



55 Coonara Avenue

West Pennant Hills
Urban Design Report
Consolidated

Rev C - July 2018

Introduction

55 Coonara Avenue, West Pennant Hills is a 25.87 hectare site located within the Hills Shire Council area approximately 21 kilometres from Sydney CBD.

The land is currently zoned B7 - Business Park and has a permissible height of 22 metres over the entire site.

The site is currently in use as a campus style business park with multiple buildings surrounded by carparking on the northern part of the site. The campus was a purpose built disaster recovery centre for IBM and is still partially occupied by them. The buildings were constructed in the 1980's and had a population of 2,500-3,000 people at peak occupation. In recent years IBM have significantly reduced their staffing levels on the site and their lease will expire in 2019.

There are approximately 1670 car parking spaces on the site in a combination of large at-grade carparks and a multi-storey structure on the eastern boundary of the site.

The southern portion of the site is a mix of high quality remnant native bushland, woody regrowth and managed woodland. The remnant bushland contains endangered Blue Gum High Forest and Sydney Turpentine Ironbark Forest. The forest provides habitat for a number of threatened species, including microbats and the Powerful Owl (*Ninox strenua*).

There is currently no public access to the site or community benefits. There is also no formal protection mechanism or zoning for the remnant natural bushland.

CONTEXT

The surrounding context to the site is primarily residential to the north, south and west. The Cumberland State Forest adjoins the site to the south and east.

Cherrybrook Station on the new North West Metro Line is under construction approximately 650m (as the crow flies) from the northern part of the site. The new line will offer greatly improved public transport access for the area.

Cherrybrook has been identified as a Priority Precinct by the Department of Planning. A plan for rezoning, the creation of a new local centre and additional development around the station is currently being developed. Future urban intensification along Castle Hill Road is likely to be generated from the improved accessibility.

The existing Coonara Shopping Village sits approximately 200m to the west of the site along Coonara Avenue.

There are a number of public open spaces surrounding the site within walking distance. The Cumberland State Forest is the largest of these offering bush walking, tree-top walk and associated nature-based activities. Smaller ovals and reserves including George Thornton and Hill Road reserve are within close proximity of the site.



Proposed Cherrybrook Metro Station



Surrounding Residential- Hampshire Avenue



Coonara Shopping Village

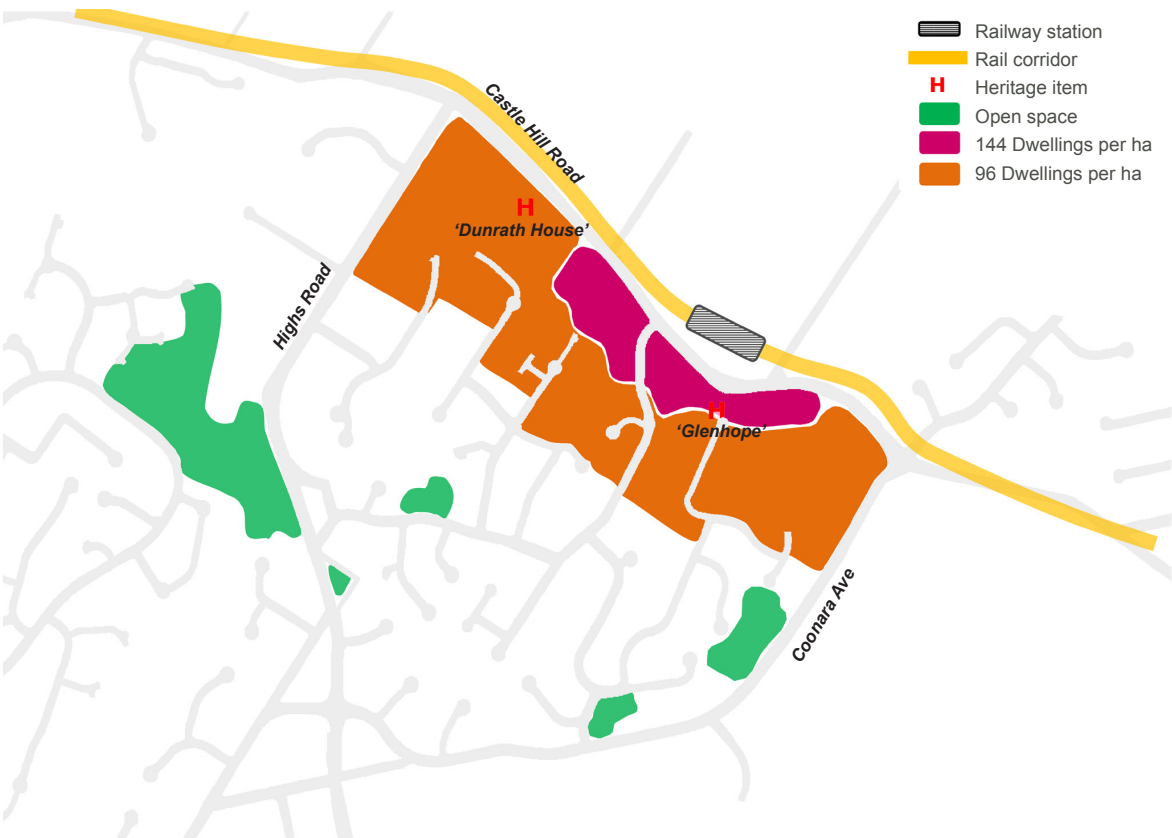


Figure: Cherrybrook Desired Outcomes from the draft The Hills Corridor Strategy (Hills Shire Council, 2015).

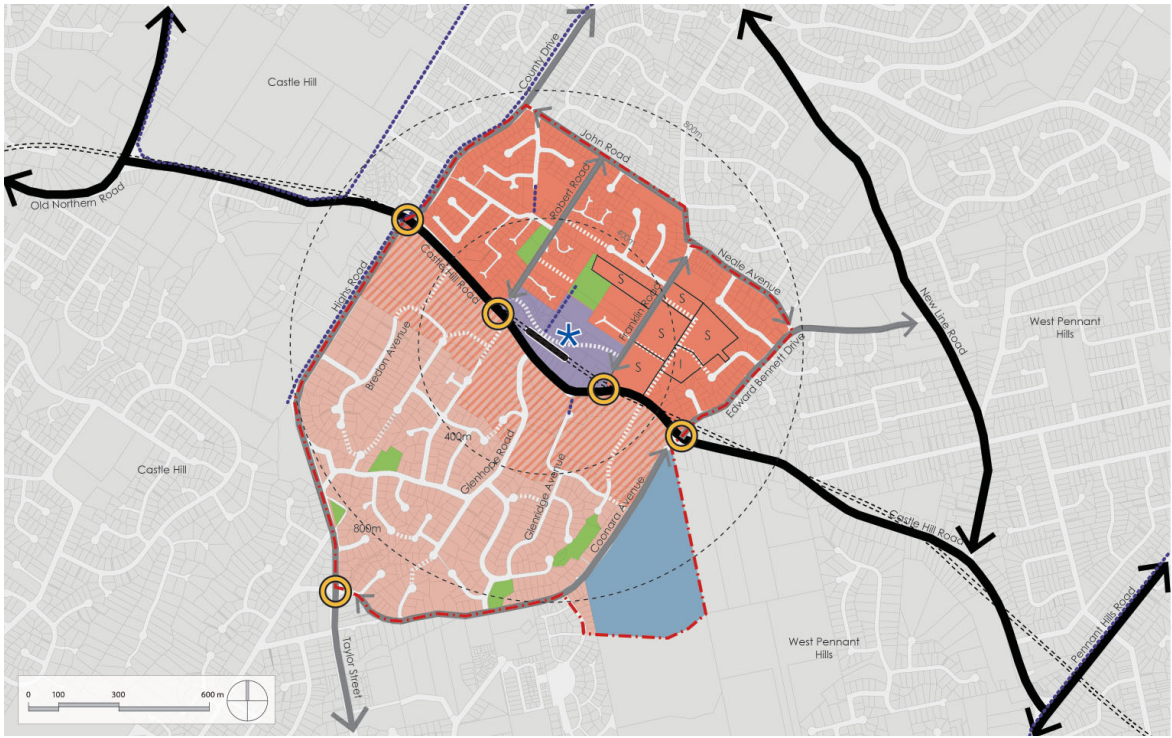


Figure: Structure Plan from the North West Rail Link Cherrybrook Station Structure Plan, (Transport for NSW and Department of Planning and Environment, 2013)

Site Context



Historical Development

Aerial Photography



1943 - Orchard Use

Source: SixMaps

- Pre-1943, over half of the site cleared for orchards and other agriculture.
- 1980s development wrought further profound changes.
- Car parks were planted with trees in narrow garden beds. Their growth is highly constrained by the surrounding asphalt meaning they are unlikely to reach their full potential or provide habitat.
- Many are not native to the Sydney area. Genetic pollution from non-local provenance trees poses a risk to forestry, and potentially to conservation of vulnerable vegetation.
- The remnant bushland is endangered Blue Gum High Forest and Sydney Turpentine Ironbark Forest.



1985 - Commercial Office Park Use

Source: Keystone Ecological

Existing Site Photographs

Site Perimeter Road



Existing Commercial Buildings



On-Grade Car Parking



NorthConnex Leased Area



Remnant Bushland



Multi-storey Carpark



Coonara Avenue

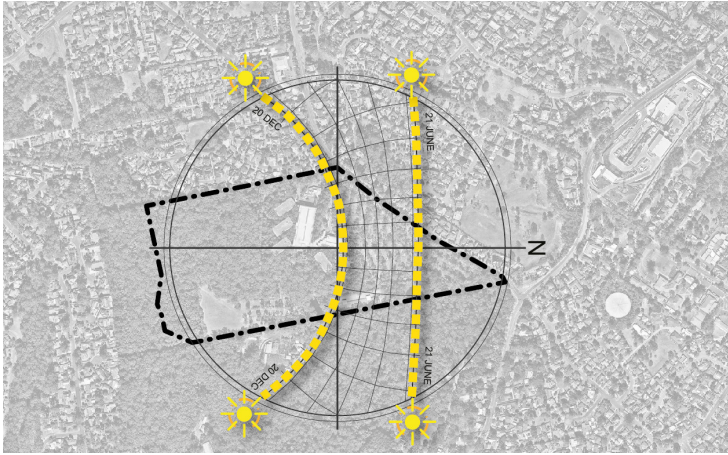


NorthConnex Leased Area



Site Analysis

Solar Access



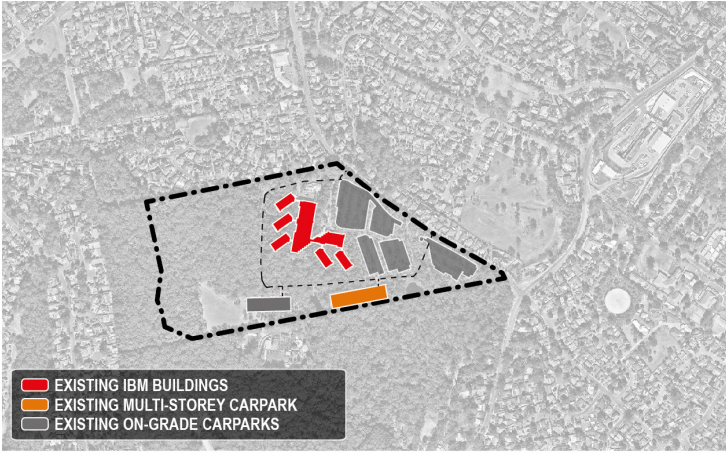
Topography



Water Network



Existing Structures and Parking Areas



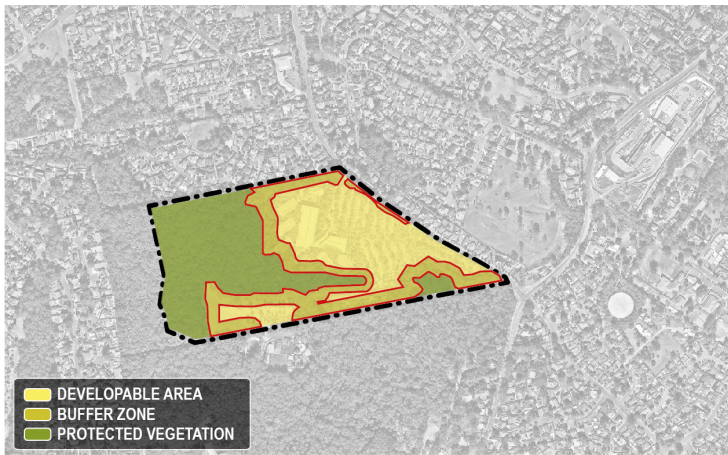
Surrounding Land Uses



Significant Existing Vegetation



Asset Protection Zone (APZ)



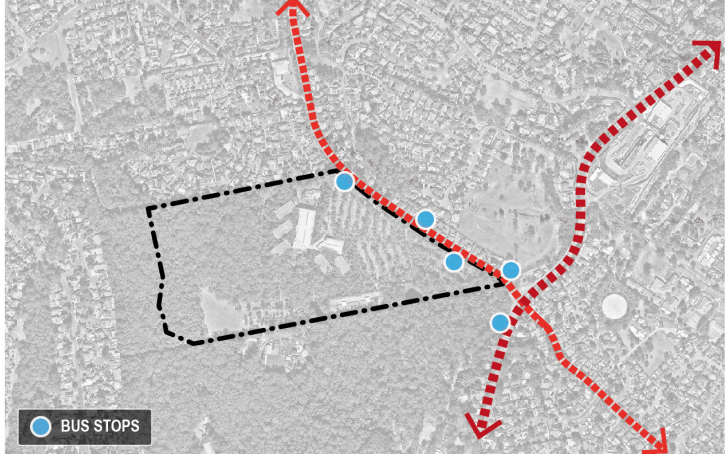
Future Urban Intensification



Proximity to Cherrybrook Metro Station



Major Routes and Bus Stops



DESIGN CONCEPT & CHARACTER

Design Concept and Character

The development proposal has been formulated in order to achieve the following aims:

1. Protect the remnant forest in perpetuity;
2. Open up the currently private site to public access and provide new public open spaces;
3. Create a diversity of housing types within both the houses and apartments typologies;
4. Transition heights to respond to existing residences along Coonara Avenue.

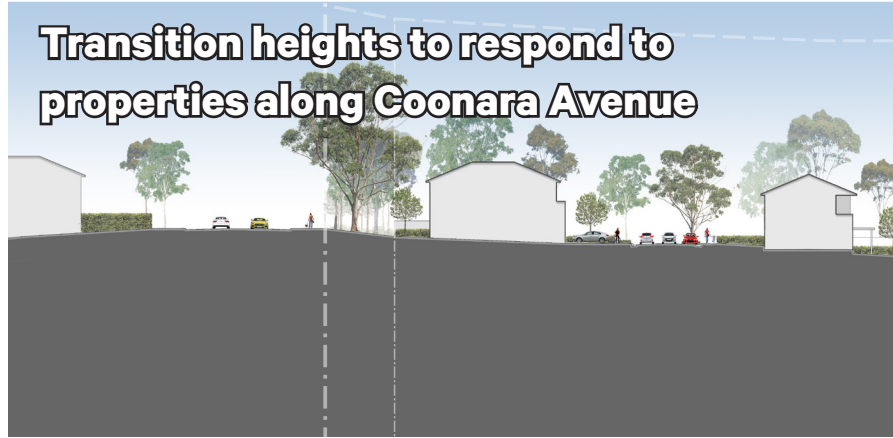
The concept for the development is to create a new community with a design that respects the existing context surrounding the site, the high environmental values on the site and strengthens the character of the development through a strong relationship with the landscape and built form character of the area.

A network of landscape and public domain spaces will link the existing bushland into the site in a series of spaces which transitions from the natural to the formal and providing all of the passive and active recreation needs of the new community but also for surrounding residents. The existing remnant forest will be retained.

A diversity of housing types, of high contemporary design quality, within an overall structure of houses, town homes and apartments is proposed.

Heights of buildings are two storeys along Coonara Avenue and the south western boundary, three storeys towards the centre of the site and six storeys for the apartments precinct at the centre of the site and mitigating any potential issues or impacts with the surrounding residential properties.

Key Development Aims

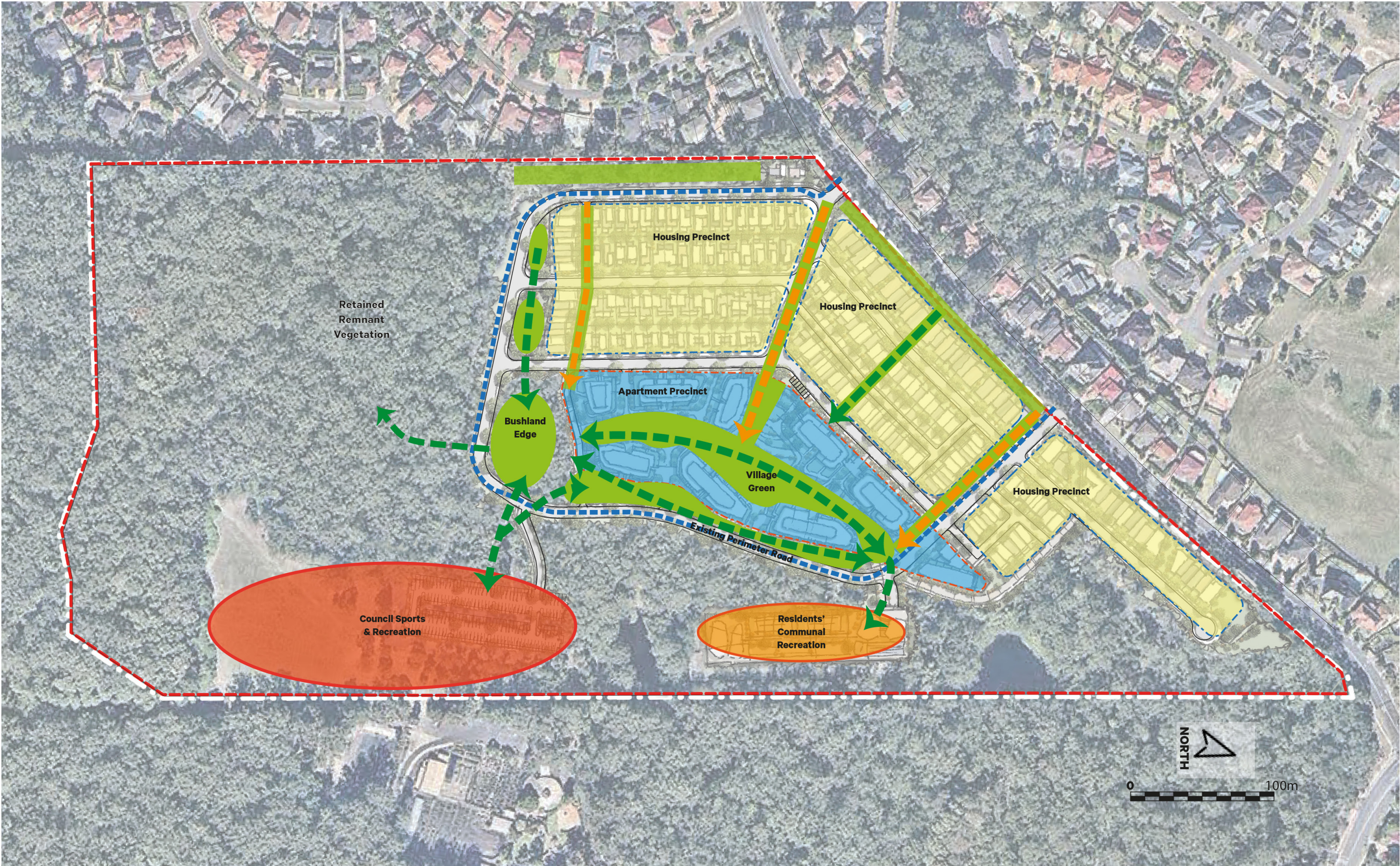


Design Character

Exemplar Development Images



Design Concept



Design Principles

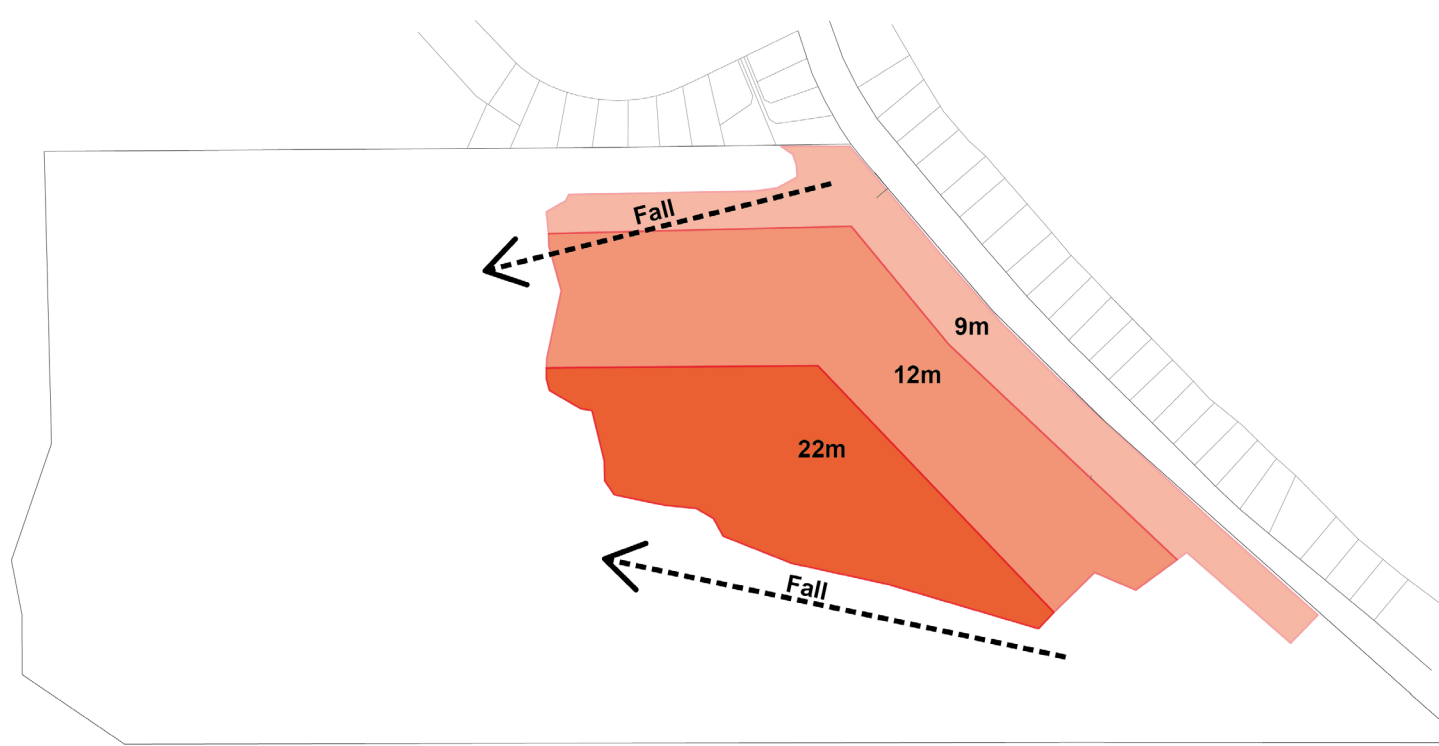
Connectivity



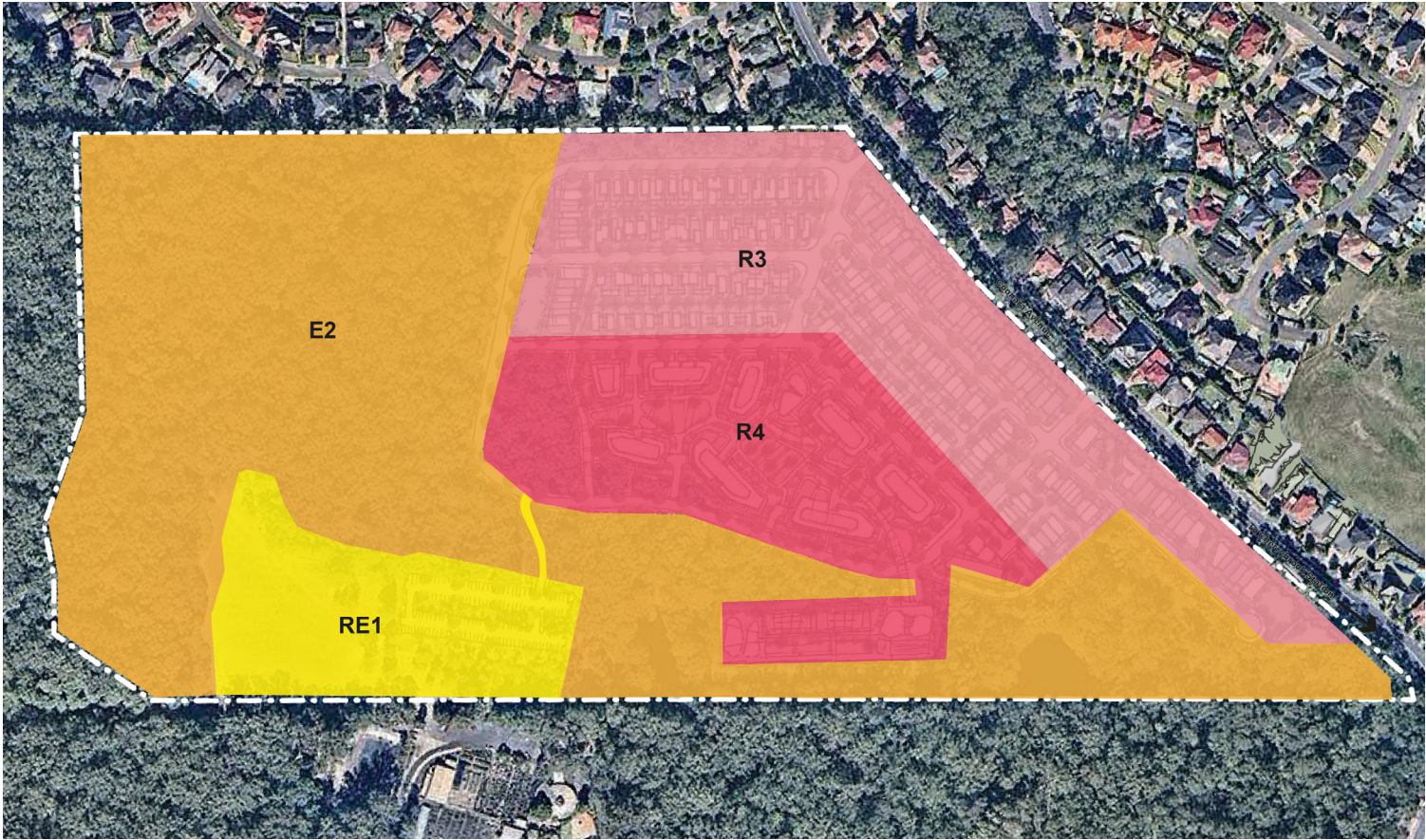
Maximise Green Open Space & Public Access



Transition Height with Topography and Away from Existing Residential



Define the Developable Area, Open Space and Protect the Remnant Forest



Design Principles:

Section illustrating building height relationships with existing context

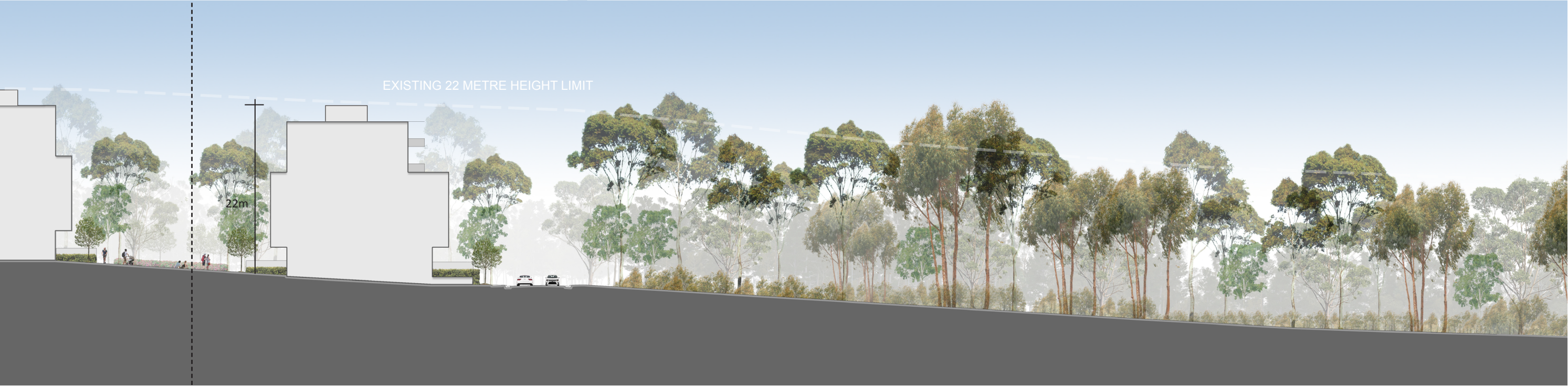


Section 1



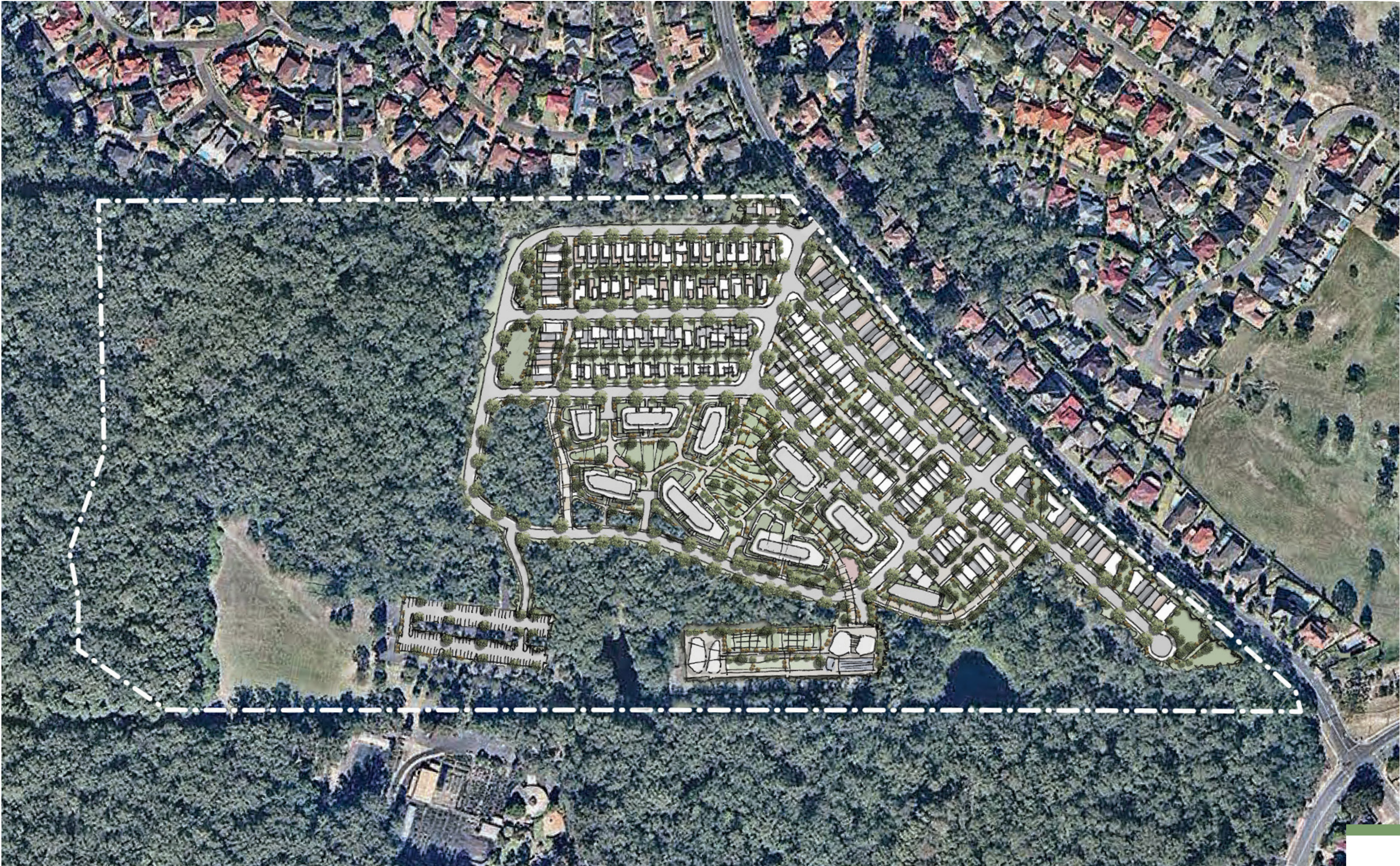
Note: Building heights above ground level will vary dependant on topography. Apartment heights are inclusive of lift overruns.

Section 2



ILLUSTRATIVE MASTERPLAN

ILLUSTRATIVE MASTERPLAN



ILLUSTRATIVE MASTERPLAN

Description

The masterplan consists of a mix of new homes and associated facilities alongside a significant amount of new public and communal open space for the use of both residents and the surrounding community.

The new residential area consists of a maximum of 600 new homes comprising of detached and semi-detached homes, terraces or town houses and apartments. The mix and location of residential types is illustrated on the diagram opposite.

Development is located within the existing footprint of buildings, roads and car park areas. The existing 22m height limit for the site will be reduced to 9m along Coonara Avenue, 12m for the remainder of the housing precinct and 22m for the apartment precinct. The development has been designed to have the highest buildings on the lowest part of the developable area to minimise visual impact on the existing character of the area.

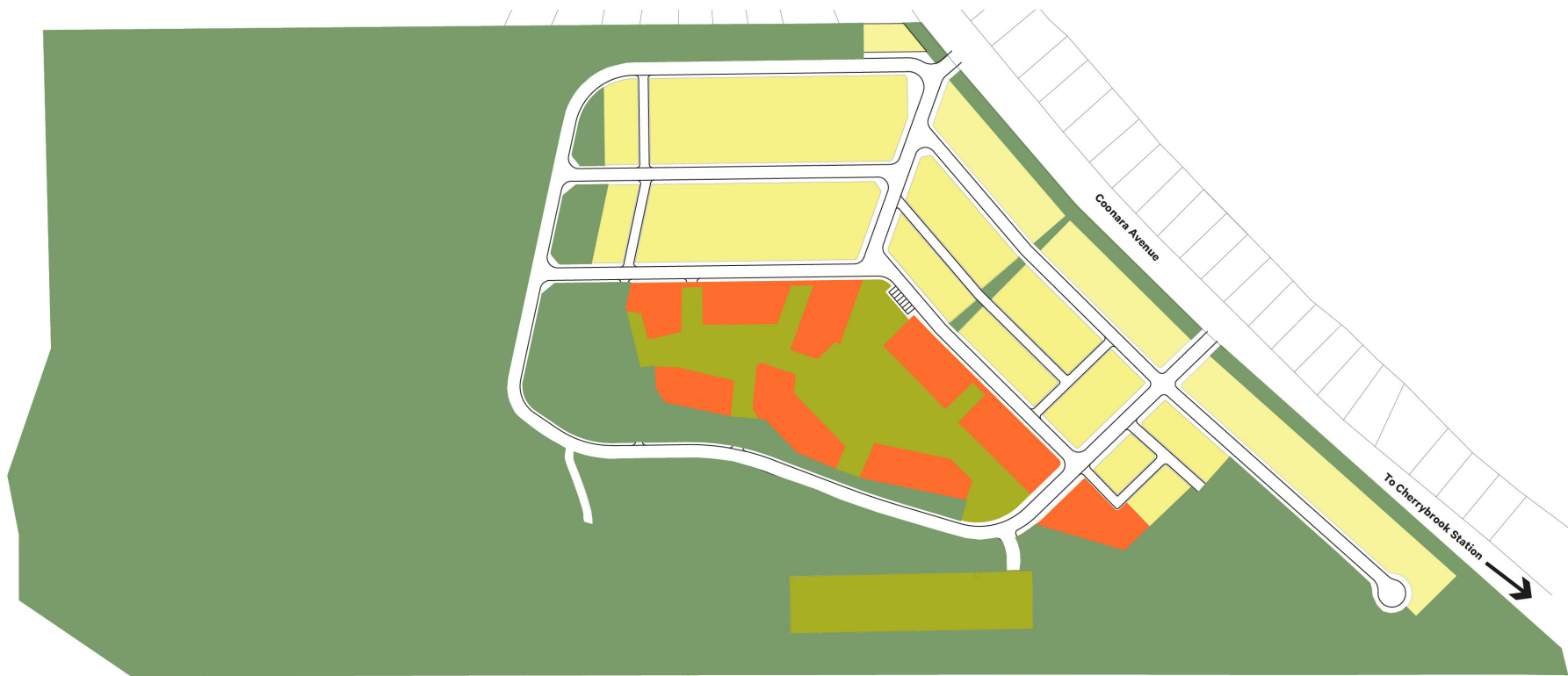
A new all-weather synthetic soccer field is proposed to the south of the residential area for use as active public open space, accessible to the whole community. The facility is proposed to be dedicated to Council via a VPA.*

Shared resident communal recreation facilities and visitor parking will be located within the footprint of the existing multi storey carpark.

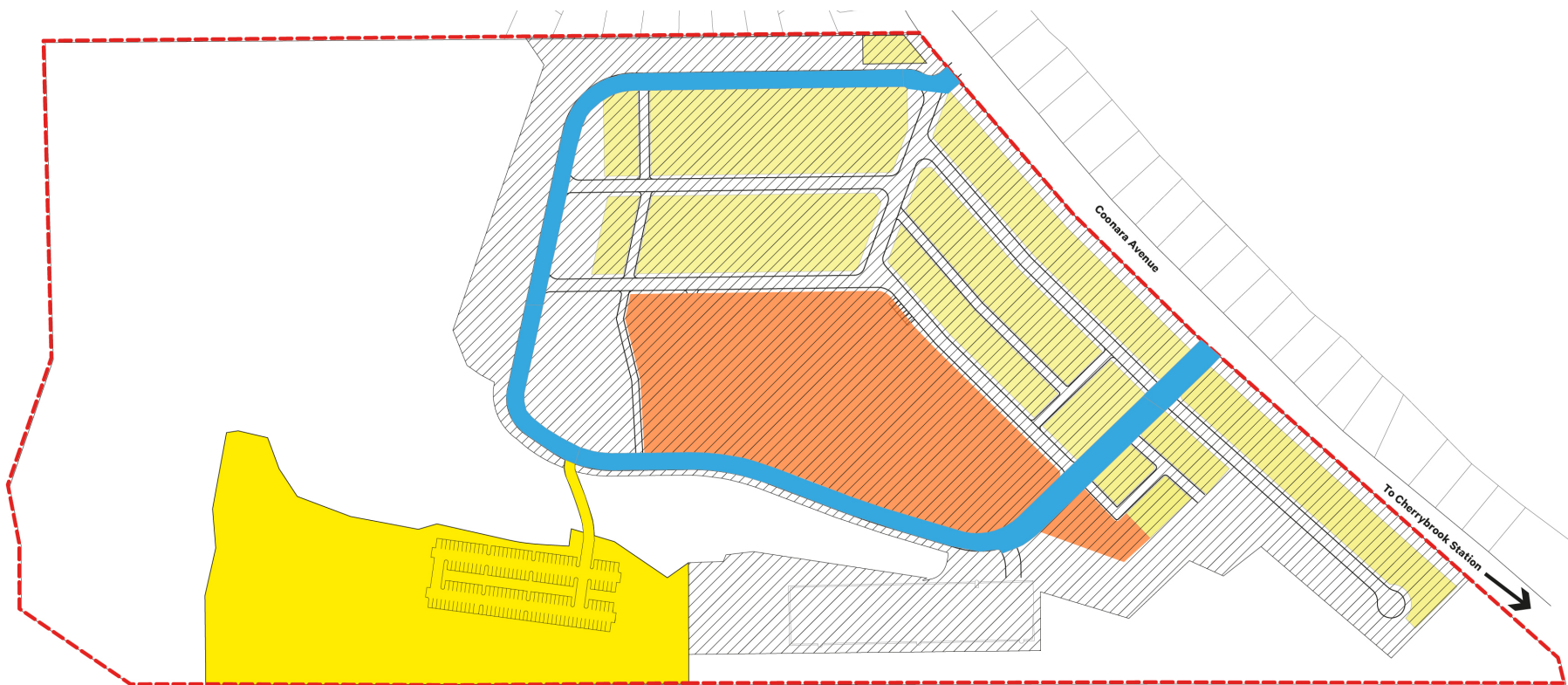
*The soccer field is currently the subject of a voluntary planning agreement (VPA) offer by Mirvac to the Council. The final terms and public benefits are subject to negotiation and agreement between Mirvac and Council.

It is proposed that the remnant vegetation on the southern and western edge of the site will be publicly accessible and protected in perpetuity.

A communal space, the ‘Village Green’, will be provided in the centre of the apartment precinct. Its character may be more formal in nature.



Masterplan Components



Proposed Ownership/ Management



HOUSING PRECINCT

HOUSING PRECINCT

The design proposals address the relevant controls and objectives of the following policies:

- The Hills Development Control Plan (DCP) 2012 – Part B Section 2 Residential.

A site-specific section of the Hills DCP for the site is also being prepared to be more relevant to the proposed development in terms of the objectives and controls to achieve the desired urban and environmental outcomes.

Additionally the following documents have been considered as suggested by The Hills Shire Council:

- The Hills Development Control Plan (DCP) 2012 – Part D Section 5 Kellyville/ Rouse Hill Release Area
- The Hills Development Control Plan (DCP) 2012 – Part D Section 20 Castle Hill North Precinct (Draft)

A variety in streetscape and house types are envisaged throughout the proposed master plan. Lot sizes range from 86m² to 300m² and allow for a range of different house types of two and three storeys.

The proposed master plan has been developed in response to the surrounding context and physical characteristics of the site. Consideration is given to setbacks, built form, architectural treatment, landscaping and topography to ensure that the scale of development is sensitive to its immediate context.

The master plan has been designed so that all built form interfacing with the existing residential neighbourhood is of a low scale. The new housing precinct is seen as an extension of the neighbourhood and forms a buffer to the medium density apartment buildings deeper within the site.

All house types around the edge of the site are two storeys in height while three storey townhouses are located lower down in the site away from Coonara Avenue. House types are broadly categorised according to the following diagrams.

PROPOSED HOUSING TYPES



HOUSING DIVERSITY

A key design and development goal for the housing on the site is to create a mix of housing and apartment types bringing architectural diversity and allowing an appropriate response to the site conditions and surrounding area.

A block structure has been developed that has a mix of properties with street-fronting garages and rear laneways with rear garage access which allows an improved streetscape to be created. This arrangement minimises the visual impact of garages whilst maximising the space available for street tree planting, front garden landscaping and on-street parking opportunities.

As shown on the diagram opposite the housing types are a mix of 2 and 3 storey typologies and are either detached, semi-detached or attached. 2 storey houses face onto both Coonara Avenue and the new local street within the site with garage access from the local street and pedestrian access only onto Coonara Avenue. An approximately 8 metre wide buffer zone will be provided along the Coonara Avenue frontage to preserve the existing trees and maintain the bushland character of the site. No driveways or new vehicular access points are proposed for the Coonara Avenue frontage. A mix of single (tandem) garages and double garages will also avoid garages dominating the streetscape

Within rows of attached properties, the lot widths will vary to ensure a diverse and interesting streetscape is provided. The height of development increases to the south and south east of the site as the land falls away from Coonara Avenue.



2 Storey Houses, Detached - Front Loaded



2 Storey Houses, Attached - Front Loaded



2 Storey Houses, Attached - Rear Loaded



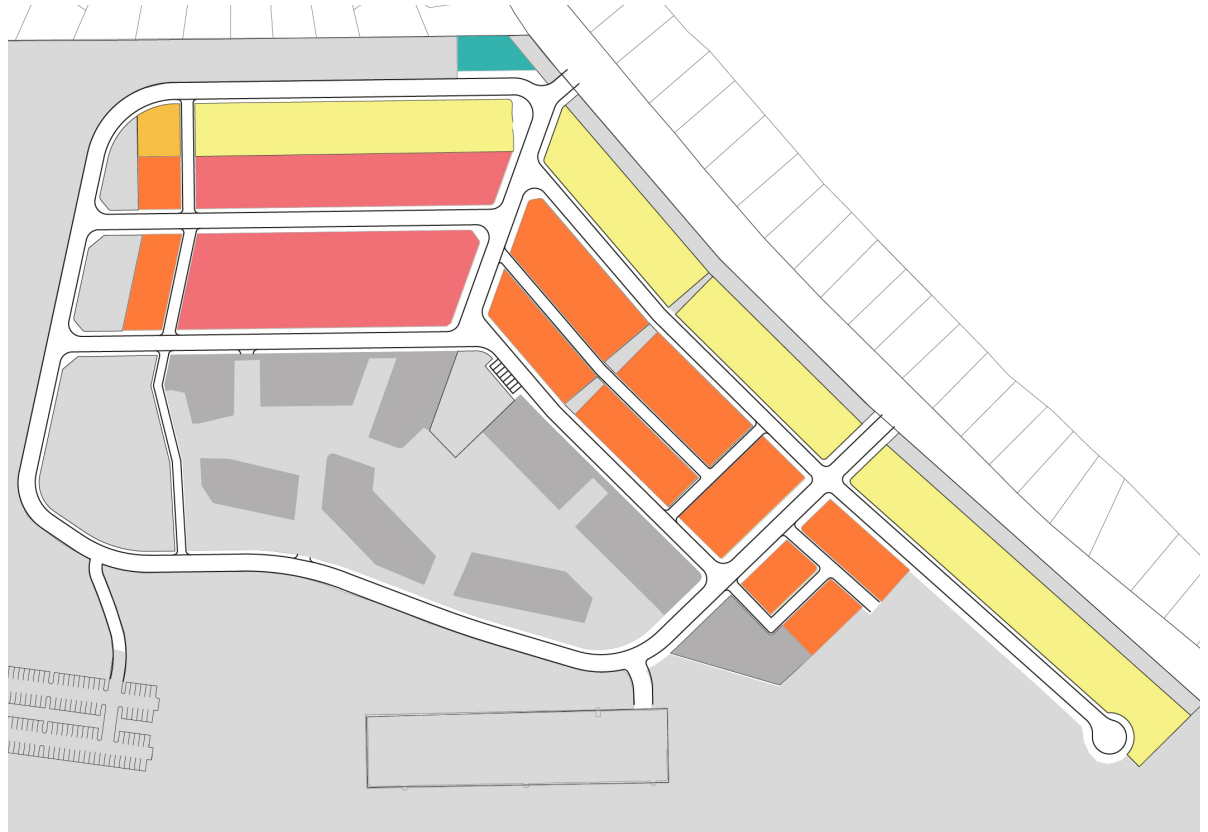
3 Storey Houses, Attached - Rear Loaded



3 Storey Houses, Attached - Front Loaded



2 Storey Houses, Semi-detached - Front Loaded



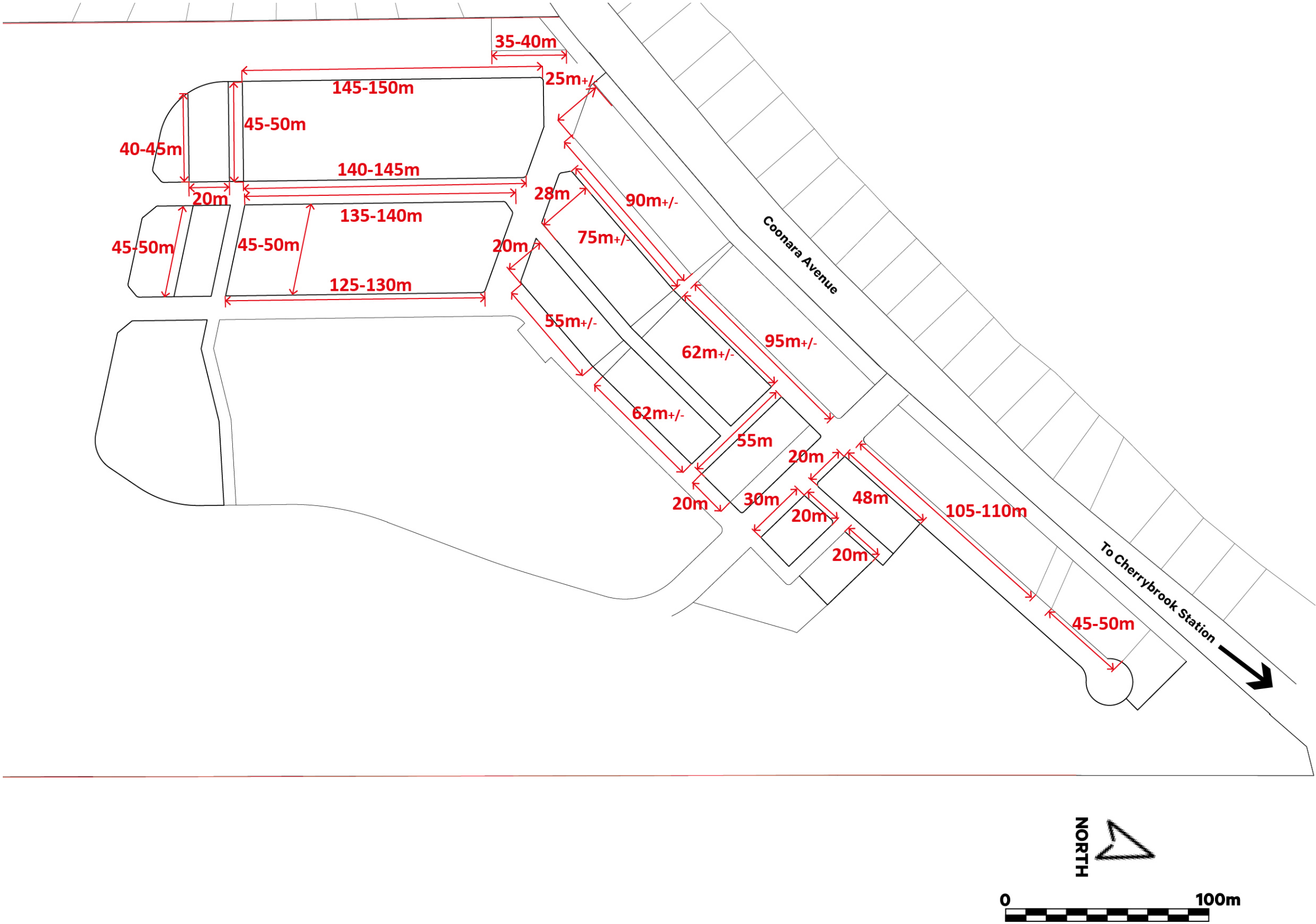
Indicative Housing Types

- | | |
|--|--|
|  2 Storey Front Loaded, Detached |  3 Storey Front Loaded, Attached, Semi-detached |
|  2 Storey Front Loaded, Attached, Semi-detached, Detached |  3 Storey Rear Loaded, Attached |
|  2 Storey Rear Loaded, Attached | |

INDICATIVE BLOCK SIZE

The plan opposite illustrates the indicative block sizes. Overly long rows of houses are avoided by creating mid-block green links and will also be apparent through the variety of attached, semi-detached and detached housing typologies employed within the block itself. Architectural variation in detail, form and colour will also be utilised to create diversity and interest whilst ensuring a cohesive design language is achieved.

No rows of attached terraces will be greater than 50 metres of continuous building. Gaps between rows of attached dwellings will be provided either within green links or within a lot.



SETBACKS

DCP Objectives

- To provide setbacks that complement the streetscape and protect the privacy and sunlight to adjacent dwellings in accordance with ESD Objective 7.
- To ensure that new development is sensitive to the landscape setting, site constraints and established character of the street and locality.
- To ensure that the appearance of new development is of a high visual quality and enhances the streetscape.
- To protect sunlight and daylight to habitable rooms, protect and optimise usable open space around dwellings, and protect adjoining dwellings from excessive overlooking, overshadowing, and general loss of amenity.
- To provide sufficient space for vehicle parking, manoeuvrability and clear sight lines.
- To provide strong definition to the public domain and create a consistent streetscape.

Our Proposals

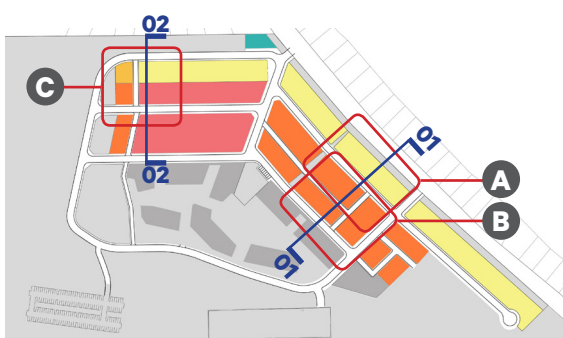
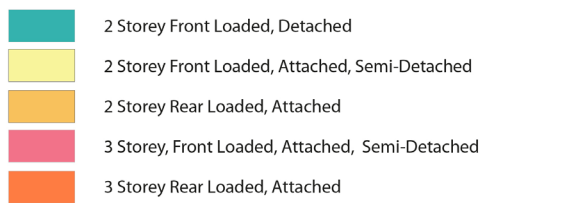
Primary street frontages have landscaped setbacks with a variety of configurations providing private open space and off street parking within lot frontages.

Typical front setbacks are between 2m for rear loaded house types and 4.5m (5.5m to garage). Variation in front and rear setbacks generally relate to the garage type and location (rear or front loaded). The minimum front setbacks proposed are:

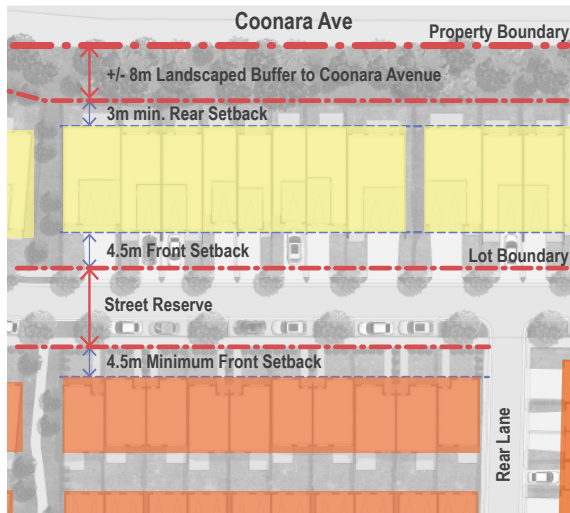
- 2 Storey Front Loaded (Detached) - 4.5m
- 2 Storey Front Loaded (Attached, Semi-Detached) - 4.5m
- 2 Storey Rear Loaded (Attached) - 2m
- 3 Storey Front Loaded (Attached, Semi-Detached) - 2m
- 3 Storey Rear Loaded (Attached) - 2m

These minimum setbacks allow for articulation (for example setting garages behind the main facade of the house) across all housing types. The proposed setbacks will allow for landscaping to complement the landscaped treatment within the street reserve.

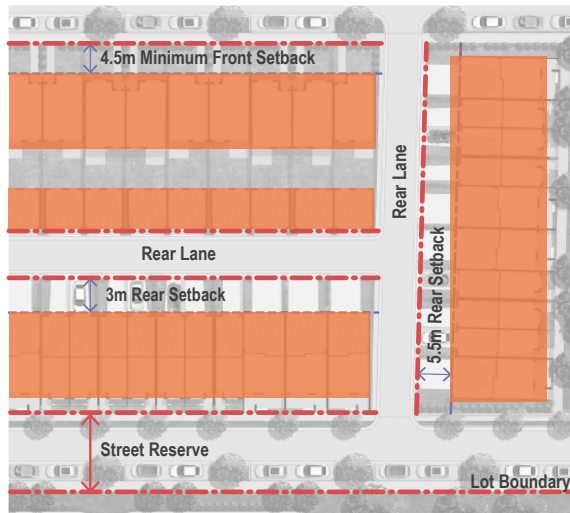
Rear setbacks vary depending on house type and lot configuration.



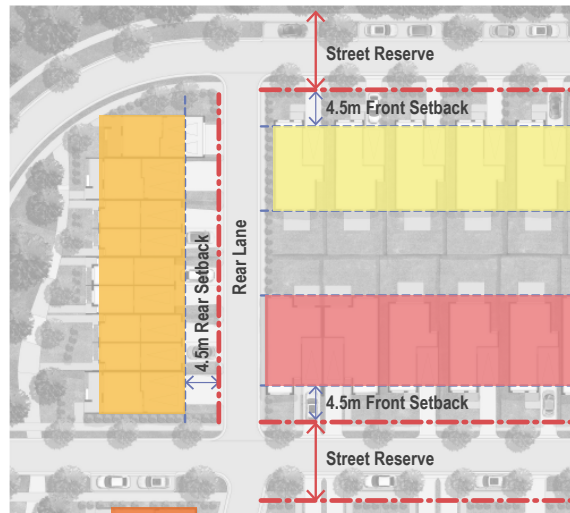
Indicative Setbacks



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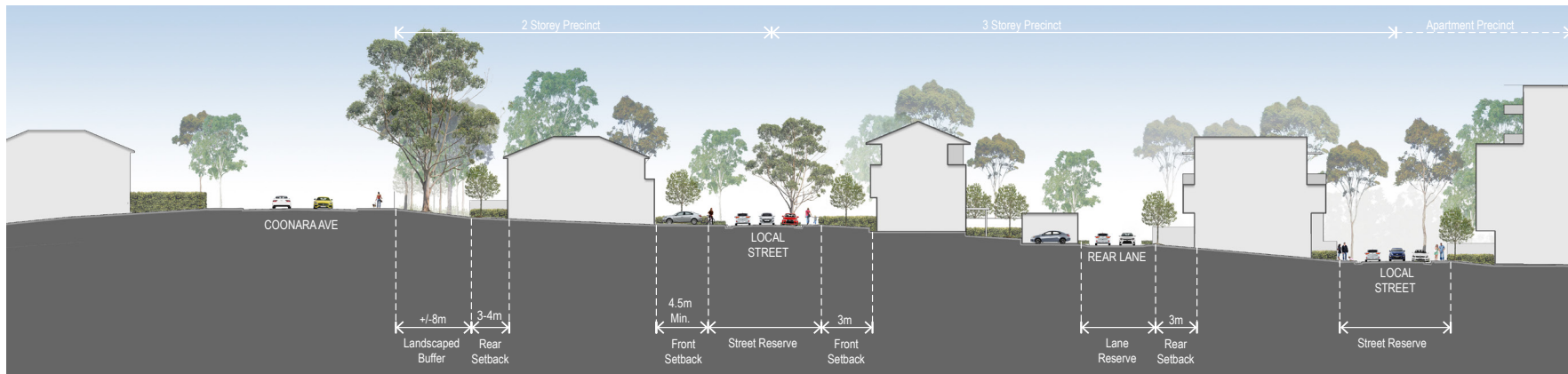


B



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Indicative Sections



SECTION 01



SECTION 02

BUILDING DESIGN AND BULK

DCP Objectives

- To ensure that the appearance of new development is of a high visual quality, enhances the streetscape and complements surrounding development.
- To encourage streetscape variation whilst maintaining a high level of amenity for the development.
- To ensure the height of buildings is compatible with that of adjoining development and the overall streetscape.
- To minimise the impact of overshadowing, visual impact, and loss of privacy on adjoining properties and open space areas.
- To ensure the height of small lot housing forms are compatible with adjoining residential development and the overall streetscape.
- Terraces integrate with the character of surrounding development and are of a high architectural quality.
- Designs reduce the visual bulk of buildings from the street
- The scale of terrace development reinforces the desired future neighbourhood character.
- To incorporate high quality façade design and finishes.

Our Proposals

A variety of house types are proposed with the aim of providing visual interest, diversity and character to the streetscape. The visual bulk and scale of the built form will be minimised through a range of different, yet complimentary, façade treatments across the various house types. Façade design and finishes will be of a high architectural quality and will enhance the streetscape and urban environment.

Indicative images of comparable Mirvac projects are provided to give a sense of the character and streetscape envisaged within the proposed development.

It is envisaged that the house designs will be contemporary and distinctly modern Australian achieved through simple forms and well proportional façade elements combined with a controlled use of materials and colours. A mix of modern and traditional roof forms and a material and colour palette that compliments a well-considered streetscape will provide diversity and interest.

Articulation will be achieved by such techniques as interplay of solid and void elements, light and shade, projecting and recessive planes, use of secondary elements such as screens, pergolas, sun-shading devices, balconies, porches, fin walls and portals.

Lot sizes range from 86m² to 300m² and allow for a range of different housing configurations. A combination of two and three-storey attached, semi-detached and detached house types are proposed all with off street parking for two cars.

The scale of housing considers the context in which it sits. 2 Storey houses front Coonara Avenue to provide a complementary scale to the existing houses across the road. These new houses and those interfacing with the western boundary are two-storeys while rear-loaded three storey townhouses are located deeper within the site.

The siting and planning of the various house types considers neighbour amenity and solar access to key private spaces to maintain an appropriate residential amenity.



Indicative Comparable Mirvac Projects



SOLAR ACCESS

DCP Objectives

- To maximise solar access to internal living spaces within buildings and open space areas in winter.
- To ensure no adverse overshadowing of adjoining allotments/developments including the principal area of open space.
- To orient the development in a way that best allows for appropriate solar access and shading, to ensure energy efficient outcomes in accordance with Council’s ESD objective 5.
- To minimise the need for artificial lighting in dwellings during the day, to ensure energy efficient outcomes in accordance with Council’s ESD objective 5.
- To orientate dwellings so that the living areas face north.

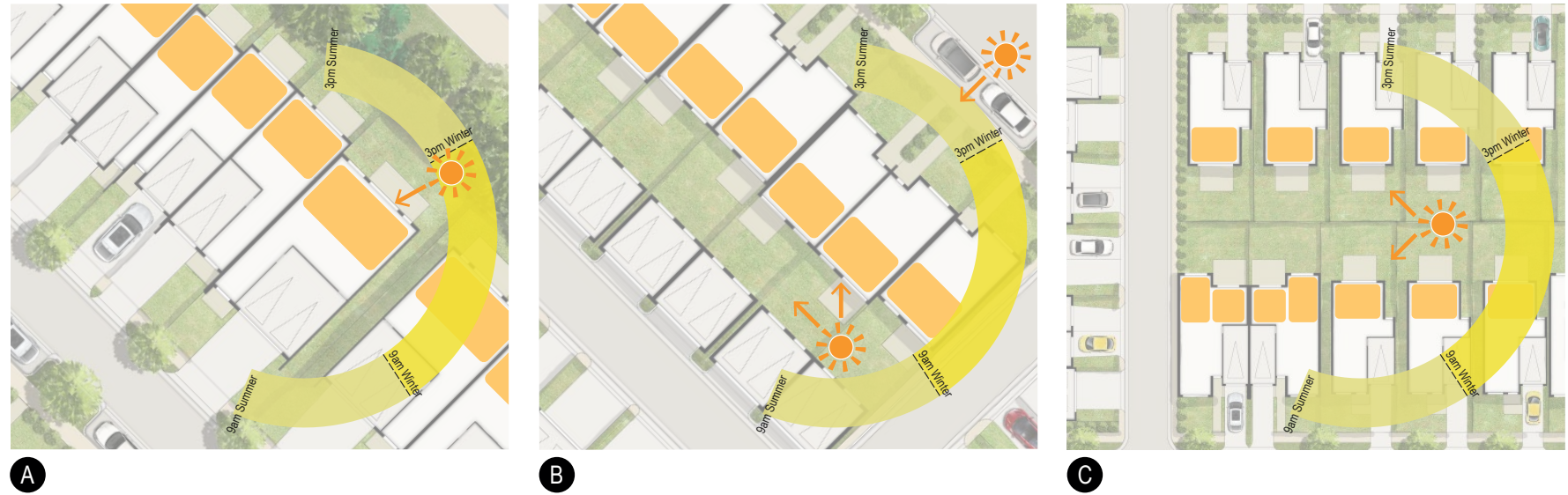
Our Proposals

Solar access to rear yards and living areas has been considered in the formulation of the master plan. Wherever possible lots have been orientated east-west to optimise solar penetration into these key spaces.

Houses orientated parallel and perpendicular to Coonara Avenue will also enjoy solar access to living and private open spaces via the specific design of the houses types to provide north-west or north-easterly orientation of living rooms whether it be to the front of the house or the rear.

Typical housing configurations showing orientation of primary living spaces and private outdoor areas are indicated in the following diagrams.

Solar Access Principles- Living Spaces



Whole Site Shadow Study

21st June

9am



10am



11am



12 noon



1pm



2pm



The diagrams on this page are the results of our 3D modelling of the site illustrating the solar access to front and rear gardens and the public spaces across the whole site. The diagrams indicate solar access on the 21st of June, the worst case scenario during winter.

The study is high level only at this stage based on bulk and massing, prior to design of the houses. Design development will include a focus on manipulation of massing and articulation of buildings to maximise solar penetration onto private outdoor spaces. The initial studies indicate that the majority of properties will enjoy several hours of solar access throughout the day.

3pm



Shadow Study- Smaller Lot Zone

21st June



The diagrams on this page are an enlargement of the area of the site with smaller lots. The diagrams illustrate that even the smallest lots are capable of achieving solar access to their private outdoor spaces.

As previously indicated the study is high level only at this stage based on bulk and massing, prior to design of the houses. Design development will include a focus on manipulation of massing and articulation of buildings to maximise solar penetration onto private outdoor spaces. The initial studies indicate that the majority of properties will enjoy several hours of solar access throughout the day.



PRIVACY

DCP Objectives

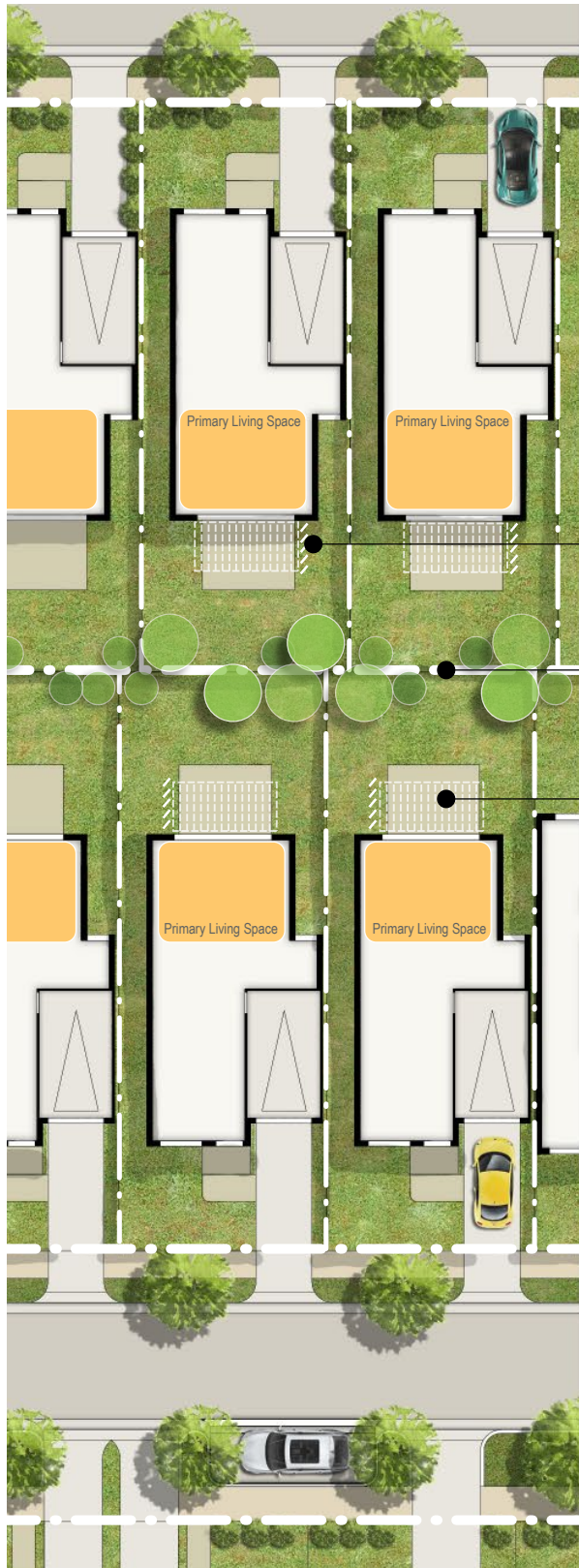
- To site and design buildings to ensure visual privacy between dwellings and principal areas of private open space in accordance with Council’s ESD objective 7.
- To avoid overlooking of living spaces in dwellings and private open spaces.
- To contain noise within dwellings and communal areas without unreasonable transmission to adjoining dwellings.
- To promote changes in levels through terracing and height variations to reduce overlooking.
- To ensure window locations and design reduce overlooking.

Our Proposals

Privacy between dwellings is addressed at a number of levels. The majority of dwellings are separated by streets and rear lanes which provide a level of separation that facilitates good privacy to rear yards and living spaces.

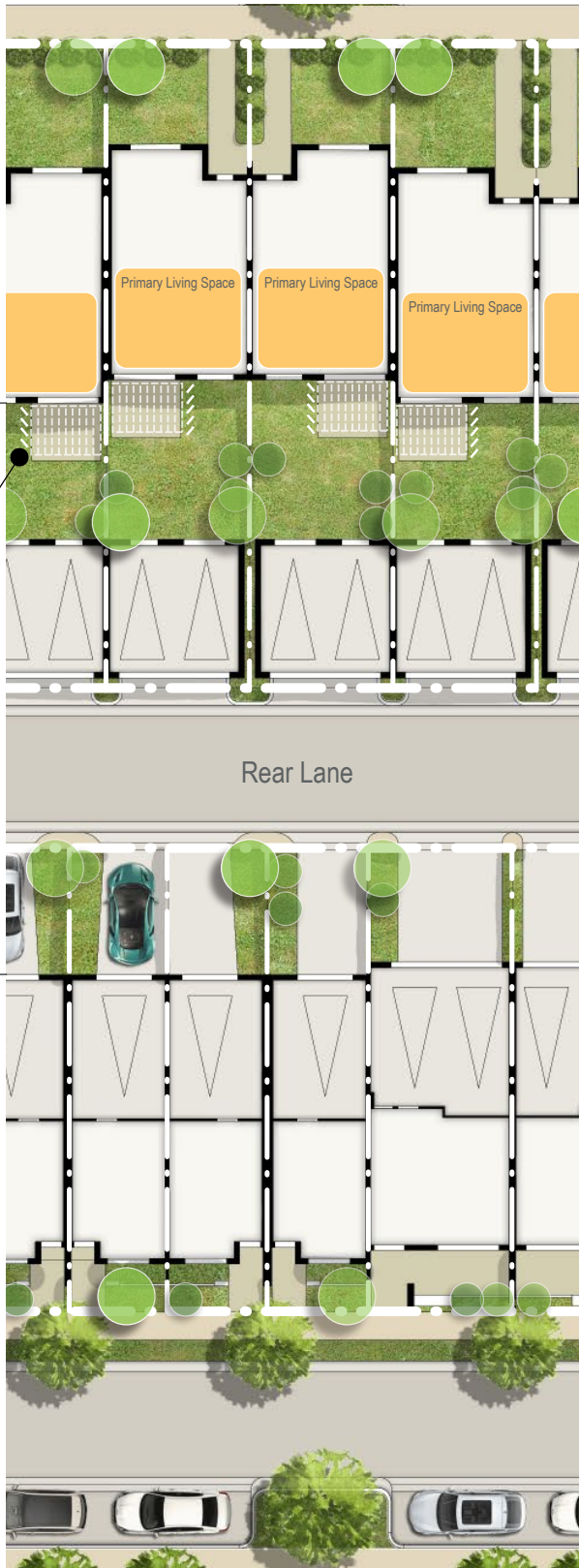
Where lots back onto one another screening devices such as louvres and pergolas may be incorporated and the location and size of windows will be carefully considered to achieve optimal outcomes.

Built form will also be utilised to restrict overlooking with setback upper levels incorporated in some cases and acoustic privacy will be achieved with consideration of room locations in the planning of adjoining properties.



Back to Back Lots

- Louvres + Screens to Ground and Upper levels to restrict cross viewing where required
- Landscaping to add additional privacy
- Pergolas to enhance privacy to outdoor spaces and living areas where required
- Rear lanes and car ports provide greater separation and privacy between opposite lots



Rear Lane Separation

PRIVATE OUTDOOR SPACE

DCP OBJECTIVES

- To ensure that each dwelling is provided with useable private open space to meet reasonable requirements for outdoor activities, privacy, access and landscaping.

OUR PROPOSALS

The proposed master plan includes high quality landscaping for all streets, public spaces, communal areas and private housing lots. Street reserves comprise landscaped verges and street trees with existing vegetation retained and incorporated into the master plan wherever possible.

A key focus of the development is the village green which contains generous landscaped communal open space for the enjoyment of all residents. Cycle paths, lawn and planted areas for active and passive recreation are proposed within this precinct.

Private outdoor areas to most two storey dwellings will have a direct connection to the primary internal living space at ground level.

Most three storey terrace-style dwellings will have upper level living spaces that open onto private outdoor areas in the form of elevated terraces or balconies.

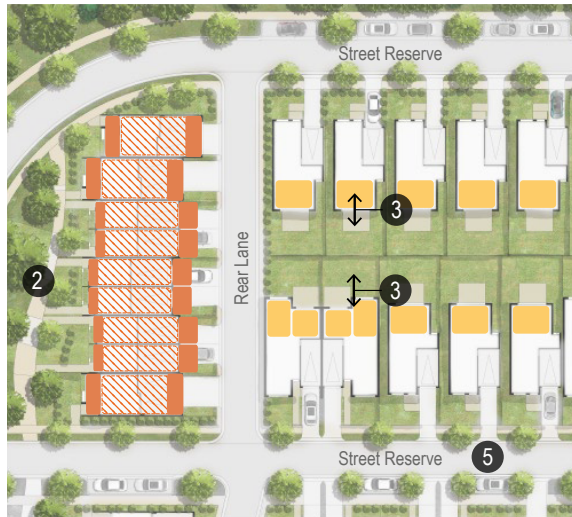
All private open spaces will receive optimal solar access taking into account the orientation of the lot.



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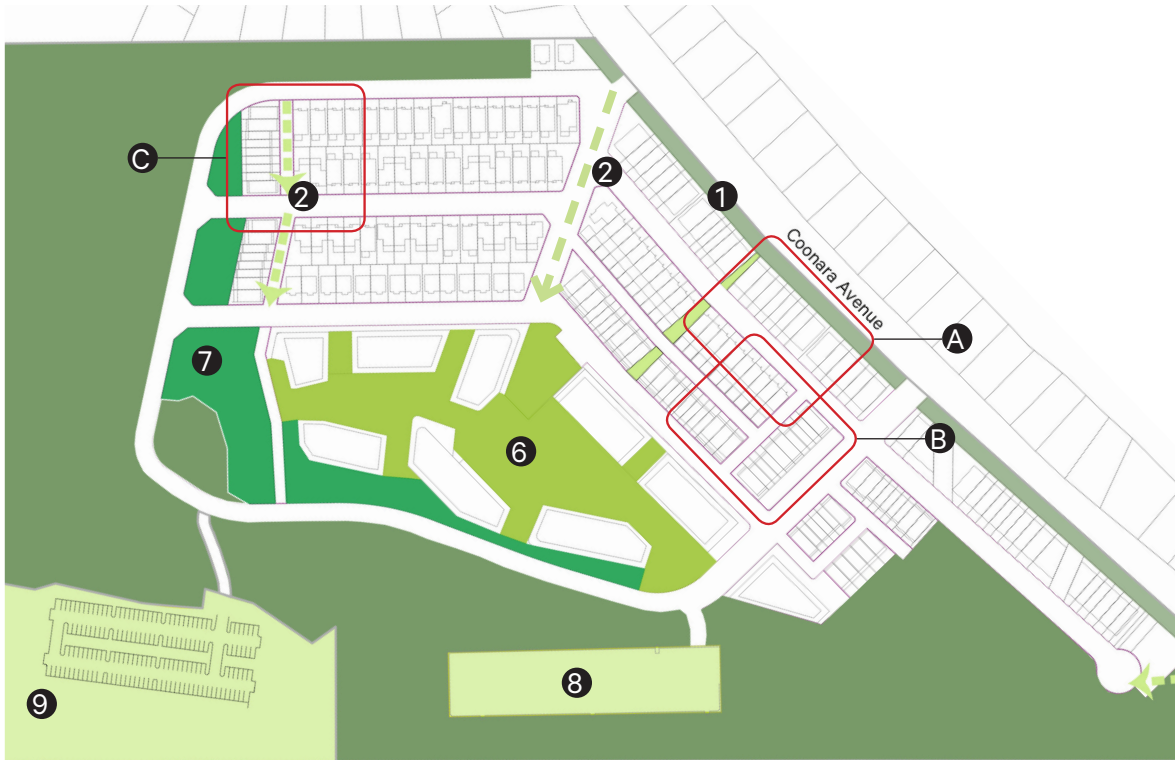
B



C

- 1 8m Landscaped buffer to Coonara Avenue. Existing trees retained wherever possible.
- 2 Landscaped connection and street access to communal open space.
- 3 Direct connection from primary living space to private open space
- 4 Landscaped front courtyards
- 5 Landscaped verges and street trees to all streets
- 6 Central communal village green
- 7 Bushland edge
- 8 Resident communal facilities
- 9 Public Open Space

- Indicates primary living space (Ground level)
- Indicates primary living space (Upper level)
- Indicates private outdoor space (Upper level)



PARKING

DCP Objectives

- To ensure dwellings have adequate areas of ingress and egress from the local road system and satisfactory on-site access in accordance with Council’s ESD Objective 7.
- To provide sufficient and convenient parking for residents and visitors to the site.
- To ensure that adequate carparking is provided on-site so as to prevent inconvenience to residents and congestion in nearby streets in accordance with Council’s ESD Objective 7.

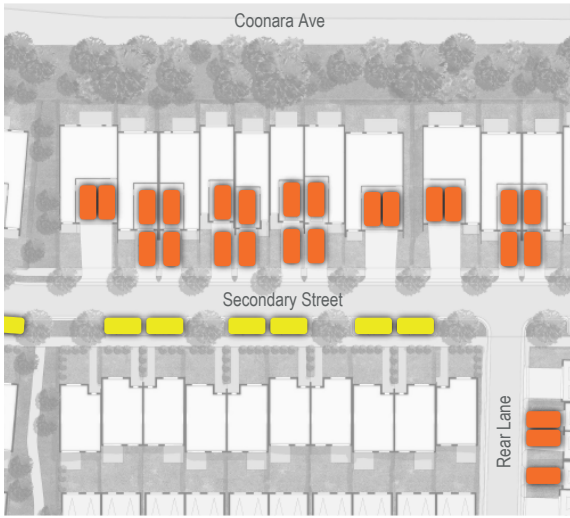
Our Proposals

Vehicular access to the site from Coonara Avenue is as per the existing configuration. The two existing vehicular access points and the internal perimeter road are retained. The internal street network provides safe, legible access to all dwellings and communal areas in accordance with Council’s ESD Objective 7.

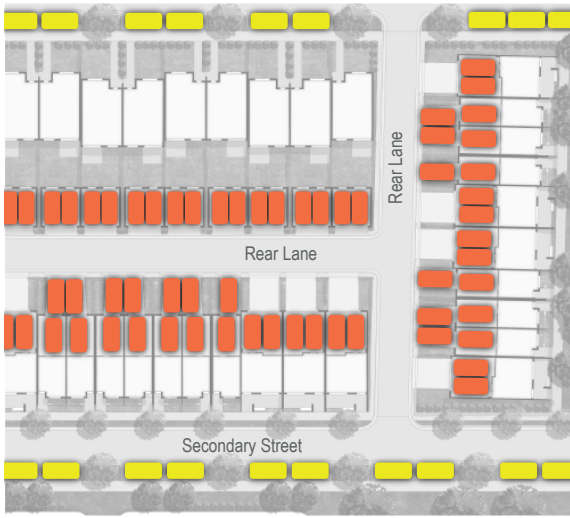
All housing lots will be designed to accommodate off-street car parking for two cars. Where single garages are provided, these are set back a minimum of 5.5m from the front boundary to allow parking for a second car within the lot.

The street network has been designed to accommodate all required visitor parking.

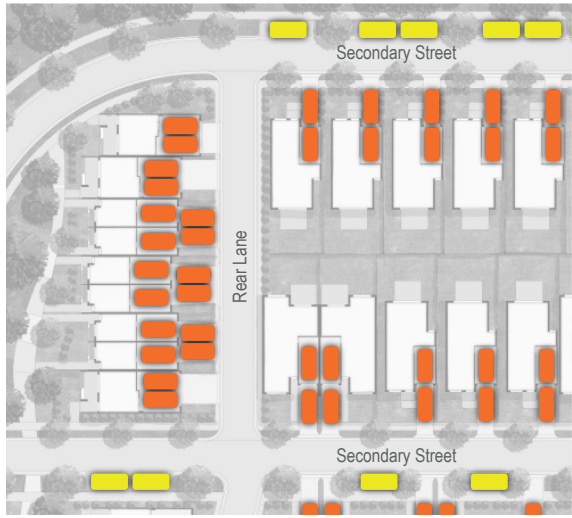
All local streets comprise two lanes of traffic with on-street parking to one side while approximately 45% of dwellings have rear lane access.



A Off Street Parking
On Street Parking



B



C



Primary Street

Dual carriageway. Public Road (dashed line). Community Title Road with parking (solid line).



Local Streets

Dual carriageway. Parking on one side of street. 1 on-street visitor space will be provided for every 5 houses



Rear Laneways

Dual carriageway. No Parking. Access to garages only.



Apartments

Basement Parking.



Visitor Parking

1 parking space will be provided for every 5 apartments in the area of the existing multi-level car park.



Public Open Space Carpark

Approximately 148 car spaces (existing).

An aerial photograph of a suburban neighborhood with a proposed apartment precinct overlaid. The precinct is outlined in white and contains several architectural drawings. At the top left, there are two rectangular blocks of townhouses or small houses. Below these, on the left, are several individual house designs with detailed landscaping. To the right of these is a long, narrow row of townhouses. At the bottom left, there is a long, low building with a flat roof, possibly a community center or a long townhouse unit. The rest of the precinct area is filled with a grid of small, uniform rectangular units, likely representing a high-density housing development. The surrounding area shows existing houses with various roof colors and some trees.

APARTMENT PRECINCT

APARTMENT PRECINCT

APARTMENT DESIGN GUIDE/ SEPP65 COMPLIANCE

There are many strategies that will be employed in the design of the apartments to ensure that they are well considered spaces, liveable, responsive to environmental conditions and adaptable to peoples needs.

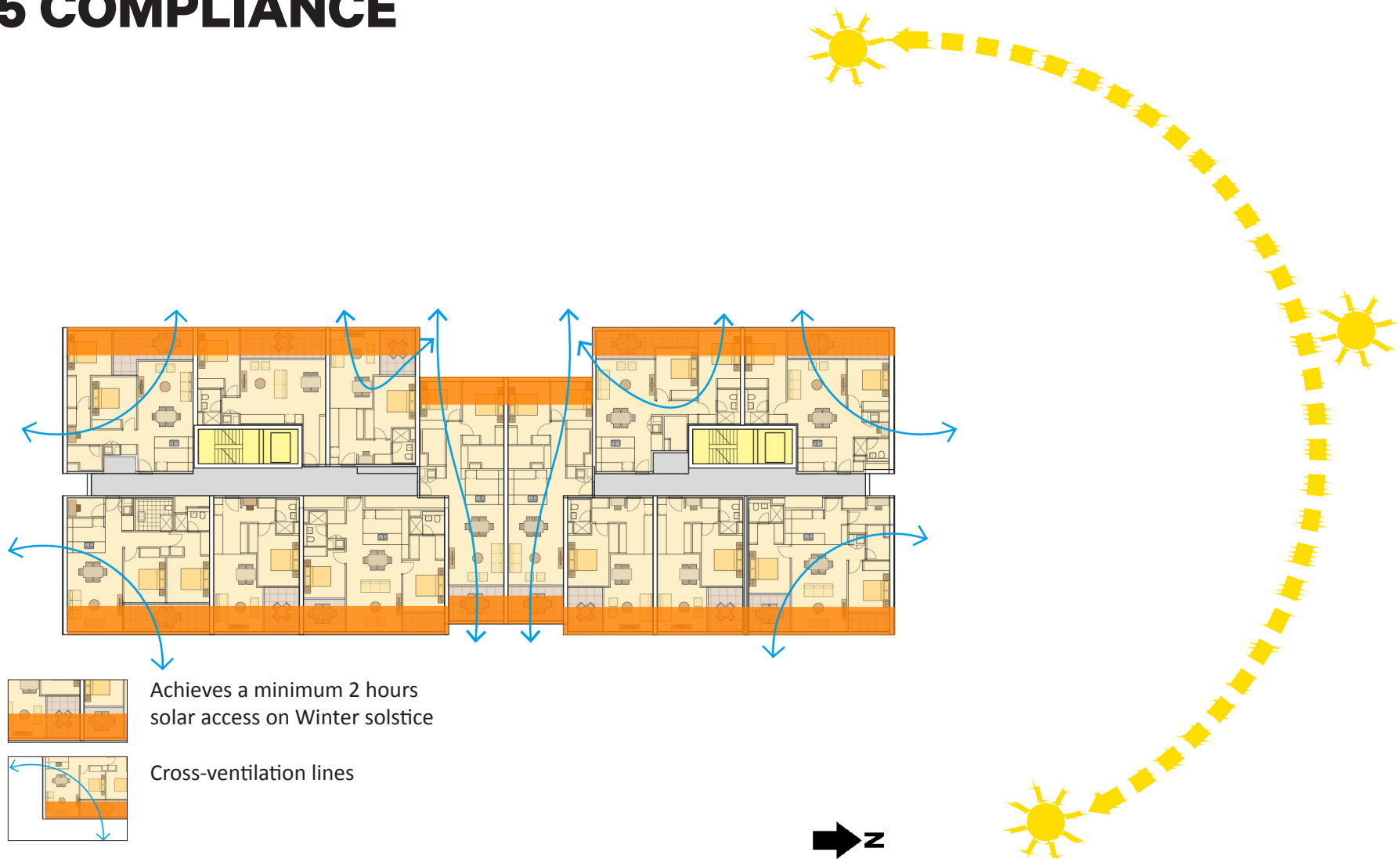
The diagram opposite illustrates in a generic manner the typical strategies and design methods utilised to ensure environmental standards and comfort are achieved.

The strategies start at the site planning stage when the buildings are oriented in order to maximise solar access to longest frontage(s) of buildings, so that when detailed planning is undertaken, achieving a minimum of 2 hours daylight to main living spaces is more easily achieved.

Solar access and cross ventilation are key requirements. Building articulation ensures that longer buildings do not appear overly long or monotonous upon the streetscape.

Apartment planning is also a key area of consideration. Flexibility in design and through the development cycle is necessary to be able to adjust and meet customer needs. The ability to successfully furnish apartments is a key area of customer satisfaction for Mirvac and much effort is expended on ensuring that rooms are well dimensioned and arranged.

Other considerations of the Apartment Design Guide and SEPP65 such as building separation, privacy, landscape and deep soil , etc. are considered throughout the design process and tested at detailed planning stage.



Typical diagram illustrating building articulation and compliance with solar access and cross-ventilation requirements for new apartments



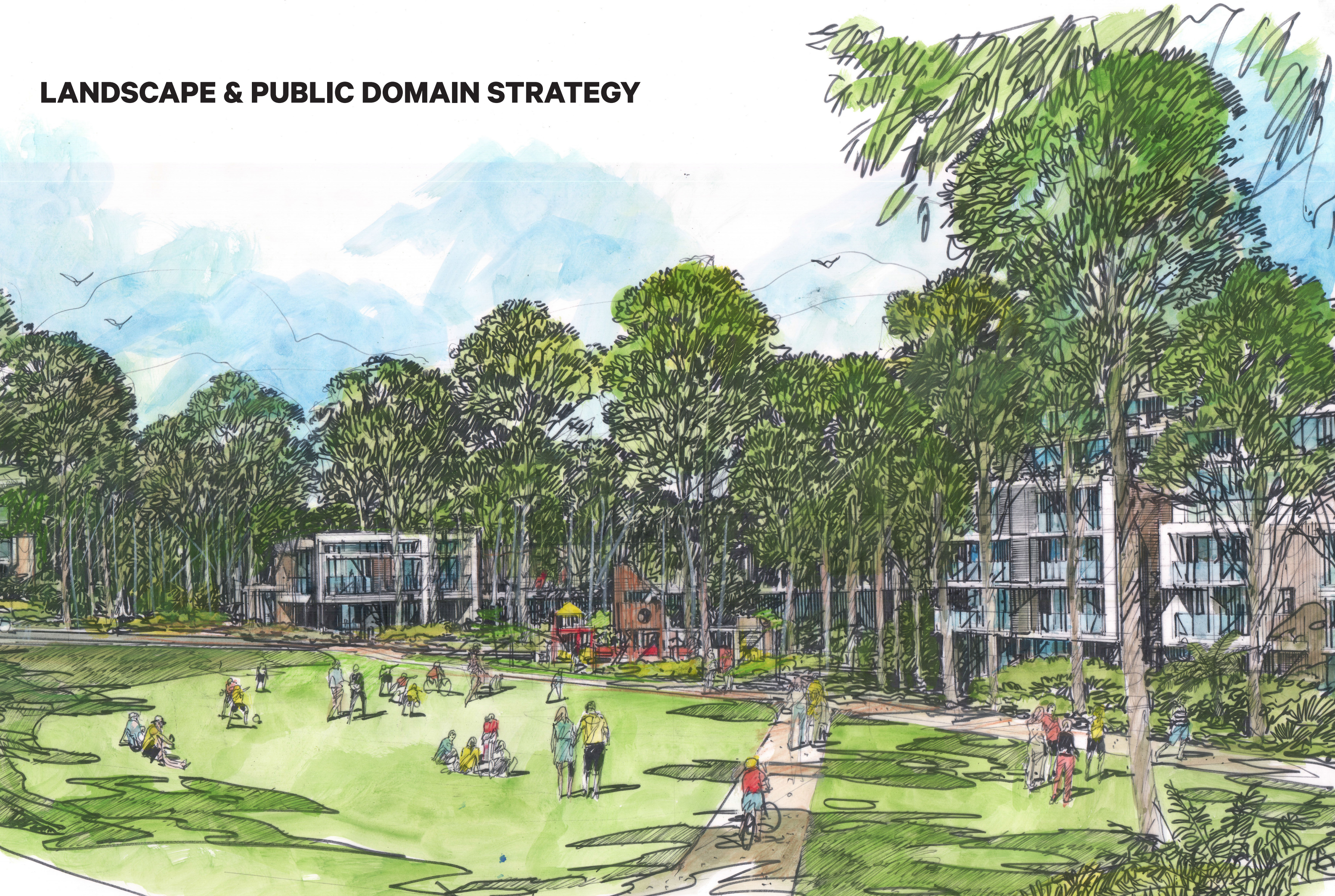
Indicative layout for the apartment buildings illustrating how the new buildings will address the street and define the central communal open space.

Example Apartments



55 Coonara Ave, West Pennant Hills

LANDSCAPE & PUBLIC DOMAIN STRATEGY



LANDSCAPE & PUBLIC DOMAIN STRATEGY

DCP Objectives

- To enhance the quality of the built environment by providing a high standard of landscaping.
- To ensure that landscaping may be efficiently maintained.
- To provide a pleasant and safe living environment.
- To limit tree removal to maintain the character of the area.
- To design a high quality landscape setting for urban housing development.
- To fully integrate the landscape design in communal, private and public areas as a necessary element in any well designed residential project.
- To preserve and enhance existing landscape features.
- To encourage existing vegetation to be included wherever possible into site landscaping.
- To provide adequate open space areas for the enjoyment and use by residents.
- To enhance the quality of the built environment by providing opportunities for landscaping.
- To provide an open space area within the development for the recreation of residents.

Our Proposals

The proposed master plan draws upon the natural qualities of the site. Topography, aspect and existing vegetation has very much informed the design.

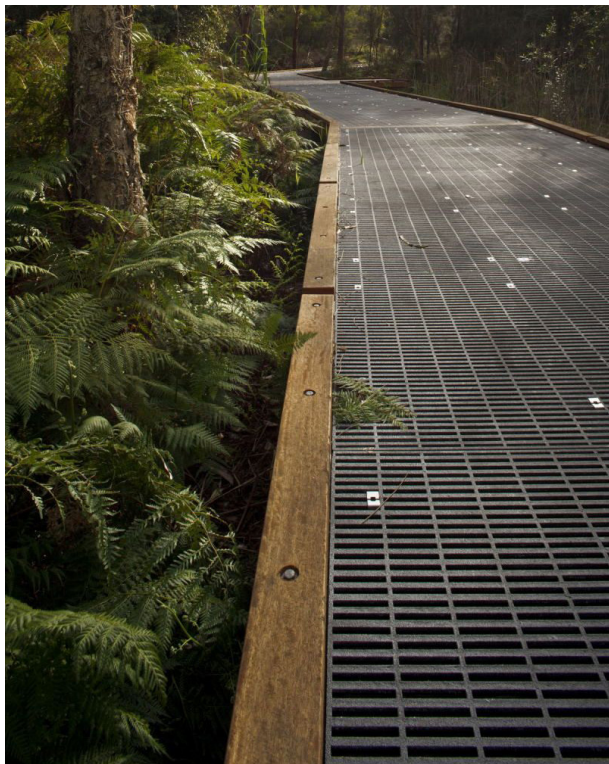
High quality landscaping is proposed for all streets, public spaces, communal areas and private housing lots.

Street reserves comprise landscaped verges and street trees with existing vegetation retained and incorporated into the master plan wherever possible.

A key focus of the development is the village green which contains generous landscaped open space for the enjoyment of all residents. Cycle paths and landscaped areas for active and passive recreation are proposed within this precinct.

The range and diversity of public open spaces provides a wonderful level of outdoor amenity for the community and offers a quality and quantum of usable public open space that is unique to the development.

Cutting through the housing precinct are clearly defined pedestrian and landscaped street links that provide a direct connection to the bushland edge and village green. The pedestrian links themselves are landscaped spaces that focus on enhancing resident amenity and providing a connection to nature by creating vistas to the village green and the bushland beyond.



LANDSCAPE & PUBLIC DOMAIN STRATEGY

Key Components



Bushland Reserve

Description

The remnant natural bushland in the southern portion of the site and contiguous to the Cumberland State Forest will be preserved. Informal walking trails will be opened up for public recreation access.

The naturally-occurring vegetation on this part of the site is made up of two main ecological communities- Blue Gum High Forest (BGHF), and Sydney Turpentine Ironbark Forest (STIF). One of the species known to inhabit these forests is the Powerful Owl (*Ninox strenua*).



Existing bushland



Existing bushland

Bushland Edge

Description

The Bushland Edge will be the interface between the natural, protected bushland to the south and the more formal landscaped areas to the north.

Existing trees in this area will be retained wherever possible and managed in accordance with bushfire requirements.

The landscape design will seek to preserve and enhance the natural character and biodiversity as far as possible whilst sensitively inserting paths, seating areas, pockets of open lawn for small scale kick-about type activities and additional groundcover planting utilising native species.



Village Green

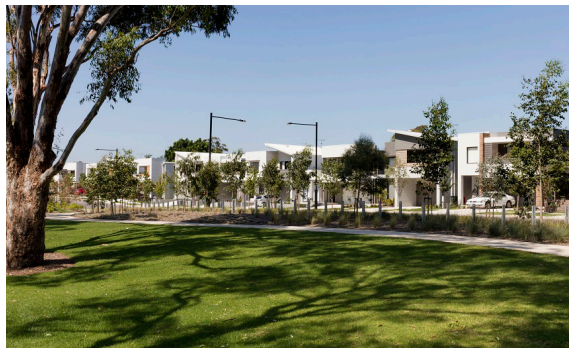
Description

The Village Green will be an area of designed landscape, central to the proposed apartment buildings. It will be a space which links the bushland reserve to the residential area.

The design includes a mix of planted, lawn and hardscape areas designed for both passive and active recreation. Seating and shade will be provided within the space.

Planting will continue the native biodiversity of the site, although in a somewhat more formal and managed arrangement.

It will be a key community gathering space at the heart of the development.

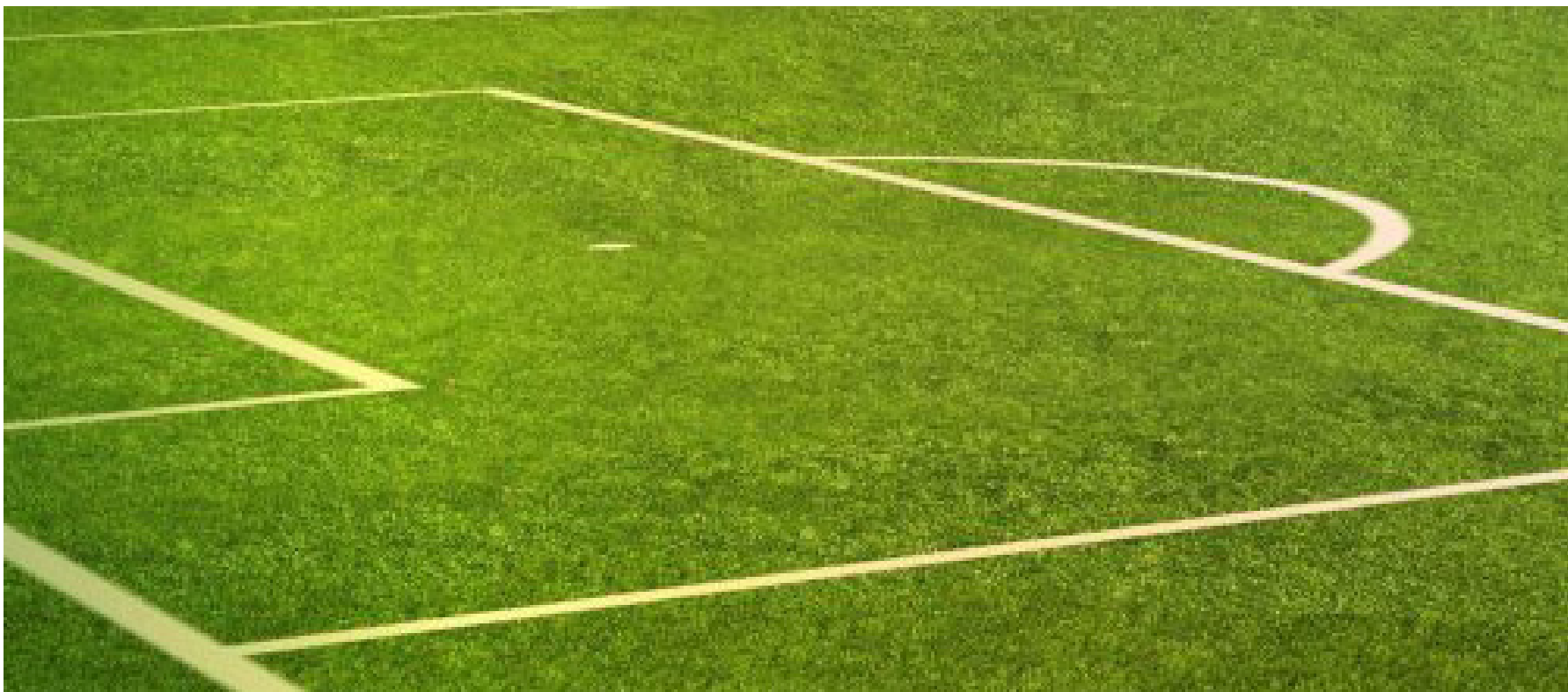


Active Recreation

Description

The existing grassed open space area on the south of the site will be retained and dedicated to the Council for public recreation use along with the existing adjacent carpark which will be retained for public parking.

It is proposed to convert the existing grassed area to a synthetic soccer field suitable for all weather use.



LANDSCAPE & PUBLIC DOMAIN STRATEGY

Indicative Street Hierarchy

Key Components

A Coonara Avenue Interface
Zone of Existing Trees

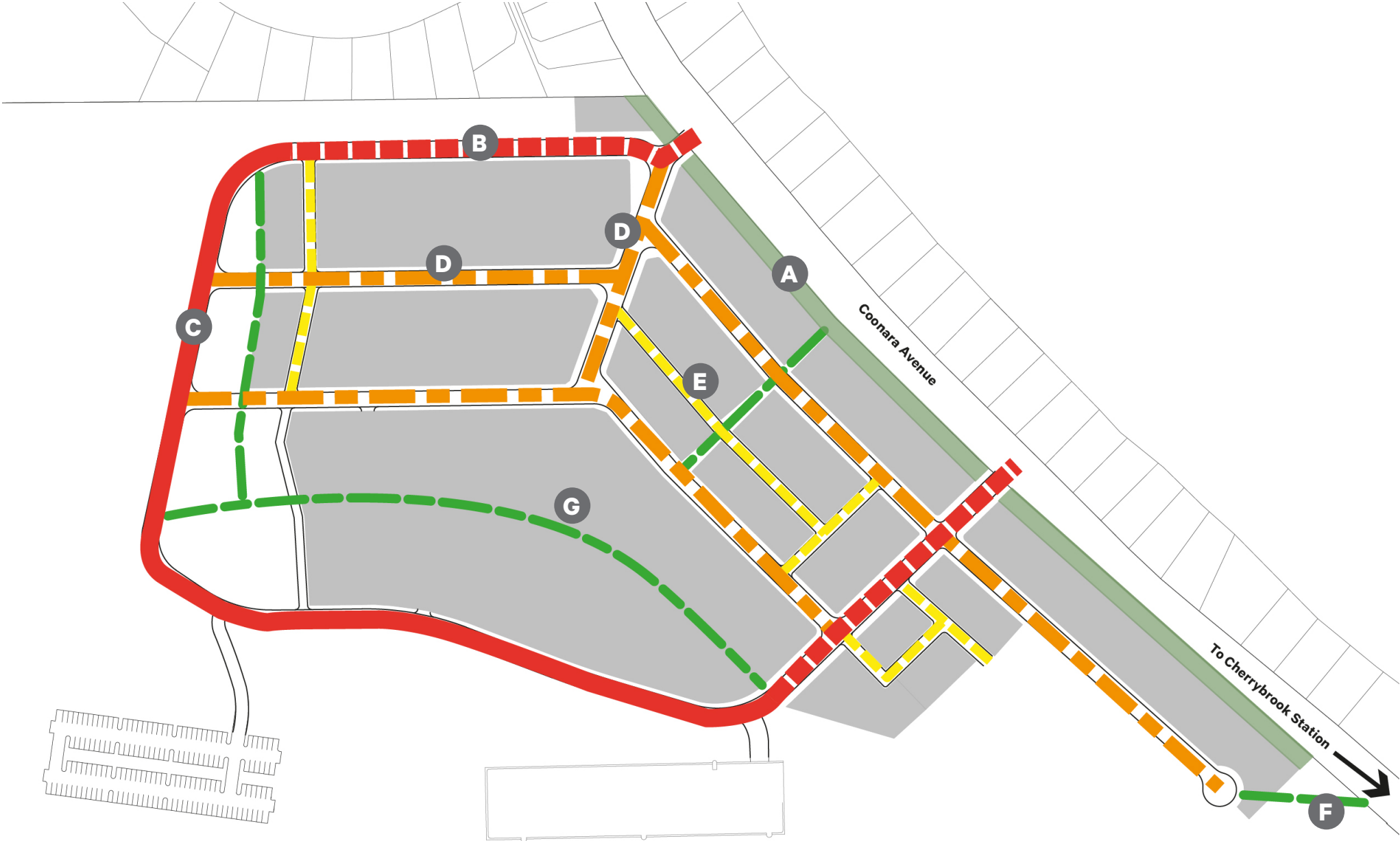
B Primary Street
Public Road- Upper
2 way, Parking on 1 side
16.5m Street Reserve Width
9.5m Carriageway width

C Primary Street
Public Road- Lower
2 way, No Parking
16.5m Street Reserve Width
8m Carriageway width

D Local Streets
Community Title Road
11.7m Street Reserve Width
2 way, Parking on 1 side

E Laneways
Community Title Road
7m Width
2 way, No Parking

F Green Links
Pedestrian only
Width Varies



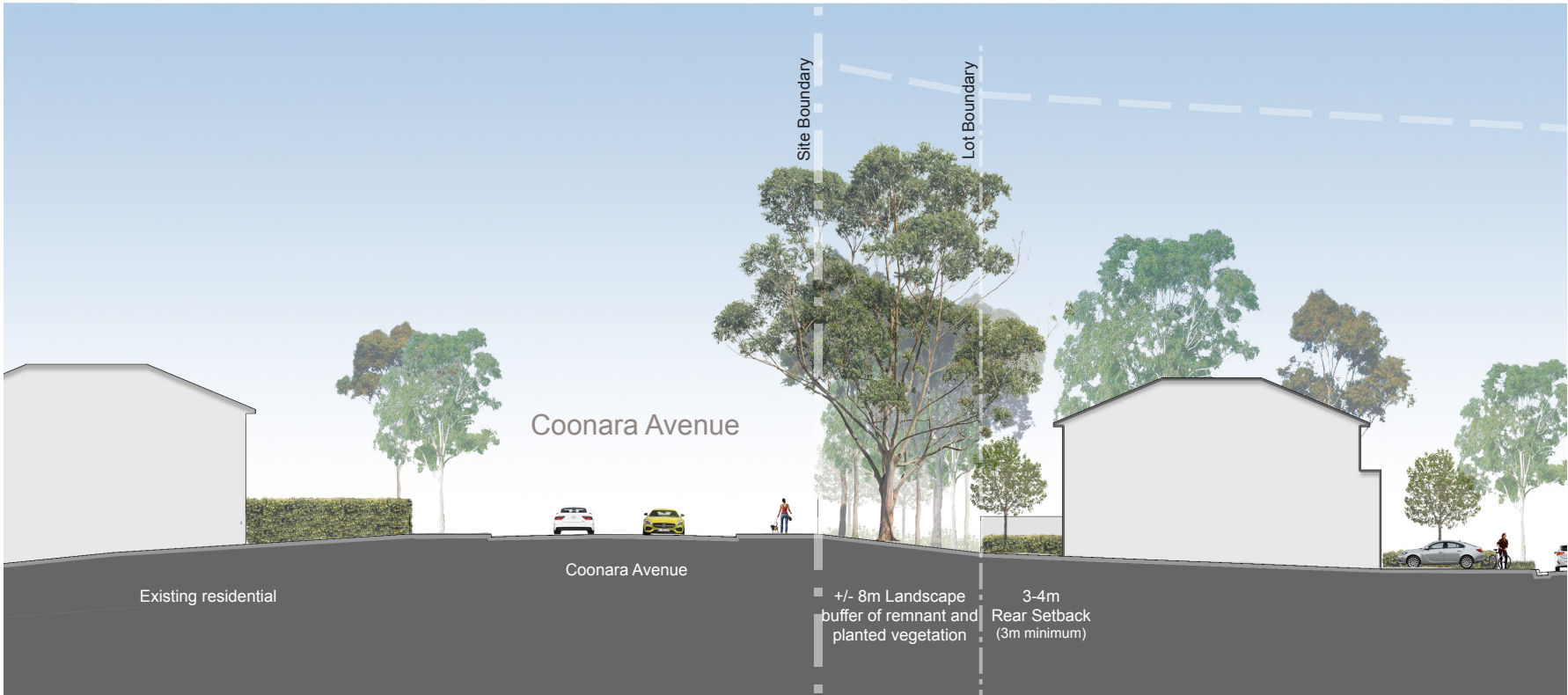
LANDSCAPE & PUBLIC DOMAIN STRATEGY

Coonara Avenue Interface

Existing Coonara Avenue context (looking South west)



Indicative Section



Dual frontage addressing Coonara Ave.



Semi- transparent boundary fencing



Exemplar Images- fencing, frontage



Indicative artists images- 8m buffer zone along Coonara Avenue with existing trees retained



LANDSCAPE & PUBLIC DOMAIN STRATEGY

Perimeter Streets

Existing Access Road (to be retained)



Perimeter Road/ Village Green Interface

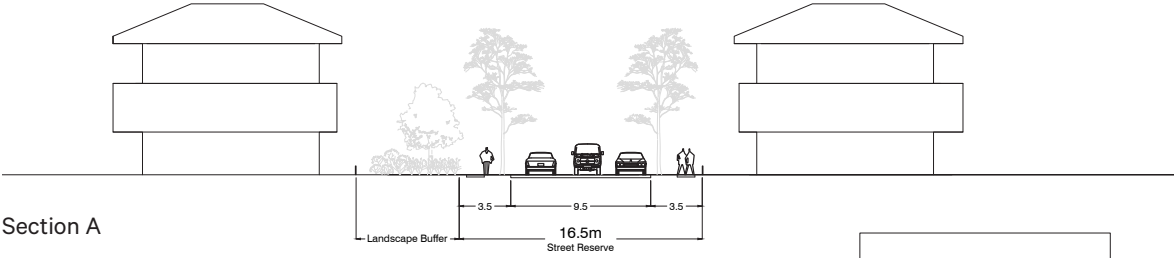


55 Coonara Ave, West Pennant Hills

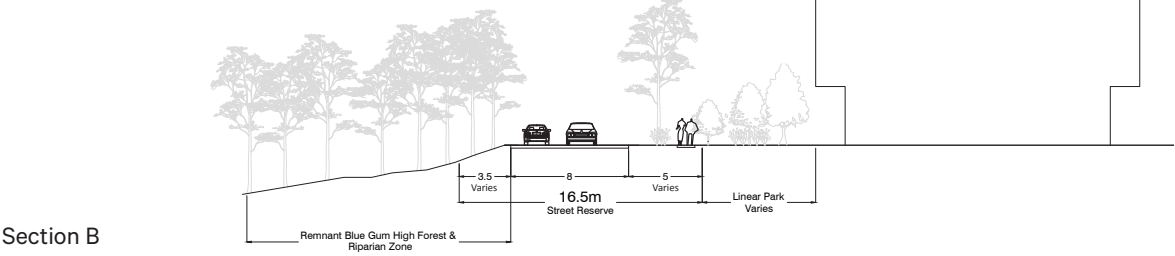
Section Key Plan



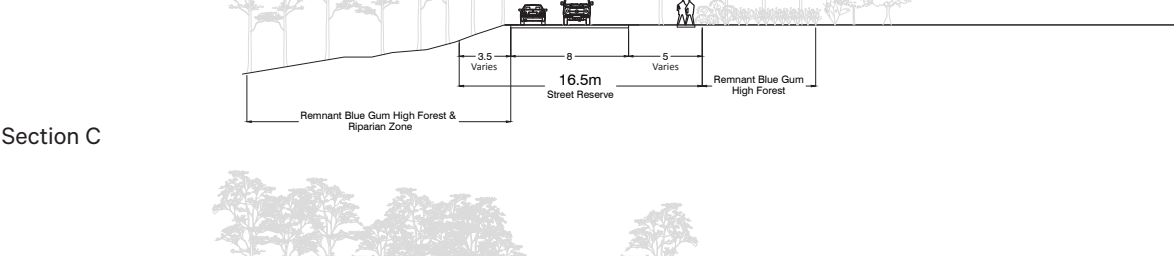
Indicative Sections with varied edge conditions



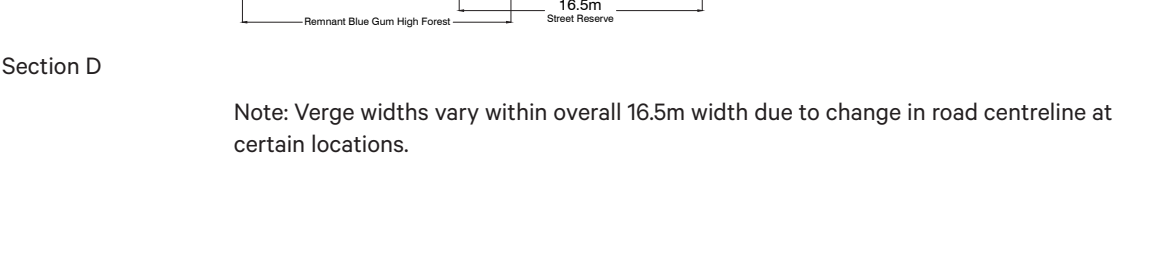
Section A



Section B



Section C



Section D

Note: Verge widths vary within overall 16.5m width due to change in road centreline at certain locations.

Tree lined streets



Native tree planting in verges



Green entrances



LANDSCAPE & PUBLIC DOMAIN STRATEGY

Local Streets

Exemplar streetscape with 3 storey homes and parking



Indicative Section



Indicative streetscape with 2 storey homes and parking on one side.



Illustrative image of street verge interface



LANDSCAPE & PUBLIC DOMAIN STRATEGY

Laneways

Indicative Section



LANDSCAPE & PUBLIC DOMAIN STRATEGY

Green links



Indicative location of green links

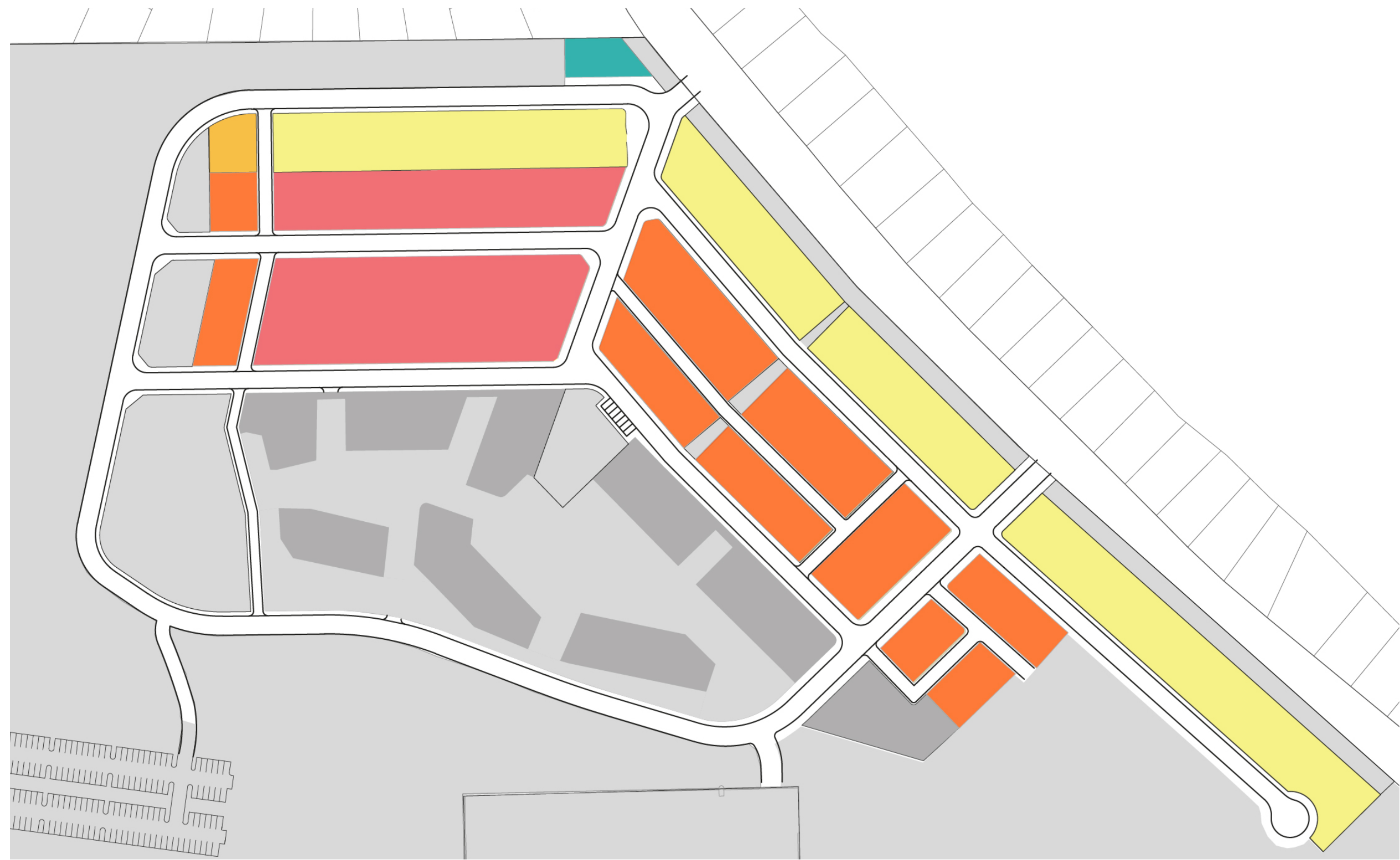
Exemplar Green Links



Appendix:

Example House Types

EXAMPLE HOUSE TYPES



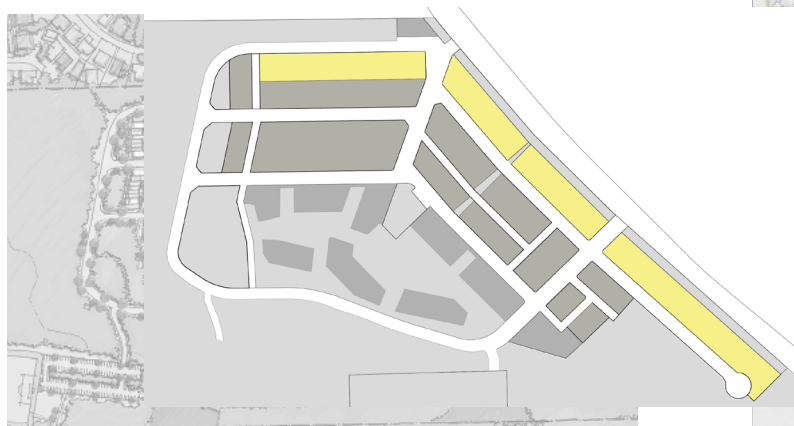
- | | | | |
|---|--|---|---|
|  | 2 Storey Front Loaded, Detached |  | 3 Storey, Front Loaded, Attached, Semi-Detached |
|  | 2 Storey Front Loaded, Attached, Semi-Detached |  | 3 Storey Rear Loaded, Attached |
|  | 2 Storey Rear Loaded, Attached | | |

FRONT LOADED 2 STOREY

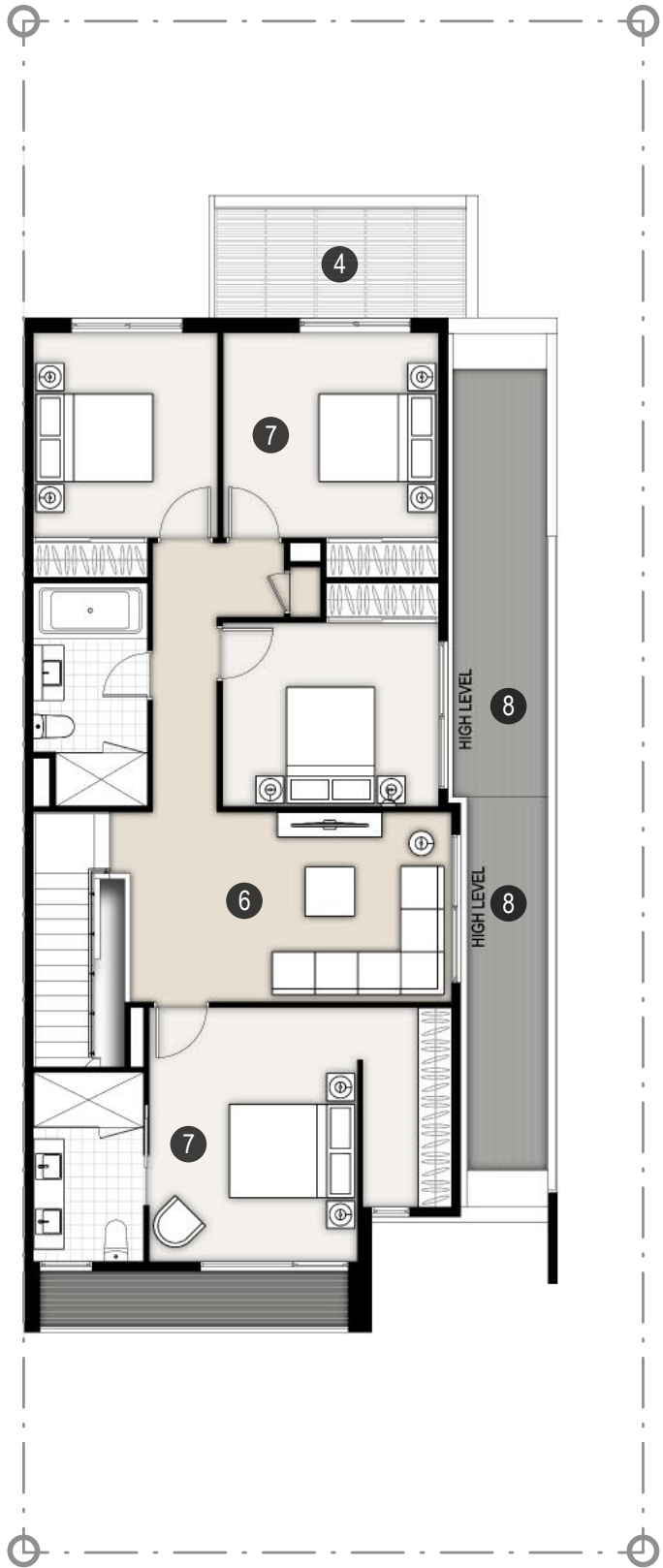
(Attached, Semi-Detached)

Typical 250m2 Lot

- 1 Generous landscaped front setback
- 2 Private rear yard
- 3 Wide fronted living space with good solar access
- 4 Pergola and privacy screens as required
- 5 Off street parking for two cars
- 6 Secondary living space
- 7 Generous bedrooms with good cross ventilation and solar access
- 8 Set back upper level with high level windows for privacy



GROUND FLOOR

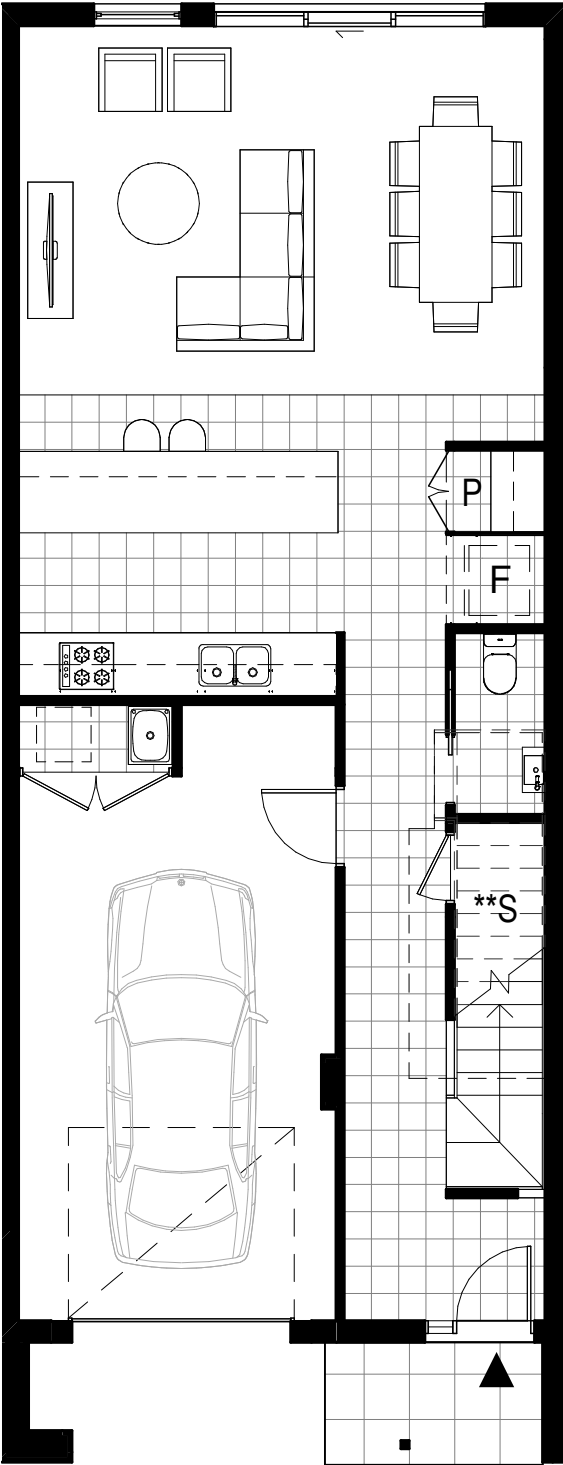
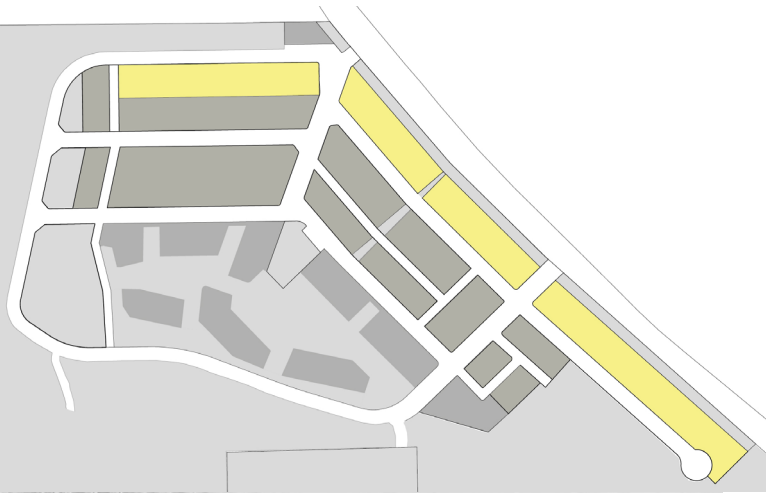


FIRST FLOOR

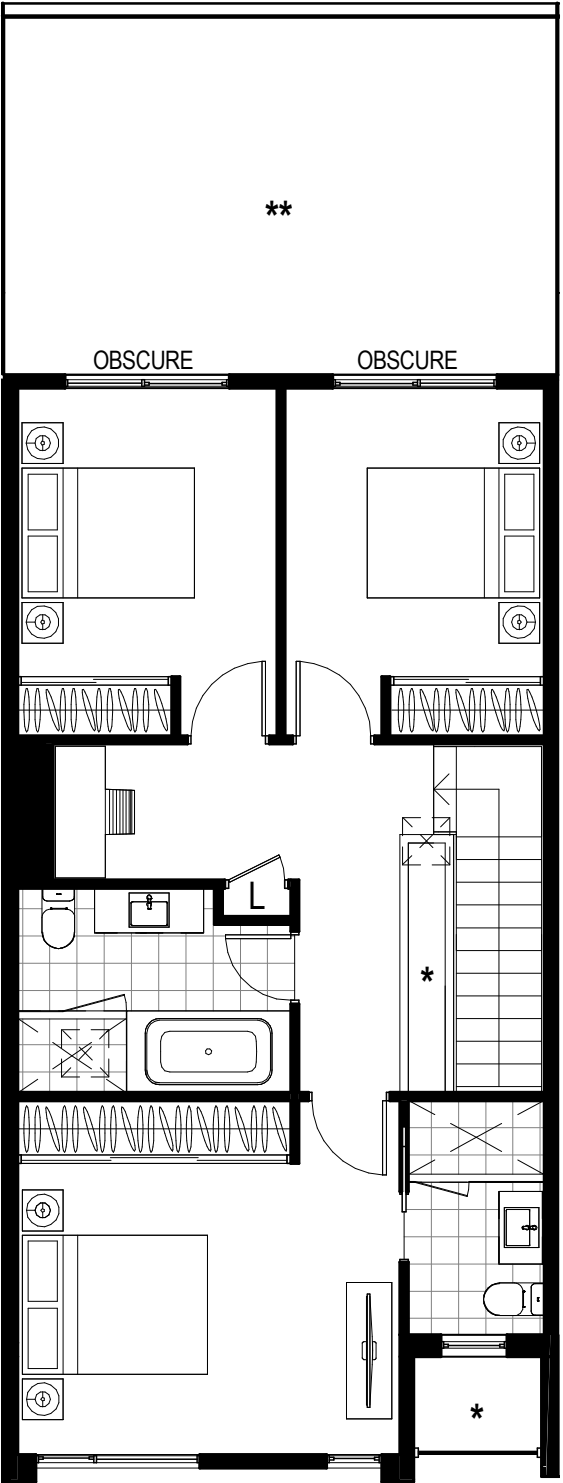
FRONT LOADED 2 STOREY

(Attached, Semi-Detached)

Typical 150m2 Lot



GROUND FLOOR

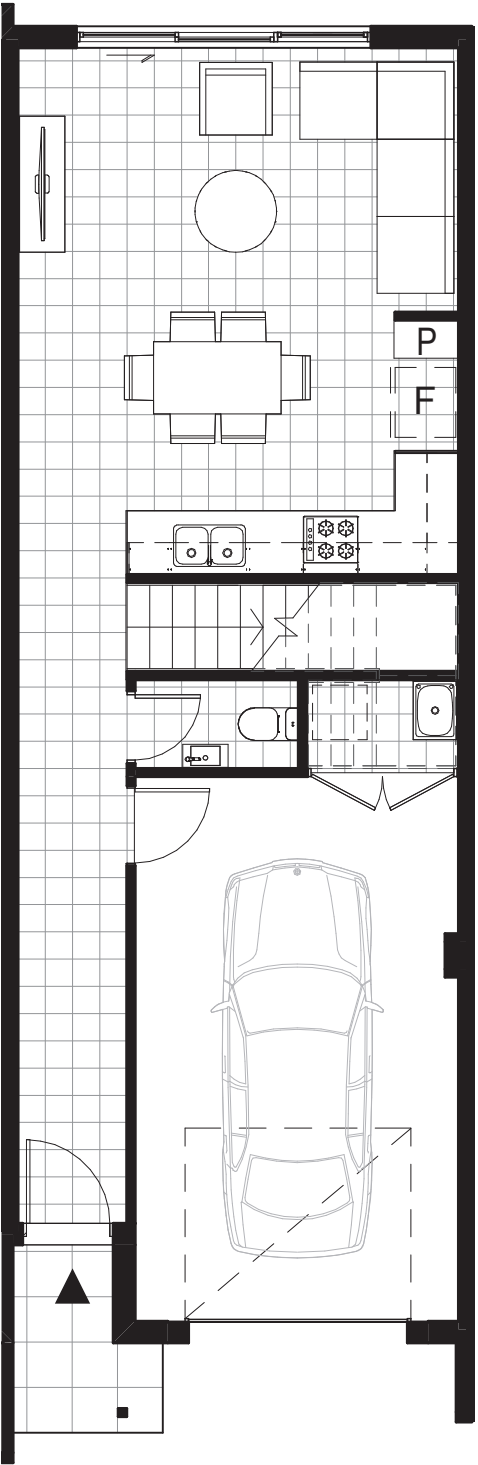
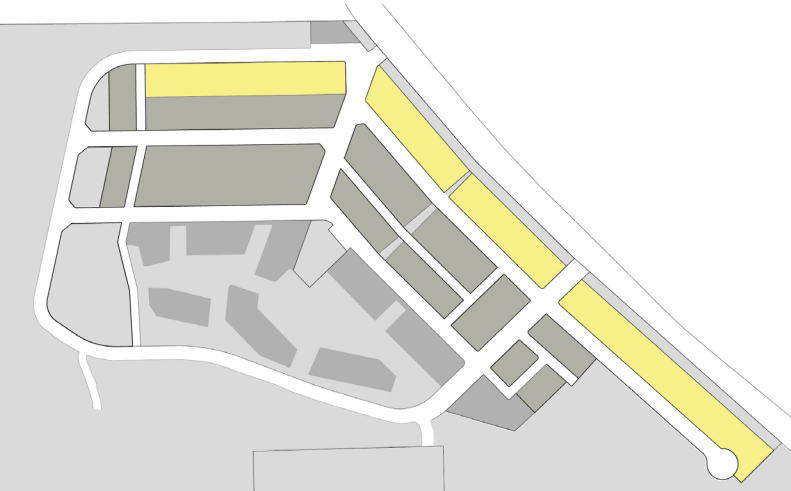


FIRST FLOOR

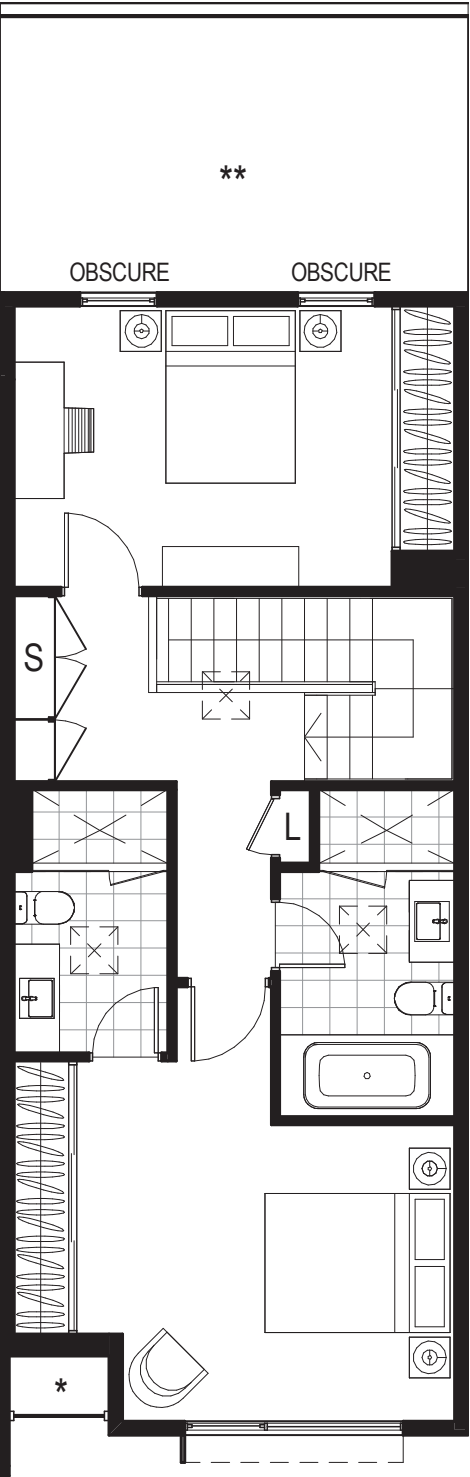
FRONT LOADED 2 STOREY

(Attached, Semi-Detached)

Typical 130m2 Lot



GROUND FLOOR



FIRST FLOOR

FRONT LOADED 2 STOREY

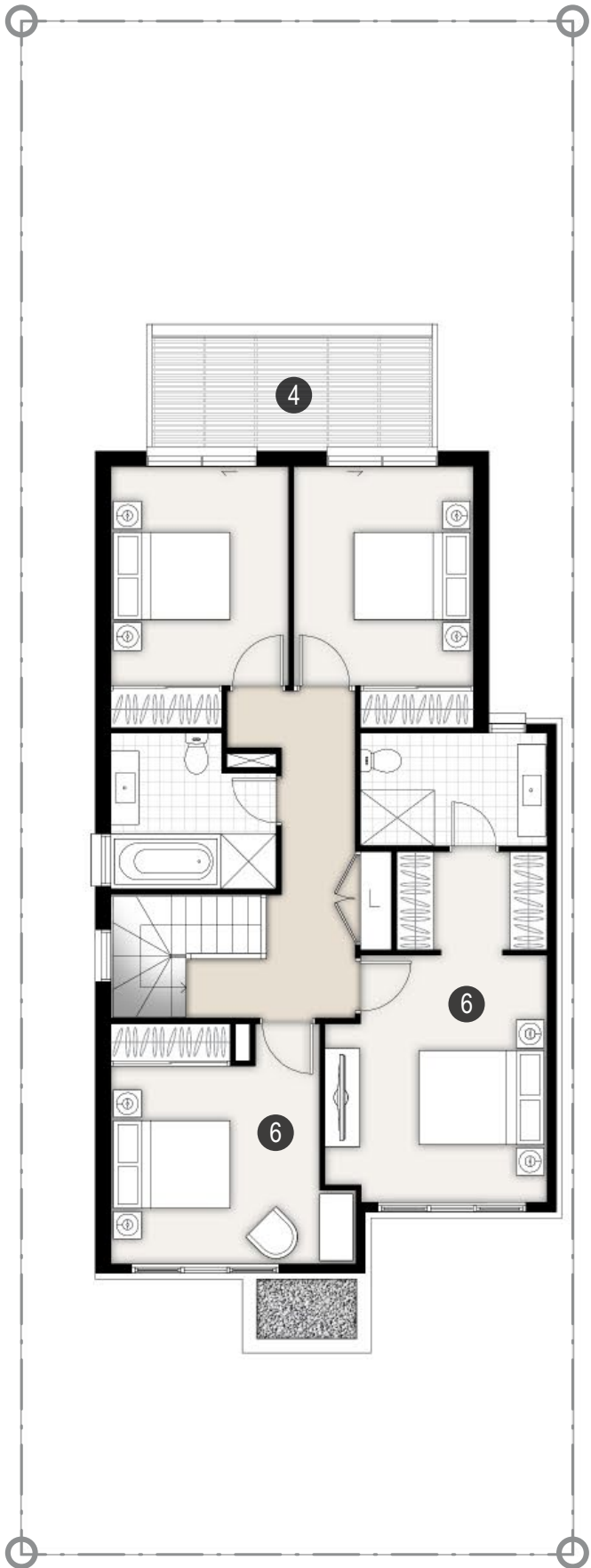
(Detached, Semi-Detached, Attached)

Typical 225m2 Lot

- 1 Generous landscaped front setback
- 2 Private rear yard
- 3 Wide fronted living space with good solar access
- 4 Pergola and privacy screens as required
- 5 Off street parking for two cars
- 6 Generous bedrooms with good cross ventilation and solar access



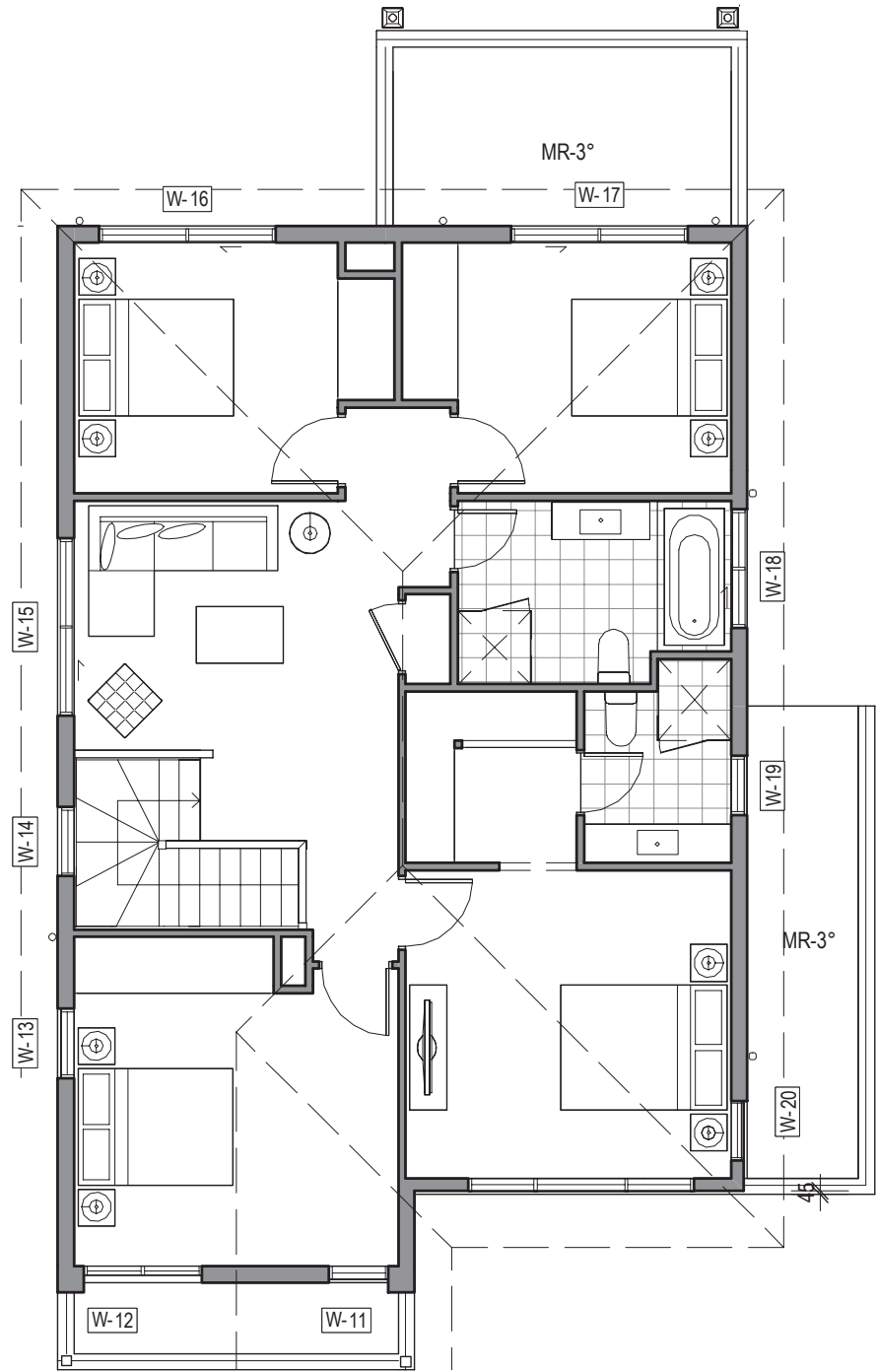
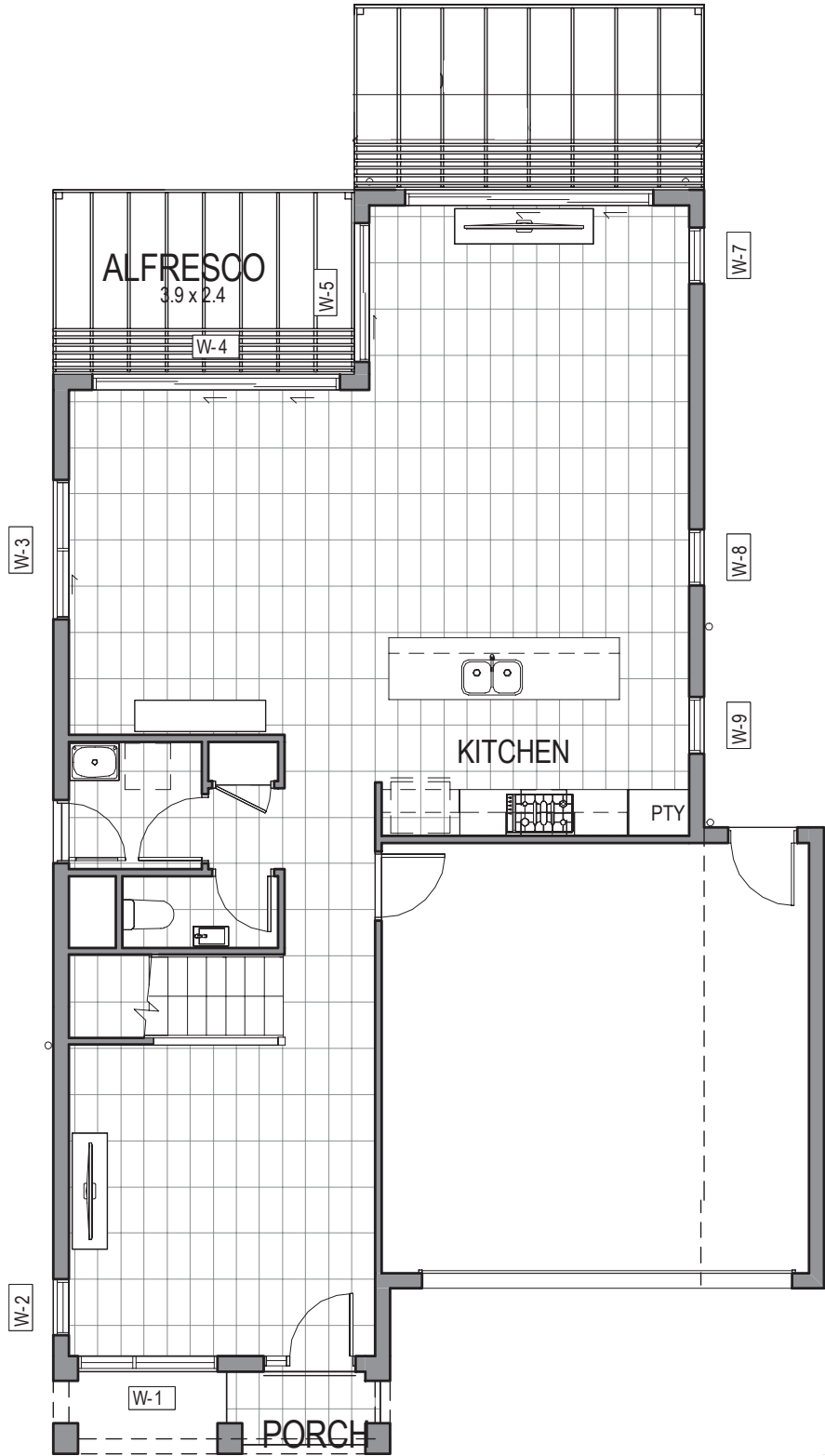
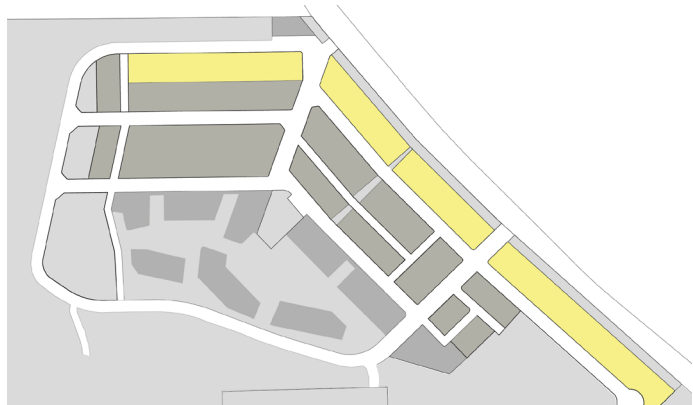
55 Coonara Ave, West Pennant Hills



FRONT LOADED 2 STOREY

(Detached, Semi-Detached, Attached)

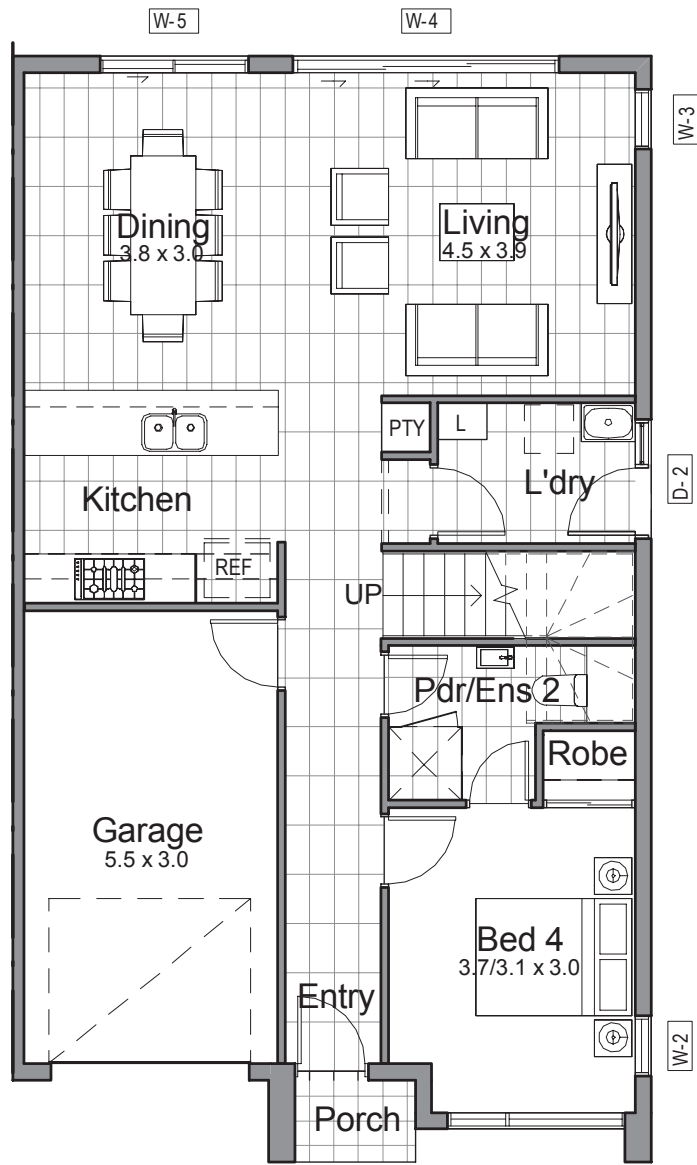
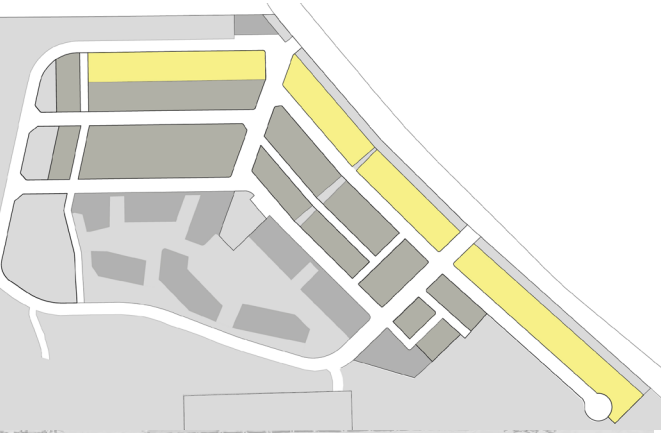
Typical 300m2 Lot



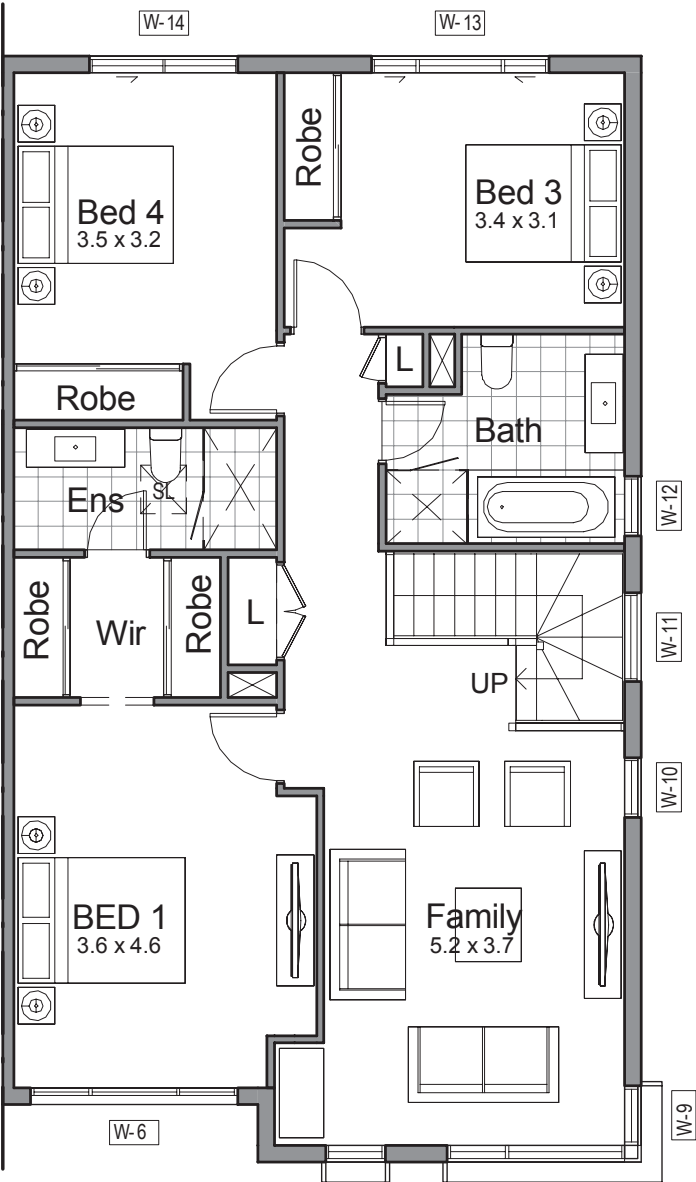
FRONT LOADED 2 STOREY

(Detached, Semi-Detached, Attached)

Typical 180m2 Lot



GROUND FLOOR



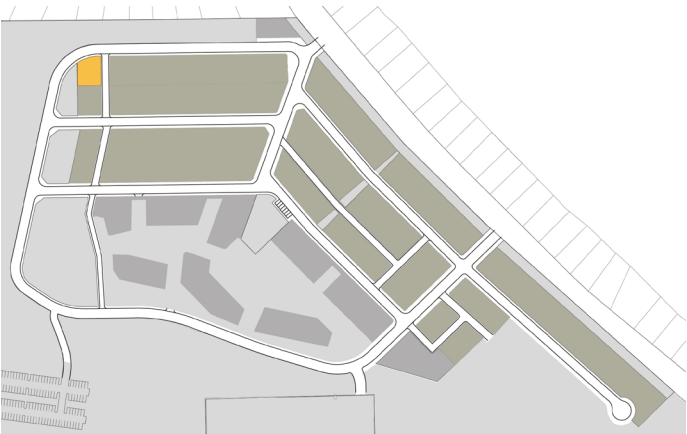
FIRST FLOOR

REAR LOADED 2 STOREY

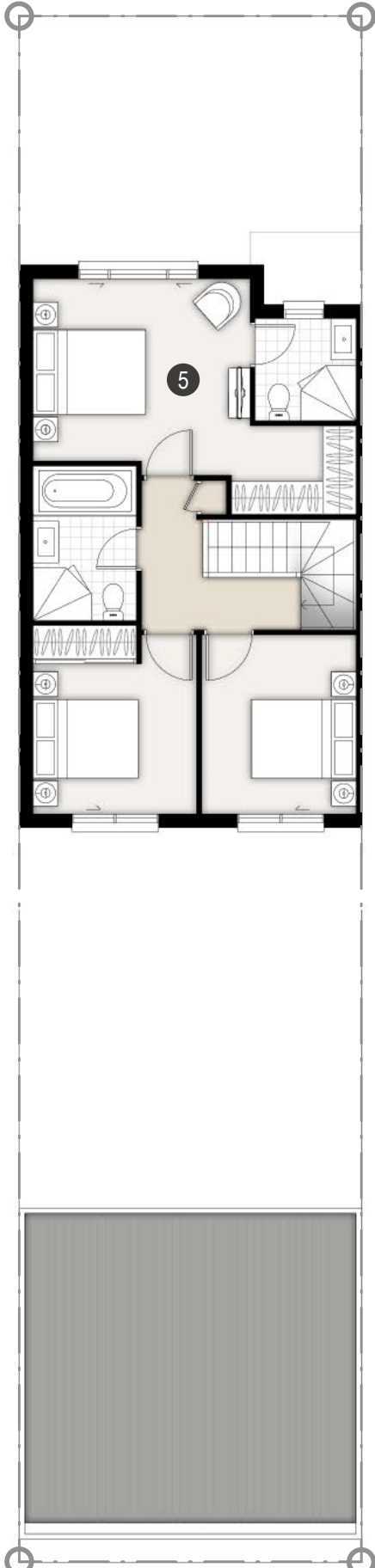
(Detached, Semi-Detached, Attached)

Typical 175m2 Lot

- 1 Generous landscaped front setback
- 2 Private rear yard
- 3 Generous open plan living / dining space providing optimal solar access and cross ventilation
- 4 Off street parking for two cars or extension of private open space
- 5 Generous bedrooms with good cross ventilation and solar access



GROUND FLOOR

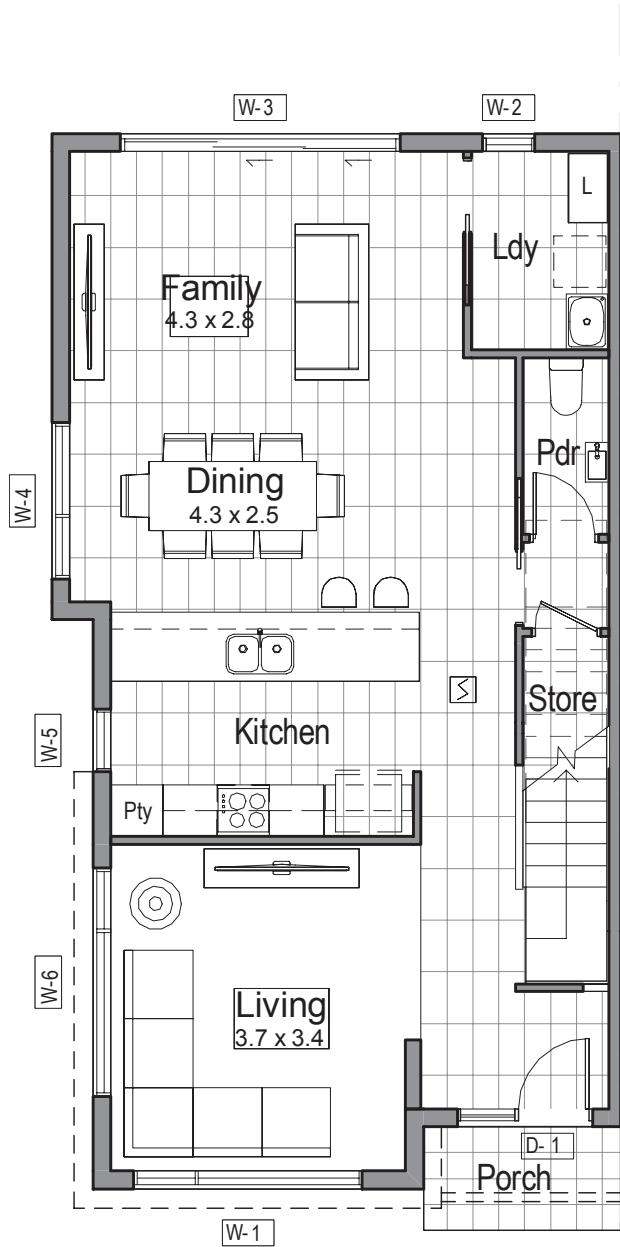
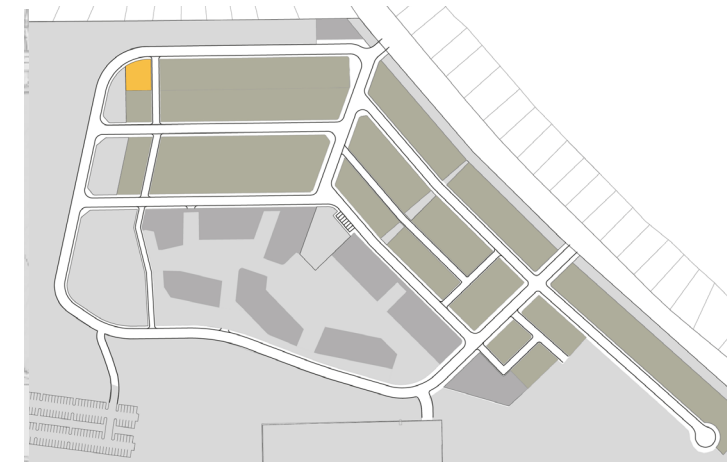


FIRST FLOOR

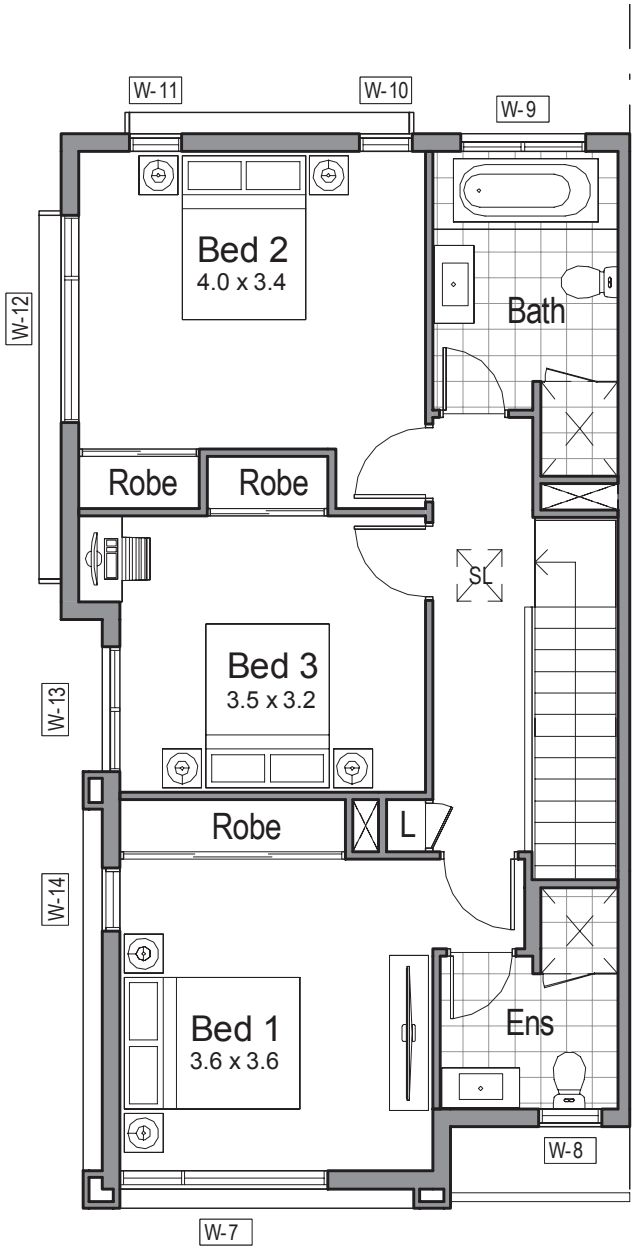
REAR LOADED 2 STOREY

(Attached)

Typical 175m2 Lot



GROUND FLOOR

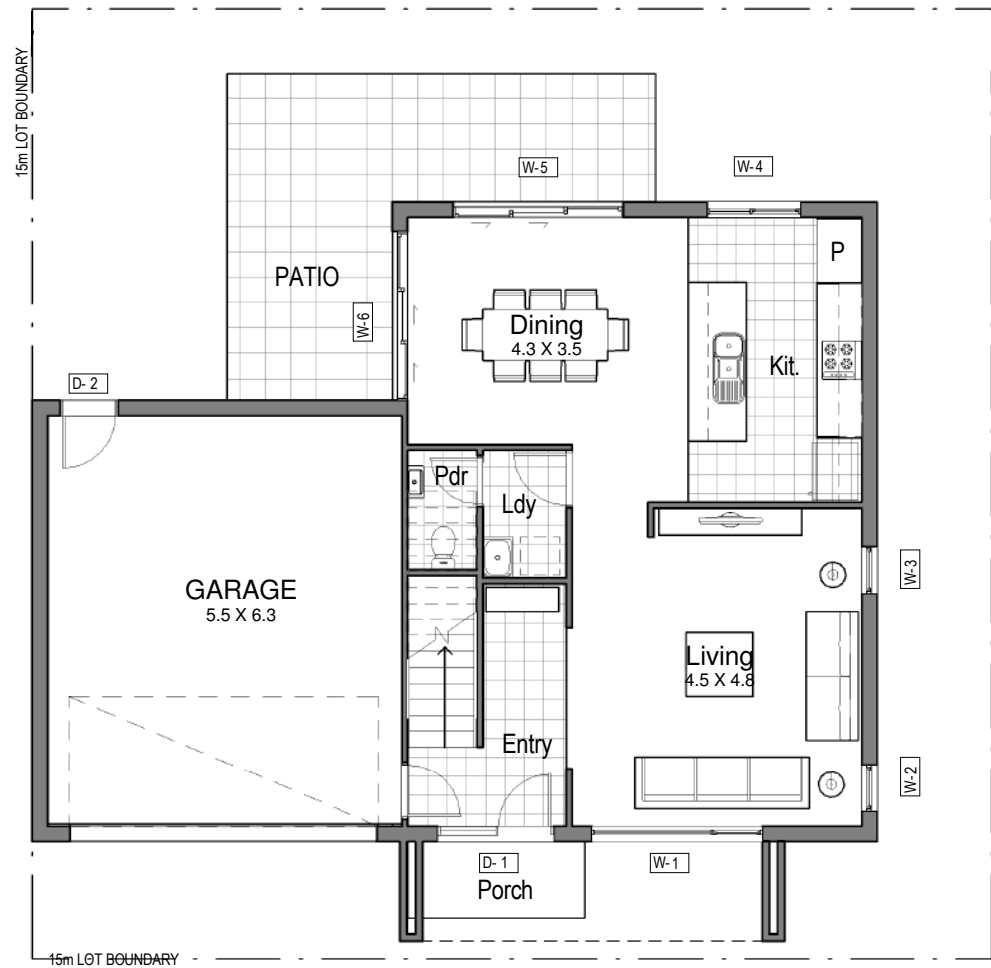
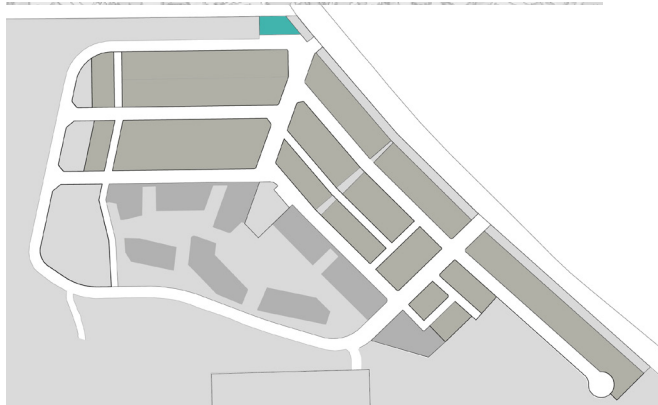


FIRST FLOOR

FRONT LOADED 2 STOREY

(Detached)

Typical 300m2 Lot



GROUND FLOOR



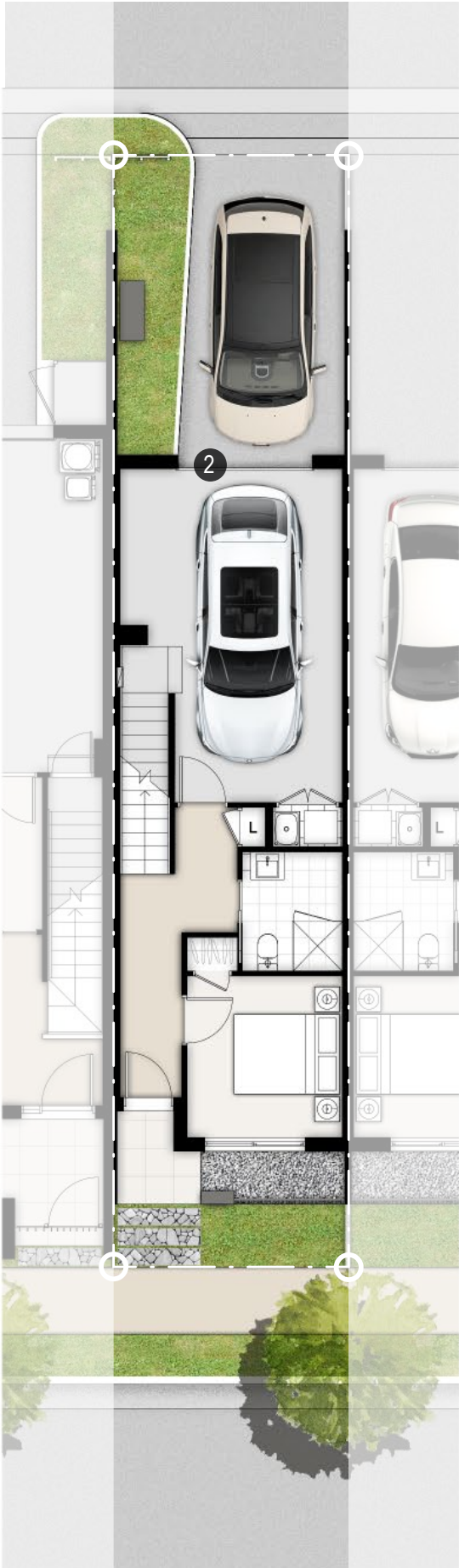
FIRST FLOOR

REAR LOADED 3 STOREY

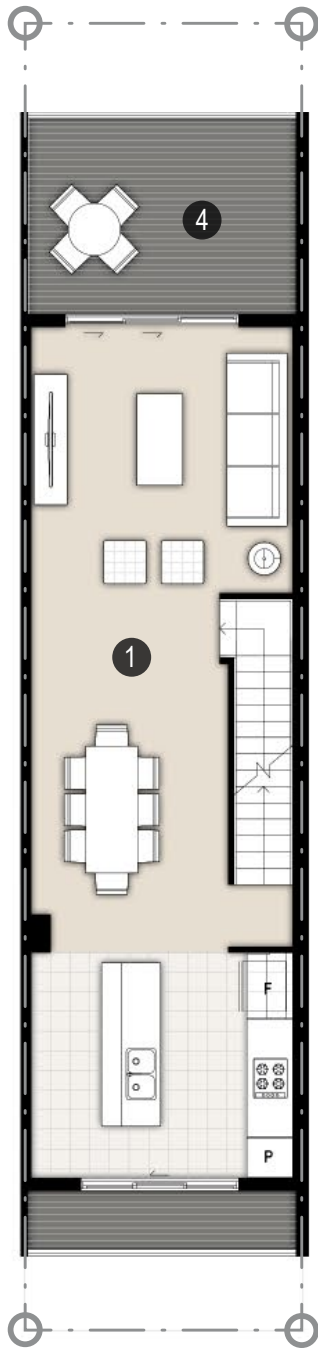
(Attached)

Typical 86m2 Lot

- 1 Generous open plan living / dining space providing optimal solar access and cross ventilation
- 2 Off street parking for two cars
- 3 Generous bedrooms with good cross ventilation and solar access
- 4 Elevated private open space with direct access from primary living space



GROUND FLOOR



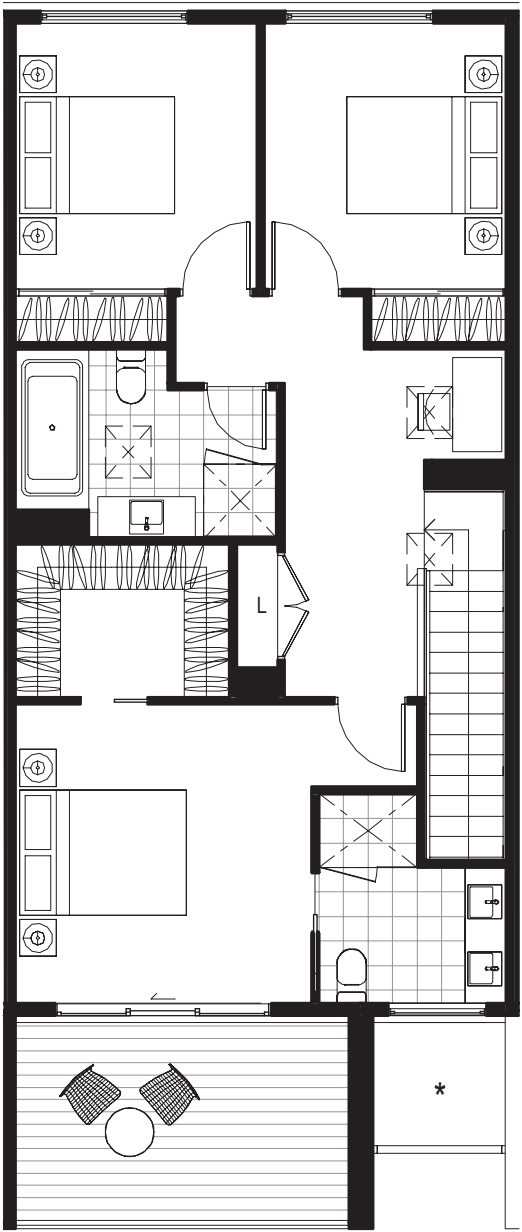
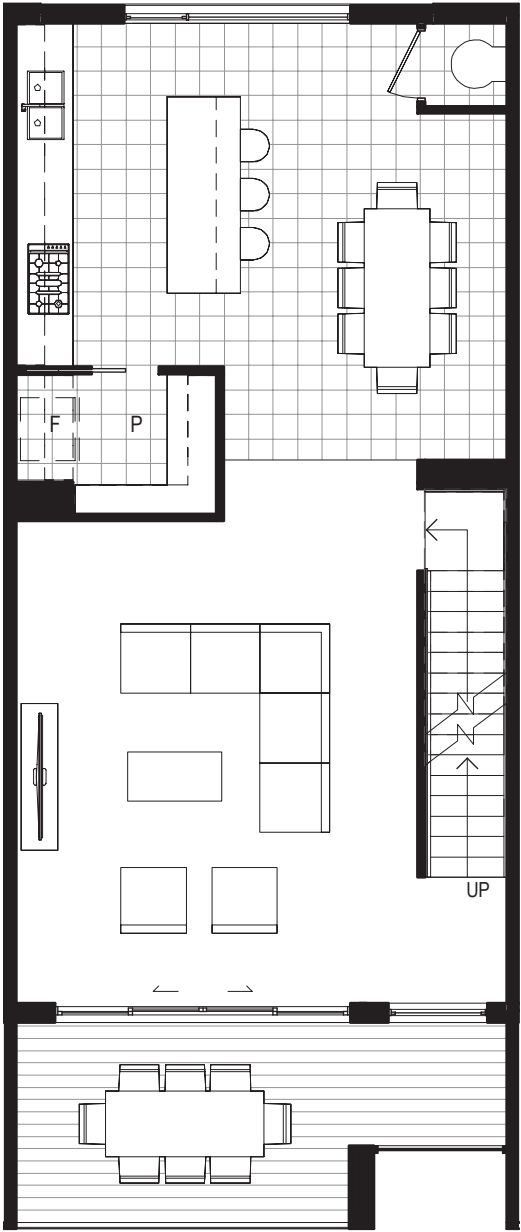
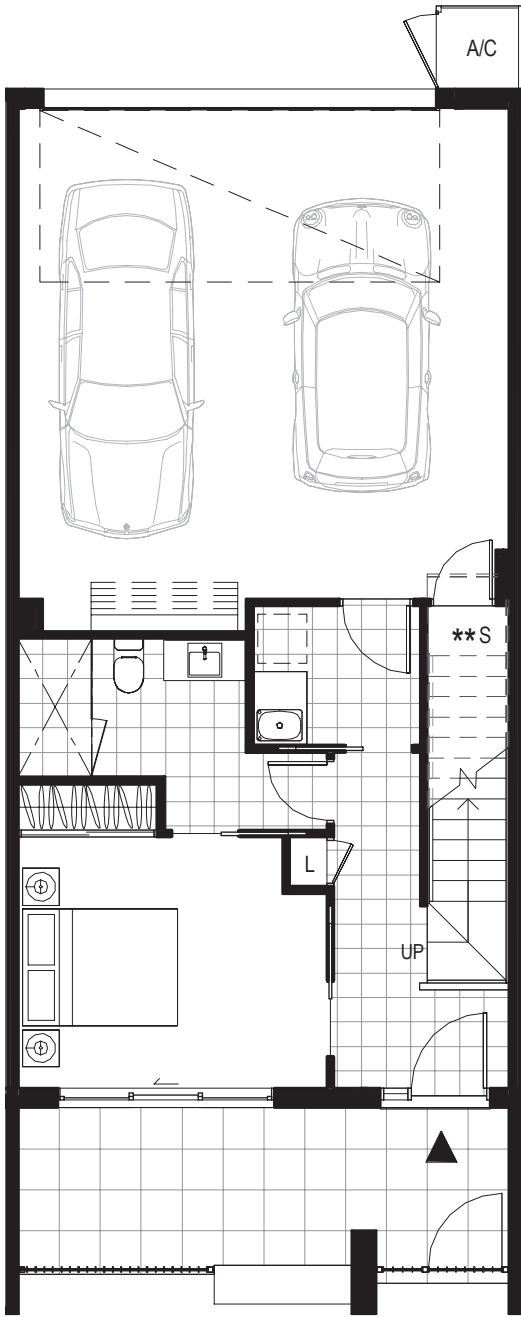
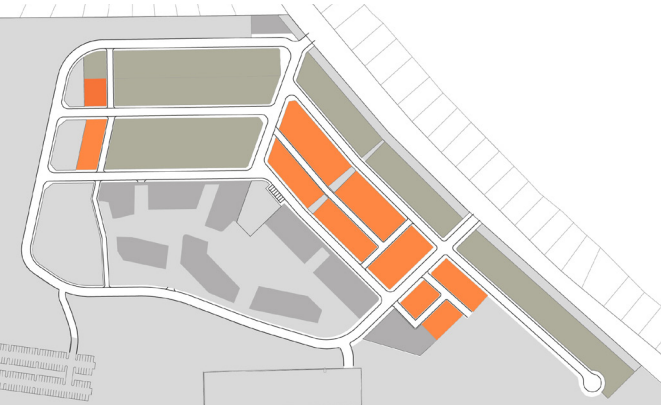
FIRST FLOOR



SECOND FLOOR

REAR LOADED 3 STOREY (Attached)

Typical 126m2 Lot



FRONT LOADED 3 STOREY

(Attached, Semi-Detached)

Typical 215m2 Lot

