

Urban Design & Planning Report for  
Concept Plan Modification 2019

# Bonnyrigg Communities Plus Project

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Project and report	Bonnyrigg Communities Plus Project: Urban Design and Planning Report for Modification to Concept Plan MP06_0046 MOD 5
Job No.	180128.00
Client	NSW Land and Housing Corporation
Document location	\\architectus.local\DFS\Projects\180128.00
Version and date issued	Issue A (Internal draft) - 21/08/18
	Issue B (First draft to client) - 27/08/18
	Issue C (Second draft to client) - 30/08/18
	Issue D (Final issue) - 20/09/2018
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# Contents

01	<b>Introduction</b>	<b>7</b>	04	<b>Summary of Proposed Modifications</b>	<b>33</b>
	1.1 The Site	8		4.1 Land Use	34
	1.2 Local Character	9		4.2 Building Height	35
	1.3 Recent Development	10		4.3 Built Form	36
	1.4 Key Site Elements	11		4.4 Street Setbacks	37
	1.5 Timeline of Concept Plan Approvals	12		4.5 Activation	38
02	<b>Planning Context</b>	<b>15</b>		4.6 Open Space	39
	2.1 State & Premier's Priorities	16		4.7 Access	40
	2.2 Future Directions: Social Housing	16		4.8 Street Network	41
	2.3 Metropolitan Planning Context	16		4.9 Maximum GFA / Number of Dwellings	42
	2.4 Urban Design Policy Context	17	05	<b>Public Open Space Strategy</b>	<b>45</b>
	2.5 Transport Planning & Policy Context	18		5.1 Public Open Space Strategy	46
	2.6 Statutory Planning Context	19		5.2 Bonnyrigg Square	48
	2.7 Local Planning Context	20		5.3 Village Green	50
03	<b>Concept Plan Outline</b>	<b>23</b>		5.4 Community Park	52
	3.1 Design Principles	26		5.5 Junior Play Park	54
	3.2 Structure Plan	28		5.6 Upper Valley Creek Park	56
	3.3 Key Outcomes	29	06	<b>Built Form Testing</b>	<b>59</b>
	3.4 Character Areas	30		6.1 Shadow Studies	60
				6.2 Typical Massing Studies	62
				6.3 NSW Apartment Design Guidelines	64
				6.4 Aerial View of Proposed Modification showing indicative built form	66

The redevelopment of Bonnyrigg Estate will establish an integrated community, enhance safety and security of the area, and improve access to opportunities and services for current and future residents.



# Executive Summary

This report has been prepared to support a Section 75W modification application to the Concept Plan Approval (MP06\_0046) for the remaining stages of the Bonnyrigg Housing Estate.

The Bonnyrigg Housing Estate is an 80-hectare site located in Fairfield in the south west of Sydney. It directly adjoins the Bonnyrigg Town Centre. The Estate was developed in the late 1970s and originally provided 833 social houses and 88 private homes.

The Concept Approval for the redevelopment of the Bonnyrigg Estate was originally approved on 12 January 2009. The redevelopment of Bonnyrigg Estate has been underway since that time, and the Concept Plan Approval has been subject to four modifications to reflect required changes as the site has developed.

The proposed modification seeks to modify the Concept Plan Approval for future stages of the Bonnyrigg Estate to reflect current NSW Government policy in relation to social housing and to meet the increasing demand for social and affordable housing in NSW. This means there is a need to increase the number of dwellings in the remaining stages of the Bonnyrigg Estate redevelopment to meet this demand. Importantly, the proposed modification also seeks to better align the redevelopment of the Bonnyrigg Estate with Council's vision for the Bonnyrigg town centre.

A consolidated Concept Plan has also been prepared which includes guidelines which future development will be assessed against.

## Need for the modification

### *Social Housing Policy*

Since approval of the Bonnyrigg Concept Plan in 2009, the NSW Government has released Future Directions for Social Housing in NSW. Future Directions sets out the Government's vision for the delivery of social housing and provides three strategic priorities:

- More social housing
- More opportunities, support and incentives to avoid and/or leave social housing
- A better social housing experience.

The modification aims to bring the remaining stages of the redevelopment of Bonnyrigg Estate in line with current Government policy in relation to social housing. The proposal will provide for more integrated approach to social housing, aiming to deliver a 70:30 split of private and social housing on the site.

To meet the aims of Future Directions, and to provide more social housing, there is a need to increase dwelling densities in the remaining stages of the Bonnyrigg Estate.

The proposed modification aims to deliver an additional 500 dwellings in the remaining stages of the Bonnyrigg Estate, supported by an increase in the provision of public open space and community facilities and improvements in pedestrian and cycling connectivity to the Bonnyrigg Town Centre.

### *Bonnyrigg Town Centre*

The draft Bonnyrigg Town Centre Draft Development Control Plan 2017 applies to land directly to the west of Bonnyrigg Estate. Given the site's interface and close relationship with the Bonnyrigg Town Centre, there is a need to review the Concept Approval to ensure an integrated approach to development of the Bonnyrigg Estate and Town Centre, that will deliver great outcomes for the future of Bonnyrigg.

The proposed modification seeks to better align the development of the remaining stages of the Bonnyrigg Estate with the vision for the Bonnyrigg Town Centre. This includes the provision of improved pedestrian linkages to the town centre and a built form transition that allows increased densities for more areas within close proximity to the Town Centre.

### **Proposed modification**

To achieve an increase in social housing and better integration with the Bonnyrigg Town Centre the following key modifications to the concept plan approval are proposed:

- **Increased density** – An increase from 2,500 dwellings to 3,000 dwellings. This includes 900 social housing dwellings and 2100 private dwellings. This will ensure no net loss of social housing on the site, with a mix consistent with the NSW's Government's Future Directions for Social Housing Policy.

- **Greater housing choice and diversity** – To achieve an increase in housing there is a need to increase the range of the housing types and distribution of density within the remaining stages of Bonnyrigg Estate. An increase in the number of apartments and mixed-use buildings, between 4 and 6 storeys, are proposed in areas close to the Bonnyrigg Town Centre.
- **Enhanced open space network** – An increase in the amount of public open space from 12.13 ha to 13.04 ha is proposed, including improved connections for pedestrians to the town centre via a new public plaza.
- **Enhanced activation of key streets** - The proposed modification provides for an active ground floor frontage in key areas adjacent to Bonnyrigg Town Centre, consistent with the intended outcomes included in the Bonnyrigg Town Centre Draft DCP.
- **Improved local road network** – The proposed road network has been simplified to improve connections for pedestrians and cyclist to the Bonnyrigg Town Centre and within the Bonnyrigg Estate. The local road network has been revised to remove dead ends and cul-de-sacs where possible, and introduce additional through site links to improve pedestrian connections and walkability throughout Bonnyrigg Estate

The proposed modification applies to future stages of the Bonnyrigg Estate redevelopment and does not apply to stages of the Bonnyrigg Estate redevelopment already complete or under construction.



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# 01 Introduction

## 1.1 The Site

Bonnyrigg Estate ('subject site') is an 80 ha area located within the Fairfield LGA in the south west of Sydney. The housing estate was developed in the late 1970s and originally provided 833 social houses and 88 private homes.

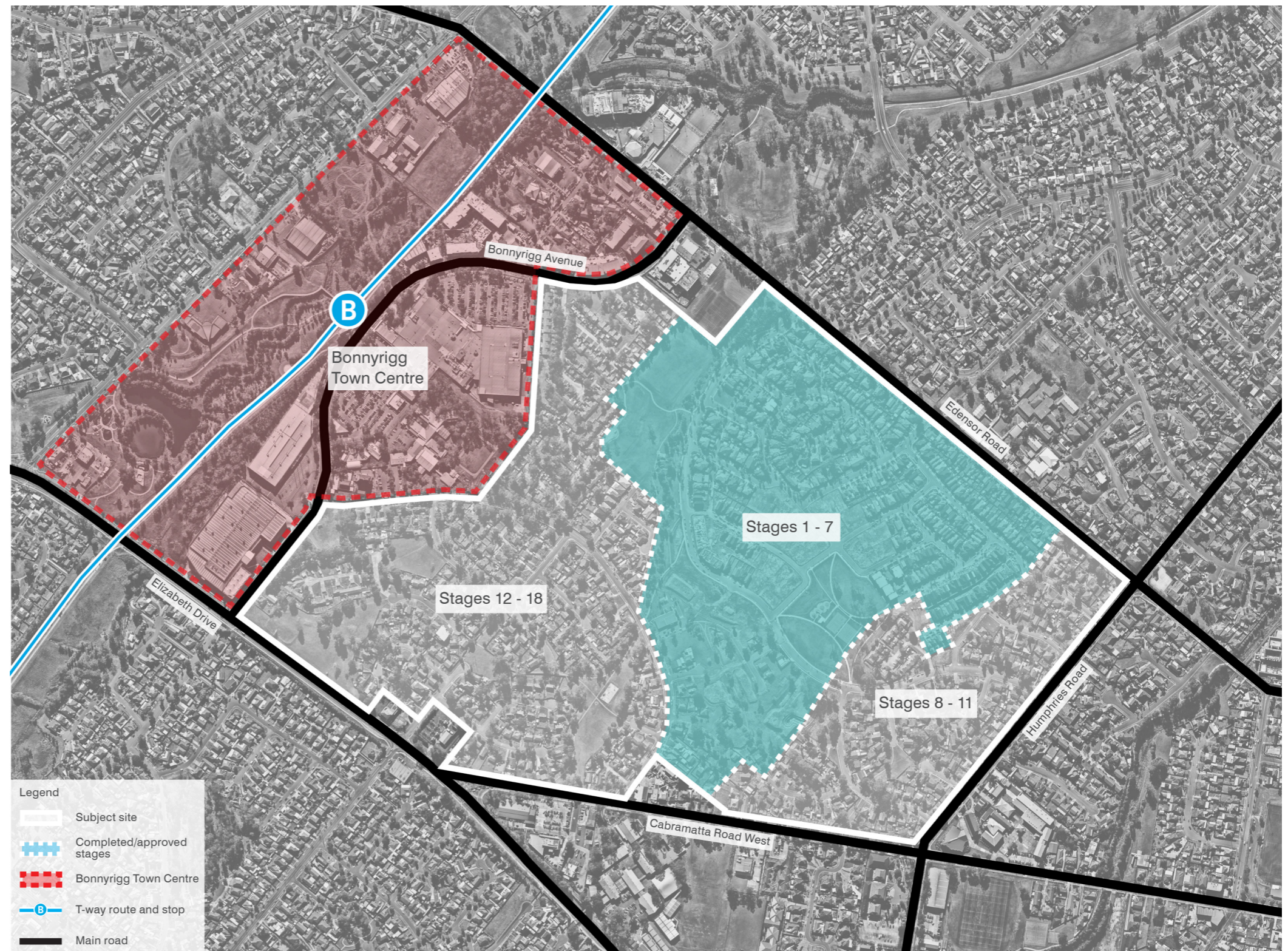
The site is subject to the Bonnyrigg Masterplan Concept Plan Approval and resulting structure plan, which aims to improve safety, replace aging social housing stock with a mix of new social and private homes, and improve access to public transport and surrounding areas.

The Concept Plan is being delivered in stages, with Stages 1 - 7 already completed/approved. The proposed modification relates to the remaining areas of the site:

- Stages 8 - 11 in the east of the site, alongside Humphries Road
- Stages 12 - 18 in the west if the site adjacent to Bonnyrigg Town Centre.

Bonnyrigg Town Centre features an array of community facilities, retail services, local shops and places of worship. Recent commercial and mixed use developments have changed the urban landscape of Bonnyrigg Avenue within the Town Centre.

The site is accessible by bus services that run along the Parramatta-Liverpool Transit Way, stopping at the Bonnyrigg T-way station within the Town Centre. The T-way services are frequent (10 minute frequency throughout weekdays) and connect Bonnyrigg with key regional centres (Liverpool, Parramatta) and other local areas featuring schools, TAFE campuses, and retail services (Parramatta and Miller). The T-way station is also utilised by 9 other local bus routes connecting the Bonnyrigg with surrounding residential areas.



Bonnyrigg Estate in context of Bonnyrigg Town Centre and T-way. Source: Nearmap, annotations by Architectus.

## 1.2 Local Character

### 1.2.1 Bonnyrigg Estate

The existing areas of Bonnyrigg Estate are low density residential neighbourhoods designed under the Radburn Model. Dwellings are connected via a network of open spaces that are generally separated from the street network, segregating pedestrian and vehicular movement. This has resulted in a lack of passive street surveillance, safety issues and poorly cared for streets and public open spaces. There are also a number of existing private dwellings scattered throughout the undeveloped areas.



Existing private dwellings - Louise Place



Typical streetscape with little built form interface - Corlette Way



Existing detached dwelling typology - Upton Place

### 1.2.2 Completed/Approved Stages 1 - 7

The approved/completed stages of Bonnyrigg Estate are low-medium density residential areas, featuring a mix of two storey detached dwellings, duplexes and manor homes, as well as three storey garden apartments. Greater densities are achieved through a tighter lot pattern and a substantial site coverage, with many dwellings applying a zero side setback. A consistent design approach ensures social and private dwellings are integrated with the streetscape. New streets have been generously vegetated to enhance pedestrian amenity, while new parks have been designed to provide large usable spaces.



View over Bonnyrigg Estate - Bunker Park precinct



Typical streetscape - Hickory Road



Two storey detached dwellings - Hickory Road

### 1.2.3 Bonnyrigg Town Centre

Bonnyrigg Town Centre is the retail, civic and cultural core of the greater Bonnyrigg area. The focal point of the Town Centre is Bonnyrigg Plaza, which is home to a library, community centre and supermarket. Although a vibrant retail centre, access to Bonnyrigg Plaza is car oriented with substantial at-grade car parking, limited through site links and lack of street activation. The Centre is already seeing some change with high density shop top housing developments emerging in recent years.



Vibrant retail centre - Bonnyrigg Plaza



External facade with poor street interface - Bonnyrigg Plaza



6 storey shop top housing development - Bonnyrigg Avenue

### 1.3 Recent Development

#### 1.3.1 Bonnyrigg Estate

Since the original concept approval in 2009, a total of seven stages have progressed through the detailed DA stage. Most recently, the Sydney Western City Planning Panel approved Stages 6A and 7 in July 2018 for residential subdivision and the construction of 161 dwellings.

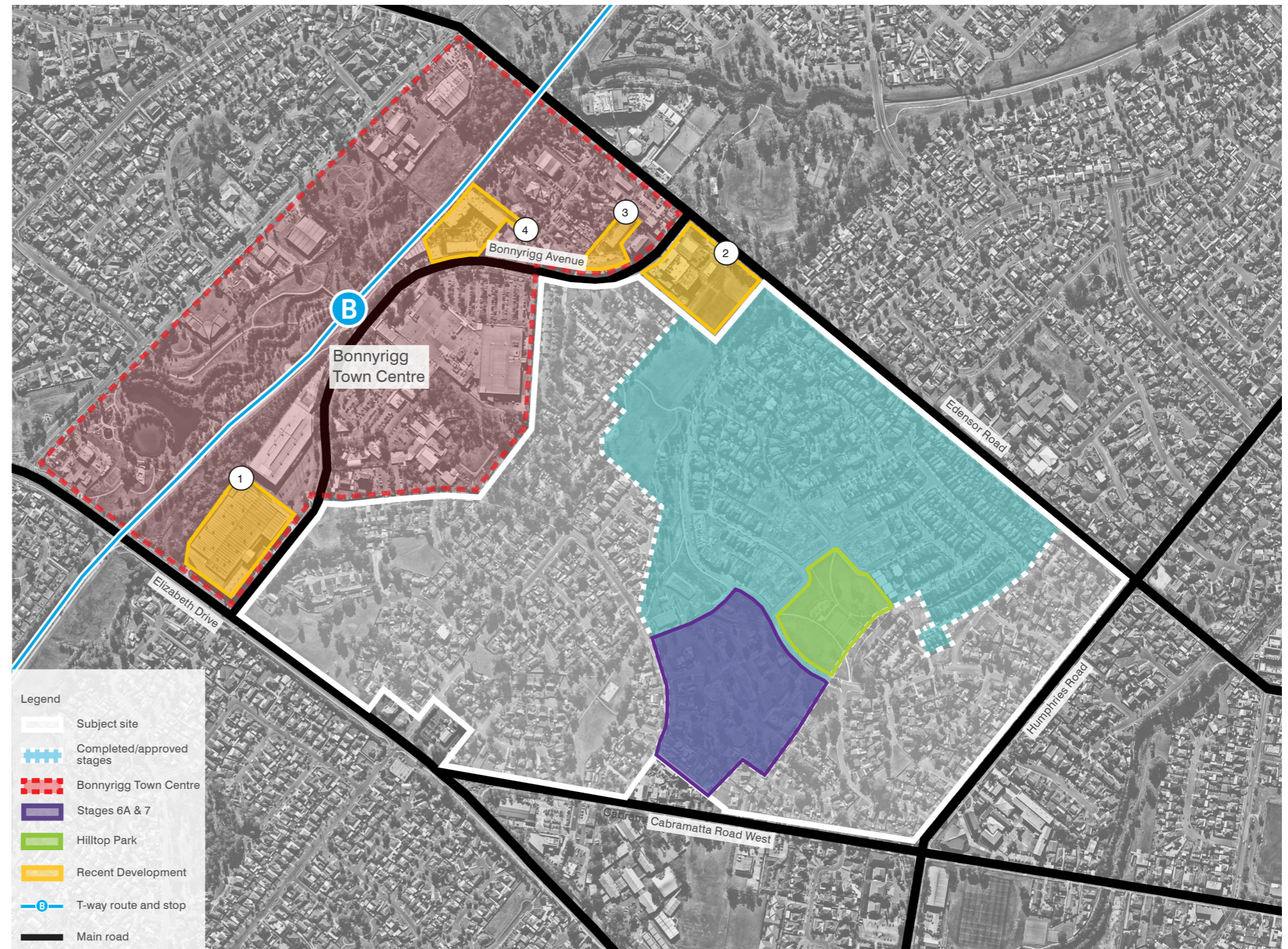
Hilltop Park, located within Stage 5A, has recently opened to the public. At approximately 2.5 ha, the park is a key open space, providing a basket ball court, play equipment, grassed fields and district views across Bonnyrigg.

#### 1.3.2 Bonnyrigg Town Centre

There has been recent development within Bonnyrigg Town Centre, ranging from shop top housing developments to big box commercial premises. The following developments are either under constructed or recently completed:

- ① **Bunnings (1 Bonnyrigg Avenue):** 15,497 sqm total retail GFA
- ② **Croatian Sports Club development (130 Edensor Park):** new club facilities, including at-grade car park at the rear of the site
- ③ **Shop top housing (51 Bonnyrigg Avenue):** 5 storey mixed use building with ground floor retail and 34 dwellings
- ④ **Shop top housing (37-41 Bonnyrigg Avenue):** 6 storey mixed use development with 135 dwellings

A planning proposal is currently under assessment by the DPE to amend the land zoning and maximum building heights across Bonnyrigg Town Centre. This is discussed in further detail in Chapter 2.



Location of recent development in the area. Source: Nearmap, annotations by Architectus.

## 1.4 Key Site Elements

The site features key elements that present opportunities and constraints for further development. The proposed modification has considered the following key site elements:

### 1. Fragmented Land Ownership

Fragmented land ownership across the site limits modifications to the existing Radburn street layout. An improved street layout will need to take into account the location of individual private lots to ensure existing built form is integrated into the desired future character of Bonnyrigg Estate. Private landholdings will not be subject to the proposed modifications and concept plan.

### 2. Surrounding Major Roads

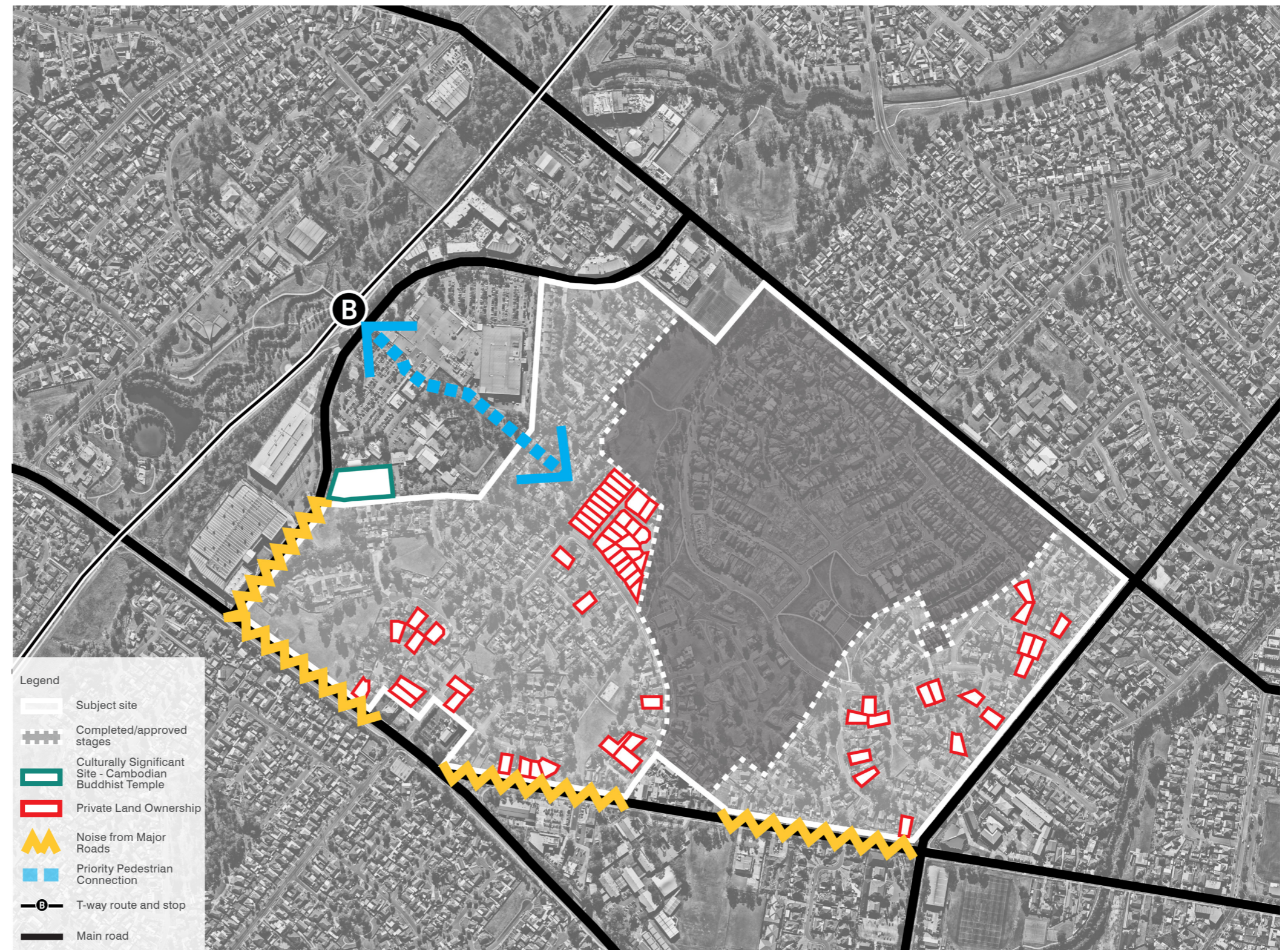
Vehicular traffic along major roads (Bonnyrigg Avenue, Elizabeth Drive and Cabramatta Road) aggravates noise impacts on adjoining properties. Future development adjacent to these roads should be setback with appropriate acoustic treatment to enhance residential amenity.

### 3. Culturally Significant Sites

There are a number of temples, mosques and churches in the vicinity of the site that are culturally and religiously significant to local populations. The modification should aim to protect the heritage and view corridors to culturally significant sites by applying appropriate built form and scale in adjoining areas.

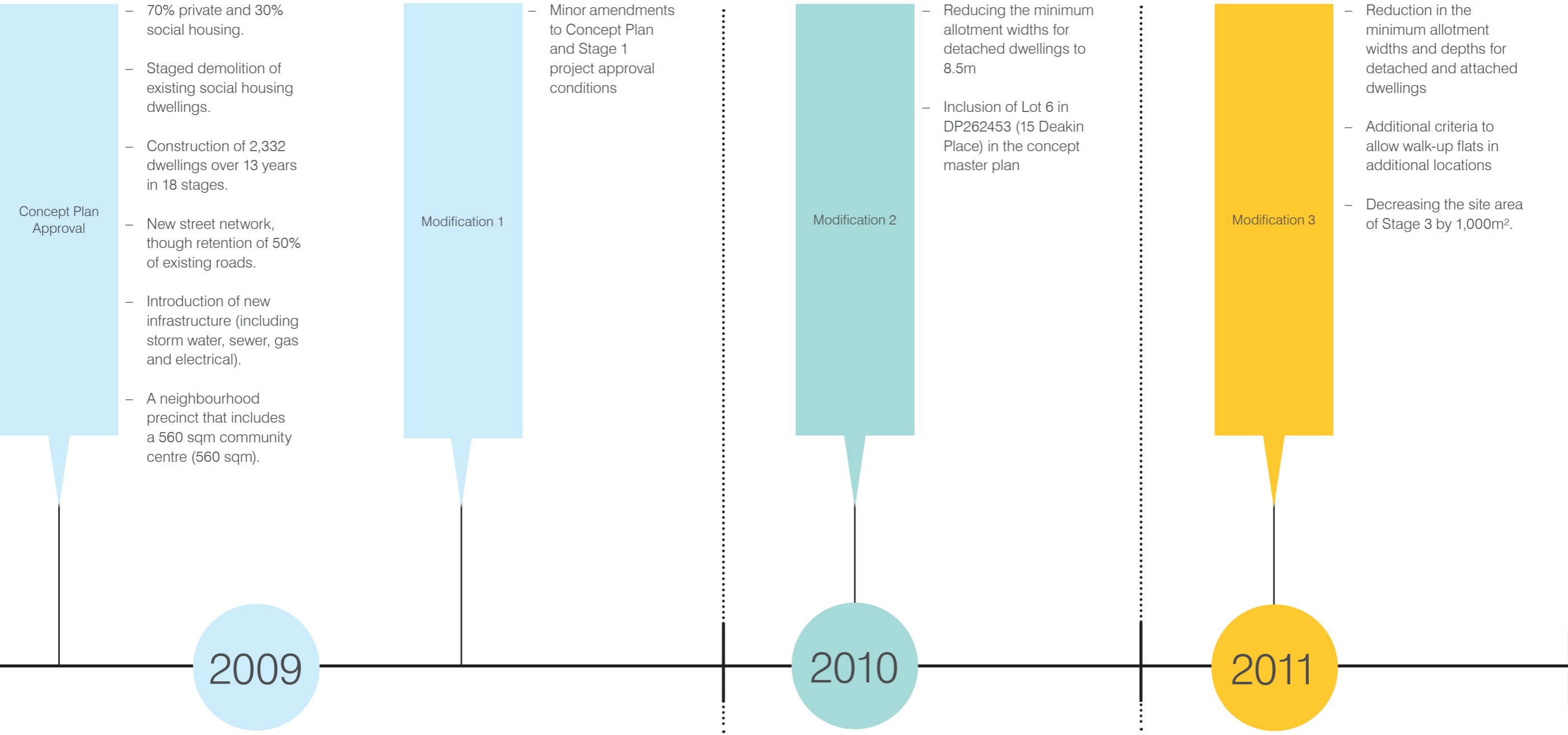
### 4. Pedestrian Desire Lines

There is a strong pedestrian desire line linking the site, Bonnyrigg Plaza and T-way station. The most direct and logical path is a pedestrian connection through the rear of Bonnyrigg Plaza, as identified by the Draft Bonnyrigg Town Centre DCP. The modification should aim to protect and build on this pedestrian desire line by ensuring the future pedestrian network integrates this important connection.

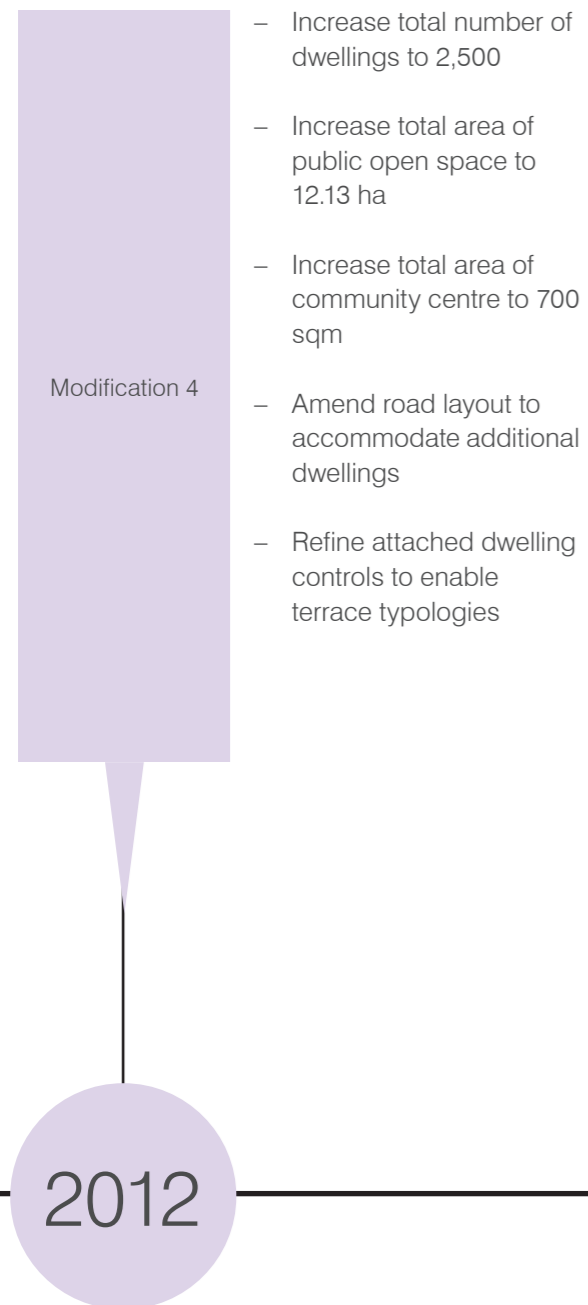


Key site elements of Bonnyrigg Estate. Source: Nearmap, annotations by Architectus.

# 1.5 Timeline of Concept Plan Approvals



## Timeline of Concept Plan Approvals



Current Concept Plan Approval (MP 06\_0046 MOD 4) Structure Plan. Source: Urbis & Nearmap; annotations by Architectus.





## 02 Planning Context

## 2.1 State & Premier's Priorities

### 2.1.1 NSW State Priorities

The NSW Government has 18 state priorities, relating to growing the budget and economy, building infrastructure, protecting the vulnerable, improved services and safer communities. Key priorities relevant to the site include:

- *Building Infrastructure: Increase Housing Supply Across NSW*  
A key priority is to deliver more than 50,000 approvals every year to improve housing supply and put downward pressure on prices. The proposed modification will help achieve this aim by increasing housing supply and creating more diverse housing options.
- *Protecting the Vulnerable: Creating Sustainable Social Housing*  
The NSW Government recognises the need to address the growing demand for social housing as it provides a sustainable safety net to the most vulnerable. The proposed modification will increase social housing and will support this goal.

### 2.1.2 Premier's Priorities

There are 12 NSW Premier's Priorities which reflect the State's commitment and holistic approach to addressing important issues affecting the people of NSW. The key priority relevant to the site is:

- *Making Housing More Affordable:*  
The NSW Premier recognises the effects of rising prices and lack of housing availability on home ownership. Consequently, increasing housing stock by 61,000 dwellings per annum in NSW has become a key priority to address this issue. The proposed modification will provide a mix of private and social housing on site, with the proposed diverse housing typologies responsive to both affordability, local character and demographic trends.

## 2.2 Future Directions: Social Housing

Throughout NSW, and particularly Sydney, demand for social housing is increasing, with a waiting list which has now reached 60,000 households. The site offers an excellent opportunity to provide new social housing in a highly accessible and well-serviced location.

The NSW Government's *Future Directions for Social Housing in NSW* sets out the vision for social housing over the next 10 years and establishes strategic priorities, including:

- Deliver more housing and a better social housing experience, with better quality social housing and improved social outcomes.
- Develop new mixed communities where social housing blends in with private and affordable housing, with better access to transport and employment, improved community facilities and open spaces.
- Partner with the private and not for profit sectors to fast track the redevelopment of sites in metropolitan Sydney and regional NSW

Supporting these objectives, *Action 1.1 in Future Directions*, is to 'Increase redevelopment of Land and Housing Corporation properties to renew and grow supply'. This provides a clear directive and strategic justification for the NSW Government to redevelop land to deliver increased social housing.

Additionally, *Action 3.4* supports 'A "place making" approach to building communities', with the NSW Government gradually introducing holistic Place Plans for concentrated housing estates to achieve safer communities with positive identities. The proposed modification reinforces a positive identity for the site through the provision of community facilities, quality open spaces and key activation precincts, and is therefore consistent with this Action 3.4's intentions.

## 2.3 Metropolitan Planning Context

### 2.3.1 Greater Sydney Region Plan

The Greater Sydney Commission released the *Greater Sydney Region Plan 2056 'A metropolis of three cities – connecting people'*, in March 2018. The Plan is a broad vision for the next 40 years, based on a global metropolis of three-cities: an Eastern Harbour City, a Central River City and a Western Parkland City.

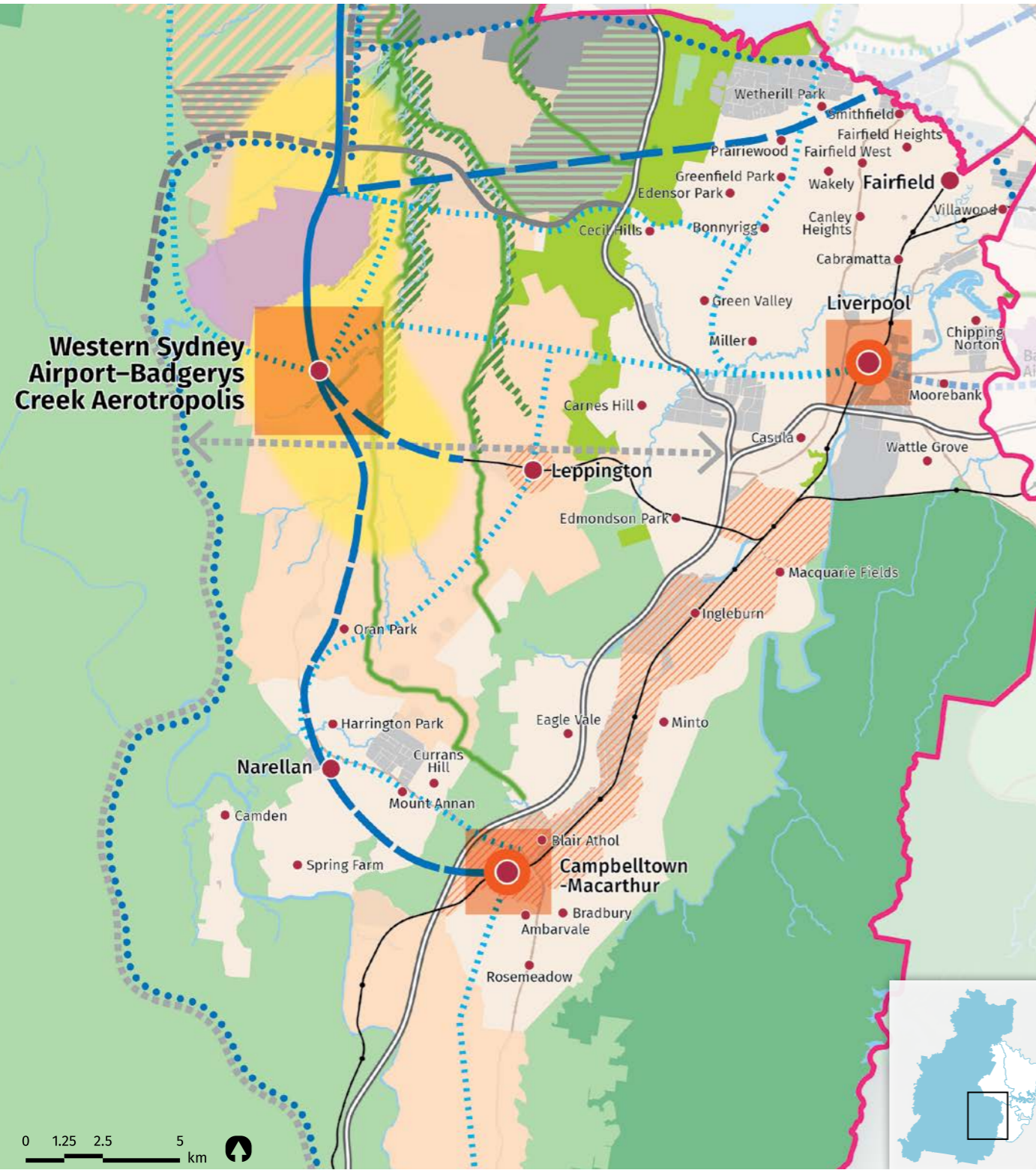
The overarching aim of the Plan is a 30-minute city, where most people can travel to their nearest metropolitan city centre or strategic centre by public transport within 30 minutes. The site is accessible to the Bonnyrigg T-way station, located within the adjacent town centre, which has frequent bus services to Liverpool (identified in the Plan as a major health and education precinct) and Parramatta (the Metropolitan centre and commercial anchor of the Central River City). Both of these centres can be reached within 30 minutes from the T-way station by way of bus route T80.

A key objective of the Plan is to increase the supply of housing, particularly with more diverse and affordable options. Renewing and increasing social housing is of critical importance, that will provide a diversity of housing outcomes across Greater Sydney.

Additionally, the Plan sets out strategies to enhance the health, resilience and social connection of communities by prioritising walk-able places at a human scale, street activation and active transport opportunities. The proposed modification strengthens pedestrian links throughout and beyond the site while delivering dynamic commercial precincts that respond to the civic and commercial character of Bonnyrigg Town Centre.

The Plan recognises the role of NSW LAHC, in delivering increased social housing. The subject site, being located adjacent to Bonnyrigg Town Centre, is supported by excellent transport, open space, employment, and community uses and provides an opportunity to deliver new social housing.

Metropolitan Planning Context



Western City District Plan. Source: Greater Sydney Commission.

2.3.2 Western City District Plan

The *Western City District Plan*, released by the Greater Sydney Commission in March 2018, is a 20 year plan that guides the implementation of the *Greater Sydney Region Plan* across the Western City District. The Plan sets out planning priorities and actions for the Western District and is intended to inform local environmental plans as well as local strategic policies and plans.

The Plan identifies Bonnyrigg as a local centre. Local centres are highly accessible, provide important links to strategic centres, and will be increasingly supported by residential development. A key objective is to increase residential development in, or within walking distance of local centres.

The District Plan, under *Planning Priority W6*, details principles for local centres based on their role within the district, including:

- Provide public realm and open space focus;
- Provide, increase or improve local infrastructure and open spaces;
- Improve walking, cycling and public transport connections, including through the Greater Sydney Green Grid;
- Protect or expand retail and or/commercial floor space; and
- Increase residential development in, or within a walkable distance (10 minutes) of, the centre.

The proposed modifications will increase the total area of public open space across the site to 13.04 ha and enhance pedestrian movement throughout the development with an improved road network. In addition to an increase of dwelling density by the town centre and T-way station, provisions for retail and commercial uses have been strategically located adjacent to the existing town centre.

2.4 Urban Design Policy Context

2.4.1 Better Placed - an integrated design policy for the built environment of NSW

NSW Government Architect's *Better Placed Integrated Design Policy* seeks to capture the aspiration and expectations of public places that support work, recreation and social connectivity. It creates a clear approach to ensure good design delivers quality architecture, public spaces and built environments now and in the future. The Policy presents seven distinct objectives that define key considerations in the design of the built environment, including:

1. Better fit – contextual, local and of its place
2. Better Performance – sustainable, adaptable and durable
3. Better Community – inclusive, connected, diverse
4. Better for People – safe, comfortable and liveable
5. Better Working – functional, efficient and fit for purpose
6. Better Value creating and value adding
7. Better look and feel engaging, inviting and attractive

The proposed modification strengthens the desired outcomes of these objectives by refining the road network to improve pedestrian and cycle connections around the site and beyond to Bonnyrigg Town Centre, providing a diverse range of public open spaces that enables interactive and passive uses, and enhancing the safety of the community by improving built form interface with streets and open spaces. The proposed modification will provide a significant improvement to the existing urban structure and experience of Bonnyrigg.

2.4.2 Crime Prevention through Environmental Design (CPTED) Principles

The Crime Prevention and the Assessment of Development Applications published by NSW Police details CPTED principles to increase surveillance, manage access control, increase territorial enforcement and reinforce space management. The consolidated Concept Plan includes objectives and controls to ensure that future development achieves CPTED principles.

## 2.5 Transport Planning & Policy Context

### 2.5.1 Future Transport 2056 Strategy

Developed by the NSW Government, the *Future Transport 2056 Strategy* sets the vision, directions and outcomes for NSW's transport investment and planning over next 40 years. The Strategy identifies the importance of an integrative approach to transport planning to facilitate the delivery of liveable communities, a productive economy and a sustainable society. A key principle of the Strategy is to strengthen the role of transport gateways in order to connect people, jobs, goods and services in cities and regions across NSW.

The Strategy identifies Bonnyrigg as being located along a *city-shaping corridor* which, at present, is anchored by the Parramatta-Liverpool T-way. City-shaping corridors are characterised by frequent public transport services and high densities, linking residents with employment and services in metropolitan centres.

Significantly, the Strategy envisions an expansion of this city-shaping corridor, linking Bonnyrigg with Blacktown and the proposed Western Sydney Airport/Aerotropolis: the latter of which has been earmarked by the Federal Government as a major employment and trade hub in the future.

The proposed public transport corridors will significantly enhance Bonnyrigg's accessibility to employment, services and amenities. This further reinforces the additional residential densities proposed on the subject site.

### 2.5.2 NSW Planning Guidelines for Walking and Cycling

The *NSW Planning Guidelines for Walking and Cycling* were developed by the State Government in 2004 to assist urban planners, local councils, consultancies and State agencies to improve consideration of walking and cycling in city design and planning. The Guidelines provide an overall direction for metropolitan strategies, master plans and LEPs to create urban environments that are conducive to

walking and cycling. Design principles for functional and integrated pedestrian/cycle networks have been developed through an investigation of street patterns, active transport catchments, road reserves, open spaces and mixed-use approaches. The proposed modification has taken into consideration these walking and cycling principles set out in the Guidelines, and improves on the approved access network of the approved concept plan by enhancing pedestrian and cycling permeability throughout and beyond the site.

### 2.5.3 NSW Bicycle Guidelines

Developed by the RTA in 2005, the *NSW Bicycle Guidelines* have been designed to assist engineers, road designers and planners to design and construct quality cycling networks and facilities. The Guidelines facilitate best practice for an integrated NSW transport network with attention to the provision and design of cycling infrastructure. The revised access plan for the proposed modification has taken into consideration cycling principles and major types of bicycle facilities as set out in the Guidelines to achieve an integrated transport/access network.

### 2.5.4 RTA Guide to Traffic Generating Developments

The *RTA Guide to Traffic Generating Developments* was released by the RTA in 2002 to provide guidance on DA assessment in regard to traffic issues, as well as traffic impact studies. The Guide details ways in which road systems may best accommodate increased demands of traffic and car parking, including the provision of parking facilities, road infrastructure, traffic management and public transport. A revised Traffic Management and Accessibility Plan has been provided with the modification application assessing the traffic impact of the proposed modifications. It is expected that detailed road design and car parking requirements will be resolved at the DA stage, with the Guidelines, Fairfield DCP 2013 and the concept plan approval to be taken into consideration.

### 2.5.5 Development near Rail Corridors and Busy Roads - Interim Guideline

The Development near *Rail Corridors & Busy Roads - Interim Guideline 2008* was developed by the then NSW Department of Planning to assist in reducing the health impacts of rail and road noise and adverse air quality on sensitive adjacent development. The Guidelines are to be applied pursuant to State Environmental Planning Policy (Infrastructure) 2007, to ensure that development adjacent to major road and rail corridors achieves appropriate acoustic amenity by meeting the internal noise criteria specified in the SEPP.

Clause 102 of the SEPP triggers the application of the guidelines. With parts of the site located in close proximity to Bonnyrigg Avenue, Elizabeth Drive, Cabramatta Road West and Edensor Avenue (roads with a potential annual average daily traffic volume of more than 40,000 vehicles), further assessment of acoustic impact on adjacent properties will be completed as part of future detailed DAs for subdivision and built form.

## 2.6 Statutory Planning Context

### 2.6.1 State Environmental Planning Policy (State Significant Precincts) 2005

The *State Environmental Planning Policy (State Significant Precincts) 2005* applies to State Significant Precincts (SSP), which are areas of state or regional planning significance because of their social, economic, historical or environmental characteristics. The process of SSP urban renewal involves an assessment by the DPE to determine their development potential, with consideration given to environmental and social factors, as well as identifying the infrastructure needs of the future population. The subject site is not designated as an SSP and thus the SEPP does not apply to this modification application.

### 2.6.2 State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

SEPP 55 aims to provide a State-wide planning approach for the assessment and remediation of contaminated land. SEPP 55 requires consideration of potential land contamination as part of a rezoning proposal.

Clause 6 the SEPP states that a rezoning proposal must consider potential contamination and suitability of the site, particularly in relation to a change of land use for residential and recreational uses. In relation to a proposed rezoning for residential or recreational purposes, SEPP 55 requires the preparation of preliminary contamination investigation.

The subject site at Bonnyrigg is zoned R1 General Residential and RE1 Public Recreation under the Fairfield LEP 2013. As the land is already zoned for residential and recreational purposes, no further consideration is required under Clause 6.

### 2.6.3 State Environmental Planning Policy No. 64 – Advertising and Signage (SEPP 64)

SEPP 64 sets out planning controls for advertising and signage in NSW. Under the SEPP, signage is to be compatible with the future character of the area, located in suitable locations, and be of high

quality finish and design. Further the SEPP provides time-limited consents, regulates the display of advertising in transport corridors, and ensures that public benefits may be derived from advertising in these corridors. The modifications subject to this application do not include any advertising and signage across the site. Any advertising or signage proposed at the detailed DA stage will be required to comply with requirements set out under SEPP 64.

### 2.6.4 State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development (SEPP 65)

SEPP 65 aims to improve the design quality of residential apartment development in NSW. The policy aims to deliver a better living environment for apartment residents, enhance streetscapes and neighbourhoods in NSW.

SEPP 65 identifies ten design principles that provide a consistent approach to the design and assessment of apartments across the State. SEPP 65 also gives effect (from June 2015) to the *Apartment Design Guide* (ADG), which details how residential apartment development can meet the design quality principles.

The current Concept Plan Approval (MP 06\_0046 MOD 4) was issued in 2012 prior to the introduction of the ADG. The proposed modification has been developed and tested to ensure consistency with the SEPP 65 and the ADG. An assessment of the proposed modification is provided in Chapter 5, with particular attention to solar access testing and shadow impacts on public open spaces. Modifying the approval to be consistent with the ADG will ensure future development can comply with the requirements in the ADG, and will result in greater residential amenity, and improved design outcomes for the site.

### 2.6.5 State Environmental Planning Policy (Infrastructure) 2007

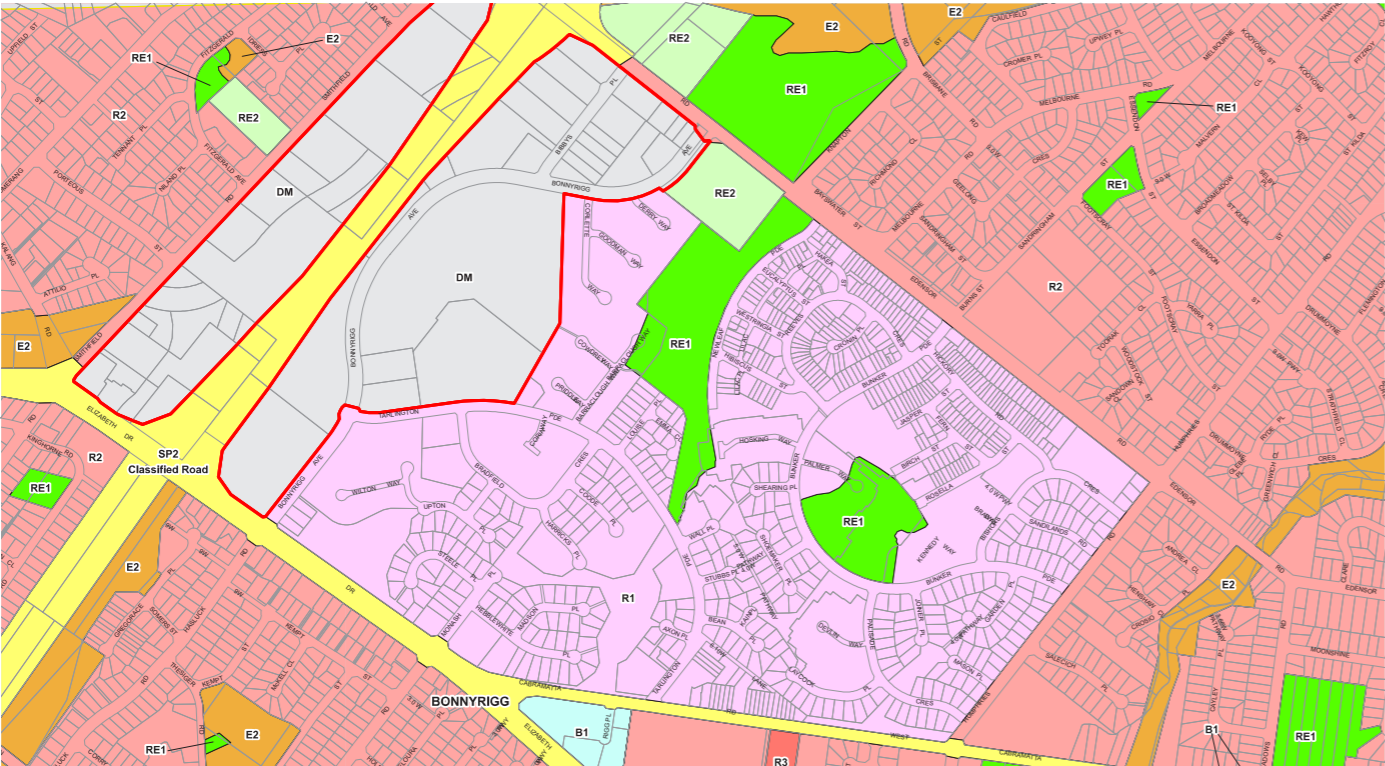
*State Environmental Planning Policy (Infrastructure) 2007* aims to facilitate the effective delivery of infrastructure across NSW and identify matters that should be considered in relation to development adjacent to transportation corridors.

One of the primary aims outlined in Clause 2 of the SEPP is to allow for the efficient development, redevelopment or disposal of surplus government owned land. The proposed modification meets the aims of the SEPP as it allows for development on land owned by NSW Land and Housing Corporation while maximising the development potential for a site located in close proximity to a local centre and T-way station.

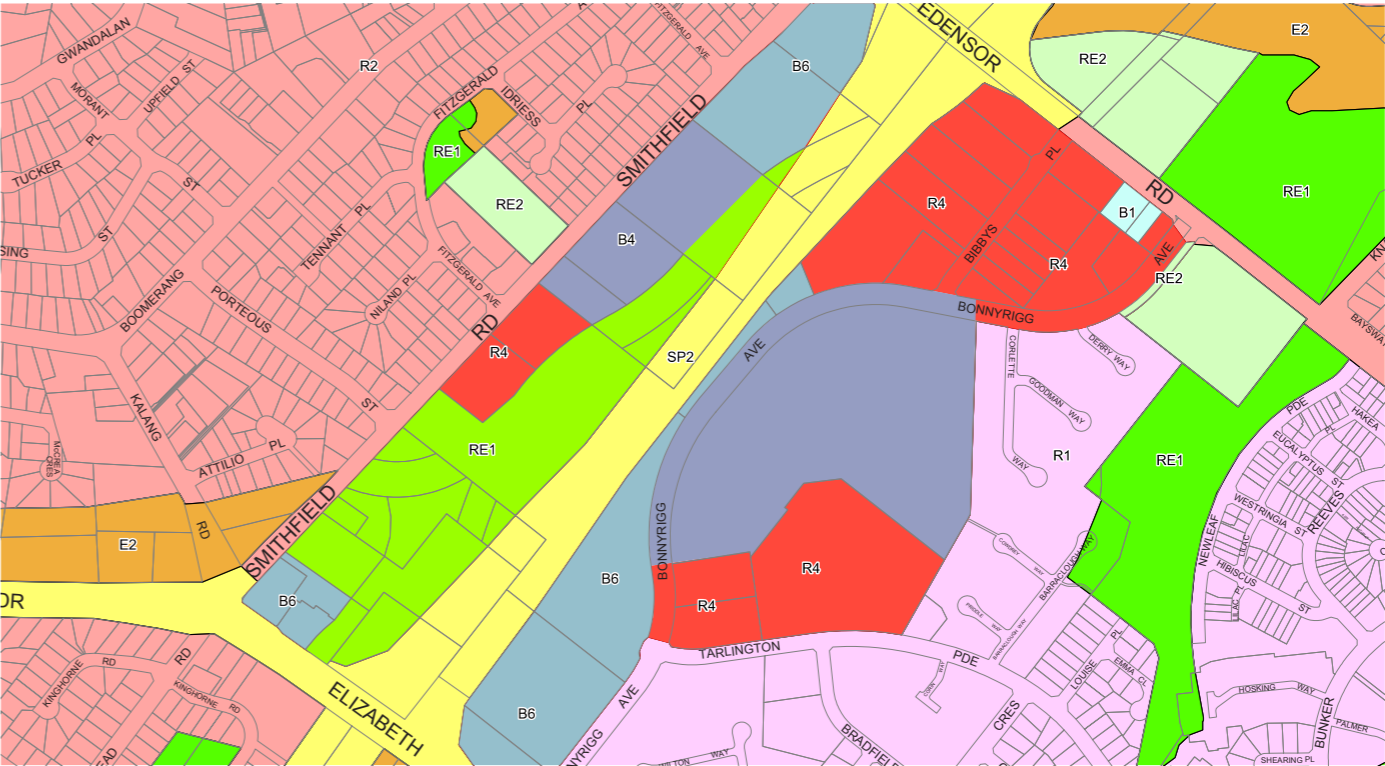
The site's location adjacent to Bonnyrigg Avenue, Elizabeth Drive, Cabramatta Road West and Edensor Avenue (roads with a potential annual average daily traffic volume of more than 40,000 vehicles) requires consideration of Part 3, Division 17, Subdivision 2 of the SEPP. In particular, Clause 102 requires consideration of the impact of road noise or vibration on non-road development.

Further assessment of acoustic impact on adjacent properties will be completed as part of future detailed DAs for subdivision and built form, including compliance with the requirements of Clause 102 and standards set out in the *Development near Rail Corridors & Busy Roads – Interim Guideline 2008*.

## 2.7 Local Planning Context



Current Land Zoning Map showing the subject site zoned as R1 and RE2, and Bonnyrigg Town Centre as a Deferred Matter. Source: Fairfield LEP 2013.



Proposed Land Use Zoning for Bonnyrigg Town Centre. Source: Bonnyrigg Town Centre Planning Proposal, DPE.

### 2.7.1 Fairfield LEP 1994 and 2013

Both *Fairfield LEP 1994* and *Fairfield LEP 2013* apply to land within the Fairfield LGA. At present, *Fairfield LEP 1994* applies only to the Bonnyrigg Town Centre Deferred Matter, with the rest of Fairfield LGA (including the site) subject to *Fairfield LEP 2013*. It is noted that a planning proposal to amend *Fairfield LEP 2013* to incorporate Bonnyrigg Town Centre Deferred Matter into the standard instrument is currently under assessment by the DPE. This is discussed in further detail at 2.7.3.

The subject site is zoned R1 General Residential and RE1 Public Recreation under *Fairfield LEP 2013*. The objectives of the zone are to provide for a variety of housing types and densities to accommodate the housing needs of the community, enable other land uses that provide facilities or services to meet the daily needs of residents, and permit a range

of non-residential land uses that are capable of integration with the surrounding context.

The proposed modification improves on the concept plan approval and strengthens the consistency with the objectives of the R1 zone. A variety of building typologies proposed on the site will accommodate the additional 500 residential dwellings across the site, while the new Plaza Precinct will increase street activation and opportunities for community facilities and services to meet day to day needs of residents.

The site is not subject to any maximum building height or FSR under *Fairfield LEP 2014*. Proposed development within the site is subject to the built form parameters set by the concept plan approval, which stipulates maximum building heights for each building typology. The concept plan approval is subject to the modifications proposed as detailed in Chapters 4, 5 and 6.

### 2.7.2 Bonnyrigg Town Centre Development Control Plan 2010

The Bonnyrigg Town Centre DCP 2010 was adopted by Fairfield Council in February 2004 and details objectives and planning guidelines applicable to the Town Centre. The DCP presents a vision and master plan for the Town Centre, as well as detailed guidelines for public and private domains. Although the DCP and master plan currently apply to the Town Centre, it does not take into consideration the Bonnyrigg Estate structure plan and ongoing development as it was developed prior to the approval of the original concept plan. It is also expected to be superseded by the Draft Bonnyrigg Town Centre DCP if the Bonnyrigg Town Centre Planning Proposal is approved.

### 2.7.3 Bonnyrigg Town Centre Planning Proposal and Draft Development Control Plan

A planning proposal is currently with the DPE in the post exhibition stage to implement the standard LEP provisions under *Fairfield LEP 2013* to the Bonnyrigg Town Centre 'Deferred Matter'. The planning proposal seeks to amend *Fairfield LEP 2013* to include new zones and planning controls for the entire precinct with the following key changes:

- Apply the B4 Mixed Use zone to Bonnyrigg Plaza;
- A height limit of up to 8 storeys on certain large sites;
- Allow additional permitted uses on certain land zoned B6 Enterprise Corridor; and
- Enable height incentives for future residential development at Bonnyrigg Plaza on the condition active street frontage is delivered along Bonnyrigg Avenue.

### Local Planning Context

No maximum floor space ratio is proposed by the planning proposal.

Subject to approval, the planning proposal will redefine the character and role of Bonnyrigg Town Centre by enabling a concentration of mixed residential, commercial and retail uses within the centre and additional height along Bonnyrigg Avenue. The proposed changes will catalyse future redevelopment in the area, as well as enhance accessibility and amenity for future residents of Bonnyrigg Estate.

The Draft Bonnyrigg Town Centre DCP, accompanying the planning proposal, sets out the urban structure and built form principles which direct approaches to public domain, site connections and sub-precincts within the Town Centre. The Draft DCP identifies an important pedestrian desire line linking the site, Bonnyrigg Plaza and T-way station.

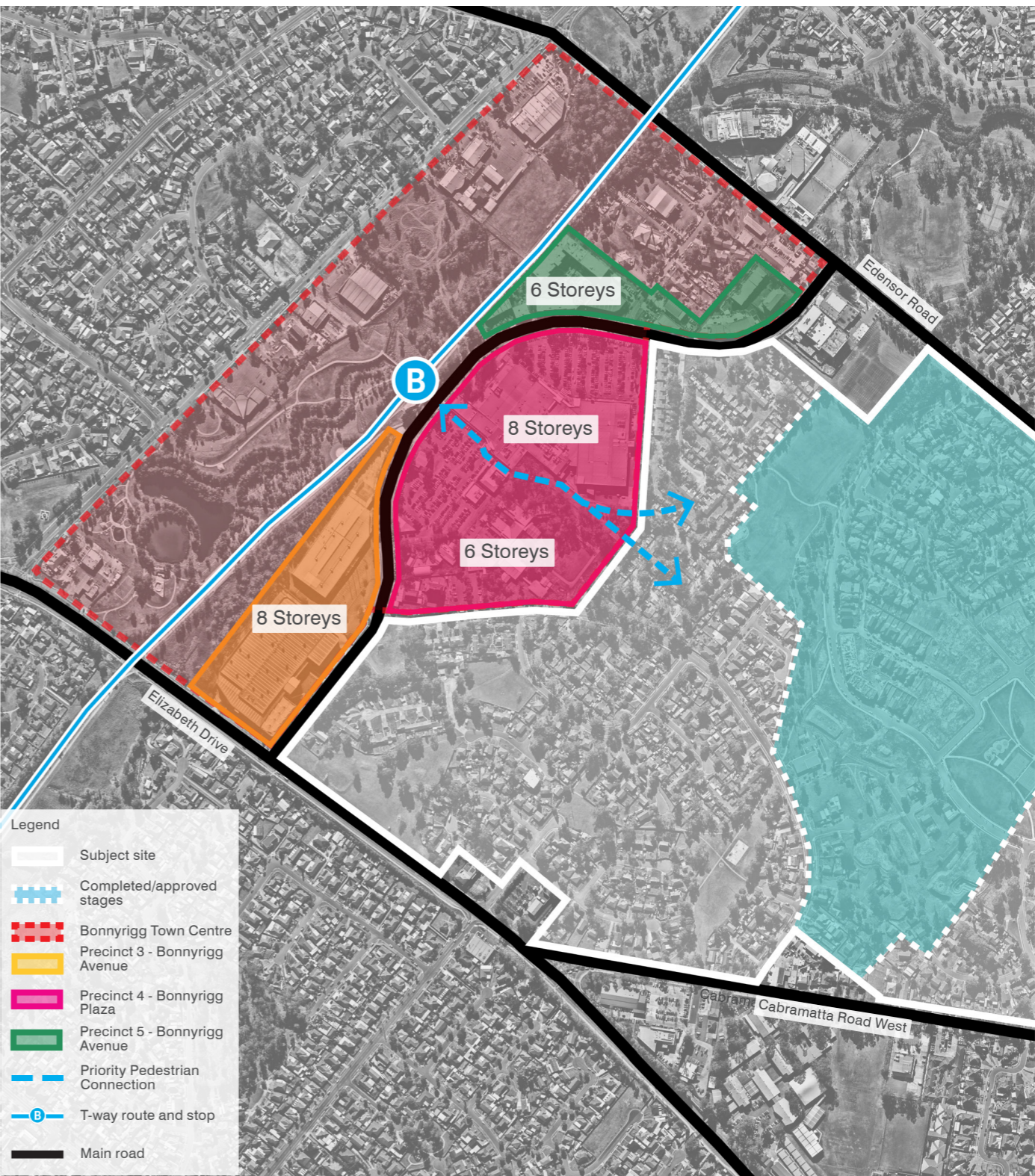
#### 2.7.4 Bonnyrigg Town Centre - Key Precincts

The Draft DCP prescribes seven distinct precincts within the town centre, each with a purpose and built form character. The proposed modifications have considered the built form and land use relationship/interface with the following precincts located adjacent to the subject site:

- **Precinct 3** consists of an existing Bunnings Warehouse, the former Westbus site and two smaller lots of land in between the T-way and Bonnyrigg Plaza. This precinct is proposed to be zoned B6 Enterprise Corridor with the additional permitted use of residential flat buildings. The maximum building height is proposed to be up to 26m (8 storeys). Future development will be required to activate the street edge along Bonnyrigg Avenue with non-residential ground floor uses. However, it is important to note that the existing Bunnings has only recently been completed and is therefore not expected to be redeveloped according to the proposed controls in the near future.

- **Precinct 4** consists of Bonnyrigg Plaza, Bonnyrigg Public School, a Cambodian Buddhist temple, youth centre, community centre and library, and is envisioned to be the ‘town centre core’ of the precinct. This precinct is proposed to be zoned B4 Mixed Use (Bonnyrigg Plaza site) and R4 High Density Residential (school, temple and community centre). A maximum building height of 20m (6 storeys) is proposed for the school and community centre sites, with a maximum of 27m (8 storeys) proposed for the Bonnyrigg Plaza site under a new Clause 7.9 of Fairfield LEP 2013. Under this Clause, future development will be required to provide active frontages along Bonnyrigg Avenue. A key pedestrian connection is proposed to connect the T-way station with the subject site via the rear of Bonnyrigg Plaza.
- **Precinct 5** consists of the sites and recent development fronting onto Bonnyrigg Avenue, opposite Bonnyrigg Plaza. This precinct is a mixture of bulky goods and two recently approved/completed developments for mixed-use buildings up to 6 storeys in height. The Precinct is proposed to be zoned R4 High Density Residential with a maximum height of 20m (6 storeys). Although this precinct envisions commercial active frontage onto Bonnyrigg Avenue, it is not characteristic of a town centre core, since the Precinct’s main purpose is residential flat buildings with commercial ground floor being an ancillary purpose/use.

Further detail of the proposed modifications and how they respond to the planning proposal and Draft Bonnyrigg Town Centre DCP is discussed in Chapters 4 and 5.



Key precincts and connections of Bonnyrigg Town Centre. Source: Nearmap, annotations by Architectus.





## 03 Concept Plan Outline

## VISION:

To create a high-quality residential area characterised by a suburban leafy amenity, with well-maintained public and private realms that reflect community pride. It will provide ease of access to shops, services, and public transport.

The renewal of the estate will build upon the current positive attributes of the Bonnyrigg area to form an inclusive identity, complementary to, yet distinct from, the surrounding south western suburbs of Sydney. Bonnyrigg will become the first place of choice to acquire an affordable home in south west Sydney.

### **Bonnyrigg will be a place where:**

- People will connect with the natural systems of their environment. Parks and open spaces will continue to be on high points. A creek line will be reintroduced through the centre of Bonnyrigg Estate. The natural water and vegetation systems will be expressed for people to connect to through parks and streets. There will be high quality homes, which evoke a feeling of spaciousness with their ready access to light and air;
- People will connect with each other. Well-designed streets will look, feel and operate as neighbourhood spaces. They will offer a pleasant and safe place to walk and cycle. The front yards, verandas and balconies of houses will be designed to encourage their active use by residents and the associated interaction with their neighbours and pedestrians on the street;
- Bonnyrigg homes will be a mix of social and private housing (30% social housing and 70% private housing) - a dramatic transition from a housing mix that was previously 90% social housing). Housing will be designed in such a way that there is no identifiable external difference between social and private housing, promoting a cohesive community;
- Bonnyrigg Neighbourhood Community Centre will be located within the heart of Bonnyrigg with a community garden, community facilities, and opportunities for a broad mix of community activities; and
- Parks and open space environments will be specifically designed for multiple uses and to encourage informal meetings and interactions between residents.





### 3.1 Design Principles



Promote an increase in housing close to Bonnyrigg Town Centre

Greater densities and increased diversity will be located adjacent to the Town Centre to enhance walkable access to local services, public transport and community facilities, as well as contribute to the economic vitality and growth of Bonnyrigg.



Create an integrated and socially sustainable residential community

The site will accommodate a total of 3,000 dwellings providing a mix of social and private housing in a new integrated community. The proposal will enhance the diversity of housing available across the site attracting a broader range of residents.

Attractive, diverse and usable public open spaces for all

The new Bonnyrigg estate will rationalise its existing open space network to create a range of safer, more attractive and active green spaces.

A key component of this will be in planning and designing for different activities and different users. Children, teenagers, families and adults will be able to enjoy a strong connection with nature and an active healthy lifestyle close to their home.

# Principles



Strong, permeable pedestrian connections across and beyond the site

The concept plan will build on and enhance existing pedestrian desire lines between the site, Bonnyrigg Plaza, Bonnyrigg Public School, the T-way station and Cabramatta Road neighbourhood centre.

A green pedestrian network with through site links will be delivered to enhance pedestrian amenity.



Source: Taylor Cullity Lethlean



Appropriate built form, massing and public/private interfaces

The increased densities at Bonnyrigg will require a considered approach to dealing with building setbacks, heights and massing. Generous landscape setbacks, regular entries and front doors along with staggered 2nd and 4th storey setbacks will help to create a balanced urban environment.

Key frontages are to include active ground floor frontage to activate public domain and support Bonnyrigg Town Centre.

# For A New Bonnyrigg



A legible street network with generous blocks

The rationalised street network will enhance neighbourhood legibility and connectivity throughout the site, with resulting blocks appropriately sized to maximise the commercial viability for redevelopment whilst still achieving best practice urban design principles.



3.2 Structure Plan



3.3 Key Outcomes

**3,000 HOMES**

Increase homes across the Estate from 2,500 to 3,000



**4 PRECINCTS**

Defining 4 character precincts across the Estate



**13.04 HA**

Increase public open space from 12.13 to 13.04ha



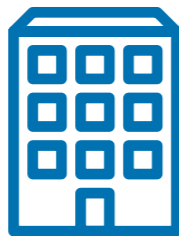
**25% CANOPY**

Increase tree canopy cover from 14% to 25%



**6 STOREYS**

Increase number of 6 storey sites close to the Town Centre



**OVER 4 KM'S**

Create over 4km of new dedicated pedestrian and cycle paths including new strategic links to transport, retail and community services



**3,000 M<sup>2</sup>**

Increase flexibly designed community and commercial space from 2,000sqm to 3,000sqm



3.4 Character Areas



**Completed/under construction precinct**

A large proportion of the Bonnyrigg Estate has already been constructed including 364 completed dwellings, another 346 approved or under construction as well as over 7 hectares of new and improved parkland and a new community centre.

The majority of this new development is characterised by 1 and 2 storey detached dwellings with some additional row housing and low scale (3 storey) apartment blocks.

Combined with generous new and improved open spaces, native planting, dry river beds, play areas, sports pitches and tree lined streets this precinct has retained a relatively suburban feel in keeping with much of its surroundings.

## Character Areas



### Humphries Precinct

To the east of the estate this precinct will continue the 1 and 2 storey suburban character of the surrounding area.

In key locations fronting Cabramatta Road, Humphries Road, Hilltop Park and the Junior Play Park additional density (up to 4 storeys) will provide additional built form definition.

The roads will be largely based on a rationalisation of the existing network including new street tree and shrub planting to provide an attractive, green and low scale street environment that encourages walking and community interaction.

A local scale park known as the 'Junior Play Park' will provide a neighbourhood focal point for this precinct with informal lawn areas, shade planting and children's play equipment.



### Tarlington East

This precinct provides a transition in scale and density between the more suburban streets to the east and the denser areas closer to the Bonnyrigg Town centre in the west.

The increased density is complimented by generous open space including the 2.2ha Upper Valley Creek Park with a naturalistic dry river bed, walking and cycling paths, informal lawns, retained mature and new shade trees, BBQ's and play areas.

The east of the park building height will be restricted to 4 storeys rising to 6 on the western side of the park.



### Tarlington West

With direct connections to Bonnyrigg Town Centre, Bonnyrigg Public School and in close proximity to the T-Way station this precinct will have a more urban scale and character.

4-6 storey apartment buildings will front a large new Community Park with high quality open space and recreational amenities including feature play area, community cafe and events lawn.

The residential density, high quality amenities and links to services, education and transport will combine to give this precinct a more vibrant, urban and connected feel.

Tree lined streets with generous landscape setbacks will be complimented with green through site links that will help to retain a leafy amenity conducive to walking and cycling.



### Plaza Precinct

The north-eastern quarter of the site will have high quality urban spaces fronted by active ground floor frontages and considered pedestrian flows that will support the growth of the adjacent town centre.

Residential densities with heights up to 6 storeys will be consistent with the proximity to services, transport and open space amenity.

Two new parks will be created including a new active urban plaza onto Bonnyrigg Avenue and a 'Village Green' that provides a substantial open space directly adjacent to the town centre as a focal point for the community. The southern side of the Village Green will benefit from an attractive north facing aspect with opportunities for cafe's and outdoor dining.



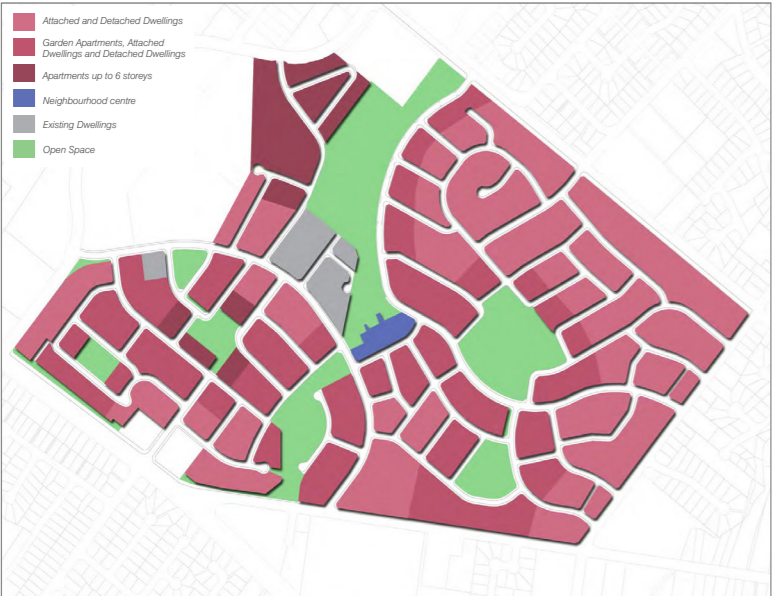


## 04 Summary of Proposed Modifications

4.1 Land Use

The proposed land use plan remains predominantly residential. However, to better integrate the site with the recently released Bonnyrigg Town Centre DCP additional non-residential uses in its proximity are proposed. Local services and community uses will be located on the ground floor of residential buildings within the Plaza Precinct. These ground floor uses will be located along key pedestrian links and Bonnyrigg Avenue to promote an active and safe street life and support the proposed additional dwellings. The scale of non-residential uses in the Plaza Precinct consists of small-scale, population serving retail services which ensures that it will not compete with Bonnyrigg Town Centre.

The total area of open space within the site has been increased in response to the increase of dwellings across the site. Open spaces within the Tarlington West Precinct are consolidated to enhance functionality and a diversity of outdoor activities. Landscaped buffers are proposed along busy roads, including Bonnyrigg Avenue and Elizabeth Drive, to reduce noise impacts and improve residential amenity. Further detail is discussed in Section 4.3 Open Space below.



Approved land use map; source: Land Use Map - December 2011. Urbis for Bonnyrigg Partnerships

Proposed key changes

- Ground floor non-residential uses within the Plaza Precinct
- Increased open space area and consolidation of open space
- Landscape buffers to busy roads



Proposed land use

- Legend
- Site boundary
  - No change as a result of this modification
  - Cadastre
  - T80 T-way transit path
  - Public open space
  - Mixed use adjacent Bonnyrigg Plaza
  - Community centre/garden
  - Potential community centre
  - Residential

4.2 Building Height

The maximum buildings heights remains consistent with the approved Concept Plan at 6 storeys, however the modification seeks to increase building heights across more areas of Bonnyrigg Estate. These areas are strategically located, with great accessibility and proximity to the Town Centre.

The modification would allow an increase in the amount of 4 – 6 storey buildings within Bonnyrigg Estate. This approach aims to better integrate the site with the Town Centre and reflects Council's vision for increased building heights around Bonnyrigg Town Centre.

Although the Bonnyrigg Town Centre DCP allows buildings up to a maximum of 8-storeys on Bonnyrigg Avenue, recent development has achieved a maximum of 6 storeys, establishing a consistent scale of development around the Town Centre.

The proposed height plan does not allow buildings greater than 6 storeys across the site, but the modification does seek to expand the area in which increased heights are permitted. This ensures that the increased dwelling targets can be met while staying consistent with the character of the surrounding context.



Approved land use map; source: Land Use Map - December 2011, Urbis for Bonnyrigg Partnerships

Heights up to 6-storeys are proposed throughout the western portion of the site, in proximity to the Bonnyrigg Town Centre, public transport and day-to-day services, which promotes a more walkable neighbourhood.

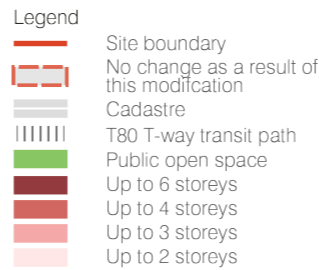
Greater variety in built form and housing diversity will be achieved by increasing heights up to 4 storeys in key locations, including along Elizabeth Drive, Cabramatta Road, Hilltop Park and Upper Valley Creek Park.

Proposed key changes

- Additional areas with a maximum height limit of 6 storeys
- Heights of up to a maximum of 4-storeys in strategic locations



Proposed building height



4.3 Built Form

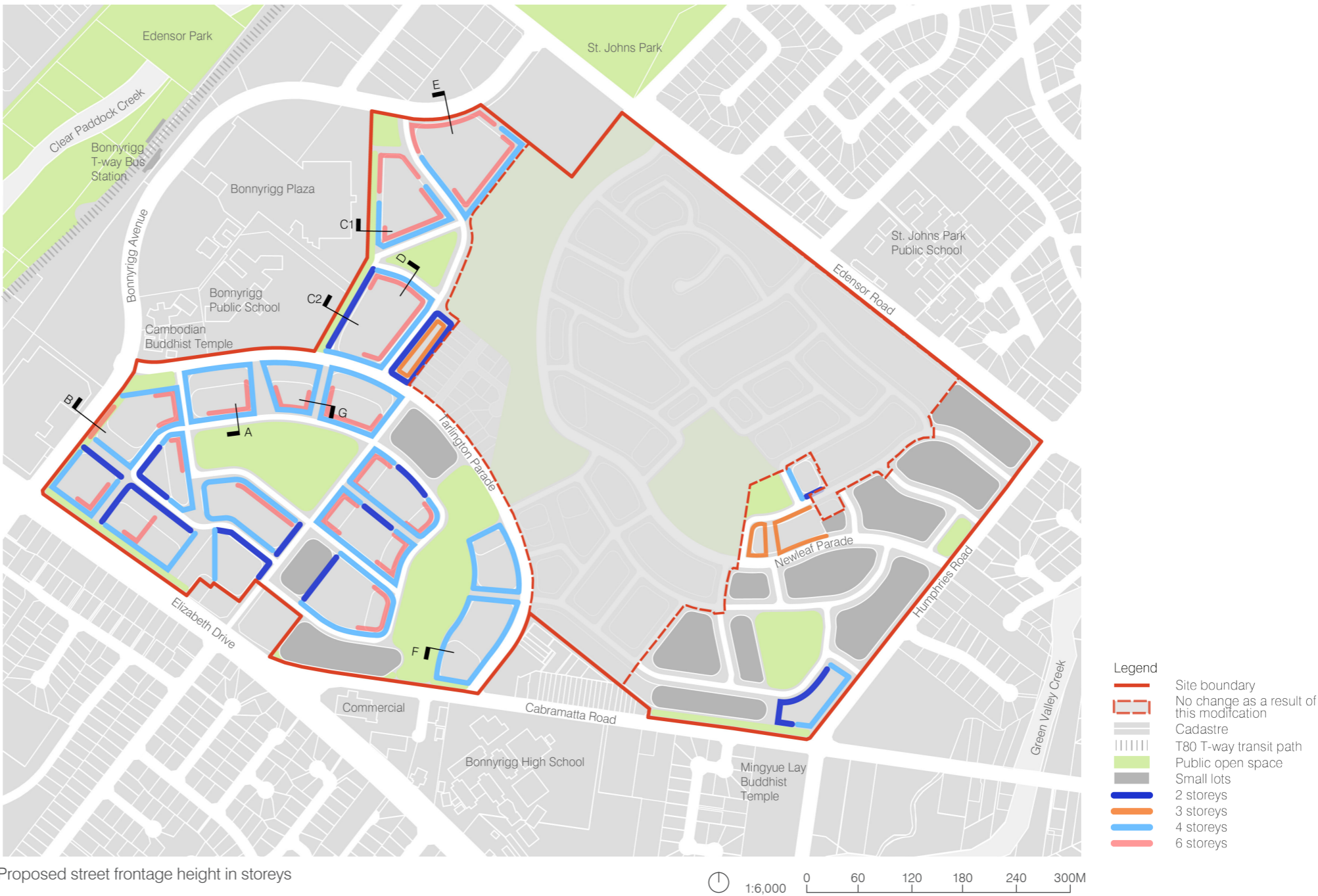
The proposed built form seeks to balance the need to provide more housing, with excellent residential amenity, active streets and high quality open spaces, and development that respects local character.

The proposed structure plan seeks to align with the proposed built form outcomes with the adjacent Bonnyrigg Town Centre. The aim is to deliver more diversity in built form, consistent with the scale and form of recent and proposed residential development in Bonnyrigg.

The proposed structure plan provides for increased apartment development up to 6 storeys, mainly focused in the western portion of the site. To improve solar access and reduce the bulk and scale of apartment buildings when viewed from the street, the built form strategy adopts a comfortable street wall height of 4 storeys, with minimum upper levels set backs of 3 metres (refer to street wall height map).

Increasing medium rise apartment developments in key locations within the site will offer a range of housing options, including more affordable options for smaller households, couples, small families and downsizers. The built form strategy ensures an appropriate transition to lower scale development s in the eastern portion of the site, with lower scale-built form typologies (detached dwellings and townhouses) the predominant built form outcome in this part of the site.

To support the proposed built form outcomes a suite of built form controls is proposed. The controls aim to increase flexibility for a range of product types, including apartments and small lot housing such as attached dwellings and terrace typologies. This presents an opportunity for more diverse housing that will support a variety of households in Bonnyrigg Estate.



4.4 Street Setbacks

The ground floor setbacks to residential uses allow for generous landscaping and deep soil zones, which will provide landscape amenity and importantly shade to streets. The inclusion of garden space and front door access to all units on the ground floor will help to improve casual surveillance and community ownership and activation of the streets.

Where active ground floor frontages are proposed a 6m setback from the primary building line ensures sufficient space for outdoor dining and outdoor community and service uses.

A minimum deep soil setback of 4m is increased to 6m or 10m to adjacent private properties, busy roads and where existing trees in the street verge can be retained. Along the eastern boundary of Upper Valley Creek Park an 8m setback is proposed to allow for a tree lined public shared path bounding the park.

Setbacks larger than 10m are proposed to retain significant existing vegetation and create landscape buffers around residential uses, especially to heavily trafficked roads and the Bonnyrigg Plaza shopping centre.

Refer to Concept Plan A.9 Built Form - Residential Flat Buildings for typical sections.

The street wall and interface sections illustrate the built form recommendations for typical situations and interfaces with the public domain.



Proposed street setback plan

4.5 Activation

The proposed amendments seek to increase activation within the Bonnyrigg Estate and enhance activity close to Bonnyrigg Town Centre through strategic pedestrian links, attractive public open spaces and active ground floor land uses.

Consistent with the Bonnyrigg Town Centre Draft DCP 2017 active ground floor frontages are proposed in key areas close to the Town Centre, as well as a direct pedestrian link to the T-way stop near Bonnyrigg Plaza.

The modification allows for a potential longer term direct link to the Bonnyrigg Plaza. This link would be beneficial to improve access from the site to Bonnyrigg Town Centre, and would deliver improved accessibility to the T-Way bus stop. Along this link there is the potential for active ground floor frontages that extend the Bonnyrigg Town Centre into the site.

Enhanced activation of key public spaces, with community spaces, cafes and convenience retail, will help to create a community focus and support the day-to day needs of future residents. North-facing façades along Bonnyrigg Square, the Village Green

and Bonnyrigg Avenue are strategic locations for active ground floor frontages and outdoor dining. Together with a high-quality streetscape these spaces will successfully contribute to the civic life of Bonnyrigg.

Pedestrian priority links are strategically proposed throughout the Bonnyrigg Estate to activate the public domain. The pedestrian network connects the Town Centre to Bonnyrigg Estate and will play a significant role in activating the public domain by linking key destinations and providing safe and attractive spaces to be active.

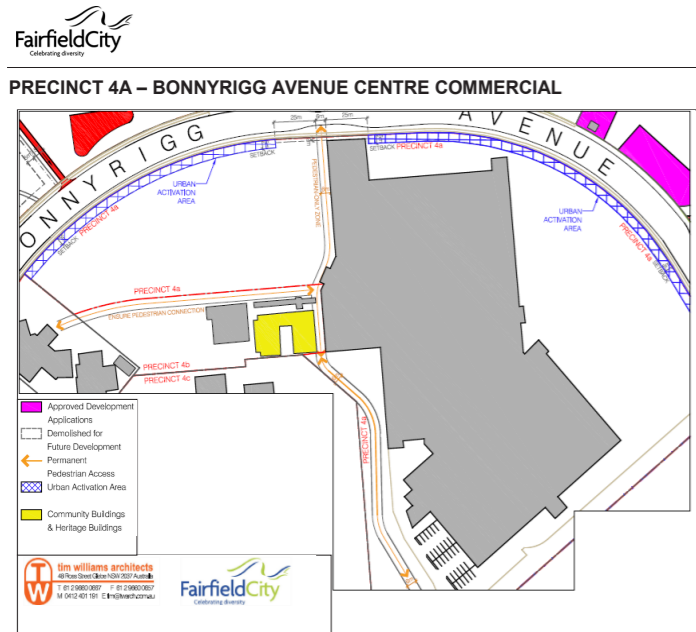
Proposed key changes

- Active ground floor frontages to activate key streets and extend the Bonnyrigg Town Centre into the site
- Improved connections to link Bonnyrigg Town Centre to the site, including a direct link to the T-way stop
- New landscaped pedestrian and cycle shareway adjacent to Bonnyrigg Plaza



Proposed activation plan

- Legend
- Site boundary
  - No change as a result of this modification
  - Cadastre
  - T80 T-way transit path
  - Public open space
  - Landscaped plaza
  - Stormwater detention
  - Landscape buffer
  - Bonnyrigg Plaza future opportunity for frontage & interface
  - Bonnyrigg Plaza current active frontage
  - Proposed town centre active frontage as per draft DCP
  - Pedestrian connection per draft DCP
  - Key pedestrian connection
  - Community centre/garden
  - Potential community centre
  - Potential activation area



Precinct 4A - Bonnyrigg Avenue commercial; source: Bonnyrigg Town Centre Draft DCP 2017, pg 29

4.6 Open Space

Proposed changes to the open space layout aim to improve the amenity for residents and enhance the cultural and environmental value of the landscape. The proposed open space network will enable the retention of existing mature trees, provide more open space, and will consolidate smaller open space areas into larger, more usable spaces in the west of the site.

Additional open space is proposed in the Plaza Precinct, linking to the Bonnyrigg Town Centre. The proposed Village Green and Bonnyrigg Square, will serve as more urban neighbourhood spaces and create attractive landscaped arrival into the site. These spaces will contribute to the character of Bonnyrigg Town Centre by offering a diversity of open spaces, including urban parks and plazas, that will support active ground floor use and a vibrant community life.

The rationalisation of the three smaller parks in the Tarlington West Precinct into one larger and more usable park - the Community Park - will provide a greater range of opportunities for recreation within

easy walking distance of homes. Upper Valley Creek Park and Junior Play Park have been modified only slightly in their size and location, while maintaining the same function of recreation and storm water treatment.

Increased landscape buffers to Cabramatta Road, Elizabeth Drive and Bonnyrigg Avenue create a transition to residential development while allowing for the retention of existing significant mature trees.

Culturally significant mature trees have been incorporated into open space areas, namely in Upper Valley Creek Park and within the pedestrian through-site link north of the Community Park. Retaining significant trees will contribute to the landscape character and community identity of the place.

Proposed key changes

- Consolidation of three smaller open spaces into a new central Community Park
- New open spaces, including Village Green and Bonnyrigg Square
- Increased landscape buffers to busy roads



Proposed open space

Main public open space

- 1 Hilltop Park
- 2 Middle Valley Creek Community Centre Park
- 3 Lower Valley Creek and Sports Park
- 4 Bonnyrigg Square
- 5 Village Green
- 6 Community Park
- 7 Junior Play Park
- 8 Upper Valley Creek Park



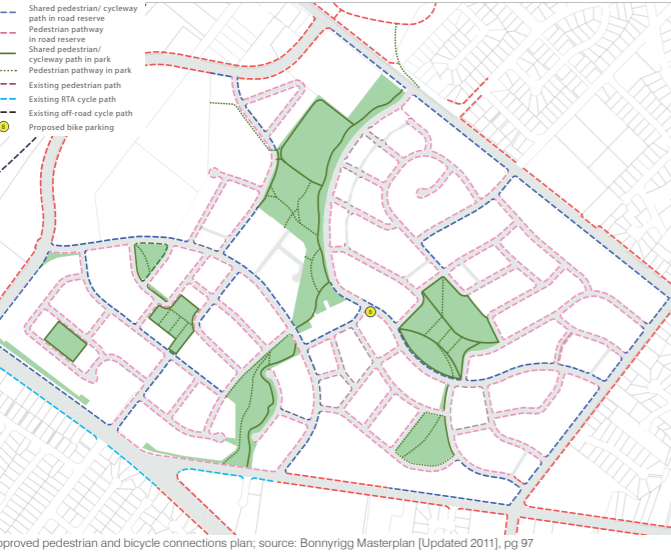
Approved land use map; source: Land Use Map - December 2011. Urbis for Bonnyrigg Partnerships

4.7 Access

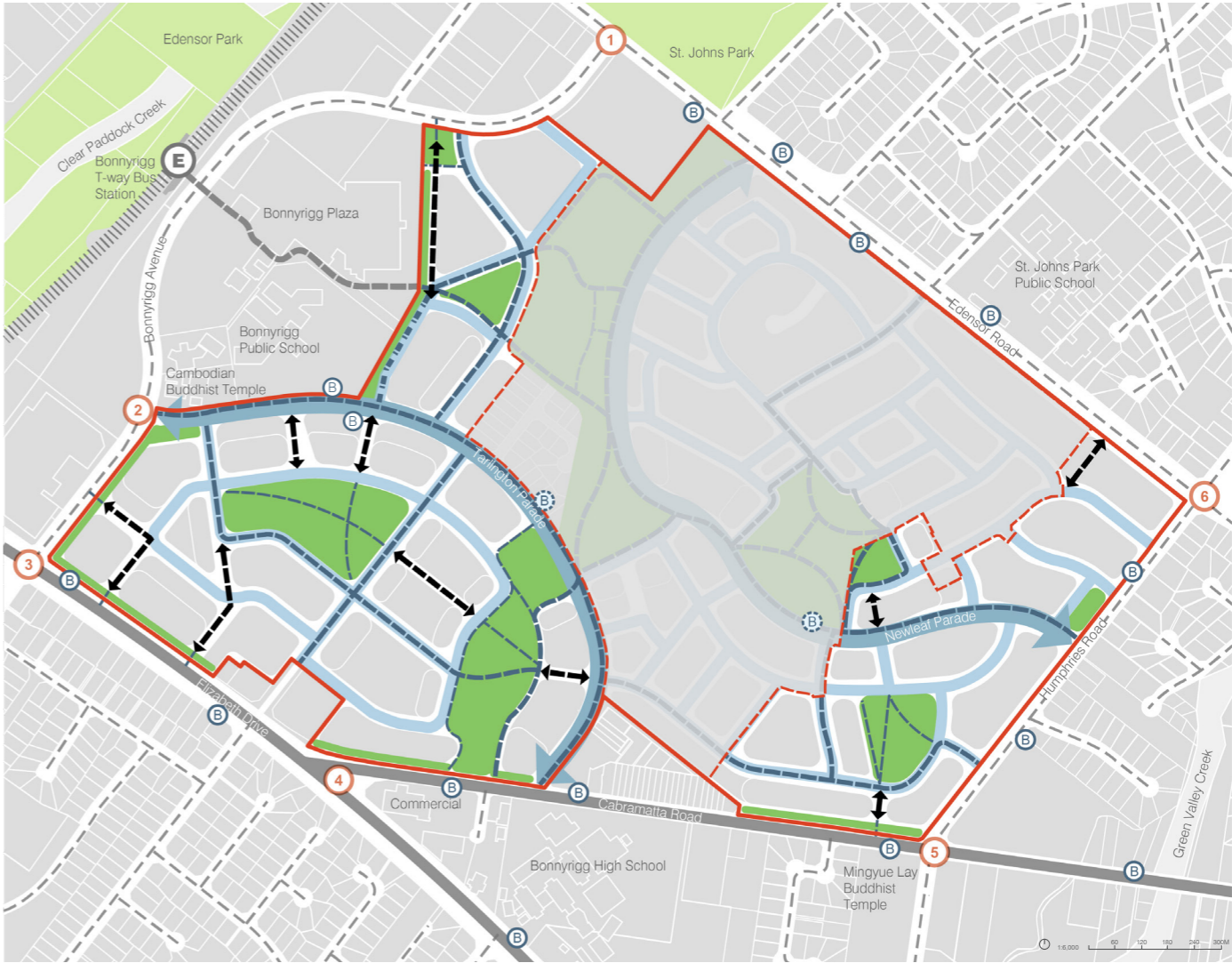
The high level of public transit service at Bonnyrigg T-way Station (as identified in Chapter 1) presents a significant opportunity for increased utilisation through residential densification within Bonnyrigg Estate. The Western City District Plan (2018) provides the strategic direction to create more walkable neighbourhoods that support sustainable transport. Consequently, a pedestrian connection between the site and the T-way station via the rear of Bonnyrigg Plaza becomes a vital east-west link.

Although the link through Bonnyrigg Plaza does not currently exist, it is identified in the Draft Bonnyrigg Town Centre DCP as a key link needing extra pedestrian priority. The pedestrian network incorporates the significance of this direct link into its design, with consideration of pedestrian desire lines, public domain improvements and street activation. The delivery of this link is encouraged in any future re-development of Bonnyrigg Plaza, with the modification providing an incentive for its development.

Pedestrian and cycling amenity is enhanced through an improved green network of shared paths, pedestrian connections and through site links. Future bus services through the site via Tarlington and Newleaf Parades will also increase public transport accessibility beyond the site



- Proposed key changes**
- Strengthen pedestrian connection between Bonnyrigg Estate, Bonnyrigg Town Centre and T-way station
  - Enhanced pedestrian and cycling amenity and improved green network of shared paths, pedestrian connections and through site links
  - Provision of new bus route via Tarlington and Newleaf Parades
  - Allow for future upgrade provisions for traffic intersections immediately surrounding the site



- Legend**
- Site boundary
  - No change as a result of this modification
  - Cadastre
  - T80 T-way transit path
  - Bonnyrigg T-way station
  - Public open space
  - Existing significant road
  - Existing local road
  - Shared pedestrian/cycle/vehicle path
  - Shared pedestrian/cycle path
  - Pedestrian path
  - Public through-site links
  - Indicative local roads
  - Collector road
  - Intersection upgrades
  - Bus stop existing
  - Bus stop proposed

4.8 Street Network

The street network has been simplified to improve legibility and permeability throughout the site. A key focus of the new street layout is a simplified and more direct network that will encourage more walking and cycling as residential densities increase. The circulation network, with more direct connections and less cul-de-sacs has the potential to make Bonnyrigg a safer, more walkable and active community.

New connections include a street along the eastern boundary of the school, a direct link between Monash Place and Bradfield Crescent and streets or public pedestrian paths bounding public open space. This provides a safer and more attractive transition from public to private and reduces the number of private properties and back fences directly adjoining open space.

Key desire lines and view corridors (the Cambodian Buddhist Temple) have also been an important consideration in the proposed changes to the street layout.

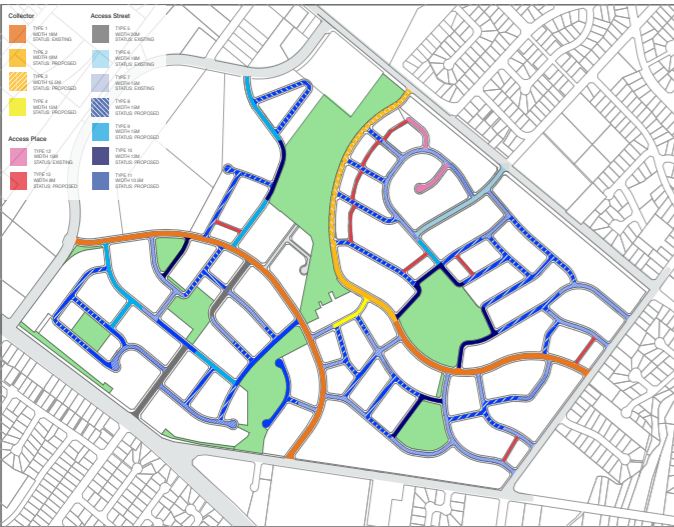
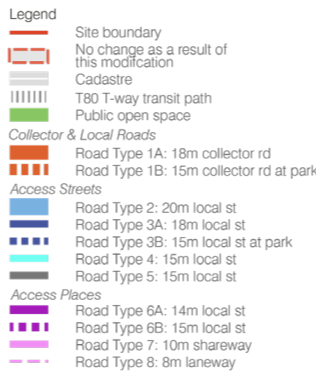
To reinforce and extend the green pedestrian network, larger and more efficient residential blocks will provide more opportunity for through site links and pedestrian connections as part of the redevelopment of the site.

Proposed key changes

- Active ground floor frontages to activate key streets and extend the Bonnyrigg Town Centre into the site
- Improved connections to link Bonnyrigg Town Centre to the site, including a direct link to the T-way stop
- New landscaped pedestrian and cycle shareway adjacent to Bonnyrigg Plaza



Proposed street typologies



Approved road hierarchy plan; source: Road Hierarchy Plan- December 2011. Urbis for Bonnyrigg Partnerships

4.9 Maximum GFA / Dwellings

Approved Concept Plan (2012)

The approved concept plan allocates an indicative dwelling yield for each stage of development, totalling 2,500 dwellings across Bonnyrigg Estate. As shown in the summary table/plan below.

Note: Actual DA approvals for stages 1-7 have subsequently made minor adjustments to the indicative dwelling yield shown below.

2012 indicative dwelling Yield

Indicative Stage	Indicative Dwelling Yield	Indicative Stage	Indicative Dwelling Yield
1	100	10	138
2	109	11	127
3	162	12	318
4	94	13	137
5	128	14	230
6	179	15	170
7	76	16	205
8	65	17	68
9	77	18	117
		TOTAL	2,500

Approved dwelling yields per stage



Proposed Modification (2019)

With an additional 500 dwellings (totalling 3,000) proposed across the site, the modification proposes to adopt maximum density controls based on proposed building typologies.

Where apartments are proposed a maximum GFA is allocated. This will provide flexibility for a range of apartment sizes and mix in each super lot. For low density areas in the east of the site, a maximum dwelling yield is proposed.

Apartments

Specified Block	Maximum Residential Gross Floor Area (GFA)	Indicative Dwelling Yield
A	22,208 sqm	237 Dwellings
B	17,164 sqm	190 Dwellings
C	17,570 sqm	177 Dwellings
D	2,144 sqm	13 Dwellings
E1	18,434 sqm	205 Dwellings
E2	11,520 sqm	129 Dwellings
F	2,507 sqm	18 Dwellings
G	23,968 sqm	263 Dwellings
H	15,387 sqm	167 Dwellings
I	11,784 sqm	123 Dwellings
J	14,944 sqm	171 Dwellings
K1	17,339 sqm	185 Dwellings
K2	2,581 sqm	27 Dwellings
L	1,451 sqm	11 Dwellings
M	9,028 sqm	94 Dwellings
TOTAL		2,010 Dwellings

Low Density Areas

Specified Block	Maximum Number of Dwellings
AA	35 dwellings
BB	25 dwellings
CC	22 dwellings
DD	8 dwellings
EE	20 dwellings
FF	34 dwellings
GG	22 dwellings
HH	4 dwellings
II	8 dwellings
JJ	21 dwellings
KK	18 dwellings
LL	58 dwellings
TOTAL	275 Dwellings

Proposed key changes

- Adopt a maximum residential GFA and dwelling yield for each super lot as specified in the table above and adjacent plan.

Indicative Yield Summary

Concept Plan Areas	Maximum Number of Dwellings
Stages 1-7 (constructed/approved)	715 dwellings
Proposed Modification Blocks A-M (apartments)	2,010 dwellings
Proposed Modification Blocks AA-LL (low density areas)	275 dwellings
TOTAL	3,000 Dwellings



Proposed GFA and indicative dwelling yield







## 05 Public Open Space Strategy

## 5.1 Public Open Space Strategy

The structure plan provides for a wide variation of public domain and landscape spaces. These range from formal plazas to open lawns, from active play areas to naturalised creeks.

The spaces will support the adjacent land uses, promoting ground level activation and opportunities for social interaction. Recreational amenities have been included to provide for a range of age groups and user preferences from young children, families, teenagers and adults.

Natural storm water management and local biodiversity are supported by various elements, ranging from native vegetation planting, preservation of existing trees and creating a natural creek and riparian corridor.

### Key public open spaces

- 1 Hilltop Park
- 2 Middle Valley Creek Community Centre Park
- 3 Lower valley Creek and Sports Park
- 4 Bonnyrigg Square
- 5 Village Green
- 6 Community Park
- 7 Junior Play Park
- 8 Upper Valley Creek Park



Construction Complete/underway



**Hilltop Park**

Bunker Park is located on the highest point of the estate. Completed in 2017 the park is currently provides the focal point for the community with large open informal lawns, tree planting, play area, communal BBQ shelter, basketball and other hard-court games markings.



**Middle Valley Creek Community Centre Park**

Provides spill out space for the community centre as well as an attractive riparian corridor with shared pathways, native tree planting and naturalistic stormwater treatment.



**Lower Valley Creek and Sports Park**

The sports park was implemented in 2010 as an improvement to existing fields and includes a naturalised creek line with stormwater treatment, shared pathways and connections, picnic shelters and a play area with equipment for younger children (0-4yrs).

Concept Plan Amendment (indicative character images)



**Bonnyrigg Square**

Bonnyrigg Square will be a flexible hard space, activated by ground floor cafes, retail and community uses. A fun and attractive water feature will be a key feature for play and cooling in hot summer days.



**Village Green**

Linking the town centre with a generous arrival plaza and pedestrian spine to Lower Valley Creek Park, this public open space incorporates hard urban surfaces as well as wide open lawns for flexible use.



**Community Park**

This vibrant and family-friendly park will offer many opportunities to socialise and stay active with natural children's play equipment, water play area, BBQ facilities and basketball courts.



**Junior Play Park**

A playground with a small bike loop for younger children as well as a basketball half-court for teenagers will be in this neighbourhood park. Vegetated bio-retention basins serve the local storm water management.



**Upper Valley Creek Park**

The creek line of Lower Valley Creek Park continues through the park accompanied by a shared path and wide open lawns between existing vegetation. In the park's centre, a basketball court, BBQ and play facilities offer a hub of activities in an attractive natural setting.

## 5.2 Bonnyrigg Square

### Description

The entrance to Bonnyrigg Estate from the town centre and Bonnyrigg Avenue will be a flexible hard space, activated by ground floor cafes, retail and community uses. Raised lawns with feature planting will provide informal seating options and shade. The central area will be left open to allow for different activities while recessed water fountains could provide a simple and fun element for play and cooling.

The existing boundary vegetation to the west will be retained which will create a shaded shared path leading south into the estate. Future development of Bonnyrigg Plaza could see this western boundary activated with additional ground floor retail uses.

### Key features

- ① Arrival plaza/gateway into the precinct with public art
- ② Open manicured lawn
- ③ Cafe/dining space along Bonnyrigg Avenue
- ④ Flexible plaza space with recessed water feature
- ⑤ Raised planters and feature tree planting with seating options
- ⑥ Retail / Community ground floor use
- ⑦ Community share way alongside existing boundary tree planting
- ⑧ Cafe/dining space and active frontages
- ⑨ Potential future development by others (currently a shopping centre car park)



Indicative Character Images



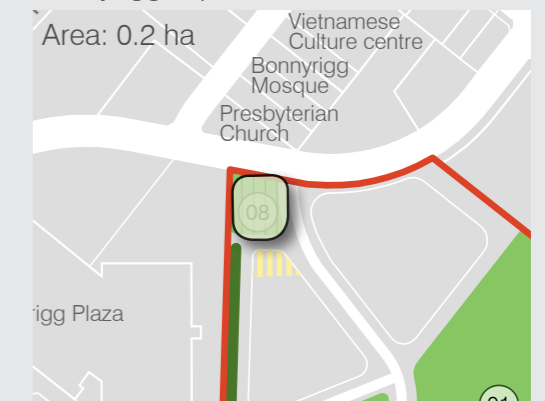
### Scale comparison

Rouse Hill Town Centre has a successful central plaza with active ground floor uses, including a public library, retail uses and cafes. Its playful water features and informal seating are popular with people of all ages.



### Bonnyrigg Square

Area: 0.2 ha



### Rouse Hill Town Centre





Visualisation of Bonnyrigg Square

### 5.3 Village Green

#### Description

The Village Green transitions from an urban plaza in the west to wide open lawns in the east, linking Bonnyrigg town centre to the Lower Valley Creek Park.

The space provides additional open space, recreational and green amenity close to the active Bonnyrigg Town Centre.

The southern side of the Village Green is fronted by active ground floor frontage with high quality streetscape elements that reinforce a future link to Bonnyrigg Plaza and beyond to the T-Way station.

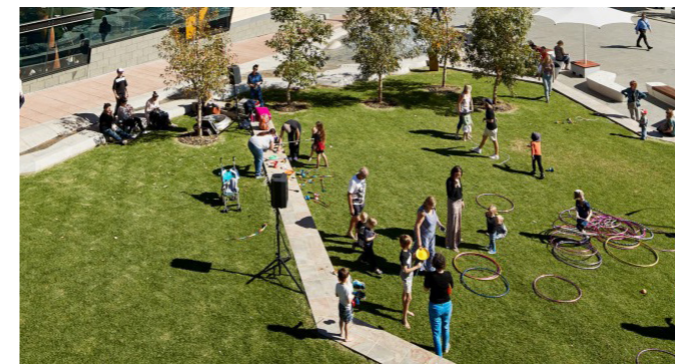
Bespoke children's play equipment, BBQ and picnic facilities surround large areas of flat green open space that can be used for informal kick-about, picnic lunches and relaxing.

#### Key features

- ① Community share way along existing tree canopy
- ② Arrival plaza into the precinct with opportunity for public art
- ③ Potential future pedestrian link to Bonnyrigg Plaza
- ④ Plaza/ spill out spaces for commercial ground floor use
- ⑤ Raised planters and feature tree planting with seating options
- ⑥ Children's play equipment
- ⑦ Open active field
- ⑧ Shaded BBQ facilities
- ⑨ Lower Valley Creek Park



Indicative Character Images



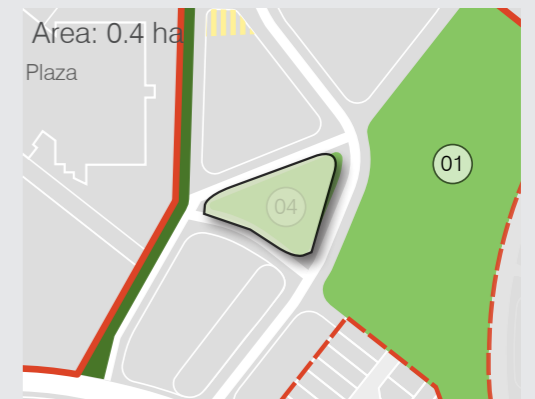
#### Scale comparison

Mary O'Brien Reserve is praised by its local community for the fantastic water play area for young kids and the BBQ and picnic facilities. Shade is provided by surrounding trees and a canvas shade covering the playground.



Village Green

Area: 0.4 ha  
Plaza



Mary O'Brien Reserve





Visualisation of the Village Green

## 5.4 Community Park

### Description

The Community Park will be a high quality urban park and local destination. It will be a focal point for community activity and attract a range of users and age groups through different activities and amenities.

A feature adventure play area may include water play and timber play structures surrounded by naturalistic planting and a kids cycle track will be overlooked by a pavilion with community amenities.

The wide central lawn could be utilised for community events, such as weekend markets or outdoor movie screenings. BBQ shelters will cater for small groups and family gatherings whilst basketball courts will provide additional active recreation opportunities.

### Key features

- ① Adventure playground with children's bike loop
- ② Potential for water play equipment in densely vegetated setting
- ③ Community pavilion/amenities
- ④ Plaza/spill out spaces for community use with raised planters
- ⑤ Large open lawn as event space, e.g. outdoor cinema nights
- ⑥ Shaded BBQ/ picnic facilities
- ⑦ Open lawn area
- ⑧ Basketball courts
- ⑨ Pedestrian through-site links to Bonnyrigg Public School and Upper Valley Creek.
- ⑩ Retained significant cultural tree



1:1,250 0 25 50 75M

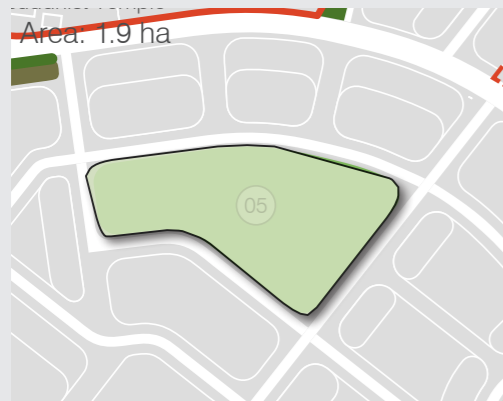
### Scale comparison

Joynton Park's large, flexible lawns are renowned for the safe dog off-leash area and the Saturday markets. The shaded BBQ and picnic areas are a popular meeting place. Joynton Park Community kiosk can be booked for gatherings and events, providing more amenities.



Community Park

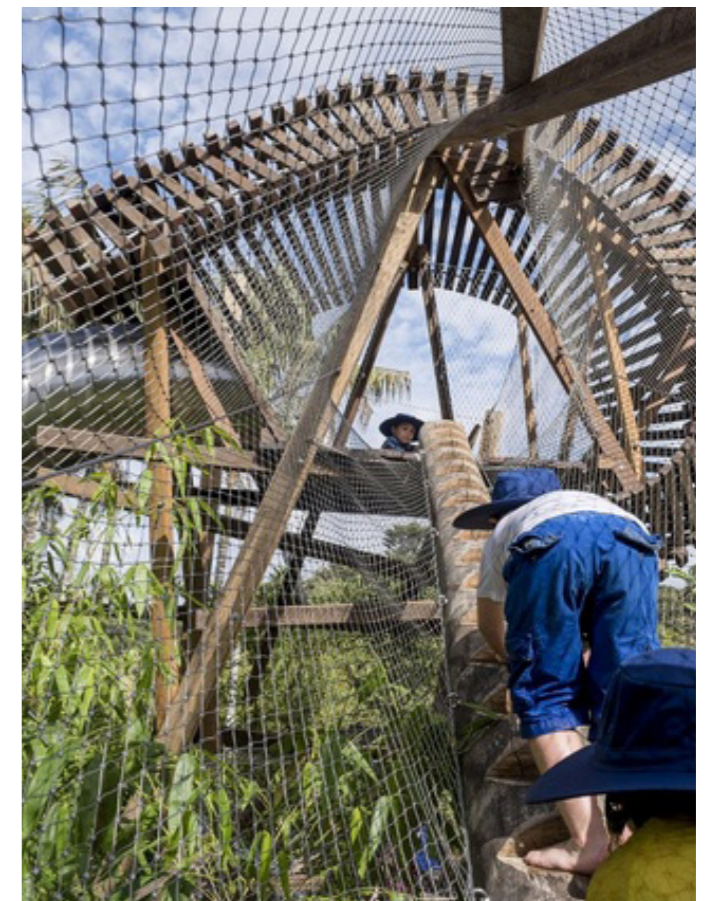
Area: 1.9 ha



Joynton Park



### Indicative Character Images



## 5.5 Junior Play Park

### Description

Nestled in a quiet residential part of the Bonnyrigg Estate, the Junior Play Park is characterised by its mature tree canopy from existing retained trees providing plenty of shade. The park offers safe and fun playing equipment and a small bike loop for younger children as well as a basketball half-court for teenagers.

Two vegetated bio-retention basins manage rainwater infiltration in an environmentally sustainable way and enhance landscape views for passive recreation.

The park will be a total of approximately 0.9 ha.

### Key features

- ① Existing mature tree canopy
- ② Children's play equipment
- ③ Shaded BBQ facilities
- ④ Vegetated rainwater bio-retention basins
- ⑤ Basketball half-court
- ⑥ Open lawn



Indicative Character Images



## 5.6 Upper Valley Creek Park

### Description

The naturalised creek line defines this public open space and give it a tranquil and linear quality.

Upper Valley Creek Park connects with the Middle and Lower Valley Creek Park, providing a long stretch of shared paths for walking, running and cycling through Bonnyrigg Estate and into its surrounding neighbourhoods and open space network.

Along the shared path that runs through the park a basketball court, BBQ and play facilities offer additional activities in an attractive natural setting. Surrounding residential dwellings and streets will offer good casual surveillance to help improve safety.

The park will be a total of approximately 2.26 ha.

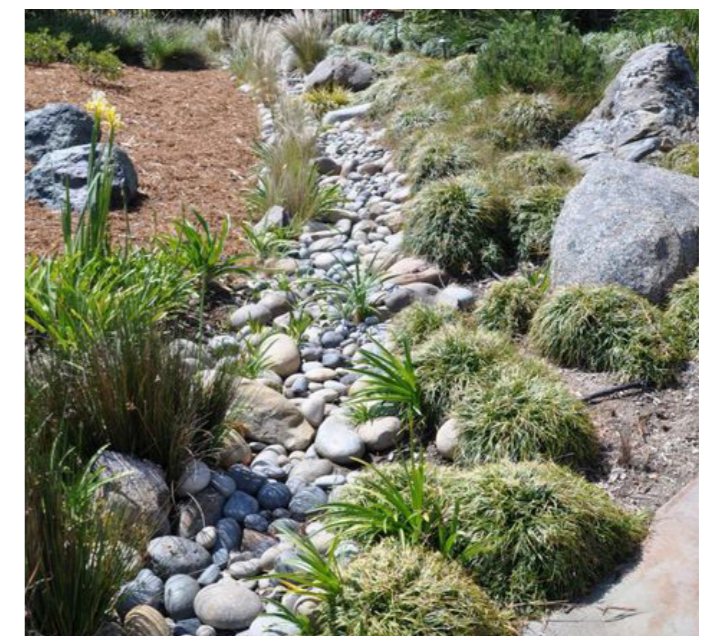
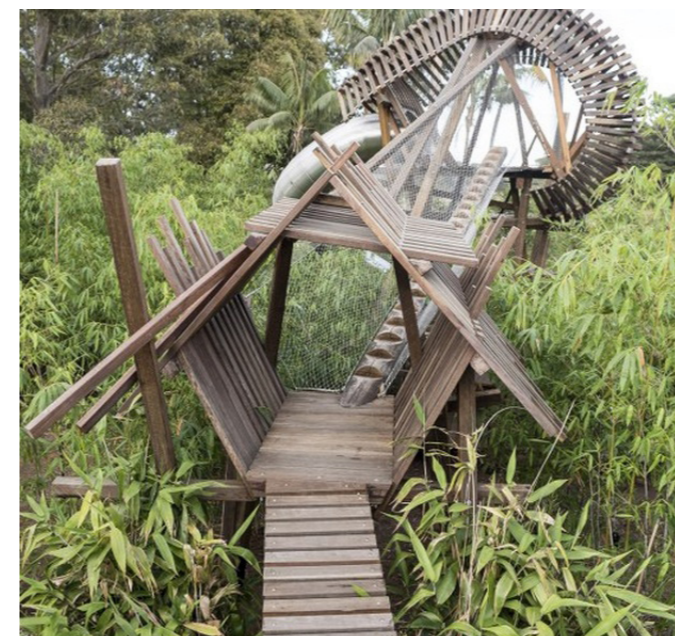
### Key features

- ① Dry creek line and bioswales
- ② Significant heritage tree
- ③ Shared path for cycling/running
- ④ Basketball court
- ⑤ Shaded BBQ facilities
- ⑥ Small play area
- ⑦ Open lawn areas
- ⑧ Entry into the precinct with public art and wayfinding opportunity
- ⑨ Shared path with feature trees linking to Community Park



1:1,500 0 15 30 45 60 75M

Indicative Character Images







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## 06 Built Form Testing

6.1 Shadow Studies

Solar Access to Open Space

In order to test that the public open space will receive adequate sunlight a simplified 3d model has been created.

Proposed heights and typical massing for apartment blocks have been modelled to test overshadowing at hourly intervals during the winter solstice.

The following images show the results of this testing and illustrate that there is only very minimal overshadowing to open space during short periods of the day.

Future DA's for individual development lots will be required to demonstrate compliance with the NSW Apartment Design Guidelines for overshadowing of communal and public open space.



9am - June 21

Shadow Studies



12pm - June 21



3pm - June 21

6.2 Typical Massing Studies

A simplistic 3d digital model has been prepared to test and illustrate built form and massing from key views around the site.

These views represent in a simplistic form the relationship between building heights, massing streets, public domain and open space.

The views chosen focus on sites with heights that would permit apartment buildings.

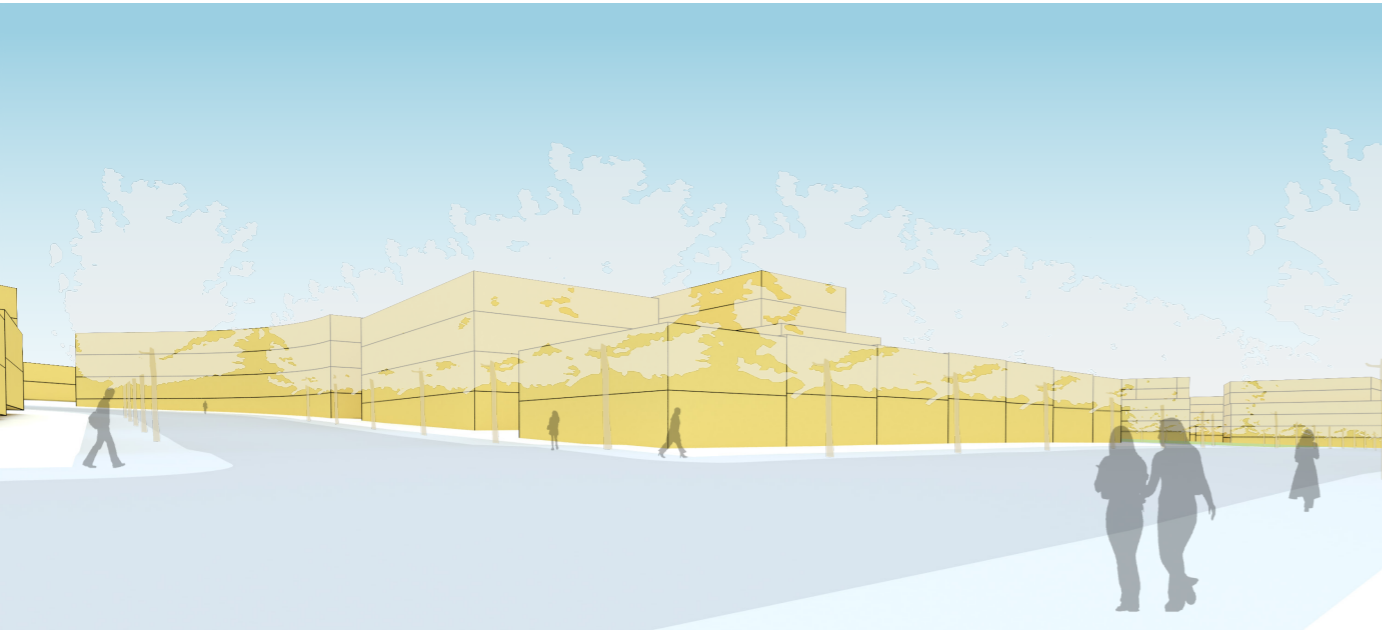
Maximum heights equivalent to 6 storeys combined with generous open spaces, road reserves and building set backs mean that in general the studies reveal a considerate approach to massing.



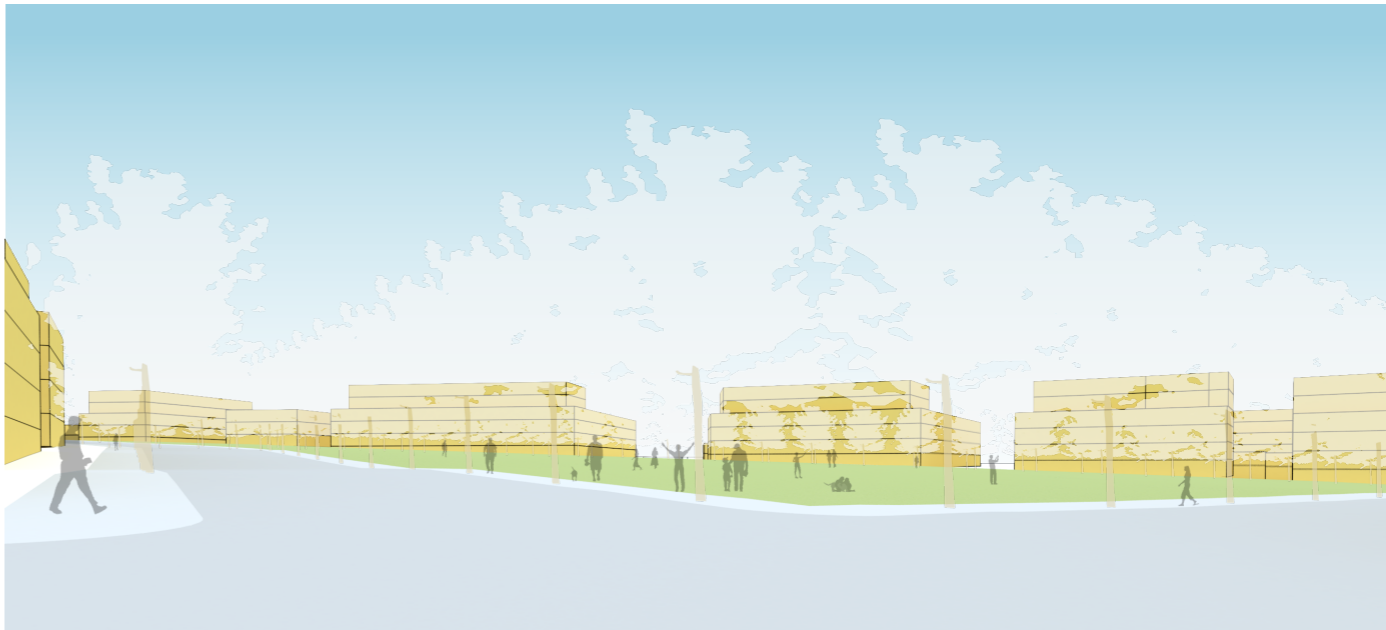
View location



View 1

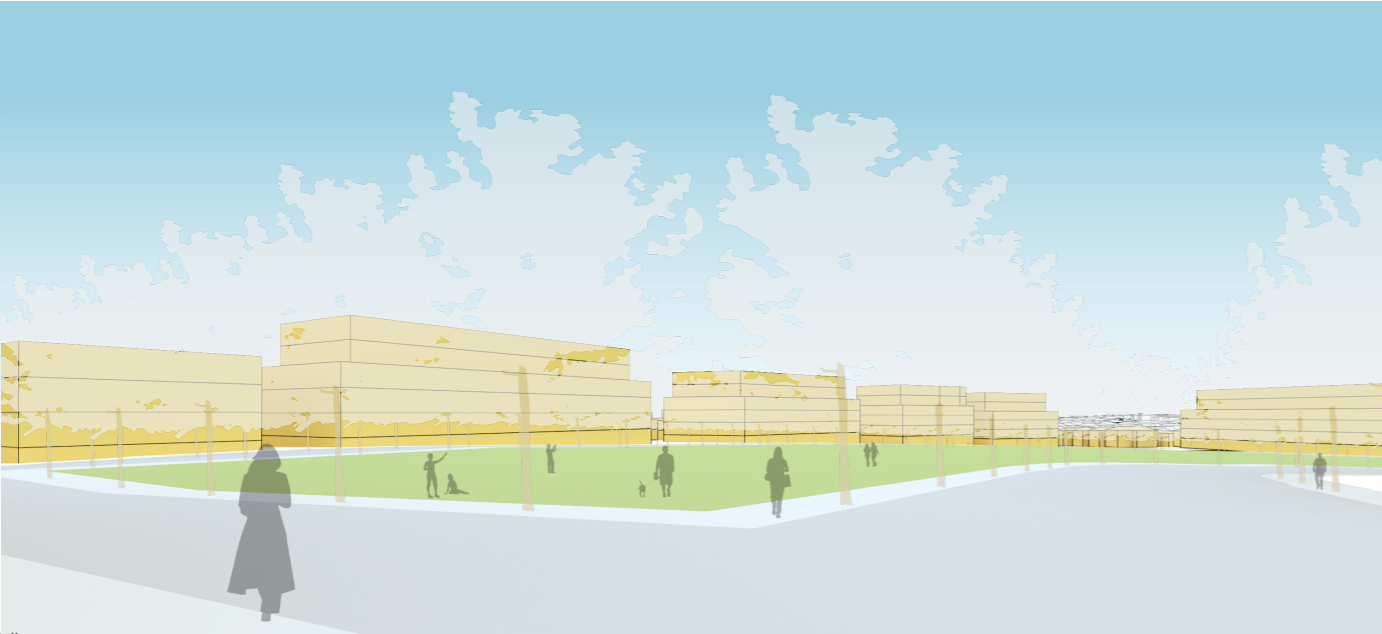


View 2



View 3

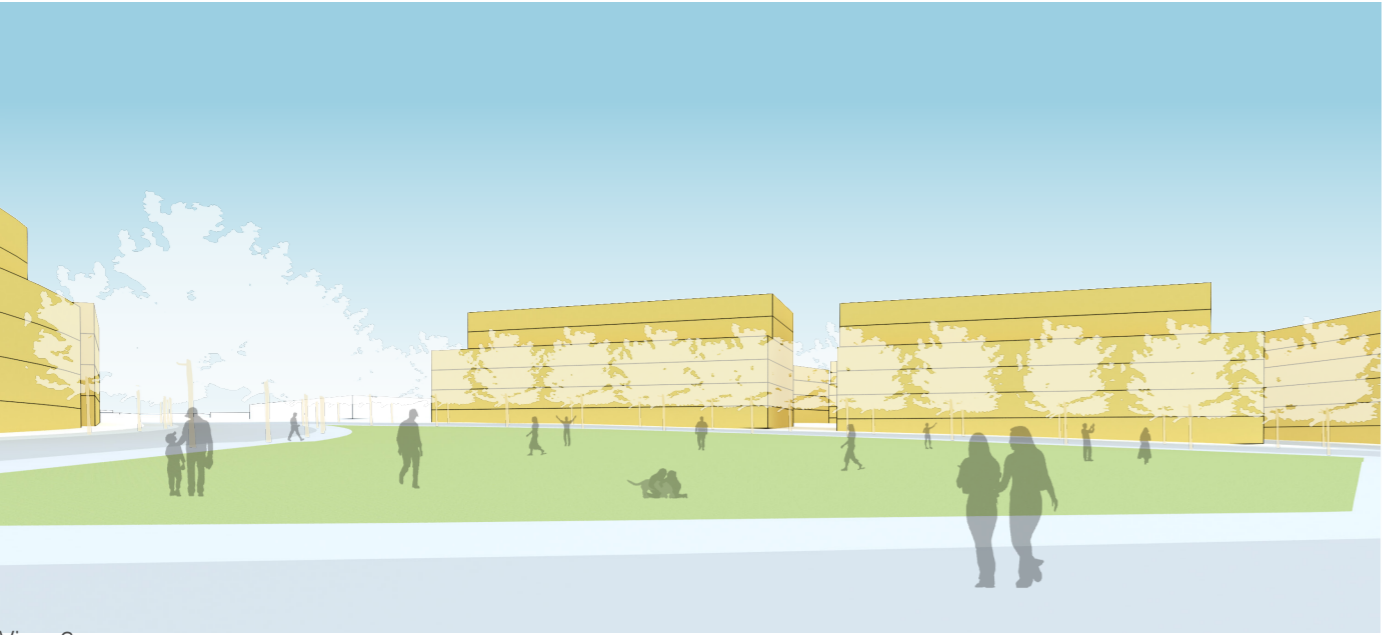
Typical Massing Studies



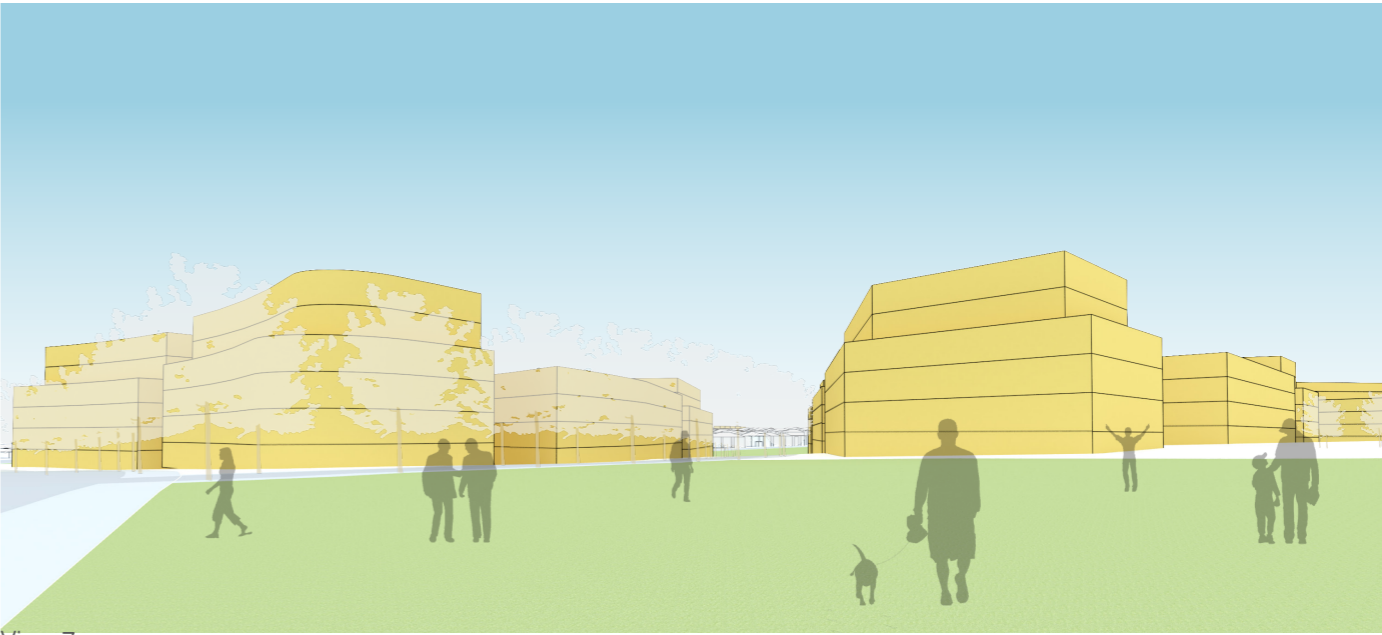
View 4



View 5



View 6



View 7

6.3 NSW Apartment Design Guidelines

The proposed modification to the Bonnyrigg Concept Plan has been designed to ensure future development proposals can comply with the requirements of the ADG.

The following is a summary of the key design requirements of the ADG which will supplement the site's specific design objectives and controls.

Local Context Guidelines

Building Depth

Apartments should generally be between 12-18 metres in width between glazing lines. Building depths beyond 18m may be able to be achieved where appropriate access to light and ventilation can be demonstrated: for example in a corner location.

Building Separation

MOD0002 illustrates how ADG building separation requirements could be achieved within the proposed building envelope area. The ADG building separation identified in MOD0002 is indicative at this stage and may be subject to change during the detailed design phase. Future development will be required to meet the minimum building separation controls summarised below:

- Buildings to 12 metres in height (4 storeys)
- 12m between habitable rooms / balconies
  - 9m between habitable rooms / balconies and non-habitable rooms
  - 6m between non-habitable rooms

- Buildings to 25 metres in height (5 - 8 storeys)
- 18m between habitable rooms / balconies
  - 12m between habitable rooms / balconies and non-habitable rooms
  - 9m between non-habitable rooms

- Buildings over 25 metres in height (9 storeys and over)
- 24m between habitable rooms / balconies
  - 18m between habitable rooms / balconies and non-habitable rooms
  - 12m between non-habitable rooms

Site Design Guidelines

Communal Open Space

The development should include communal open space that has a minimum area equal to 25% of the site. The development should also achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours during the mid-winter solstice.

Deep Soil Zones

A minimum of 7% of the site area should be a deep soil zone, with minimum dimensions of 3m for sites greater than 650m², and 6m for sites greater than 1,500m².

Visual Privacy

Minimum separation between windows and balconies is based on whether rooms are habitable (generally living and sleeping spaces) or non-habitable (generally service spaces):		
Building Height:	Habitable:	
Non-Hab.:		
– Up to 12m (4 storeys)	6.0m	3.0m
– Up to 25m (5-8 storeys)	9.0m	4.5m
– Over 25m (9+ storeys)	12.0m	6.0m

Vehicle Access

Car park entries should be minimised in size and visual prominence, and located away from pedestrian entries.

Bicycle and Car Parking

The parking strategy for the development should take into account the site's proximity to public transport and minimise car dependency where possible. On-grade car parking should be minimised and preference to underground parking where possible.

Building Design Guidelines

Solar and Daylight Access

At least 70% of apartments in Sydney, Newcastle, and Wollongong should receive a minimum of 2 hours direct sunlight in mid-winter. In all areas, a maximum of 15% of apartments may receive no sun in mid-winter.

Natural Ventilation

- Building depths of cross-through apartments should be a maximum of 18 metres
- 60% of residential units should be naturally cross ventilated.

Ceiling Heights

Minimum ceiling heights measured from Finished Floor Level (FFL) to Finished Ceiling Level (FCL):	
– Habitable rooms:	2.7m
– Non-habitable rooms:	2.4m
– 2-storey apartments:	2.7m main living area floor
	2.4m second floor
– Attic spaces:	1.8m
– If located in mixed use areas:	3.3m for ground and first floors (for flexibility)

As a rule-of-thumb this would require at a minimum:

- 4m floor to floor for ground level (4.2m desirable)
- 3m floor to floor for upper levels at a minimum. (3.2m desirable)

NSW Apartment Design Guidelines

Apartment Size and Layout

- Minimum apartment sizes are for one bathroom.
- Studio: 35m<sup>2</sup>
  - 1 bed apartment: 50m<sup>2</sup>
  - 2 bed apartment: 70m<sup>2</sup>
  - 3 bed apartment: 95m<sup>2</sup>
  - Second bathrooms add 5m<sup>2</sup>
  - Additional bedrooms add 12m<sup>2</sup>

Environmental performance guidelines:

- All habitable rooms must have windows of not less than 10% of the floor area of the room
- Daylight may not be borrowed from other rooms.
- Habitable room depths have a maximum depth of 2.5x the ceiling height
- Maximum habitable room depths for open plan spaces is 8m.

Household activity requirements:

- Minimum area of 10m<sup>2</sup> for master bedrooms and 9m<sup>2</sup> for other bedrooms (excluding wardrobes)
- Minimum 3m dimension for bedrooms (excluding wardrobes)
- Minimum 3.6m dimension for living rooms in studio and 1 bedroom apartments, and 4m for living rooms in 2 and 3 bedroom apartments.
- Minimum 4m width of cross-through apartments.

Private Open Space and Balconies

	Min. Size:	Min
Depth:		
– Studio apartment:	4m <sup>2</sup>	-
– 1 bed apartment:	8m <sup>2</sup>	2.0m
– 2 bed apartment:	10m <sup>2</sup>	2.0m
– 3+ bed apartment:	12m <sup>2</sup>	2.4m
– Apartments at ground or podium level should have private open space with a minimum 15m <sup>2</sup> area and 3m depth instead of a balcony.		

Common Circulation and Spaces

- Maximum of 8 apartments per circulation core per level
- Maximum of 40 apartments per lift for buildings of 10 storeys and over.

Apartment Mix

Developments should incorporate a variety of apartment types so as to encourage cultural and social diversity. Councils often have desired mix targets.

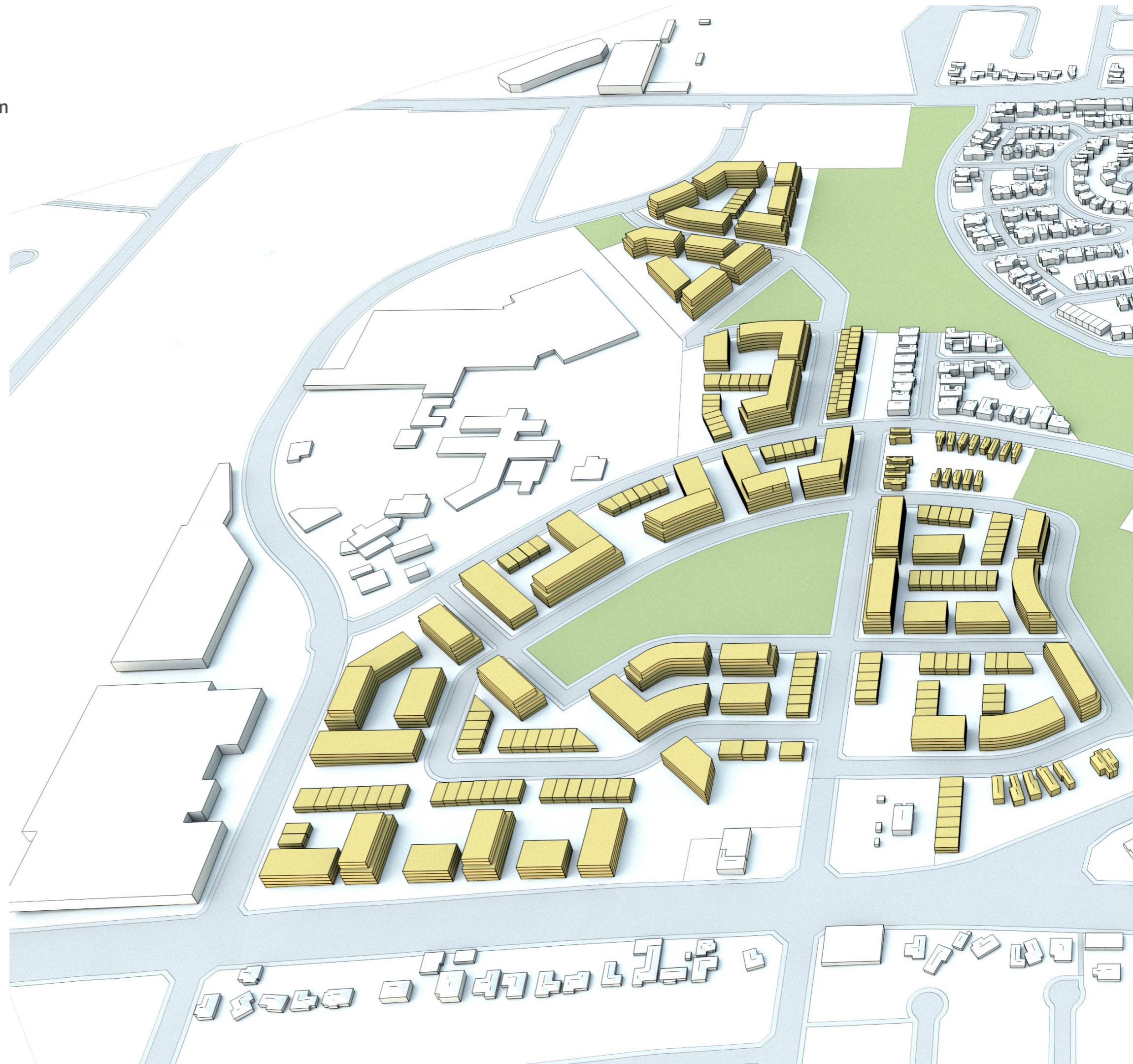
Facade Design

Façades should be composed of varying elements that add definition to the building composition.

Landscape Design

Landscaping contributes to the amenity of residential developments as well as to the ecology of the city.

6.4 Aerial View of Proposed  
Modification showing indicative built form





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