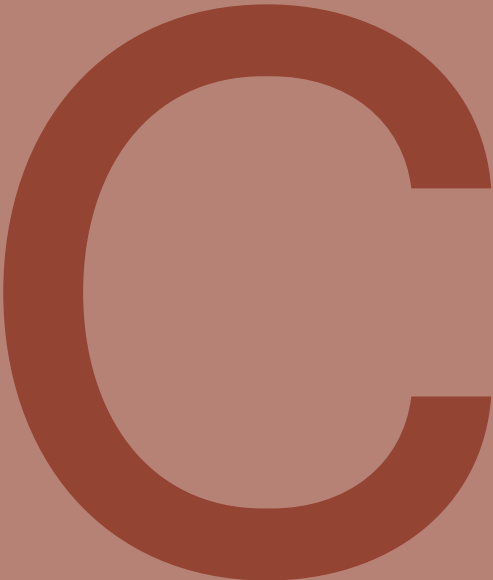
ADG COMPLIANCE TABLE

4W WASTE MANAGEMENT				
OBJECTIVE 4W-1	WASTE STORAGE FACILITIES ARE DESIGNED TO MINIMISE IMPACTS ON THE STREETScape, BUILDING ENTRY AND AMENITY OF RESIDENTS			
		YES	NO	NOTES
Design Guidance	Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park	✓		Waste collection zones are within the building footprint and ventilation is provided directly from buidling facades into these areas.
	Waste and recycling storage areas should be well ventilated	✓		
	Circulation design allows bins to be easily manoeuvred between storage and collection points	✓		
	Temporary storage should be provided for large bulk items such as mattresses	✓		Refer to Operational Waste Management Plan prepared by MRA Consulting. Bulky waste rooms provided in each building.
	A waste management plan should be prepared	✓		Refer to Operational Waste Management Plan prepared by MRA Consulting
OBJECTIVE 4W-2	DOMESTIC WASTE IS MINIMISED BY PROVIDING SAFE AND CONVENIENT SOURCE SEPARATION AND RECYCLING			
Design Guidance	All dwellings should have a waste and recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste and recycling	✓		Refer to Operational Waste Management Plan prepared by MRA Consulting. Achieved and reflected in architectural drawings.
	Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core	✓		Waste chutes and bin stores are all in close proximity to residential cores.
	For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses			N/A Development is residential only.
	Alternative waste disposal methods such as composting should be provided	✓		Appropriate options will be considered during design development
4X BUILDING MAINTENANCE				
OBJECTIVE 4X-1	BUILDING DESIGN DETAIL PROVIDES PROTECTION FROM WEATHERING			
		YES	NO	NOTES
Design Guidance	A number of the following design solutions are used: • roof overhangs to protect walls • hoods over windows and doors to protect openings • detailing horizontal edges with drip lines to avoid staining of surfaces • methods to eliminate or reduce planter box leaching • appropriate design and material selection for hostile locations	✓		Generally considered as part of design intent and reflected in Section 4 of the design report. Subject to further design development.
OBJECTIVE 4X-2	SYSTEMS AND ACCESS ENABLE EASE OF MAINTENANCE			
Design Guidance	Window design enables cleaning from the inside of the building		✓	Fixed / awning windows are proposed. Abseiling assumed.
	Building maintenance systems should be incorporated and integrated into the design of the building form, roof and facade	✓		
	Design solutions do not require external scaffolding for maintenance access	✓		Access will occur from rooftops via abseiling.

ADG COMPLIANCE TABLE

OBJECTIVE 4X-2	SYSTEMS AND ACCESS ENABLE EASE OF MAINTENANCE			
		YES	NO	NOTES
Design Guidance	Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems	✓		No operable elements have been proposed as part of the facade strategy. Design and specification of systems for internal fixtures are subject to design development.
	Centralised maintenance, services and storage should be provided for communal open space areas within the building	✓		Generally additional storage has been provided in basement areas.
OBJECTIVE 4X-3	MATERIAL SELECTION REDUCES ONGOING MAINTENANCE COSTS			
Design Guidance	A number of the following design solutions are used: • sensors to control artificial lighting in common circulation and spaces • natural materials that weather well and improve with time such as face brickwork • easily cleaned surfaces that are graffiti resistant • robust and durable materials and finishes are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors	✓		Subject to further design development.

STATE DESIGN REVIEW PANEL
CONSULTATION SUMMARY



SDRP CONSULTATION SUMMARY SESSION 1

STATE DESIGN REVIEW PANEL SESSION 01 DATE: SEPTEMBER 5TH 2025	
SUPPORTED ELEMENTS	
1. SDRP: The following elements of the design are supported: - The overall site strategy, including the creation of an internal street connecting Florida St and Pembroke St, conceived of as a low-speed, shared environment, with pedestrian prioritisation. - The approach to built form, including three different building typologies including a cluster of towers to the north, a linear bar to the west and courtyard cluster to the southeast. - The through-site pedestrian links from the east-west and north-south - subject to advice of this letter. - The preliminary staging strategy to facilitate the orderly development of the site and minimise disruption to social tenants. - The preliminary facade strategy and brick plinth base given the level changes across the site.	

RECOMMENDATIONS TO ASSIST IN DESIGN DEVELOPMENT	
RECOMMENDATION	DESIGN TEAM RESPONSE
DESIGN DEVELOPMENTS	
SDRP: Further design development is required, particularly in relation to: - The amenity of communal areas, including the courtyards, entry lobbies and internal corridors. - The movement and access strategy throughout the development. - The amenity of apartments, particularly the social units.	Communal areas have benefitted from site replanning which increases solar, provides better connectivity between outdoor spaces and visual connectivity. Additional existing trees have been retained. The east west and north south corridors have been reinforced and opened for better visual connectivity. Additional breaks in building form improve their amenity. The social building has been replanned to provide a bigger break and developed as two separate buildings with fewer apartments per core. Other articulation has improved the amenity, i.e. larger slots etc.
CONNECTING WITH COUNTRY	
- At the next SDRP session, provide an overview of the Country-centred process (including any prior or proposed engagement) relative to the key design and delivery stages - Aim to include input and engagement with the local Aboriginal Community, if not part of this SSD submission, then for subsequent design and delivery stages. - Aim to undertake a 'Walk on Country' as soon as possible and ensure that the principles from these engagements are brought into the design process.	- We have taken the Panel's feedback on board and incorporated Country-centred principles into the design and landscape approach. The design looks to hero the Embrace Kinship Networks Celebrating Saltwater (relationship to Kamay, gwaley bay) Embrace Wonder and Curiosity - We acknowledge the Panel's advice. To date, informal sessions on the design have been undertaken with representatives of the local Aboriginal community. We also note that the Land Council is currently engaged in Sorry Business, which has made formal engagement challenging at this time. We remain committed to continuing this process, and will look to build on these early discussions during the subsequent design and delivery stages. - The Walk on Country was undertaken on the 17/7/25
Demonstrate the proposed environmental initiatives are well-embedded into the design, impactful and deliverable. Further develop ideas of connecting with local water systems and the use of white ochre and ensure that these are embedded into the landscape plan material strategy and management strategies. Ensure that Connecting with Country initiatives are embedded into development agreements and delivered by private sector partners.	The masonry elements of the buildings provide an opportunity for the 'ochre' reference to be developed, however this needs to be verified with indigenous consultation. Integration of WSUD measures and soak zones, passive rain gardens and other planting measures will be used to reduce site run off and contain overland flows within landscape. As landowner, Homes NSW will continue to be a key stakeholder throughout the delivery phase of the social housing.
SITE STRATEGY & LANDSCAPE	
Continue to engage with Transport NSW to explore opportunities for new pedestrian connections from the site across the two busy arterial roads to existing bus stops and local facilities, across both the Princes Highway and Port Hacking Road.	Homes NSW is open to continuing to engage with Transport NSW and Council to explore this opportunity subject to funding availability. However, as this is outside the control of Homes NSW, the SSDA does not rely on these connections. Potential zones have been identified to accommodate a bridge connection on Homes NSW land should it be required after the DA submission, although this would also need support from the shopping centre owner.

SDRP CONSULTATION SUMMARY SESSION 1

The level of tree retention within the site is considerably low given the size of the site and the importance of tree canopy within the Sutherland Shire with several high value trees being removed. Develop and present a more robust tree retention strategy, aiming to retain as many trees of high significance as possible.Reconsider built form to be more responsive to existing trees and enable the retention.park.	Site planning has been adjusted to retain additional trees on the western and eastern edges as well as in the centre of the site. Refer to amended tree retention plan.
Further develop the landscape strategy to the western edge of the site, considering its role as a buffer to the busy road. The proposed location of the substation being on axis to the new internal local street should be reconsidered.	The substation has been relocated away from the the east west axes. Refer to amended site plan. Endemic landscape strategy will be used to increase local biodiversity, canopy and green cover, whilst also allowing places for seating, and incidental occupation where suitable,
Consider carefully how the design impacts the access, ownership and maintenance strategies of the site as a whole, engendering a sense of ownership and belonging to all residents, irrespective of their tenancy status. Also ensure that any management arrangements do not unduly burden any parties and that the long-term management of the landscaped areas is done in the interest of all residents.	We note the Panel’s advice. A staging plan has been prepared which clarifies responsibilities. Social housing will not be responsible for the delivery or maintenance of private roadworks or communal through-site links. Homes NSW will be responsible only for the communal open space within its ownership, as outlined in the staging plan.
Further refine the ground plane spatial planning to improve amenity and create a high-quality interface with the public domain. Consider the following: While the internal street and landscape principles are supported, for this space to be successful as the central heart further development is required. Further consider increasing the width of the street/ the allocation of space within the street cross section to allow for: • A wider street with two-way capability. • Making the L shape street discontinuous for vehicular traffic while allowing connections between the two streets for service/ emergency access. • The integration of raingardens / WSUD in alignment with the emerging Connecting with Country narrative and celebrate water in a more open way	Site planning has been amended to increase building setbacks to the internal roadway. Removing built form at the centre of the site at the turn in the roadway increases the visibility of green space within the site and the perceived width of the roadway. Two-way capability has been evaluated but the 1 way design is preferred to reduce the extent of hard stand given to vehicular traffic. The design of the internal street considers traffic calming and surfacing to denote pedestrian priority. Raingardens and swales will be included in the streetscape to increase green cover and provide passive irrigation to street trees.
• A more detailed investigation of the level changes along the internal street and its gradient along its entire length need to be considered. These should be presented in both short cross sections (at regular intervals) and in longitudinal section to ensure accessibility requirements are met. • Develop the north-south and east-west pedestrian connections to maintain clear sight lines, especially with regards to the location of the substation, plant and services. • Enhance the articulation of building entries and lobbies and their relationship to the street. Explore options for providing access to individual apartments from the street and increasing the number of entries, for example one lobby per core. • The street interface, particularly in relation to the location of lobbies vehicular access points and services along the building facade.	Further development of the road is underway in coordination with Mott Macdonald and Turf. The proposal ensures that all roads and grading are accessible. • Site Planning amended to provide clearer sightlines, substation relocated. • Areas suitable for street entries have been identified and street entries are being incorporated in the design coordinated with basement extents. • Replanning has enabled separate entries to each building core. • Vehicular access to basement carparking revised to be separated from building entries and away from the central street where possible.
• The quality of most communal open spaces is compromised with low levels of solar access (well below ADG guidance) and blank, inactive frontages to car parking and service areas. Revisit the built form strategy to improve solar access to courtyards (see built form section below). • Provide clarity on the solar access to communal open space. • Provide clarity on where communal rooftop gardens are provided and how these are accessed to meet the ADG requirements.	Amended site plan enables additional solar amenity to the social housing courtyard from north west. The north south open space has improved solar amenity. • Additional solar diagrams provided. • No communal rooftops are provided.
BUILT FORM & ARCHTIECTURE	
Test the redistribution of built form at: • The north-west 'corner cluster', pulling the building envelope into the corner and increasing the height of the building. • Increasing the height of the western 'linear bar' to allow a for a redistribution of bulk across the site. • Reducing the height of the east-west market building within the 'village green' or omitting the connecting cross-apartments to improve solar access to the communal open space.	• Intensification of built form to the centre of the site has been reduced in the amended site planning where mass has been redistributed to higher buildings elsewhere on the site. This is consistent with SDRP advice: ‘that an exceedance of building height is justifiable given site constraints’. • Connecting ‘cross -apartments’ have been removed to create clear breaks in the built form.

SDRP CONSULTATION SUMMARY SESSION 1

Review the arrangement of the social building by: • Testing the introduction of additional cores to reduce the number of apartments served per core and reduce corridor lengths. • Exploring alternative solutions for lift redundancy where only one lift is provided in a core (see the Homes NSW Caringbah Project). • Consider in more detail the entry sequence for tenants - the location of mailboxes, gathering spaces, access control points.	• Replanning of the social building has resulted in reduced corridor lengths and reduced number of apartments served by each core. • Corridor amenity is improved due to new breaks in the building form allowing for views and light. Note that this has been achieved while not adding additional cores. There are no instances where only one lift is available per level. • Entry sequences have been developed in the amended plans
Further refine the layouts of all apartments (particularly south facing units) and check for improved solar access. Taking careful note of the self-shadowing of units by building to the north and avoid south facing units that receive no direct winter sun	Replanning has resulted in fewer south facing units with no direct winter sun.
Consider the layout and orientation of balconies in the social units to optimise usability and maximise solar access. Prioritise functional outdoor space, ensuring it remains unobstructed by clotheslines or other elements.	The panel's comments have been noted and considered in the development of the proposal.
Further develop the architectural expression of the buildings. The preliminary facade strategy is supported with the masonry plinths, anchors and lightweight elements. Colour and variation should be used strategically to avoid a monolithic appearance.	Developed facade strategy included. Note that the revised massing includes additional and larger breaks in the building form and less reliance on colour and materiality change to ‘breakdown’ the scale of the development/
Further develop the architectural expression of the buildings. The preliminary facade strategy is supported with the masonry plinths, anchors and lightweight elements. Colour and variation should be used strategically to avoid a monolithic appearance.	Developed facade strategy included. Note that the revised massing includes additional and larger breaks in the building form and less reliance on colour and materiality change to ‘breakdown’ the scale of the development
Provide further detail on the waste management strategy for all buildings to ensure no adverse impacts on the public domain.	The waste strategy has been developed and included in the current planning. MRA consulting are developing the site wide waste management plan.
SUSTAINABILITY & CLIMATE CHANGE	
A sustainability strategy was not included in the presentation. Address the following advice: Provide a strategy for sustainability including: a. How the project will contribute to NSW's Net Zero goals for 2050. b. A response to a 2050 climate scenario. c. How sustainability initiatives are integrated into the design. • Further develop the stormwater management strategy and explore opportunities to harvest rainwater for reuse, celebrate water and integrate it into the landscape. • Aim to maximise the PV array on the social rooftop and ensure that the hot water solutions deliver the most benefit to the residents and reduces emissions. • Consider options for precinct level heating and cooling.	Precinct level heating and cooling does not form part of the Homes NSW social housing design brief. However, the following sustainability initiatives have been targeted: • optimise passive solar design, • the possibility of High-performance glazing to reduce heat gain/loss, • possible rainwater tanks for irrigation, • drought-tolerant, native, or adaptive planting. Should a developer wish to pursue a precinct level heating and cooling strategy for the market housing, they will be able to do so when engaged.
In addition to addressing the advice and recommendations above, the following information is to be provided at the next SDRP session: • More detail on the landscape and public domain plans, including long and short street sections, and spot levels on the landscape plan communicating how level change is being managed and how accessibility is being dealt with. • A more comprehensive architectural and landscape drawing set, including key interface details at the facade, the public domain and tree retention strategy. • Updated amenity studies, including solar access to living rooms, communal open space and private open spaces. • Waste management strategy. • An ADG compliance table. • Outcomes of discussions with Transport NSW regarding the off- site pedestrian connections.	These items have been considered and included in the proposal. Discussion with Transport NSW have been conducted and HNSW have advised on outcomes wzz

SDRP CONSULTATION SUMMARY SESSION 2

STATE DESIGN REVIEW PANEL SESSION 02 DATE: OCTOBER 13TH 2025	
SUPPORTED ELEMENTS	
1. SDRP: The following elements of the design are supported: - The overall site strategy, including the creation of an internal street connecting Florida St and Pembroke St, conceived of as a low-speed, shared environment, with pedestrian prioritisation. - The retention of existing significant trees at the centre of the site and the creation of a central open space that serves the whole development. - The east-west and north-south visual and pedestrian links improving site permeability. - The breaking up of the built from to create a more visually and spatially permeable structure with opportunities for improved amenity for residents.	

RECOMMENDATIONS TO ASSIST IN DESIGN DEVELOPMENT	
RECOMMENDATION	DESIGN TEAM RESPONSE
CONNECTING WITH COUNTRY	
The panel acknowledges the challenges associated with the engagement of local Knowledge Holders given the tight timeframes of the project. A design strategy for a project of this scale needs to move beyond symbolic material references to ensure that Country-centred principles are meaningfully embedded in the project and guided by ongoing consultation with Traditional Custodians. - Develop a long-term strategy to engage with Local Knowledge holders and implement a genuine Country-centred approach post SSD submission. The strategy should ensure appropriate opportunities for engagement to enrich the design and place-based experience of residents. - Demonstrate the proposed environmental initiatives are well-embedded into the design, impactful and deliverable. Further develop ideas of connecting with local water systems, the use of native planting and the use of white ochre and ensure that these inform the landscape plan, material strategy and management strategies. - Ensure that the Connecting with Country strategy is embedded in development agreements and delivered by private sector partners.	This has been addressed as part of the final proposal. An engagement plan has been developed by Winson Kerr and Jiwah. Elements of Country have been incorporated into the design and landscape - noting that this will require a commitment to future engagement to ensure these elements are incorporated meaningfully and sensitively.
SITE STRATEGY AND LANDSCAPE	
The panel is supportive of the refined site strategy, including the retention of significant trees and the consolidation of the central open space. The consolidation of vehicular access to the basements and creation of a shared forecourt to the buildings in the northern cluster is also supported. The material presented at the review is relatively underdeveloped given the complexity of the level changes across the site and the importance of the central street. Further refinement of the public domain and ground plane spatial planning is necessary to improve amenity and create a high-quality interface with the public domain. Consider the following: Continue to engage with Transport NSW to explore opportunities for new pedestrian connections from the site across the two busy arterial roads, Princes Highway and Port Hacking Road, to the two existing city bound bus stops and local facilities. While this is external to the site, the intensification of development without adequate connections could lead to the unsafe crossing of busy roads. This is a direct consequence of the development and needs to be addressed.	HNSW have engaged with Transport for NSW regarding potential for future connections across Port Hacking Road. While these discusisons are ongoing, and can be further investigated as part of future design phases, these connections have impact on development not only for the proposed development, but any future development to Southgate Shopping Centre. This connection has not been further explored or incorporated into the proposed design.
A more detailed investigation of the level changes along the internal street and its gradient along its entire length need to be considered. These should be presented in the SSD as both short cross-sections (at regular intervals), and in longitudinal section to ensure accessibility requirements are met.	This has been conducted and coordinated at SSDA phase with the project civil engineering team and flood modelling provided by Mott MacDonald. This has been addressed as part of the architectural design report and supporting sections provided in the architectural drawings and landscape design.

SDRP CONSULTATION SUMMARY SESSION 2

6. While supported in principle, the communal open space in the centre of the site (associated with the market housing) is better defined as publicly accessible communal (private) open space. This space has the potential to be successful, but places particular responsibilities on the Owners Corporation, including management, maintenance and public liability - consider operational arrangement concurrently. Consideration should also be given to providing a greater diversity of communal open spaces for the residents, with some that can be more secure with limited public access (such as roof terraces and access-controlled spaces)	Ownership and maintenance of all communal open spaces is designated within each lot. Future development of the market housing component of the porject will maintain responsibility for the maintenance and management of communal open spaces within the market housing lot including the new privately owned shared zone, subject to future discussion and detailed design development. This item has not been addressed as part of the SSDA submission. Preference on ground floor publically accessible communal open spaces, in lieu of private rooftop spaces is a briefed item provided to the design team at the outset of the project. Diversity of communal open spaces at ground floor has been addressed as part of the landscape design.
7. Consider how the landscape, circulation spaces and communal open space can promote resident ownership and safety through CPTED without feeling gated. This should be guided by principles such as clear sightlines, active edges, and appropriate lighting. For areas that are publicly accessible, strategies should manage safety and privacy, using passive surveillance and subtle design cues rather than gates or barriers. This is particularly important given the more vulnerable nature of many social housing tenants.	These items have been considered in the architectural and landscape design and will continue to be developed in future design phases.
8. The inclusion of landscaped strips adjacent to building plinths as communal open space stretches the definition of communal open space. If these spaces cannot be used meaningfully for a social function they are better defined as landscaped area. More attention needs to be given to improving the amenity (solar access) to the communal open spaces at the centre of the site that will be used by people. Consider: a. Further testing to improve solar access to the communal open spaces, particularly to the social building - Revisit the built form strategy to improve solar access to courtyards (see built form section below). - Test the redistribution of built form of the social building at the north-western wing. b. Develop the landscape strategy for the western edge of the site, recognising its dual role as both a buffer to the adjoining busy road and an interface for residents. Careful consideration should be given to creating a welcoming and activated edge rather than landscape buffer to a noisy and exposed corner affected by traffic c. Consider how buildings meet the street and how entrances are framed. The address and entrance of the social building requires more attention, given the staged nature of the development and level changes between the public domain and the lobbies. The Pembroke interface needs much further development.	This has been addressed as part of this submission, specifically in the removal of the 4 storey podium element attached to the central markte building. The design team tested redistribution of the built form of the social building and concluded this option had an adverse affect on amenity into the social housing units, with little benefit for the communal open space. The landscape strategy for the western edge has been developed to incorporate both a landscape buffer to Port Hacking Road, as well as active and programmed communal spaces adjacent the western cluster. Staged and temporary level mitigation might be required for the first stage of the social housing development when entering at the western lobby from Pembroke Street.
BUILT FORM & ARCHITECTURE	
While the revised scheme includes positive refinements, including the separation of the continuous built form into smaller buildings with fewer units per core, increased building setbacks to the internal roadway and additional communal open space, the addition of approximately 50 dwellings has increased building bulk and depth of the floorplates and compromised amenity. The panel questions some of the claims around ADG compliance based on the material provided, particularly around solar access and cross ventilation given the orientation of the units, self-shadowing, the narrowness of the slots and the current arrangements of the apartment floor plans.	Solar access diagarms, sun eye view and overshadowing diagrams have been provided as part of this submission aslong with supplementary diagrams indicating facade areas achieving 2 hours of solar access. Further, a wind engineering report will be provided to validate the cross ventilation assessment provided by the design team.
The panel's previous advice to explore exceedances to the height plane was intended to secure improved amenity outcomes for the development as a whole. While it may be possible to achieve a higher yield than previously presented, it must be ensured that a high-quality development is delivered. If the buildings are already breaching the 25m effective height of building and absorbing the additional costs associated with increased fire and servicing requirements, this exceedance should be leveraged to deliver better amenity, solar access and landscape quality.	No exceedance to the height plane is being pursued in this application beyond minor exceedances with plant and stair cores. The scheme has been revised to reduce yield, particularly in the northern cluster.
Currently the additional massing is leading to poor amenity outcomes and questions around ADG compliance, which poses as much planning risk as a height variation. The proponent is again encouraged to engage with the DPHI Assessment team to better understand planning risks and pathways. The objective of these engagements should be to find an appropriate balance between yield, building form, and amenity. Exceedances in height should be tested at the SSDA stage and, if required, can be scaled back as part of the responses to submissions.	As above. The design team has been instructed by HNSW to remove additional levels that encroach on the maximum permissible height plane.

Revisit the distribution of height and massing across the site: - Test a modest increase in height in selected buildings to relieve pressure on deep floor plates. - Continue to refine repeatable and efficient floor plans to improve design consistency and buildability.	The northern cluster has been reduced in height to ensure no residential GFA is above the maximum permissible height plane. Apartment planning and private open space are generally stacked. The development has not considered increases in height as has been discussed with the Department of Planning beyond minor encroachments of plant screening and stair cores to rooftop areas for maintenance purposes. A 3200mm floor to floor for all typical levels, and 3350mm floor to floor where building planning adjusts significantly and at rooftop levels has been provided.
The panel supports the proposed amendments to the social housing building, including the removal of the two central units to create additional indoor and outdoor communal space. However, solar access remains challenging and further refinements are necessary to improve amenity and visual connection with the wider development. Further review the arrangement of the social building: - Consider in more detail the entry sequence for tenants from Florida St and access control points to the communal areas. - The usable communal open space performs very poorly in terms of solar access. As an option, consider reconfiguring the north western wing and extending the communal open space westwards towards the centre of the site to improve solar access, usability and management. - Reconsider the arrangement of the indoor communal space as the linking element between the two buildings allowing for multiple access arrangements and opportunities to use the space more flexibly. Consider its relationship with the south facing terrace and to Pembroke St, particularly how the space is perceived from the street given the level difference. - Refine the internal arrangements of east and west facing 1 bed apartments to avoid inboarded bedrooms and long galley kitchens. - Ensure that the design of the apartments, and bathrooms in particular, meet the accessibility requirements outlined in the brief and consider the LAHC Design Requirements during the design refinement. An internal review of the social building by the Homes NSW Design Office is recommended. - Consider the layout and orientation of balconies to overlook open spaces, optimise usability and maximise solar access. Prioritise functional outdoor space on balconies, ensuring it remains unobstructed by clotheslines, AC condensers, storage and other elements. Preference should be to collocate air conditioning condensers on the roof rather than on balconies	- There are two primary entry points into the development, one from Florida Street and the other from the western edge of the social housing development adjacent the new internal road. As this road will be delivered in Stage 2, temporary access and level mitigation as required will be employed during Stage 1 of the development. There is current direct access into the site from Pembroke Street adjacent this proposed second entry point. - The western podium of the central market buildings has been removed, providing a significant improvement in solar access into the communal open space of the social housing component of the application. This improves on the already compliant solar access figures presented as part of SDRP 2. - The team reviewed these arrangements and determined the current solution to the internal communal space, entering off the communal external areas was the appropriate solution. Additional entries provided from the corridors ends resulted in excessive circulation and limited the usable floor space. A south facing terrace and landscape edge softens this edge when viewed from Pembroke Street. Textured brickwork adds texture and tactility to the facade of the masonry podium and perforations to this facade through hit and miss brickwork will provide required ventilation into plant spaces behind as required. - These apartments have been re-planned where possible in response to SDRP commentary. - The development complies with AS1428 requirements for adaptable apartments. - The location of air conditioning condensers on balconies is a brief item provided to the design team by HNSW and has been thoughtfully incorporated into the proposal. Drawings provided as part of the submission indicate their location on balconies where they are generally screened with solid / opaque balustrades. There are no brief requirements for the provision of clotheslines or any other storage elements on private open spaces to apartments. Balconies across the development are all larger than the minimum ADG requirements to maximise usable space.
Diligently interrogate the eye of the sun diagrams and further refine the layouts of all apartments (particularly south facing units) to maximise solar access. While there is a reduction in the number of south-facing apartments, several two-bedroom units remain overly deep and result in limited daylight and ventilation.	Sun eye view diagrams have been provided as part of the submission. The scheme complies with the minimum ADG requirement for solar access to private open spaces and living rooms. Internal layouts have been designed to ensure living rooms are at the facade where required to meet these requirements.
Further refine the internal layouts and window locations relative to the slots to ensure adequate and effective passive cross ventilation.	Noted. These have been developed following SDRP consultation. A detailed wind report is being prepared by E-Lab to validate the cross ventilation strategy across the site.
Further refine common areas to improve light and air penetration through the slots, ensuring the lift lobbies maintain positive outlook and ventilation. Reconsider slot locations to maximise these benefits along corridors.	All lobbies have access to natural light from at least a single source for smaller and more efficient floor plates. Slot locations have been carefully considered to maximise building frontages and result in efficient and repeatable internal apartment planning. In the social housing component, all corridors have a window at their ends. Lift lobbies open onto generous building slots with windows and natural ventilation.

SDRP CONSULTATION SUMMARY SESSION 2

9. The panel broadly supports the preliminary facade strategy with the masonry plinths, anchors and lightweight elements. Care should be taken to avoid the materials feeling too heavy and sterile. The panel suggests exploring brick textures in the plinth and testing blush tones to the balconies. Where the basement emerges from the ground, the landscape treatment should be carefully considered to maintain visual continuity and avoid harsh transitions.	This has been addressed as part of this submission.
10. Further refine the waste management strategy for all buildings to minimise adverse impacts on the public domain.	A waste management strategy has been developed by MRA Consulting and included as part of this SSDA submission.
SUSTAINABILITY	
11. No sustainability strategy was presented as part of this review. Continue developing a sustainability strategy and address the following advice: 12. Provide a strategy for sustainability including: • How the project will contribute to NSW's Net Zero goals for 2050. • A response to a 2050 climate scenario. • How sustainability initiatives are integrated into the design. 13. Further develop the stormwater management strategy and explore opportunities to harvest rainwater for reuse, celebrate water and integrate it into the landscape. 14. Aim to maximise the PV array on the social rooftop and ensure that the hot water solutions deliver the most benefit to the residents and reduces emissions. Consider Solshare systems. 15. Keep options open for precinct level heating and cooling for private housing by allowing for adequate plant space.	A sustainability report has been provided as part of this submission. The design team notes the panel's recommendations for future design phases and that precinct level heating and cooling has not been part of the briefed items for the project.
OTHER ITEMS	
16. In addition to addressing the advice and recommendations above, the following information should be to be provided as part of the SSDA: • A Connecting with Country strategy that commits the project to continued engagement with Traditional Owners. • A more comprehensive architectural and landscape drawings as required in the SEARS including: - More extensive and detailed landscape and public domain plans - including long and short street sections, and spot levels on the landscape plan communicating how level change is managed and how accessibility is being dealt with. • Further developed architectural drawings should fully describe the proposed design intent for each primary facade type. This should take the form of 1:20 sections and elevations (including detailed 3D representations) showing materials, construction systems, balustrade types and fixings, balcony edge treatments, window operation, integrated planter beds, construction systems, material junctions, rainwater and balcony drainage systems, and the placement of downpipes or similar elements.	The Panel's recommendations have been noted and incorporated into the final proposal commensurate to the level of DA documentation. Detailed sections of the facade have not been provided however, the design intent has been clearly reflected in the report and drawings to ensure consistency and maintenance of key design principles and outcomes in future phases.

