



LOURDES RETIREMENT VILLAGE 95 STANHOPE RD, KILLARA

URBAN DESIGN REPORT
RESPONSE TO COUNCIL SUBMISSION

PREPARED FOR LEVANDE
PLUS ARCHITECTURE

20/12/2022



The Purpose Of The Report

The proposed master plan presented in the Planning Proposal report envisaged redevelopment of the entirety of the Lourdes Retirement Village and the existing independent living units in the southern part of the site. The proposed master plan provided solutions to the existing site issues and recommended new planning controls that allow for the development of the site.

In response to Ku-ring-gai Council Submission, the masterplan was amended to develop a more holistic urban design strategy and provide a more detailed urban design analysis that has taken into full consideration the established landscaped setting and built form character of the surrounding context.

This report provides an analysis of the site, its opportunities and constraints as well as the updated master plan for development of the village, whilst maintaining the new planning controls that allow for realization of the master plan.

1

INTRODUCTION

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| Exhibited Master Plan | 4 |
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1 INTRODUCTION

EXHIBITED MASTER PLAN



The exhibited master plan presented in the Planning Proposal report demonstrates a robust structure plan that carefully establishes land uses, public and private open spaces, facilities, site features and road networks based on a range of key design drivers that reflect the findings of a site analysis and provides improved community infrastructure that are already experiencing a decline in their useful life.

The master plan for Lourdes Retirement Village provides a new seniors housing development consisting of approximately 110 suites as well as approximately 141 new independent living units arranged within a series of buildings ranging from 3 to 6 storeys in height. Additionally, the redevelopment of the southern portion of the site provides approximately 63 townhouses with a separate road network and private amenities.

The adjacent plan shows the proposed locations of the new community facilities in the northern portion of the site off the proposed Main Street interface. The Headfort House which is to be retained under this Planning Proposal will continue to serve as a Chapel for the community.

INDICATIVE DWELLING YIELD

141 
INDEPENDENT LIVING UNITS

110 
RESIDENTIAL AGED CARE FACILITY BEDS

63 
TOWN HOUSES

- | | |
|------------------------------|--------------------------|
| 1 New Entry to Stanhope Road | 9 Terraced Landscape |
| 2 Headfort House Gardens | 10 Pedestrian Connection |
| 3 Lady of the Lourdes Grotto | 11 Landscape Mounding |
| 4 RAC drop-off | 12 Green Corridors |
| 5 Main Street | 13 Service Trail |
| 6 The Village Green | 14 Existing Landscape |
| 7 Dementia Garden | 15 NewRoad Connection |
| 8 RAC Courtyard Landscape | |



1 INTRODUCTION

UPDATED MASTER PLAN



The master plan has undergone further amendment to address key points and recommendations that were raised by Ku-ring-gai Council as part of their assessment of the Planning Proposal. The key features of the updated master plan include:

- A reduction in the perceived scale of the proposal by accommodating the ILU programme within four smaller buildings, rather than three, increasing visual permeability and the potential for through-site links.
- A further reduction in building height from 4 storeys to 3 storeys for the building adjacent to the western boundary, minimising impacts on the adjoining neighbour.
- The introduction of variations in built form and height, length, architectural expression and upper level setbacks across the development that serve to increase solar amenity and reduce the visual presence of the proposal.
- The further integration of the proposal with the existing levels on site through the use of stepped building forms to ensure that the design is appropriately embedded within the landscape.
- The proposed principal entry into the basement carpark (including loading and servicing vehicle docks) moved to the eastern portion of the site to reduce any perceived impacts to the developments western neighbours.
- A proposed new road connection from Stanhope Road to the townhouse precinct, allowing for the creation of precincts within the development that have a greater sense of urban identity.
- The unique bushland setting serving as the inspiration of an evolved landscape design response.
- The identification through further resolution of the design to retain a greater number of existing trees.
- The articulation of massing envelopes to ensure buildings that are fine-grain and in their expression and materiality reflective of the residential context that they sit within.
- The use of apartments at the interface of the ILU carpark and the townhouses to minimise the visual impact of the basement carpark.
- More granular building expression at the interfaces of the townhouse precinct with the surrounding bushland by creating a staggered built form.
- The total floor space and indicative yield has not changed as a result of the amended master plan.

- | | |
|------------------------------|----------------------|
| 1 RAC drop-off | 6 The Village Square |
| 2 Headfort House Gardens | 7 ILU drop-off |
| 3 Lady of the Lourdes Grotto | 8 The Village Green |
| 4 Main Street | 9 Green Corridors |
| 5 Dementia Garden | 10 Road Connections |

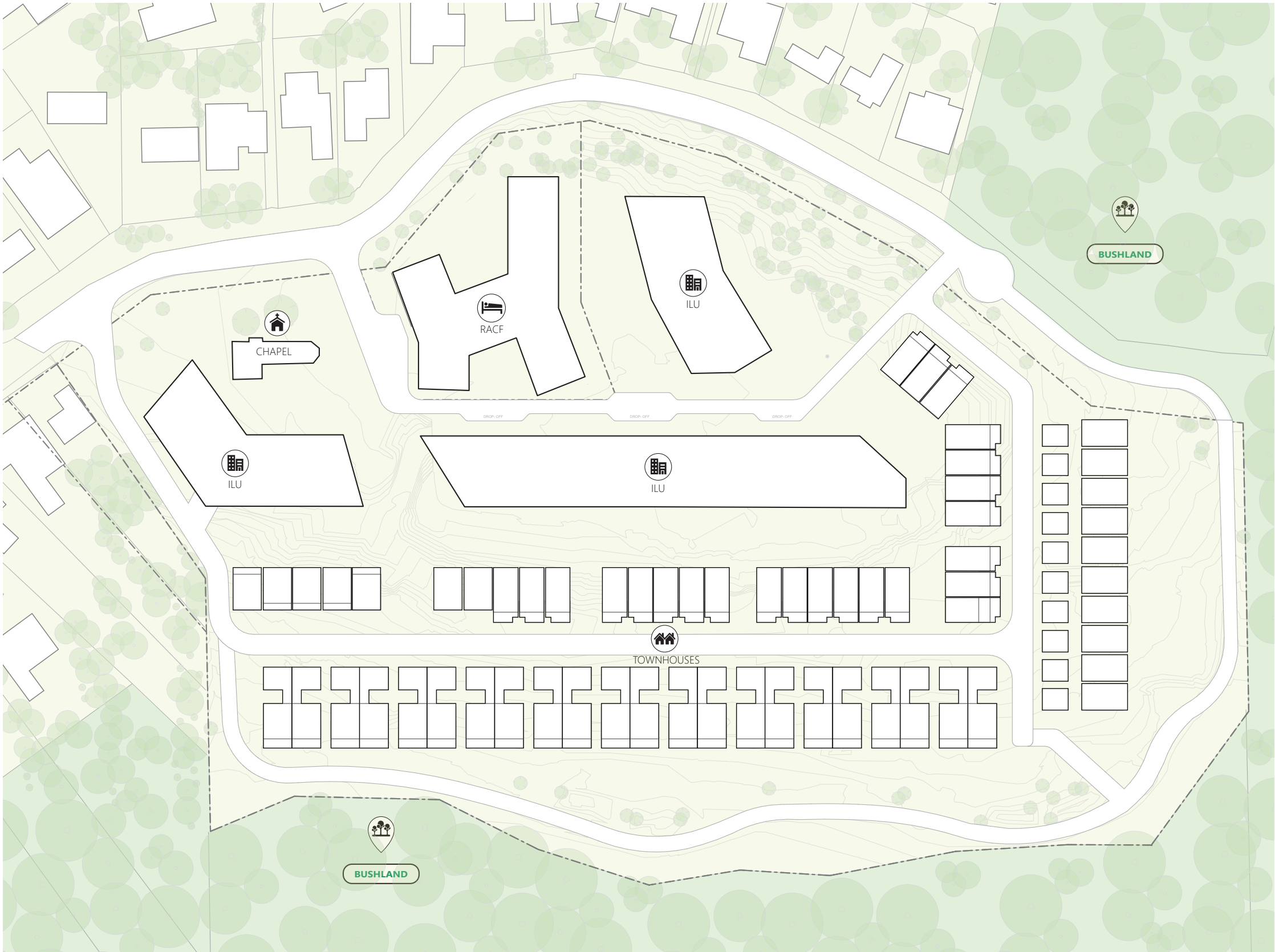
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PROPOSED MASTERPLAN

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2 PROPOSED MASTER PLAN

PLANNING PROPOSAL ENVELOPE



The master plan provided on this page, demonstrates the building envelope that was proposed in the Planning Proposal report.

Key points that were raised by Ku-ring-gai Council to consider are as follows:

- More balanced approach with respect to adjacent heritage, bushland and bushfire hazard.
- A reduction in built form by incorporating smaller building footprints and reducing the building heights.
- Greater deep soil areas along the ridgeline and between buildings.
- Reduction of noise and pollution from vehicles entering the basement carpark from western driveway.
- Continuous hard edge on the bushland fringe.

2 PROPOSED MASTER PLAN

OVERALL FORM BREAKUP



The indicative plan shown here, describes a reduction in built form by breaking the bulk of the building at the centre of the development into smaller building footprints. The physical break in the built form also provides better visual connectivity and permeability throughout the village, via the linear park located at the interface of the ILUs and the townhouse precinct as well as the green corridors between the townhouses through to the surrounding bushland.

Staggering the townhouses located along the bushland and at the internal road within the townhouse precinct has created a more fine-grain building expression that conforms better with the local character of the existing context.

2 PROPOSED MASTER PLAN

RELIEF AT THROUGH LINKS

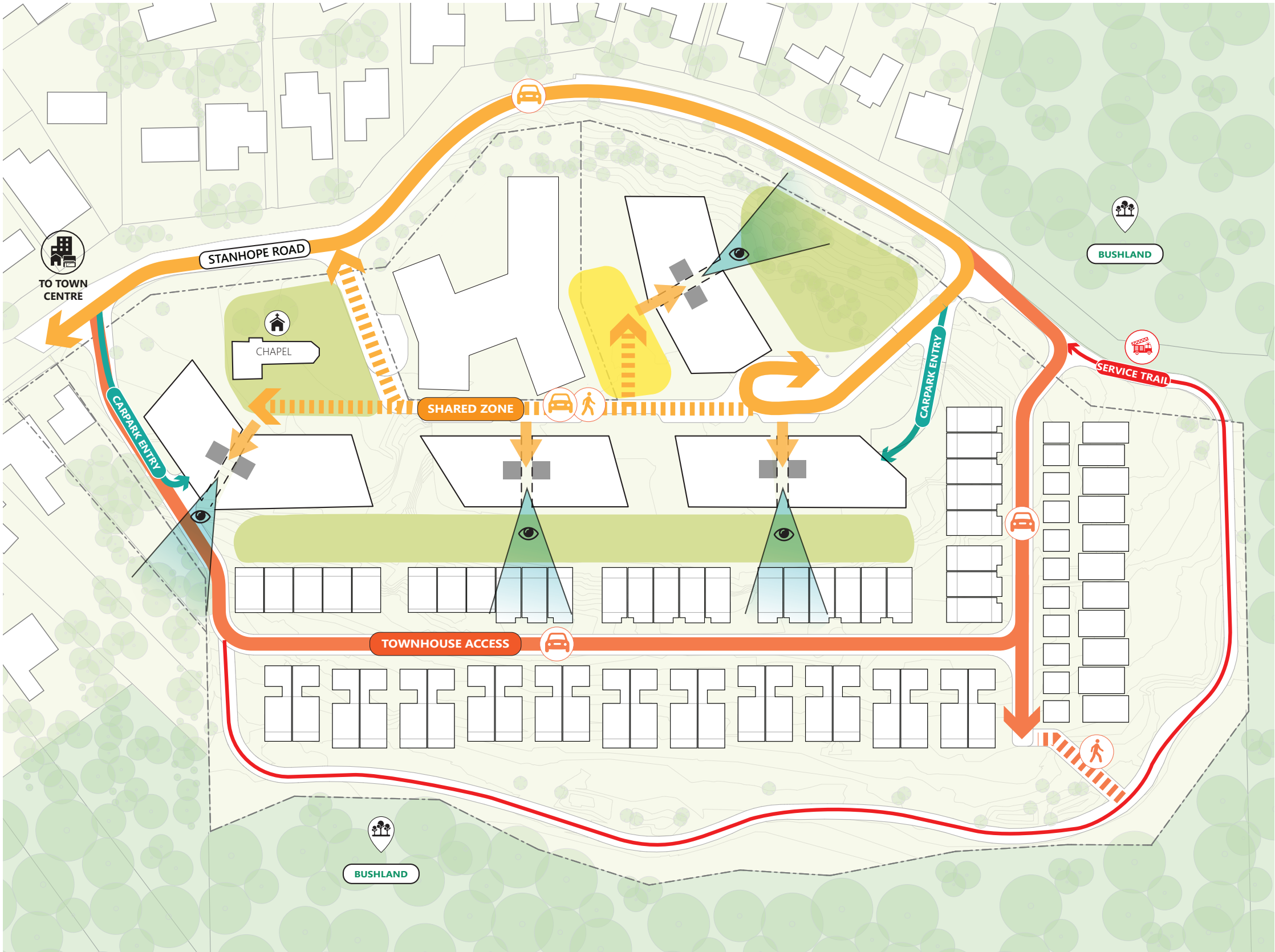


The existing pockets of green with their established landscaped character have been retained to create a natural buffer to the immediate context that surround the site. The built form is then naturally established around these green pockets to reinforce the key tree clusters and create through-site links that create legible composition of built form that frame the open space.

The landscaped pockets are shaped to provide natural relief to the built form while creating amenity for the development and the community. The through-site links also provide a sense of visual connectivity and permeability throughout the village, that serve as walkable laneways that connect the Main Street to the linear park and the townhouse precinct located at the south of ILU buildings.

2 PROPOSED MASTER PLAN

ACCESS & SERVICING



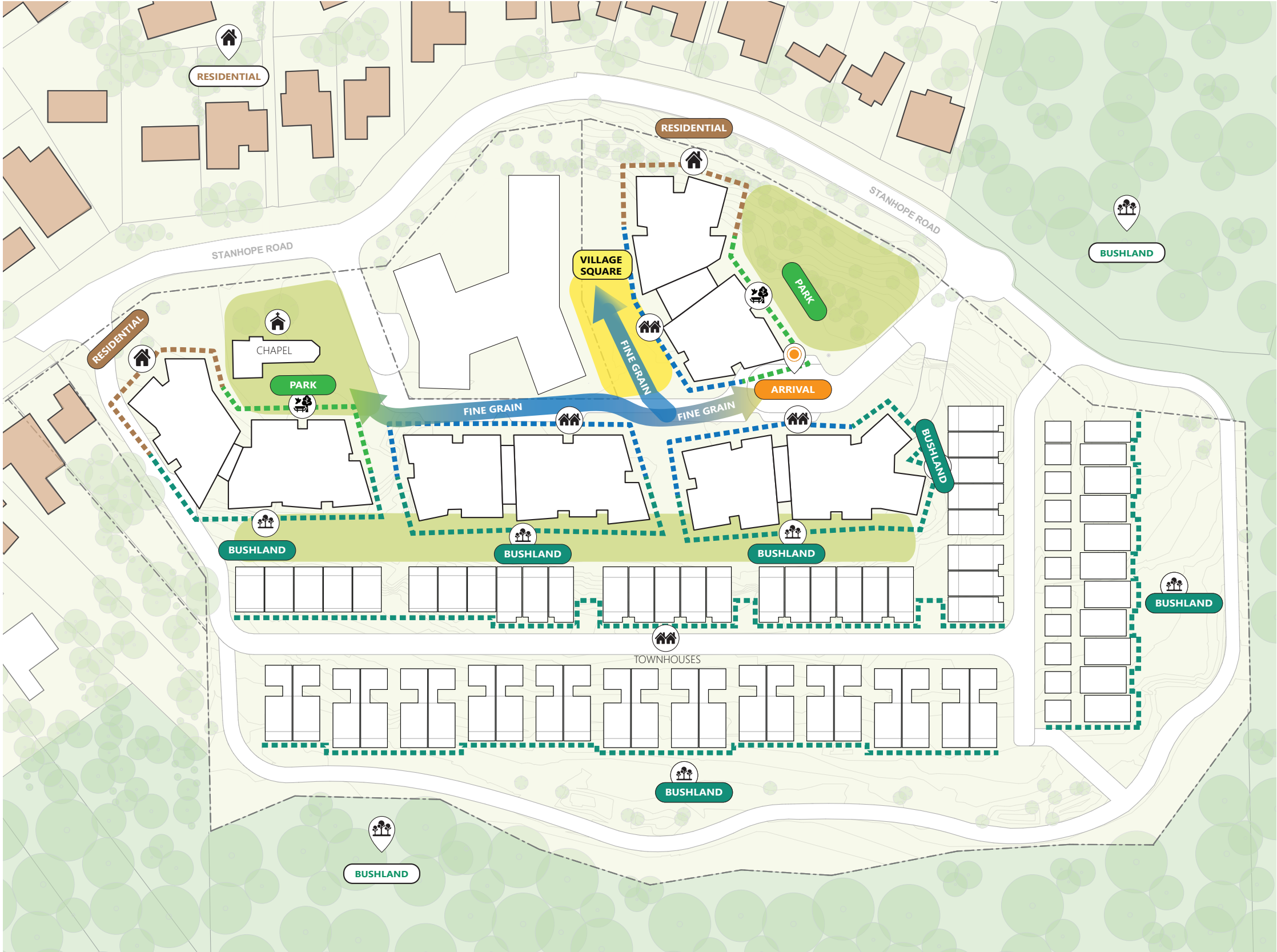
New road connections from east of Stanhope Road to both ILU and townhouse precinct create a sense of arrival and identity for each precinct while Main Street remains to operate as a one-way street that is shared between RACF and ILUs for visitors drop-off and public bus route.

The new road connection provides an opportunity for additional basement entry to ILU building which reduces the impact of western driveway to the adjacent property by relocating the main point of access for servicing and loading/unloading to the eastern portion of the retirement village.

- LEGEND**
- Retirement Village Access
 - Townhouse Precinct Access
 - Service Trail
 - Carpark Access

2 PROPOSED MASTER PLAN

ARTICULATION RESPONDING TO LOCAL CONTEXT

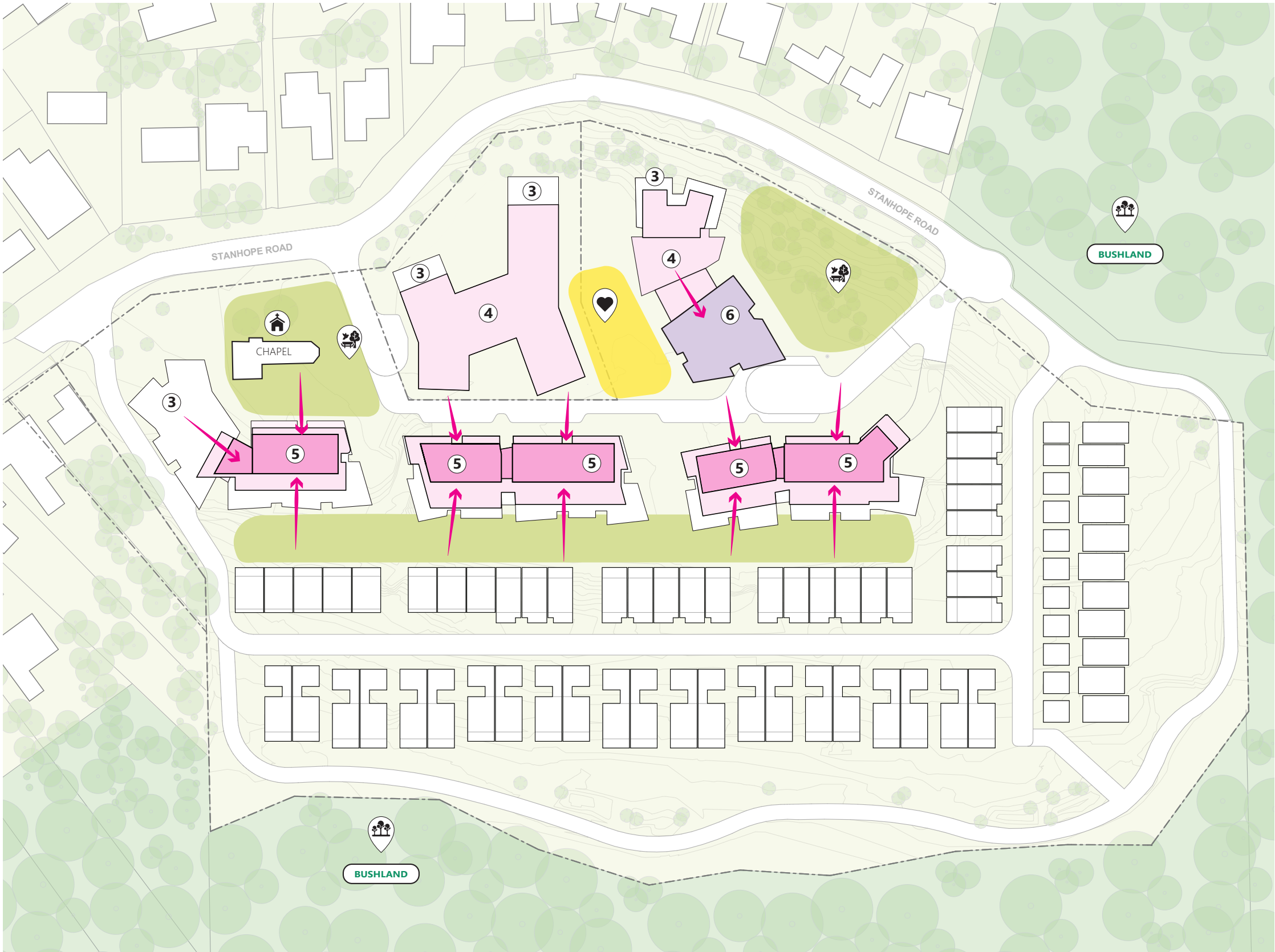


The proposed buildings range in height, length and scale to create a variety of built form that is then transformed into smaller building bulks that are orientated towards predominant views including the adjacent heritage Chapel, the local residential buildings and the bushland.

Further facade articulations and fine-grain building expressions have been utilised to create legible built forms that clearly respond to the immediate context that surround the built form.

2 PROPOSED MASTER PLAN

UPPER LEVEL SETBACKS



The built form has been scaled down to 3-4 storey buildings at Stanhope Road to reduce the perceived height of buildings while providing better solar amenity for the Headfort House and the open spaces that are located at the side of the Chapel and the Clubhouse building.

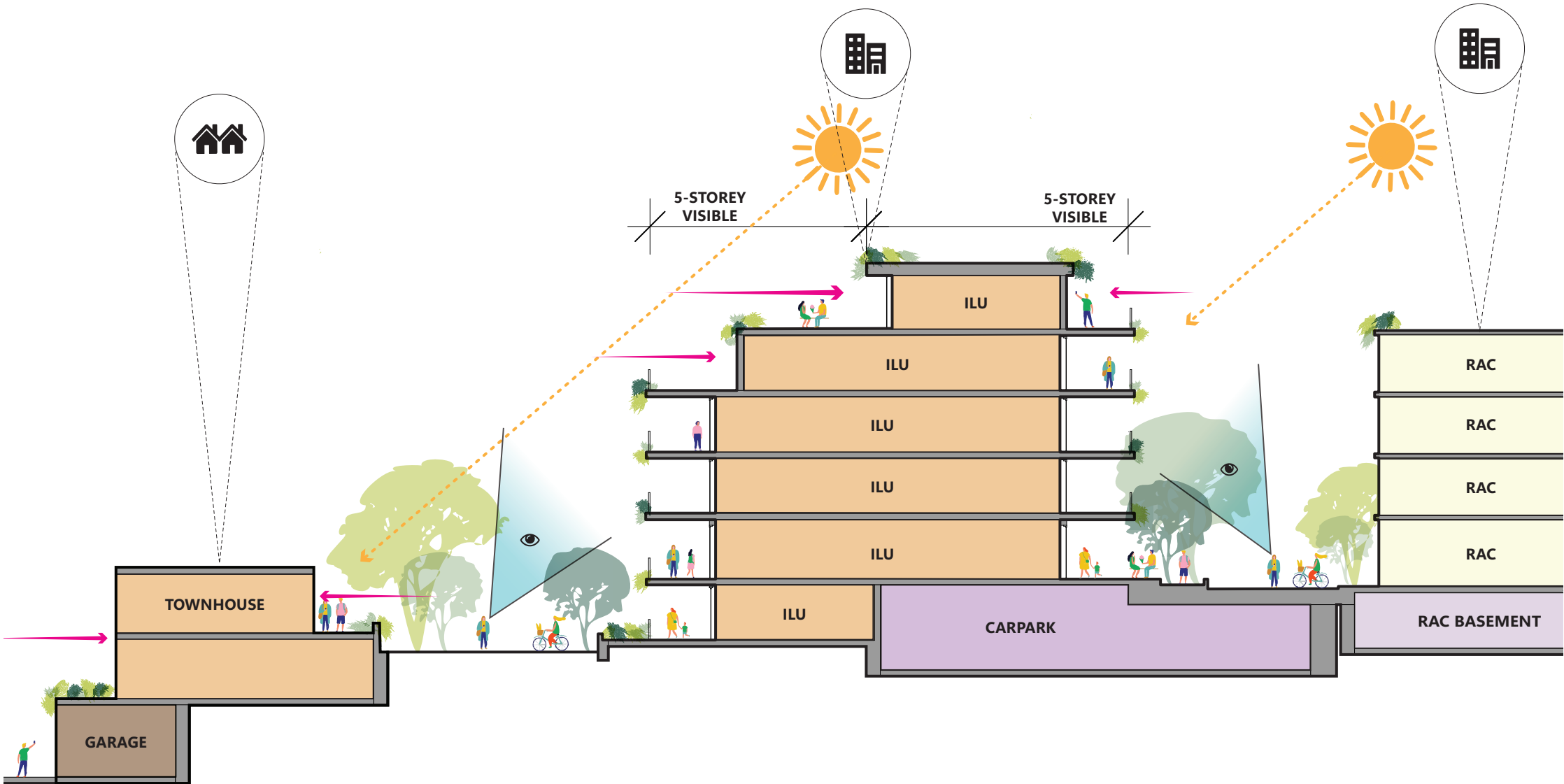
Upper level setbacks have been utilised for the ILU buildings at the centre of the village to create a transition in height and scale which reduces the perceived height of built form to consistent 5-storey buildings when viewed from Main Street or from the linear park to the south of ILUs.

Upper level setbacks enhance solar amenity to the townhouse precinct and the linear park that would have been otherwise overshadowed by the east-west orientation of the ILU buildings.

LEGEND

- 3-Storey
- 4-Storey
- 5-Storey
- 6-Storey

2 PROPOSED MASTER PLAN BUILDING SCALE



The diagrammatic section demonstrate how the proposed development has utilised existing site levels to create a transition in scale that respond to the surrounding character and is embedded in the landscaped setting of the site.

Building blocks adjacent to neighbouring context are envisaged to step down to conform better to the streetscape character of Stanhope Road while upper level setbacks reduce the perceived height of built form and enhance solar amenity.



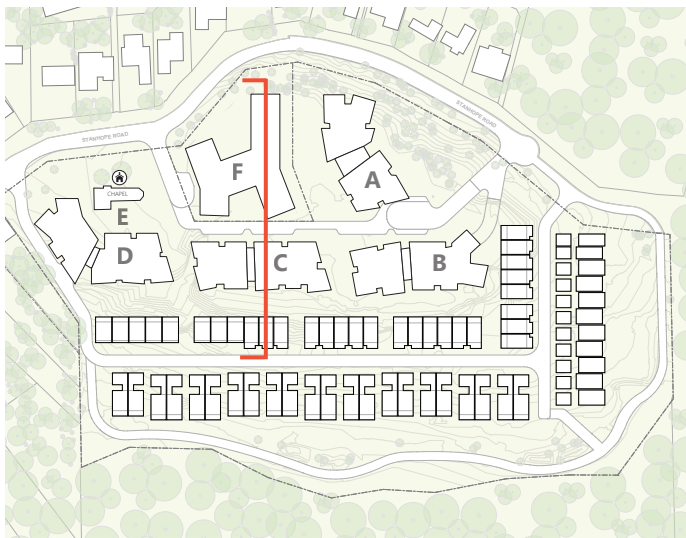
RESIDENTIAL



MAIN STREET



VILLAGE SQUARE



3

PLANS

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BASEMENT 2 PLAN



3 PLANS
BASEMENT 1 PLAN



3 PLANS
GROUND FLOOR PLAN



3 PLANS
LEVEL 1 PLAN



3 PLANS
LEVEL 3 PLAN



3 PLANS
LEVEL 4 PLAN



3 PLANS
LEVEL 5 PLAN



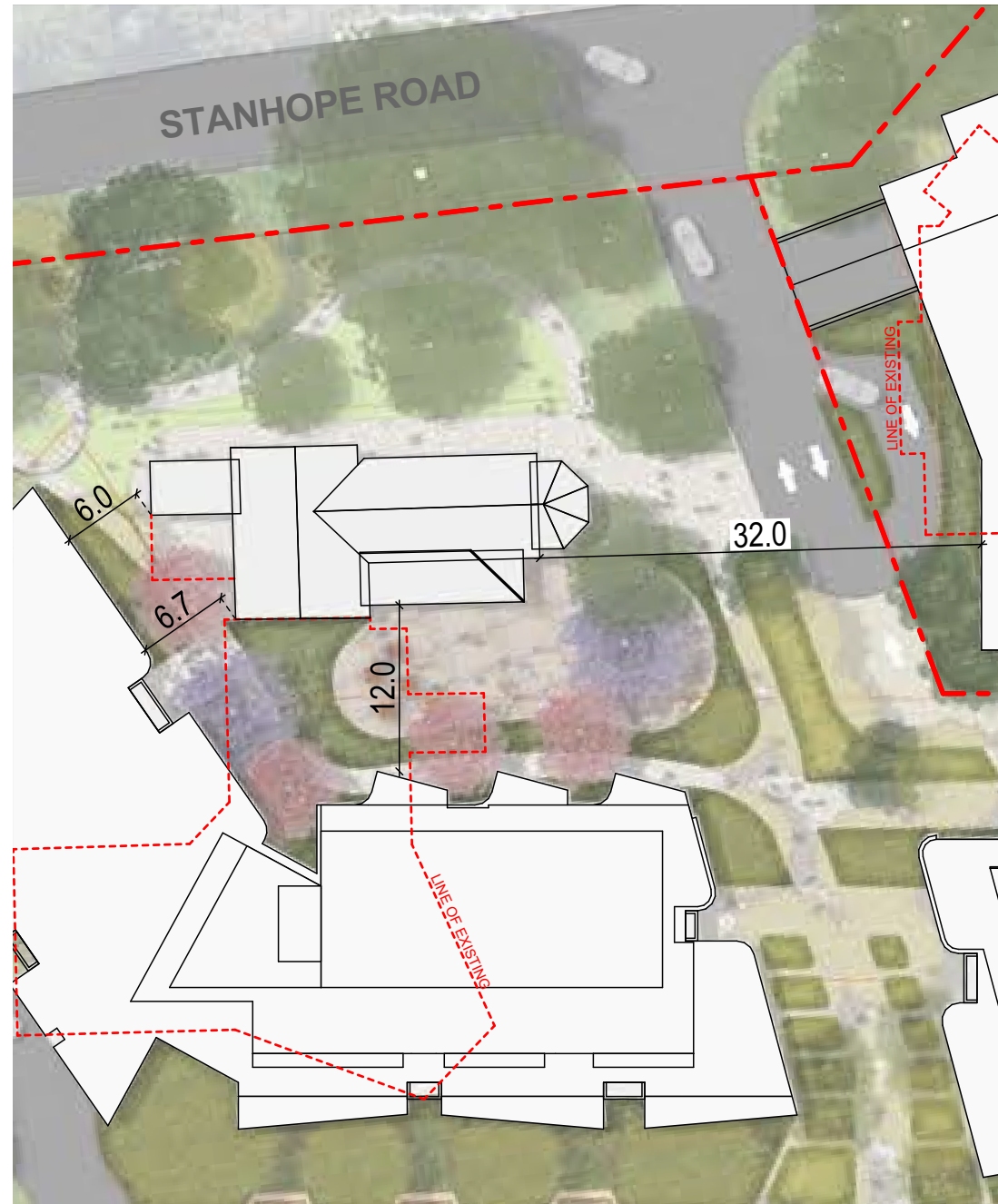
3 PLANS
ROOF PLAN



HEADFORT HOUSE TREATMENT



SEPARATION TO HEADFORT HOUSE - EXISTING



SEPARATION TO HEADFORT HOUSE - PROPOSED

Treatment of Headfort House

The principles that shaped the built form response were:

- The re-invigoration of Headfort House as an integral part of a revised overall masterplan, acting as a communal focus for the western part of the site and contributing to the social life of the village.
- The proposed removal of the built form around the existing building to ensure an appropriate and generous landscape curtilage on all sides, thereby improving the current situation.
- The retention of a significant number of mature trees around the building as an integral component of the landscape curtilage.
- The proposed relocation of the site significant Lady of the Lourdes Grotto to sit adjacent to Headfort House, allowing for the opportunity to enjoy a cohesive response to the history of the site.
- Proposed separation to new built form to be equal to or greater than that currently existing on site.
- Approx. 32m separation proposed to the east, currently varying separation - ranges from 26m to 28m (approx.).
- 12m separation proposed to the south, currently no separation.
- Varying separation proposed to the west due to the angled nature of the proposed new built form – generally an average of 6m separation.
- The proposed new building immediately adjacent to Headfort House to act as an appropriate and sensitive neighbour in its scale and architectural expression. The portion of the building to the south of Headfort House intended to form a calm 'backdrop' to the view from Stanhope Road and the portion of the building to the west to step down to reflect a scale and building envelope that is complementary.



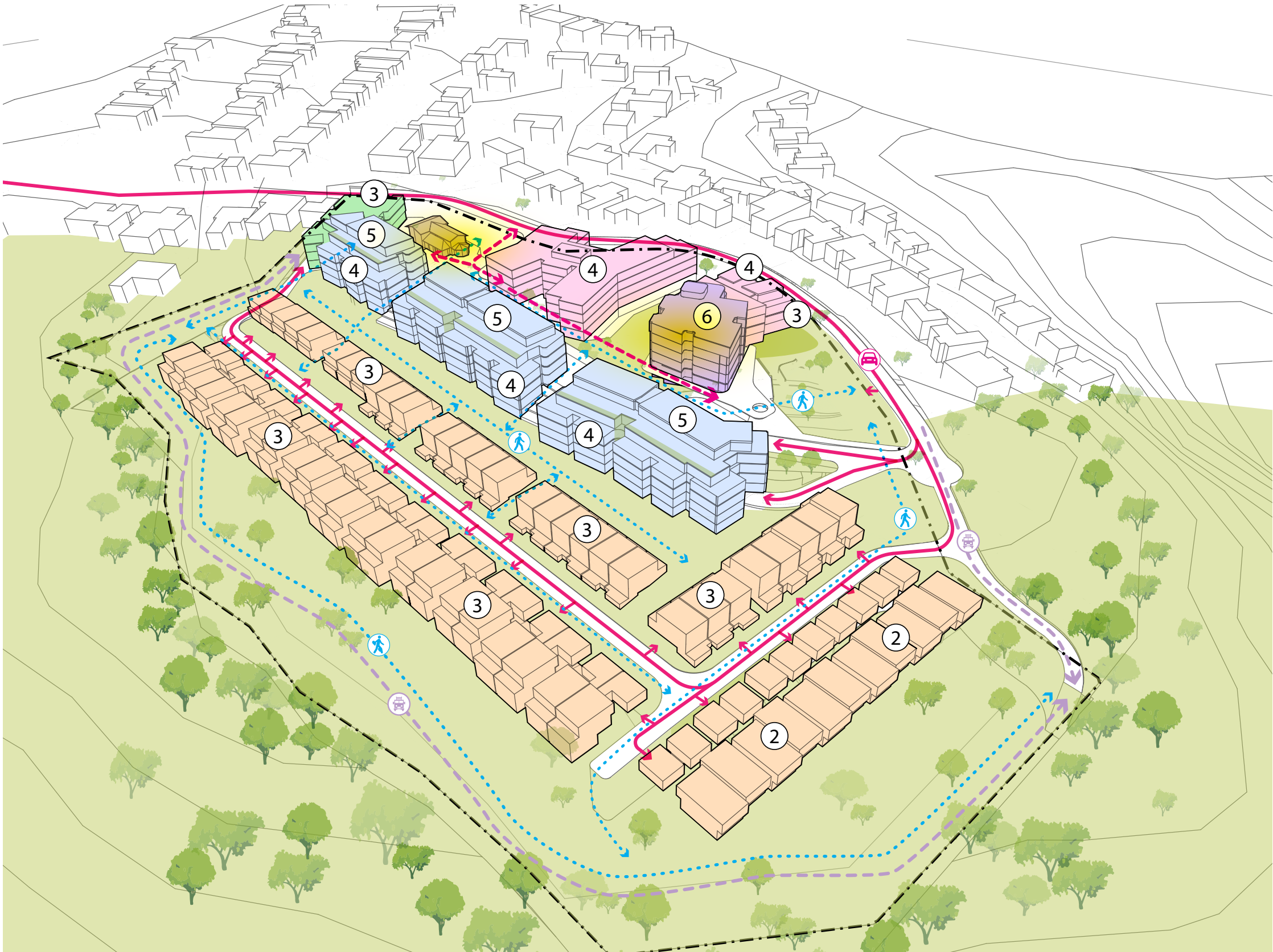
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URBAN FORM & MASSING

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4 URBAN FORM & MASSING

BUILDING SCALE (NUMBER OF STOREYS)



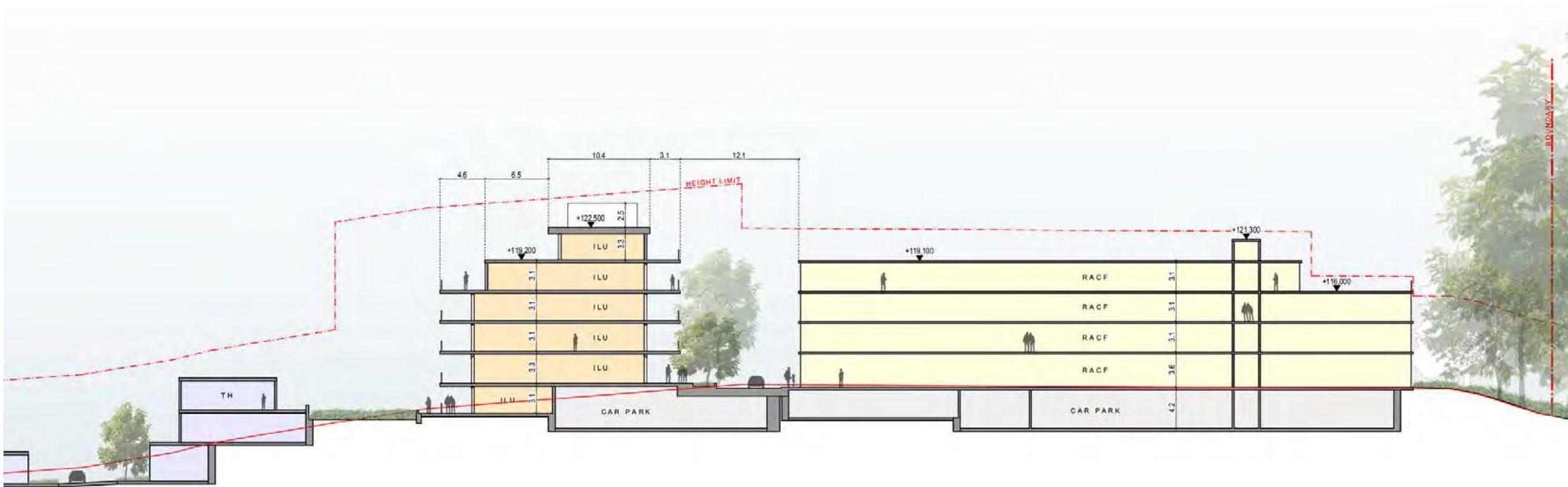
The proposed master plan has adopted a scale transition in building heights to respond to the surrounding character of the site. Blocks adjacent to neighbouring context are envisaged to step down to conform better to the streetscape character of Stanhope Road.

Upper level setbacks have created a scale transition from the north of the retirement village towards the townhouse precinct. The site topography has been utilised to reduce the perceived number of storeys from five to four when viewing the independent living buildings from the south.

4 URBAN FORM & MASSING SITE SECTIONS

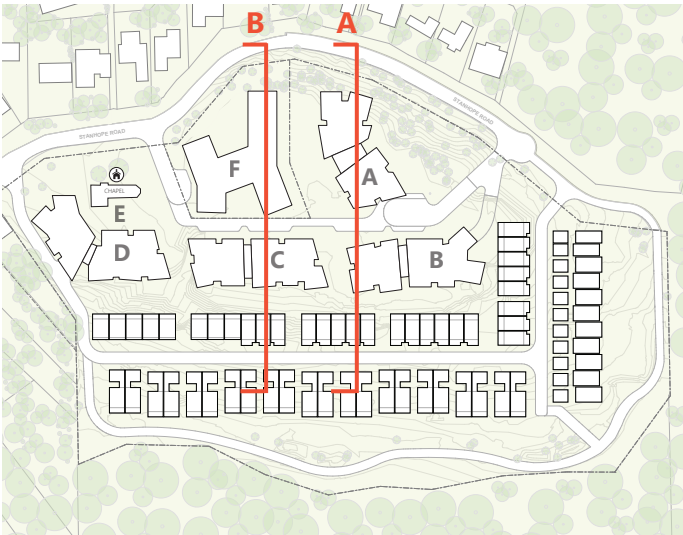


SECTION A



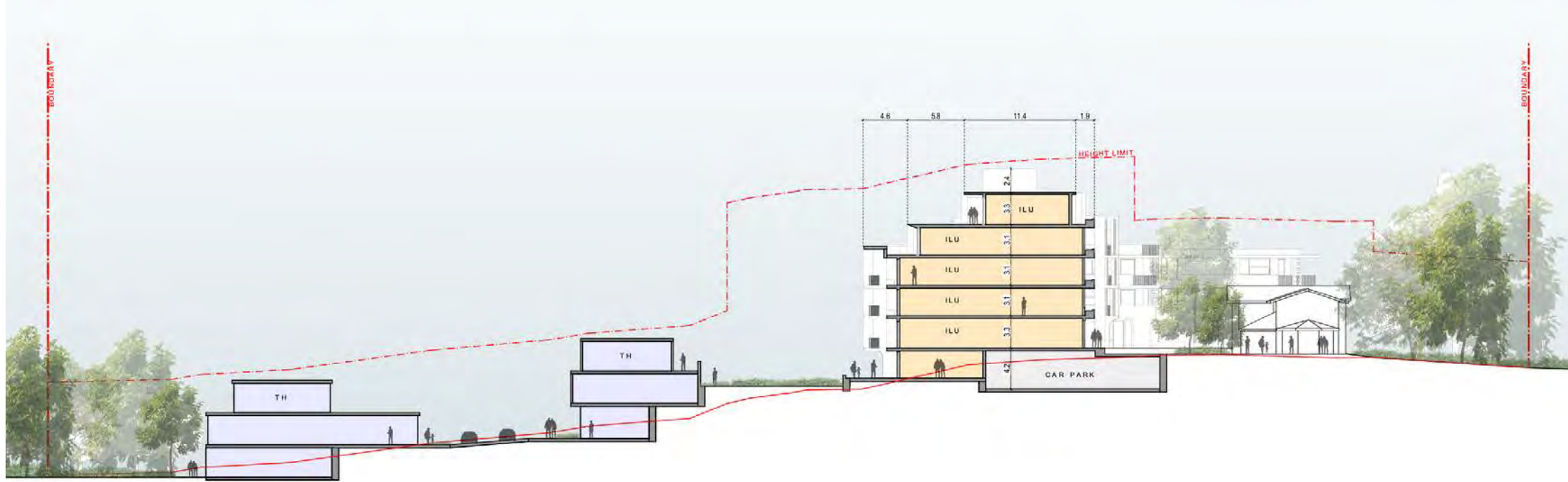
SECTION B

The sections demonstrate how the proposed development has been scaled to respond to the surrounding character of the site. Blocks adjacent to neighbouring context are envisaged to step down to conform better to the streetscape character of Stanhope Road.



4 URBAN FORM & MASSING

SITE SECTIONS

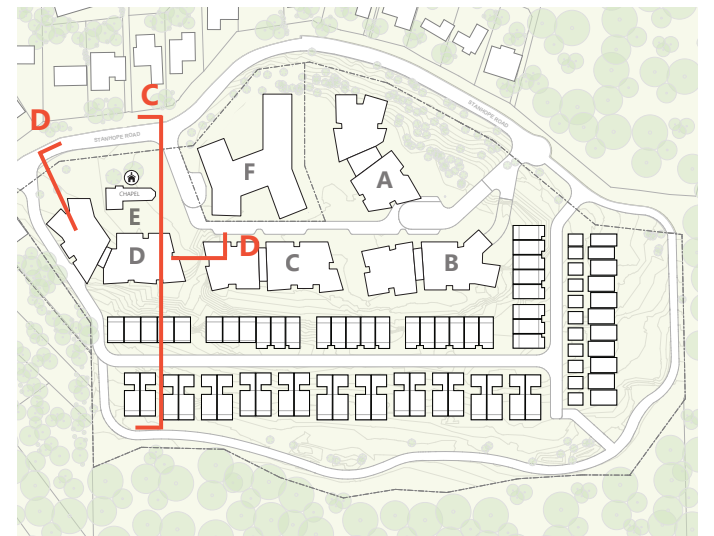


SECTION C



SECTION D

Upper level setbacks create a scale transition from the north of the retirement village towards the townhouse precinct. The site topography also provides variation in height which reduces the perceived number of storeys from five to four when viewing the independent living buildings from the south.



4 URBAN FORM & MASSING
SENIORS LIVING ARRIVAL







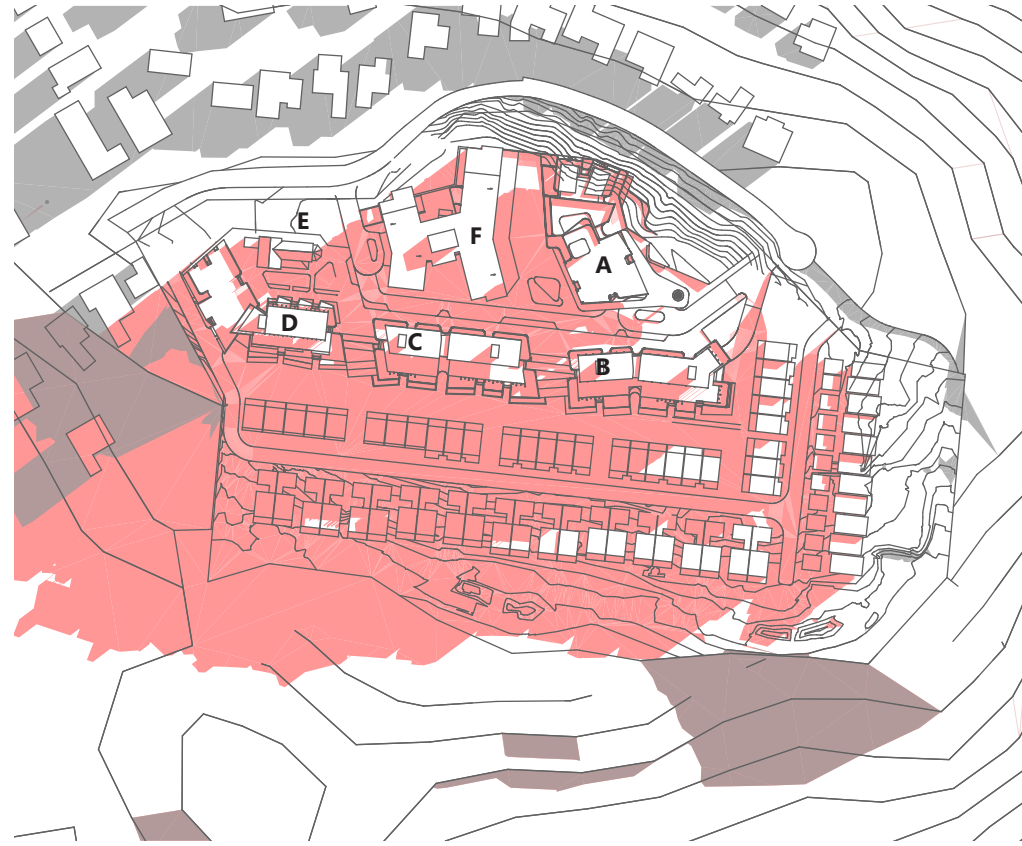


5

COMPLIANCE

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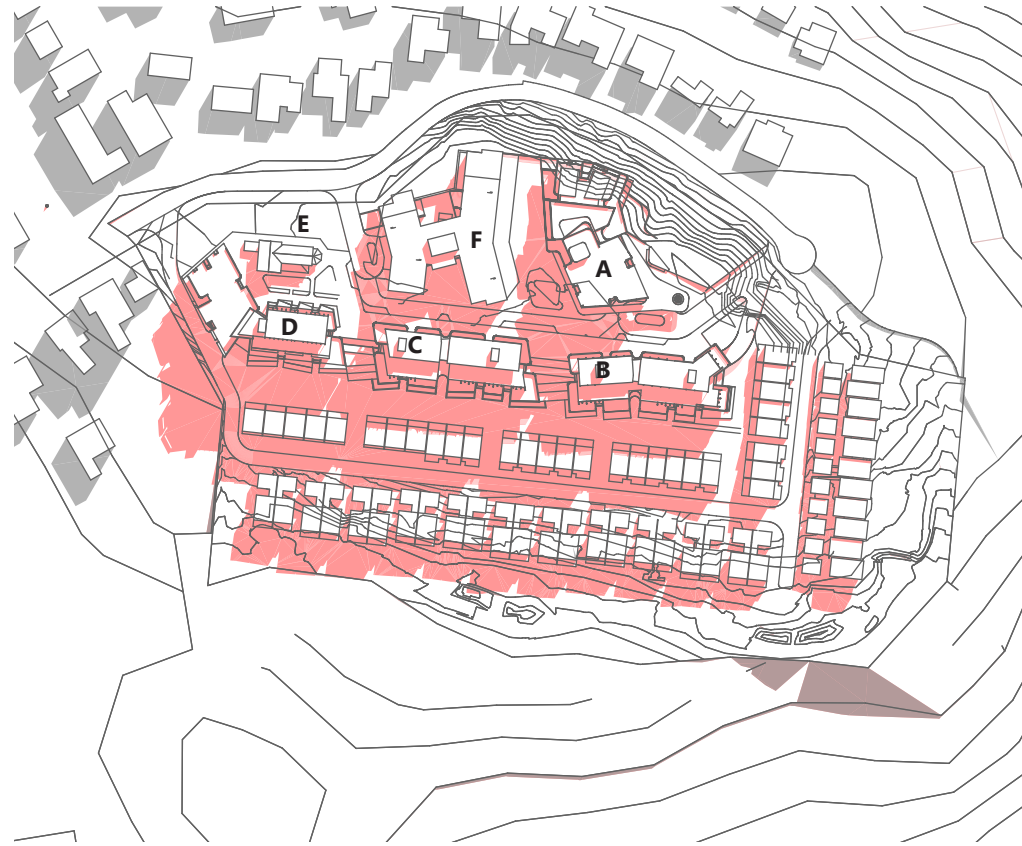
SHADOW ANALYSIS



21st June - 8AM



21st June - 9AM



21st June - 10AM



21st June - 11AM

Shadow Diagrams

Following the path of the sun at winter solstice, 21 June, the overshadowing impact of the independent living buildings can be studied.

Within the retirement village, the proposed built form has been oriented such that the majority of open spaces will receive more than two hours of sunlight during the winter solstice.

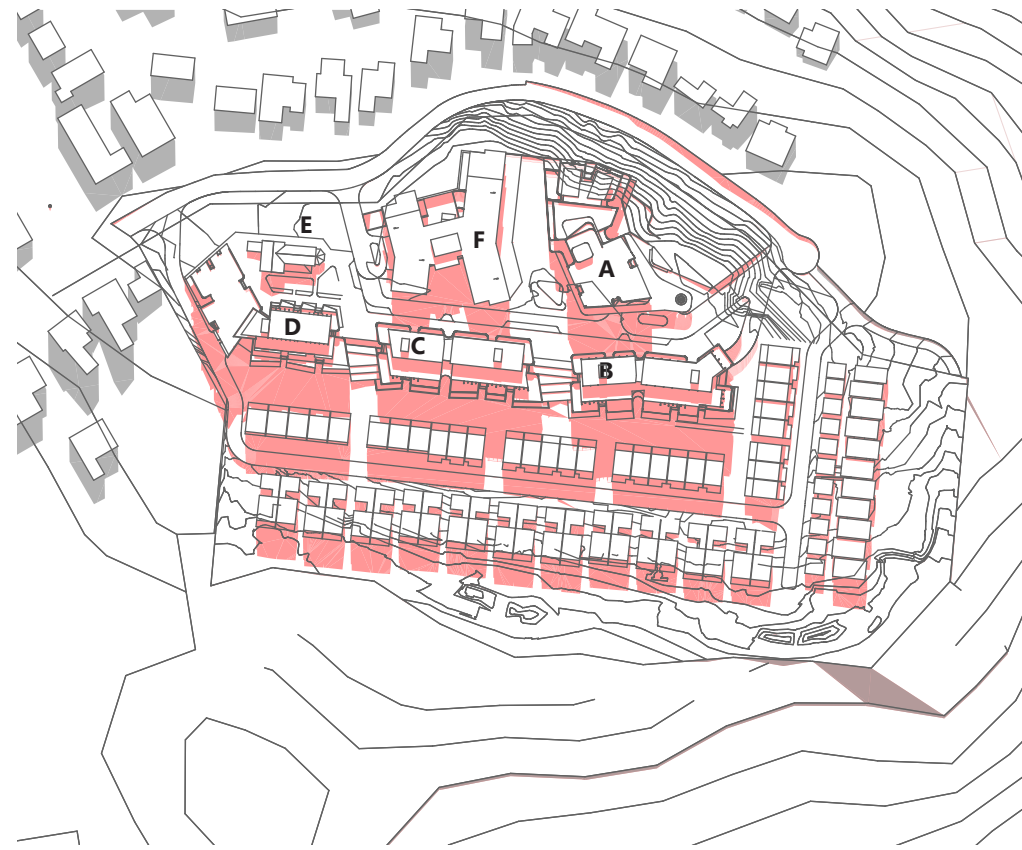
Overshadowing occurs along the southern portion of the site from the taller independent living buildings over the lower scale residential townhouse precinct.

The majority of independent living units receive more than two hours of solar access between the hours of 9am-3pm.

Legend

- Shadow cast by new development
- Shadow cast by existing context

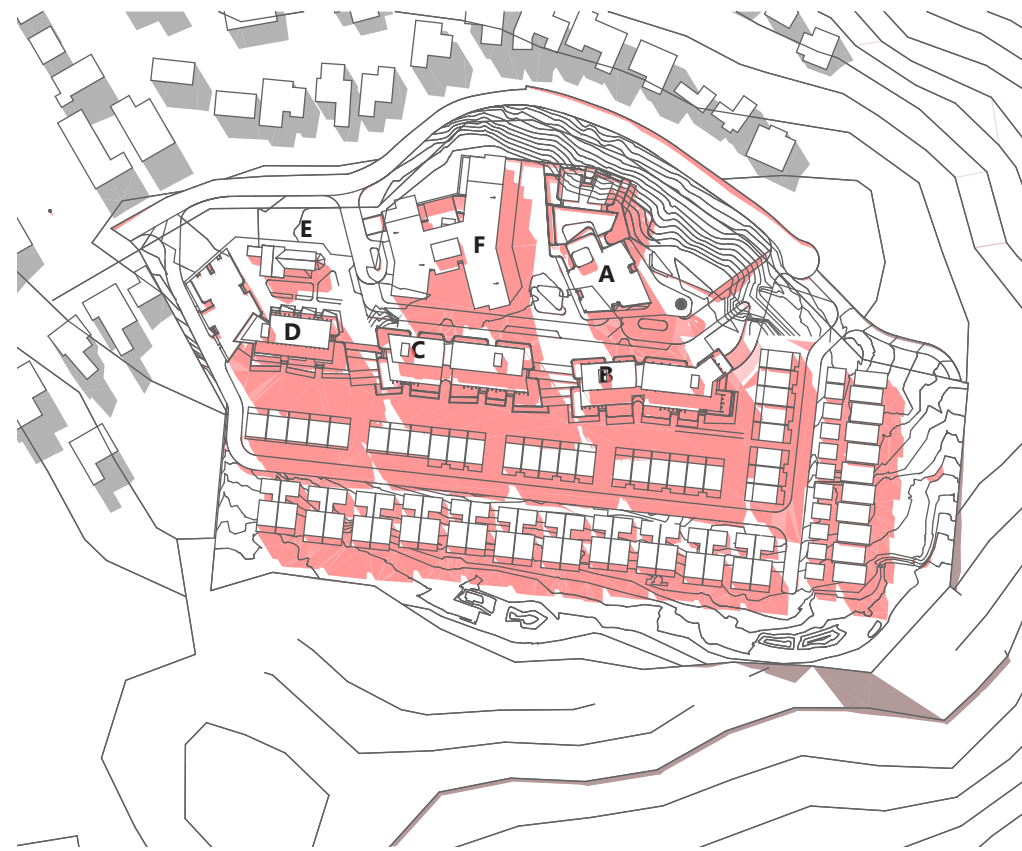
SHADOW ANALYSIS



21st June - 12PM



21st June - 13PM



21st June - 14PM

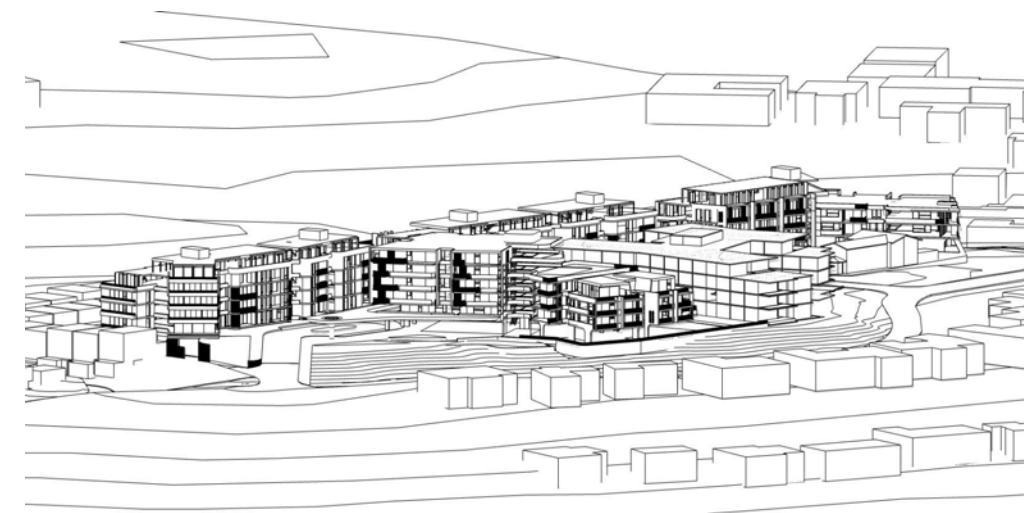


21st June - 15PM

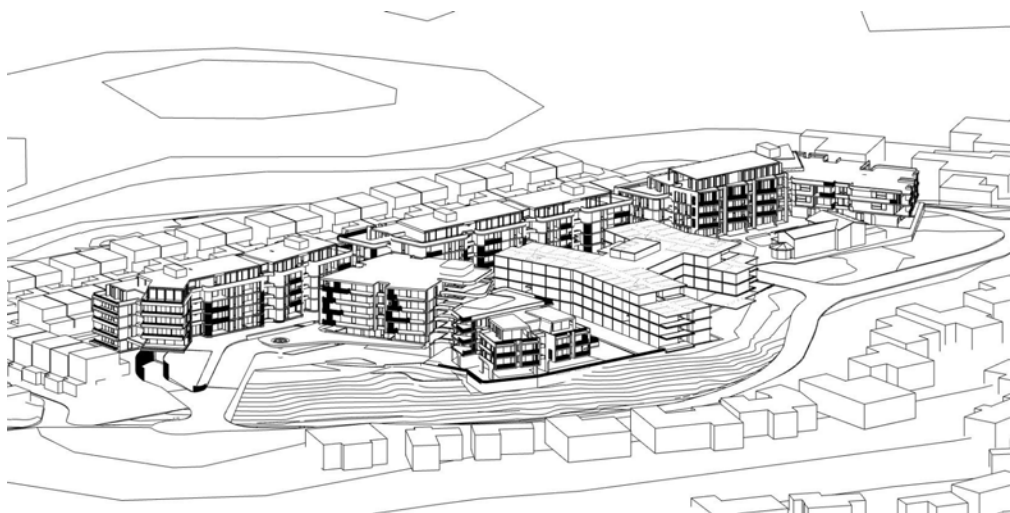
Legend

- Shadow cast by new development
- Shadow cast by existing context

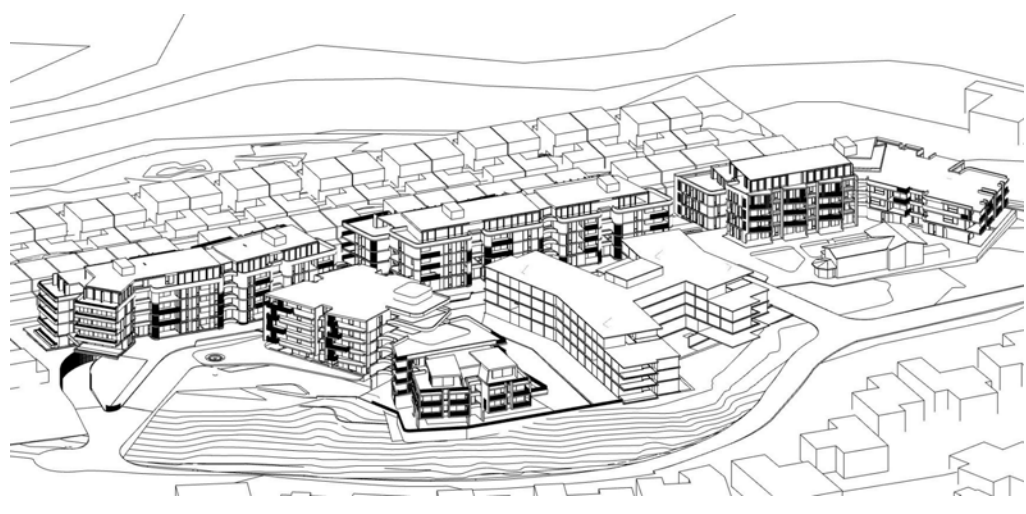
5 COMPLIANCE
SOLAR ACCESS



21st June - 8AM



21st June - 9AM



21st June - 10AM

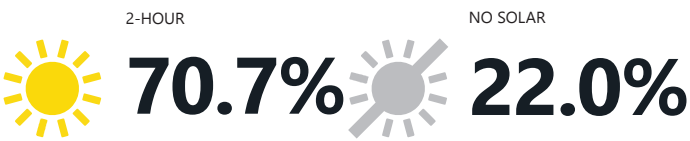


21st June - 11AM

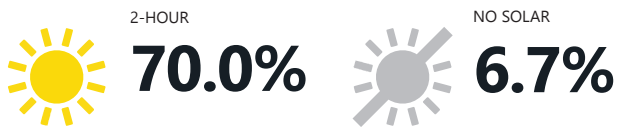
Solar Access to Retirement Village

The built form in the amended master plan is oriented to maximise the number of north facing apartments receiving direct sunlight within living areas and private open spaces. Upper level setbacks and building indentations have enhanced solar access to single aspect south facing apartments. In addition, high elevation of the site allows south-facing units to enjoy significant amenity through bushland views.

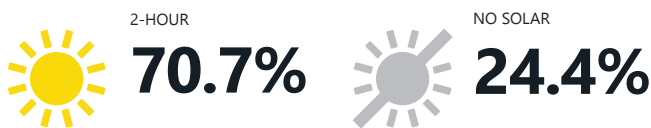
TOTAL
ILUS



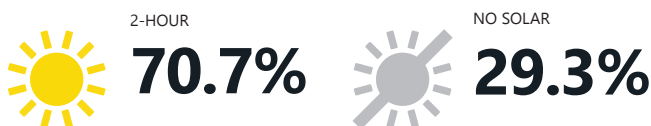
BLDG A



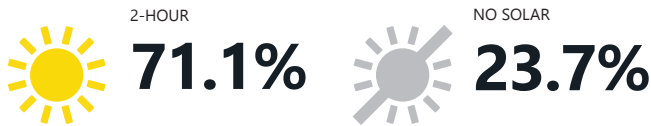
BLDG B



BLDG C



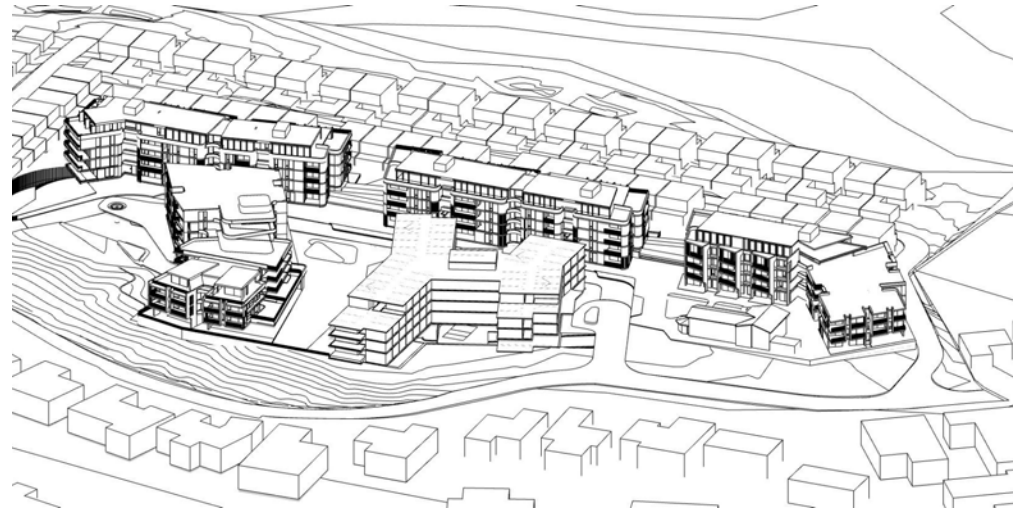
BLDG D



5 COMPLIANCE
SOLAR ACCESS



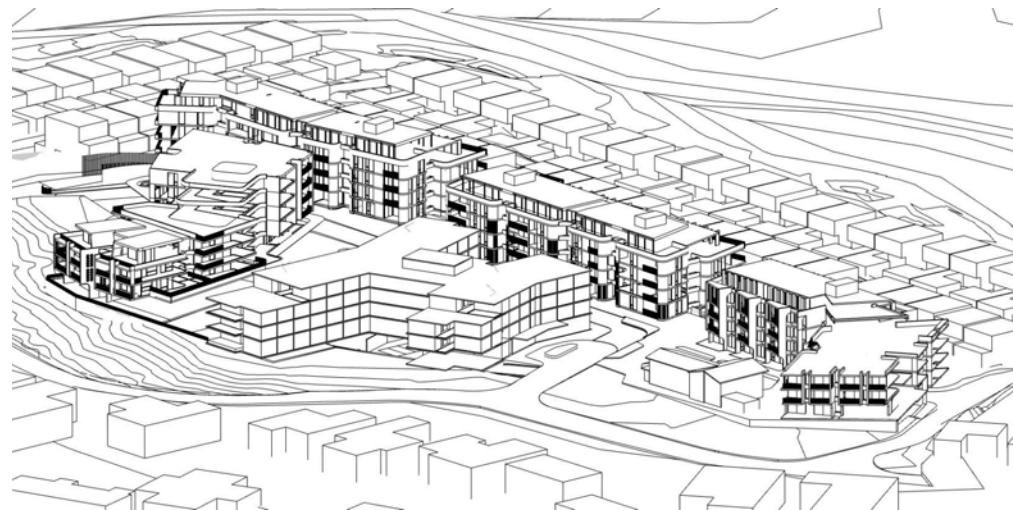
21st June - 12PM



21st June - 13PM



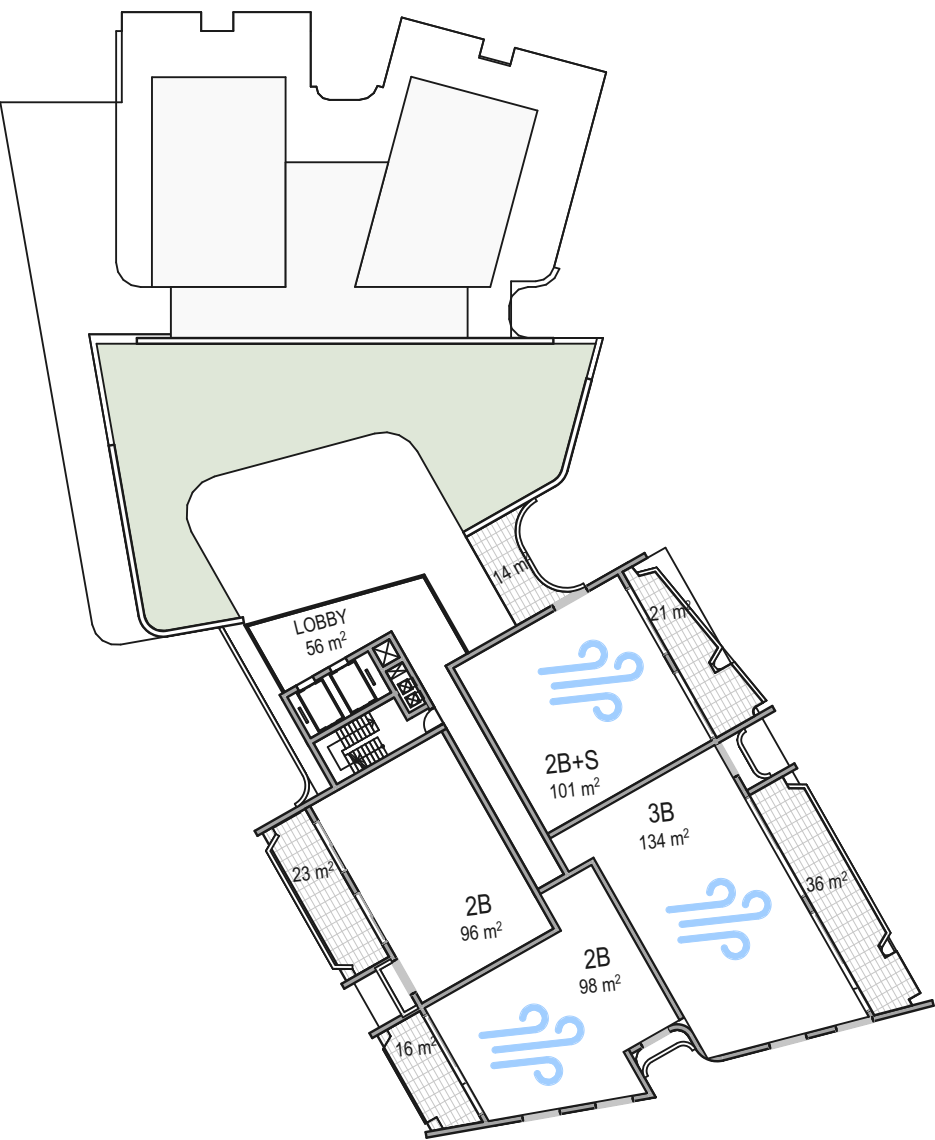
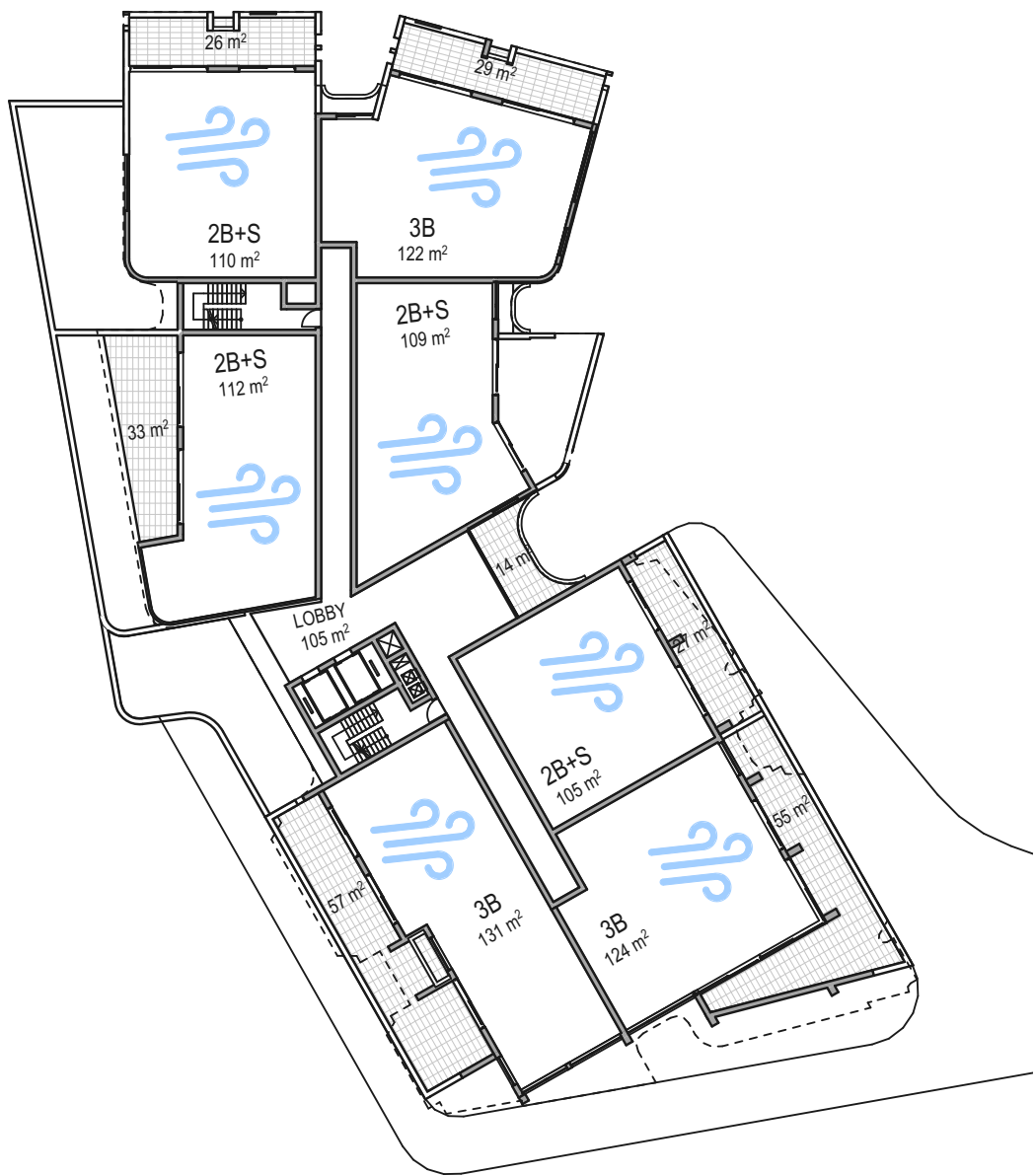
21st June - 14PM



21st June - 15PM

5 COMPLIANCE

NATURAL VENTILATION - BUILDING A



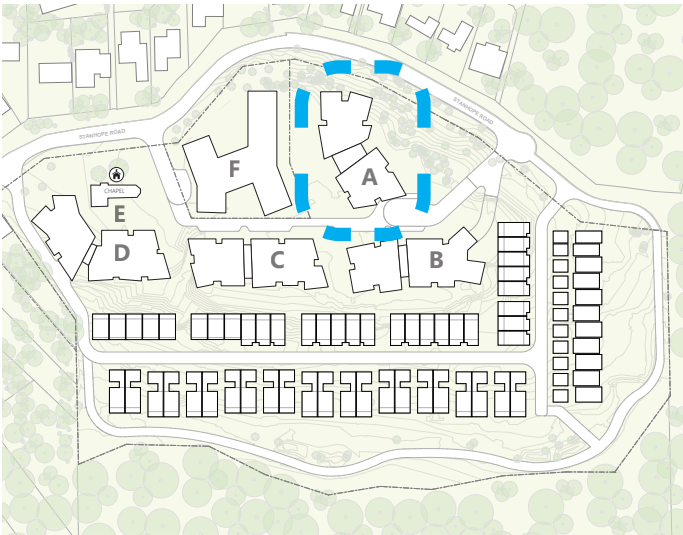
Natural Ventilation to Retirement Village

Building floorplate is designed such that dual aspect apartments with direct exposure to the prevailing winds are maximised within each building. Effective building indentations as well as articulation of the corners and balconies have been considered to enhance natural cross ventilation.

Amenity to the apartment corridors is ensured by providing windows at each lift lobby and core. As residents step out of the lift onto their home floor, natural light and a visual connection to the outside is maintained.

BLDG A

 **86.7%**



5 COMPLIANCE
NATURAL VENTILATION - BUILDING B

BLDG B



70.7%

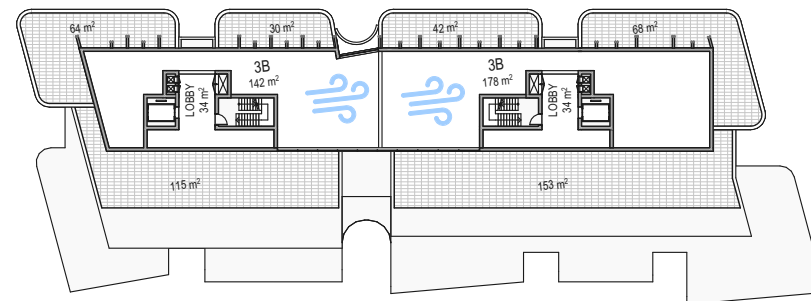
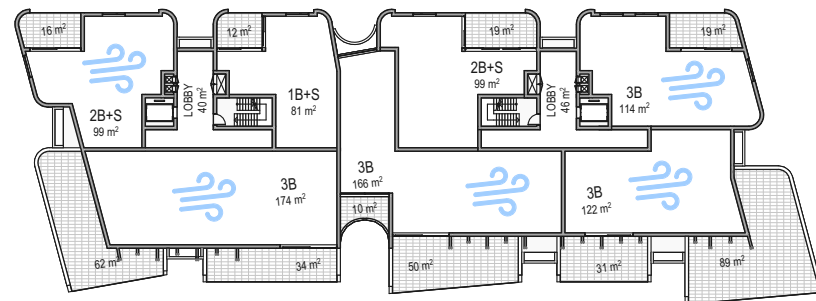
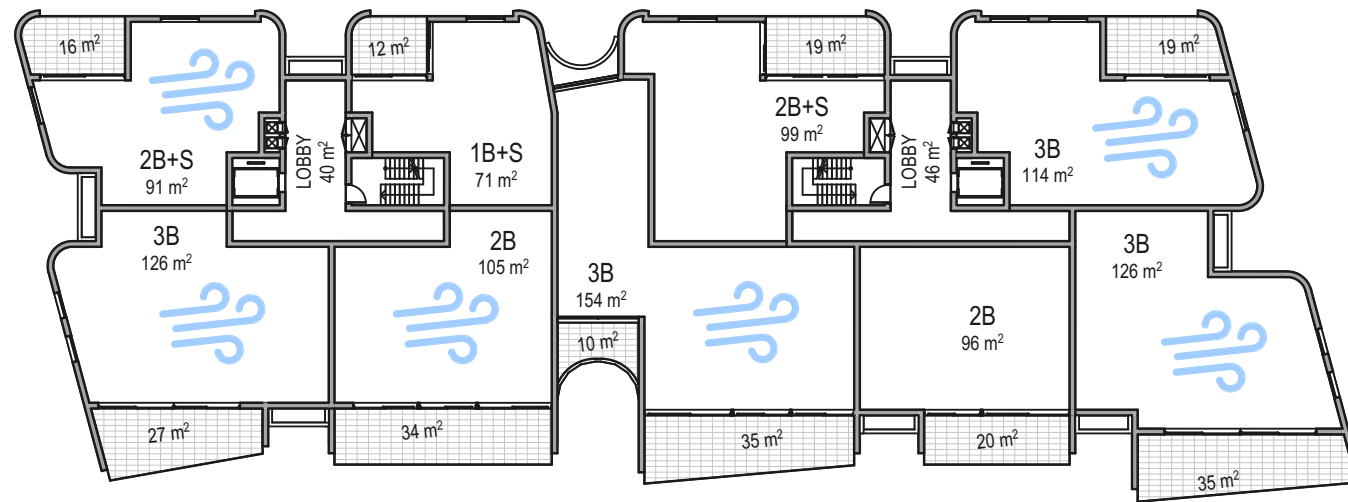


5 COMPLIANCE NATURAL VENTILATION - BUILDING C

BLDG C



70.7%

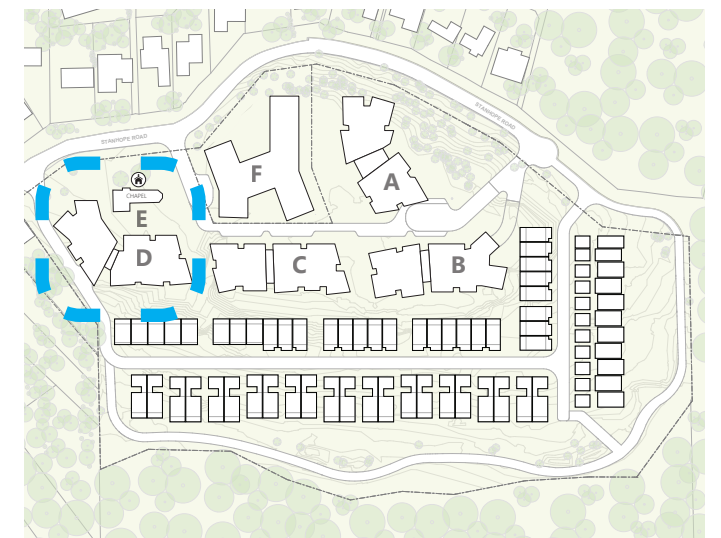
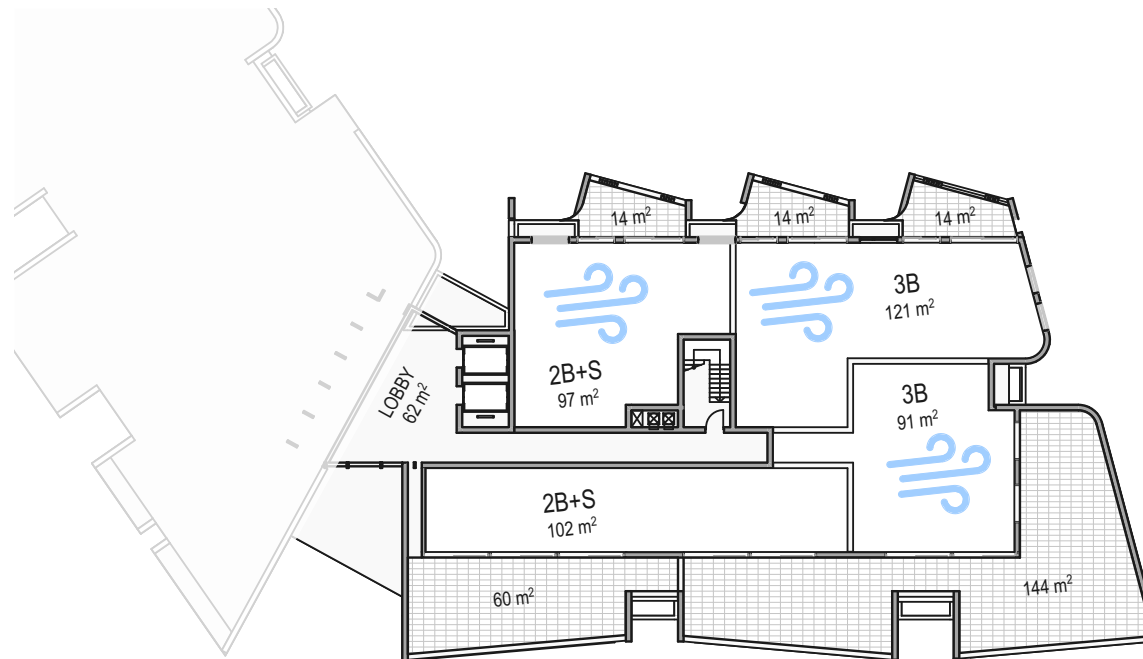


NATURAL VENTILATION - BUILDING D

BLDG D



73.7%



5 COMPLIANCE BUILDING SEPARATION

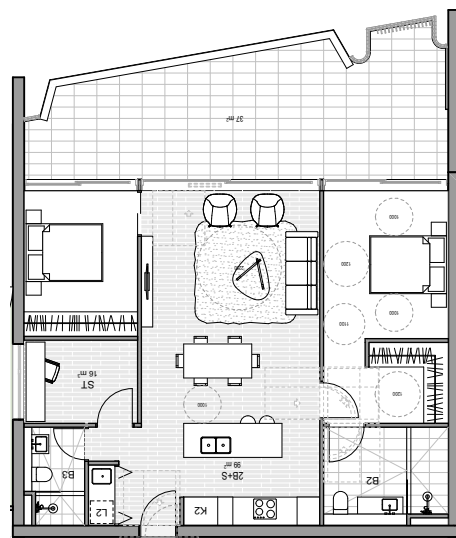
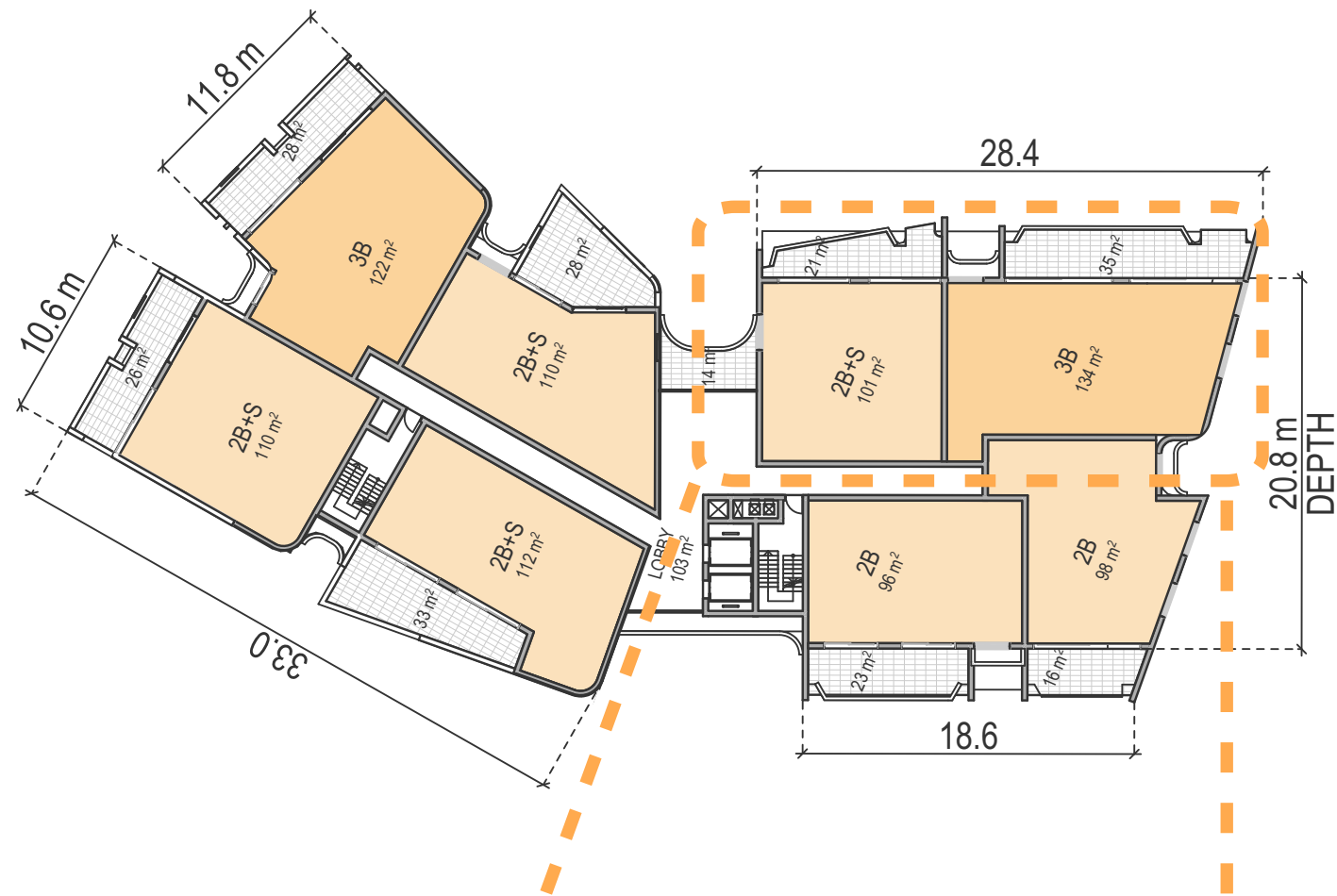


Building Separation to Retirement Village

ADG compliant building separation has been established throughout the retirement village between ILU buildings and between apartments and RACF building.

Amenity to the apartments as well as communal and private open spaces is ensured by providing adequate building separation that increases proportionally to the building height.

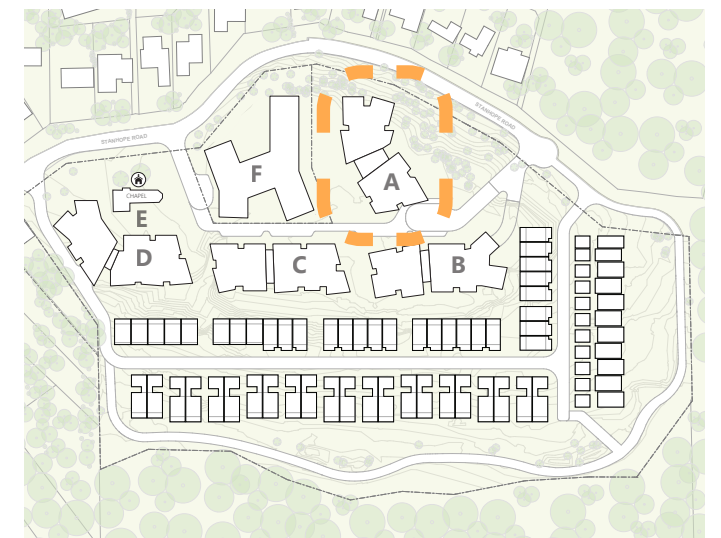
BUILDING DEPTH - BUILDING A



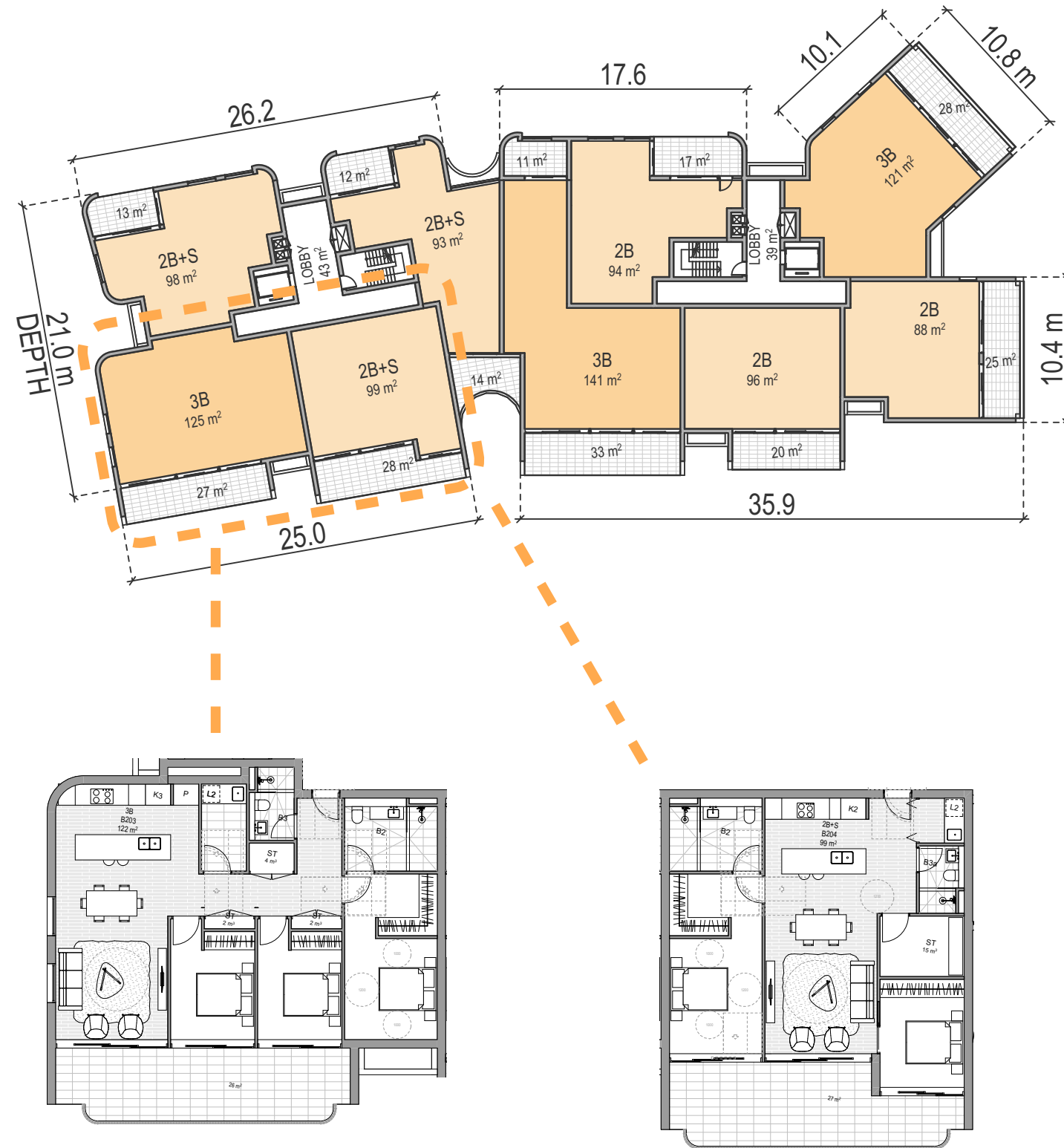
Building Depths & ADG Compliance

Indicative apartment plan layouts are shown to illustrate how the building depth has been considered such that ADG objectives relating to amenity, size and layout are met for each unit.

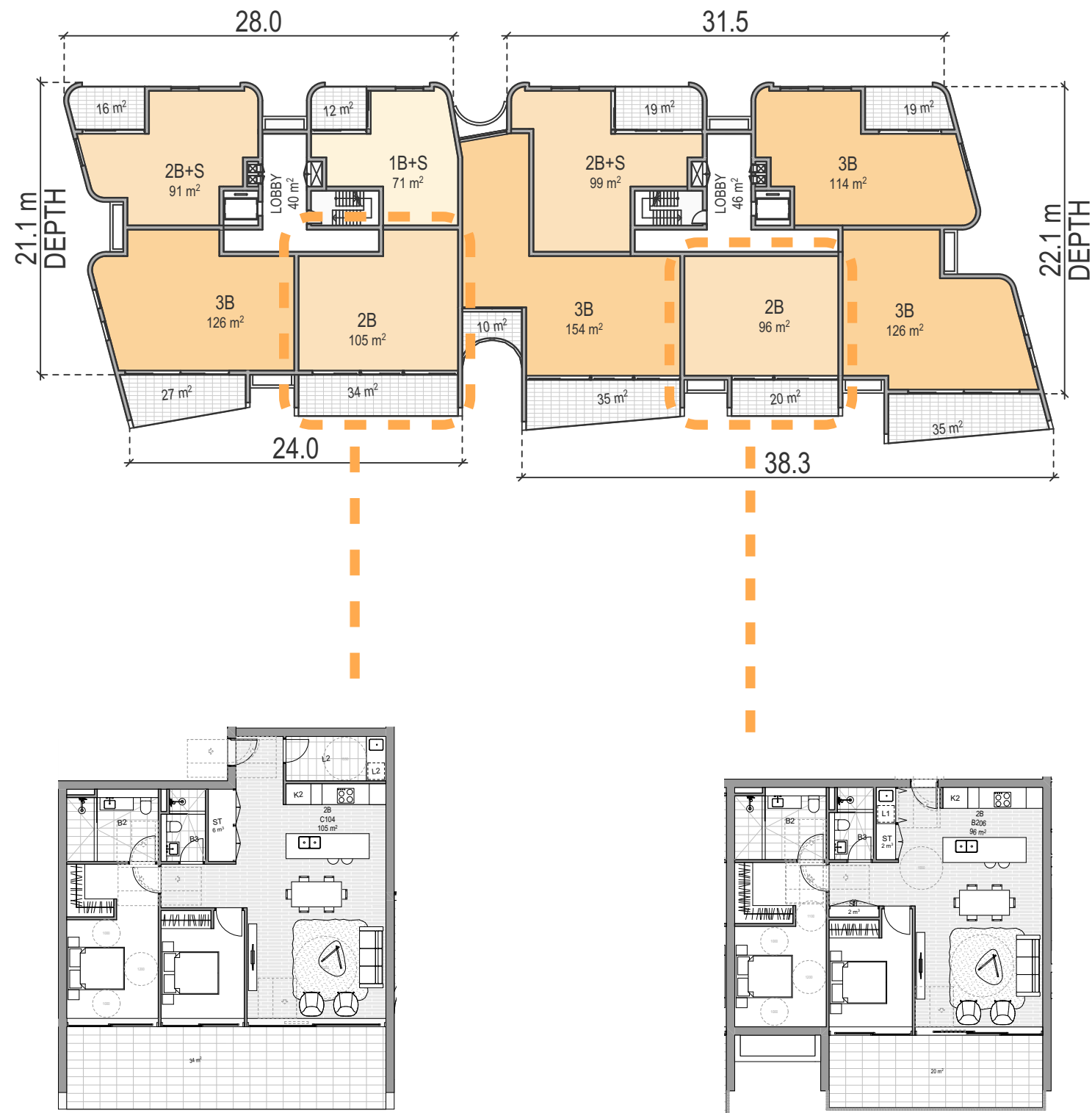
The building massing has been articulated such that each building reads as a series of elevations no longer than 40m in length.



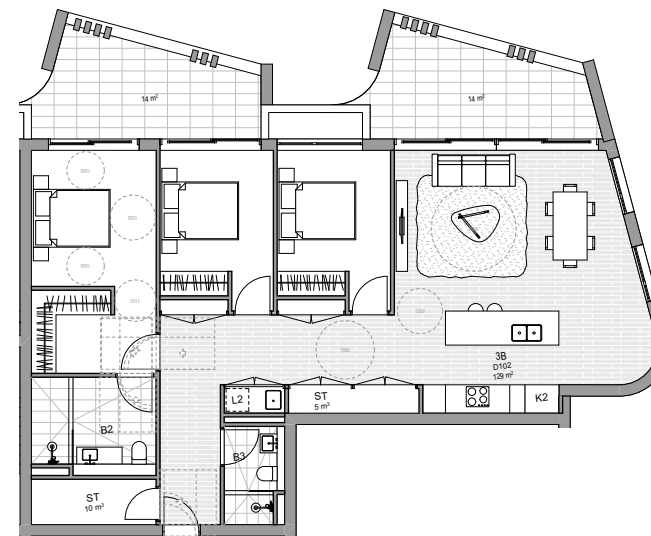
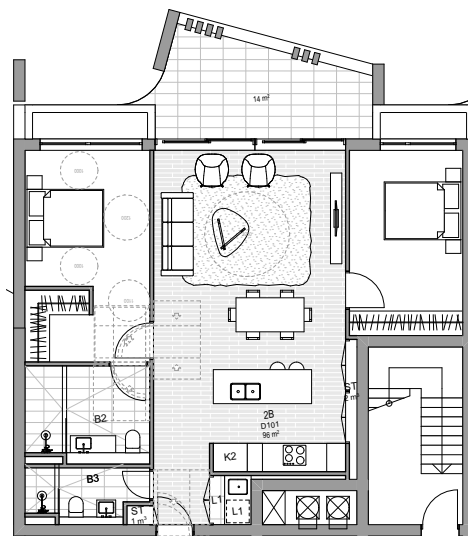
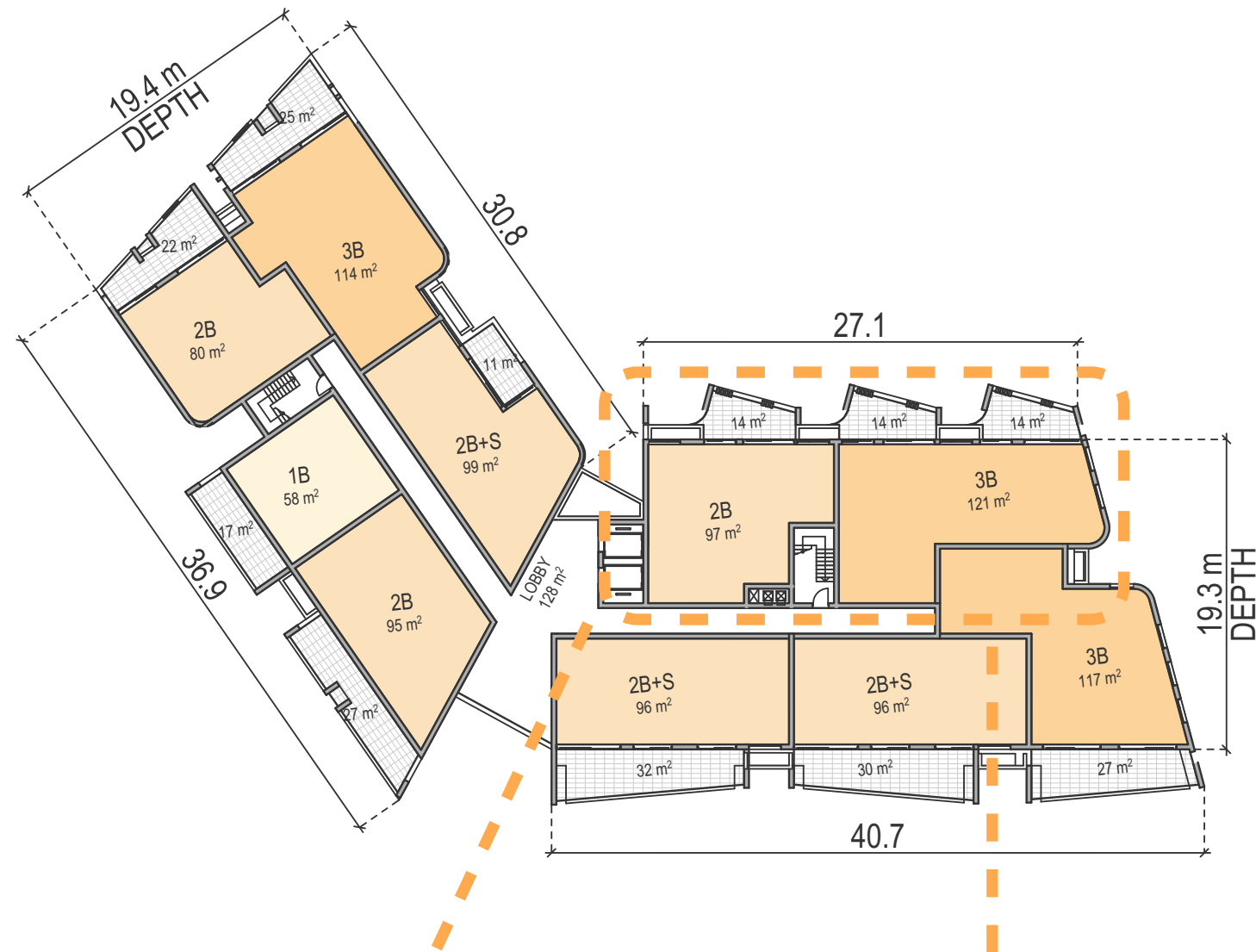
BUILDING DEPTH - BUILDING B



BUILDING DEPTH - BUILDING C



BUILDING DEPTH - BUILDING D



6

LANDSCAPE RESPONSE

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6 LANDSCAPE RESPONSE

LOCAL CHARACTER



LANDSCAPE CHARACTER

Swain Gardens + Gordon Creek + Lane Cove + Garigal National Park

Killara is located within the Lower East of Ku-ring-gai council area and is surrounded by vegetation corridors distinctive of Sydney's bushland. Within close vicinity to the site you have Swain Gardens, Seven Little Australians Park, Gordon Creek, Lane Cove National Park and Garigal National Park National Park.

Detached houses on large lots within garden settings feature heavily in the north of the Lower East. Complemented by mature well-planted streets, these areas are synonymous with the idea of the idyllic and leafy North Shore.



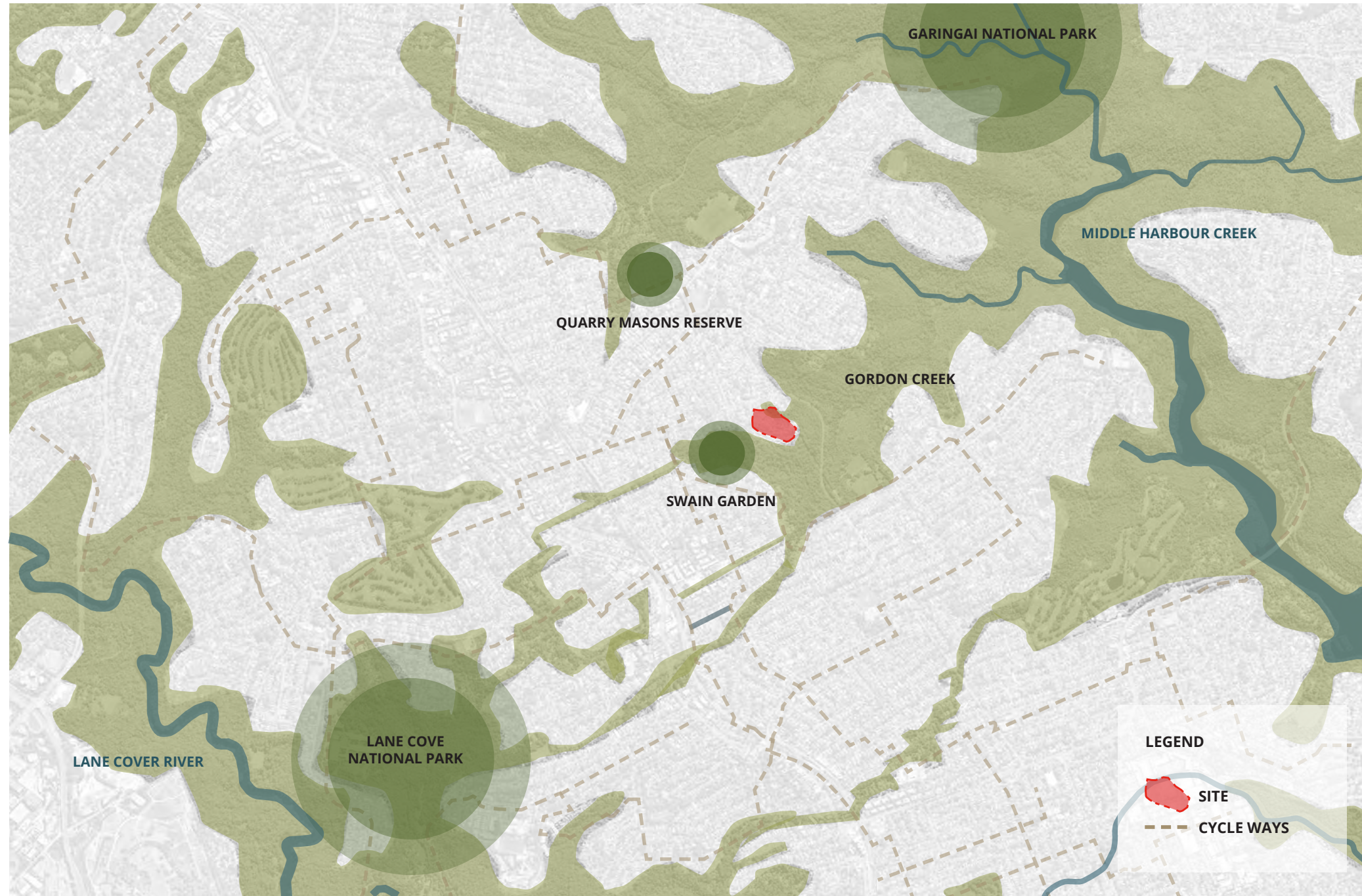
URBAN CHARACTER

Killara Neighbourhood

Key characteristics of the Lower East Killara neighbourhood include:

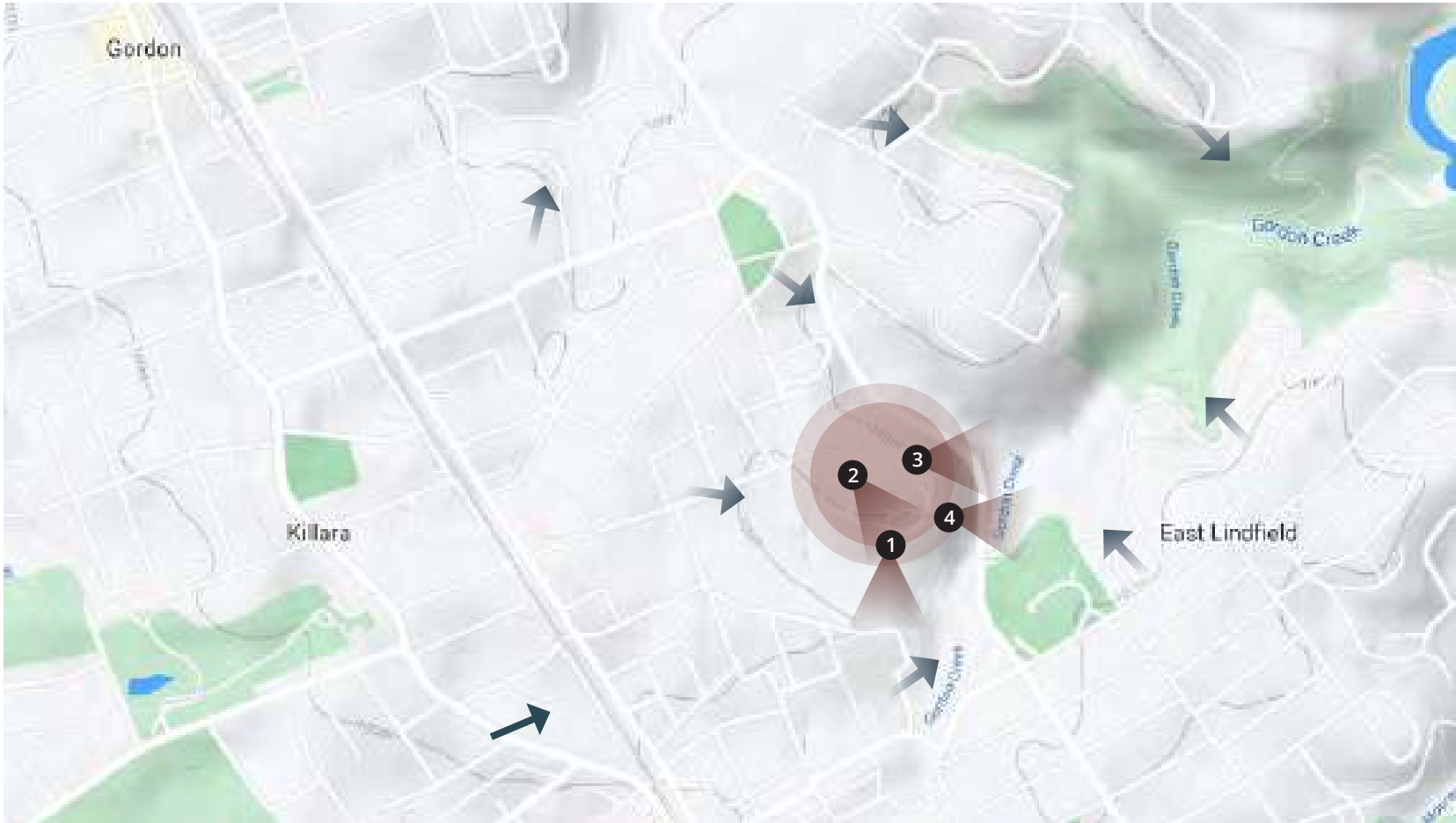
- Streets running perpendicular to the Pacific Highway
- High amount of heritage items
- Consistent street layout reflecting the urban development of the early 1900's
- Large residential lots with considerable private open space
- Many houses with pools and tennis courts
- Archbold and Eastern Arterial roads bisect this area as a major traffic carterly
- Dense tree canopy
- Undulating topography that drops away quickly from the Pacific Highway to Middle Harbour
- Excellent areas of flora and fauna habitat

6 LANDSCAPE RESPONSE GREENERY CONNECTIONS



6 LANDSCAPE RESPONSE

TOPOGRAPHY & VIEWS



The site's topography is a defining characteristic which falls approximately 13 meters from the northern boundary with Stanhope Road to the southern boundary along Lourdes Avenue and the bushland edge. This level change and elevation provides valuable views of Chatswood and Sydney city skylines. Many existing roads and access paths are steep. Our design will make use of this challenge in creating safe access and movement for residents.

1 View of bushland to southern site boundary



2 View from First Avenue



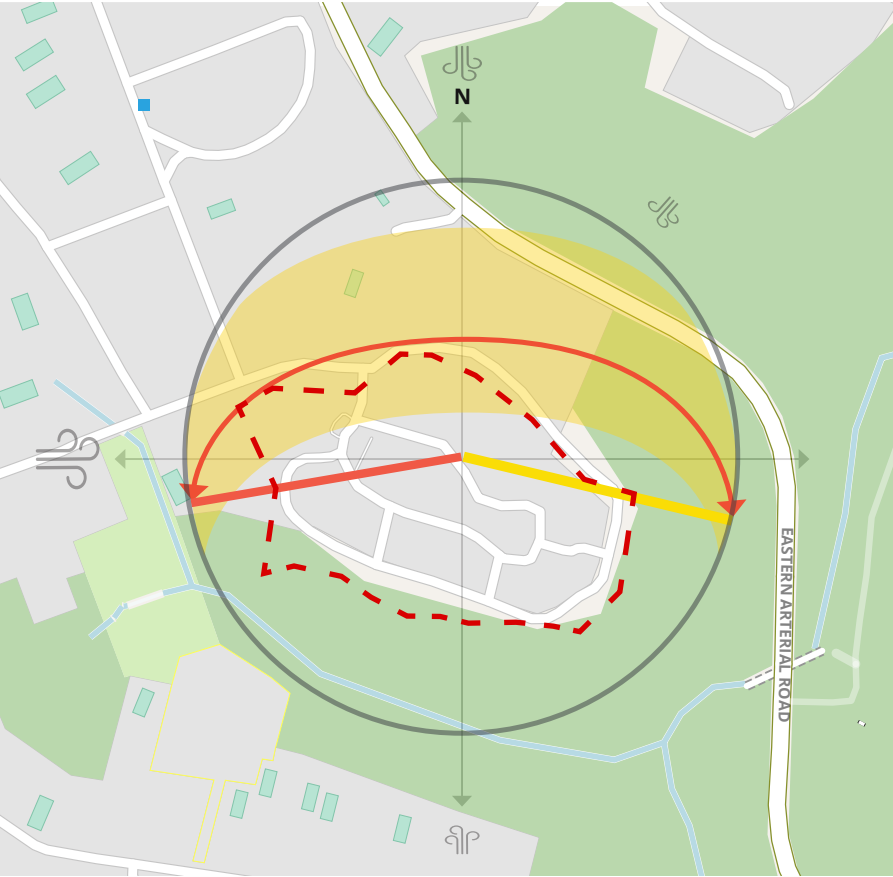
3 View of embankment along Stanhope Avenue



4 Access road along eastern site boundary



Solar Access



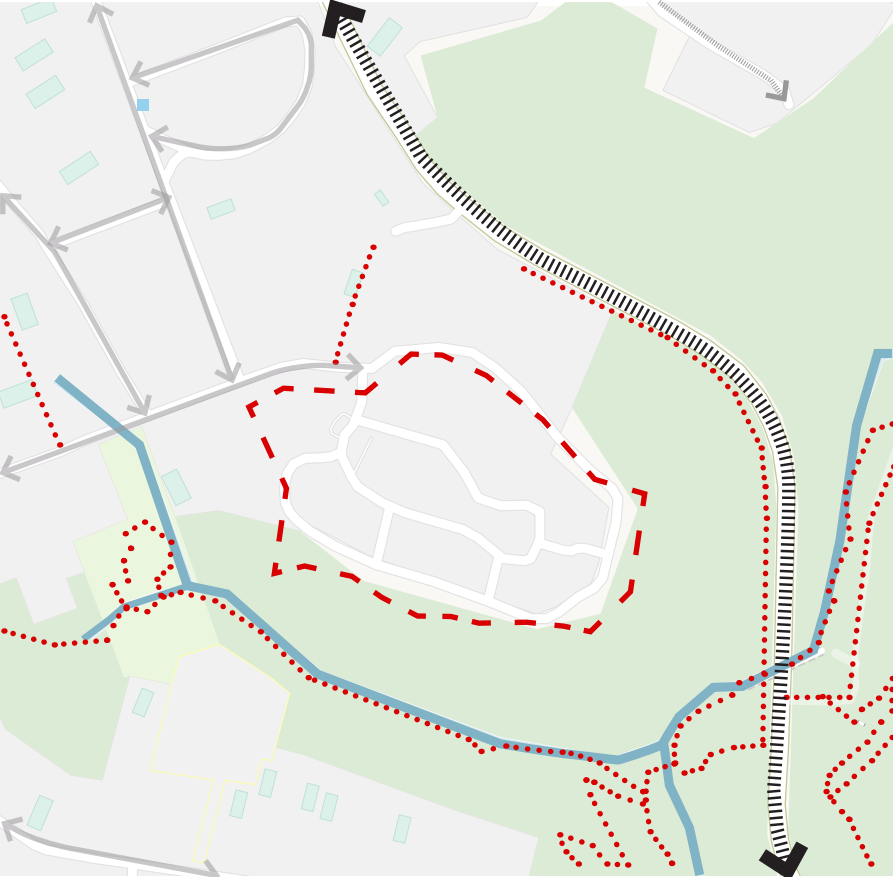
- KEY
- SUNRISE
 - SUNSET
 - SOLAR PATH
 - PREVAILING WINDS

Hydrology



- KEY
- 10M CONTOURS
 - WATER FLOW
 - WATER BODY

Circulation



- KEY
- WALKING TRAILS
 - WATER FLOW
 - WATER BODY

6 LANDSCAPE RESPONSE

LANDSCAPE MASTER PLAN

TREE CANOPY AREA =
25% OF SITE

TOTAL SITE AREA =
52,906m²

- KEY
- 1 POCKET PARK OPPORTUNITY
 - 2 SHAREWAY
 - 3 VILLAGE HEART
 - 4 WALKING TRACK
 - 5 GREEN CORRIDORS WITH DRAINGE SWALES
 - 6 SWALE
 - 7 SEATING/ REST AREA
 - 8 GROTTO
 - 9 CENTRAL BUSH WALKING SPINE

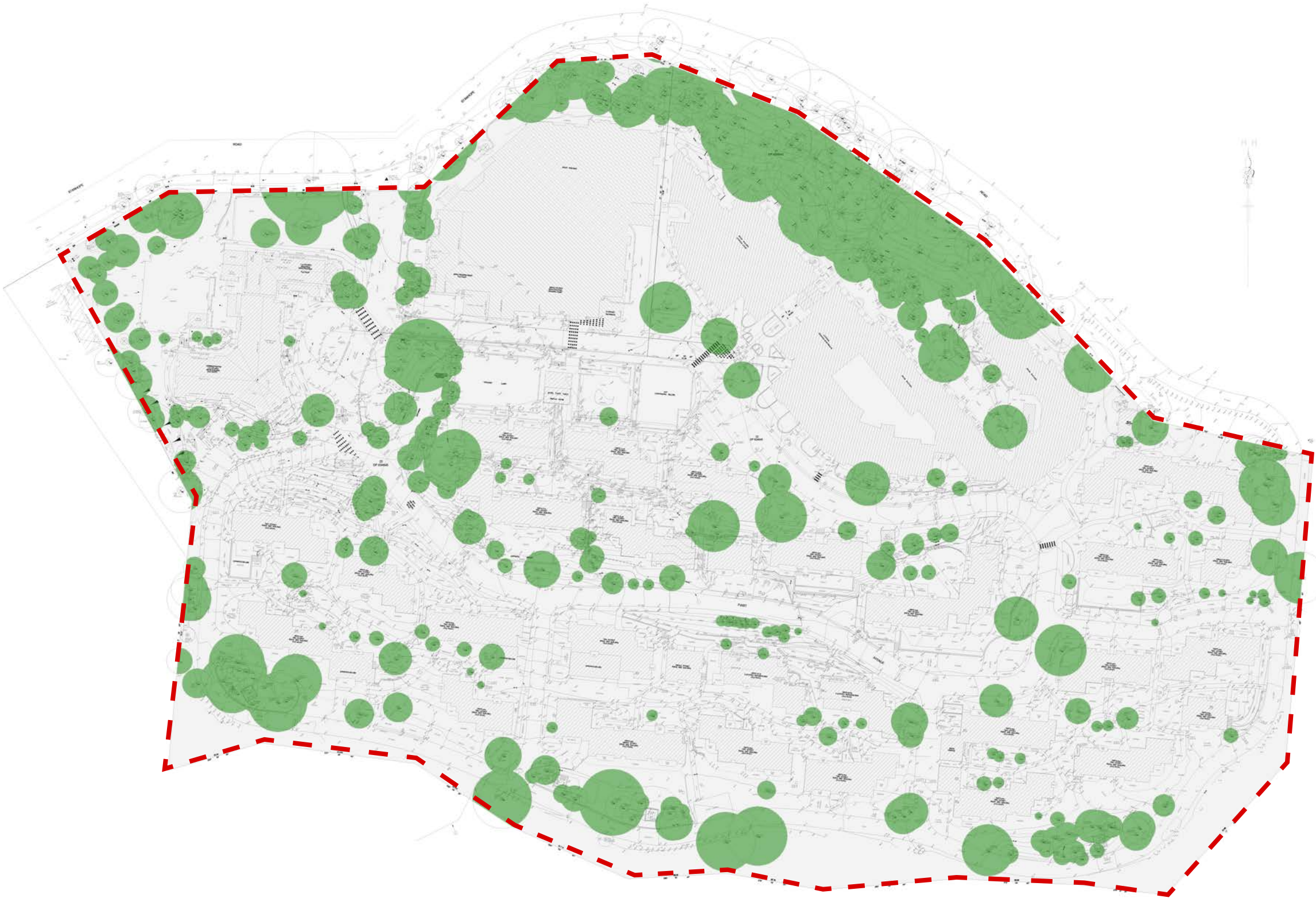


6 LANDSCAPE RESPONSE

EXISTING TREE CANOPY

LEGEND



- TREE CANOPY AREA = 11,518m² (22% OF SITE)
- TOTAL SITE AREA = 52,906m²

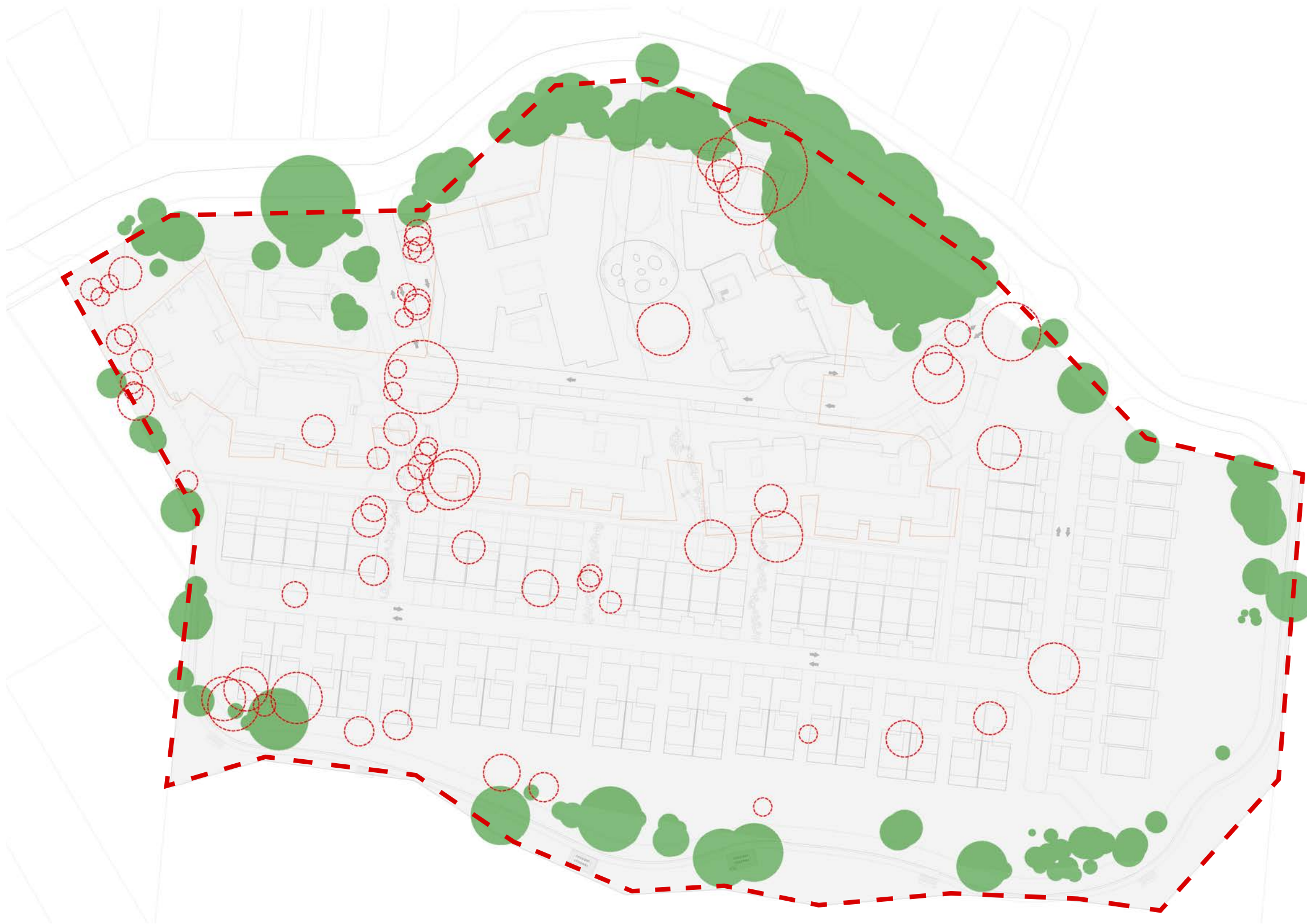


6 LANDSCAPE RESPONSE

PROPOSED TREE RETENTION

LEGEND

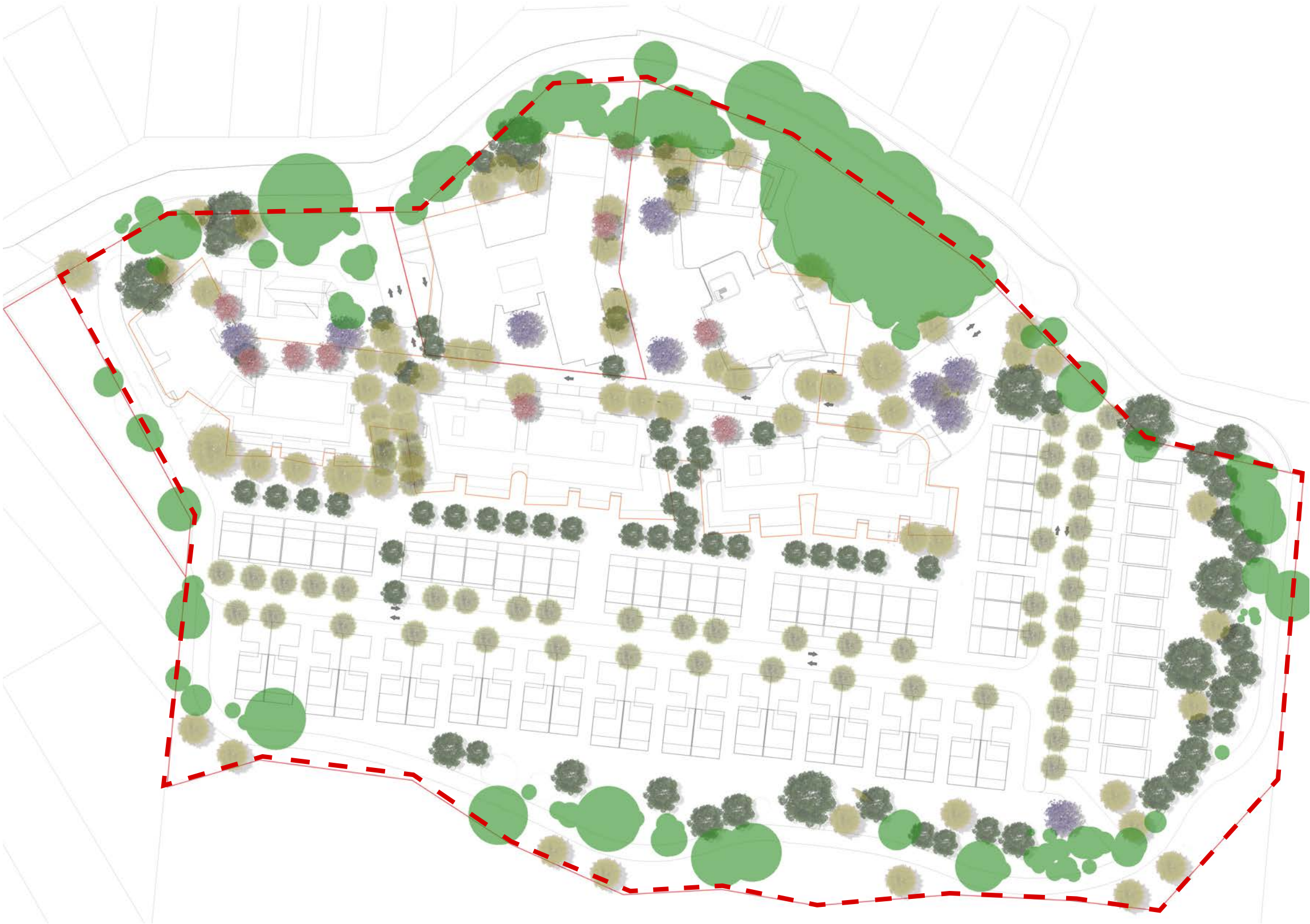
-  TOTAL TREES RETAINED = 170
-  TOTAL 'IMPORTANT TREES' REMOVED = 58
- TOTAL TREES REMOVED = 209
- TOTAL TREES ON-SITE = 379



6 LANDSCAPE RESPONSE
 PROPOSED TREES

LEGEND

- NATIVE TREES = 66
- NATIVE FEATURE TREES = 74
- NATIVE FEATURE TREES = 9
- EXOTIC FEATURE TREES = 9
- STREET TREES = 51
- TOTAL TREES RETAINED = 170
- TOTAL PROPOSED = 209
- TOTAL = 379



6 LANDSCAPE RESPONSE
PROPOSED DEEP SOIL

LEGEND

DEEP SOIL ZONE =
23,804m² (40% OF SITE)



6 LANDSCAPE RESPONSE

PROPOSED COMMUNAL OUTDOOR SPACES

LEGEND

- COMMUNAL OUTDOOR SPACE = 6,540m²
- COMMUNAL OUTDOOR SPACE = 6,000m² (25% OF SENIOR LIVING)
- COMMUNAL OUTDOOR SPACE (TOWNHOUSES) = 540m² (min. 144m² required)
- SENIOR LIVING SITE AREA = 23,876m²
- TOTAL SITE AREA = 52,906m²



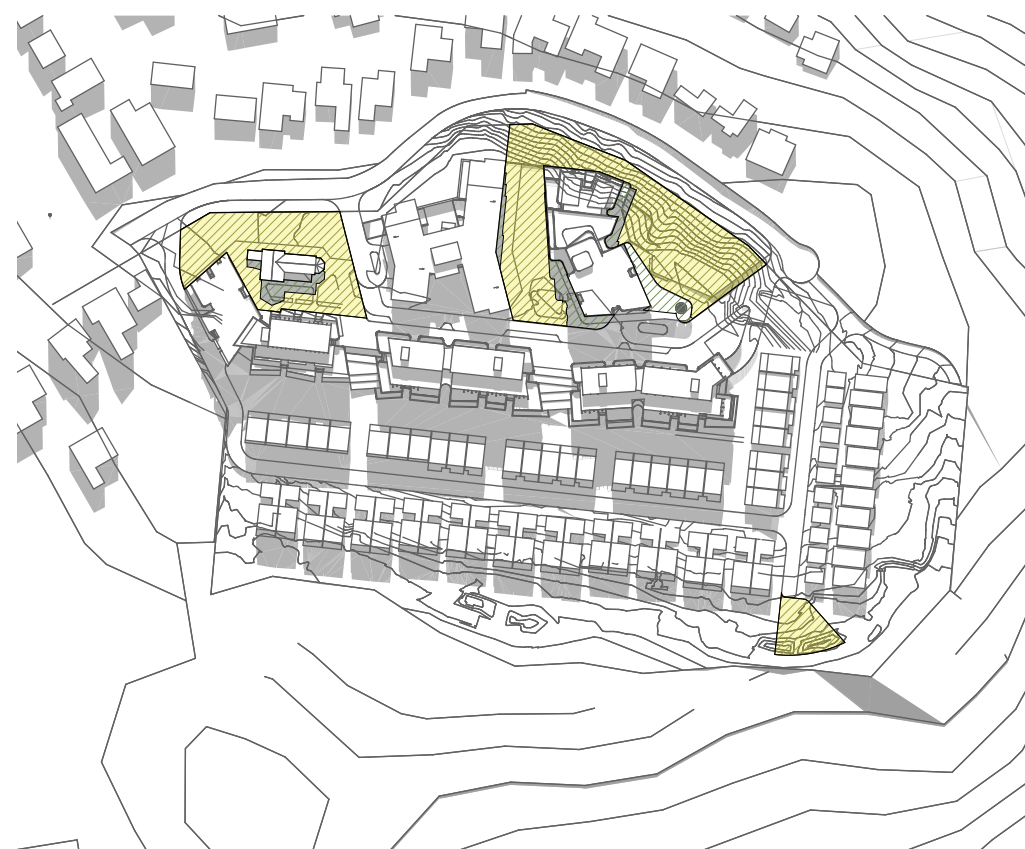
SOLAR ACCESS TO COMMUNAL OUTDOOR SPACES



21st June - 10AM



21st June - 11AM



21st June - 12PM




21st June - 13PM


Solar Access to Communal Outdoor Spaces

The village enjoys significant open space amenity as well as large pockets of green that receive generous, compliant solar access year-round to the principal usable part of the communal outdoor spaces.

SENIORS LIVING

2-HOUR
 **~80.0%**

TOWNHOUSES

3-HOUR
 **100.0%**

6 LANDSCAPE RESPONSE VILLAGE HEART

Open, flexible landscape for active and social activities including opportunity for covered BBQ area, outdoor exercise equipment and level lawn areas.



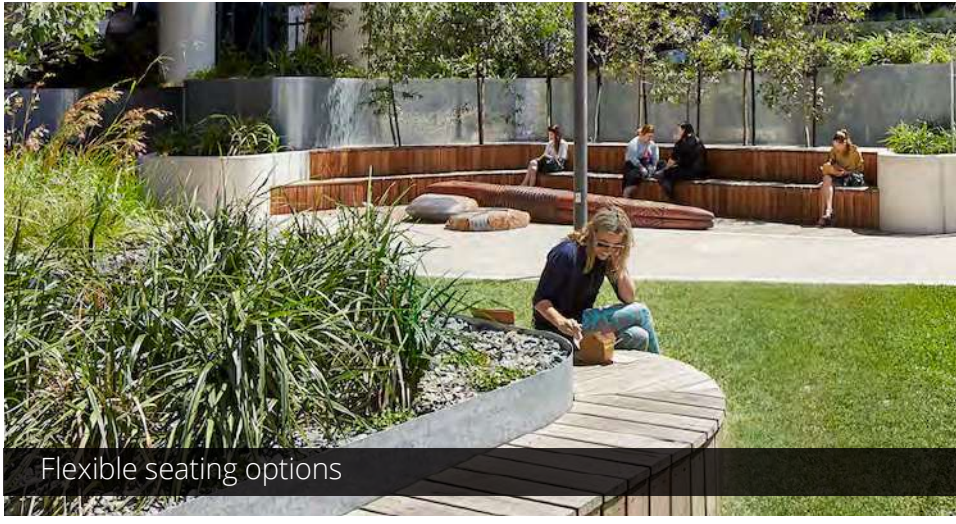
KEY

- 1 OUTDOOR DINING OPPORTUNITY
- 2 VIEWING LAWN
- 3 EXISTING CLUSTER OF TREES
- 4 OPPORTUNITY FOR UNDERCOVER BBQ AND SOCIAL AREA
- 5 OPPORTUNITY FOR OUTDOOR EXERCISE/PLAY
- 6 CLUBHOUSE DROP OFF/TURNING CIRCLE



6 LANDSCAPE RESPONSE VILLAGE HEART

As the centre of the Lourdes development, the ‘Village Heart’ is to be programmed as a community hub for flexible usage and cultural exchange, whilst maintaining a sensitive approach to surrounding ecologies. The character and programming should have a familiar, village feel and provide community facilities such as play, flexible opportunities for outdoor activities and picnic facilities.

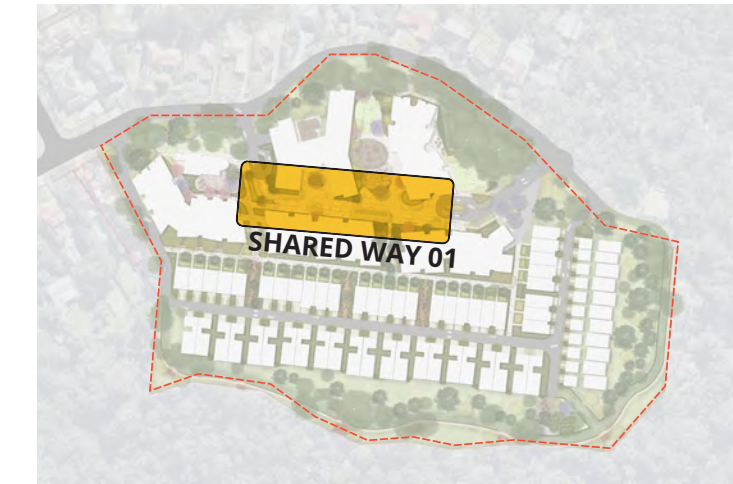


6 LANDSCAPE RESPONSE

MAIN STREET

The new main street becomes the heart of the development; encouraging cycling, sitting, standing and walking activities based on a pedestrian focussed public domain.

KEY PLAN



KEY

- 1 SHARED WAY
- 2 DROP OFF CAR PARKING
- 3 RAC ADMIN COURTYARD
- 4 CLUBHOUSE DROP OFF/TURNING CIRCLE



SHARED WAY 01

6 LANDSCAPE RESPONSE

MAIN STREET & ROADS

Cars and people co-exist. The paved shared way and roads on site creates a shared ground plane experience with new street trees and well placed street furniture. These elements compress the perceived width of the street and slows motorists down. Street furniture and planters create a friendly pedestrian environment and brings people to the street.



Shade trees over shared way to reduce heat effect



Permeable paving



Native grass species



Wayfinding signage



Laying out shared ways around existing mature tree species



Use of natural materials to suit the surrounding bush setting



Retention of existing mature tree species



Incorporation of WSUD principles with native drainage swales



Incorporation of seating and exercise in a considered and safe design

6 LANDSCAPE RESPONSE

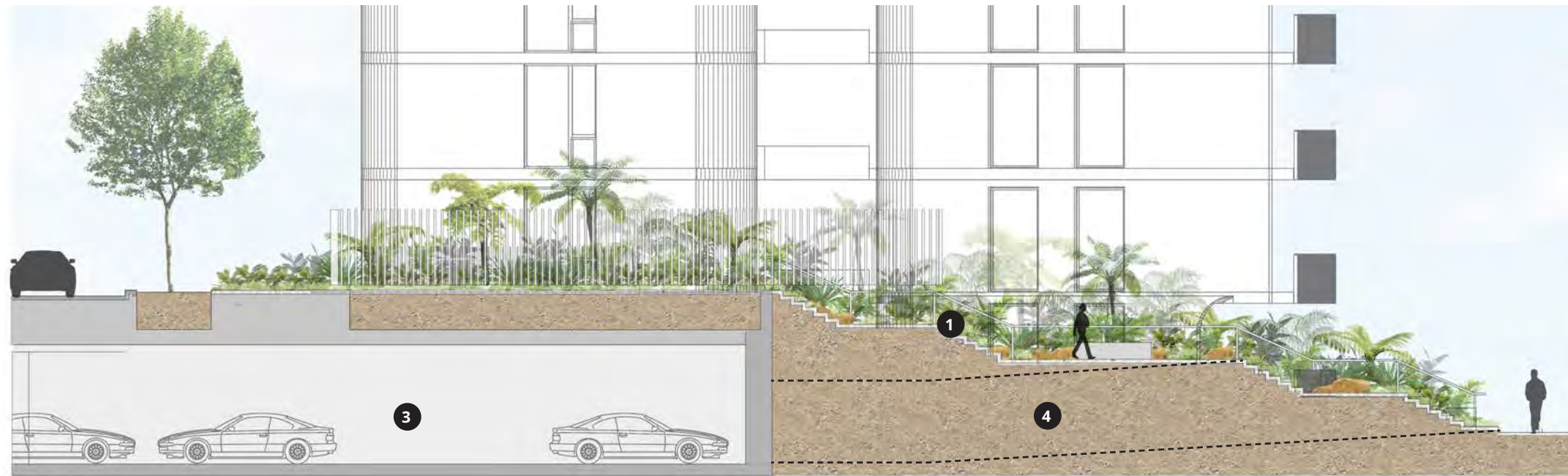
GREEN CORRIDORS

Water and ecological management is an integral part of the Lourdes development which is highlighted in the design through green corridors working through the banking site topography. These linear strips of land support the diverse ecological communities of the area and are comprised of vegetation, soils and topography.

Not only do these corridors promote a health ecosystem they are also eye-catching initiative that provide aesthetic and recreational advantages for the senior's community. They furthermore provide recreation and active transport opportunities through pedestrian pathways. Where appropriate, pathways are proposed in the landscape that are sensitively designed and consider the potential impacts to the existing landscape, existing mature trees, natural topography and drainage courses.



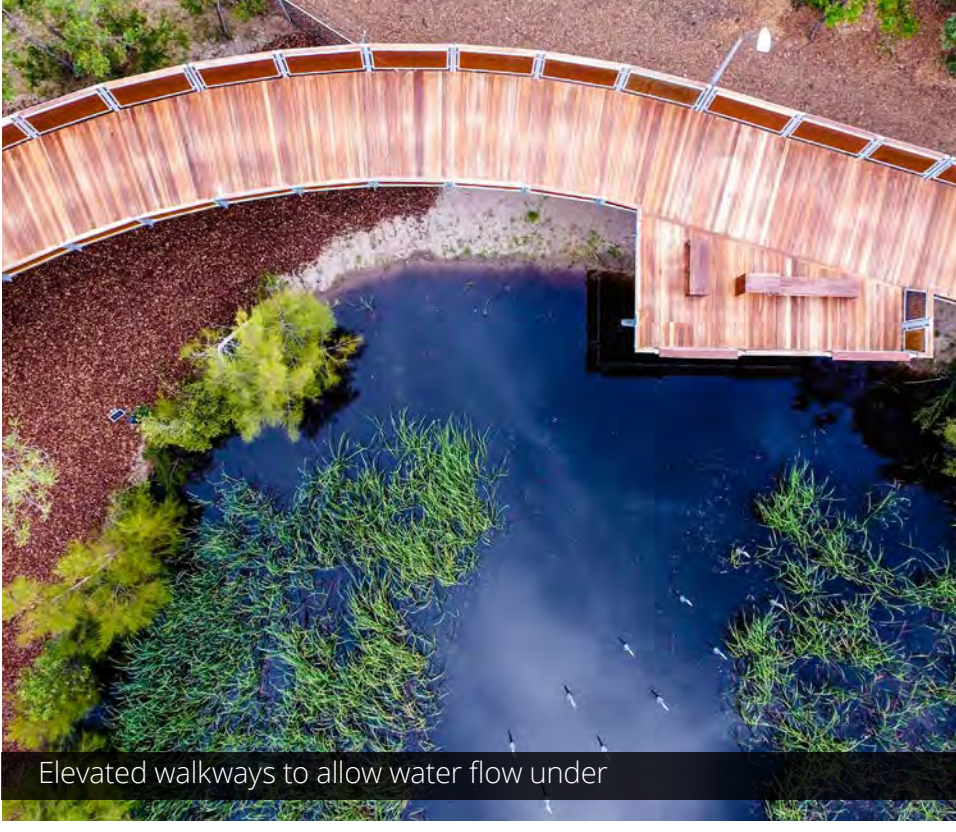
- KEY**
- 1 TERRACED LANDSCAPING
 - 2 STEPPED PATH
 - 3 BASEMENT UNDER
 - 4 BASEMENT CONNECTION



6 LANDSCAPE RESPONSE

GREEN CORRIDORS

The landscape character of the ephemeral corridors will take on a distinctly ecological, natural bushland feel with filtered visual links through. Opportunity to slow and filter the water through drainage swales will occur through these corridors, mitigating flood levels and allowing users to connect with natural systems - both urban and naturalised. Furthermore, there is the opportunity to restore natural habitat and remove noxious weeds and invasive planting.



6 LANDSCAPE RESPONSE

TYPICAL SECTION - SWALE / OVERLAND FLOW



MATERIALITY

A practical and robust proposal of materials sympathetic with the natural surroundings and local ecotones of the Lourdes Development Site...

The materials strategy will curate a range of finishes which will express the unique characteristics of the Site. Priority will be given to materials of local provenance, visibly grounding the development in its connection to the surrounding bushland which defines the landscape character.

Feature finishes will be used to elevate key outdoor areas and provide definition to active and passive open spaces, and express a journey through a narrative of diverse and inter-connected web of landscape typologies.

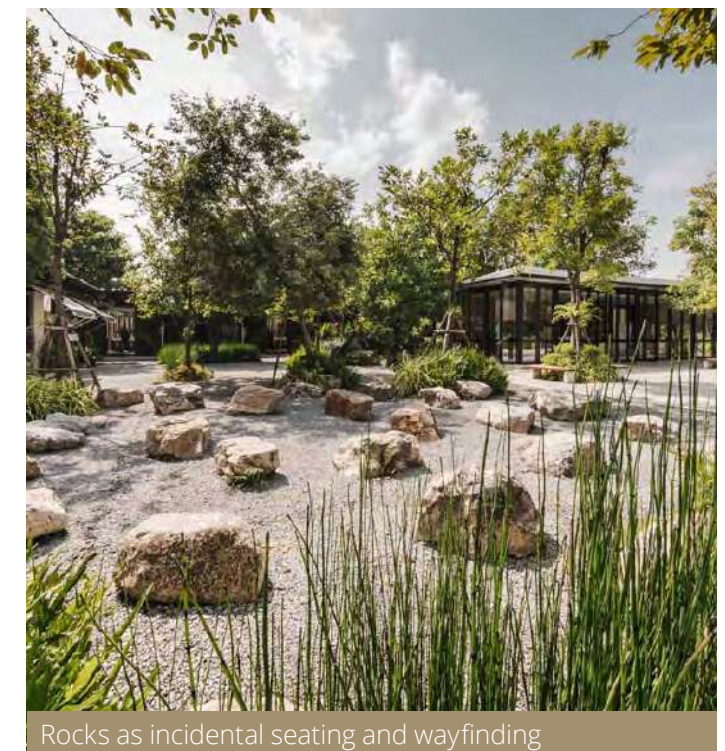
In addition, the materials and finishes will be:

- Locally sourced from Australia and sustainable
- Durable and age gracefully over time
- Low maintenance solutions that can also minimise waste and reduce carbon footprint where possible
- Where possible, have high Solar Reflectance Index (SRI) value and/or lighter coloured materials to mitigate heat island effect.
- Robust, self-finished materials
- Considered materials that are non-combustible and protect from bushfire threat

SURFACES



FURNITURE



PLANTING

Proposed plants that generate 'cooler' spaces, define areas, highlight views, create visual interest and provide shade...

The site is surrounded by ecologically rich bushland. The landscape design will incorporate appropriate plant species and design where land is managed as an Asset Protection Zone (APZ). The APZ Planting Palette will aim to aid reduction of potential bush fire impacts in nominated zones.

The strategic distribution of the Architecture will enable landscaping to be spaced around and between building form, delivering:

- Easy to maintain soft landscaping
- Uncomplicated landform and landscape structure - native trees and open grassland
- Plants that require minimal water and will generate 'cooler' green spaces, which in turn assist in transforming the urban heat island effect
- Level grass areas for flexible use
- Use of tree planting to provide visual interest, define areas, highlight views and provide shade
- Utilisation of locally native species to reinforce key landscape character zones
- Utilisation of native species to support year-round comfort to outdoor spaces



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