

D K O

LOT 303 CROATIA AVENUE EDMONDSON PARK

SSD APPLICATION (SSD-77211717) - DESIGN REPORT

FOR SUBMISSION



DKO acknowledges that we gather, live, work and design on Aboriginal land.
We pay respect to the inspiration, wisdom and story of Country and the Traditional Owners and Custodians of this land. We extend that respect to the Elders past, present and emerging.
We are committed to creating places where people of all cultures are welcome, respected and have equal opportunity in the local community.

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INTRODUCTION

This Design Report has been prepared by DKO Architecture on behalf of Landcom to accompany an application for a State Significant Development (SSD-77211717) for infill Affordable Housing at Lot 303 Croatia Avenue, Edmondson Park.

PROJECT OVERVIEW

As the NSW Government’s land and property development organisation, Landcom has a mandate to take a lead role in improving the supply, diversity, and affordability of new housing in NSW.

Landcom aims to create innovative and productive places that demonstrate global standards of liveability, resilience, inclusion, affordability, and environmental quality, and uses its sites and close working relationships with the private sector to deliver quality, socially inclusive community places, where people can grow and thrive regardless of income levels and stages of life.

In response to the NSW Government’s commitment to increasing the supply of Affordable Housing under the National Housing Accord, Landcom has committed to delivering 1,800 affordable rental housing dwellings by 2029. As part of this commitment, Lot 303 Croatia Avenue has been earmarked as a suitable site for infill affordable housing.

PROJECT OBJECTIVES

- Landcom’s objectives for the project are:
- Delivery of sustainable high quality affordable accommodation.
 - Provide a sense of place within the development to ensure good high-quality accommodation.
 - The use of robust materials that allow for long service life of the building.
 - A building that meets the need of the community and serves the requirements of the area.
 - Seamless integration of cultural and sustainable objectives that align to Landcom’s key principles.

PROJECT DESCRIPTION

Landcom is seeking development consent to construct an infill affordable housing development. Development consent is sought for:

- Site preparation works
- Civil bulk earthworks
- Removal of trees and vegetation
- Construction of:
 - A nine (9) storey residential flat building, comprising 58 infill affordable dwellings, of which 100% will be designated affordable rental housing for key workers.
 - Single level basement to accommodate 17 car parking spaces, 58 bicycle parking spaces and two (2) car share parking spaces.
 - landscaping; and
 - utilities and infrastructure services.

The proposed development has an estimated development cost that exceeds \$30million and 100% of the gross floor area of the development will be used for the purposes of affordable housing. Accordingly, the proposal is SSD for the purposes of the State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP).

DESIGN REPORT PURPOSE

The report is to be read in conjunction with the corresponding Architectural drawing set, as well as other accompanying multi-disciplinary reports. The Environmental Impact Statement (EIS) prepared by Savills provides a summary of the complete SSDA application material.

The scope of this report is to provide a collated explanation of the development’s design and respond to relevant issues and assessment requirements identified by the Planning Secretary’s Environmental Assessment Requirements (SEARS). A detailed list of which SEARS are addressed in this report are provided in the table on pages 03 - 04. The content of the report includes details of the proposal’s design quality, built form and urban design, public and communal spaces and architectural character. Additionally the report provides analysis of the proposal’s impact on the surrounding context including solar access and views (Appendix D and E).

To achieve the purposes of the report, in addition to an overview of the architectural design, it contains an outline of the Connecting with Country design work, landscape architecture and Ecologically Sustainable Design which are key integrated elements of the propoal’s design. Further information and details of these design elements are provided in the Connecting to Country Report by WSP, Landscape report by Inview and ESD report by Hip v. Hype.

The appendicies of the report include a summary of the project’s Design Excellence review process which included Landcom’s Design Review Panel (LDRP) and the State Design Review Panel (SDRP). The table as part of Appenix B outlines the the incorporation and/or response to received advice. An assessment of the proposal against the requirements of the Housing SEPP 2021 - Chapter 4 including the Apartment Design Guide are included in Appendix C.

PROJECT TEAM

 Architecture	 Town Planning	 Landscape Architect
 Connecting with Country	 ESD	 BASIX & NATHERS
 Structure & Civil	 BCA & DDA	 Building Services
 Traffic	 Acoustic	 Waste
 Wind	 Bushfire	 Geotechnical

FULFILLMENT OF PLANNING SECRETARY’S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

In accordance with Section 4.39 of the Environmental Planning & Assessment Act 1979 (EP&A Act), the Secretary’s Environmental Assessment Requirements (SEARs) for SSD application 77211717 were issued on 24th October 2024. This report has been prepared to respond to the relevant SEARs as outlined in the table below.

ISSUE	SEARS	PROVIDED RESPONSE & DOCUMENTATION
3. DESIGN QUALITY	– Demonstrate how the development will achieve: – design excellence in accordance with any applicable EPI provisions – good design in accordance with the seven objectives for good design in ‘Better Placed’ – 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; 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’. – 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	– Refer to Design Report Appendices: – Appendix A - Better Placed Assessment – Appendix B - Design Excellence Review Summary – Refer to Landscape Report completed by Inview – Refer to ESD Report completed by Hip v. Hype
4. BUILT FORM & URBAN DESIGN	– Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning, design approach and application of the height and floor space bonuses under the Housing SEPP. – Demonstrated 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. – Demonstrate how the building design will deliver a high-quality development, including consideration of façade design, articulation, activation, roof design, materials, finishes, colours, any signage and integration of services. – Assess how the development complies with the relevant accessibility requirements. – Provide a floorplan outlining the gross floor area and units that are allocated to affordable housing.	– - Refer to Design Report Sections: – Section 04 – Section 05 – Section 06 – Refer to BCA Report completed by Asix – Refer to Accessibility Report completed by Asix – Refer to Landscape Report completed by InView
5. ENVIRONMENTAL AMENITY	– Address how good internal and external environmental amenity is achieved, including access to natural daylight and ventilation, pedestrian movement throughout the site, access to landscape and outdoor spaces – Assess amenity impacts on the surrounding locality, including lighting impacts, reflectivity, solar access, visual privacy, visual amenity, view loss and view sharing, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential or other sensitive land uses must be demonstrated. – Provide a solar access analysis of the overshadowing impacts of the development within the site, on surrounding properties and public spaces (during summer and winter solstice and spring and autumn equinox) at hourly intervals between 9am and 3pm, comparing the proposed development, existing situation and a development with no bonuses applied.	– Refer to Design Report Sections: – Section 06 – Refer to Design Report Appendices: – Appendix C - Design Verification Statement & Housing SEPP - Chapter 4 Assessment – Appendix D - Visual Analysis – Appendix E - Solar Access Analysis – Refer to Wind Report completed by Windtech Note that provided solar access analysis includes only the existing and proposed situation as no bonuses have been applied to the proposal.
6. VISUAL IMPACT	– Provide visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development – Where the visual analysis has identified potential for significant visual impact, provide a visual impact assessment that addresses the impacts of the development on the existing catchment.	– Refer to Design Report Appendices: – Appendix D - Visual Analysis

ISSUE	SEARS	PROVIDED RESPONSE & DOCUMENTATION
7. PUBLIC SPACE	– Demonstrated how the development maximises the amount, access to and quality of public spaces (including open space, public facilities and streets/plazas within and surrounding the site), reflecting relevant design guidelines and advice from the local council and department. – Demonstrate how the development: – ensures that public space is welcoming, attractive and accessible for all. – maximised permeability and connectivity – maximises the amenity of public spaces in line with their intended use, such as through adequate facilities, solar access, shade and wind protection. – minimises potential vehicle, bicycle and pedestrian conflicts – Address how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into the development, in accordance with ‘Crime Prevention and the Assessment of Development Applications Guidelines’.	– Refer to Design Report Sections: – Section 05 – Refer to CPTED Report completed by Savills – Refer to Wind Report completed by Windtech – Refer to Landscape Report completed by Inview
9. ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)	– Identify how ESD Principles (as defined in Section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development. – Demonstrate how the development will meet or exceed the relevant industry recognised building sustainability and environmental performance standards – Demonstrate how the development minimises greenhouse gas emissions (reflecting the Government’s goal of net zero emissions by 2050) and consumption of energy, water (including water sensitive urban design) and material resources	– Refer to Design Report Sections: – Section 06 – Refer to Design Report Appendices: – Appendix C - Design Verification Statement & Housing SEPP - Chapter 4 Assessment – Refer to ESD Report completed by Hip v. Hype – Refer to BASIX and NatHERS Certificates by Eco Engineering
10. TRAFFIC, TRANSPORT AND ACCESSIBILITY	– Provide a transport and accessibility impact assessment, which includes: – an analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections. – details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height clearances), parking arrangements and rates (including bicycle and end-of-trip facilities), drop-off/pick-up-zone(s) and bus bays (if applicable), and provisions for servicing and loading/unloading. – analysis of the impacts of the proposed development during construction and operation (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multi-modal network flows as a result of the development (using industry standard modeling), identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict) and any cumulative impact from surrounding approved developments. – measures to mitigate any traffic impacts, including details of any new or upgraded infrastructure to achieve acceptable performance and safety, and the timing, viability and mechanisms of delivery (including proposed arrangements with local councils or government agencies) of any infrastructure improvements in accordance with relevant standards. – proposals to promote sustainable travel choices for employees, residents, guests and visitors, such as connections into existing walking and cycling networks, minimising car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan. – Provide a Construction Traffic Management Plan detailing predicted construction vehicle routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	– Refer to Traffic Report by SCT – Refer to Accessibility Report by Axis
ADDITIONAL ASSESSMENT REQUIREMENTS	– Provide a table demonstrating how the development addresses the Design principles for residential apartment development set out in Schedule 9 of State Environmental Planning Policy (Housing) 2021	– Refer to Design Report Appendices: – Appendix C Design Verification Statement & Housing SEPP - Chapter 4 Assessment
	– Provide a table demonstrating how each dwelling addresses the key design criteria set out in the Apartment Design Guide including justification where the criteria is not met	– Refer to Drawing DA001 – Refer to Design Report Appendices: – Appendix C Design Verification Statement & Housing SEPP - Chapter 4 Assessment

01 DESIGN APPROACH & PROCESS

OVERALL DESIGN VISION

The proposal will establish a benchmark for high-quality development in a transit-oriented precinct, that is inspired by its natural surrounds and provides exemplar sustainable, high amenity, affordable homes.

The design will foster a healthy, inclusive and active community, and supports the connection of residents to Country, to the local community and to one another.

The built form and landscape integrate together to create a unique aesthetic character providing a layered design response to Country, and to positively contribute to the amenity and character of the surrounding context.



DESIGN PRINCIPLES



CULTURALLY SENSITIVE & INCLUSIVE DESIGN

- Connected to and caring for Country
- Engagement with local First Nations people



ECONOMICALLY VIABLE

- Efficient design
- Rationalised structure (no transfers)
- Standardisation of wet areas, kitchens and openings
- Low maintenance building fabric and landscape



ENVIRONMENTALLY SUSTAINABLE

- Building longevity
- Climate resistance
- Energy efficiency



SOCIALLY COHESIVE

- Promotion of connectivity between residents
- Neighbourhood making
- High quality communal spaces



SAFE, ACCESSIBLE & HEALTHY

- Universally designed
- 100% Silver Level Livable Housing
- Incorporation of CPTED principles

DESIGN REVIEW & STAKEHOLDER ENGAGEMENT

DESIGNING WITH COUNTRY & LOCAL KNOWLEDGE HOLDER ENGAGEMENT

As part of design development process, WSP facilitated the design team engaging with Local Knowledge Holder Uncle Shane Smithers. WSPs Aboriginal Design Principles document provides further detail of the different sessions held with Uncle Shane, including knowledge points that were shared. The key influencing ideas and points which the design team gained from this engagement are integrated in later sections of the report detailing the landscape, public art strategy and architectural character.

LIVERPOOL CITY COUNCIL ENGAGEMENT

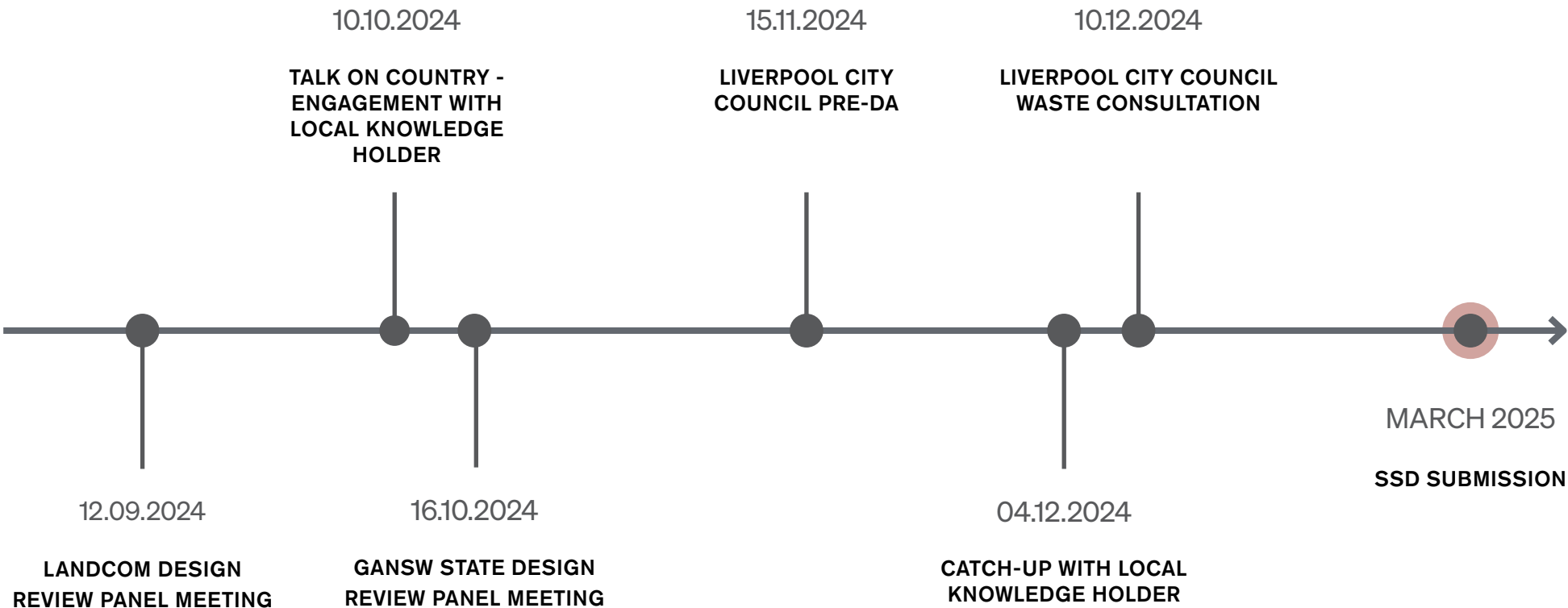
As a key stakeholder for the project, Liverpool City Council (LCC) have been consulted by the project team with the intention to work collaboratively to develop a proposal supported by Council. Further information on the engagement with LCC is provided in the EIS prepared by Savills. Key matters raised by LCC which have been integrated into the final design include

- Waste management
- Consideration of treatment of Eastern facade
- Public art strategy

DESIGN EXCELLENCE REVIEW

The design team presented the project at differing points during it's resolution to Landcom's Design Review Panel (LDRP) and the Government Architect NSW State Design Review Panel (GA SDRP) for feedback on the design. A summary of the response and advice received from both panels is included in Appendix B - Design Excellence Review Summary. This summary also outlines how the Panels advice has been incorporated or addressed in the resolved design.

Overall, the Panels encouraged the design team in their approach to develop and resolve the design given the complexities of the subject site and surrounding developing context. The final review of the proposal's design by the GA SDRP clearly concluded that the design was supported by the panel, and therefore satisfactorily exhibited design excellence.



DESIGNING WITH COUNTRY PROCESS

As outlined by the overall Design Vision and Principles, Designing with Country has been an integral part of the design process. The integration of a culturally appropriate design narrative, and the establishment of a holistic Connection to Country has been guided by WSP.

INDIGENOUS DESIGN STATEMENT

Contained within their Aboriginal Design Principles document, WSPs Indigenous Design Statement outlines the approach which has been taken to Design with Country through the development of the proposal

Aboriginal design principles

We will follow the following principles:

Aboriginal led / Aboriginal people (designers, Elders and community members) should be leading or co-leading the Indigenous design elements.

Community involvement / The local Aboriginal communities will be engaged in a co-design process; where dean teams, client and Aboriginal groups design the project together.

Appropriate use of Indigenous design / All Aboriginal design elements must be approved by consulted Indigenous Knowledge Holders. If approval is not given, the knowledge will not be used on the project.

Design approach

Image - Signage/surface treatment/ walls/art/ Surface treatments using local Indigenous design knowledge, commissioned from artists, or by urban designers with engagement and approval from community. Signage helps to share the story of Country and its people.

Space - Indigenous space/ landscaping/ A space or landscape where Aboriginal people can have their culture celebrated. Yarning circles, space for contemplation, spaces for non human kin, cultural land stewardship practices, cultural fire, yam daisy propagation, etc. 3D forms, such as sculpture and art.

Language words- Using First Nations language in the built environment to use it and keep it alive.

Country focused design

Overall, Aboriginal Australia has a simple but quite different hierarchy when it comes to their connection to nature. Rather than placing humans above all other living entities, we are just as important as everything else, but no more important.

How might this different perspective shift or enhance current practices? Can we improve biodiversity in the built environment through changing the way we think?

**Country, over
Community, over
Individual**



Country focused design

DESIGNING WITH COUNTRY STRATEGIES

A multi-layered response to Country has been incorporated into the design. This is achieved through a variety of strategies which can be grouped under the following themes:

- Caring for and Healing Country**
- Site planning (increasing space for biodiversity, outlook and amenity)
 - Increasing urban biodiversity
 - Increasing canopy coverage for shade (within limit of bushfire restrictions)
 - Improving waterway health
 - Minimising upfront and ongoing damage to Country (excavation, ESD)
 - Fostering connection of residents to Country/nature (reflective landscape spaces, entry and gathering spaces)

- Restoring and Protecting Country’s Identity**
- Endemic landscape
 - Materiality of landscape and facade reflecting the textures and colours of Country
 - Architectural character reflecting nature

- Cultural Education**
- Architectural character reflecting local Aboriginal design
 - Public Art Strategy with signage
 - Potential incorporation of local language

WSP provided a number of ideas and inspiration for ways Country and local Aboriginal design could be incorporated into the proposal. A summary of the ideas identified as most appropriate for the project are illustrated adjacent. The development of these ideas alongside the knowledge gained from the engagement with Uncle Shane and the design teams understanding of Country are further detailed in Section 03, Section 04, and Section 05.



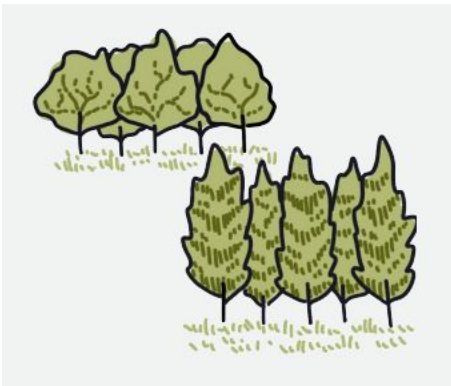
THRESHOLD TREATMENT



PAVING ARTWORK



EDUCATION THROUGH LANDSCAPE



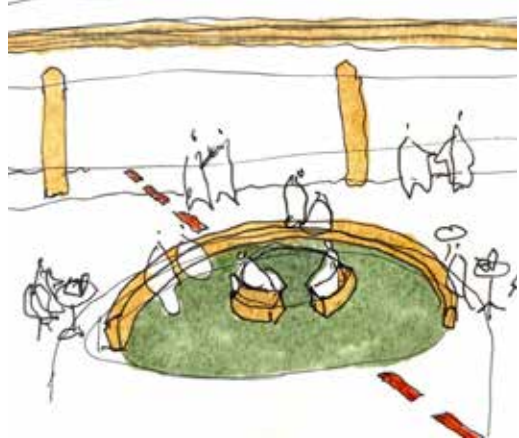
ENDEMIC PLANTING



PATTERNATION OF VERTICAL ELEMENTS & FACADE



ENTRY STATEMENT



GATHERING PLACES

02 CONTEXT & PLACE

REGIONAL CONTEXT

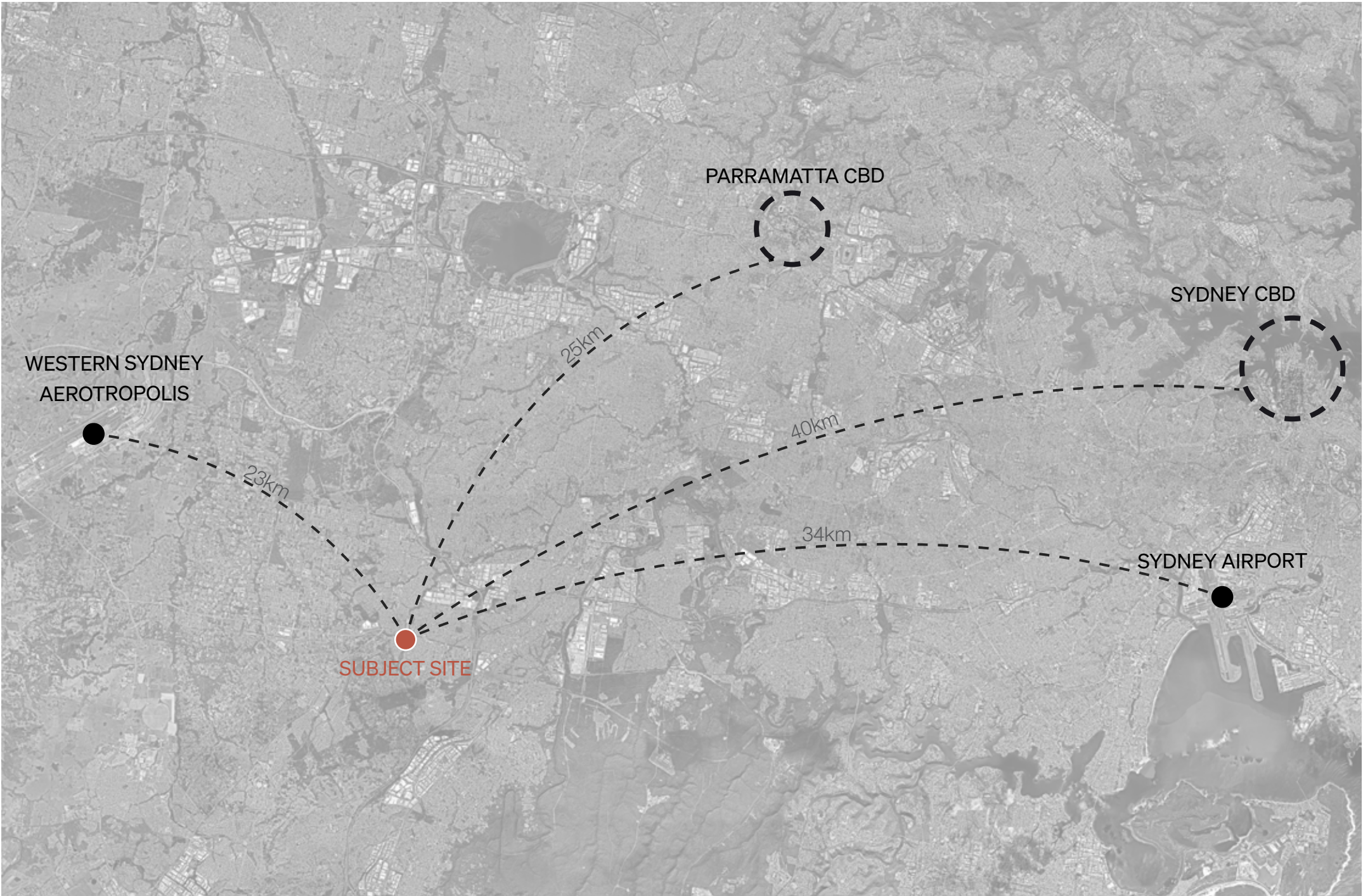
The proposed development site is in the Liverpool Local Government Area within the Town Centre North precinct of Edmondson Park South. Edmondson Park South is identified in the Western City District Plan as a Local Centre in recognition of its proximity to the Southwest Rail Line and the Edmondson Park Railway Station. It borders the motorway intersection of the M31, M5 and M7 with Camden Valley Way, providing excellent road access to a large extent of the Greater Sydney Metropolitan Area.

The proposed development site is a 2,043m² parcel of land currently known as Block 24 and part of Lot 303 in DP 1259974, Croatia Avenue, Edmondson Park.

The site is strategically positioned between the Western Sydney Aerotropolis and the regional centres of Liverpool and Campbelltown/Macarthur.

The site is approximately 10km from Liverpool CBD, 14km from Campbelltown CBD and 25km the future Western Sydney International Airport (WSI) and Aerotropolis, which is earmarked to become Sydney's third CBD.

The site is accordingly well placed to leverage off the growth and job opportunities from these strategic centres and the WSI and Aerotropolis. The Region Plan and District Plan show that these strategic centres will play a critical role in attracting investment, business activity and jobs across Greater Sydney.



COUNTRY CONTEXT

EARTH

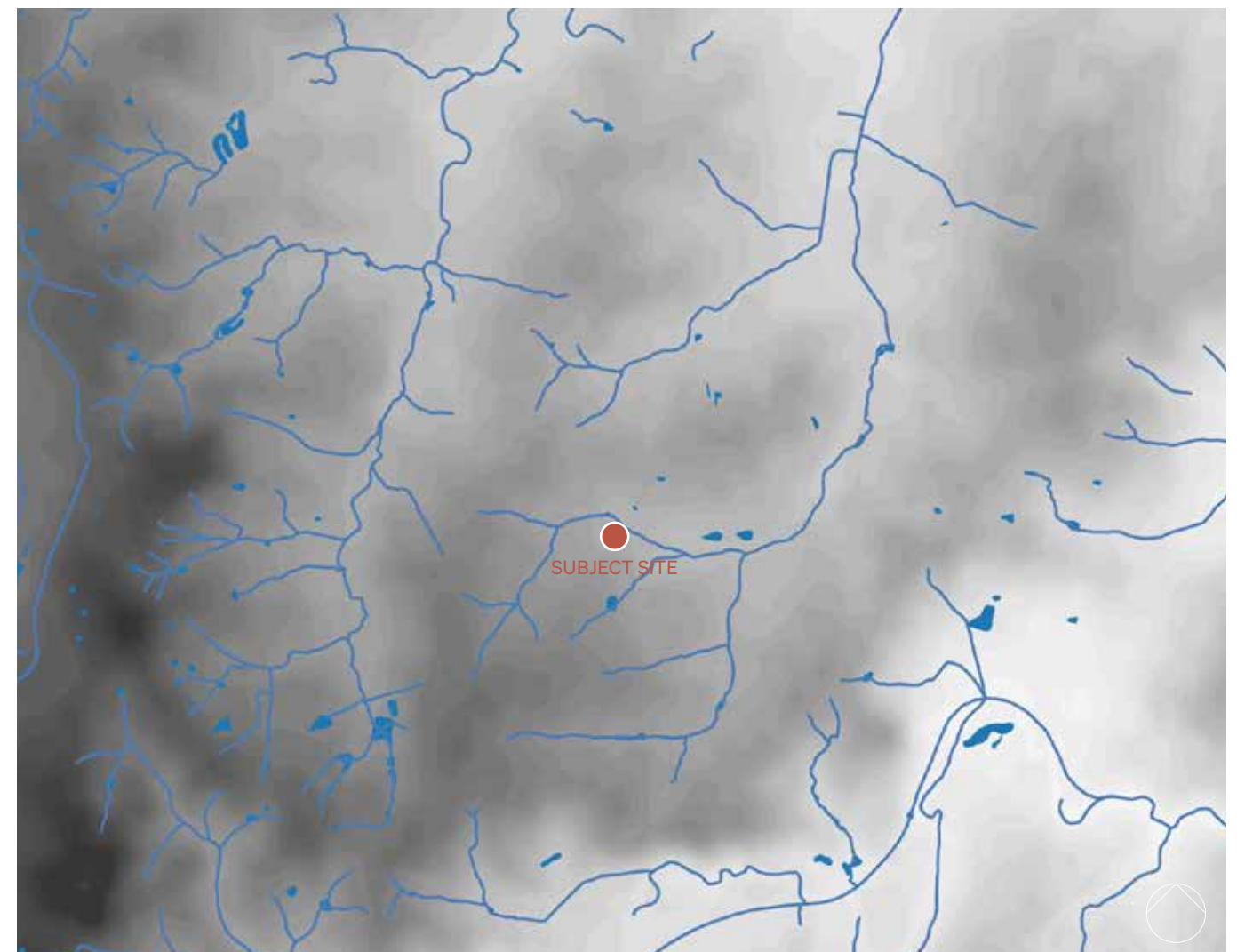
The underlying geological character of the site is Wianamatta Group Bringelly Shale, comprising a mix of shale, claystones, laminates, fine to medium grained sandstone, rare coal and tuff. This transitions into medium grain sand, clay and silt linked to the Maxwell Creek's basin.



WATER

The area the site sits within is identified as freshwater Country, located on the banks of Maxwell Creek - a tributary of Cabramatta Creek and Georges River. The creeks and water bodies were focal points of the lives of the Traditional Custodians, as places of abundant resources and later acting as refuges for the Aboriginal people following colonialisation.

The waterways around the site and the associated geology interlink with unique collection of endemic flora and fauna which would have been found on the site.



LIVING NON-HUMAN

The site is situated in the biogeographic area now known as the Cumberland Plain. Despite significant portions of the Cumberland Plain being disrupted by colonisation and subsequent urban expansion, the Cumberland Plain including its associated flora and fauna still form part of the identity of Country. The endemic ecology which would have been associated with the site is understood to be Cumberland Plains Shale Woodlands, and alluvial woodlands along the creek corridor.

In the current context, Edmondson Park South has been Biodiversity Certified under the now repealed Threatened Species Conservation Act 1995. It is also covered by a Conservation Agreement under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).



TRADITIONAL CUSTODIANS

It is understood that the site is situated within the lands of the Darug people, however is close to the lands of the Dharawal people, so clan groups of both people have associations with the area. The Darug people are custodians of the land between Port Jackson and Botany Bay in the east, the Georges River to the south and south-west, the Hawkesbury River in the north-west and west to the Blue Mountains.

Culutral Mapping by WSP



DARUG PEOPLE

The Darug people were intertwined with Country, managing the Cumberland Plains as its custodians over millennium using traditional practices.

The landscape holds many forms of cultural heritage, both tangible and intangible. Tangible features of cultural heritage include objects such as tools, campsites, artifact scatters and scar trees. Intangible features of cultural heritage include creation stories, traditional ecological knowledge, kinship relations, and dance / ceremony.

No Aboriginal heritage items, Aboriginal objects, or areas of archaeological potential are considered likely to be present within the site.

RESOURCES

The Cumberland Plains provided a variety of resources for the Darug people. Trees provided shade, habitat for animal and birds and bark for a variety of purposes. A variety of seasonal fruits and vegetables could also be found in the area. These included yams which were a significant commodity for the Darug people.

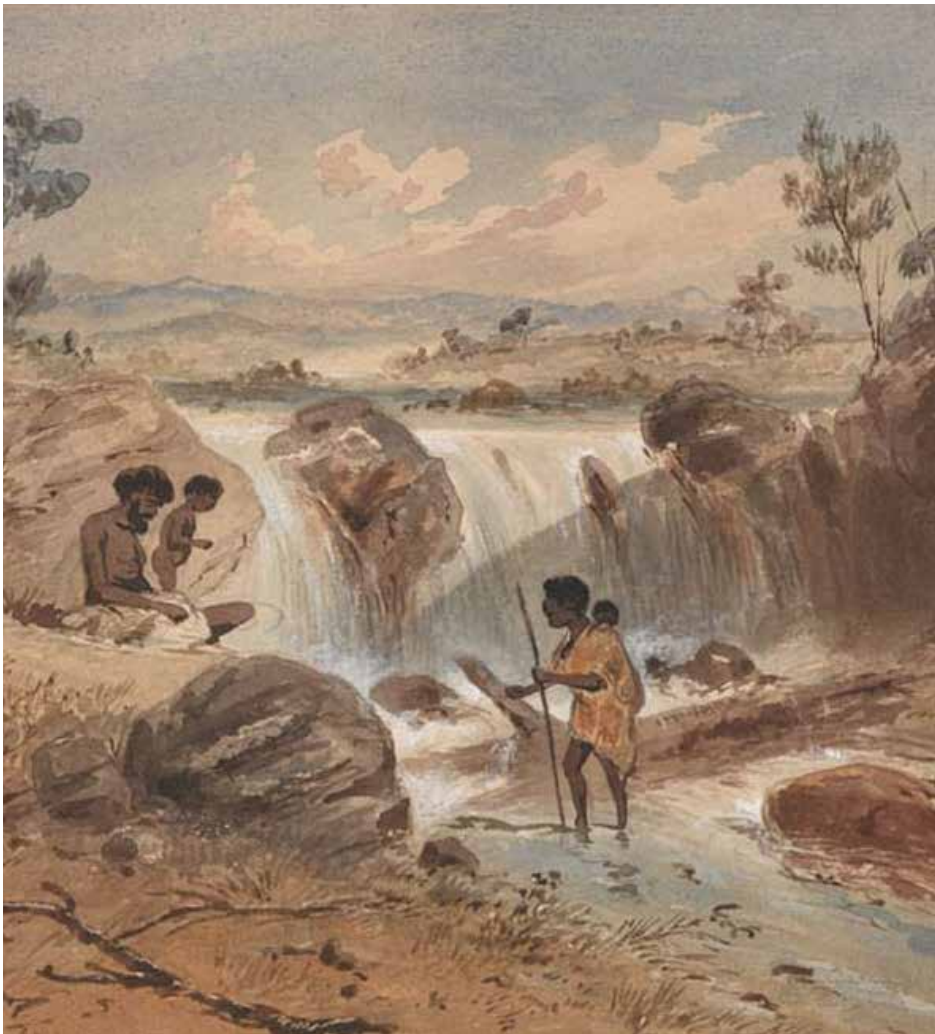
Kangaroos and possums living in the forest grasslands, and fish, eels and water birds found in river areas were desirable food sources. The earth also provided resources, such as white pipe clay used for body decoration, and stone such as silcrete, used to make tools.

DESIGN

The local Aboriginal people used a variety of mediums for visual expression of their culture, such as wood, stone, animal skins and their own bodies.

Each clan had unique designs and decorations to distinguish themselves.

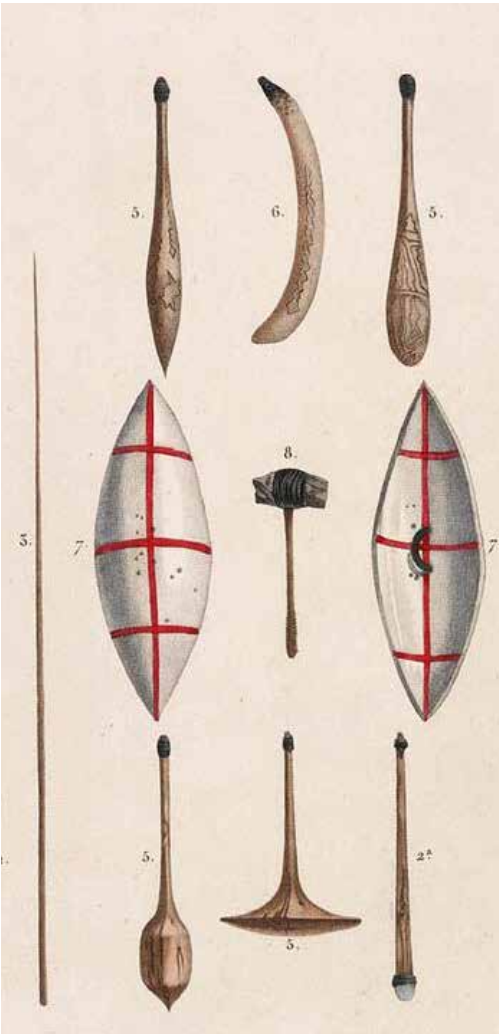
It is understood that designs and decorations incorporated line patterns.



Painting - Joseph Lycett



Silcrete tools found near Leppington



Indigenous Weapons



Narrellan Scar Trees

URBAN CONTEXT

EXISTING CONDITION & CHARACTER

Sitting amongst Landcom’s Station Precinct, the subject site is part of the extensive redevelopment of Edmondson Park. Currently, the site and its surrounds are generally made up of large superlots comprising remnant vegetation, cleared areas, grassed paddocks and scattered, which are undergoing progressive development.

CONNECTIVITY

The site and broader Edmondson Park Town Centre are anchored by the Edmondson Park Train Station and Southwest Railway Line. These public transport corridors will act as a gateway which will integrate the site with the broader Western Parkland City, the WSI and Aerotropolis.

A significant opportunity for the site is that it is within 400m walking distance to the Edmondson Park Town Centre and train station, which connects Edmondson Park to Sydney CBD in approximately an hour trip and Parramatta CBD in 40 minutes. Proximity to public transport, shopping centres, medical centres, schools, childcare and public green space makes the subject site a desirable location.

KEY

01

02

03

04

05

06

07

SUBJECT SITE

ED SQUARE SHOPPING CENTRE & TOWN CENTRE

COMMUTER CAR PARKS

FUTURE STATION PLAZA

EDMONDSON PARK PUBLIC SCHOOL

ST FRANCIS CATHOLIC COLLEGE

CLERMONT PARK

LILIAN BRATKOVIC PARK

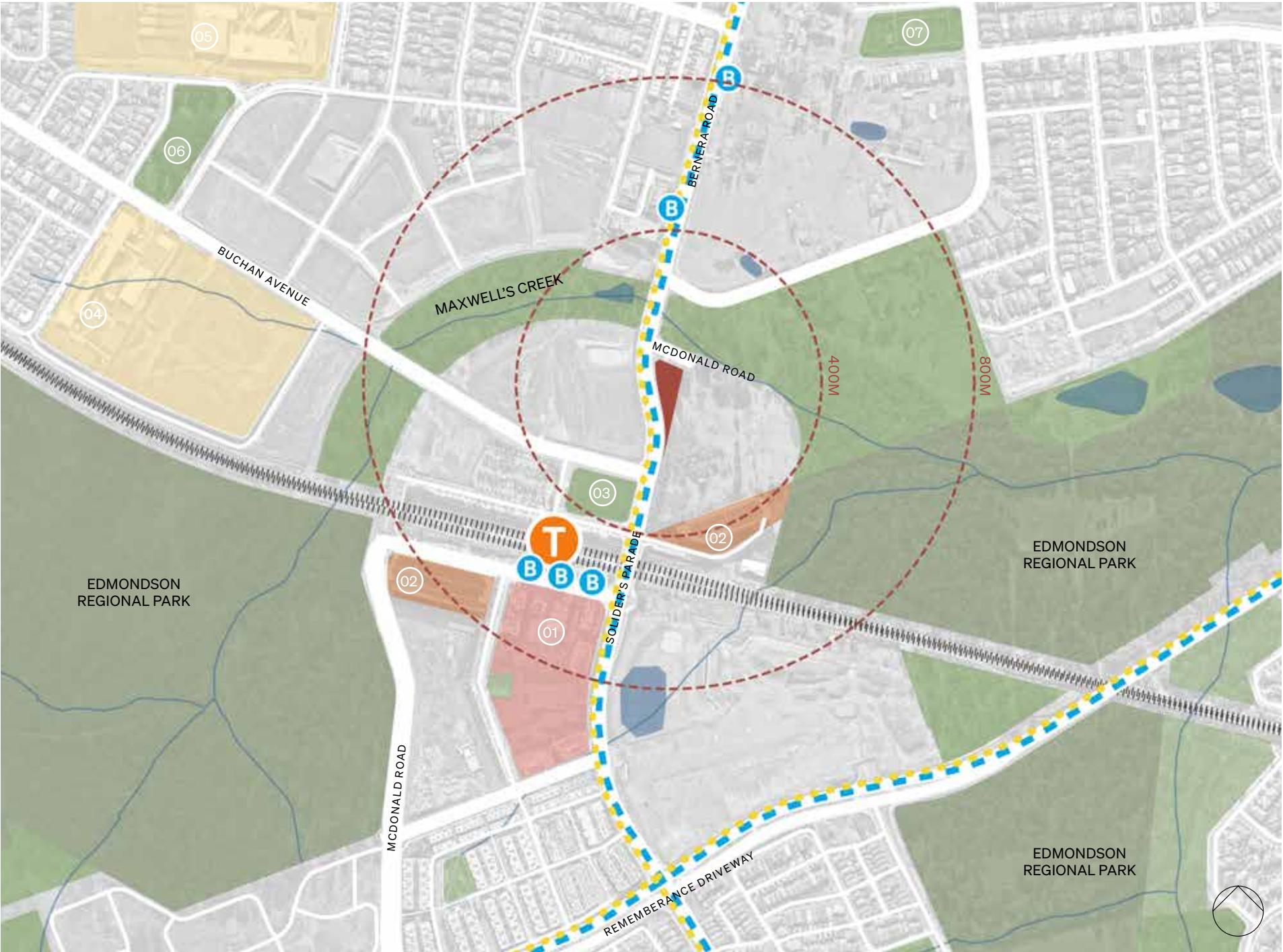
SHARED CYCLE PATH

BUS ROUTE

PUBLIC RECREATION AREA

PRIVATE RECREATION AREA

NATIONAL PARKS & RESERVES



FUTURE URBAN CONTEXT

FUTURE CONDITION & CHARACTER

Situated within the Station precinct of Edmondson Park South, the future character of the context will differ dramatically from its present condition once fully developed.

As illustrated by the adjacent plan, the precinct’s development is being undertaken by multiple landowners, with proposed developments at varying procurement stages from initial master planning to completion. Completed development includes Fraser’s Property Sites, which comprise the southern half of the precinct, including the Ed.Square Town Centre.

The development lots to the east of the site have an approved amended concept development application (DA-33/2021/A). To the north of the site, situated on the opposite corner of Soldiers Parade/Bernera Road and Maxwell’s Creek is the development site owned by Aland, the first stage of which has been completed, and an amendment to the second stage recently approved (DA-171/2024).

Landcom owns the majority of the development lots to the west of the site. The modification to the Edmondson Park concept master plan (Modification 5) includes indicative building envelopments for these sites.

KEY

SUBJECT SITE

COMPLETED DEVELOPMENT

PROPOSED AND APPROVED DEVELOPMENTS

LANDCOM DEVELOPMENT SITES

BATHLA DEVELOPMENT SITE (DA-33/2021/A COURT APPROVED)

FRASER’S PROPERTY DEVELOPMENT SITES

ALAND DEVELOPMENT SITE (DA-171/2024 APPROVED)

URBAN PROPERTY DEVELOPMENT SITES

DALMA HOLDINGS DEVELOPMENT SITE



THE SITE

SITE PHOTOS

DKO took the adjacent photos of the subject site prior to the commencement of the approved civil works to complete the road verge (share path and planting zones) along Soldiers Parade, and to construct Macdonald Road, which will form the site’s northern boundary.

As part of the approved civil works, all vegetation within the site will be cleared.



THE SITE - OPPORTUNITIES & CONSTRAINTS

The site is currently vacant with the exception of a stand of trees on the eastern boundary. The site is unencumbered of easements and covenants.

SOLAR ACCESS, WIND AND OVERSHADOWING

The prevailing regional winds are noted as north-easterly, south-easterly and westerly winds, with south-easterly direction winds also being the strongest. Further information on the wind conditions of the site is provided by the accompanying report prepared by WindTech.

The subject site is orientated north west so will receive ample solar amenity. To the north of our site the vegetation is to be retained along the riparian corridor at Maxwell's Creek, which will remove the potential for northern solar access to be reduced by future development.

Consideration is required of the extent the development may reduce the solar access of the future dwellings proposed in the adjacent development to the east.

OUTLOOK

With the northern parcels bordering the Station Precinct being retained as open space, combined with the generous adjacent road corridor, the site will enjoy broad outlook to Maxwells Creek and the broader precinct.

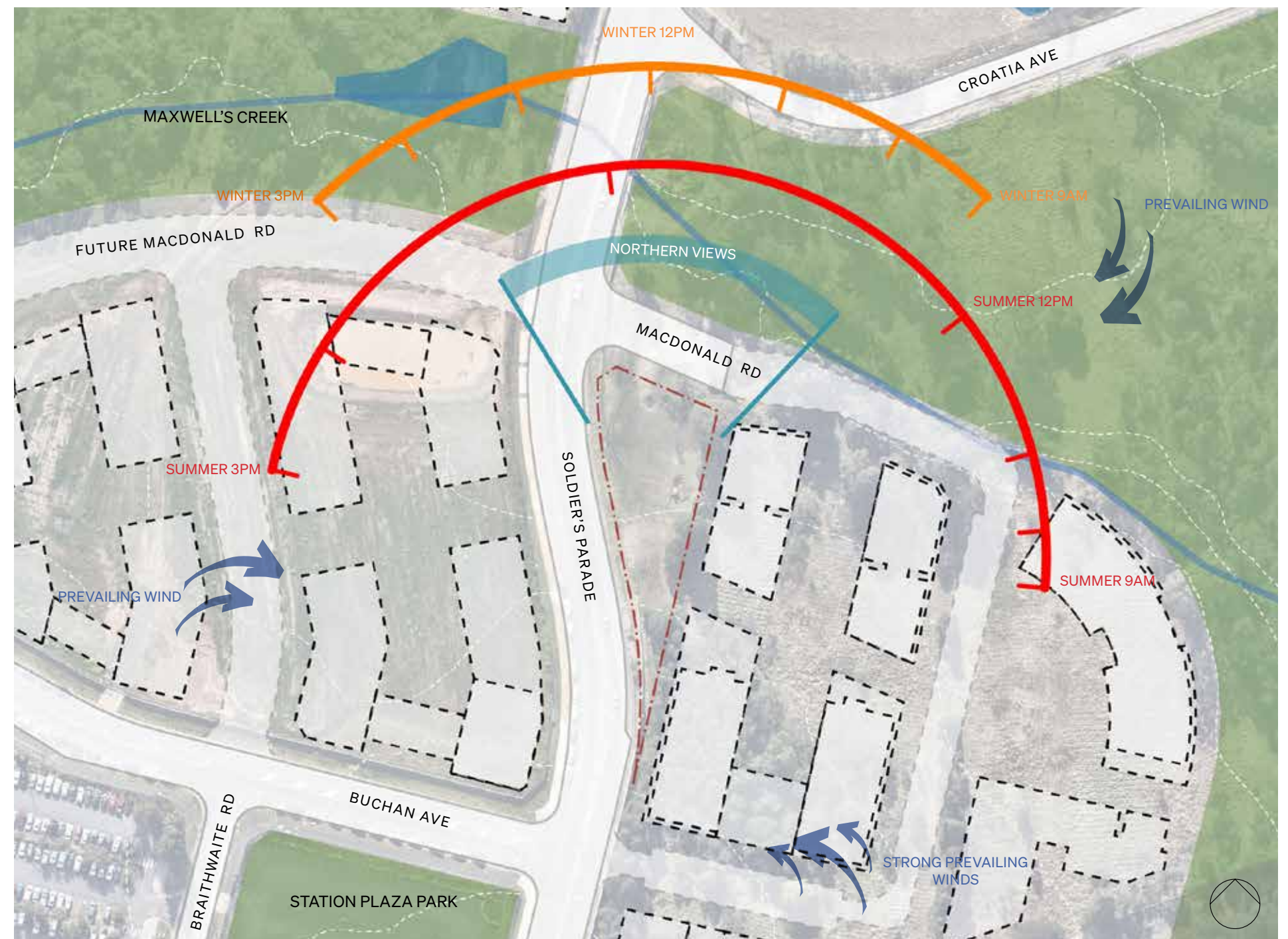
BUSHFIRE

The site is mapped as Category 3 - Medium Risk bushfire prone land. The Bushfire Report for the proposal identifies that the minimum APZ requirement extends across Macdonald Road into the northern setback of the subject site, and recommends that the remainder of the subject site should be managed as an inner protection area (IPA). Further information on the Bushfire management of the project is outlined in Bushfire Protection Assessment Prepared by Travers Bushfire & Ecology.

FLOOD

While the adjacent Maxwell's Creek experiences flood, the subject site is not flood affected due to ground levels being situated above AEP and PMF.

Liverpool City Council's online flood mapping tool indicates the site is not flood prone.



TOPOGRAPHY & GROUND LEVEL INTERFACES

The subject site is a triangular-shaped lot which combined with surrounding levels create a challenging multi-dimensional site. The levels of the civil works (currently underway and will be completed early 2025) along the interfaces to Soldiers Parade and McDonald Road have a 5.4m difference, with the perimeter sloping down from the southern tip of the site on Soldiers Parade down to the northeastern corner along Macdonald Road.

Additionally, the ground level of the proposed development to the east has a finished ground level of 49.6m for the northern building and 53.6m for the southern building.

Further detail of the existing topography of the site are illustrated on DA101, with existing ground level (approved civil levels) shown in interface sections on DA308.

ACOUSTIC & VISUAL AMENITY

Whilst presently Soldiers Parade has moderate traffic levels, conservative estimates of future traffic levels result in noise levels that will require the incorporation of acoustic treatment to the site to ensure the acoustic amenity of dwellings.

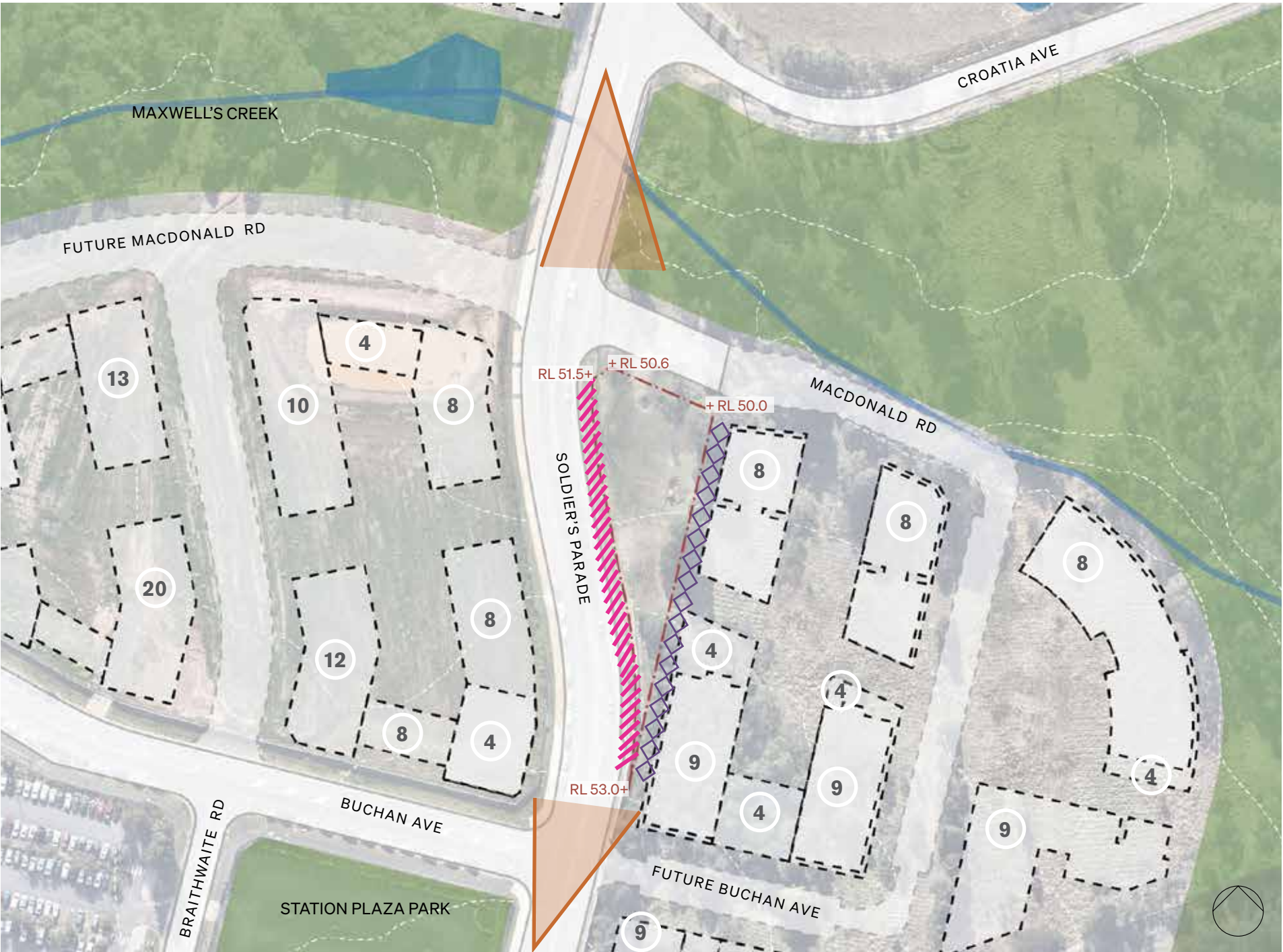
In addition to solar access, consideration is also required of the visual and acoustic privacy to the adjacent proposed development to the east of the site. From currently available application documents, it is understood that this development will have a habitable interface to the subject site, however, with setbacks that are less than ADG requirements.

VISIBILITY

The site is highly visible along Soldiers Parade, a gateway to Edmondson Park’s developing high-density station precinct. Once the surrounding lots are developed, the site will be further framed by built form.

KEY

-  SUBJECT SITE
-  BUILDING HEIGHTS (STORIES)
-  ACOUSTIC CONSIDERATIONS
-  ACOUSTIC AND VISUAL PRIVACY CONSIDERATIONS
-  KEY VIEWS



03 BUILT FORM & URBAN DESIGN RESPONSE

BUILT FORM ENVELOPE

The development of the proposal's design begun with establishing the building envelope in response to the established understanding of the site, and Landcom's project brief.

The following series of diagrams illustrate the considerations of the site and context which have informed the development of the proposed building envelope. This process has ensured that the proposal is place-based, and maximises opportunities to support Country, including the amenity of the surrounding places, community and future residents.



TOPOGRAPHY

Development of the proposed built form incorporated intensive investigation of the complex, significantly sloping levels surrounding the site.

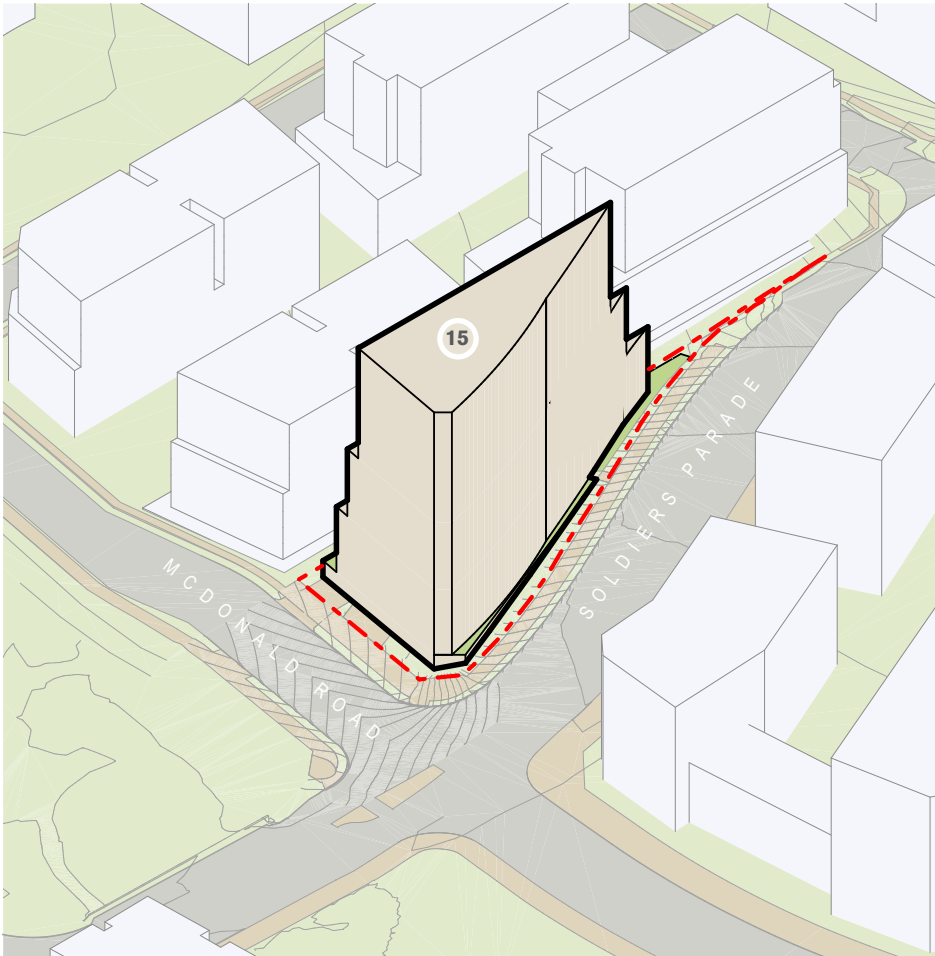


BUILDING BENCHING & ENTRIES

The proposed benching of the building is the result of testing multiple options. The proposed solution is to create a dual-ground plane to address Macdonald Road and the Soldiers Parade.

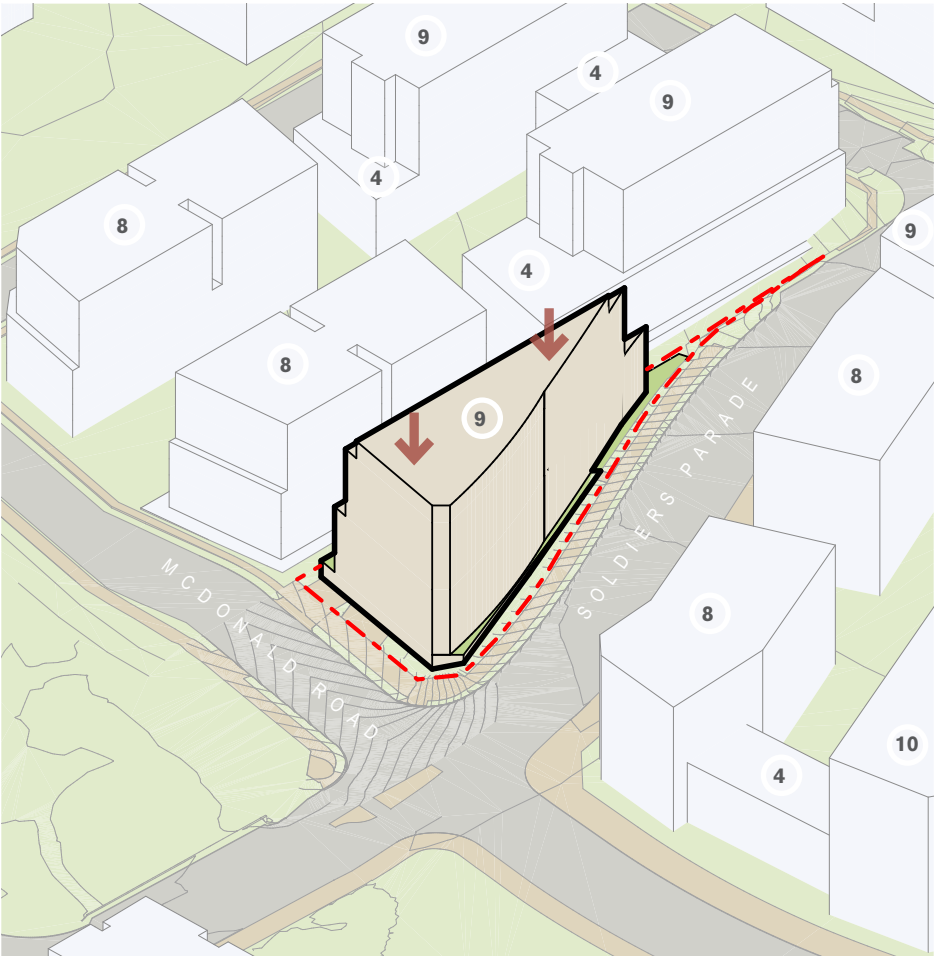
The lower ground level enables the main and adjacent vehicular entry to be closely leveled to the adjoining street. The upper level balances the level difference between the corners of the site along Soldiers Parade and creates the opportunity for secondary access to the site.

Additionally, the benching results in minimising excavation of undisturbed terrain and therefore further damage to Country. The majority of excavation required for the proposal is of material added to the site from the civil works.



BASE COMPLIANT ENVELOPE

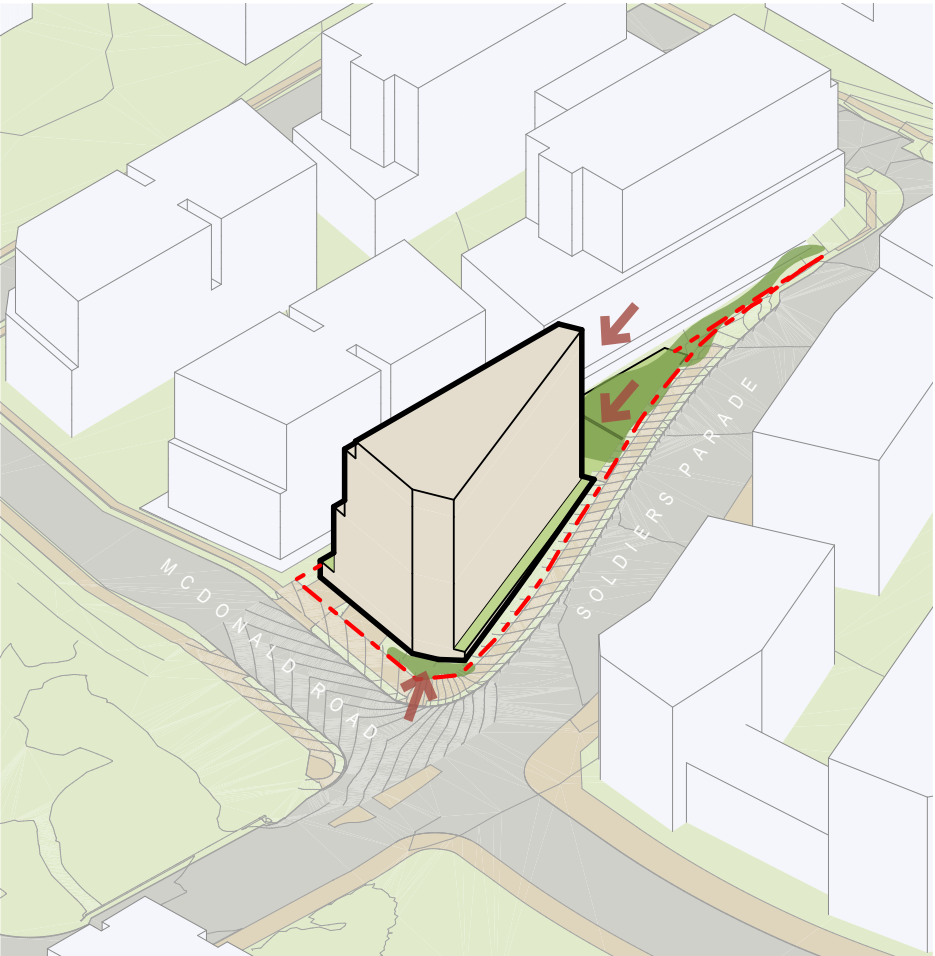
Extending from the established dual ground planes, the development of the proposed built form started with an understanding of a base compliant envelope formed by Modification 5 street setbacks (3.6m and 3.0m), ADG habitable side setbacks (6m, 9m & 12m) and the Modification 5 height limit (50m).



CONTEXTUAL HEIGHT

The envelope's height was dropped below the allowable height limit to respond to the surrounding context of approved and future proposed building heights.

Given the site's prominence at the gateway to the precinct and in response to the objective for the precinct to have a range of heights creating a modulated skyline, the proposed height sits slightly above the adjacent buildings. The reduction in height was also associated with achieving compliance with the maximum allowable GFA for the site.

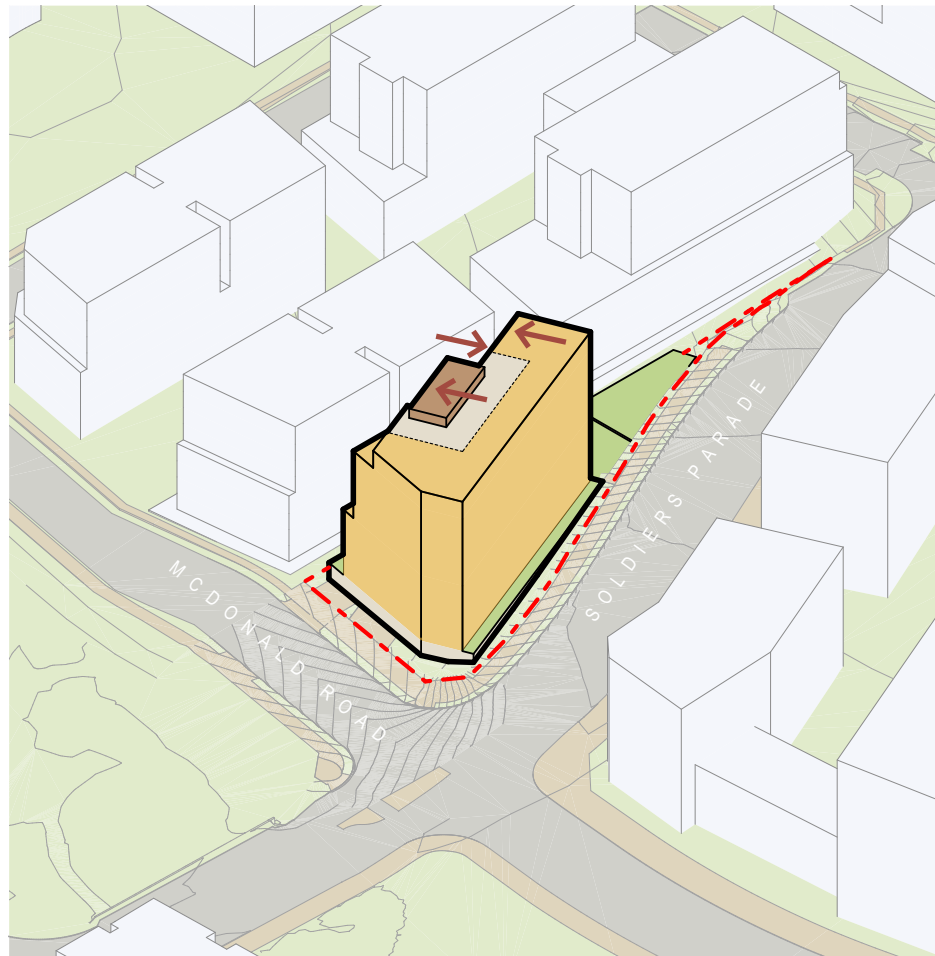


SHRINKING BUILDING FOOTPRINT

To maximise the deep soil zone in the southern portion of the site and to increase the efficiency of the floor plates, the footprint of the building was reduced to occupy the wider northern half of the site.

Additionally, the building footprint was squared off at the corner of Soldiers Parade and Macdonald Road. This creates a generous pocket for deep soil and an associated opportunity for a high-quality landscape zone to occupy the site's most prominent corner. Positioning landscape in the foreground of the site, aligns the character of the proposal with the vision for landscape to play an important role in the precinct's character.

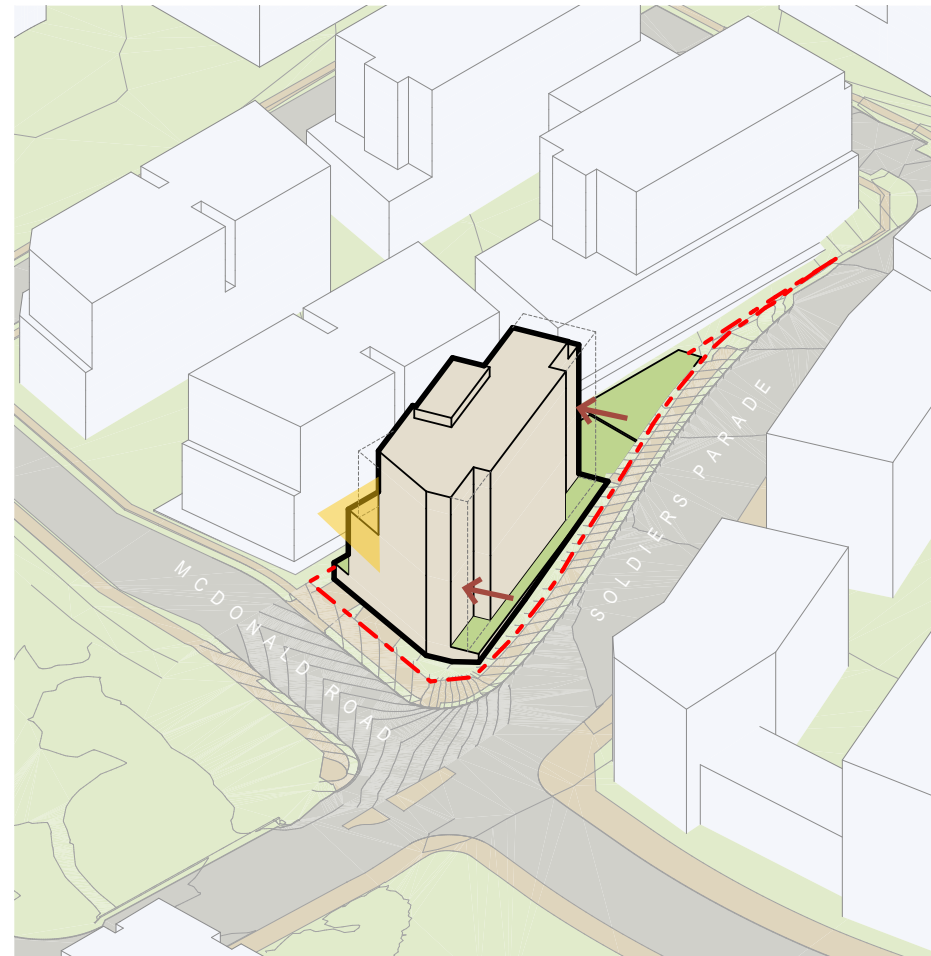
The smaller footprint positively impacts on Country with increased site permeability for stormwater percolation and area for biodiverse landscaping.



SQUARING OFF FLOOR PLATE

To maximise the areas of the floor plates with better outlook and solar access, as well as further improving the building efficiency and buildability, the envelope is squared off along Soldiers Parade and the southern corner.

The core was also positioned in the central zone of the plate, occupying the majority of the building length, which would face into the adjacent development, reducing visual and acoustic privacy issues.

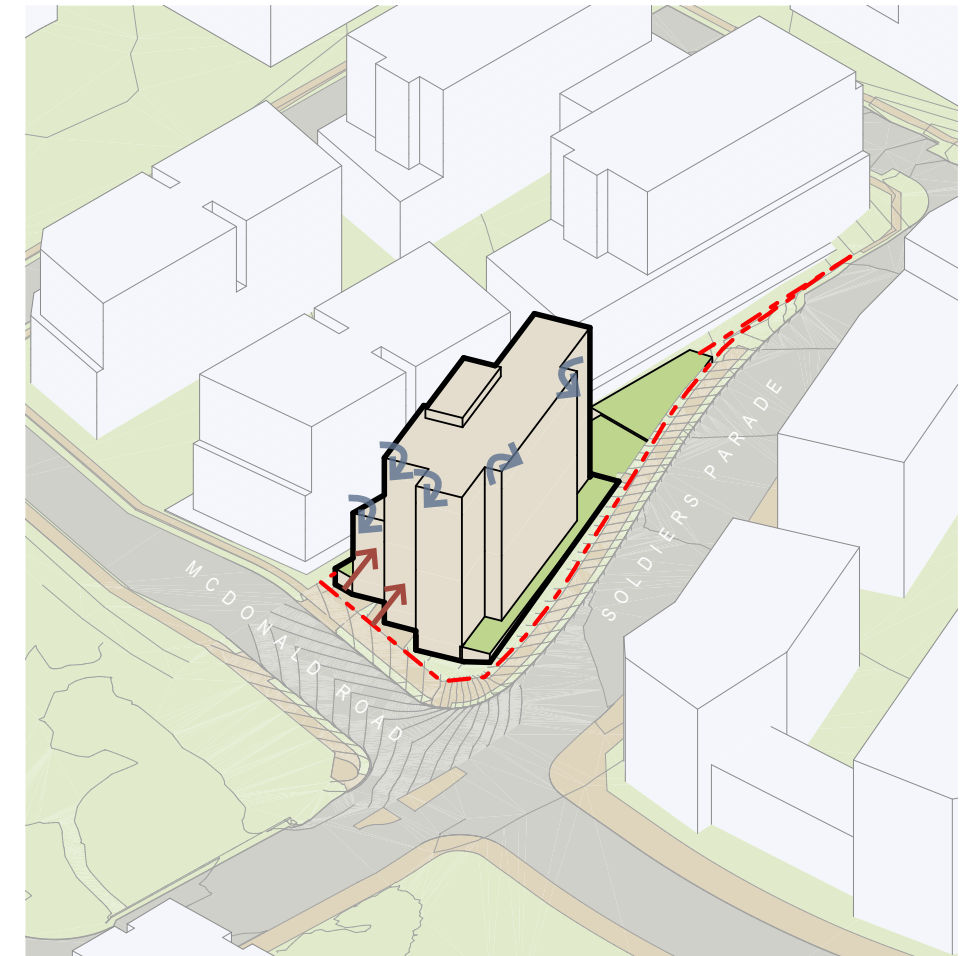


STEPPING FACADE

To reduce the length of the facade along Soldiers Parade and to create the opportunity for deepened landscape zones, the corners of the envelope are set back from the street.

Additionally, the upper-level setbacks of the envelope in the northeastern corner are further increased to expand solar access to and outlook to Maxwells Creek from the adjacent development.

This increased setback also opens up more upper levels views to Maxwells Creek and Country for the proposed neighbouring development.



ARTICULATED FACADE - PROPOSED ENVELOPE

Significant articulation of the northern facade, reflecting the building's internal layout and structural grid, modulates the proposed envelope. This creates a series of three slender forms which provide visual interest to this prominent aspect of the proposal.

These steps also maximise the opportunities for apartments to be dual aspect, allowing for cross-ventilation and increased daylight access.

BUILT FORM ENVELOPE SETBACKS

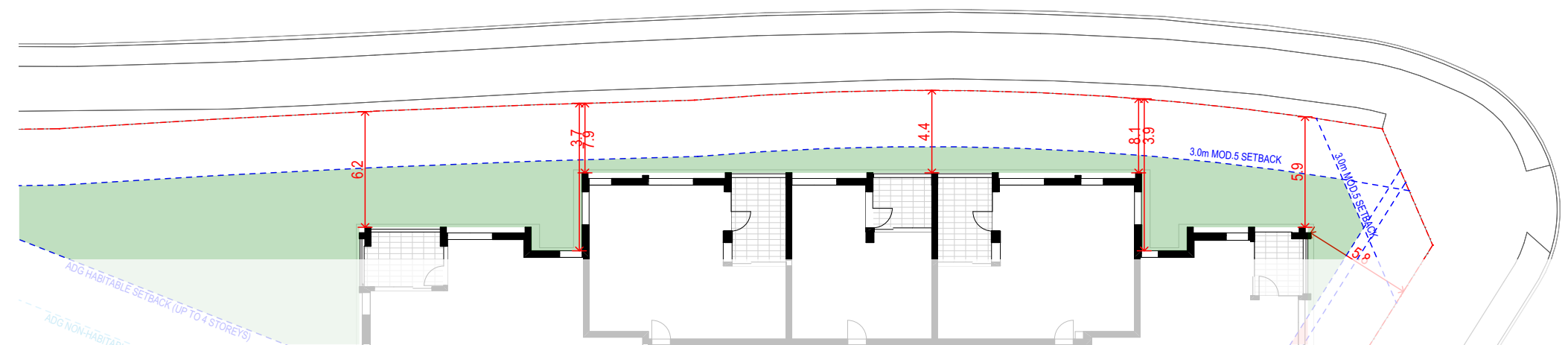
Resulting from resolving a building envelope on a site with a complex geometry, the setbacks of the proposed envelope vary from controls applicable to the site. The following pages detail the setbacks of the proposed envelope, including the amenity implications and impact mitigation strategies.

SOLDIERS PARADE

The proposed built form is compliant with the proposed Modification 5 street setback of 3m.

Additionally, generous setbacks are provided at each end of the building to reduce the building length and give these dwellings additional separation from the street.

The proposed setbacks allow for both a deep soil planting zone, and on-slab perimeter planters, which will provide considerable amenity to both the residents and the public domain, as well as supporting a high-quality streetscape character

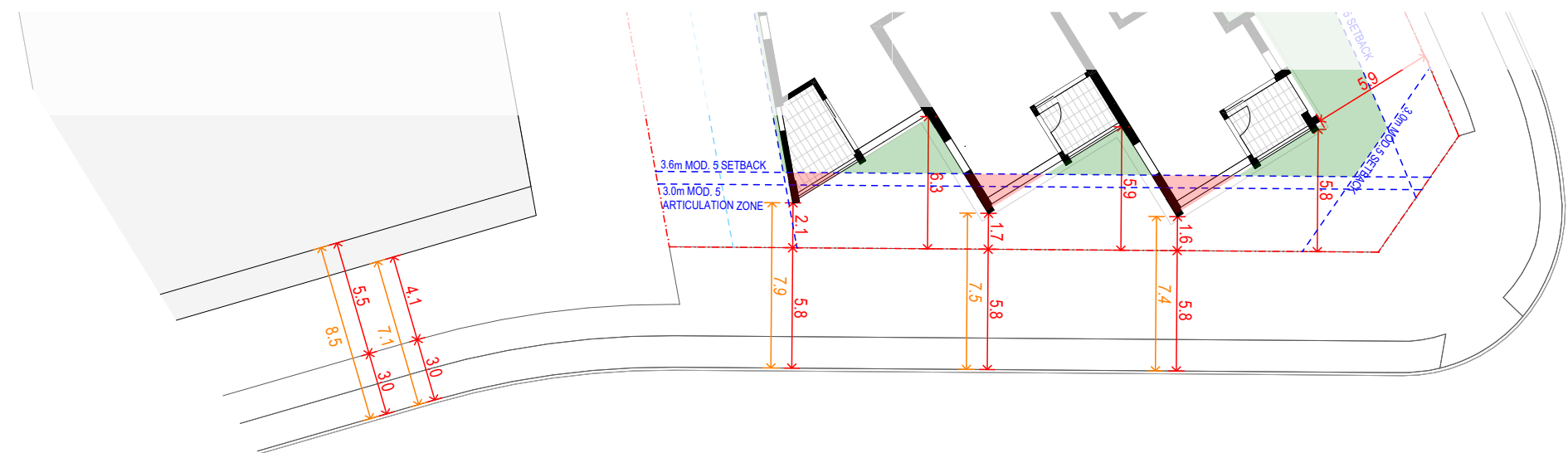


MACDONALD ROAD

The proposed built form provides a stepped setback to MacDonald Road, ranging between 1.6m and 6.3m. The average of these setbacks will be approximately 3.8m, consistent with the proposed Modification 5 setback of 3.6m with a 3m articulation zone.

Additionally, when measured from the road kerb, the proposed setback at the narrowest point will be consistent with lower-level setback of the adjacent approved concept master plan building envelope (DA-33/201/A.), 7.4m compared to 7.1m respectively.

The stepped setback creates the opportunity for generous zones for high-quality deep-soil landscaping and framed pocket associated with the main building entry.



EASTERN BOUNDARY

As a result of maximising the proposal's floor plate efficiency and minimising irregular geometries, which would reduce the livability and usability of the dwelling's space, the eastern facade is significantly stepped. The resulting setbacks of the proposal from the Eastern boundary result in some non-compliance with ADG setbacks.

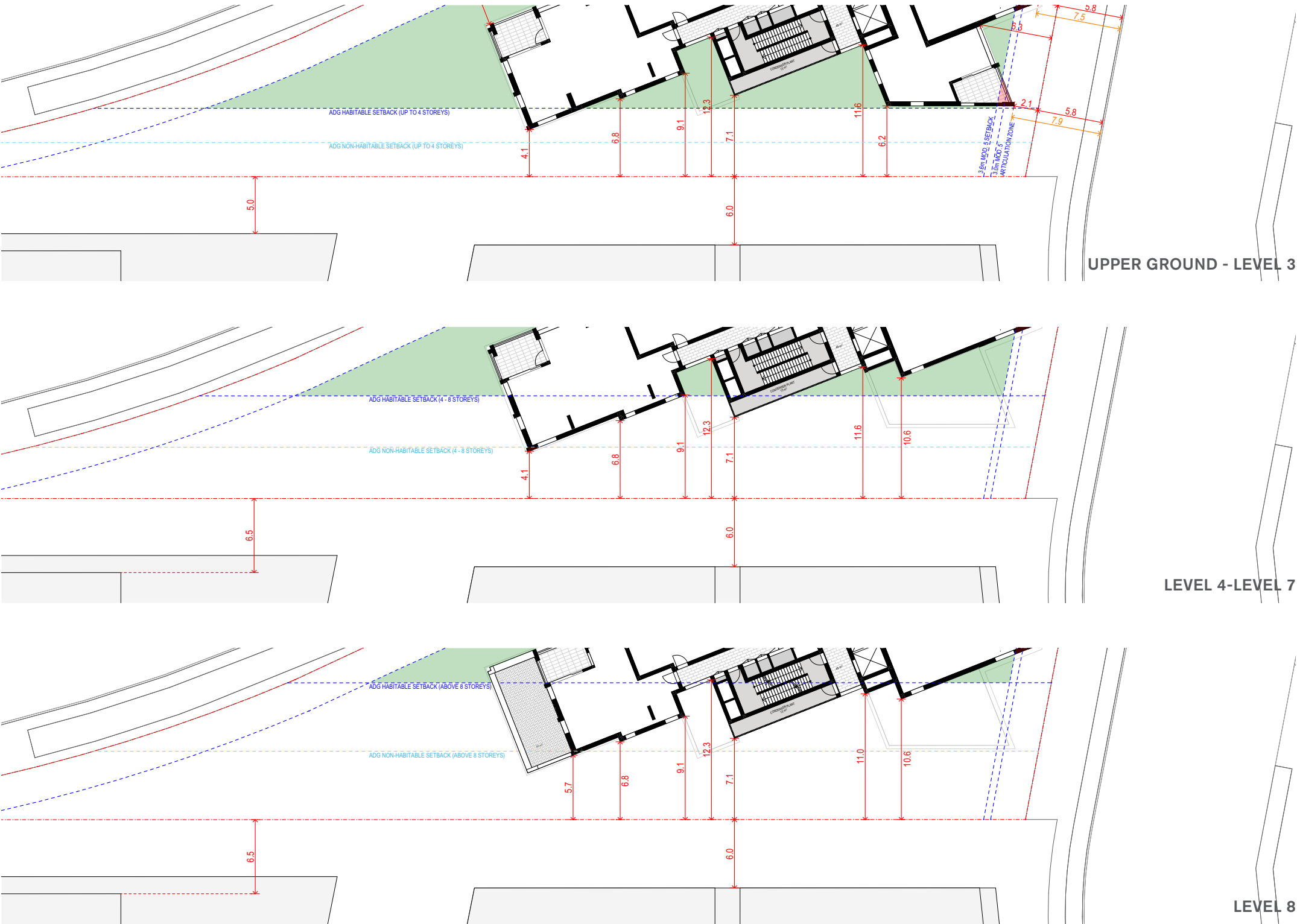
At the lower levels, the proposal is predominately compliant with habitable setback requirements. Due to the skewed orientation of the portion of the wall sitting beyond the habitable setback line, the separation to the adjacent built form when measured perpendicular to the proposed wall is consistent with the ADG habitable separation requirements.

Up to level 4, the north-eastern corner apartment, whilst within the ADG, habitable setback, has been planned to orientate the living space and balcony to the north, with openings along the eastern wall limited in size to reduce inter-looking with the adjacent dwellings.

On the upper levels, the proposal's core and south-eastern corner protrudes past the ADG habitable setback line. The wall of the southern dwelling is primarily treated as a non-habitable wall, however, following advice from the SDRP and concern from Council that this will be a blank wall, high-level windows to the secondary/non-habitable rooms have been provided. The main windows to the primary habitable spaces of the apartment are positioned on the southern and western sides of the building, with living spaces oriented south and west. On Level 8, the southern facade responds to the significant ADG separation requirements.

The eastern setback of the proposal adjacent to Macdonald Road from Level 4 and above is significantly more than the required ADG habitable to habitable separation. This increased setback increases solar access to neighbouring buildings.

The SDRP and Council supported the proposed setback eastern setbacks.



04 GROUND PLANE & LANDSCAPE

LANDSCAPE VISION & PRINCIPLES

The landscape has been integrated into the proposal as a key, multi-functional component. The landscape response is a significant part of the the proposal's Connection to Country, suhc as through contributing to urban biodiversity and improving waterway health, as well as supporting the identity of Dharug Country through reinstating the Cumberland Plain. Additionally the landscape is a critical tool to create high amenity public, communal and private spaces.

Inview has established the landscape vision and design principles for the proposal, shown adjacent on this page. The following pages also contain excerpts from the Landscape Design Report and Landscape drawings completed by Inview. Further details on the landscape design and strategies, including planting and material palette can be found with Inview's report and documentation.



“REINSTATE THE CUMBERLAND PLAIN

Create urban biodiversity through reinstating the Cumberland Plain, the typical landscape of this area. We are looking to achieve 15% canopy cover (due to bushfire constraints) using predominantly endemic species, thus creating habitats for native animals and using water sensitive urban design (WSUD) principles to improve waterway health particularly to the adjacent Creek. A raingarden along the front of the site will aid in managing overland flow and cleanse the water before returning it back to the ecosystem. The topography and geometry of the site is utilised to make the most of the deep soil zones to create Woodlands within the deep soil areas.”



“COMMUNITY CONNECTION

High amenity communal spaces designed to foster a connected community through a range of quiet spaces for reflection, open areas for play, a nature play area, communal BBQ space and a variety of gathering spaces with timber benches and sandstone seating. The areas cater for all ages and with both formal and informal spaces, allowing for interaction with both residents, families and the local community.”



“CONNECTION TO COUNTRY

Connection to Country through Indigenous planting of the remnant Cumberland Plain and other resilient native species and via the use of natural sustainable materials. Immersive spaces allow for reflection and contemplation fostering a connection to Country. Material selections are drawn from the surrounding landscape and Indigenous planting. Materials used have low environmental impact, locally sourced where possible and can be recycled at end of life and returned to Country. After consultation with the local Elders and artists and embracing local stories, we were encouraged to embrace Country through paving, public art, and textures to show the history and culture of the traditional land holders. Paving provides an ideal opportunity to incorporate artworks and patterns that are sacred and have meaning to the local Aboriginal community.”

LOWER GROUND LEVEL

Macdonald Road is considered the primary frontage of the proposal, and is where the primary pedestrian entry and vehicular entry are located.

MAIN PEDESTRIAN ENTRY & BICYCLE WORKSHOP

The main entry has been positioned along Macdonald Road which will allow for easy drop-off of residents and parking for visitors with the on-street parking zones. Additionally it creates a strong connection between the development and the Maxwells Creek recreation space.

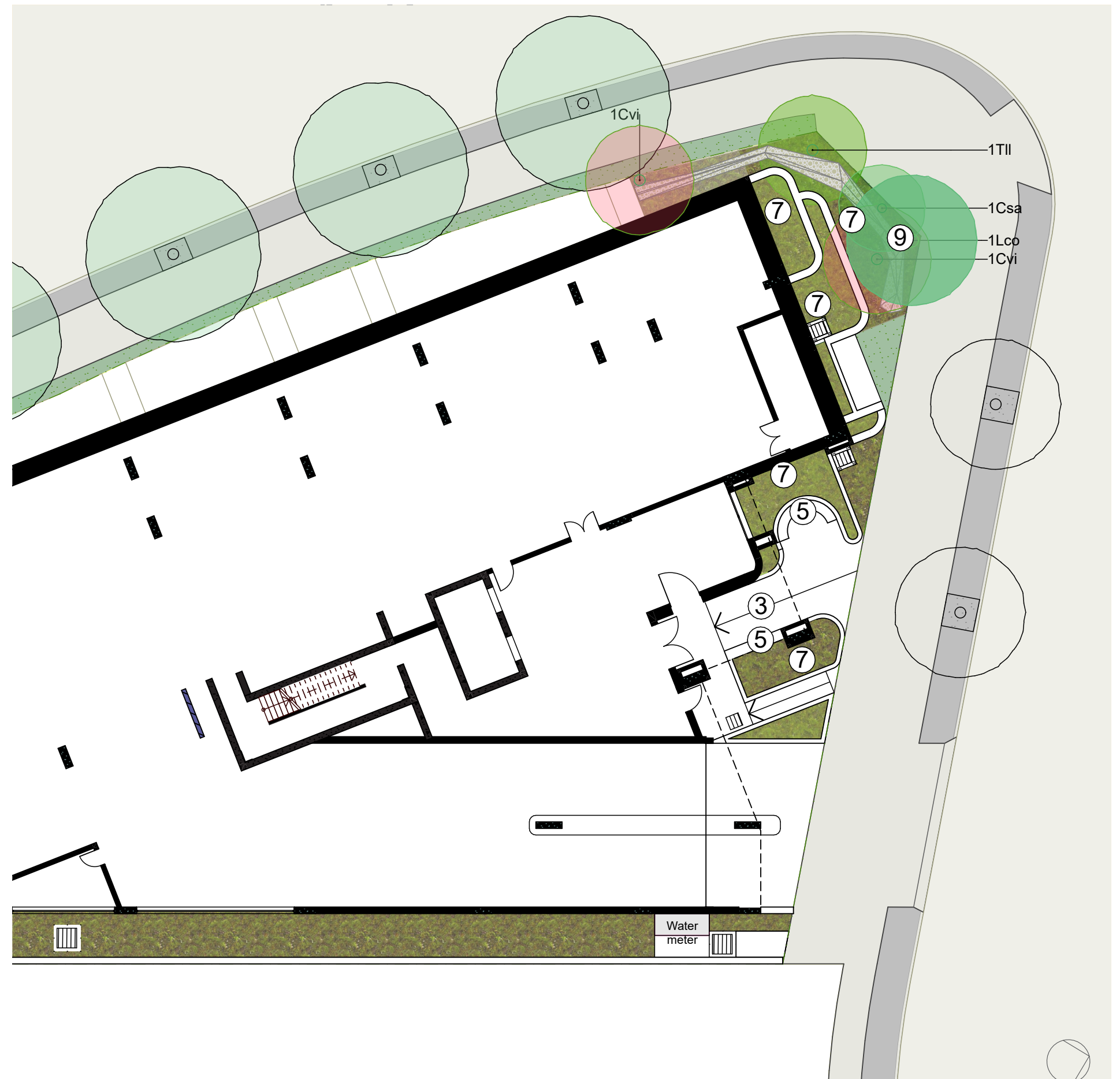
The entry is situated in the central portion of the proposal's stepped form, which also allows for the creation of a communal gathering space adjacent to the entry. This space is generous and open, connecting in with the main entry as well as appearing as an extension of the public domain. Together the architecture and landscape create a welcoming and attractive arrival point.

Adjacent to the main entry is a multi-functional bike workshop and storage room. This communal facility will support residents to utilise active transport and help activate the entry.

VEHICULAR ENTRY & WASTE COLLECTION

The vehicular access to the car park has been positioned adjacent to the eastern boundary to minimise the visual impact of the car park entry on the most visible frontage of the proposal, and to minimise conflicts with residents accessing walking and cycling routes along Soldiers Parade. A low height planter separates the driveway from the main pedestrian entry to further increase pedestrian safety.

Once weekly, on-street garbage collection is proposed for the development, to remove the requirement to accommodate large vehicles within the car park, which would add significant constraints given the site's geometry. Refer to the waste management report prepared by MRA for further information.



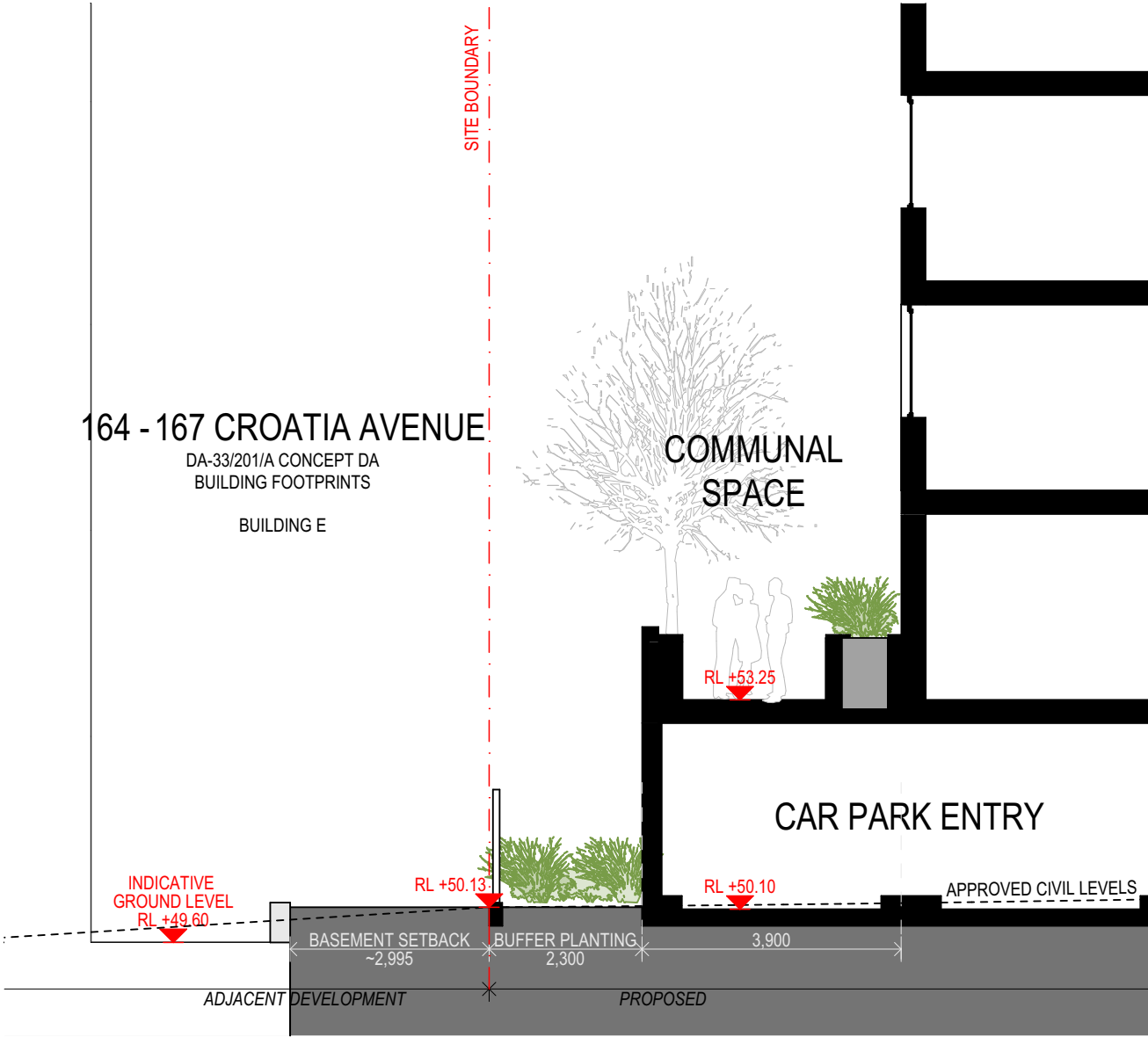
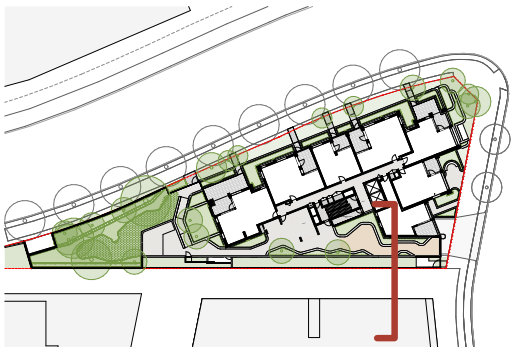


EASTERN BOUNDARY INTERFACE

The setback area along the eastern boundary is a deep soil landscaped zone. A 1800mm high fence is proposed along the boundary.

Due to NCC fire separation construction requirements the architectural treatment of the adjacent wall to the car park and driveway is limited. The proposed tall ground covers and grasses in the landscape buffer zone will help soften the wall and enhance the visual outlook for the lower-level dwellings in the nearby development.

Due to bushfire restrictions, trees are not able to be incorporated in the landscape zone.

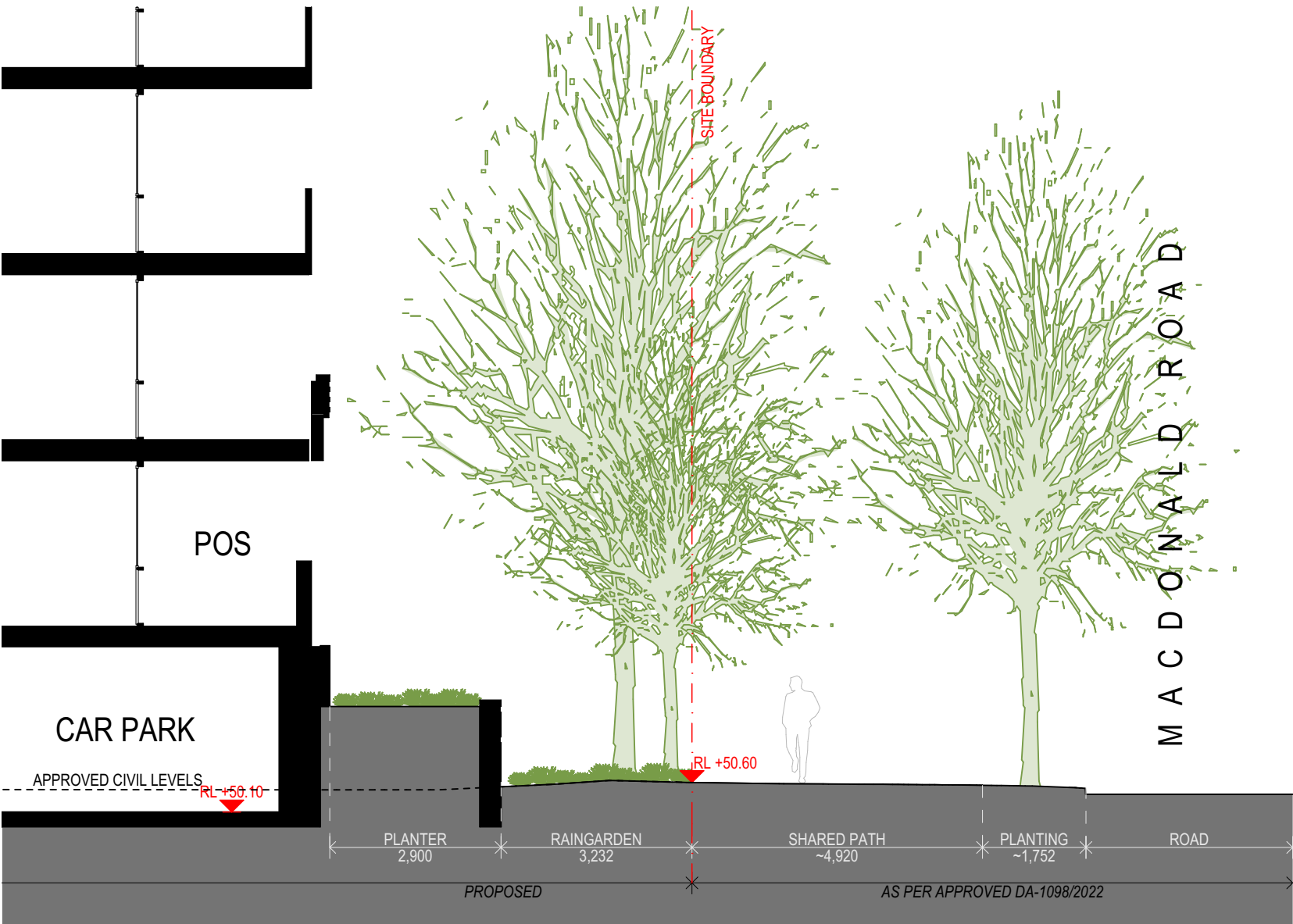
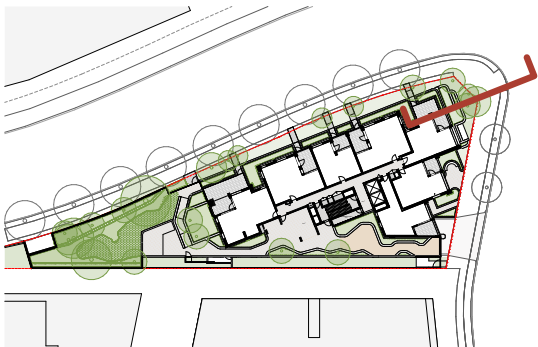


MACDONALD ROAD BOUNDARY INTERFACE

Associated with the significant steps articulating the northern face of the built form, generous pockets of deep soil are established along Macdonald Road.

The deep setback of the built form at the north-western corner of the site allows for the incorporation of a series of cascading planters provide a layering to the landscape. These also serve to breakdown the height of the car park wall which is at this point predominantly above ground due to the steep fall in the street levels around the corner of Macdonald Road and Soldiers Parade. The generous setback has also enabled the incorporation of a tree cluster on the corner of the site.

The proposed landscaping and the stepping of the built form also will aid in improving the wind comfort levels of the common and public domain.





UPPER GROUND LEVEL

SOLDIERS PARADE INTERFACE

Responding to the objective for the precinct to incorporate human-scaled streets and street activation, a stoop-style interface has been incorporated long Soldiers Parade. This comprising individual entries to the adjacent private courtyards, with multi-layered landscaping between them. These entries, which incorporate a level change, manage the transition from public and create zones for informal social interactions.

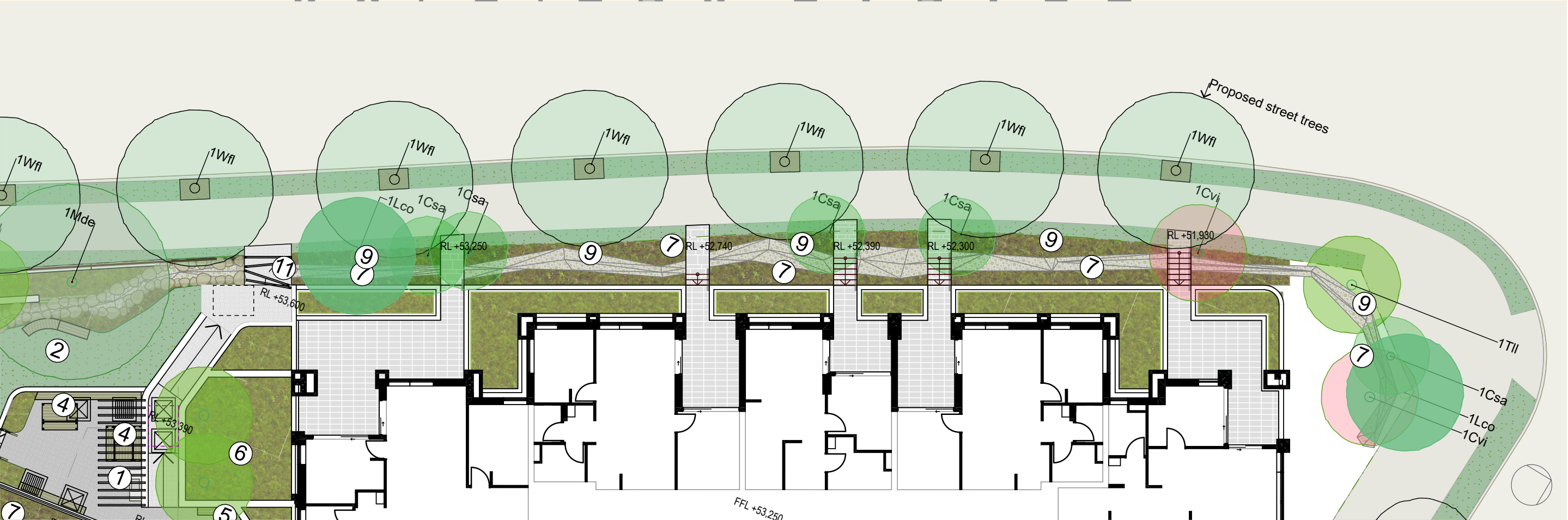
Adjacent to the planting zone of the road verge, the proposal incorporates a vegetated, deep soil rain garden. Trees have been incorporated where possible, within the requirements of the bushfire management restrictions. The has a multi-functional purpose - to create a natural, informal landscape

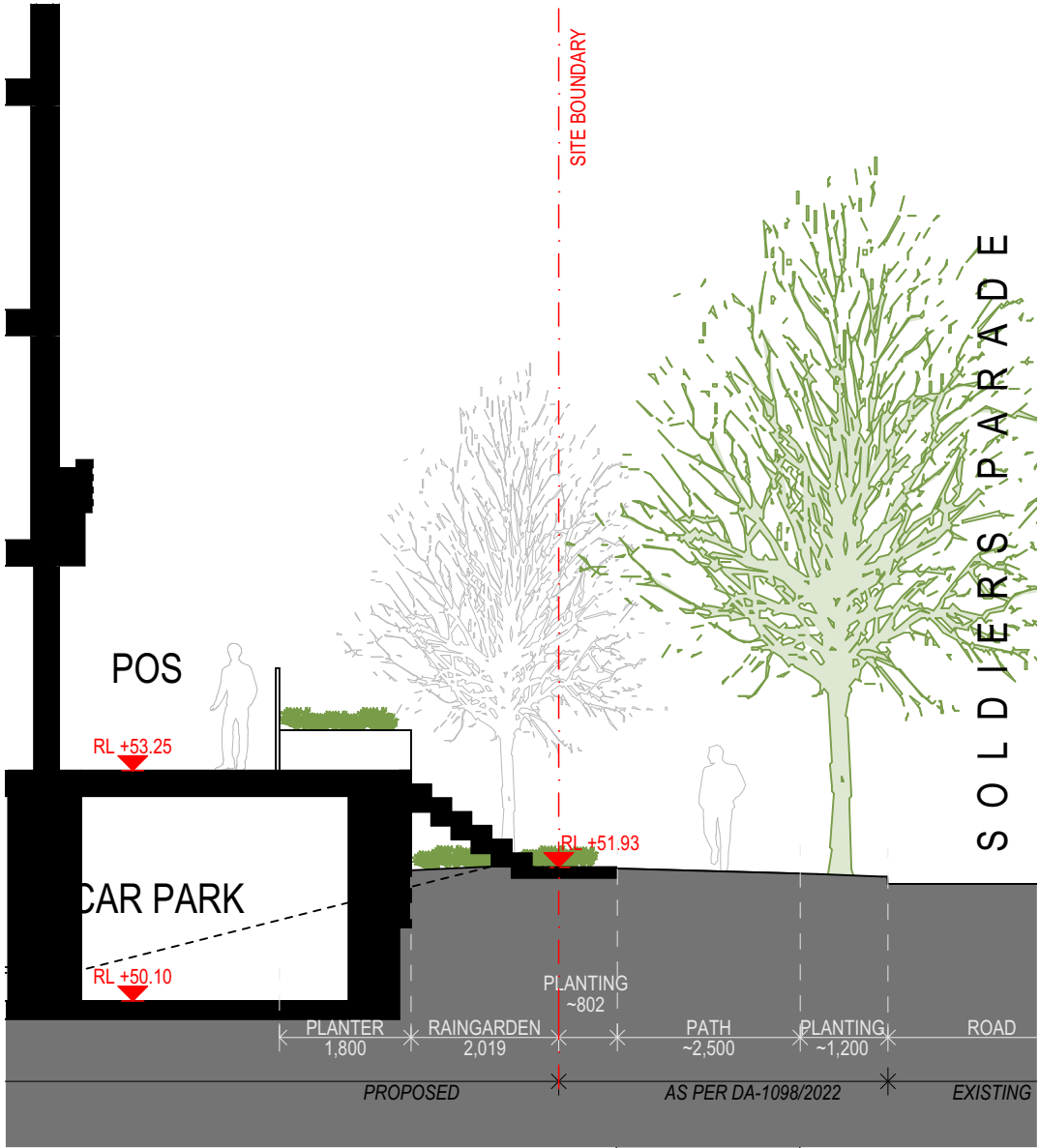
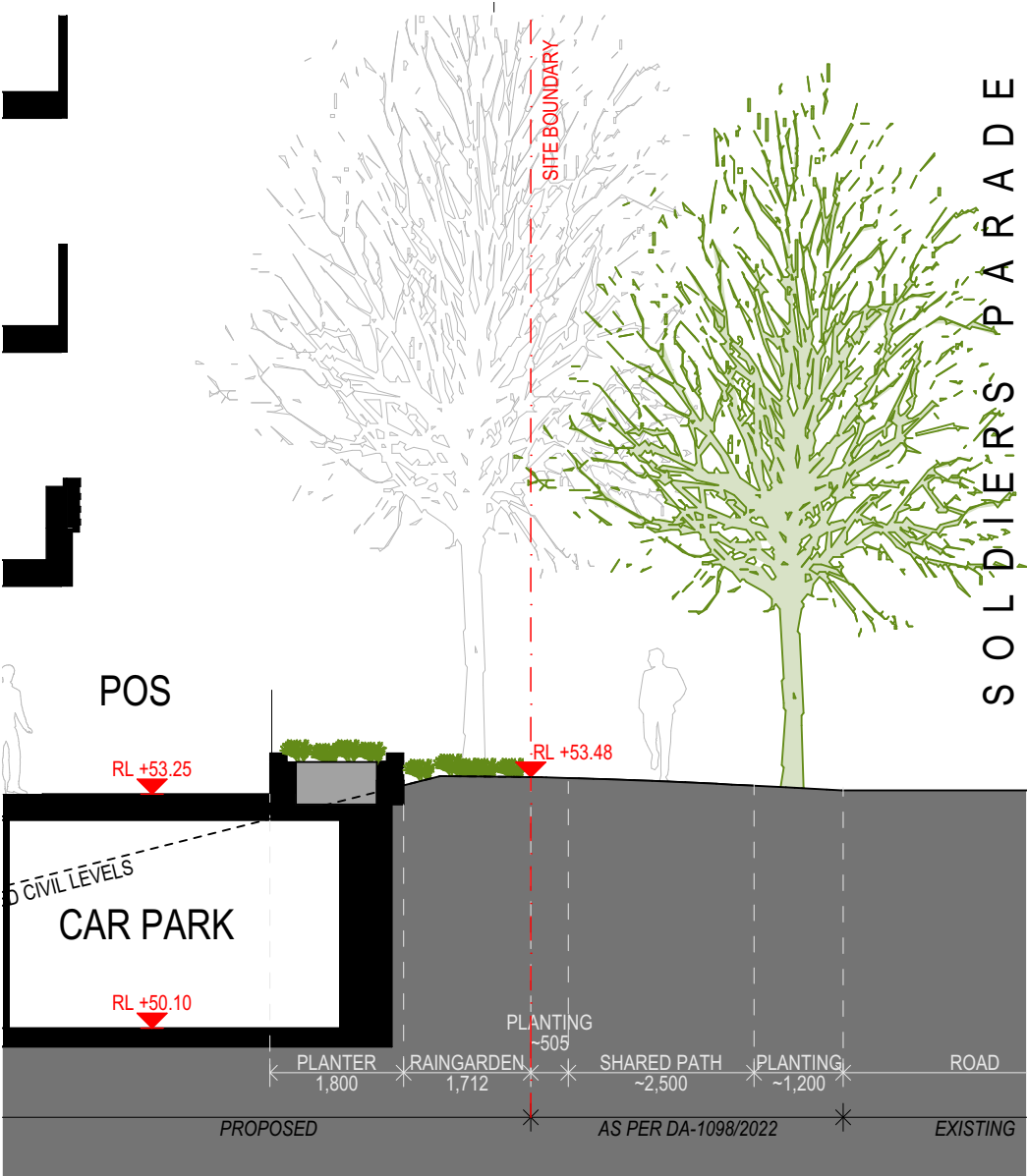
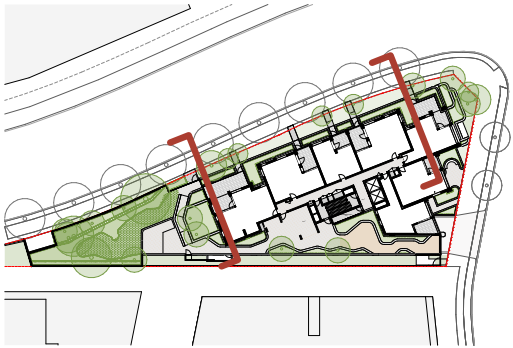
edge around the site which also softens the built form and increased the biodiversity of the street, and a WSUD element to support waterway heath and the recharging of ground aquifers.

The perimeter of the proposed courtyards are lined with on-slab planters, which incorporate adequate soil depths to support trailing plants, grasses and shrubs. These planters provide a privacy buffer and desirable outlook for the ground level apartments and courtyards. The planters and above ground portion of the car park basement wall are clad in brick which ties into the materiality of the podium and creates a fine-grain character along the street. 1400mm high glass fences are incorporated into the planters around the private courtyards to address the recommendation to incorporate solid fencing to improve the acoustic amenity of the ground level apartments

while also not compromising outlook and solar access. Elsewhere, the proposed fencing is a metal palisade fence.

The combination of the proposed setback and vegetated landscape combined with the street trees will promote comfortable wind conditions along the footpath.







SECONDARY PEDESTRIAN ENTRY

A secondary common access to the building is provided from Soldiers Parade at the southern end of the building, framed by a sculptural arbor. It is envisaged that this access will practically benefit the residents who are walking or cycling to the train station and Ed Park town center.

by nature, as well as more active and social spaces where residents can gather together or hold their own social events.

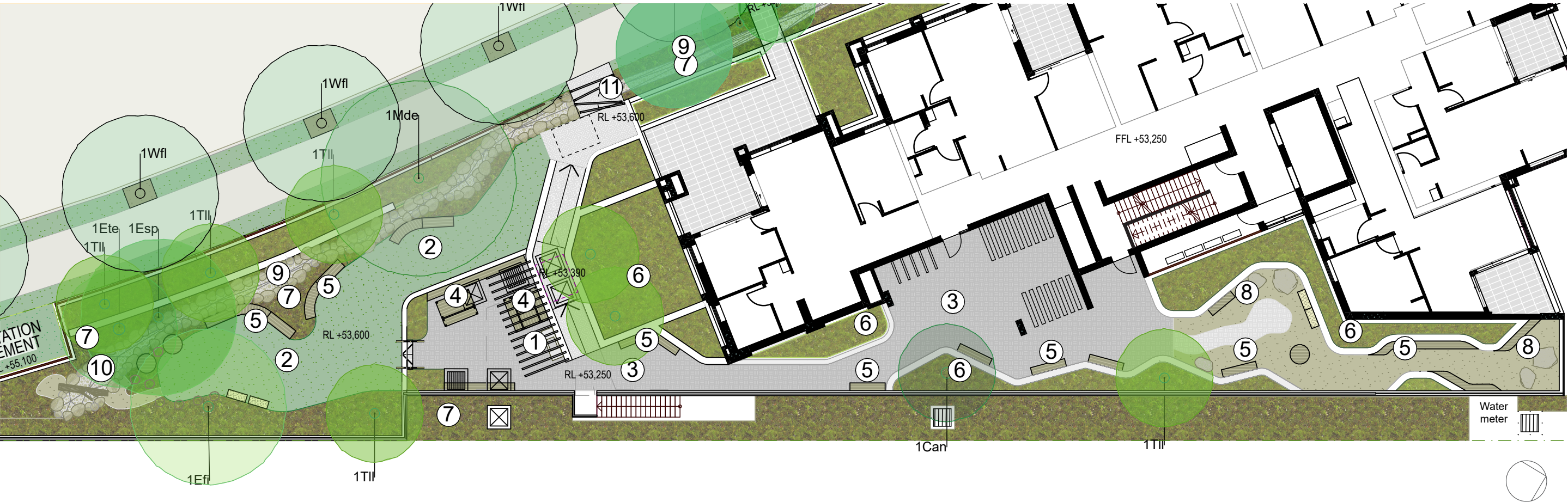
To broaden the range of age groups and household types catered for, a variety of informal nature play elements are incorporated throughout the landscaping which are intended to foster creativity, curiosity and connection to nature.

COMMUNAL OPEN SPACE

Accessed from the secondary pedestrian entry or from the Upper Level lift lobby and corridor, the communal open space on the upper ground level comprises a sequence of different zones providing a variety of uses for residents. These include quieter, passive spaces for residents to relax and reflect surrounded

SECONDARY BIKE STORAGE AREA

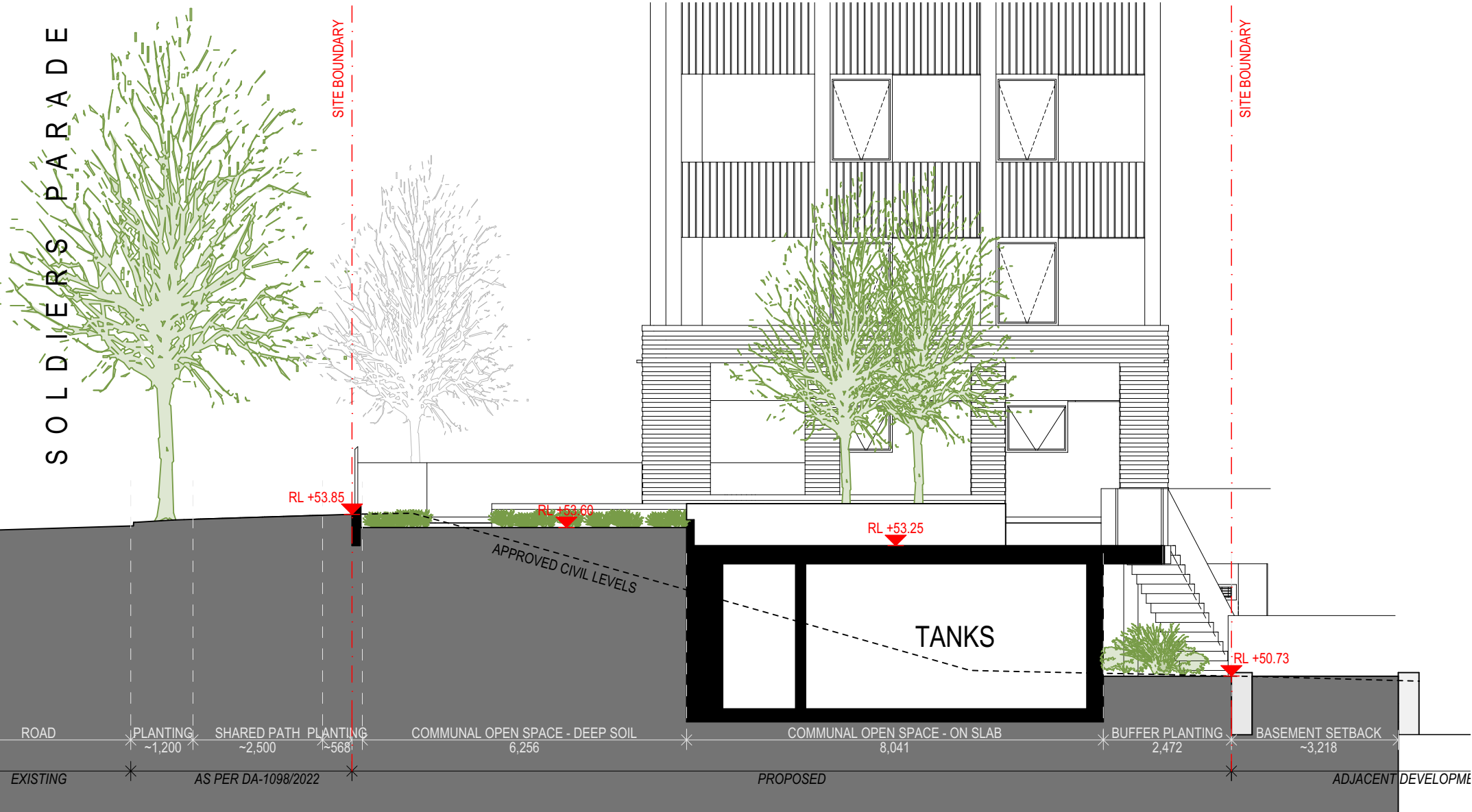
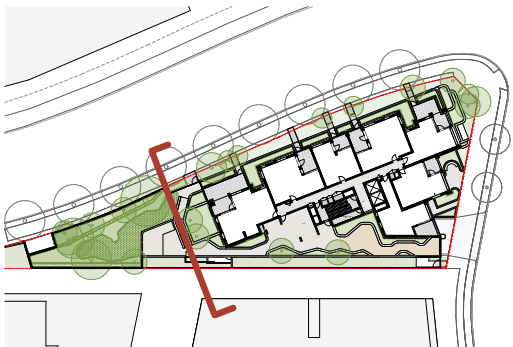
An open under-croft secondary bike parking area is co-located with the building entry, further maximising the potential for active transportation to be utilised by residents.



SECONDARY ENTRY & BBQ TERRACE

The secondary access is at grade to the adjacent street level surrounded on each side by rain gardens and planters containing a variety of vegetation. This creates a green gateway and provides visual screening to the adjacent apartment and private courtyard. From inside the secure boundary line, this access connects to a gentle ramp leading down to the level of the paved BBQ zone occupying the area above the tanks, and then onto the bike storage area and building lobby.

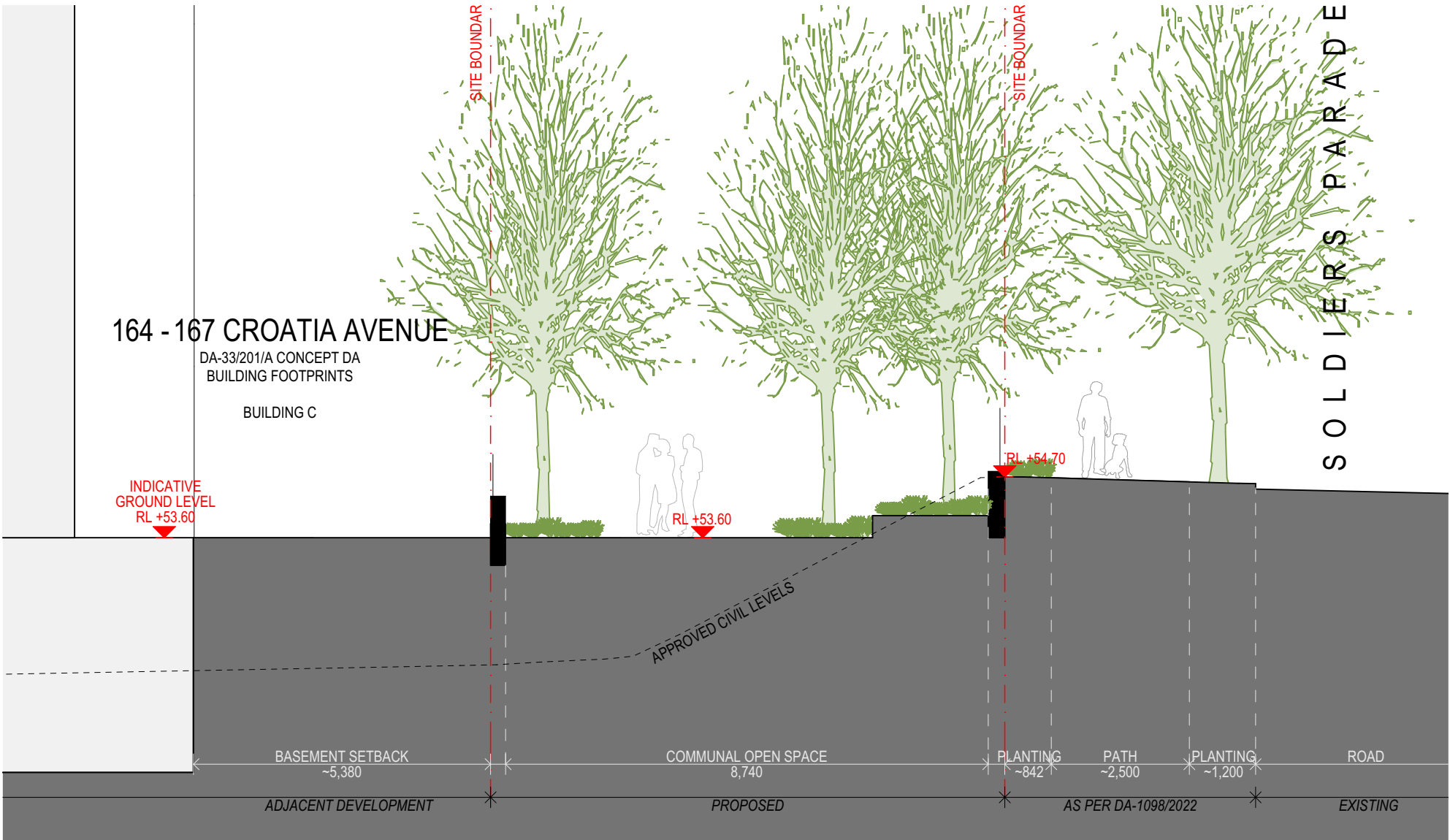
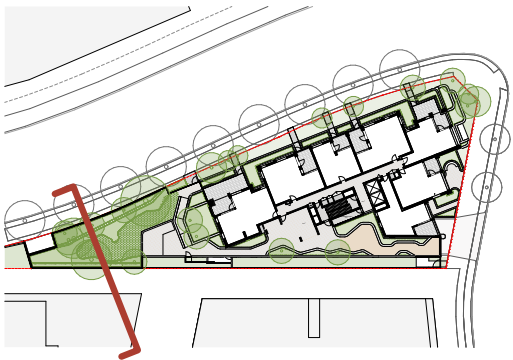
The vision for the secondary entry was to create a more meditative arrival journey, allowing for residents and visitors coming from the busy Soldiers Parade to unwind as they move through green spaces and native planting within the communal open space. This vision was inspired by the process of walking on Country as explained by Uncle Shane, and will encourage the residents to grounds themselves and connect to Country.



COMMUNAL OPEN SPACE INTERFACES

At the southern end of the communal open space, the Soldiers Parade street levels increase to their highest point, and the ground level of the adjacent development steps up. Due to this, the proposed RL of the communal space is split, with the south-western portion maintaining the street access level, which ties in to the level of the neighbouring development.

The perimeter of this upper level space is planted out with denser and taller ground covers and shrubs, combined with canopy trees to create a landscape buffer which provides separation and visual privacy to the communal space from the street and adjacent dwelling. Palisade fences will be integrated at the edge of the buffer zone to provide a security line and falls-barrier.



PUBLIC ART STRATEGY

As part of the consultation process led by WSP with local First Nation Elders, a series of opportunities has been identified to integrate public art and cultural references into the development. These elements will enrich the connection to Country and celebrate the site's cultural significance.

Opportunities have been highlighted where public art can seamlessly merge with the building fabric, enhancing the development's cultural depth. Subtle and meaningful incorporations, supported by appropriate signage, will help residents and visitors understand and appreciate these works

LOCAL LANGUAGE AND NAMING

A key focus is incorporating local language that has been accepted by all associated First Nation Groups. This could include using traditional names for the building, individual levels, or key areas within the development, fostering a deeper cultural connection. Further engagement with Elders and Knowledge Holders will guide the language outcomes to ensure that they are appropriate.

ARTWORK ZONES AND IDENTITY

Strategic zones for artwork have been selected to:

- Enhance residents' sense of arrival and belonging.
- Deepen understanding of the traditional lands on which they reside.
- Establish a unique and welcoming identity, especially on the ground plane.

Main Entry Feature Wall

- The horizontal lines in the brick podium reflect the Darug design vernacular where horizontal lines are used to depict Mother Earth.
- Artistic details could include intricate brickwork patterns, using varied brick colours and textures, such as recessing, extrusions, or mortar treatments, to reflect cultural stories.

Main Entry Paving

- Ground surface detailing can feature cultural geometries and abstracted linework representing Mother Earth and Father Sky.
- Collaborating with a First Nations artist could bring original artwork into this space, grounding residents and visitors in the site's cultural history.

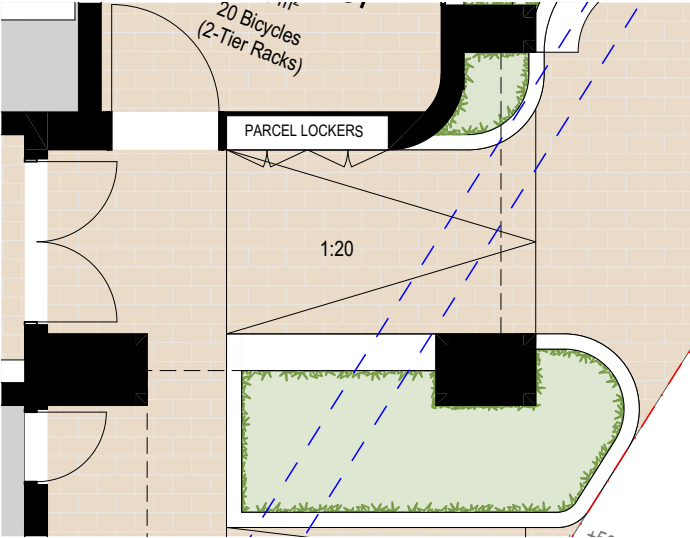
Secondary Entry

- Patterns similar to those at the main entry could be extended to the secondary entry, creating visual continuity.
- The arbor design could incorporate additional references to Country, enhancing the connection through structure and form

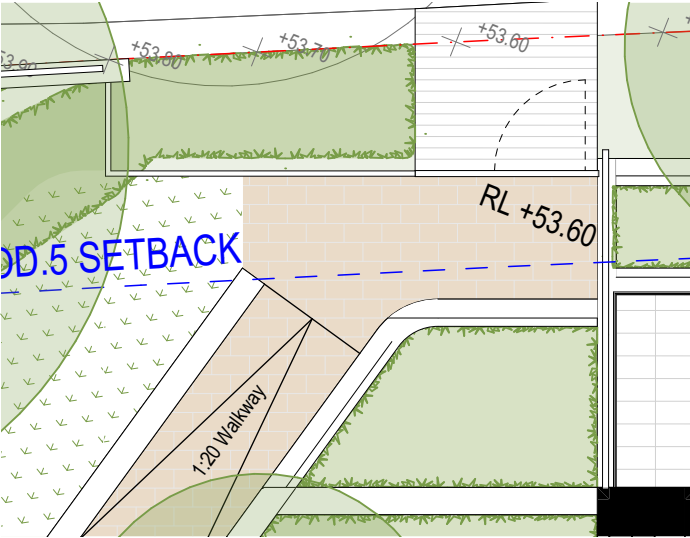
MAIN ENTRY FEATURE WALL



MAIN ENTRY PAVING



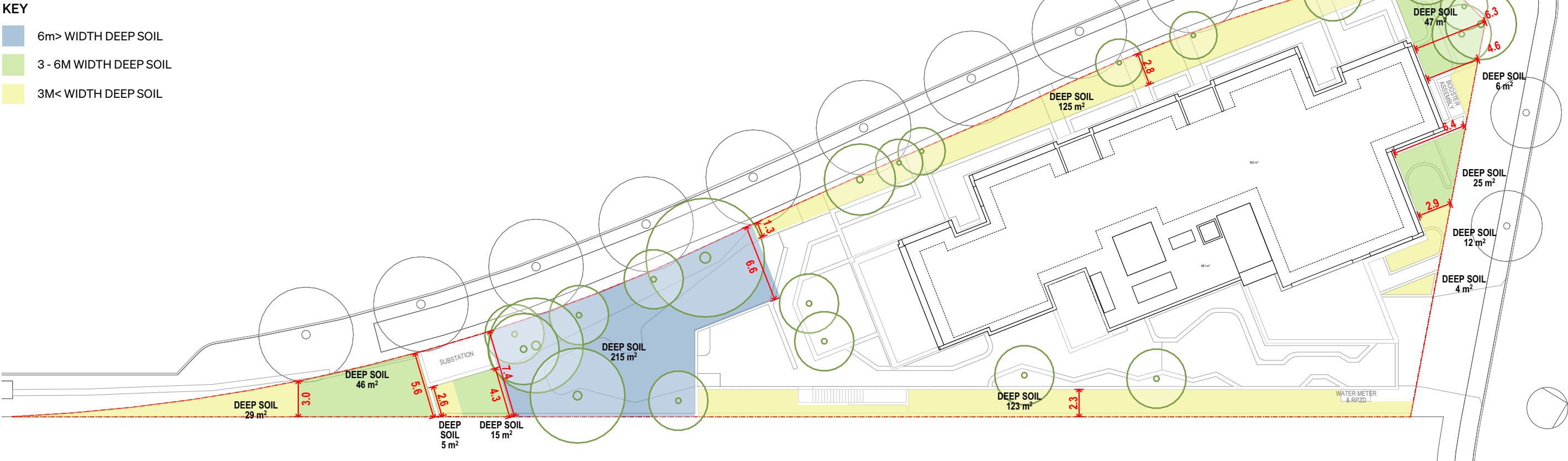
SECONDARY ENTRY



DEEP SOIL

The proposal incorporates deep soil around the entirety of the site which is co-located with the communal space and green setback buffers to support a high-quality, successful landscape outcome.

Site Area:	2,043m ²
ADG Requirement:	143m ² (7% of Site), min. 6m dimension
Housing SEPP:	306m ² (15% of Site), min. 3m dimension
6m> Width Area:	215m ² (10.5% of Site)
3m> Width Area:	348m ² (17.0% of Site)
3m< Width Area:	304m ²
Total Area:	652m ² (31.9% of Site)



COMMUNAL SPACE

As highlighted in the massing diagrams, a result of compressing the footprint of the building is maximising the available site area to be used as communal open space, co-located with deep soil. Refer to Section 04 and landscape documentation prepared by Inview for further detail of the communal space.

Site Area: 2,043m²
Requirement: 511m² (25% of Site)

Lower Ground: 56m²
Upper Ground: 590m²
Total Proposed: 646m² (31% of Site)

COMMUNAL OPEN SPACE SOLAR ACCESS

The communal open space as two principle usable areas located on the upper ground, which when combined, achieve the required mid-winter solar access.

Further information of the uses contained in these principle areas is provided in Section 04, which mid-winter shadow diagrams provided in Appendix E Solar Access Analysis.

Lower Ground (Uncovered Area):
Total 2hrs or more 39m²/55m² (70%)

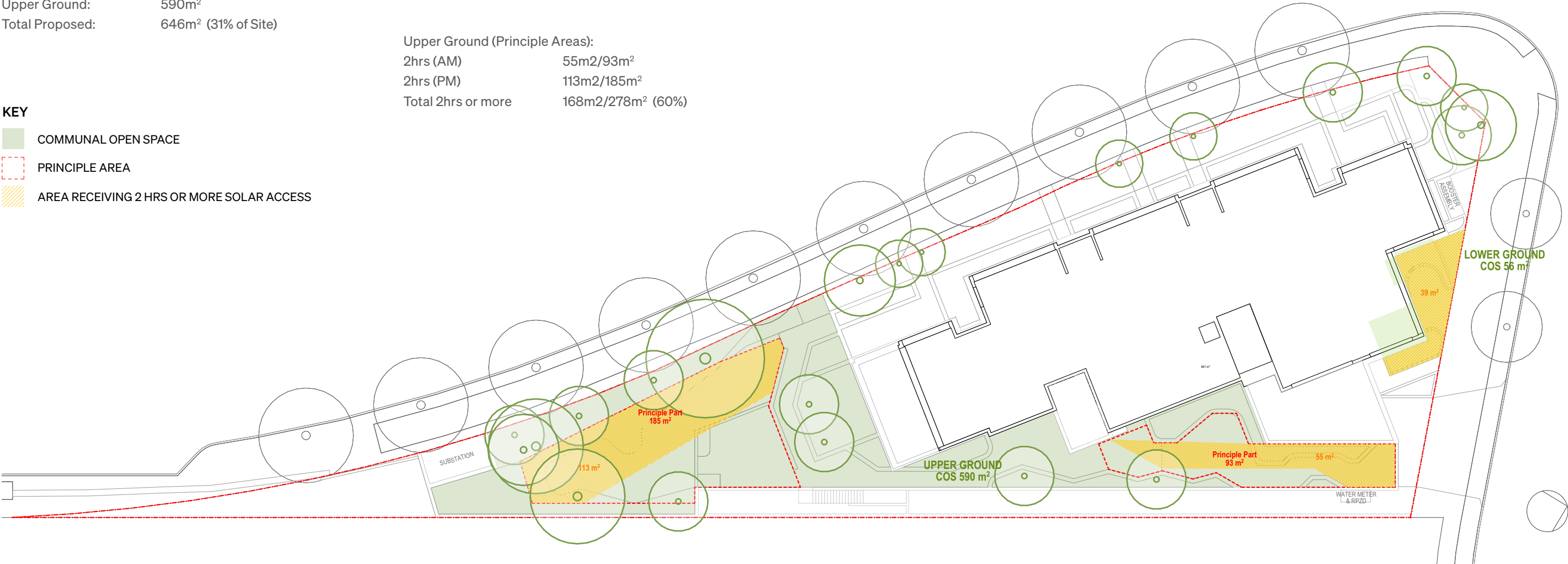
Upper Ground (Principle Areas):
2hrs (AM) 55m²/93m²
2hrs (PM) 113m²/185m²
Total 2hrs or more 168m²/278m² (60%)

KEY

COMMUNAL OPEN SPACE

PRINCIPLE AREA

AREA RECEIVING 2 HRS OR MORE SOLAR ACCESS

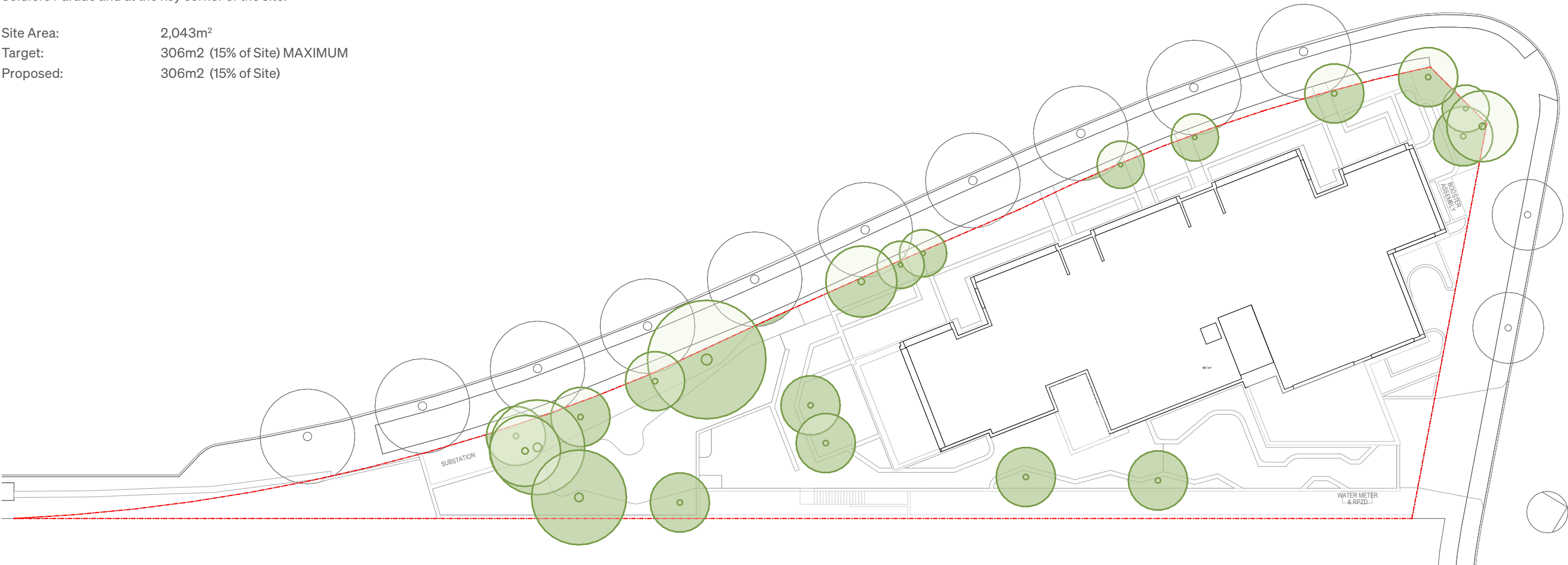


CANOPY COVERAGE

Achieving a high percentage canopy cover of the site has been targeted for the outset of the project, with mitigation of heat island seen as a critical need for contributing to the amenity of the public domain and private/communal space given the climatic conditions of the site's location. However, the requirements for vegetation on the site due to bushfire management has restricted the canopy coverage to a maximum of 15%.

Trees have been positioned in association with the large deep soil zone co-located with the communal space. Clusters of trees have also been positioned along Soldiers Parade and at the key corner of the site.

Site Area:	2,043m ²
Target:	306m ² (15% of Site) MAXIMUM
Proposed:	306m ² (15% of Site)



05 ARCHITECTURAL CHARACTER

ARCHITECTURAL VISION

Further developing the overall design vision, the architecture is envisioned to give voice to the Country's inherent character of shale earth and woodlands while mediating with the developing future character of Edmondson Park and providing an elegant landmark befitting the site's visual prominence and gateway location.

This supports the character objective for Edmondson Park's Station Precinct to be inspired by nature and have a diversity of architectural forms and expressions exhibiting excellence in contemporary design. The architectural character mediates between the proposal being a timeless form marking the entry point to the active precinct, and contributing to a tactile, human-scale environment.



PALETTE OF COUNTRY - COLOUR & TEXTURE

Part of the vision for the architecture to reflect the inherent character of the site, is through incorporating a material palette inspired by the natural palette of colours and textures that exist from flora and geology.

The unique aesthetic character of the Shale and alluvial landscape is understood as an open woodland of lower canopy trees with highly textured barks (paperbarks, red gums), grassy and coarse under-story plants, with taller, smooth-barked upper canopy eucalyptus trees (red gums) sporadically dispersed throughout.

The colours and formation of the site and Country's geology, shales, claystones and sand further enrich the potential palette from which the project seeks to draw on. It is understood that red silcrete is important here, which is pale blonde and grey in colour.



SYMBOLS OF COUNTRY - HORIZONTAL & VERTICAL LINES

In addition to the architecture connecting to Country through its materiality, the architecture also reflects the local art of Dharug Country. Uncle Shane shared with the design team that the local art is line based on rock art, and culture is expressed in the earth.

The architecture of the proposal incorporates vertical articulation and textural elements in the tower, reflective of vertical lines connecting to Sky Country, while the strong podium base and recessed band brick detailing reflect the horizontal lines of Earth.

The horizontal and vertical geometric form of the proposal will contrast with but also highlight the organic lines and forms of the surrounding landscape, visually expressing the narrative of Edmondson Park layering a high density built form to the natural landscape of Country.



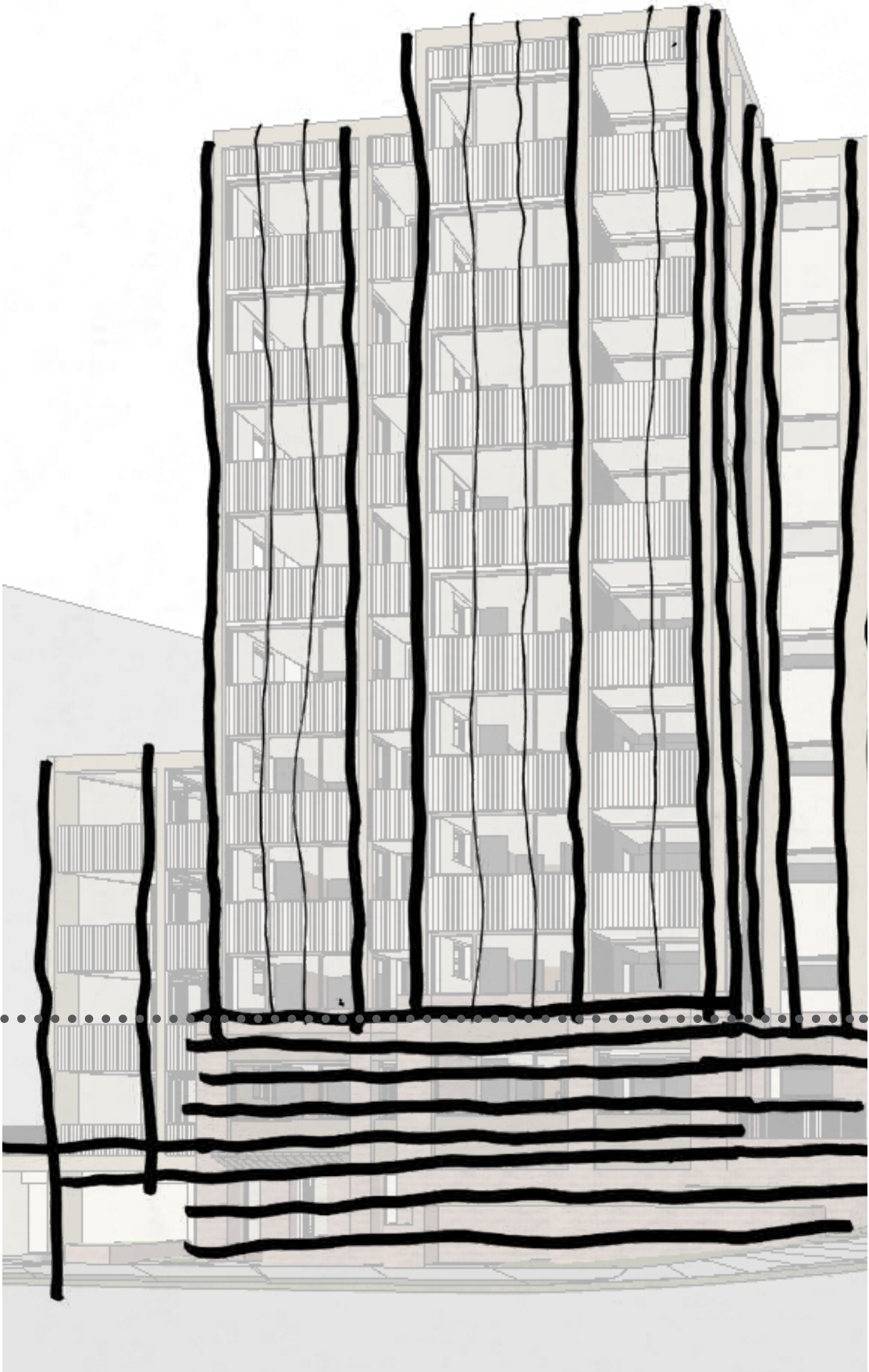
Sketch by Michael Hromek from Talk on Country

VERTICAL LINES

HORIZONTAL LINES



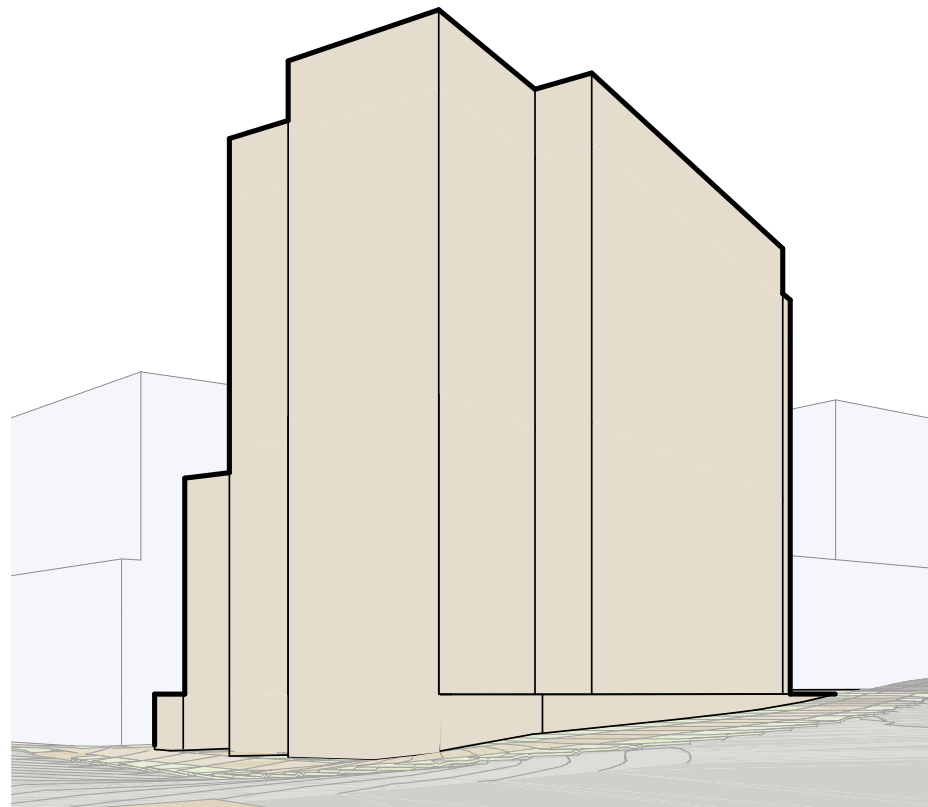
Where Sky Meets Earth - Shane Smithers



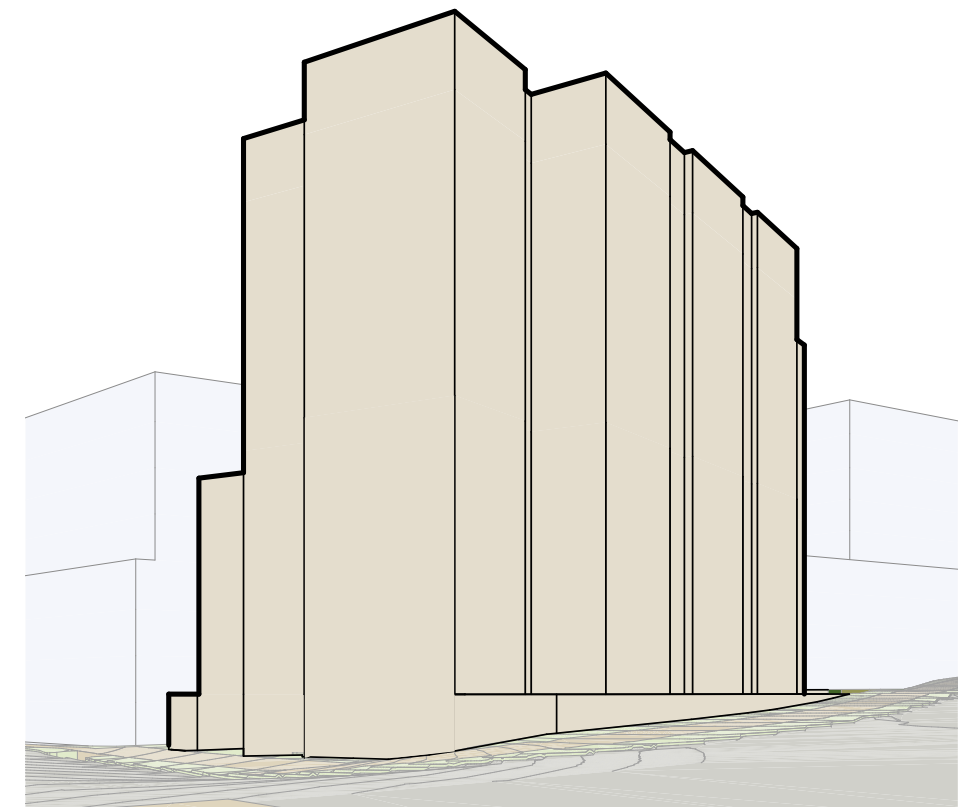
FACADE DEVELOPMENT

Starting from the developed proposed envelope, further architectural strategies have been layered onto the built form to create a high-quality architectural design realising the established design vision.

Additionally, these strategies further aid to reduce the bulk and scale of the building, further increase the proposal's amenity and the establishment of a more human-scaled street environment.

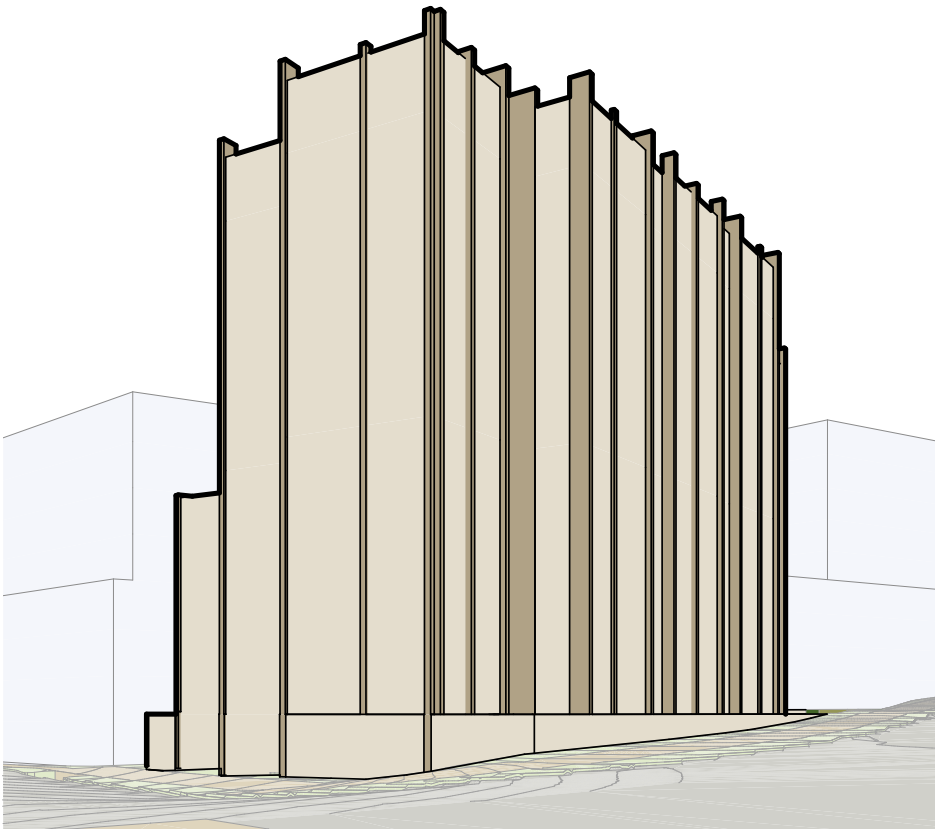


PROPOSED ENVELOPE



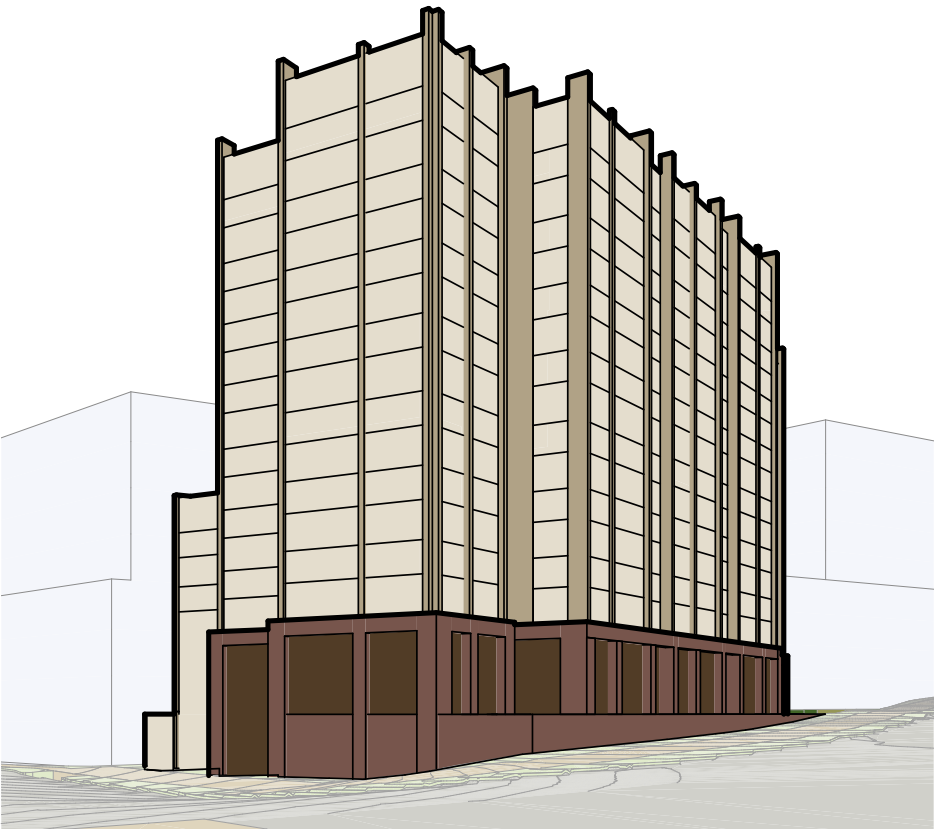
VERTICAL ARTICULATION

Manipulation and expression of the balcony extents combined with recessive materiality create further vertical articulation of the western facade, reducing the building length and scale.



STRONG VERTICAL RHYTHM

The facade highlights the columns of the proposals structural grid, which contributes a strong, repetitive vertical expression. This both adds an elegance to the built form, as well as a geometric reference of the tree trunks and the vertical lines of Father Sky.



INTRODUCTION OF HORIZTONALITY

The expression of continuous horizontal datums up the tower creates bands which breaks down the perceived scale of the building.

To ground the building and establish a human-scale ground plane, a defined podium base is incorporated. The podium also allows for a zone where tactile, fine grain materiality and detailing can be incorporated.

The podium also helps to break up the length of the building at street level and frame both common and private entries.



LAYERING OF TEXTURE AND PODIUM BASE

To further reinforce the vertical and horizontal geometric character of the building, as well as reflect the varied textures of Country, profiled facade panels are incorporated.



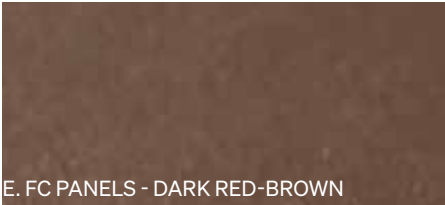
MATERIALITY

The discussed connection to the Country's palette informs the proposed material palette and incorporates high-quality, durable materials. Upfront and ongoing cost sensitivity were critical factors in ensuring the proposal's economic viability, initially with the construction costs associated with delivering the project and ensuring the building's architectural quality could be easily and efficiently maintained.

The design review panels understood and supported the driving factors and final proposed palette. Refer to Appendix B, Design Excellence Review Summary.

Additionally, the proposed palette is seen as complementary and compatible with that of the proposed adjacent development while still having a unique identity to support the precinct's achieving a diverse architectural character. Examples of the future developments that will sit adjacent to the proposed design are shown below.

PROPOSED NEIGHBOURING DEVELOPMENTS





06 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD) & RESIDENTIAL AMENITY

ESD

ESD principles are incorporated into the design and ongoing operation of the development. The associated sustainability outcomes provide multiple benefits including:

- Caring for Country - decreasing negative impacts and increasing positive impacts on the health and wellbeing of Country .
- High amenity, healthy homes which improve the wellbeing of residents.
- Efficient running homes which reduces on-going costs for residents.

SUSTAINABILITY TARGETS

The proposed targets for the project will not only comply with the regulatory requirements but exceed some of the minimum targets, and align with several Green Star Building Credits. Further information regarding the project's ESD targets is provided in the ESD Report prepared by Hip v. Hype.

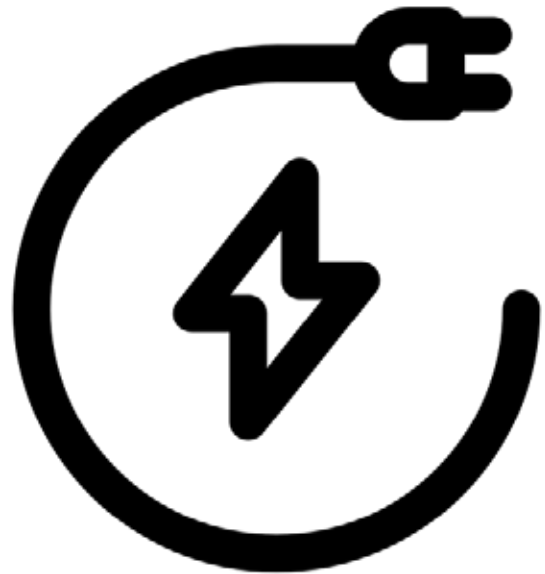
A summary of some of the proposed targets are:

- Greenstar 4
- NatHERS: average of 7.5 stars and minimum of 6.5 stars
- BASIX: 70% energy reduction & 50% water reduction
- Solar Energy Generation: 50% of roof area to be covered by PV
- Landscape: 36% of site is soft landscaping, 31.9% of site is deep soil, 15% tree canopy coverage (limited due to bushfire restrictions) and 80% of plants are indigenous



MINIMISING EMBODIED CARBON

- Efficient, aligned structure to minimise required concrete
- Incorporation of lower carbon materials
- Integrated and simple facade design reducing materials required
- Durable and low maintenance reducing recurring carbon and costs



MINIMISING OPERATIONAL CARBON & GREENHOUSE GAS EMISSIONS

- Passive design to active minimise heating and cooling, and maximising natural ventilations
- Incorporation of ceiling fans to minimise reliance on air conditioning
- Full electric services - no provision of gas appliances and services
- Maximising solar PV
- Efficient building systems and appliances
- Zero Carbon Action plan
- 100% of carbon emission from refrigerants will be offset.



MINIMISING OTHER OPERATIONAL USAGE AND WASTE

- 40% reduction of potable water use, including water efficient fixtures
- Use of durable materials
- Water Sensitive Urban Design and rainwater harvesting
- Integration of separation of waste into 3 streams, including FOGO



ENHANCING BIODIVERSITY & CLIMATE RESILIENCE

- Maximising canopy coverage target minimising urban heat island effect (within the restrictions for bushfire management)
- 80% endemic plant species target
- Water sensitive urban design to filter urban run-off and drought resilient planting



IMPROVING INDIVIDUAL & COMMUNITY WELLBEING

- Regulation of air, and maximising natural ventilation
- Reduction of environmental toxins in building fabric
- Maximising day light and sunlight
- Maintaining acoustic comfort
- Promote Active transport and shared transport
- Fostering connection of community and nature
- Celebration of Aboriginal and Torres Strait Islander people
- Inclusive design of communal spaces and building accessibility

PASSIVE DESIGN

The proposed facade balances consideration of passive design for solar, wind and acoustics, with consideration of de-materialisation for cost and embodied carbon and long-term maintenance requirements.

SOLAR MEASURES

The proposed facade incorporates an optimised window to wall ratio, to remove the requirement to rely on additional external shading devices which would add cost and maintenance issues, as well as increase the proposal's embodied carbon.

The facade, which is predominately proposed to be a lightweight rain-screen system, optimises the thermal performance of the external walls, with the additional benefit of preventing moisture build up. The thermal performance will be further enhanced with all windows incorporating double glazing.

WIND MEASURES

The majority of the balconies are protected on 3 sides either being inboard in the plan or framed by full-height walls. This contributes to achieving year-round comfortable wind conditions.

Balustrades to all balconies are solid (impermeable) which acts as a wind mitigation feature, including improving the comfort levels of the corner balconies of the northern and southern units.

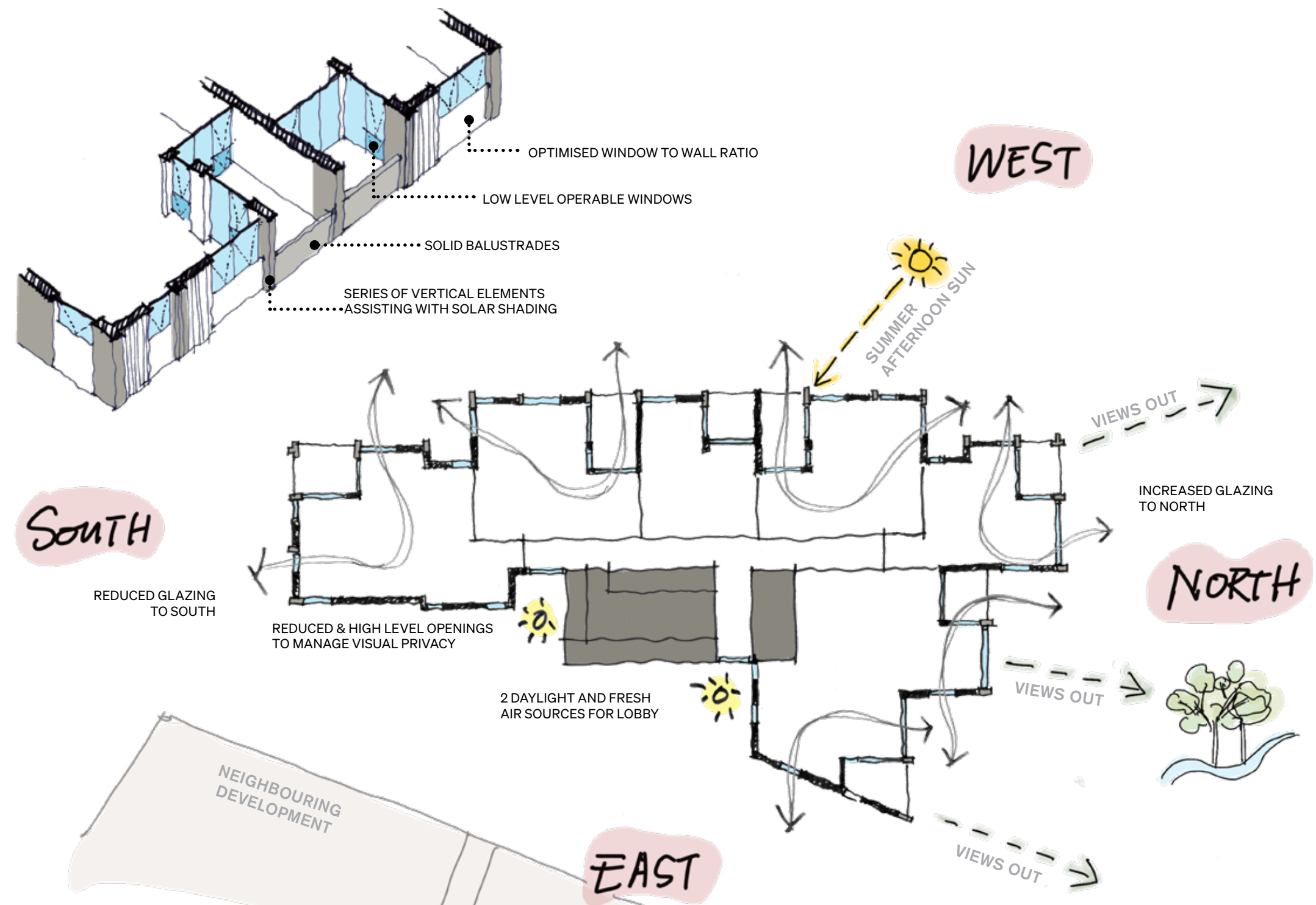
ACOUSTIC MEASURES

To future-proof the acoustic amenity of the apartments facing Soldier's Parade, a number of facade strategies have been implemented.

Solid balustrades combined with acoustic lining of the balcony soffits and adjacent walls provide increased protection to the balconies, which improves the amenity of the balconies themselves, as well as protecting the openings out onto them.

Low level operable windows, sitting below the height of balustrades, enable residents to have a source of fresh air during the noisiest periods of the day without detracting from their acoustic amenity.

Further information about the acoustic measures are provided in the Acoustic Report prepared by Renzo Tonin.



INTERNAL AMENITY

CROSS VENTILATION

The significant articulation of the facade line with deep steps and recesses allow for a high percentage of dual-aspect apartments. This results in only a single inboard apartment per plate which cannot be cross ventilated.

To ensure that natural ventilation can be achieved without compromising acoustic amenity due to potential future road noise, passive measures have been incorporated to enable apartments facing Soldiers Parade to gain fresh air via protected windows off the balconies. Refer to the acoustic report by Renzo Tonin for further information. All other windows to these dwellings are still operable, to enable residents to still use cross ventilation to flush their homes to manage internal air quality and heat build-up.

Requirement:	35/58 (60%) MINIMUM
Achieved:	49/58 (84%)
Lower Ground:	6/7
Level 1:	6/7
Level 2:	6/7
Level 3:	6/7
Level 4:	5/6
Level 5:	5/6
Level 6:	5/6
Level 7:	5/6
Level 8:	5/6



KEY

NATURALLY CROSS VENTILATED

RESTRICTED CROSS VENTILATED

ACOUSTICALLY PROTECTED OPENINGS

SOLAR ACCESS

The combination of the site's orientation with the plate planning that maximises the western and northern (street facing) aspects and therefore the daylight amenity of the proposed dwellings. All apartments recieve solar access, and the majority receive 2 hours or more.

Shadow diagrams and Eye of the Sun solar diagrams for mid-winter (June 21) are provided in Appendix E Solar Access Analysis.

2hrs Solar:	41/58 (70%) MINIMUM Requirement
Achieved:	49/58 (84%)
Lower Ground:	6/7
Level 1:	6/7
Level 2:	6/7
Level 3:	6/7
Level 4:	5/6
Level 5:	5/6
Level 6:	5/6
Level 7:	5/6
Level 8:	5/6

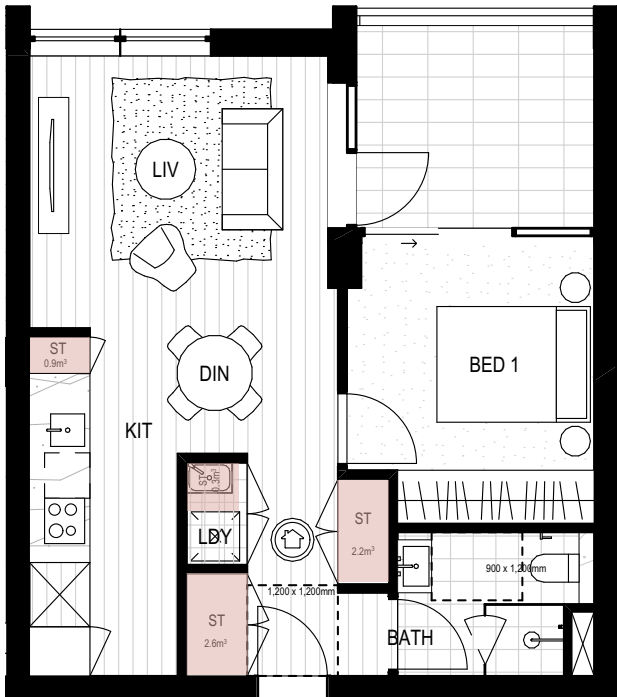
No Solar:	8/58 (15%) MAXIMUM requirement
Achieved:	0/58 (0%)
Lower Ground:	0/7
Level 1:	0/7
Level 2:	0/7
Level 3:	0/7
Level 4:	0/6
Level 5:	0/6
Level 6:	0/6
Level 7:	0/6
Level 8:	0/6

KEY

- 2 HOURS OF SOLAR ACCESS (70%)
- < 2 HOURS OF SOLAR ACCESS



TYPICAL 1 BED INBOARD UNIT



TYPICAL 3 BED UNIT



DAYLIGHT ACCESS

The apartments are designed as open plan layouts, with the living room located on the external face of the building to maximise sunlight to primary livable spaces. The maximum depth from a window throughout apartments is the 3 bedroom, which has a depth of 7.1m, measured from the edge of the full-height glazing to the balcony, to the rear of the kitchen.

All habitable rooms are provided with a window sufficiently sized to achieve an area of 10% of the floor area.

ROOM SIZE AND LAYOUT EFFICIENCY

Living rooms and bedrooms have been designed to meet or exceed the ADG requirements for minimum sizes. The layouts aim to separate access to bedrooms, bathrooms, and laundries from the living areas to minimise direct openings between living areas and service areas. Living rooms have been designed to be rectilinear in shape to maximise the efficiency.

PRIVATE OPEN SPACE

Apartment balconies have been designed to meet ADG requirements. All balconies achieve or exceed minimum area requirements. Refer to the table provided on pages AP-21 to AP-22 for the area provided for each apartment.

All balconies achieve or exceed minimum depth requirements, with the shallowest point of any balcony being 2.6m, and the narrowest point on any balcony being 2.2m.

Positioned to be accessed directly from living room, as well as a bedroom

STORAGE

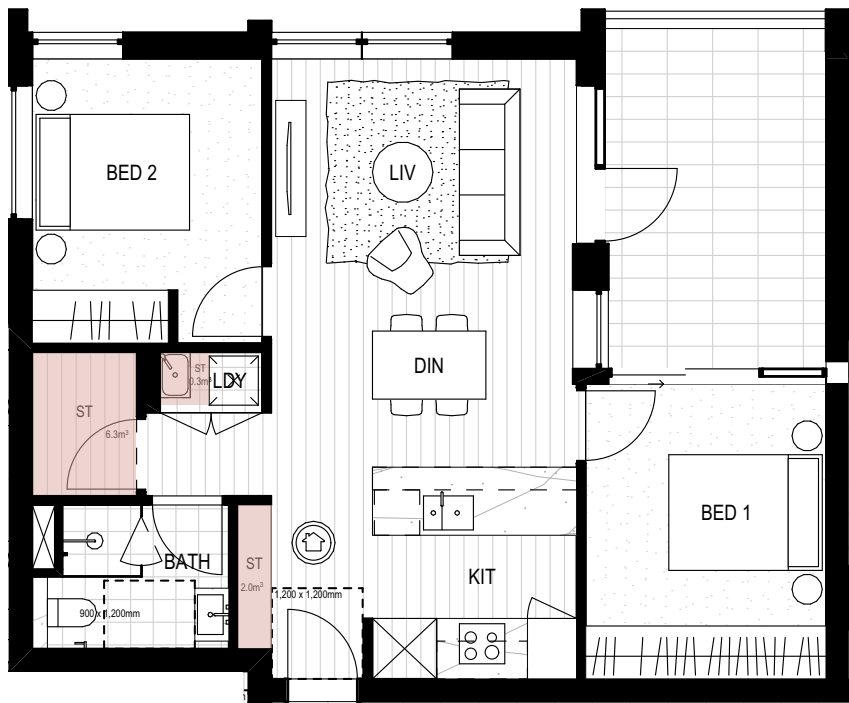
Storage has been carefully and generously incorporated in to the proposed apartments. 57 apartments contain 100% or more of the ADG storage requirement. The remaining apartment, Unit 00.01, contains 62% internally in combination with a storage cage in the car park making up the total requirement. Refer to the table provided on pages AP-21 to AP-22 for the area provided for each apartment.

The location of storage has been prioritised along corridors for easy access, and some portion located adjacent to apartment entries to incorporate a coat cupboard which established as practical arrival zone.

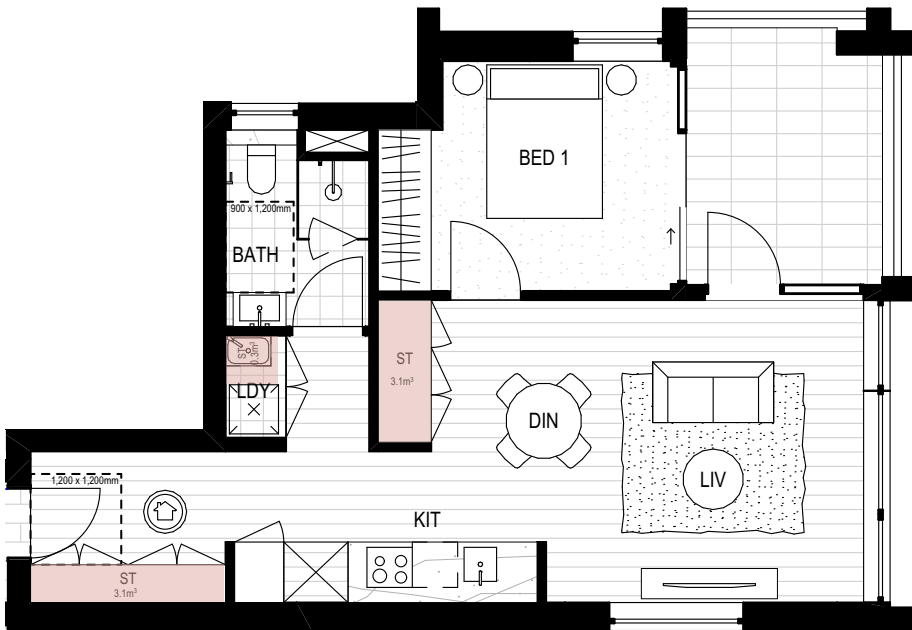
KEY

INTERNAL STORAGE PROVISION

TYPICAL 2 BED UNIT



TYPICAL 1 BED END UNIT



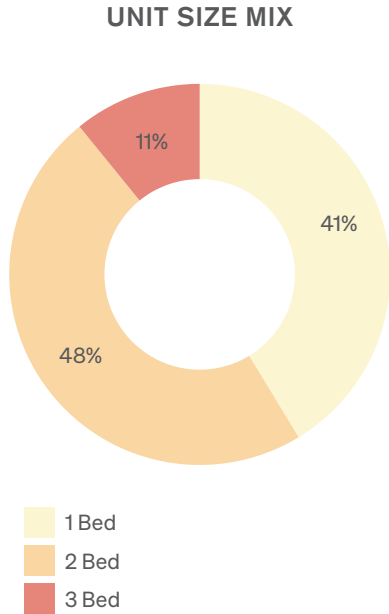
SOCIAL SUSTAINABILITY

APARTMENT DIVERSITY

A key aspect of the proposed development is that 100% of the dwellings are Affordable Housing. This will provided critical social infrastructure for the area, and provide homes for households on lower incomes which are in short supply within Edmondson Park.

The proposal incorporates a mix of apartment sizes to cater for a variety of household sizes and requirements. Given most homes in Edmondson Park are large detached houses, the proposed apartments will contribute to diversifying the dwelling types available in Edmondson Park. Further information on the social impact of the proposed development is provided in the Social Impacts Assessment prepared by BB Professional Services.

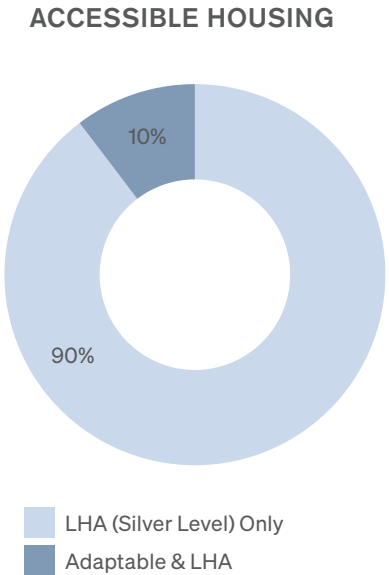
1 Bed	19
2 Bed	22
3 Bed	5
Total Apartments	58 apartments
Affordable Housing	100% (58 apartments)



ADAPTABLE & ACCESSIBLE HOUSING

In addition to 10% of units being adaptable to meet AS2890 and AS4299, all units have been design to meet the Livable Housing Australia (LHA) Silver Level Requirements, exceeding ADG recommendations and NCC requirements. Additionally, the common spaces are all accessible. For further information on the proposals accessibility, refer to the Access Report prepared by Axis Certification, and the layouts of all adaptable apartments provided on architectural drawing DA208.

LHA (Silver level)	100% (58 apartments)
Adaptable & LHA	10% (6 apartments)



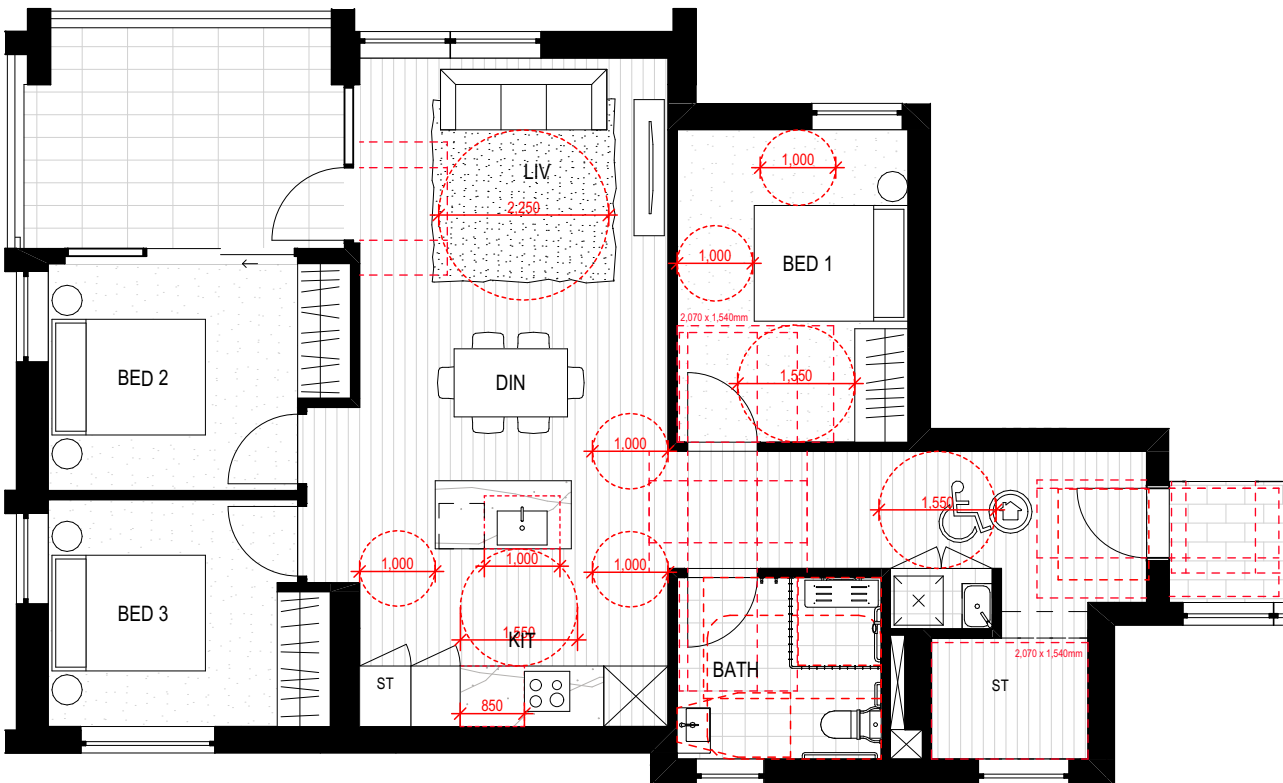
SOCIAL INTERACTION

As highlighted in Section 03 Ground Plane and Landscape, the proposal incorporates generous provision of communal open space comprising a series of different zones containing differing uses. These different zones, particularly those located adjacent to the access points to the building, will facilitate casual interactions between residents. The zones of the communal open space, such as the BBQ terrace, will also facilitate residents gathering together and promote organised social interaction.

TYPICAL 3 BED ADAPTABLE UNIT (PRE-ADAPTED)



TYPICAL 3 BED ADAPTABLE UNIT (POST-ADAPTED)



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