ITEM-5	**DEVELOPMENT CONTROL PLAN, CONTRIBUTIONS PLAN & PUBLIC DOMAIN PLAN FOR CASTLE HILL NORTH (FP38 & 16/2016/PLP)**
THEME:	Balanced Urban Growth.
OUTCOME:	7 Responsible planning facilitates a desirable living environment and meets growth targets.
STRATEGY:	7.2 Manage new and existing development with a robust framework of policies, plans and processes that is in accordance with community needs and expectations.
MEETING DATE:	**25 JULY 2017** COUNCIL MEETING
GROUP:	**STRATEGIC PLANNING**
AUTHOR:	**ACTING PRINCIPAL COORDINATOR FORWARD PLANNING** BRENT WOODHAMS
RESPONSIBLE OFFICER:	**ACTING MANAGER FORWARD PLANNING** JANELLE ATKINS

EXECUTIVE SUMMARY

This report recommends that the following draft planning documents be publicly exhibited concurrently with the planning proposal for the Castle Hill North Precinct (16/2016/PLP), in order to ensure the delivery of appropriate development outcomes within the Precinct:

- Draft Contributions Plan No. 17 – Castle Hill North Precinct;
- Draft DCP 2012 (Part D Section 20 – Castle Hill North);
- Draft amendments to DCP 2012 (Part C Section 1 – Parking); and
- Draft Castle Hill North Public Domain Plan.

A planning proposal has been prepared to amend LEP 2012 to facilitate high density development around the future Castle Hill Railway Station. A Gateway Determination for the planning proposal was issued on 2 November 2016 to enable the proposal to be exhibited for public comment. The associated draft Contributions Plan, DCP amendments and Public Doman Plan have been prepared to support the development of this Precinct in accordance with Council's strategic vision.

The draft Contributions Plan will enable Council to levy new residential development to collect the necessary funds for the provision of local infrastructure required to support the additional population. It aims to ensure that existing infrastructure is not over-taxed and that future residents are able to access facilities and services that are consistent with the lifestyle enjoyed by existing Hills residents. The Plan identifies upgrades and new facilities including roundabouts, road widening, intersection re-alignments, playing fields, embellishment of open spaces, new stormwater management facilities, public domain works and pedestrian facilities.

The draft development controls are proposed to regulate future built form and ensure high quality development outcomes that reflect intended character for the precinct as a highly liveable transit centre. The controls also seek to achieve a well-connected pedestrian network, active street frontages, high quality architectural style and character, attractive streetscapes, public realm, common open space and car parking.

The draft Public Domain Plan seeks to enhance the image and amenity of the Precinct through the provision of street trees, footpath paving, furniture and landscaping to give the precinct a unique urban identity, whilst complementing the character of the surrounding area. It will provide the overall direction for creating public domain spaces that are attractive, safe and vibrant within the town centre.

In association with the Castle Hill North Planning Proposal, it is recommended that a new planning proposal be forwarded to the Department of Planning and Environment for a Gateway Determination to rezone land at 7-13 Glenhaven Road, 1 Kyle Avenue and 3 Gilmour Close, Glenhaven from RU6 Transition to RE1 Public Recreation and identify the land on the Land Reservation Acquisition Map. The amendment will facilitate the delivery of a district open space facility on the site which can service future growth within the Castle Hill Precinct.

HISTORY

24/11/2015	Council resolved to adopt the Castle Hill North Precinct Plan, with post-exhibition amendments, and forward a planning proposal to the Department of Planning and Environment for Gateway Determination.
02/11/2016	Conditional Gateway Determination issued by the Department of Planning and Environment.
07/03/2017	Council Briefed on a draft contributions plan, draft amendments to DCP 2012 and a draft public domain plan.

BACKGROUND

The planning proposal for Castle Hill North seeks to implement changes to land zoning and development standards and to introduce a new local provision to facilitate increased residential densities within the Castle Hill North Precinct. The boundaries of the Castle Hill North Precinct are shown in the following figure.

Figure 1
Castle Hill North Precinct

Since the planning proposal was sent for Gateway Determination in November 2015, both Council and the Department of Planning and Environment have developed an agreed methodology and policy position with respect to future apartment development within the Sydney Metro Northwest Corridor. This policy position will provide Council with certainty that at least 20% of future apartment development will be in the form of three or more bedroom apartments and that 30% of all future apartments will be at Council's adopted size.

On 2 November 2016 a Gateway Determination was issued for the planning proposal (16/2016/PLP), which included a condition requiring the planning proposal to be amended to be consistent with the agreed methodology for housing diversity, prior to exhibition. In accordance with the Gateway Determination the planning proposal has been updated and can now be placed on public exhibition.

Since the issue of a the Gateway Determination a number of draft planning documents have been prepared to support the draft amendments to LEP 2012. These include a draft Contributions Plan to collect the necessary funds for the provision of local infrastructure required to support the additional population, draft amendments to DCP 2012 to regulate the urban structure, built form and the design of development, and a draft public domain plan to guide the design for embellishment of the public realm.

REPORT

This purpose of this report is to consider draft planning documents to support the planning proposal for Castle Hill North Precinct to facilitate high density development around the future Castle Hill Railway Station. The report is structured into four (4) separate sections being:

1. Draft Contributions Plan No.17 – Castle Hill North;
2. Draft Development Control Plan Amendments;
3. Draft Public Domain Plan; and
4. New Planning Proposal (Gilmour Close Reserve).

1. DRAFT CONTRIBUTIONS PLAN NO.17–CASTLE HILL NORTH

The precinct is currently subject to the provision of The Hills Section 94A Contributions Plan which levies development based on a percentage of the cost of works. This plan is suitable for established areas where incremental growth is anticipated, and is not sufficient to provide for the infrastructure needs generated by the large-scale urban redevelopment anticipated within the Castle Hill North Precinct.

Accordingly, a new Contributions Plan is required to identify the local infrastructure required to support the demand generated by additional population within the Castle Hill North Precinct. The infrastructure included within the Contributions Plan is considered to be necessary to support a quality of life of future residents. The draft Contributions Plan will provide an appropriate mechanism to ensure that funding of this infrastructure is equitably distributed throughout the Precinct based on the anticipated growth in population. Where the demand for particular infrastructure is not solely attributable to future growth within the precinct, the cost has been apportioned to the Precinct, with the remaining costs to be funded via alternative sources (potentially future contributions plans for nearby rail Precincts or alternatively, Voluntary Planning Agreement contributions).

As part of the master planning of the Castle Hill North Precinct a review was undertaken of the existing infrastructure which identified that upgrades and new facilities are required to support future growth. In particular roundabouts, road widening, intersection re-alignments, new playing fields, embellishment of passive open spaces, new stormwater management facilities, public domain works and pedestrian facilities

have been included in the draft Contributions Plan. An overview of the infrastructure items to be levied through the plan and the contribution rates for future development are detailed within the following section.

The draft Contributions Plan has been prepared having regard to the relevant provisions of the *Environmental Planning and Assessment Act 1979* and the accompanying Regulation. The Regulation requires that the plan be prepared having regard to the Development Contributions Practice Notes issued by the Department of Planning and Environment.

Dwelling and Population Yield
The population projections for the Castle Hill North Precinct are based upon a 20 year timeframe. Once developed, it is projected that there will be approximately 3,575 dwellings, comprising 3,425 apartments and 150 townhouse/terraces. This equates to an additional 3,283 dwellings and an additional population of around 6,045 people.

Open Space and Recreation Facilities
The planning for this precinct seeks to ensure that residents of new developments are able to access open space and recreation facilities consistent with the lifestyle enjoyed by existing Hills Shire residents. It is noted that existing playing fields within the Shire are currently at capacity. To cater for the additional population, new open spaces and improvements to existing open spaces will be required.

Local Open Space
An additional population of around 6,045 people will generate demand for approximately 10ha of passive open space, based on the traditional method of determining open space provision. However, achieving a higher amount of passive open space within this location will present challenges due to its highly urbanised context and the cost of land. Accordingly, the approach which is proposed is to improve the function and capacity of the existing passive open space areas. The reserves which are proposed to be embellished include Maurice Hughes Reserve, Larool Crescent Reserve, and Eric Felton Reserve.

Playing Fields (Active Open Space)
The future population will generate demand for around 1.5-2 playing fields and one (1) cricket oval. As the existing playing fields within the vicinity of the precinct are already at capacity, there is limited potential to accommodate any additional demand within these existing facilities. Therefore, additional playing fields will be required to ensure that the future population is provided with appropriate active open space facilities, and not simply provided with a sub-standard level of service due to the difficulties associated with acquiring open space.

The planning work which is currently being undertaken for Castle Hill North presents a significant opportunity to implement a coordinated strategic approach to the provision of open space to meet the requirements of future residents. This approach would secure the provision of a district facility, of a sufficient size, to accommodate the demand which is projected to occur within the entirety of the Castle Hill Precinct (both north and south sub-precincts) and the Cherrybrook Precinct.

The combined population growth envisaged within the Castle Hill North, Castle Hill South and Cherrybrook Precincts are included within the following table. It is noted that the population growth for Castle Hill North is based on the incentivised provision of residential floor space, consistent with the agreed methodology for housing diversity.

	Additional Dwellings	Additional Population
Castle Hill (North)	3,283	6,045
Castle Hill (South)	3,319*	3,576
Cherrybrook	1,695**	3,389
	8,279	**13,009**

**Remaining growth potential within the Castle Hill Precinct when excluding 3,283 dwellings within the Castle Hill North Precinct and 1,298 dwellings which have recently been approved on the Crane Road site and Pennant Street Target Site.*
*** Growth anticipated under The Hills Corridor Strategy*

Table 1
Growth Projection within the Castle Hill and Cherrybrook Precincts

In recognition of the likely cumulative demand generated across these Precincts, a potential site has been identified for a district open space facility at 7-13 Glenhaven Road, 1 Kyle Avenue and 3 Gilmour Close, Glenhaven. The site has an area of 100,983m^2 (10.09ha) (however, it is noted that 11 Glenhaven Road (853m^2) is already owned by Council and contains the Glenhaven Rural Fire Service). The area of the remaining privately owned land is 100,130m^2 (10.013ha).

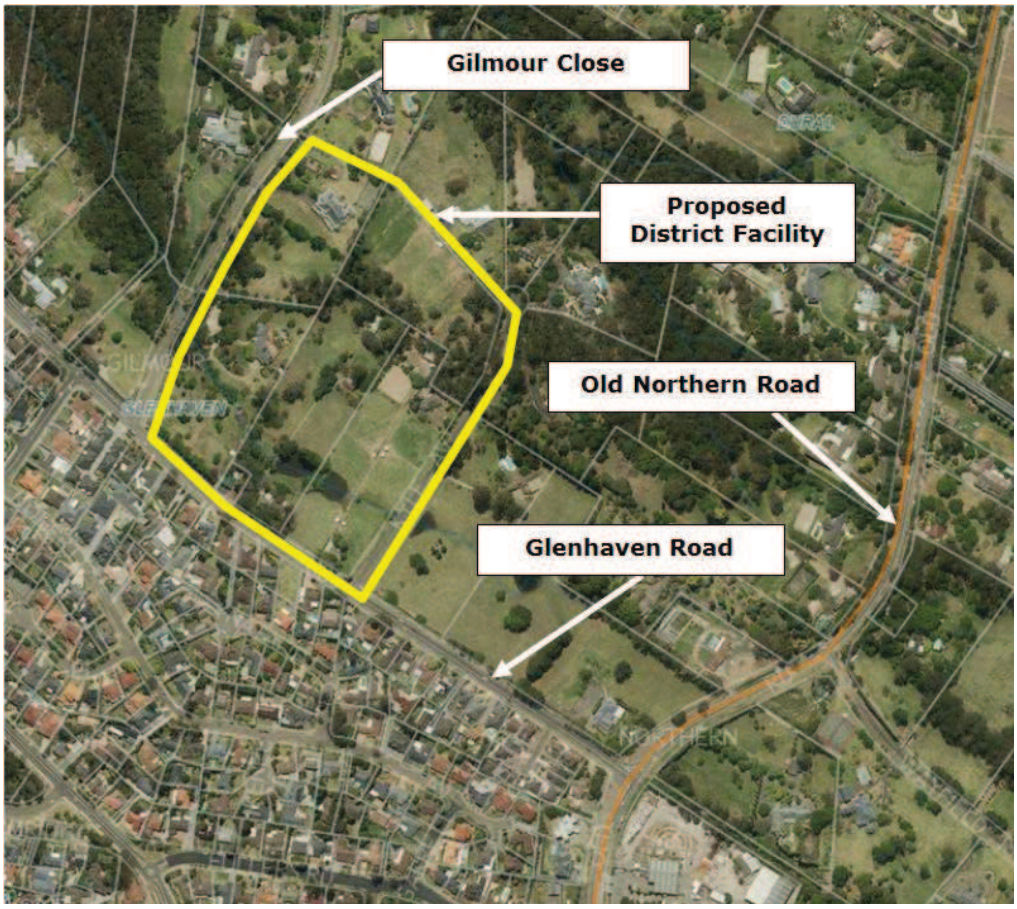


Figure 2
Possible Future District Facility (Gilmour Close Reserve)

This site, whilst currently zoned RU6 Transition, formed part of the North Glenhaven Precinct which was identified as part of the Landowner Nominated Sites process in 2012. Whilst no formal planning proposal has been lodged for this precinct, the concept that formed part of the 2012 nomination identified the site as having potential for a mix of low and medium density development. Furthermore it is noted that this area is included within the Dural/Glenhaven investigation area.

This area is considered to be appropriate to accommodate a district facility as it is within relatively close proximity to both Castle Hill and Cherrybrook, and would have more capacity to provide the extent of facilities required to meet the demand generated by the new population. The combined area of the site could accommodate four (4) playing fields, two (2) cricket ovals, four (4) tennis courts, amenities facilities and associated car parking. This facility would be able to support the needs of approximately 16,000 people (8,000 dwellings) at maximum capacity.

In determining the cost apportionment for this facility, it is considered reasonable that the cost of the facility be split based on the anticipated demand generated by each precinct. The cost apportionment will be based on the full capacity of the facility being 16,000 people (8,000 dwellings). The recommended cost apportionment is included in the following table.

	Additional Dwellings	**Additional Population**	**Apportionment**
Castle Hill (North)	3,283	6,045	38%
Castle Hill (South)	3,319	6,638	41%
Unallocated *	1,658*	3,317*	21%
		16,000	**100%**

**Could be allocated to meet a portion of the additional yield within the Cherrybrook Precinct or additional yield within the Castle Hill Precinct.*

Table 2
Cost Apportionment

The total land and capital cost of delivering this facility would be approximately $57.3 million (including land and capital). Future development within the Castle Hill North Precinct would be levied for 38% of the land and capital cost of providing this facility (approx. $21.7 million). Future growth within the Castle Hill South and Cherrybrook Precincts could also contribute funding towards this facility.

It is noted that five of the six identified lots are under private ownership and consultation with the relevant landowners would need to occur as the planning proposal progresses.

Possible Alternative Site (Holland Reserve)
A possible alternative site would be an extension of Holland Reserve which is zoned RE1 Public Recreation and is already under Council ownership. The Holland Road site has a single sports field with the synthetic cricket pitch located in the centre. The Bannerman Road side has an equestrian centre. The site is shown in the following figure.

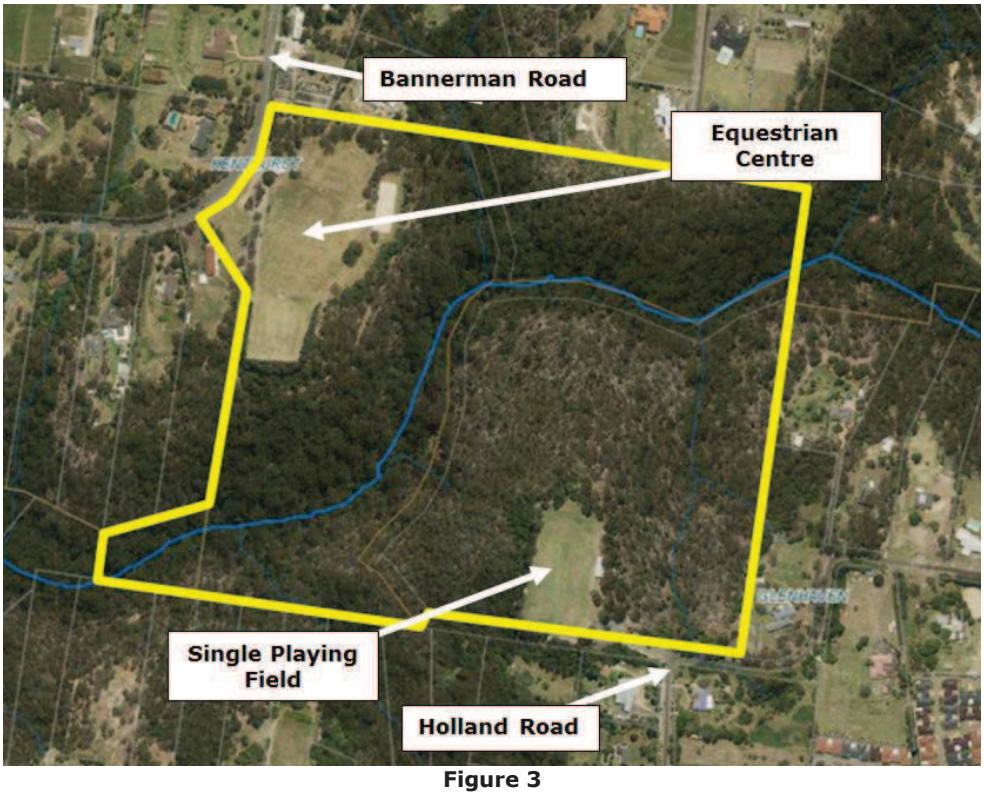


Figure 3
Possible Alternative Facility (Holland Reserve Extension)

On the Holland Road side, an additional single playing field could be provided to the east of the existing playing field. This would require the removal of a substantial amount of vegetation. It is noted that the site contains Shale Sandstone Transition Forest which is a Critically Endangered Ecological Community. Accordingly, it will be difficult to get more than a single additional playing field at this location.

The Bannerman Road side of the reserve is currently occupied by the Equestrian Centre/Dural Pony Club. Whilst approximately 2-3 playing fields could potentially be accommodated on this side of the Reserve, without substantial removal of vegetation, it would involve the relocation of the Equestrian Centre to an alternative location.

It is noted that as part of the planning for the Showground Priority Precinct, the site of the current Castle Hill Pony Club is being investigated for 2-3 new playing fields. This would require the relocation of the Castle Hill Pony Club to an alternative site which could include amalgamation with an existing Pony Club. One possible location which is currently being investigated is the Bannerman Road side of Holland Reserve. Accordingly, if playing fields are proposed at this location, an alternative site will potentially be required for both Pony Clubs.

Furthermore, this site is approximately 6.4km from the Castle Hill North Precinct and approximately 6.7km from the Cherrybrook Precinct. Accordingly, this is beyond what is considered to be an acceptable catchment.

Whilst the Gilmour Close site is approximately 4km from the Precinct, it is generally considered to be within the Precinct Catchment and presents fewer constraints and greater opportunity for increase the capacity of Council's active open space network. Accordingly, a clearer nexus argument can be established for levying development for this facility.

Traffic and Transport Facilities
Appropriate traffic management measures and intersection treatments are needed at certain locations in order to achieve satisfactory traffic management outcomes as a result of future development.

Roundabouts
Roundabouts in four (4) locations are to be provided under the Contributions Plan. The works are considered necessary to meet future demand, whilst ensuring an acceptable level of access, safety and convenience for all street and road users within the Castle Hill North Precinct. New roundabouts are proposed at the following locations:

- Carramarr Road/Castle Street;
- Gilham Street/Carramarr Road;
- Gilham Street/Old Castle Hill Road; and
- Garthowen Crescent/Old Castle Hill Road.

Intersection Realignment
In addition to the proposed roundabouts, an intersection upgrade/realignment will be required at the junction of Old Northern Road/McMullen Avenue to improve its operational efficiency. This intersection is one of the principal points at which vehicles generated from within the Caste Hill North Precinct will access the arterial road network. Future development within the Castle Hill North Precinct will be levied for 24% of the cost of this upgrade based on apportionment of local versus regional traffic.

Road Widening (Castle Street and Old Castle Hill Road)
Road profiles have been prepared for all roads within the Castle Hill North Precinct. The existing reservations for Castle Street and Old Castle Hill Road, being around 19m along Castle Street and around 19.5m – 21m for Old Castle Hill Road, are insufficient and would result in inadequate traffic lane widths, parking lane widths and smaller verge widths. These new profiles will ensure that sufficient road reserve is provided to facilitate safe and efficient traffic flow, on-street parking (where required) and improved pedestrian verge widths which are reflective of their intended use. In order to accommodate the road profiles along Old Castle Hill Road and Castle Street, road widening will be required. The cost of acquiring this land will be levied through the draft Contributions Plan.

Pedestrian and Public Domain Facilities
In order for the centre to function effectively as a transit oriented centre it will be imperative that future development and public domain works create an environment which is conducive to walking and cycling. The approach being pursued for this precinct is consistent with Transit Oriented Development principles in that it seeks to accommodate both population and employment growth in more contained areas close to the future stations that will facilitate walkability and active public spaces.

Public Domain Works
In order to improve connectivity and to promote walking and cycling within the precinct, a number of public domain upgrades are proposed throughout the Precinct. The public domain upgrades will include high quality paving, shared paths, street trees, bins and seating. Details regarding the desired character and funding for the public domain improvements are included within the attached Public Domain Plan and Contributions Plan.

Pedestrian Bridges
In order to improve pedestrian movement from the proposed high density residential development to the Castle Hill commercial area and Castle Hill Railway Station two pedestrian bridges are proposed at the following locations:

- Pedestrian Bridge 1 (Northern Bridge)
  The northern pedestrian bridge will cross Pennant Street, from Eric Felton Reserve to the Castle Towers site, on the eastern side of the junction of Pennant Street, Old Castle Hill Road and McMullen Avenue.

- Pedestrian Bridge 2 (Southern Bridge)
  The southern pedestrian bridge will cross Pennant Street, from the northern side of Castle Street to the Castle Towers site, near the current Castle Hill Police Station.

Stormwater Management Facilities
Upgrades to the local pipe network are required to mitigate the impact of flooding as a result of new development in the vicinity of Garthowen Crescent, Les Shore Place, Larool Crescent, Carramarr Road and Castle Street. Stormwater drainage upgrade works have been identified based on preliminary estimates of pipe system upgrades required to ease the impacts of overland flowpaths on affected land within the Precinct. The delivery of these upgrades will reduce the identified hazards to future development.

Schedule of Works
The following table identifies the total cost of work for each contribution category within the Contributions Plan.

Summary	Total
Open Space - Land	$17,379,063
Open Space - Capital	$6,783,091
Transport Facilities - Land	$11,596,475
Transport Facilities - Capital	$28,511,048
Water Management - Capital	$6,504,633
Administration	$624,430
Total	**$71,398,739**

Table 3
Works Schedule by Contribution Category

It is noted that the above table includes the *apportioned* value of works and land which will be levied through the draft Contributions Plan.

Contribution Rates
Based on the cost estimates identified within the Contributions Plan and the population projection, it is estimated that the contribution rate per person will be $11,658.71. The rates schedule for the Precinct is included in the following table.

Facility Category	CONTRIBUTION RATE PER LOT/UNIT				
	Dwelling/ Lot	Medium and High Density Residential*			
		4 bedroom	3 bedroom	2 bedroom	1 bedroom
Open Space - Land	$9,615.63	$9,315.14	$7,512.21	$5,408.79	$5,108.30
Open Space - Capital	$3,341.59	$3,237.16	$2,610.62	$1,879.64	$1,775.22
Transport Facilities - Land	$6,912.60	$6,696.58	$5,400.47	$3,888.34	$3,672.32
Transport Facilities - Capital	$13,996.37	$13,558.99	$10,934.67	$7,872.96	$7,435.57
Water Management - Capital	$3,153.76	$3,055.21	$2,463.88	$1,773.99	$1,675.44
Administration	$287.90	$278.91	$224.93	$161.95	$152.95
Total	**$37,307.86**	**$36,141.99**	**$29,146.77**	**$20,985.67**	**$19,819.80**
* Including but not limited to Attached Dwellings, Semi-Detached Dwellings, Multi Dwelling Housing, Residential Flat Buildings, Shop Top Housing and Seniors Housing					

Table 4
Rates Schedule – Castle Hill North Precinct

Section 94 Development Contribution Cap
In 2010 the NSW Government announced a revised approach to setting local development contributions and local council rates as part of a comprehensive strategy to improve housing supply across NSW, which included:

- **A cap of $30,000 per dwelling or residential lot in greenfield;**
- **A cap of $20,000 per dwelling or per residential lot in all other areas; and**
- **An essential works list that will apply when councils are seeking** Local Infrastructure Growth Scheme **Funding ('contribution gap funding') or a special rate variation.**

Currently the land within the Balmoral Road Release Area and North West Growth Centre Precincts (North Kellyville and Box Hill and Box Hill Industrial Precincts) are subject to a contribution cap of $30,000 per dwelling. Currently, the Castle Hill North Precinct would be subject to a cap of $20,000 per dwelling.

On 1 June 2017 the NSW Government announced a new package of measures designed to improve housing affordability across NSW. These policies take into account the difficulty that first home buyers face in entering the market, the state's growing population and the need to ensure that development occurs close to essential infrastructure such as roads, railway lines and schools.

Part of the new package of reforms will apply to developer contributions and the Local Infrastructure Growth Scheme. In particular, the NSW Government will be gradually increasing the cap on developer contributions annually (by $5,000) until the abolishment of the cap entirely on 30 June 2020 (at which time developers will be required to pay the full contribution rate under a Contributions Plan).

The Local Infrastructure Growth Scheme (LIGS) has in the past been used to fund the gap between the maximum contribution that councils can charge developers and what it actually costs councils to deliver the infrastructure. While the NSW Government will continue to provide LIGS subsidies to certain areas for the next three years (before the scheme is abolished on 30 June 2020), LIGS funding will not be available to any new areas, such as Castle Hill North Precinct.

By removing the cap on contributions, the NSW Government will assist councils in these other areas to fund local infrastructure directly through their developer contributions. In these areas, if contribution rates exceed the current cap levels ($20,000 for infill and $30,000 for greenfield), contributions plans will be subject to review by IPART in

accordance with the Essential Works List prior to allowing development to be charged the full apportioned contribution rate. As the contribution rates under the draft Plan exceed the current cap, there will likely be a short three (3) year period where Council is subject to the cap, but unable to claim LIGS funding. When accounting for the progressive increase in the contribution cap up until 1 July 2020, indexation of contribution rates and the forecast yearly population/mix, it is anticipated that this may result in a small income shortfall of approximately $118,479.

2. DEVELOPMENT CONTROL PLAN AMENDMENTS

Draft amendments to DCP 2012 have been prepared to regulate the future built form of development and ensure the delivery of a highly liveable urban area which reflects the intended character for the precinct. These amendments include a new site specific section being The Hills DCP 2012 (Part D Section 20 – Castle Hill North) and an amendment to The Hills DCP 2012 (Part C Section 1 – Parking).

The controls seek to achieve a well-connected pedestrian network, active street frontages, high quality architectural style and character, attractive streetscapes, integration of the public and private realm, common open space and appropriate provision of car parking. The proposed structure plan for the Castle Hill North Precinct is included in the following figure.

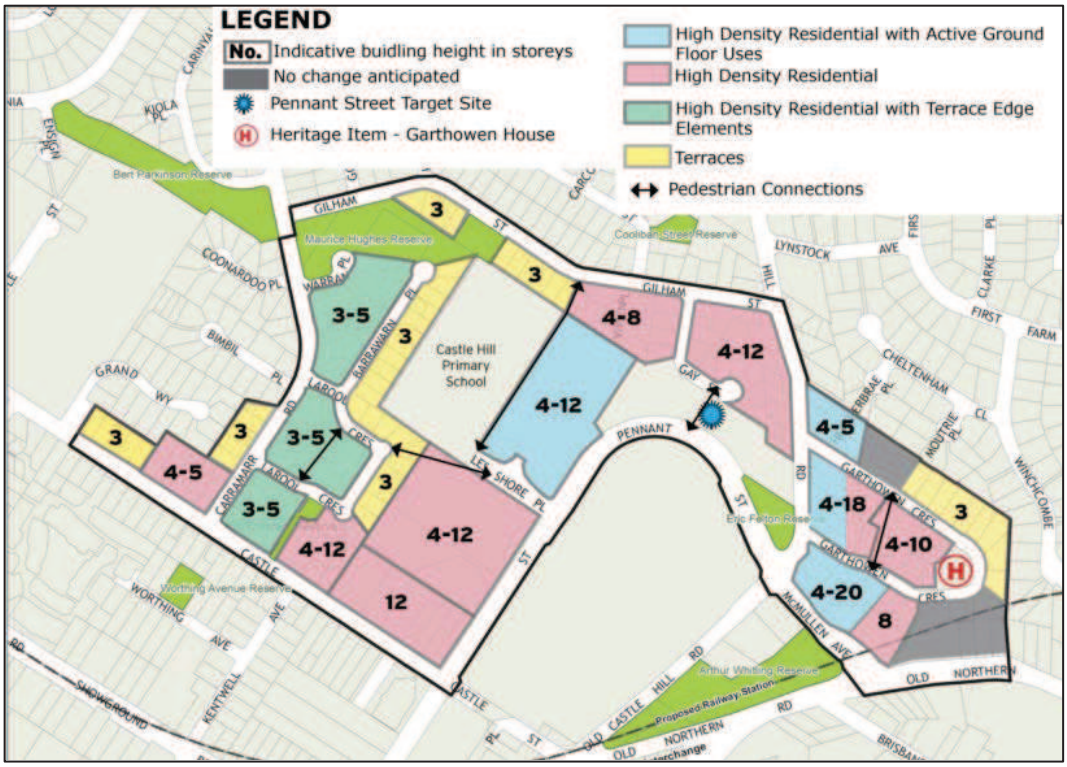


Figure 4
Castle Hill North DCP Structure Plan

The key matters covered within the DCP include the following:

- Key Principles (housing diversity, transit oriented development, infrastructure and open space and place making);
- Precinct Structure;
- Desired Future Character (intended character, land use, built form and streetscape);

- General Controls (vehicular and pedestrian movement, environment, stormwater, ecological sustainable development, heritage and public domain);
- Apartment Controls (Site requirements, height and form, setbacks, streetscape and public domain interface, podium and tower design, roof design and roof features, open Space and landscaping, and parking); and
- Terrace Controls (site requirements, building height, setbacks building design and streetscape, open space and landscaping, rear laneways, and parking).

The amendments to the parking section of DCP 2012 will ensure that the parking requirements correlate with the agreed housing diversity methodology. In locations where a mixed use outcome is desired (being retail/commercial at the ground level and first floor, with residential apartments on the upper levels), measures are proposed to encourage the provision of employment uses by relaxing the parking requirement in these locations. The parking rates which are identified for the precinct are included within the following table.

Development	Rate
Residential Flat Buildings	1 space per dwelling
Residential Flat Building – Visitor	1 space per 5 dwellings
Commercial premises-where part of a mixed use development	Max 1 space per 200m^2

Table 5
Suggested Car Parking Provision

3. DRAFT PUBLIC DOMAIN PLAN

A key feature of transit oriented development is a high quality public domain. To this end, a Public Domain Plan has been prepared to provide consistent guidance for the delivery of public domain works throughout the Precinct. A consistent approach will enhance the image and amenity of the Precinct through the provision of street trees, footpath paving, furniture and landscaping to give the Precinct an urban identity as part of the centre, while complementing the character of the surrounding area.

The public domain can be defined as all public areas owned or managed by Council including roads, streets and lanes, street verges and footpath areas, car parks, parks, open space or any other council lands that are readily accessible to the public. A photomontage of an urban active edge streetscape is included in the following figure.

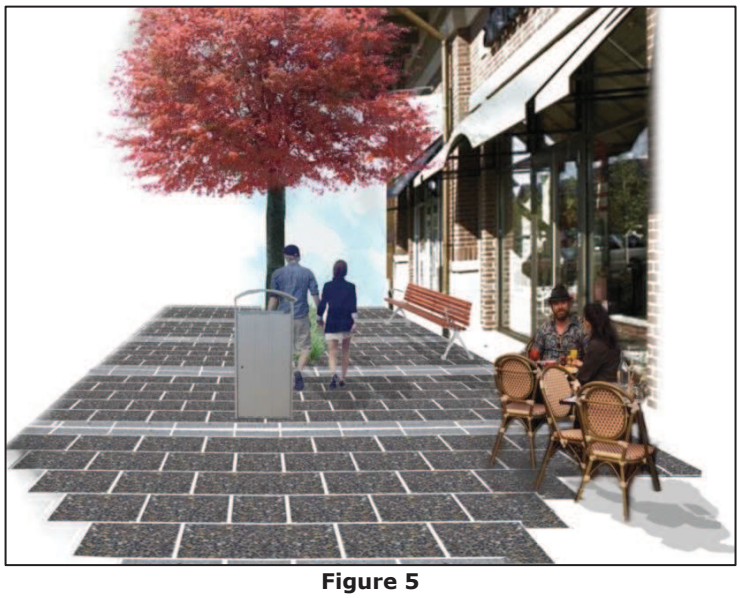


Figure 5
Photomontage – Urban Active Edge Streetscape

The purpose of the draft Public Domain Plan, which is included as an attachment to this report, is to serve as a manual to guide the future planning and design of the public domain within the Castle Hill North Precinct. The draft plan provides an overall direction for creating public domain spaces that are attractive, safe and vibrant within the town centre. The draft public domain plan aims to:

- Facilitate the creation of high quality public spaces that encourage social interaction and create a sense of place for residents and visitors to Castle Hill North;
- Promote the visual and physical integration of the public and private domains;
- Provide appropriate, equitable, safe and convenient access and egress points for pedestrians;
- Provide for improved pedestrian circulation patterns throughout the Precinct;
- Ensuring connectivity between all major developments; and
- Provide for improved pedestrian circulation patterns throughout the Centre.

As mentioned previously, a draft Contributions Plan has been prepared to levy development for the provision of local infrastructure including public domain improvements. As development occurs, it will be levied for the delivery of this infrastructure. The delivery of the infrastructure can occur either by developers through a works in kind agreement or by Council as part of its works program.

4. NEW PLANNING PROPOSAL

In recognition of the identification of land at Glenhaven for a possible district open space facility, it is recommended that a planning proposal be forwarded to the Department of Planning and Environment for a Gateway Determination. The planning proposal would apply to land at 7-13 Glenhaven Road, 1 Kyle Avenue and 3 Gilmour Close, Glenhaven (Lot 8 & 9 DP25902, Lot 1 DP844862, Lot 1 DP524622, Lot 1 DP207788 and Lot 1 DP261810) and would seek to amend Local Environmental Plan 2012 as follows:

a) Amend the Land Zoning Map to rezone the site from RU6 Transition to RE1 Public Recreation.
b) Amend the Land Reservation Map to identify 7, 9 and 13 Glenhaven Road, 1 Kyle Avenue and 3 Gilmour Close, Glenhaven (Lot 8 & 9 DP25902, Lot 1 DP524622, Lot 1 DP207788 and Lot 1 DP261810) as SP2 Infrastructure and Council as the acquisition authority.

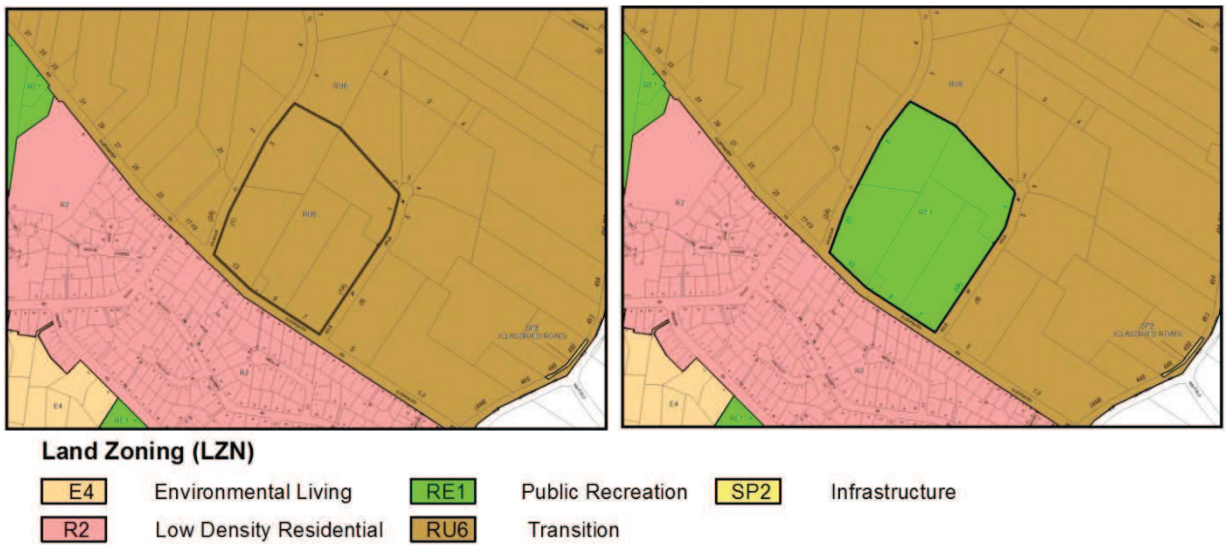


Figure 6
Existing (left) and Proposed (right) Land Zoning Map (Gilmour Close Reserve)

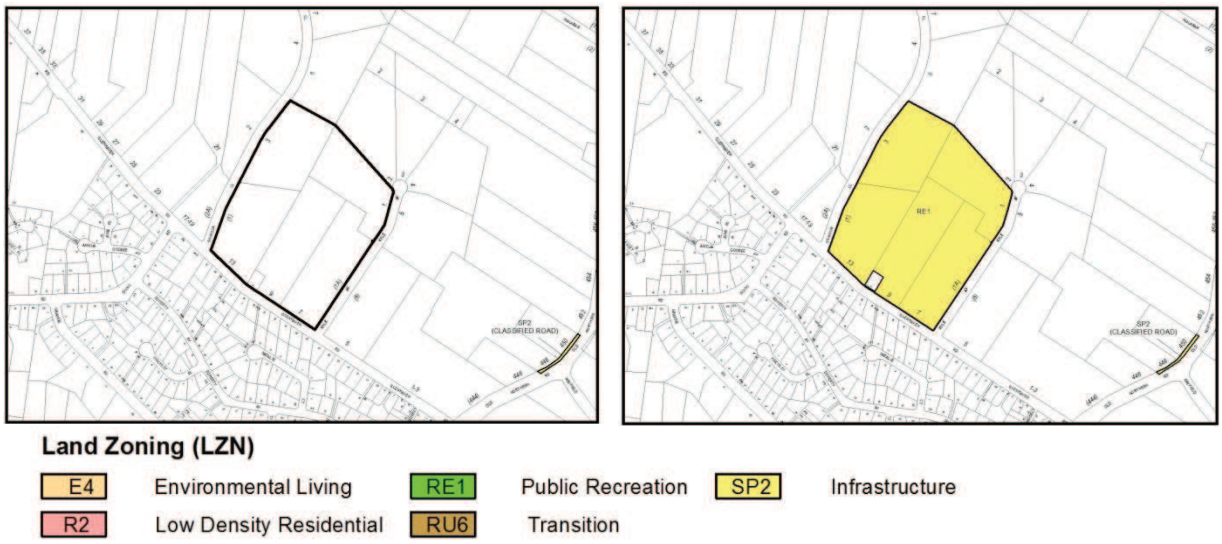


Figure 7
Existing (left) and Proposed (right) Land Reservation Acquisition Map (Gilmour Close Reserve)

CONCLUSION

The proposed draft Contributions Plan, draft amendments to DCP 2012 and draft Public Domain Plan will support development of the Castle Hill North Precinct and to create a high quality urban environment with a high level amenity and accessibility to services and facilities. Local infrastructure will be delivered through the new draft Contributions Plan which identifies the necessary requirements with respect to roads, open space and community facilities needed to support the future additional population. Draft DCP 2012 amendments will ensure high quality built form and a liveable urban setting that reflects the 'garden shire' character. The draft Public Domain Plan will facilitate attractive public spaces and improve pedestrian access and circulation throughout the precinct.

It is recommended that draft Development Contributions Plan No.17 – Castle Hill North, draft DCP 2012 (Part D Section 20 – Castle Hill North), draft DCP 2012 (Part C Section 1 – Parking), and the draft Castle Hill North Public Domain Plan be exhibited concurrently with the planning proposal for the Castle Hill North Precinct (16/2016/PLP).

IMPACTS

Financial

The draft Contributions Plan identifies approximately $71.4 million of land and capital works required to support the envisaged development within the Castle Hill North Precinct. This infrastructure would be funded, in part, using contributions collected from development within the Precinct. The draft Contributions Plan establishes contribution rates as follows:

Facility Category	CONTRIBUTION RATE PER LOT/UNIT				
	Dwelling/ Lot	Medium and High Density Residential*			
		4 bedroom	3 bedroom	2 bedroom	1 bedroom
Open Space - Land	$9,615.63	$9,315.14	$7,512.21	$5,408.79	$5,108.30
Open Space - Capital	$3,341.59	$3,237.16	$2,610.62	$1,879.64	$1,775.22
Transport Facilities - Land	$6,912.60	$6,696.58	$5,400.47	$3,888.34	$3,672.32
Transport Facilities - Capital	$13,996.37	$13,558.99	$10,934.67	$7,872.96	$7,435.57
Water Management - Capital	$3,153.76	$3,055.21	$2,463.88	$1,773.99	$1,675.44
Administration	$287.90	$278.91	$224.93	$161.95	$152.95
Total	**$37,307.86**	**$36,141.99**	**$29,146.77**	**$20,985.67**	**$19,819.80**
* Including but not limited to Attached Dwellings, Semi-Detached Dwellings, Multi Dwelling Housing, Residential Flat Buildings, Shop Top Housing and Seniors Housing					

As the contribution rates under the draft Plan exceed the current cap, there will likely be a short three (3) year period where Council is subject to the cap, but unable to claim LIGS funding. When accounting for the progressive increase in the contribution cap up until 1 July 2020, indexation of contribution rates and the forecast yearly population/mix, it is anticipated that this may result in a small income shortfall of approximately $118,479.

The Hills Future - Community Strategic Plan
The proposal is consistent with the vision and objectives of The Hills Future – Community Strategic Plan as it will facilitate a desirable living environment and assists Council in meeting its growth targets. It is also consistent with the key strategy of managing new and existing development with a robust framework of policies, plans and processes that is in accordance with community needs and expectations.

RECOMMENDATION

1. Draft Contributions Plan No.17 - Castle Hill North (Attachment 1), Draft The Hills DCP 2012 Part D – Section 20 – Castle Hill North (Attachment 2), Draft The Hills DCP 2012 Part C – Section 1 – Parking (Attachment 3) and Draft Public Domain Plan – Castle Hill North (Attachment 4), be exhibited in conjunction with the exhibition of the planning proposal for the Castle Hill North Precinct (16/2016/PLP).

2. A planning proposal applying to land at 7-13 Glenhaven Road, 1 Kyle Avenue and 3 Gilmour Close, Glenhaven (Lot 8 & 9 DP25902, Lot 1 DP844862, Lot 1 DP524622, Lot 1 DP207788 and Lot 1 DP261810) be forwarded to the Department of Planning and Environment for a Gateway Determination to amend Local Environmental Plan 2012 as follows:

    a. Amend the Land Zoning Map to rezone the site from RU6 Transition to RE1 Public Recreation.
    b. Amend the Land Reservation Map to identify 7, 9 and 13 Glenhaven Road, 1 Kyle Avenue and 3 Gilmour Close, Glenhaven (Lot 8 & 9 DP25902, Lot 1 DP524622, Lot 1 DP207788 and Lot 1 DP261810) as SP2 Infrastructure.

3. Council commence consultation with land owners of 7, 9 and 13 Glenhaven Road, 1 Kyle Avenue and 3 Gilmour Close, Glenhaven (Lot 8 & 9 DP25902, Lot 1 DP524622, Lot 1 DP207788 and Lot 1 DP261810) and the NSW Rural Fire Service with respect to the proposed district open space facility in Glenhaven.

ATTACHMENTS

1. Draft Contributions Plan No.17 – Castle Hill North (43 pages)
2. Draft The Hills DCP 2012 (Part D Section 20 – Castle Hill North) (62 pages)
3. Draft The Hills DCP 2012 (Part C Section 1 – Parking) (34 pages)
4. Draft Public Domain Plan – Castle Hill North Precinct (44 pages)

ATTACHMENT 1

THE HILLS Sydney's Garden Shire

Contributions Plan No. 17

CASTLE HILL NORTH

www.thehills.nsw.gov.au

TABLE OF CONTENTS

FIGURES

TABLES

1 PART A – Summary Schedules

1.1 Summary Schedules

Part A of this Development Contributions Plan contains summary schedules of all works programs. These summary tables are provided only for ease of reference.

1.1.1 Work Schedule Cost per Item

TRANSPORT FACILITIES	AMOUNT ($)
Land	$11,596,475
Works	$28,511,048
SUB TOTAL	**$40,107,523**

OPEN SPACE FACILITIES	AMOUNT ($)
Land	$17,379,063
Works	$6,783,091
SUB TOTAL	**$24,162,154**

STORMWATER MANAGMENT FACILITIES	AMOUNT ($)
Land	$0
Works	$6,504,633
SUB TOTAL	**$6,504,633**

PLAN PREPARATION & ADMINISTRATION	AMOUNT ($)
SUB TOTAL	**$624,430**

1.1.2 Contribution by Category - Per Person

Facility Type	Unit	$: Rate
Open Space - Land	Per Person	$3,004.88
Open Space - Capital	Per Person	$1,044.25
Transport Facilities - Land	Per Person	$2,160.19
Transport Facilities - Capital	Per Person	$4,373.87
Water Management - Capital	Per Person	$985.55
Administration	Per Person	$89.97
Total		$11,658.71

1.1.3 Contributions by Development Type

Facility Category	CONTRIBUTION RATE PER LOT/UNIT				
	Dwelling/ Lot	Medium and High Density Residential*			
		4 bedroom	3 bedroom	2 bedroom	1 bedroom
Open Space - Land	$9,615.63	$9,315.14	$7,512.21	$5,408.79	$5,108.30
Open Space - Capital	$3,341.59	$3,237.16	$2,610.62	$1,879.64	$1,775.22
Transport Facilities - Land	$6,912.60	$6,696.58	$5,400.47	$3,888.34	$3,672.32
Transport Facilities - Capital	$13,996.37	$13,558.99	$10,934.67	$7,872.96	$7,435.57
Water Management - Capital	$3,153.76	$3,055.21	$2,463.88	$1,773.99	$1,675.44
Administration	$287.90	$278.91	$224.93	$161.95	$152.95
Total	**$37,307.86**	**$36,141.99**	**$29,146.77**	**$20,985.67**	**$19,819.80**

* Including but not limited to Attached Dwellings, Semi-Detached Dwellings, Multi Dwelling Housing, Residential Flat Buildings, Shop Top Housing and Seniors Housing

Credits for existing dwellings/lots will be issued in accordance with the applicable contribution rates for each development category. Contribution rates for each development category at the time of making this plan are included in the above table.

2 PART B - Administration and Operation of the Plan

INTRODUCTION

2.1 Basic principles of Section 94

Under Section 94 of the Environmental Planning and Assessment Act, 1979 ("*EP&A Act*") Council has the power to levy contributions from developers for public amenities and services required because of development.

The three general principles in applying Section 94 contributions are:

1. A contribution must be for, or relate to, a planning purpose;
2. A contribution must fairly and reasonably relate to the subject development; and
3. The contribution must be such that a reasonable planning authority, duly appreciating its statutory duties, could have properly imposed.

Under the provisions of Section 94 Council may either:

- Require land to be dedicated free of cost;
- Require money to be contributed for works or facilities to be provided in the future;
- Require money to be contributed towards the cost of works or facilities already provided in anticipation of development;
- Accept the provision of a material public benefit, or works in kind, in satisfaction of Section 94 requirements; or
- Require or accept a combination of any of the above.

The ability to levy developers for the provision of essential public facilities and services is considerably important to The Hills Shire. This "user pays" approach can significantly reduce the financial burden of new urban development on existing Shire residents.

One of the fundamental responsibilities of any Council in imposing Section 94 contributions is to ensure that the contributions levied are reasonable. That is, the works and facilities to be provided must be a direct consequence of the development on which the contributions are levied. They must not unnecessarily inflate development costs. Therefore, contributions are limited to essential or base-line works and facilities considered necessary to sustain acceptable urban development.

Within reason every new resident within the Castle Hill North Precinct (as outlined in a bold black line on Map No.1) will enjoy equal levels of service in terms of the range of public facilities and services being levied for under this plan.

2.2 What is the name of this Development Contributions Plan?

This Contributions Plan is called 'Contributions Plan No. 17 – Castle Hill North'. The plan consists of this document and accompanying maps.

2.3 Area to which Plan Applies

This Contributions Plan applies to land within the local government area of The Hills Shire, is outlined in a bold black line shown on Figure 1, and is referred to in this plan as the Castle Hill North Precinct.

Figure 1 - Castle Hill North Precinct

2.4 What is the purpose of this Development Contributions Plan?

The purpose of this Contributions Plan is to:

a. Authorise the Council to impose conditions under Section 94 of the EP&A Act when granting consent to development on land to which this plan applies.
b. Provide an administrative framework under which contributions may be collected and expended to address the public facility and service needs of the incoming population of the Castle Hill North Precinct.
c. Outline the anticipated demand for public facilities and services arising from the revitalisation of the Castle Hill North Precinct.
d. Reasonably apportion, where appropriate, the cost of providing the necessary public facilities and services to new development and ensure that the existing community is not burdened by the provision of such public facilities and services.
e. Provide a basis for determining fair and reasonable developer contributions.
f. Outline the location, estimated cost, and staging of public facilities and services to be provided.
g. Facilitate proper financial management and accountability for the assessment of contribution requirements and the expenditure of contributions received.

2.5 Application of the Plan

When a development application for residential development is lodged and relates to land to which this plan applies, Council may levy contributions on development in accordance with the provisions of this Plan.

A Contributions Plan becomes part of the development control process under the EP&A Act by virtue of Sections 80A and 94. The provisions of this plan are one of a number of considerations that are relevant when Council determines a development application in accordance with Section 80 of the Act.

2.6 Operation of the Plan

This development contributions plan has been prepared pursuant to the provisions of s94 of the EP&A Act and Part 4 of the EP&A Regulation and takes effect from the date on which public notice was published, pursuant to clause 31(4) of the EP&A Regulation.

This plan was adopted by The Hills Shire Council on XXX and came into effect on XX XX XXXX.

2.7 Relationship with other Plans, Policies and Documents

This Contributions Plan supplements the provisions of LEP 2012.

To enable a greater understanding of this Contributions Plan, the following documentation can be read:

- The Hills Shire LEP 2012.
- The Hills Development Control Plan, Part D Section 20 – Castle Hill North and other Sections of the DCP.
- Any relevant background studies referred to in the plan.

The above documents were used in the preparation of this plan and can be purchased or viewed at Council upon request.

DEVELOPER CONTRIBUTIONS

2.8 Policies and Procedures on the Levying and payment of Contributions

The following sections describe the policies and procedures involved in levying and payment of developer contributions under this plan including method/timing of payment, planning agreements, deferred/periodic payment, obligations of accredited certifies with respect to construction certificates/complying development, savings and transitional provisions, credits/offsets for works-in-kind, calculation of contributions rates and review and monitoring process of the plan.

2.9 Method of Payment

Council will accept Section 94 payments in one, or a combination, of the following ways:

Monetary Contribution

This is the most common method of payment. However, as discussed below, payment can be offset by providing a material public benefit that is identified in the Contributions Plan.

Material Public Benefit (Works-in-Kind)

Where an applicant makes a written request and Council in its absolute discretion determines that it is appropriate, an applicant may provide a material public benefit (commonly referred to as works-in-kind) in part, or full, satisfaction of a monetary contribution. Any written request must demonstrate that the works in kind are of equivalent or greater benefit to the community compared to what has been identified under this Contributions Plan. The proposed works in kind offset must be included in the conditions of consent or a S96 modification of the consent, to reflect the proposed offset, will be required.

The works must be included in the works schedule and maps within the Plan. The cost of the work will be offset against the contribution required for the same facility category only. For example if the works relate to the embellishment of a local park the cost of the works would be offset against the required open space contribution. The amount of the offset will be as agreed by Council and will not exceed the cost allocation for the works included in the Contributions Plan.

In assessing such a request, Council will generally take into account the following:

- Whether the proposed work in kind will be to a suitable standard for Council to eventually accept;
- Finalisation of, or consistency with, the detailed design of the facilities;
- The submission of plans and cost estimates to Council of the proposed works to be undertaken by the applicant;
- Whether the location, siting and design of the proposed works has regard to Part D Section 20 – Castle Hill North Precinct and other relevant sections of The Hills Development Control Plan applying to the Castle Hill North Precinct and this Contributions Plan;
- The timing of completion and future recurrent costs including staffing and maintenance and future management (particularly if a work to a higher standard is proposed);
- Council may consider works to a higher standard than the Contributions Plan allowance, however no reimbursement of additional costs will be provided;
- The financial implications for cash flow and whether the proposed works pre-empt the future orderly implementation of the works as identified in the works schedule; and
- Future dedication, handover and management arrangements.

Dedication of Land

Council will generally not accept the dedication of land (identified for public purposes under this plan) to offset the required monetary contribution. Rather the developer will be required to pay the full contribution relating to land acquisition. The value of land can then be negotiated separately between the applicant and Council, and a value formally agreed upon prior to payment.

An appropriate condition may be included in any consent applying to land identified for public purposes to ensure that the land is transferred to Council.

These consents would require satisfactory arrangements being made with Council's Manager – Major/Special Projects.

2.10 Planning Agreements

In accordance with Section 93F(1) of the EP&A Act a planning agreement is a voluntary agreement or arrangement between a planning authority and a developer under which the developer agrees to make contributions towards a public purpose. A planning agreement may wholly or partly exclude the application of Section 94 to the development that is subject of the agreement.

The provisions of Sections 93F to 93L of the EP& A Act and accompanying Regulation prescribe the contents, form, subject matter and procedures for making planning agreements.

Any person seeking to enter into a planning agreement should in the first instance submit a proposal in writing to Council, documenting the planning benefits and how the proposal would address the demands created by development for new public infrastructure, amenities and services.

2.11 When must Contributions be Paid?

Section 94 contributions must be paid in full, as follows:

- **Development Applications involving subdivision only:** Prior to the issue of a Subdivision Certificate.

- **Development Applications involving building work only** - where conditions of consent require the payment of a contribution: Prior to the issue of a Construction Certificate.

- **Combined Development Applications for Subdivision and Building Works:** Prior to the issue of a Construction Certificate. If individual construction certificates are submitted for each dwelling, payment is required in full for the total development or stage prior to the issue of a construction certificate for the first dwelling.

- **Combined Development Applications for development and building works** - where conditions of consent require the payment of a contribution: Prior to the issue of a Construction Certificate.

2.12 Deferred or Periodic Payment

Council will only permit deferred or periodic payment where development is staged. The stages of development and relevant contribution payment for each stage must be clearly documented in the conditions of consent. In this regard a Section 96 modification of consent is required if proposed staging of development is not reflected in the original consent.

For development which is staged, Section 94 contributions must be paid at the rate applicable at the time of subdivision or construction certificate, for at least the number of additional lots/dwellings for which subdivision or construction certificate release is sought.

For each stage, the calculation of the number of lots/dwellings for which contributions are payable will count any residue lot as a single lot.

For example:

Stage 1 20 residential lots and one residue lot are created from one original lot. Contributions would be payable for 20 lots (20 + 1 residue less 1 existing lot).

Stage 2 20 residential lots are created from the residue lot. Contributions would be payable for 19 lots (20 lots less the one existing residue lot).

This method ensures that contributions are paid for the total number of additional lots created from an original lot/s. In the example, 40 lots are created from 1 existing lot and contributions are payable for 39 additional lots.

2.13 Construction certificates and the obligations of accredited certifiers

In accordance with Section 94EC of the EP&A Act and clause 146 of the EP&A Regulation, a certifying authority must not issue a construction certificate for building work or subdivision work under a development consent unless it has verified that each condition requiring the payment of monetary contributions has been satisfied.

In particular, the certifier must ensure that the applicant provides a receipt confirming that contributions have been fully paid and copies of such receipts must be included with copies of the certified plans provided to the Council in accordance with clause 142(2) of the EP&A Regulation. Failure to follow this procedure may render such a certificate invalid.

The only exceptions to the requirement are where a works in kind, material public benefit, dedication of land or deferred payment arrangement has been agreed by the Council. In such cases, Council will issue a letter confirming that an alternative payment method has been agreed with the applicant.

2.14 Credit & Offsets for Works in Kind

There may be cases where an applicant carries out works in kind, which are included in the Schedule of Works in this Contributions Plan but cost of which exceeds the contribution required for that facility category. In these situations the applicant may be reimbursed for the cost of the works that:-

- exceed the contribution due within that facility category, and
- if re-imbursement has been approved by Council as being consistent with the contribution plan.

2.15 Credit for Existing Development

The existing population of the Castle Hill North Precinct is approximately 789 persons. The infrastructure to be levied for under this Contributions Plan is required as a direct consequence of the urban renewal of the Castle Hill North Precinct. The payment of contributions is therefore applicable to any residential development which will increase the population over and above the current population, and which will create a demand for the provision of such infrastructure.

For the purposes of calculating contributions payable under this plan a credit will be made available for any existing lot with an approved residential development

that existed on or before the adoption of the Section 94 Contributions Plan – Castle Hill North Precinct. Council may issue a credit to the value of the existing approved population on site, consistent with the occupation rate outlined in Section 3.1 of this plan.

However, any parcel that was vacant on or before the adoption of this plan which did not generate a demand for works or facilities of the type to be levied for under this plan, and for which no previous contribution under Section 94 of the EP&A Act, 1979 has been made, shall upon subdivision or development for residential purposes be liable for the payment of contributions in accordance with this Contributions Plan.

In short, Section 94 credits will not apply to existing vacant parcels.

2.16 Savings and Transitional Provisions

A development application which has been submitted prior to the adoption of this plan but not determined shall be determined in accordance with the provisions of the plan which applied at the date of determination of the application.

2.17 Exemptions

As stated in Section 2.5 this Contributions Plan applies to all development applications for residential development. The only exemptions allowed are those the subject of a direction from the Minister for Planning under Section 94E of the EP&A Act.

2.18 Pooling of Contributions

This plan expressly authorises monetary Section 94 contributions paid for different purposes to be pooled and applied (progressively or otherwise) for those purposes. The priorities for the expenditure of the levies are shown in the works schedule.

2.19 Calculation of Contributions

Net Present Value Method

The contribution formula has been arrived at having regard to the Development Contribution Practice Notes issued by the then Department Infrastructure Planning and Natural Resources (DIPNR) in July 2005.

These notes provide Council with two options, either a calculation based on nominal values or a net present value (NPV) methodology.

To ensure that the value of contributions is not eroded over time, the proposed method of contribution calculation is based upon a NPV methodology. This approach is a standard financial accounting tool which discounts future cash flows to account for the fact that funds received or spent today are worth more than future funds.

Contributions Formula
The formula uses a discounted cash flow model, to calculate the contribution rate per person. The model covers a period of 20 years (life of the Contributions Plan). The following elements are used in this calculation:

Land Acquisition Index
The land acquisition indexation assumption is based upon an average of the annual percentage change in the Australian Bureau of Statistics Established House Price index for Sydney over 13 years from March 2004 to March 2017.

Capital Expenditure Index
The capital expenditure indexation assumption is based upon an average of the annual percentage change in the Australian Bureau of Statistics Producer Price Index for New South Wales over the past 15 years from March 2002 to March 2017. Open space expenditure is indexed based on the Producer Price Index (Non-Residential Building Construction). Water management and transport and traffic expenditure is indexed based on the Producer Price Index (Road and Bridge Construction).

Administrative Costs Index
Costs will be indexed at 2.5% which represents the midpoint of the Reserve Bank of Australia's inflation rate of 2-3 per cent, on average over the cycle.

Indexed Expenditure
Total of Indexed land acquisition, capital and administrative costs.

Revenue Projections
Revenue projections will be calculated by multiplying the estimated additional population (see Table 1 in Section 3.1) by the contribution rate per person, and will be indexed at 2.5% which represents the midpoint of the Reserve Bank of Australia's inflation rate of 2-3 per cent, on average over the cycle.

Cash Flow
A cash flow projection will be prepared using the above elements over the life of the Contributions Plan. The cash flow is the difference between the Indexed Expenditure and the Revenue Projections.

Discount Rate
Methodology based on IPART technical paper July 2015 and IPART Fact Sheet 'Latest discount rate for use in local development contributions plans' dated September 2015. Nominal discount rate based on the 10-year Commonwealth bond yield plus IPART's estimate of the debt margin (half of the rate spread between the 10-year Commonwealth bond and non-financial corporate A-rated 10-year debt and a margin of 12.5 basis points to allow for the cost of raising debt).

Formula
The Contribution rate per person is determined on the basis that the NPV at the Discount Rate over the total life of the plan is neutral. This is calculated using the following formula for each facility category:

$$PV(Costs) = PV(\mathrm{Re}venue)$$

$$PV(\cos ts) = N_1 * DC + \frac{N_2 * DC}{(1+r)} + ... + \frac{N_t * DC}{(1+r)^t}$$

Where: N (i) = No. of persons in year (i)
DC = development contribution ($ in year 1 of CP)
r = discount rate (%)
t = time in years

From the equation above:

PV (Costs) = PV [(No. of Persons) * (Development Contribution)]

Therefore:

PV (Development Contribution) = PV [(Costs) / (No. of Persons)]

2.20 Review and Monitoring Process

This Contributions Plan will be subject to regular review by Council in accordance with the provisions of the EP&A Regulation. The purpose of such review is to ensure that:

- levels of public service and amenity provisions are consistent with likely population trends and community needs;
- contribution levels reflect changes to construction costs and land values; and
- the work program can be amended if the rate of development differs from current expectations.

The contribution rates and works program for this plan have been formulated using information available at the time of writing. A number of variables will be monitored to facilitate the review process. Some of these are listed below:

- dwelling construction
- potential development remaining
- construction costs
- land costs
- projected development rate
- assumed occupancy rates
- anticipated population
- indexation assumptions

Any changes to the Contributions Plan, apart from minor typographical corrections, will be placed on public exhibition in accordance with the requirements of the EP&A Act and Regulation.

2.21 Timing of Provision

The implementation of the various facilities and services has been prioritised according to the particular needs of the incoming population and is linked to a population threshold. The ability to deliver a particular facility is largely dependent upon the rate of development within the Castle Hill North Precinct, and the corresponding receipt of contributions by Council.

Overall, the population projections contained within this plan are based upon a 20 year time frame. It is intended that facilities identified within the works schedule to the Contributions Plan will be delivered within this time period. A summary of the program of works by facility category is included in Table 5. Monitoring of the plan in accordance with subsection 2.20 will allow for review and adjustment of population projections and the works schedule as required.

2.22 Financial Information

The following section documents what financial information is held and maintained by Council in accordance with Environmental Planning & Assessment Act and Regulations.

Council maintains a separate accounting record for this Contributions Plan. It contains details concerning contributions received and expended, including interest earned, for each service or amenity provided.

This record will be held at Council's Corporate and Financial Services Division and will include:

- the various kinds of public amenities or services for which expenditure is authorised by the plan;
- the total amounts received by way of monetary contribution for the different facility categories;
- the amounts paid for different facility categories which have been pooled and progressively applied; and
- the total amounts spent in accordance with the plan for the different facility categories.

Council will also prepare a statement with respect to this plan and other contribution plans as soon as practical after the end of each year in its annual financial report. This statement will include:

- the opening and closing balances of money held by Council for the accounting period;
- the total amounts received by way of monetary contribution for the different facility categories;
- the total amounts spent in accordance with the plan for the different facility categories; and
- the outstanding obligations of Council to provide works for different facility categories for which contributions have been received.

A Contributions Register will also be maintained and may be inspected on request. This Register will include:

- details of each consent for which a Section 94 condition has been imposed;
- the nature and extent of the contribution required by the condition for each facility category;
- the name of the Contribution Plan the condition was imposed under; and
- the date any contribution was received and its nature and extent.

3 PART C - Strategy Plans

Strategy Plans contain the following chapters that determine the anticipated development within the Castle Hill North Precinct, the expected demand for new public facilities and infrastructure and justify the developer contributions are reasonable and appropriate through establishment of links or nexus between the development and the need for new facilities and services.

3.1 DEVELOPMENT POTENTIAL AND POPULATION

3.1.1 Development and Facility Needs

Council can only levy Section 94 contributions where development will or is likely to require the provision of, or increase the demand for public facilities and services. It is therefore necessary to establish a link or nexus between the development anticipated within the Castle Hill North Precinct and the need for public facilities and services.

The population and dwelling forecasts outlined in this section are therefore crucial elements in the overall Contributions Plan. It is upon these forecasts that the majority of planning decisions are based. The forecasts provide the framework within which to plan the works and facilities that will be required as a consequence of new development.

3.1.2 Existing Population

Existing development within the Castle Hill North Precinct consists predominantly of residential land uses. There are currently 292 dwellings within the Castle Hill North Precinct with a population of around 934 based on an occupancy rate of 3.2 persons per dwelling.

The infrastructure planning undertaken by Council and documented by this Contributions Plan is based upon the demands which would be generated by the additional population expected within the Castle Hill North Precinct, over and above the existing population of approximately 789 people.

3.1.3 Occupancy Rates

Occupancy rate assumptions are a particularly important feature of a Contributions Plan. They are used to forecast the population of the Castle Hill North Precinct and to calculate contributions payable on dwelling basis.

The existing occupancy rate within the Castle Hill North Precinct is 3.2 persons per dwelling. The proposed occupancy rates for the Castle Hill North Precinct (shown below) have been calculated using the 2011 Census data for similar almost developed and predominantly residential area within The Hills Local Government Area (LGA).

Residential Flat Buildings

- 1 bedrooms 1.7 persons
- 2 bedrooms 1.8 persons
- 3 or more bedrooms 2.5 persons

Multi-Unit Dwellings/Terrace Houses

- Up to 3 bedrooms 2.5 persons
- 4 or more bedrooms 3.1 persons

3.1.4 Development Potential and Future Population

The Castle Hill North Precinct is ideally positioned for urban renewal due to its access to new public transport infrastructure, position in an established Major Centre and age of dwelling stock. The Precinct forms part of Council's Residential Direction and response to the NSW Government's A Plan for Growing Sydney and the North West Rail Link Corridor Strategy.

On 24 November 2015 Council considered the outcomes of the exhibition of the Draft Castle Hill North Precinct Plan and resolved to adopt the Precinct Plan and prepare a draft Local Environmental Plan, Development Control Plan and Section 94 Contributions Plan. A planning proposal was subsequently submitted to the Department of Planning and Environment on 29 January 2016 for Gateway Determination.

On 2 November 2016 a Gateway Determination was issues for the Castle Hill North planning proposal.

The proposed rezoning will enable a significant increase of new dwellings and population within the Precinct. Table 1 provides a summary of the estimated dwelling yield and population within the Precinct.

Assumptions have been made on the likely dwelling types depicted in the Castle Hill North Precinct Plan, Part D Section 20 – Castle Hill North of The Hills Development Control Plan and the development standards within the LEP 2012 maps. The population projections for the Castle Hill North Precinct are based upon a 20 year time frame.

Once developed, it is projected that there will be approximately 3,575 dwellings, comprising 3,425 apartments and 150 townhouse/terraces.

Assumptions have been made on the likely mix of dwelling types based on Council's mix controls for apartments and approvals of medium density townhouse style developments.

Table 1 - Expected development and population

Residential Flat Buildings (Apartments)			
	Total Dwellings	**Occupancy Rate**	**Population**
1 bedroom	856	1.7	1,456
2 bedroom	1,884	1.8	3,391
3 bedroom	685	2.5	1,713
Townhouses, Terraces and other forms of multi-unit housing			
	Total Dwellings	**Occupancy Rate**	**Population**
3 bedroom	75	2.5	188
4 bedroom	75	3.1	233
TOTAL	**3,575**		**6,979**
Existing	292	3.2	934
TOTAL (Less Existing)	**3,283**		**6,045**

3.1.5 Demand for Public Facilities and Services

The expected development and resulting population within the Castle Hill North Precinct will create increased demand for various public facilities and services. Section 94 contributions are proposed to be sought for:

- Open Space Facilities;
- Transport and Pedestrian Facilities;
- Drainage Facilities;
- Administration Costs.

The following sections of the Contributions Plan identify the nexus between the anticipated development within the precinct and the facilities or services listed above, specifies the appropriate level of apportionment (if any), and provides a brief description of the proposed works and their timing.

3.2 OPEN SPACE FACILITIES

3.2.1 Open Space Demand

The additional population will increase demand for both active and passive forms of open space. Given that Castle Hill North Precinct is located within an existing urban area there is limited opportunity for the provision of new open space areas.

Based on standard benchmarks for greenfield locations an additional population of 6,045 people would generate demand for approximately 17.1 hectares of both active and passive open space. Castle Hill North Precinct is located within an established urban area and is already serviced by a number of local parks and playing fields including:

- Fred Caterson Reserve;
- Castle Hill Heritage Park Reserve;
- Bert Parkinson Reserve; and
- Maurice Hughes Reserve.

Achieving a higher amount of open space will present challenges due to the highly urbanised context and the cost of land. Alternative solutions for meeting the expected increase in demand for active open space have been investigated.

The small pocket parks located within the Precinct including Eric Felton Reserve and Larool Crescent Reserve, currently have minimal levels of embellishment and, as a result, are under-utilised. The focus for these areas is increasing the range of activities through the use of improvements such as play equipment, picnic facilities and additional landscaping and seating. The aim is to transform these spaces into more usable urban facilities rather than open spaces.

Passive recreation activities including walking, jogging and cycling will be met through the provision of a network of high quality pedestrian paths and cycleways. Improvements and additions to the pedestrian paths and cycleways will be provided as part of the plan.

District Open Space

District open space traditionally accommodates a wider range of recreational opportunities and greater flexibility than local open space, and incorporates both active and passive open space functions. These include sports fields, sport complexes, and district parks incorporating less structured recreation including informal play, picnicking, walking, and cycling.

As a consequence it has a greater distribution pattern than local parks and is often accessed by car in addition to pedestrians and cyclists.

The precinct has access to one major district park being Fred Caterson Reserve. It is a large multi-sport facility covering a total of 58 hectares. There are six picnic tables, two barbecues and a junior children's playground. Public toilets (including disabled access toilet) are open during daylight hours. The reserve features five soccer fields or three cricket fields, cricket practice nets, baseball field, ten tennis courts, a BMX track, remote control car track and a basketball stadium. There are also several walking tracks in the reserve (featuring concrete pathways and bush tracks), as well an extensive cycleway.

Local Open Space

Currently the precinct contains the following passive open space areas totalling approximately 18,696m^2:

- Eric Felton Reserve (2,879m^2): The reserve functions as passive open space with minimal embellishment;
- Larool Crescent Reserve (1,259m^2): The reserve functions as a passive open space with limited embellishment. The park provides a footpath which provides a link between Larool Crescent and Castle Street;
- Maurice Hughes Reserve (14,558m^2): This reserve also functions as passive open space located behind Castle Hill Primary School. The land also contains Sydney Turpentine Ironbark Forest.

Open Space Links

Currently there are open space links within and connecting to Castle Hill North, being Larool Crescent Reserve and Bert Parkinson Reserve. Larool Crescent Reserve is primarily used to provide pedestrian connection between Larool Crescent and Castle Street and adds to the pedestrian network.

Bert Parkinson Reserve connects to Maurice Hughes Reserve and provides wider pedestrian and cycle connections.

3.2.2 Proposed Open Space and Recreational Facilities

District Open Space

An additional population of around 6,045 people will generate demand for almost two (2) playing fields and one (1) cricket oval. As the existing playing fields are already at capacity there is limited potential to accommodate the additional demand within these facilities. Additional playing fields will be required to ensure that the future population is provided with appropriate active open space facilities, and not simply provided with a sub-standard level of service due to the difficulties associated with acquiring open space.

One option is to identify minor expansions to existing open space areas such as Greenup Reserve and Ulundri Drive Reserve. However, the expansion of these open space areas would involve the acquisition of a large number of properties which are currently zoned R2 Low Density Residential. Also, the facilities which could be accommodated on these sites would be limited, and would only cater for the demand generated from within the Castle Hill North Precinct. If these were pursued, other options would need to be investigated to cater for the additional demand generated within the remainder of the Castle Hill Precinct and the Cherrybrook Precinct.

The planning work which is currently being undertaken for Castle Hill North presents a significant opportunity to implement a coordinated strategic approach for the provision of open space to meet the requirements of future residents. This approach would secure the provision of a district facility of a sufficient size to accommodate the future demand within the entirety of the Castle Hill Precinct (north and south) and the Cherrybrook Precinct. The cost of the facility will be apportioned in-line with the projected growth within each precinct.

The combined population growth envisaged within the Castle Hill North, Castle Hill South and Cherrybrook Precincts are included within the following table. It is noted that the population growth for Castle Hill North is based on the incentivised provision of residential floor space, consistent with the agreed methodology for housing diversity.

Table 2 – Growth Projection within the Castle Hill and Cherrybrook Precincts

	Additional Dwellings	Additional Population
Castle Hill (North)	3,283	6,045
Castle Hill (South)	3,319*	3,576
Cherrybrook	1,695**	3,389
	8,279	**13,009**

**Remaining growth potential within the Castle Hill Precinct when excluding 3,283 dwellings within the Castle Hill North Precinct and 1,298 dwellings which have recently been approved on the Crane Street site and Pennant Street Target Site.*
*** Growth anticipated under The Hills Corridor Strategy*

A population of 13,009 people would generate demand for approximately four (4) playing fields, two (2) cricket ovals and four (4) tennis courts.

In recognition of the likely demand generated within these Precincts, a potential site has been identified for a district open space facility at 7-13 Glenhaven Road, 1 Kyle Avenue and 3 Gilmour Close, Glenhaven. The site has an area of 100,983m^2 (10.09ha). However it is noted that 11 Glenhaven Road (853m^2) is already owned by Council and contains the Glenhaven Rural Fire Service. The area of the remaining privately owned land is 100,130m^2 (10.013ha).

This area is considered to be appropriate for a district facility as it is within relatively close proximity to both Castle Hill and Cherrybrook, and would have more capacity to provide the extent of facilities required to meet the demand generated by the new population. The combined area of the site could accommodate four (4) playing fields, two (2) cricket ovals, four (4) tennis courts, amenities facilities and associated car parking. This facility would be able to accommodate approximately 16,000 people (8,000 dwellings).

In determining the cost apportionment for this facility, it is considered reasonable that the cost of the facility be split based on the anticipated demand generated by each precinct. The cost apportionment will be based on the full capacity of the facility being 16,000 people (8,000 dwellings). The recommended cost apportionment is included in the following table.

Table 3 – Cost Apportionment

	Additional Dwellings	Additional Population	Apportionment
Castle Hill (North)	3,283	6,045	38%
Castle Hill (South)	3,319	6,638	41%
Unallocated *	1,658*	3,317*	21%
		16,000	**100%**

**Could be allocated to meet a portion of the additional yield within the Cherrybrook Precinct or additional yield within the Castle Hill Precinct.*

The capital cost of this facility is not based on a quantity survey. Rather, the capital cost is based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs, April 2014). As the Castle Hill North Precinct would provide 38% of the demand for the facility, future development within the Castle Hill North Precinct would be levied for 38% of the land and capital cost of providing this facility.

Local Open Space

The purpose of local open space is to provide informal play space and opportunities for supervised play within convenient walking distance from any given residence.

An additional population of around 6,045 people will generate demand for approximately 10ha of passive open space, based on the traditional method of determining open space provision. However, achieving a higher amount of passive open space will present challenges due to the highly urbanised context and the cost of land. Accordingly, the approach which is proposed is to improve the function and capacity of the existing passive open space areas within the Precinct. The following Reserves will be embellished to create more urban park spaces and encourage short and medium stay usage:

- Maurice Hughes Reserve;
- Larool Crescent Reserve; and
- Eric Felton Reserve.

The small pocket parks located within the Precinct, Eric Felton Reserve and Larool Crescent Reserve, currently have minimal levels of embellishment and as a result are under-utilised. The focus for these areas is increasing the range of activities through the use of improvements such as play equipment, picnic facilities and additional landscaping and seating. The aim is to transform these spaces into more usable urban facilities rather than open spaces. The proposed capital cost of embellishing local open space within the precinct is detailed below.

Maurice Hughes Reserve

- Passive open space embellishment including cycleway, BBQs, planting, bins, cycle racks, drinking fountains, seating, tables, turfing, security lighting, softfall playground, fencing, gate, playground equipment and shade structure;
- The cost estimates for the upgrade are based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs, April 2014).

Larool Crescent Reserve

- Passive open space embellishment including cycleway/pedestrian pathway, paving, drinking fountain, tables, planting, security lighting, turf, and fencing;
- The cost estimates for the upgrade are based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs, April 2014).

Eric Felton Reserve

- Passive open space embellishment including demolition of concrete slab and light structure, clearance of vegetation, cycleway/pedestrian pathway, paving, drinking fountain, seating, planting, turf, security lighting and fencing;
- The cost estimates for the upgrade are based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs, April 2014).

The full cost of these upgrades will be levied through the draft Plan.

Open Space Links

Pedestrian and cycle links are an important element of the open space network within the Castle Hill North Precinct. Landscaped links will improve scenic and landscape quality and allow future residents to move easily to parks, the train station and Major Centre. Therefore these links have an important amenity and recreation value as well as increasing the effectiveness of all parks and reducing car dependence.

Embellishment works for links will typically consist of paths and cycleway construction, tree and shrub plantings, lighting and fencing. The links include Larool Crescent Reserve and Eric Felton Reserve.

3.2.3 Apportionment

The need to provide the open space identified in this part of the plan is generated by the residential development. The demand for the local open space will be fully funded by future development within the Castle Hill North Precinct as the need for the embellishment is a direct result of future growth within the Precinct.

With respect to the district open space approximately 38% of the cost of this facility will be funded by the future population within the Castle Hill North Precinct. It is anticipated that the remaining cost will be funded by future development within the remainder of the Castle Hill Precinct, Cherrybrook and other proposals which will add demand for future playing fields.

3.2.4 Schedule of Works and Cost Estimates

A schedule of open space facilities to be levied under this plan is included in table 5 – Works Schedule. Cost estimates include capital works and land acquisition (where required). The cost of each roundabout is estimated is based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs, April 2014). Each facility to be provided can be located by reference to Figure 2, 'Map Sheets 1 and 2'.

3.2.5 Contributions Formula

The formula used to calculate the contribution rate for open space - capital works is set out in Part B Section 2.19.

The contribution rates for open space facilities are set out in Table 5 and Part A Summary Schedules.

3.3 TRANSPORT AND PEDESTRIAN FACILITIES

3.3.1 Transport and Pedestrian Facilities Demand

Roundabouts in four (4) locations are to be provided under this Contributions Plan. The works are considered necessary to meet future demand, whilst ensuring an acceptable level of access, safety and convenience for all street and road users within the Castle Hill North Precinct. The draft Plan also includes a contribution towards the realignment of the Old Northern Road/Brisbane Road and McMullen Avenue intersection.

Additional works are being undertaken in the vicinity of the Precinct as part of wider traffic improvements. In particular, the upgrade of Showground Road which includes improvements to the Pennant Street and Showground Road intersection are likely to be delivered in the near future. These works are the responsibility of NSW Roads and Maritime Services. While the Precinct will benefit from these wider traffic upgrades, the need for them is not directly attributed to the development within Castle Hill North.

The transport facilities to be provided for under this plan are discussed below.

3.3.2 Proposed Transport and Pedestrian Facilities

Increased traffic movements will be a direct consequence of the revitalisation of the Castle Hill North Precinct. Appropriate traffic management measures and intersection treatments are needed at certain location in order to achieve satisfactory traffic management outcomes. The recommend improvements are outlined below:

a. Traffic Signals and Realignment

The intersection of McMullen Avenue/Old Northern Road is one of the principal points at which vehicles generated from within the Caste Hill North Precinct will access the arterial road network. The additional traffic volume resulting from the future development, coupled with the broader increase in regional traffic volume, will necessitate an upgrade to this intersection. The intersection will be realigned with Brisbane Road to provide a four way signalised intersection with McMullen Avenue. This will provide a much safer intersection for traffic accessing and departing both McMullen Avenue and Brisbane Road.

A report has been prepared by Gennaoui Consulting Pty Ltd 'Capacity of Proposed Intersection of Old Northern Road with McMullen Avenue & Brisbane Road'. This report identified that the total number of cars turning from Old Northern Road onto McMullen Avenue and Brisbane Road and from McMullen Avenue and Brisbane Road onto Old Northern Road was 2,227 cars during the PM peak which equates to a daily traffic volume of 22,270 cars.

Assuming the regional traffic volume increases by 3% per year over the coming 20 years, the total number of cars making these movements per day will increase to 40,022 (+17,952) in the 20^{th} year. It is noted that this figure is only regional increases in volume and assumes that there will be no additional development within the Castle Hill North Precinct.

There will be approximately 3,440 additional dwellings within the Castle Hill North Precinct. Based on the RTA Guide to Traffic Generating Development, the average peak hour traffic generation for a high density unit is around 0.29 trips per unit. When applied to the 3,440 additional dwellings within the precinct, this would result in around 998 peak trips. It is estimated that around 40% of these

movements (399) would pass through the McMullen Avenue/ Old Northern Road intersection. The remaining cars would travel to the arterial road network via Old Castle Hill Road or the Pennant Street/Showground Road or Castle Street/Rowallan Avenue junction.

Over the next 15 years the total number of cars turning cars turning from Old Northern Road onto McMullen Avenue and Brisbane Road and from McMullen Avenue and Brisbane Road onto Old Northern Road during the peak period will increase by 1,642 cars (+1,243 regional and +399 from Castle Hill North). Of these approximately 399 cars (24% of the overall increase) will be generated by future development within the Castle Hill North Precinct. Accordingly, it is considered reasonable that future development within the precinct be levied for 24% of the cost of the upgrade.

The cost estimate for this upgrade is based on an 'Estimate of Cost for Civil Infrastructure Works' prepared by Diversi Consulting for McMullen and Old Castle Hill and Brisbane Roads dated 30 June 2015 plus 7.5% project management, 10% for design and 30% contingency;

b. Roundabouts

Upgrades to key intersections within the Precinct are required to support the forecast population growth. The need for these facilities is not principally linked to the level of service at these junctions, but rather the projected 'Environmental Capacity' of these roadways. The Environmental Capacity (EC) is a measurement of the number of vehicles (including moving and parked) that is considered to be acceptable within an area or individual street, with respect to the impacts on such environmental indicators as pedestrian risk, pedestrian crossing delay, noise and accessibility.

Traffic volumes have been assessed in the following four local streets that provide access to the Development Precinct as follows:

Table 4 – Traffic Volumes and Environmental Capacity

Road	Classification	Existing Vehicles per hour	Environmental Capacity	EDI
Old Castle Hill Rd-South of Gilham St	(Major Collector)	973	380	2.6
Carramar Road between Gilham and Castle St	Local Road	265	350	0.8
Gilham St at Carramar Rd	Local Road	84	350	0.2
Castle Street between Carramar Rd	Major Collector	774	3,801	2.0

Carramar Road and Gilham Street are below their respective Environmental Capacities however the full development scenario in this area will increase the traffic volumes to near or over their capacity. These two streets provide the primary access points for most of the traffic to be generated from the residential redevelopment.

The proposed roundabouts at the intersections of Castle Street/Carramar Road, Carramar Road/Gilham Street, Garthowen Crescent/Old Castle Hill Road and Gilham Street/Old Castle Hill Road will ameliorate the impacts of that additional traffic in three ways:

- The additional traffic will have safe ingress/egress into the local road network via Castle Street and via Old Castle Hill Road where traffic safety will be an issue because of the existing high traffic volumes.
- Residential amenity of the adjacent area will be enhanced for the new residents as pedestrian access at the intersections will be greatly improved by the central median island treatments required for the roundabouts.
- Traffic speeds at the intersections will be controlled to acceptable limits.

The full cost of these roundabouts will be levied under the this Plan as the demand for intersection control is created by traffic going to and from the proposed development within the side streets. Existing traffic volumes along both Castle Street and Old Castle Hill Road are not directly relevant to the traffic demand using the side streets at the locations on the periphery of the development area, and there are separate Local Area Traffic Management Schemes for these two Major Collector Roads that are being implemented in stages for their full lengths.

The cost of each roundabout is estimated is based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs, April 2014).

The full cost of these roundabouts will be levied through the draft Contributions Plan. This approach is justified on the basis that the demand for intersection control is created by traffic going to and from the proposed development within the side streets. Existing traffic volumes along both Castle Street and Old Castle Hill Road are not directly relevant to the traffic demand using the side streets at the two locations on the periphery of the development area, and there are separate Local Area Traffic Management Schemes for these two Major Collector Roads that are being implemented in stages for their full lengths.

c. Road Upgrades and Widening (Castle Street and Old Castle Hill Road)

Road profiles have been prepared for all roads within the Castle Hill North Precinct. These new profiles will ensure that sufficient road reserve is provide to facilitate safe and efficient traffic flow, on-street parking (where required) and improved pedestrian verge widths which are reflective of their intended use. In order to accommodate the road profiles along Old Castle Hill Road and Castle Street, road widening will be required. The existing reservations for these two roadways, being around 19 metres along Castle Street and around 19.5m-21 metres for Old Castle Hill Road, are insufficient and would result in inadequate traffic land widths, parking lane widths and smaller verge widths.

As the widening and upgrade of the roadways are necessary to both support the intensification of residential densities and assist in the transition of Castle Hill North into a transit oriented centre, it is proposed that the cost of acquiring the roadway be included within this Contributions Plan.

The proposed road profiles for Old Castle Hill Road and Castle Street and Road concepts and land acquisition plans are included in the following figures.

Figure 2 – Enhanced Collector Road (Old Castle Hill Road Profile)

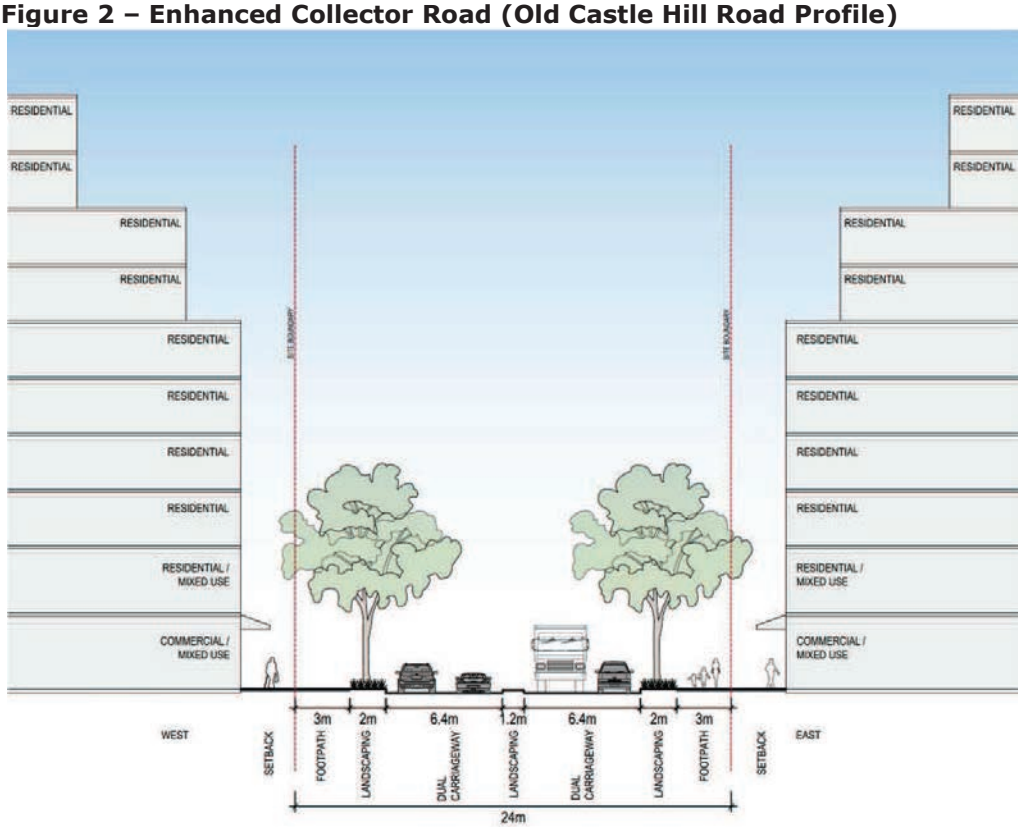


Figure 3 – Enhanced Collector Road (Castle Street Profile)

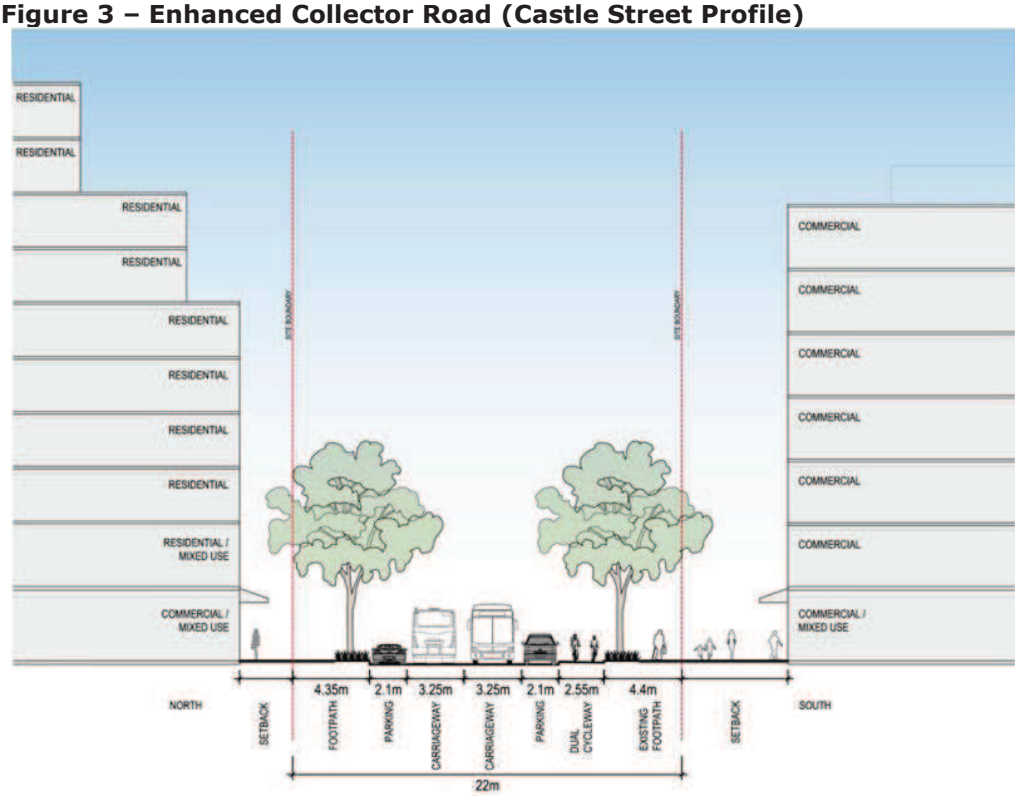


Figure 4 – Castle Street - Road Widening Plan (West)

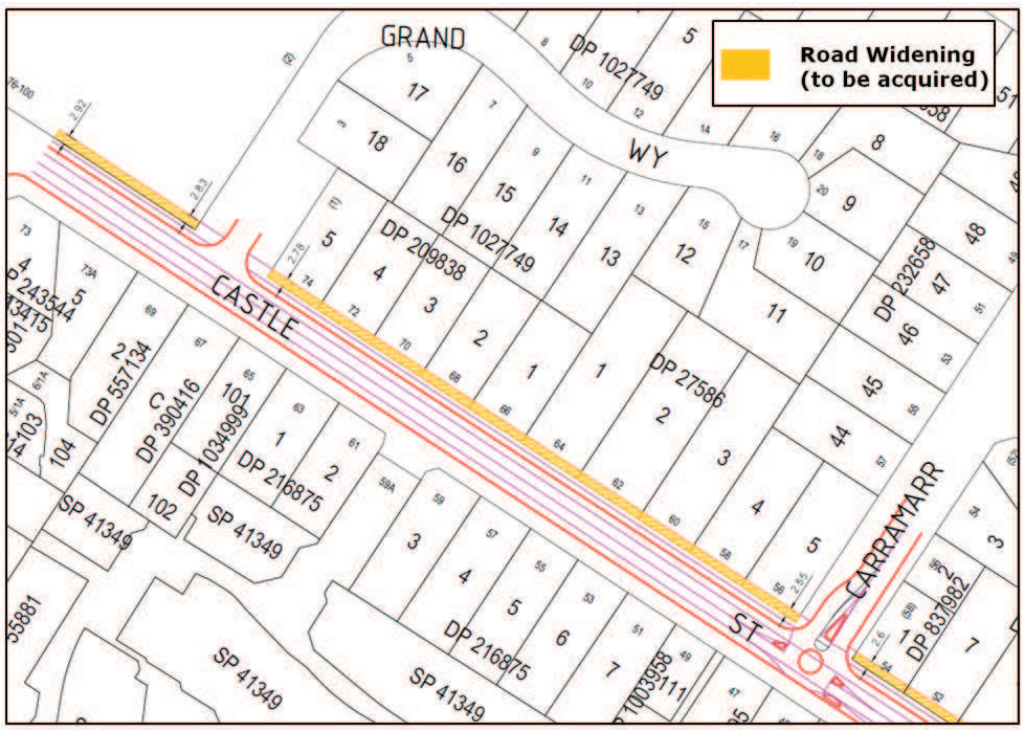


Figure 5 –Castle Street - Road Widening Plan (East)

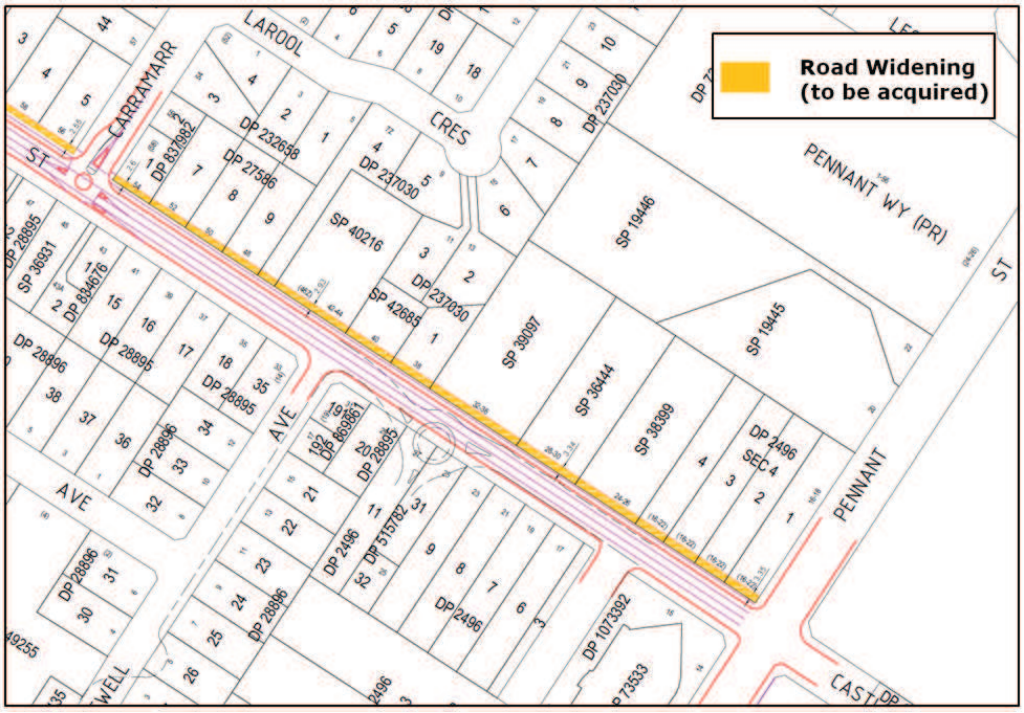
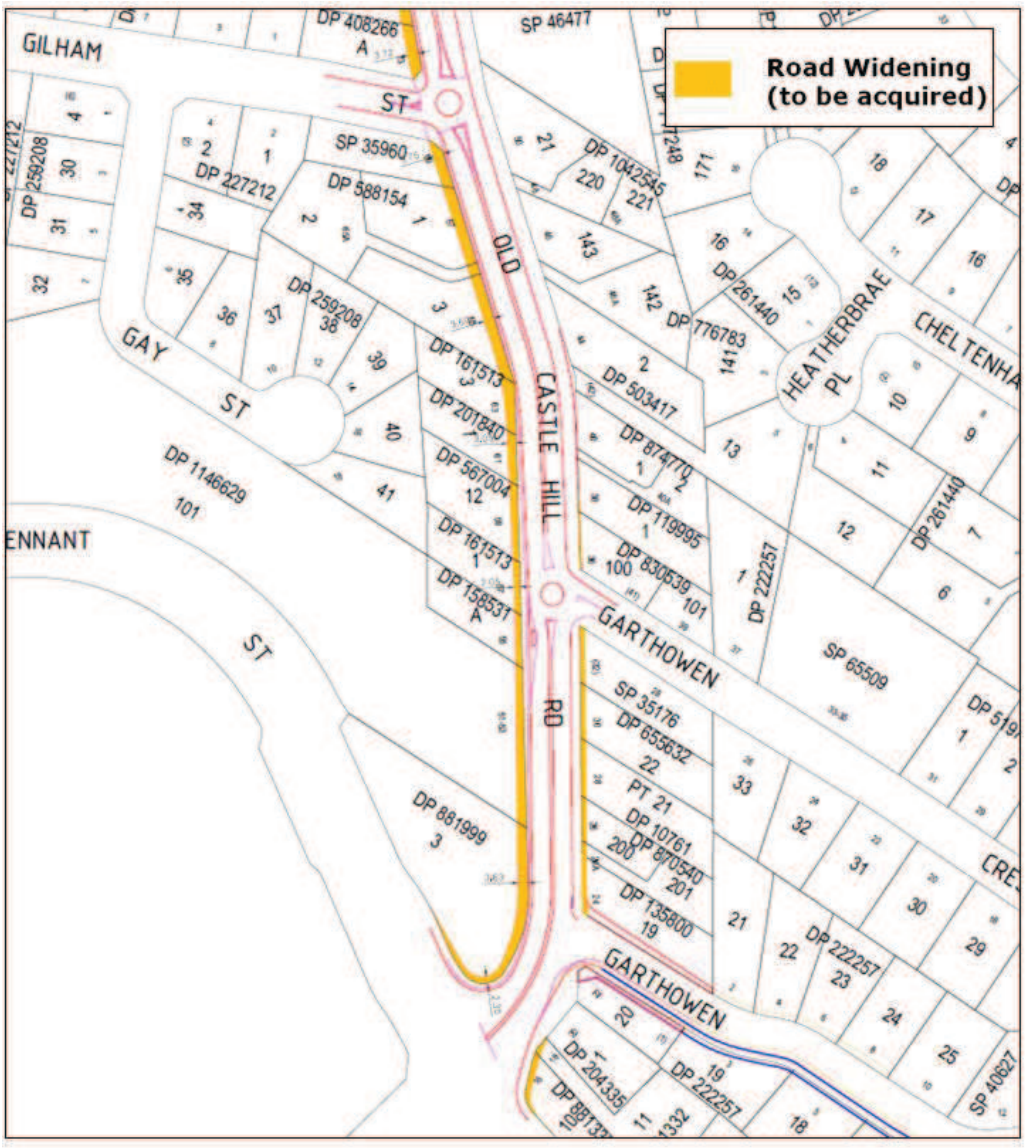


Figure 6 – Old Castle Hill Road – Road Widening Plan



d. Pedestrian Facilities (Public Domain and Pedestrian Bridges)

It is envisaged that the Castle Hill North Precinct will develop into a high density transit centre. Transit Oriented Development (TODs) are defined as mixed use communities within walking distance of a transit node that provide a range of residential, commercial, open space and public facilities in a way that makes it convenient and attractive to walk, cycle or use public transport. The benefits of TODs are more compact urban areas, a reduced reliance on private vehicles and creation of liveable, walkable neighbourhoods.

Public Domain Improvements

In order for the centre to function effectively as a transit oriented centre, it will be imperative that the future development and public domain works create an environment which is conducive to walking and cycling. The approach being pursued for this Precinct is consistent with TOD principles in that it seeks to

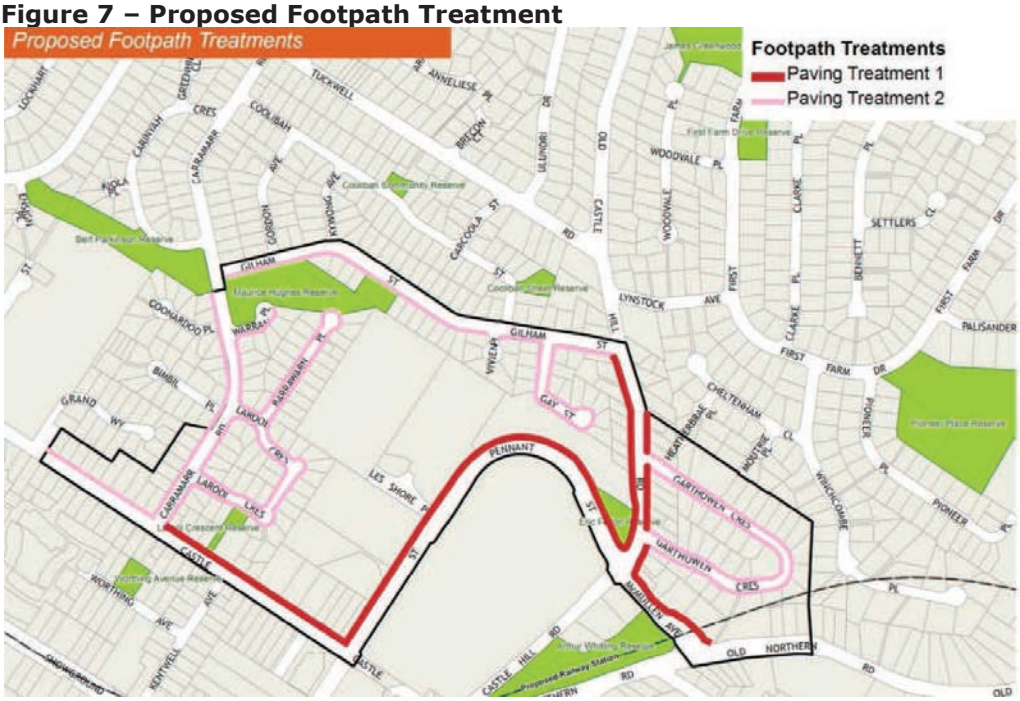
accommodate both population and employment growth in more contained areas close to the future stations that will facilitate walkability and active public spaces.

The recommended paving treatments are detailed below:

- Paving Treatment 1 (variable widths)– 400mm x 400mm concrete paving along Castle Street, Pennant Street, McMullen Avenue and Old Castle Hill Road (Property Boundary to kerb)
- Paving Treatment 2 (variable widths) – Concrete paving with 400mm x 400mm banding at 5000mm centres along Castle Street, Carramarr Road, Warran Place, Larool Crescent, Barrawarn Place, Gilham Street, Gay Street and Garthowen Crescent.

The location of the proposed paving treatments throughout the precinct is included in the following extract from the draft Public Domain Plan for the Castle Hill North Precinct.

Figure 7 – Proposed Footpath Treatment



Pedestrian Bridges

In order to improve pedestrian movement from the proposed high density residential development to the Castle Hill commercial area and Castle Hill Station, two pedestrian bridges are proposed. These will both improve the pedestrian experience and will assist traffic movement be restricting at-grade pedestrian crossing which would interfere with traffic flow.

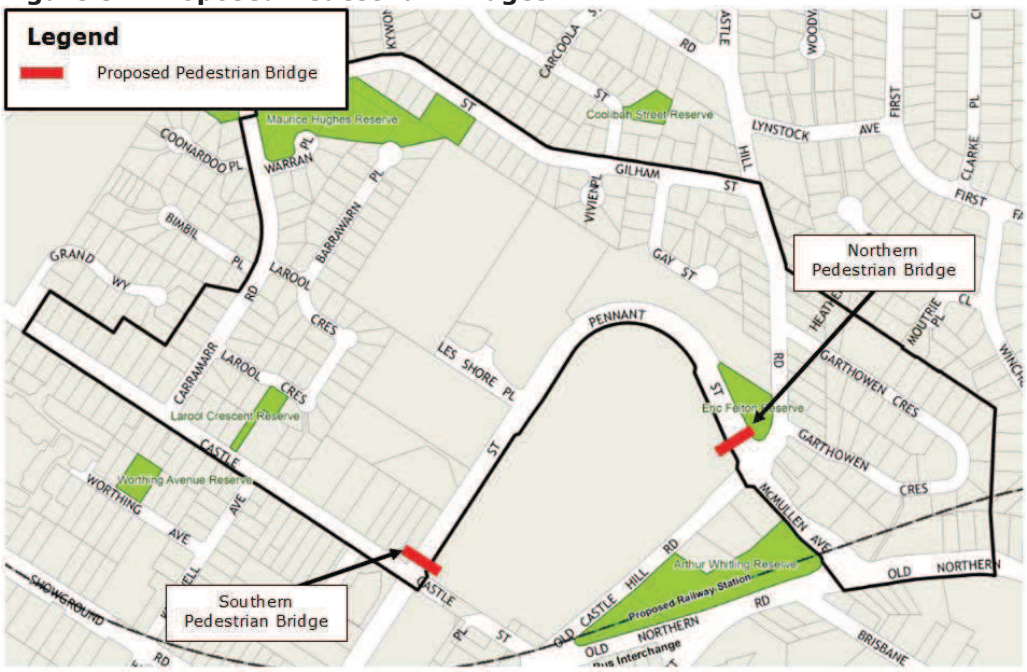
Without the proposed development there would be no need for the bridges. The need to get pedestrians totally off the main road is because of the extra load from new residential development. Details regarding the proposed bridges are provided below.

- Pedestrian Bridge 1 (Northern Bridge)
  The northern pedestrian bridge will cross Pennant Street, from Eric Felton Reserve to the Castle Towers site, on the eastern side of the junction of Pennant Street, Old Castle Hill Road and McMullen Avenue.

- Pedestrian Bridge 2 (Southern Bridge)
  The southern pedestrian bridge will cross Pennant Street, on the northern side of Castle Street, near the current Castle Hill Police Station.

The locations of the pedestrian bridges are identified on the following figure.

Figure 8 – Proposed Pedestrian Bridges



3.3.3 Apportionment

The need to proposed roundabouts, road widening, and pedestrian facilities is generated by the residential development of the Castle Hill North Precinct. It is therefore appropriate that residential development within the Castle Hill North Precinct be subject to the full costs of providing these facilities.

Approximately 24% of the cost of upgrading the McMullen Avenue/ Old Northern Road intersection will be funded by future development within the Castel Hill North Precinct.

3.3.4 Schedule of Works and Cost Estimates

A schedule of traffic facilities to be levied under this plan is included within Table 5. Each facility to be provided can be located by reference to Figure 2, 'Map Sheet 1'.

3.3.5 Contributions Formula

The formula used to calculate the contribution rate for transport facilities - capital works is set out in Part B Section 2.19.

The contribution rates for transport facilities are set out in Table 5 and Part A Summary Schedules.

3.4 STORMWATER FACILITIES

3.4.1 Stormwater Facilities Demand

Land within the Castle Hill North Precinct drains in a westerly direction.

The area is characterised as a 1960's subdivision in which the catchment was developed across major overland flow paths in an era when the consideration given to planning was limited. As a consequence, flooding of properties is likely when catchment runoff from storm events exceeds the capacity of the piped drainage system.

A number of overland flowpath are present within the Precinct. Overland flowpaths are initiated when catchment runoff exceeds the capacity of the existing stormwater drainage system. These flowpaths are a considerable constraint to future development between Les Shore Place and Larool Crescent, and from Carramarr Road to Castle Street. Accordingly, upgrades and enlargements to the stormwater drainage system are required to ease the impacts of overland flowpaths on affected land. Similarly, sensitive management of the remnant flows through innovative design will reduce identified hazards.

Compliance with Council's Flood Controlled Land Development Control Plan, On-Site Stormwater Detention Policy and application of the principles of Water Sensitive Urban Design (WSUD) will facilitate further development in the study area.

3.4.2 Proposed Stormwater Drainage Facilities

Upgrades to the local pipe network are required to reduce the impact of flooding as a result of new development in the vicinity of Garthowen Crescent, Les Shore Place, Larool Crescent, Carramar Road and Castle Street.

Stormwater drainage upgrade works have been identified based on preliminary estimates of pipe system upgrades required to ease the impacts of overland flowpaths on affected land within the Precinct. The delivery of these upgrades will reduce the identified hazards to future development.

Cost estimates for the pipe infrastructure are based on IPART benchmark rates (IPART Local Infrastructure Benchmark Costs, April 2014). The cost of drainage pits are based on recent drainage projects within The Hills Shire. As the upgraded stormwater drainage facilities are required to address the impact of new development within the catchment, future residential development within the Castle Hill North Precinct will be subject to the full costs of providing these drainage facilities.

As part of the planning for the Stormwater Management Upgrades Council will be undertaking a Stormwater Network Asset Upgrade Report which will involve the preparation of a detailed flood investigation report, and the development of detailed concept designs and plans for the upgrade of Council owned stormwater assets within the study area. Further refinements to the concept or cost estimates would necessitate a future amendment to the plan.

3.4.3 Apportionment

Upgraded stormwater drainage facilities are required to address the impact of new development within the catchment. Future residential development within the Castle Hill North Precinct will be subject to the full costs of providing these drainage facilities.

3.4.4 Schedule of Works and Cost Estimates

Cost estimates for the pipe infrastructure are based on IPART benchmark rates (IPART Local Infrastructure Benchmark Costs, April 2014). The cost of drainage pits are based on recent drainage projects within The Hills Shire.

A 30% contingency has been applied to the base costs of the drainage upgrades in accordance with IPART Local Infrastructure Benchmark Costs, April 2014.

The specific stormwater drainage facility costs described above are detailed Table 5. The facilities to be provided are illustrated in Figure 2 'Map Sheet 1'.

3.4.5 Contributions Formula

The formula used to calculate the contribution rate for stormwater drainage facilities - capital works is set out in Part B Section 2.19.

The contribution rates for drainage facilities are set out in Table 5 and Part A Summary Schedules.

3.5 PLAN ADMINISTRATION

3.5.1 Administration and Plan Preparation

The preparation, on-going review, and implementation of this Contributions Plan requires significant Council resources. This includes allocation of time from Forward Planning, Services Delivery and Community Development staff together with professional fees, to prepare and review the Contributions Plan.

Once the plan is in place, further staff time will be required to manage the contributions system which includes calculation and recording of contribution payments as well as monitoring of development, population, works schedule expenditure and indexation assumptions. The costs associated with the preparation and administration of this plan will therefore be levied for under this Contributions Plan.

3.5.2 Schedule of Works and Cost Estimates

The specific administrative costs described above are detailed in Table 5. The administrative cost to be levied for under this Contributions Plan is based on the benchmark rate recommended by IPART of 1.5% of the total value of works within the Contributions Plan.

3.5.3 Contributions Formula

The formula used to calculate the contribution rate for administration costs is set out in Part B Section 2.19.

3.6 WORKS SCHEDULES

The implementation of the various facilities and services has been prioritised according to the particular needs of the incoming population and is linked to a population threshold. The ability to deliver a particular facility is largely dependent upon the rate of development within the Precinct, and the corresponding receipt of contributions by Council.

The population projections contained within this plan are based upon a 20 year time frame. It is intended that facilities identified within the works schedule to the Contributions Plan will be delivered within this time period. A summary of the program of works by facility category is included in Table 5. Monitoring of the plan in accordance with Section 2.20 will allow for review and adjustment of population projections and the works schedule as required.

TABLE 5: WORKS SCHEDULE

Item No.	Item Id.	Description	Quantity	Unit	Capital Cost ($)	Land Acquisition ($)
Open Space Facilities						
1	CHNOSE1	Maurice Hughes Reserve Embellishment - Open space embellishment including cycleway, BBQs, planting, bins, cycle racks, drinking fountains, seating, tables, turfing, security lighting, softfall playground, fencing, gate, playground equipment and shade structure	1	Item	$1,392,134	$0
2	CHNOSE2	Larool Crescent Reserve Embellishment - Passive open space embellishment including cycleway/pedestrian pathway, paving, drinking fountain, tables, planting, security lighting, turf, and fencing	1	Item	$426,362	$0
3	CHNOSE3	Eric Felton Reserve Embellishment - Passive open space embellishment including demolition of concrete slab and light structure, clearance of vegetation, cycleway/pedestrian pathway, paving, drinking fountain, seating, planting, turf, security lighting and fencing	1	Item	$567,282	$0
4	CHNOSE4	Sports Field Gilmour Close (7 to 13 Glenhaven Road, Glenhaven) - Four (4) new playing fields and (2) cricket oval including additional parking, amenities building, pathways, seating, floodlighting.	1	Item	$4,397,312	$17,379,063
Transport and Pedestrian Facilities						
5	CHNNRT1	Roundabout - Old Castle Hill Road and Gilham Street	1	Item	$ 534,166	$0
6	CHNNRT2	Roundabout - Castle Street and Carramar Road	1	Item	$534,166	$0
7	CHNNRT3	Roundabout - Gilham Street and Carramar Road	1	Item	$534,166	$0
8	CHNNRT4	Roundabout – Garthowen Crescent/ Old Castle Hill Road (northern junction)	1	Item	$534,166	$0
9	CHNNRT5	Traffic Management (Roundabouts) - Live Traffic Management	4	Item	$425,202	$0
10	CHNNRT6	Signalised Intersection - McMullen Avenue and Brisbane Road - Castle Street and Carramar Road	1	Item	$1,586,001	$0
11	CHNNRT7	Paving Treatment 1(variable widths) – 400mm x 400mm concrete paving along Castle Street, Pennant Street, McMullen Avenue and Old Castle Hill Road (Property Boundary to kerb) Paving Treatment 2 (variable widths) – concrete paving with 400mm x 400mm granite banding at 5000mm centres along Castle Street, Carramarr Road, Warran Place, Larool Crescent, Barrawarn Place, Gilham Street, Gay Street and Garthowen Crescent. Street Trees - Every 10m - All Roads	1	Item	$9,321,798	$0
14	CHNNRT8	Northern Pedestrian Bride (The northern pedestrian bridge will cross Pennant Street, from Eric Felton Reserve to the Castle Towers site, on the eastern side of the junction of Pennant Street, Old Castle Hill Road and McMullen Avenue)	1	Item	$ 2,772,843	$0
15	CHNNRT9	Southern Pedestrian Bridge (The southern pedestrian bridge will cross Pennant Street, on the northern side of Castle Street, near the current Castle Hill Police Station)	1	Item	$2,772,843	$0
16	CHNNRT10	Road Upgrade and Widening (from Eric Felton Reserve to Gilham Street) – Including road	No.	Item	$3,315,646	$5,904,102

		widening on both the eastern and western sides of Old Castle Hill Road				
17	CHNNRT11	Road Upgrade and Widening (from Grand Way to Pennant Street) – Including road widening on the northern side of Castle Street.	1	Item	$ 6,180,051	$5,692,373
Stormwater Facilities						
20	CHNDR1	Stormwater Pipe Upgrades	1	Item	$5,814,966	$0
21	CHNDR2	Stormwater Pit Upgrades	1	Item	$689,666	$0
Plan Administration						
22	CHNADMIN	1.5% of the Cost of Works within the Contributions Plan - Preparation, Review and on-going Implementation of the Plan	1	Item	$624,430	$0

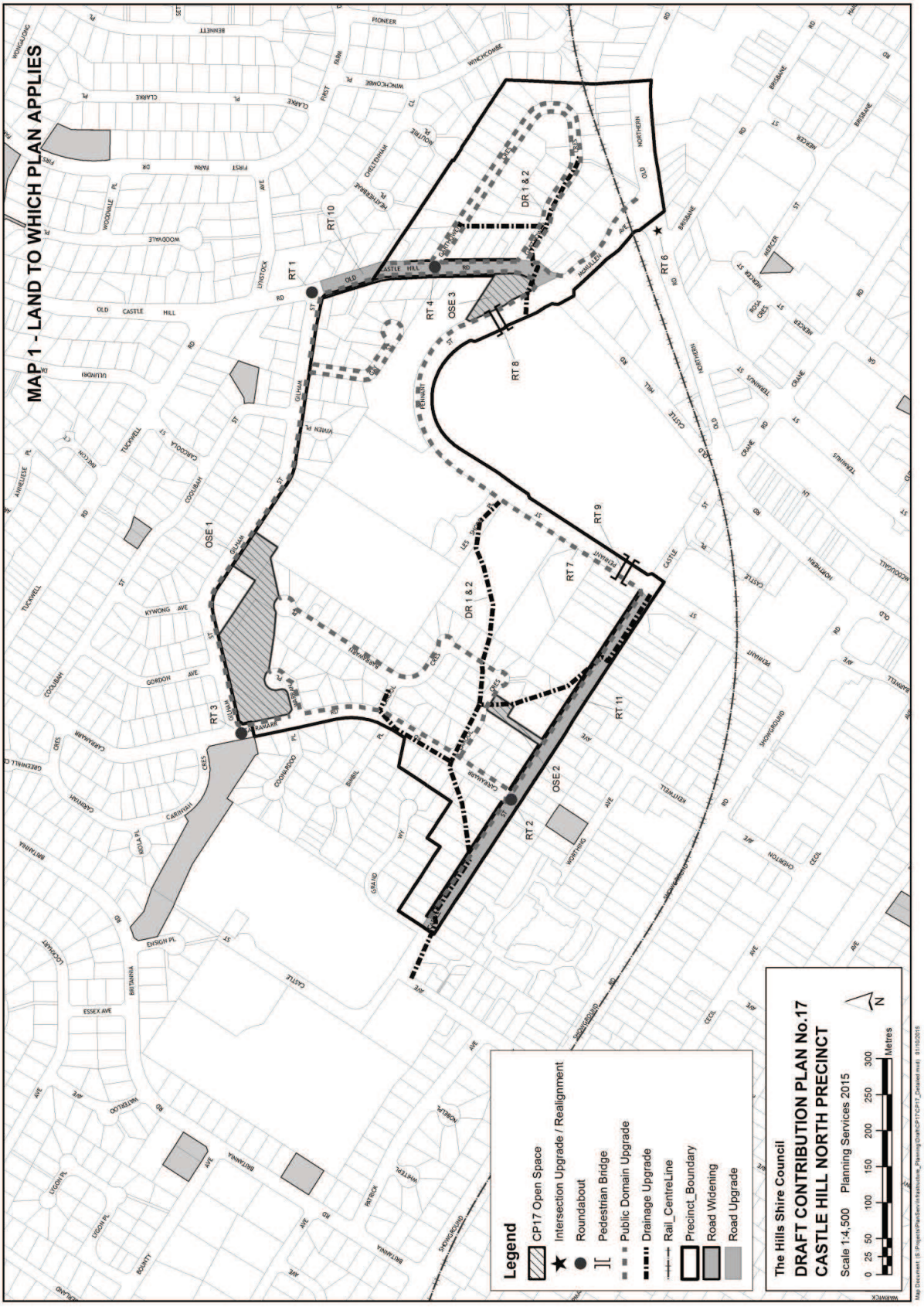
Summary	Total
Open Space - Land	$ 17,379,063
Open Space - Capital	$6,783,091
Transport Facilities - Land	$11,596,475
Transport Facilities - Capital	$28,511,048
Water Management - Capital	$6,504,633
Administration	$624,430
Total	**$71,398,739**

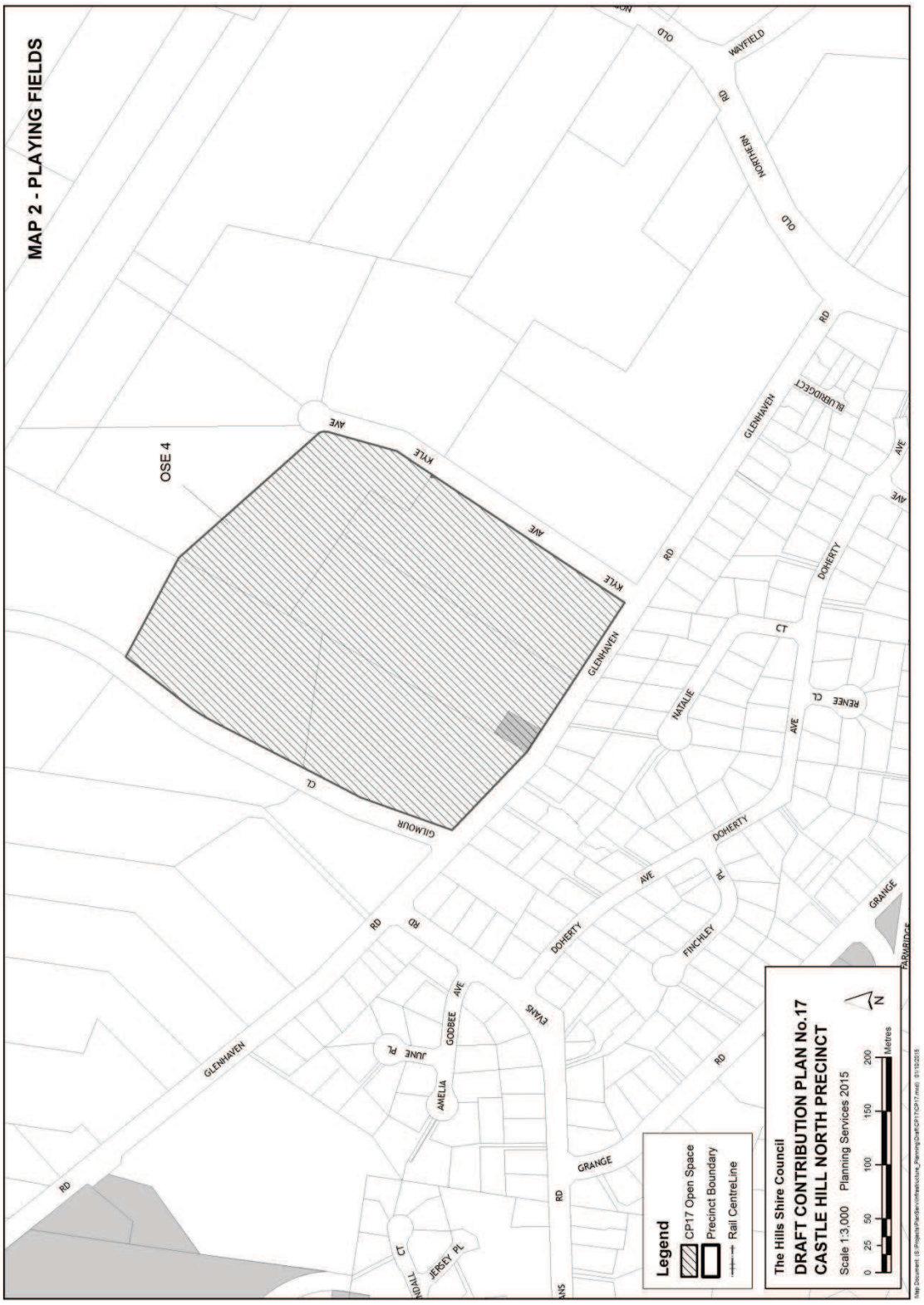
4 PART D - References

REFERENCES

- Australian Runoff Quality - A Guide to Water Sensitive Design, Engineers Australia, 2006.
- Development Contributions Practice Notes (July 2005)
- IPART Local Infrastructure Benchmark Costs, April 2014

LOCATION OF FACILITIES


MAP 1 - LAND TO WHICH PLAN APPLIES
RT 1
RT 2
RT 3
RT 4
RT 6
RT 7
RT 8
RT 9
RT 10
RT 11
OSE 1
OSE 2
OSE 3
DR 1 & 2
DR 1 & 2
Legend
CP17 Open Space
Intersection Upgrade / Realignment
Roundabout
Pedestrian Bridge
Public Domain Upgrade
Drainage Upgrade
Rail_CentreLine
Precinct_Boundary
Road Widening
Road Upgrade
The Hills Shire Council
DRAFT CONTRIBUTION PLAN No.17
CASTLE HILL NORTH PRECINCT
Scale 1:4,500 Planning Services 2015
0 25 50 100 150 200 250 300 Metres
N


MAP 2 - PLAYING FIELDS
OSE 4
Legend
CP17 Open Space
Precinct Boundary
Rail CentreLine
The Hills Shire Council
DRAFT CONTRIBUTION PLAN No.17
CASTLE HILL NORTH PRECINCT
Scale 1:3,000 Planning Services 2015
Metres
GLENHAVEN
DOHERTY
GRANGE
FINCHLEY
EVANS
GODBEE
JUNE PL
AMELIA
JERSEY PL
NATALIE
RENEE CL
GILMOUR
KYLE
BLUEBRIDGE CT
WAYFIELD
NORTHERN

5 PART E - Definitions Relevant to this Plan

Unless otherwise provided, definitions for terms used in this Contributions Plan will be those definitions used in the Environmental Planning and Assessment Act 1979, the Environmental Planning and Assessment Regulation 2000 and The Hills Local Environmental Plan 2012.

Acquisition cost	Includes all costs and expenses incurred in the purchase of land or floor space including but not limited to any purchase price, valuation, legal and survey fees.
Assumed Occupancy Rate	Means the number of persons assumed to occupy different dwelling types
Capital Cost	Includes all costs and expenses incurred in the delivery of the public facilities identified including but not limited to design, consultant and professional fees, project management fees, insurance premiums, construction and fit out costs. It does not include any recurrent costs that may be incurred in the operation and maintenance of the facility once it has been built.
Castle Hill North Precinct	Means the area shown on Figure 1 - Land to Which Plan Applies
Developer contributions	Means a monetary contribution, the dedication of land free of cost or the provision of a material public benefit
EP&A Act	Means the Environmental Planning and Assessment Act 1979, as amended
EP&A Regulation	Means the Environmental Planning and Assessment Regulation 2000, as amended
Expected Additional Population	Means the anticipated population of the Castle Hill North Precinct, over and above the estimated population at 2006 Census.
LEP 2012	Means The Hills Local Environmental Plan 2012, as amended
Multi-Unit Dwelling	Means any form of residential development other than subdivision, single dwelling –houses and attached or detached dual occupancy
RMS	Means the Roads and Maritime Services of NSW
Works in kind	Means the construction or provision of the whole or part of a public facility that is identified in the works schedule to the Contributions Plan

ATTACHMENT 2

The Hills Development Control Plan (DCP) 2012

www.thehills.nsw.gov.au

THE HILLS Sydney's Garden Shire

Part D Section 20

Castle Hill North Precinct

DRAFT

Table of contents

List of Figures

List of Tables

1 Introduction

This Section establishes a framework and controls to guide development in the Castle Hill North Precinct.

1.1 Land to which this Section applies

This section applies to the land within the Castle Hill North Precinct (refer to Figure 1).

1. Land to which this Section applies

1.2 Purpose of this Section

The purpose of this section of the DCP is to guide future development of the Castle Hill North precinct by identifying the vision, development principles, key elements and structure for the future development of the precinct. It seeks to ensure the orderly, efficient and environmentally sensitive development of the precinct to achieve high quality urban design outcomes.

1.3 Relationship to other Sections of the DCP

This section forms part of The Hills Development Control Plan 2012 (DCP 2012). Development within the Castle Hill North Precinct will need to have regard to this section of the DCP as well as other relevant controls in DCP 2012. In the event of any inconsistency between this section and other sections of DCP 2012, this section will prevail to the extent of the inconsistency.

2 Vision and Principles

2.1 Vision

The Castle Hill North Precinct is proposed to become an attractive and well connected neighbourhood that achieves housing targets, creates vibrant, safe and desirable places, reinforces the garden Shire character and lifestyle and is supported by necessary infrastructure. It is anticipated that the precinct will provide up to 3283 additional dwellings by 2036. In order to meet this vision, future development within the Precinct must achieve the following key principles and strategic priorities.

2.2 Development principles

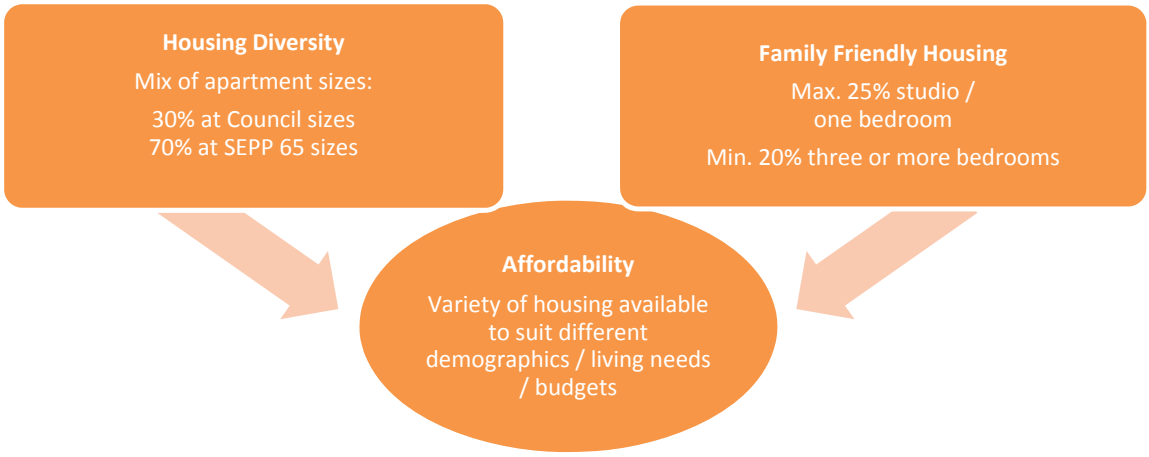
To achieve the vision, future development within the Precinct must address the following key principles and strategic priorities of Council:

Housing Diversity

As the population grows there will be greater reliance on higher density development to accommodate future housing demand. The expected characteristics of the Hills Shire population will continue to include a variety of household types including singles, couples and a high proportion of households with children. It will be critical that future high density development provides 'dwelling diversity' to ensure the market caters for the different living needs, expectations and household budgets within the community. This will require the provision of an appropriate mix of one, two and three bedroom apartments which are varied in size.

Apartment buildings are long term building stock so it is very important that if they are to be built, they are resilient over the long term. Unlike detached housing where landowners can choose the style and size of their home, a homeowner wanting an apartment can only choose from what is being provided. Whilst smaller apartments should be provided to meet the needs of a certain demographic within the market, moderate and larger apartments should also be provided to meet the latent demand for this housing option. This will then reduce pressure on smaller, more affordable housing options.

In order to achieve appropriate housing diversity within the Corridor, a floor space incentive provision has been included within The Hills Local Environmental Plan 2012 which permits additional floor space for developments that provide the required mix of apartment types and sizes (refer to figure 2). Further information on housing diversity is also provided as Attachment A.



2. Approach to Housing Diversity

Transit oriented development

Transit oriented development (TOD) involves the creation of compact, walkable, mixed-use communities around public transport nodes. A key goal of TODs is to increase the number of people who walk, cycle or use public transport as their main form of transport. TODs have densities that result in increased patronage of public transport and provide more opportunities for people to live near the station and reduce their reliance on vehicles.

The need to locate high density housing in centres with good access to services, community facilities and transport is well recognised and will support the on-going operation of the Sydney Metro Northwest. Density at the core allows for a scale and character suitable for pedestrian connectivity. Centres should provide a mixture of residential, retail and commercial activities that are centred around transport and create an environment where services, recreation, entertainment, jobs and housing provide a lifestyle alternative to the traditional suburban context, consistent with the principles of TODs.

This DCP Sections supports the provision of TODs by helping to deliver the highest densities in key strategic locations close to centres and existing and proposed transport infrastructure. This will ensure a sensible balance can be achieved between delivering on housing targets whilst ensuring an appropriate transition in residential densities and maintaining residential character.

Infrastructure and open space

Public open spaces play an important role in urban areas including provision of recreation, environmental conservation, connecting people with nature and improving social and mental health.

The expected additional population within the Castle Hill North Precinct will increase demand for various public facilities and services (such as roads, community facilities, open space and the like). The future population should be provided with access to open space, recreation and community facilities in line with the lifestyle enjoyed by existing residents.

There is a need to improve open space networks to meet the demands generated by incoming population and ensure appropriate recreational opportunities are provided for the future population. A number of local parks will be embellished to improve their capacity. Development within the Precinct will also be levied for the provision of new playing fields, cycle-ways, and public domain improvements which will be delivered to improve the quality of life of future residents.

Place Making

Place making will be a key focus in order to provide neighbourhoods that are sustainable, accessible, safe, attractive and well serviced with a unique character and sense of place. The development controls will provide the guidelines to make neighbourhoods liveable including vibrant activity centres, permeable and safe movement networks, generous public spaces, high quality built form and ecologically sustainable development. The provision and embellishment of quality spaces including streets, parks, buildings, and other public spaces will enable greater interaction between people and foster healthier, more social and economically viable communities.

Public areas such as informal gathering areas within centres will include high quality and durable elements such as seating, shading and lighting to enhance the amenity of these areas. Streets will be enlarged where possible incorporating new public domain treatments including new paving, new street furniture and lighting, improved pedestrian access and dedicated street tree planting.

Quality built form plays a vital role in achieving liveable, productive and resilient environments and creating great places that people want to live, work, visit and invest in. Development which achieves the key principles and meets with the development controls in this DCP will ensure an exemplary standard of design that provides a positive contribution to the public realm. A design excellence clause has been included within The Hills Local Environmental Plan 2012 to require certain buildings and or development sites to be assessed by a design excellence panel to achieve quality built form outcomes for the precincts.

3. Activated pedestrian and cycleway
Source: Brent Toderian

4. Retail at ground level
Source: Google Streetview

3 Desired Character and Structure Plan

3.1 Desired Character

Castle Hill North Precinct will be a pedestrian friendly centre which will provide an attractive alternative to the traditional suburban context. It will focus on an appropriate scale and amenity for pedestrians which will be achieved by providing buildings at a human scale and an improved public domain that make travel by foot a desirable option. Developments will have reasonable setbacks and landscaping reflective of their intended character.

Development is to be consistent with the desired character for the precinct as well as the Structure Plan streetscape area controls, key precinct elements, general controls and development type controls. LEP 2012 utilises floor space ratios as the primary development standard for the Castle Hill North Precinct. This provides the flexibility to articulate and guide the desired built form outcomes on each individual development site. In order to provide a guide of the likely built form outcome, the structure plan identifies the intended land uses, indicative building height ranges and key links.

Objectives

a. To precinct will provide for a diverse population in a higher density urban environment within a landscaped garden setting.

b. To encourage development of high architectural quality exhibiting innovative ecological sustainable urban design.

c. To provide a high amenity living environment with high quality attractive public open space.

d. To locate higher scale residential development closer to Castle Hill station to cater for future demand.

Controls

1. Development is to comply with the Castle Hill North Precinct Structure Plan.
2. Development is to be of a high design quality to ensure an attractive, amenable and enjoyable urban environment.

5. Desired future character
Source : Oculus

3.2 Castle Hill North Precinct Structure Plan

Objectives

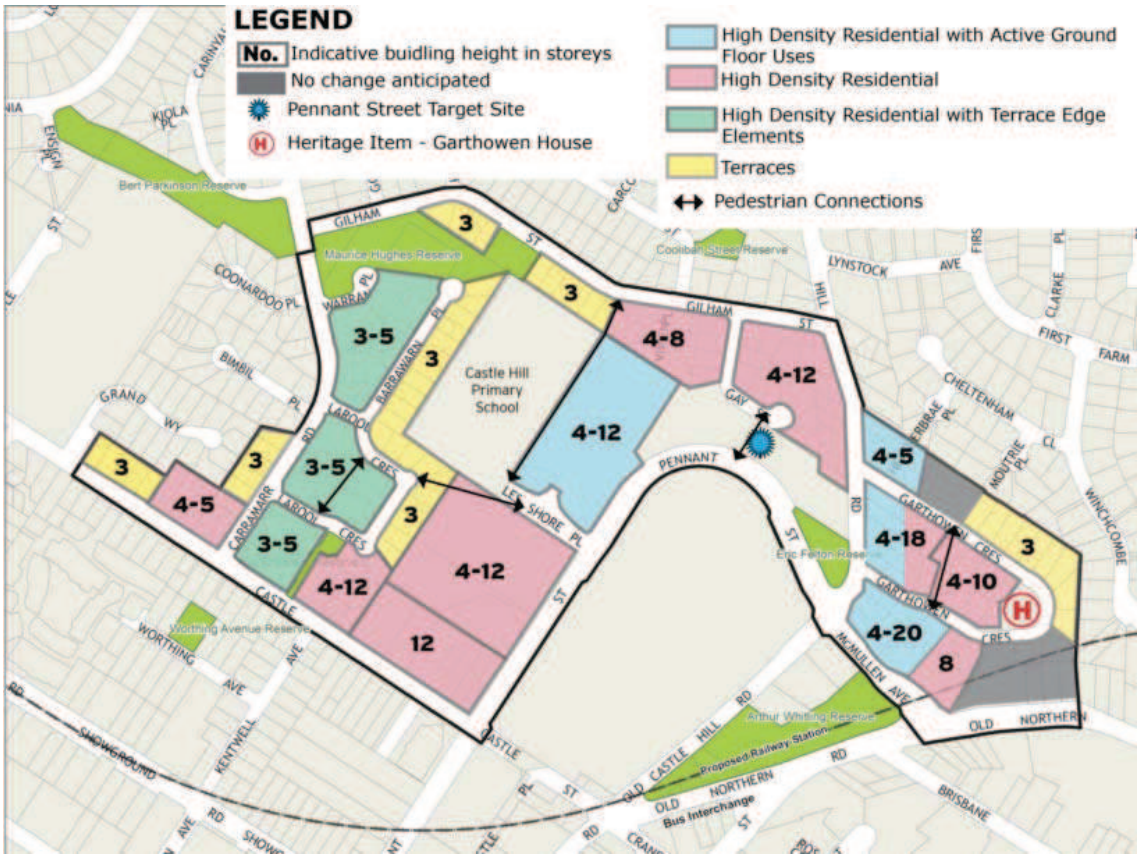
a. To ensure that development occurs in a coordinated manner consistent with the vision and development principles for the Precinct.

b. To provide a diversity of residential development within the precinct.

c. To locate higher scale residential development close to station to optimise access to public transport.

Controls

1. Development is to comply with the Castle Hill North Precinct Structure Plan.



6. Castle Hill North Precinct Structure Plan

3.3 Streetscape Areas

Objectives

a. To ensure the delivery of an appropriate mix of uses.

b. To ensure that the proposed land uses and the built form of future development contributes to the intended character for each streetscape.

c. To ensure that future development provides an appropriate address to sensitive interfaces and transitions to the surrounding residential context.

d. To provide for a high density residential development with a high quality public domain, high canopy trees and activated streets.

e. To ensure that each streetscape is distinct yet contributes to the overall vision for the Castle Hill North Precinct, which is for a vibrant, connected and walkable centre that is an attractive place to live, work and visit.

Controls

1. Development shall comply with the 'Structure Plan' included within Figure 6.
2. Development is to be consistent with key streetscape elements as outlined below.

There are four key streetscape areas within the precinct as identified in Streetscape Area Map below.

7. Streetscape Area Map

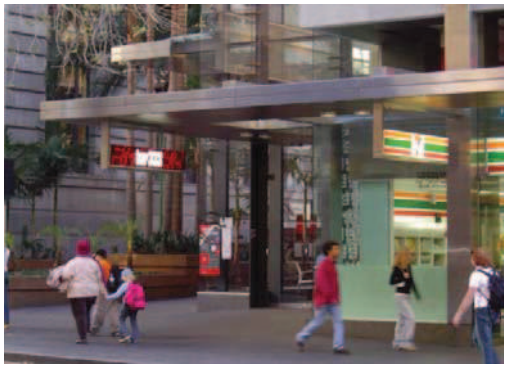
Urban Active Edge Streetscape

The 'Urban Active Edge Streetscape' includes land along Pennant Street/ Castle Street and the eastern side of Old Castle Hill Road (from McMullen Avenue to just north of Garthowen Crescent).

Character

a. This streetscape will provide a high degree of pedestrian connectivity to the Castle Hill Railway Station and other retail and commercial services within the Castle Hill Centre.
b. Development will contribute to a high density environment with a compact urban form.
c. This area will have a lively and vibrant streetscape which will be achieved through a mix of uses and street level activation.
d. The delivery of public domain improvements including high quality paving, street furniture and street trees along these frontages will contribute to the consistency of the streetscape.

8. Activate Street frontage, Sydney
Source: THSC



9. Ground floor retail, Sydney
Source: THSC

10. Active street frontage, Sydney
Source: Google Maps

11. Active Street frontage, Sydney
Source: THSC

Land Use

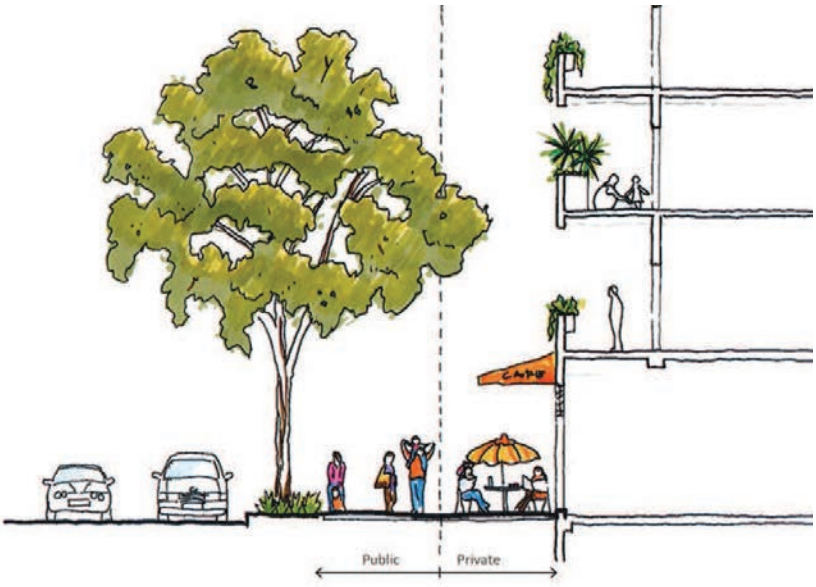
a. For land zoned R1 General Residential, retail and commercial uses shall be provided on the ground and first floors.
b. For land zoned R4 High Density Residential, ground floor neighbourhood shops are encouraged to meet the day to day requirements of residents.

12. Residential Development with fine grain residential street interface, Harold Park
Source: THSC

Street Frontage

a. Buildings shall provide a hard line edge, at the setback line to provide continuity and create a seamless and identifiable area of public and private space.
b. Provide retail and commercial uses on the ground and first floors with fine grain articulation.
c. Provide awnings to active frontages.
d. Treatment of the front setback areas are to integrate with the public domain treatments identified within the Castle Hill North Public Domain Plan and provide a consistent streetscape.

13. Activated street frontage with residential above
Source: Google Streetview



14. Cross section of a Landscape Setback Streetscape

Landscape Setback Streetscape

The 'Landscape Setback Streetscape' includes the areas of Gilham Street, Gay Street, Old Castle Hill Road (both sides), Castle Street (west of Carramar Road) and Carramar Road (north of Larool Crescent).

Character

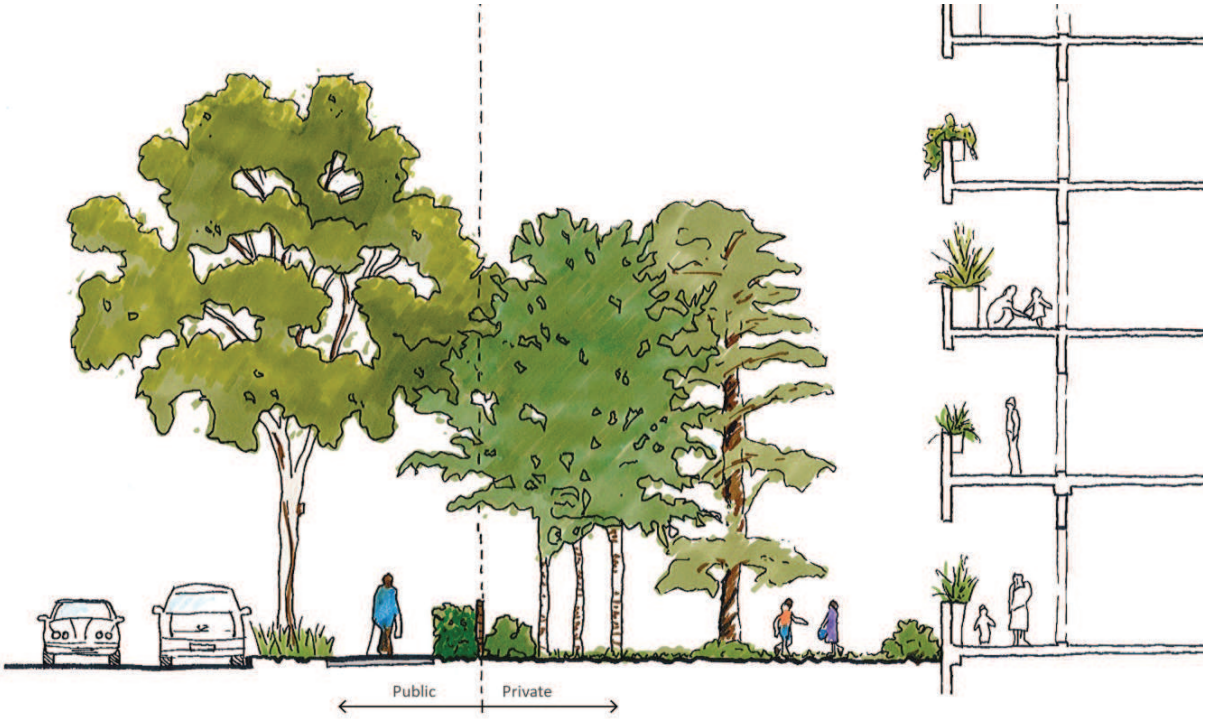
a. This streetscape area includes medium to low-rise residential development with generous setbacks reflective of a landscaped garden character.
b. Future development will provide a transition of height and density to reflect the proximity of the sites from the Castle Hill Railway Station.
c. Lower scale development with high quality landscape treatments to be provided along interfaces with sensitive uses.
d. The streetscape will be characterised by wide footpaths and tree lined verges to encourage pedestrian movement.

Land Use

a. Terrace housing style development and medium-high density residential apartments in a landscaped setting.

15. Landscaped setback Rhodes
Source: THSC

16. Landscaped setback Lindfield
Source: Google Streetview



17. Cross section of a Landscape Setback Streetscape

Street Frontage

a. Where high density development is provided the streetscape will be characterised by landscaped setbacks.
b. Setback areas, where high density development is proposed, are to be intensively landscaped and shall include ground cover (grass), shrubs and trees of varying heights so as to facilitate the retention of 'The Garden', feel.
c. A minimum of two high canopy trees per 30 m of street frontage where the street setback is greater than 3m is to be provided within the front setback.
d. Where terraces are proposed, development shall address the 'Terrace Edge Streetscape' street frontage elements.
e. Deciduous trees are encouraged within the front setback areas to facilitate sunlight access in winter.
f. Buildings on sites which adjoin public open spaces shall have an outlook to the adjoining open space area, so as to increase passive surveillance of these spaces.
g. Development is to ensure that the private open space of adjoining properties including the common open spaces of private developments is to receive a minimum of 4 hours of sunlight between the hours of 9am to 3pm on June 21.
h. No additional overshadowing of public open spaces such as riparian ways, local parks and plazas, including areas adjoining the precinct is to occur between the hours of 11am and 2pm between the dates of April 21 and August 21.

Open Street Feel Streetscape

The 'Open Street Feel Streetscape' includes land along Garthowen Crescent.

Character

a. This streetscape will be characterised by high density residential development within an open landscaped setting.
b. Sites within the southern portion of Garthowen Crescent, that have a dual frontage with McMullen Avenue, will have a more urban setting to provide a transition to the highly urban 'Urban Active Edge Streetscapes' which is identified along Old Castle Hill Road and McMullen Avenue.
c. Building heights and densities shall transition throughout the streetscape to respond to existing lower scale development and other sensitive interfaces including Garthowen House.
d. To accommodate a higher density environment a moderate widening of the Garthowen Crescent carriageway will be required to facilitate safe vehicular movement and an appropriate amount of on-street parking.

Land Use

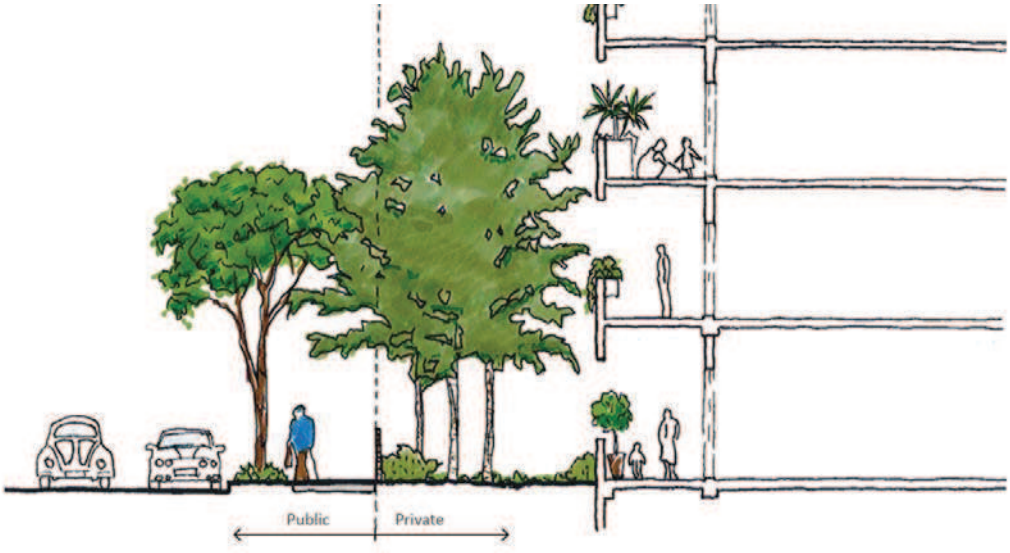
a. For land zoned R1 General Residential, retail and commercial uses shall be provided on the ground and first floor so as to facilitate active and vibrant street frontages and to increase employment opportunities. Upper floors will comprise residential levels.
b. Higher density residential development is to occur in the R4 High Density Residential zones to provide a range of dwelling types in near adjacency to the rail station.
c. Building heights and densities are to transition downward to Garthowen House and the lower scale residential uses within, and adjoining, the Castle Hill North Precinct.
d. Terrace housing style development is to be provided within the R3 Medium Density Residential zone.

18. Example Residential Development with open street feel, Wentworth Point
Source: Google Maps Streetview

Street Frontage

a. This streetscape will have two different character areas. The northern end of Garthowen Crescent, will have an open landscaped feel which will be facilitated through generous landscaped setbacks, where a higher density development is proposed, incorporating a blend of native and exotic species (ground cover (grass), shrubs and trees).

b. The southern end of Garthowen Crescent will also have an open landscaped feel, however it will be a transitional area to the 'Urban Active Edge Streetscape'.
c. Future development shall be designed to provide clear sight lines to the adjoining street verges.



19. Cross section of Open Street Feel Streetscape

Terrace Edge Streetscape

The 'Terrace Edge Streetscape' includes land along Barrawarn Place, Larool Crescent and Carramar Road (south).

Character

a. This streetscape will be characterised by terrace lined streets with soft landscape treatments within the front setback areas of terraces.
b. Fine grain terrace style street appearance will break up the massing and scale of the built form and present a compact medium density dwelling type which transitions sensitively to the surrounding neighbourhood.

Land Use

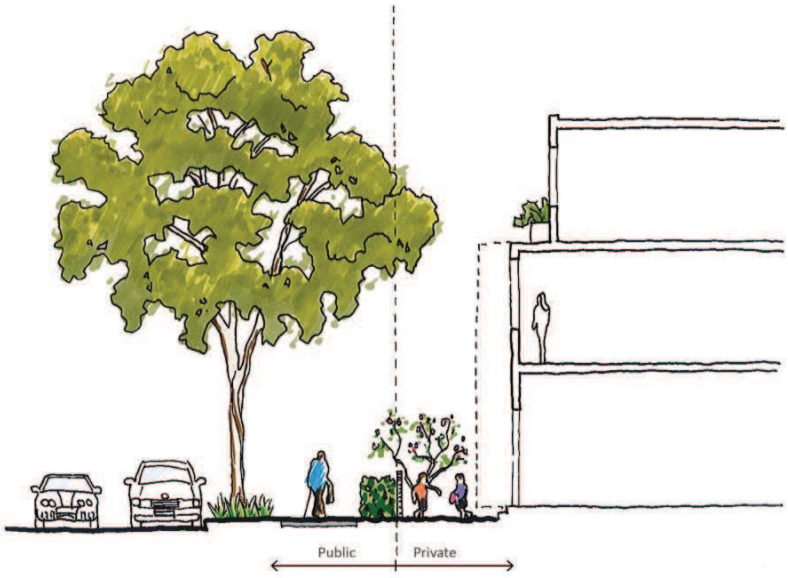
a. Terrace type housing on land zoned R3 Medium Density Residential.
b. Residential flat buildings on land zoned R4 High Density Residential. These developments are to have a street address which is reflective of a terrace streetscape.

20. Terrace Development
Source: THSC

21. Terrace Development
Source: Domain

Street Frontage

a. Terrace style development and scale, no greater than 3 storeys in height.
b. Private open space areas in the form of courtyards and small garden areas will be provided in the front setback areas.
c. Provide moderate and low level landscaping within the private open space courtyards to soften the interface of the built form with the public realm.



22. Cross section of Terrace Feel Streetscape

4 General Development Controls

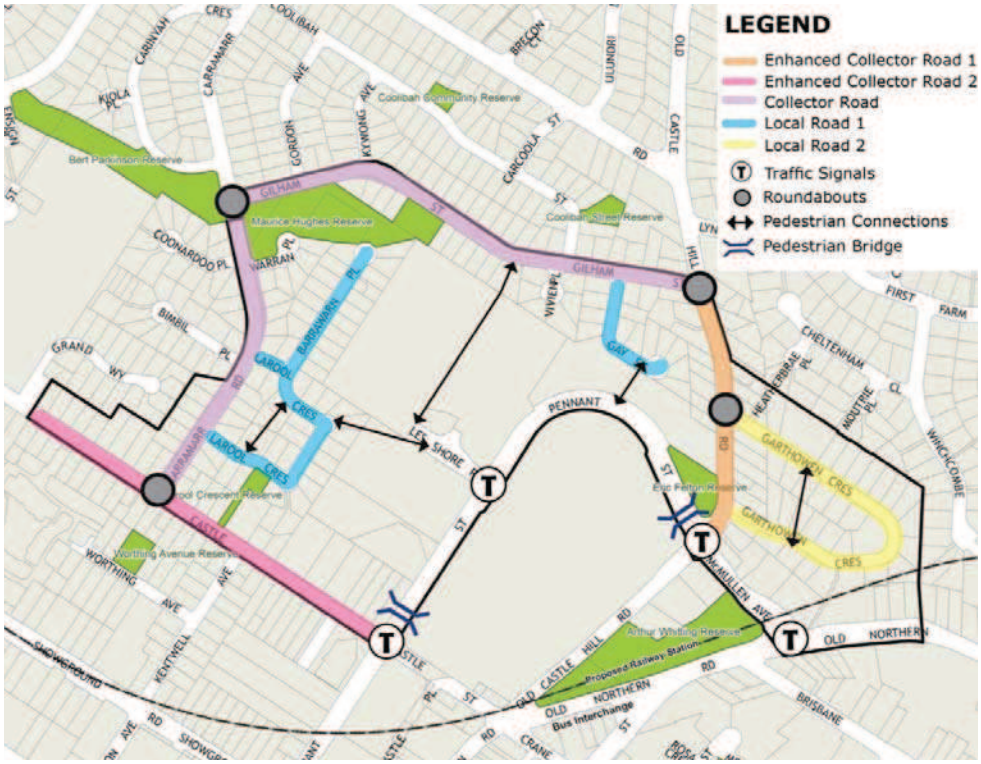
4.1 Movement network and design

Objectives

a. To encourage residents to walk or cycle to shops, railway station, recreation areas, community and other facilities by providing for safe and direct pedestrian and cycle connections between key locations.
b. A functional and attractive new street network is provided that facilitates access, safety and convenience for all street and road users and minimises the negative impact of traffic.
c. Carriageways and verge widths are consistent with the identified street hierarchy and profiles to allow streets to perform their designated functions within the street network, enhance functionality and amenity for users and accommodate public utilities and drainage systems.
d. Improve the capacity and function of the road network to support higher density development.

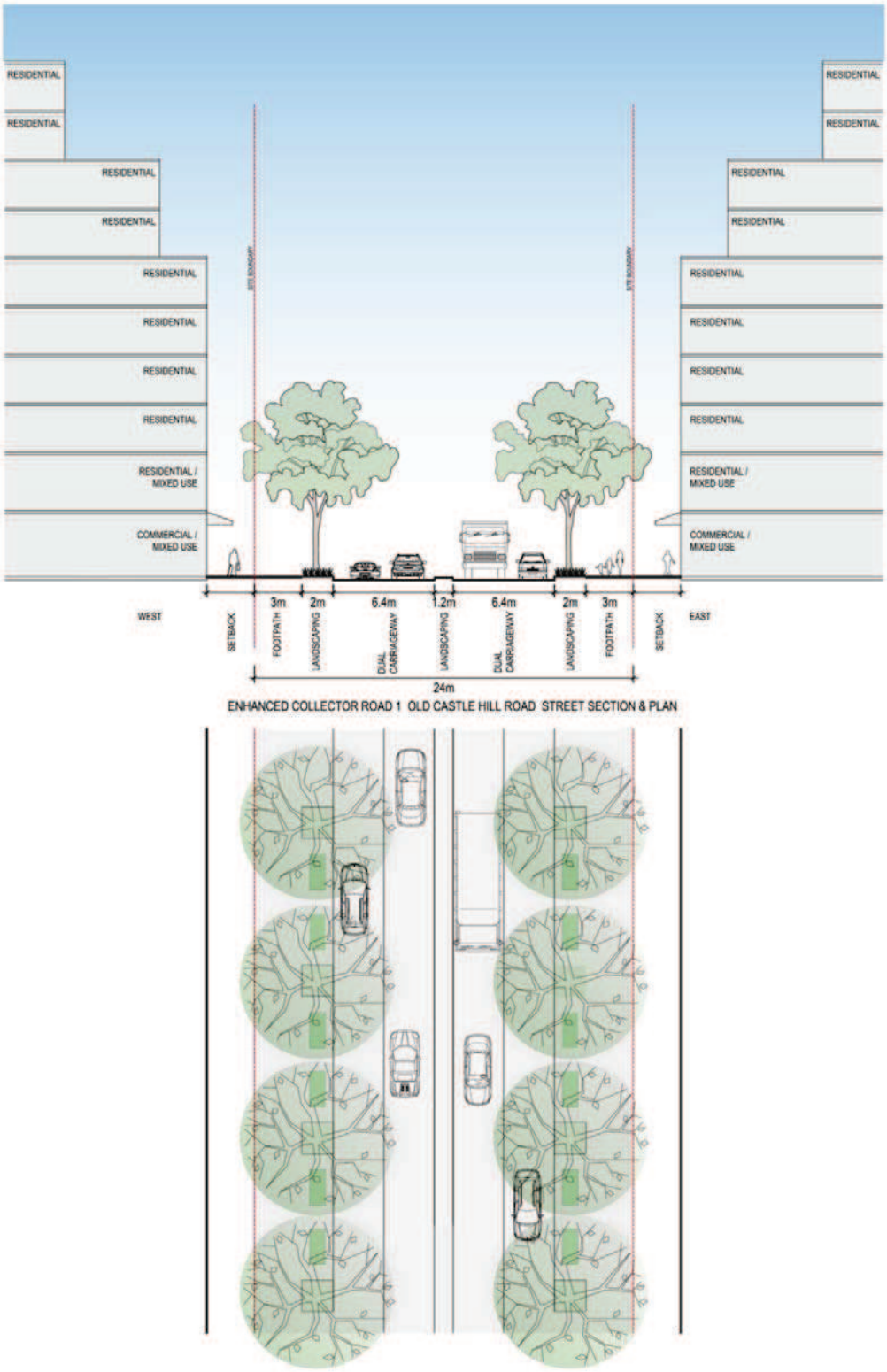
Controls

1. The street network is to be consistent with the 'Indicative Street Network and Hierarchy' within figure 23.
2. Streets profiles are to be consistent with the street profiles in Figures 26-29.
3. The design and construction of road infrastructure shall comply with Council's Design Guidelines Subdivisions/Developments.
4. Road infrastructure is to be constructed to Council's specifications.
5. The cycleway network is to be generally consistent with the 'Existing and Proposed Cycleway Network' map in Figure 24.
6. Pedestrian links shall be provided, by way of legal public access, in accordance with the 'Indicative Street Network and Hierarchy' in Figure 23.
7. As high density development occurs along Garthowen Crescent, land identified within the 'Garthowen Crescent - Land Dedication Plan' shall be dedicated to Council at no cost.
8. Land along the northern side of Castle Street and along both the eastern and western sides of Old Castle Hill Road, as identified in the Castle Street and Old Castle Hill Road - Road Widening Plans (Figures 30-33) shall be acquired for road widening.

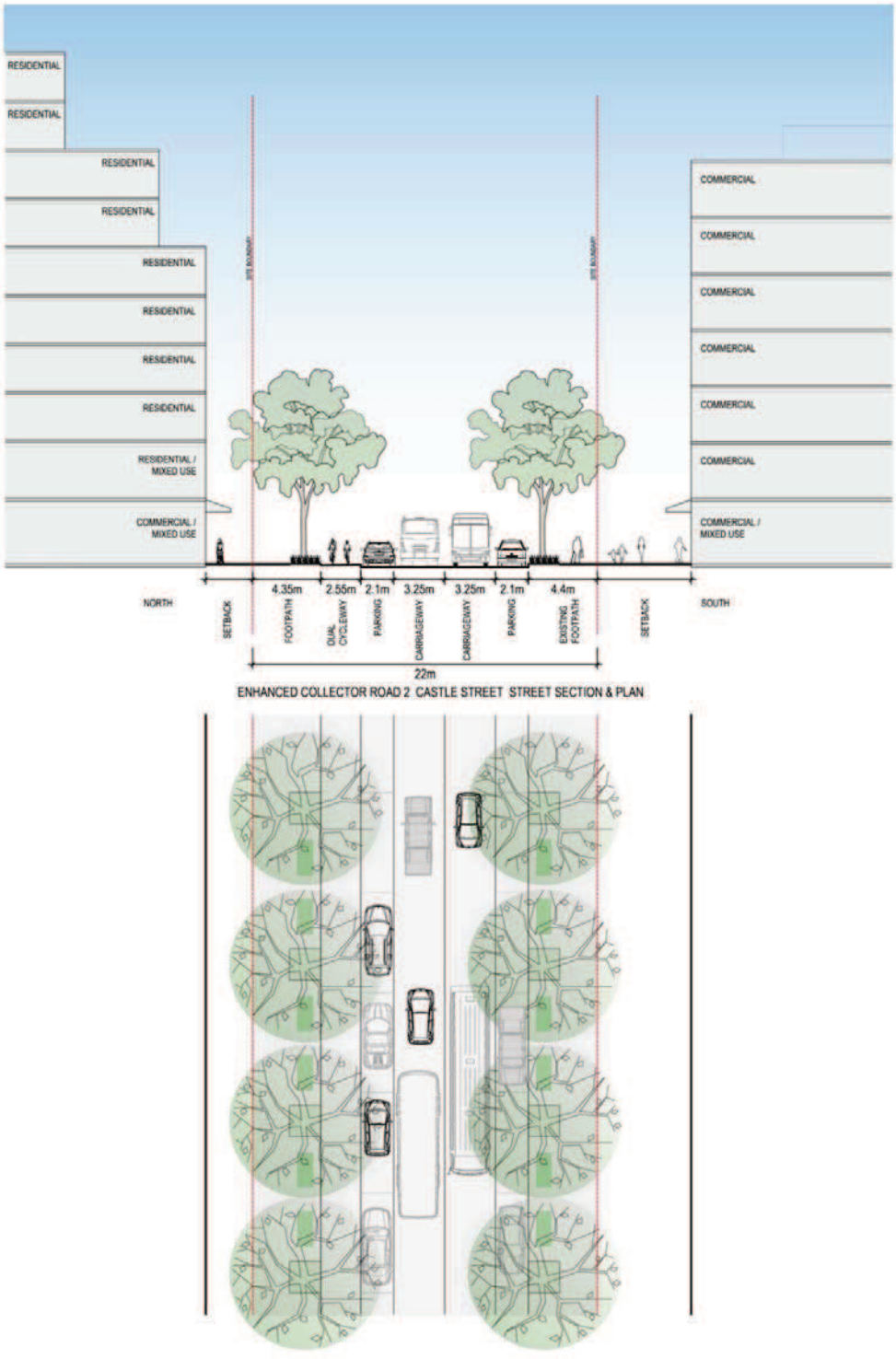


23. Indicative Street Network and Hierarchy

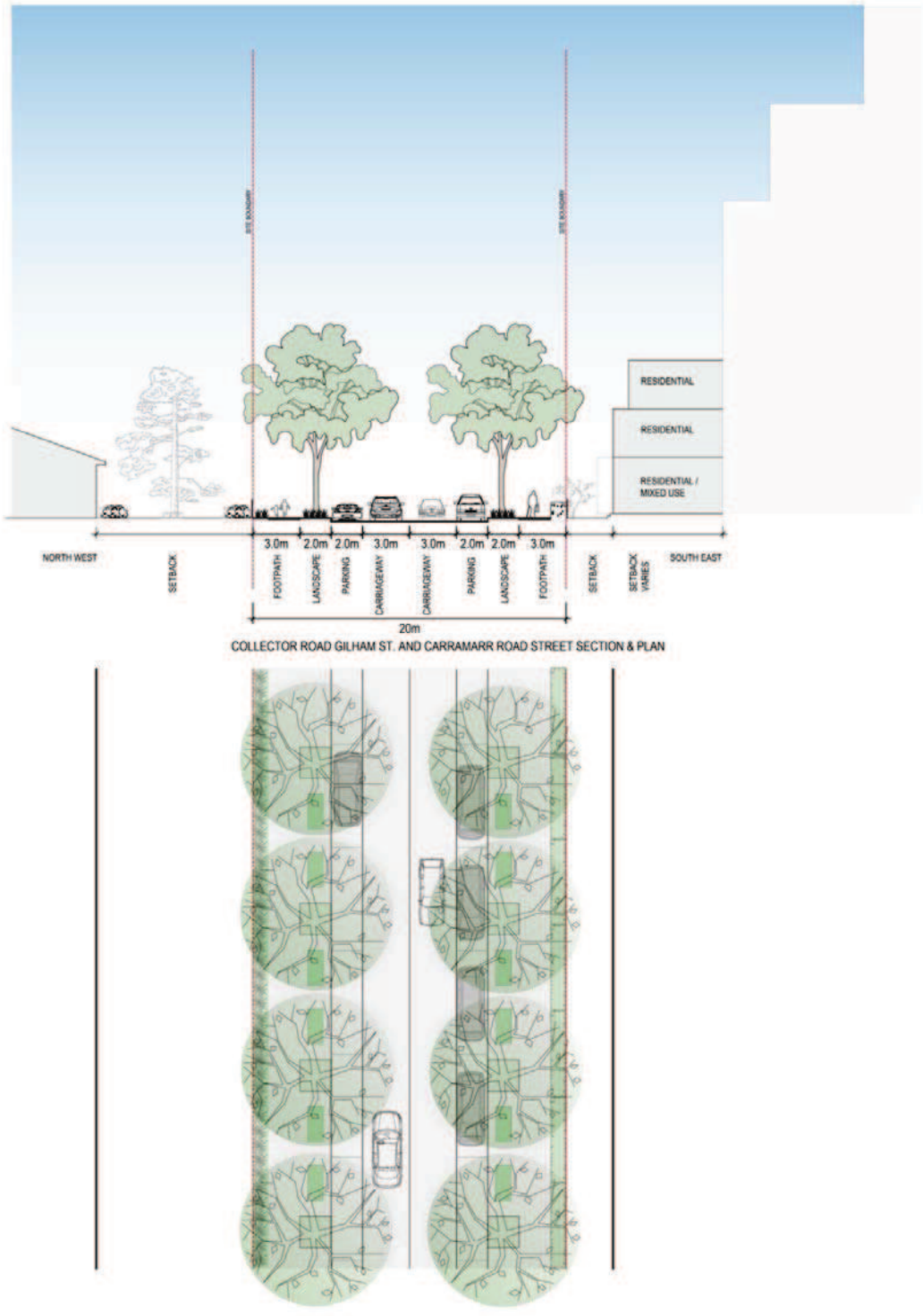
24. Existing and Proposed Cycleway Network



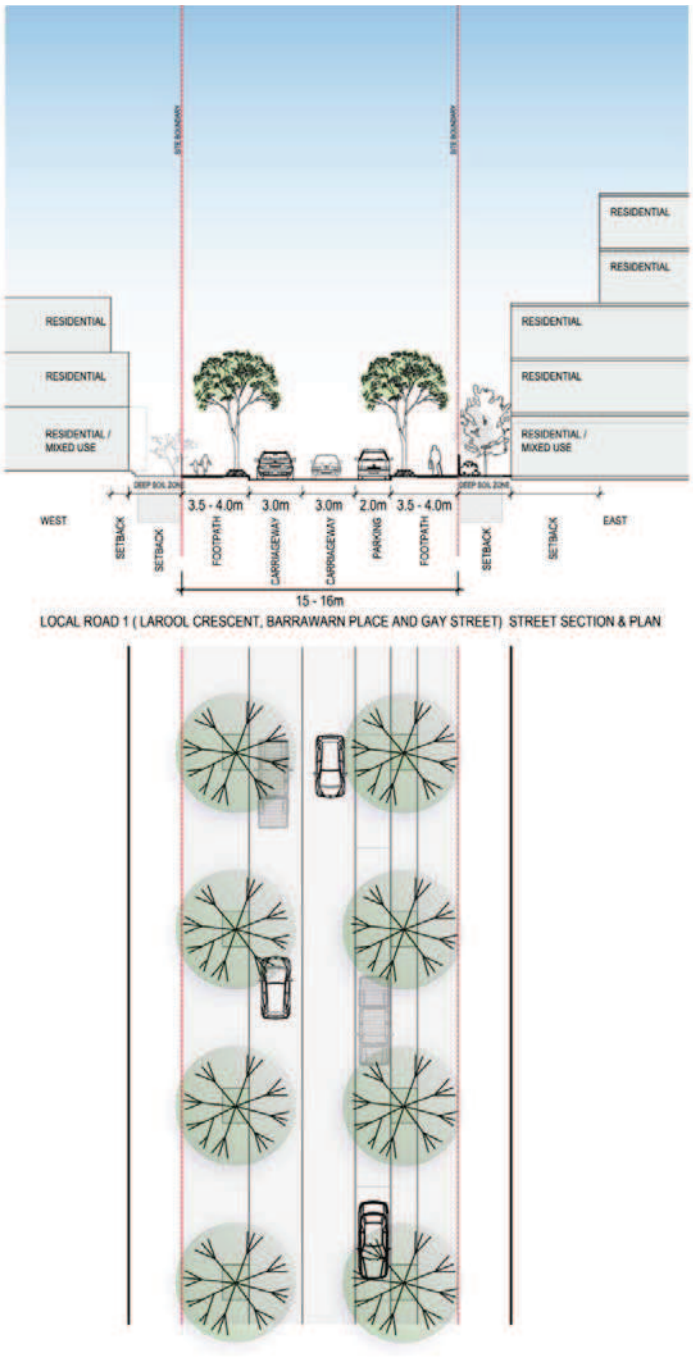
25. Profile – Enhanced Collector Road 1 (Old Castle Hill Road)



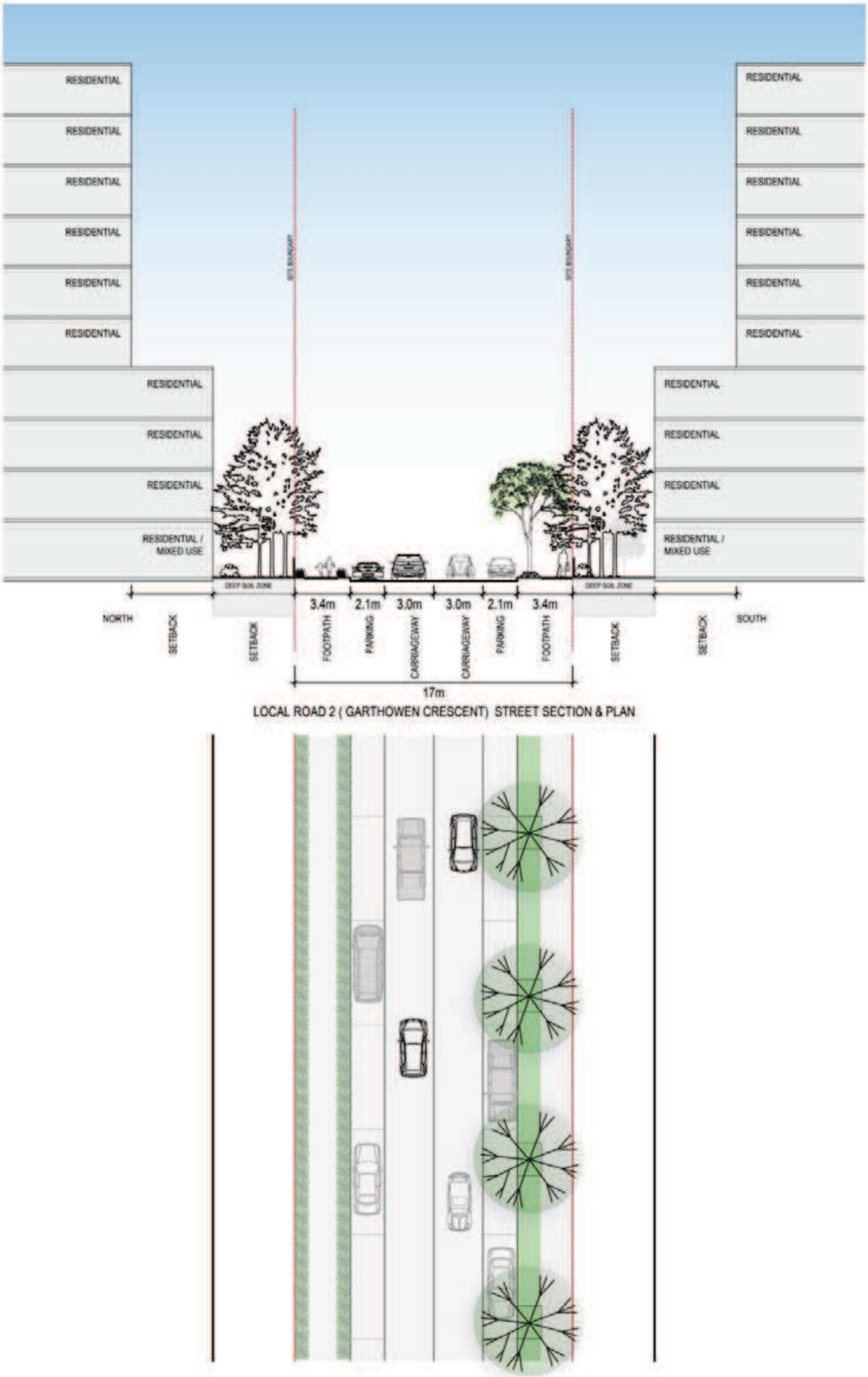
26. Profile – Enhanced Collector Road 2 (Castle Street)



27. Profile – Collector Road (Gilham Street and Carramarr Road)

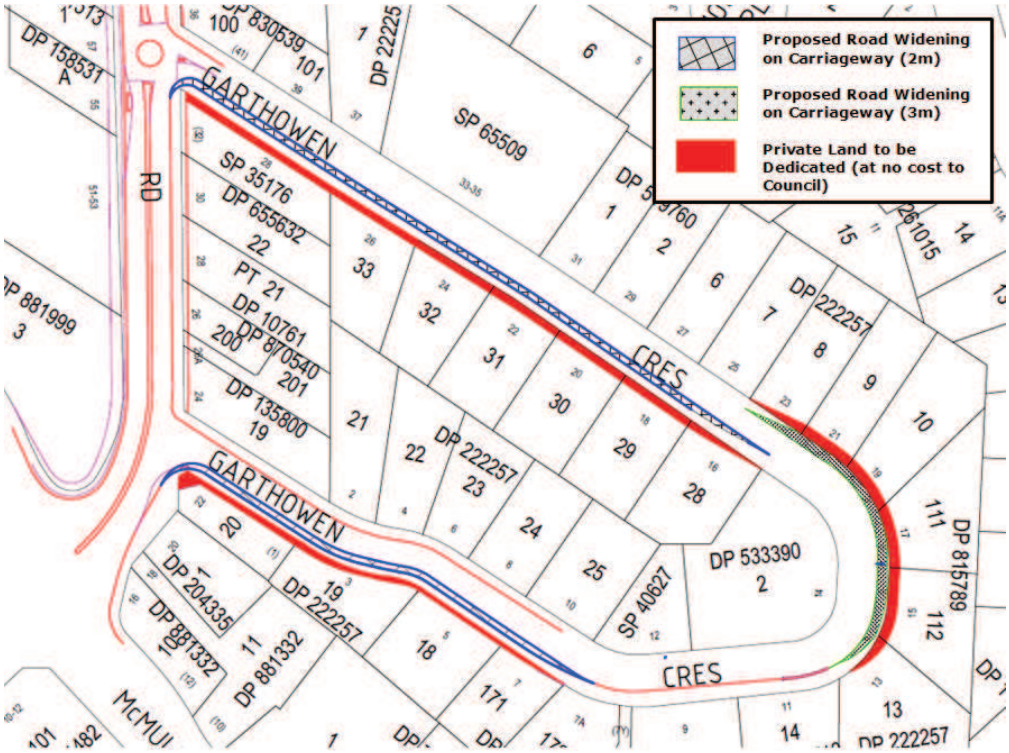


28. Profile – Local Road 1 (Larool Crescent, Barrawarn Place and Gay Street)

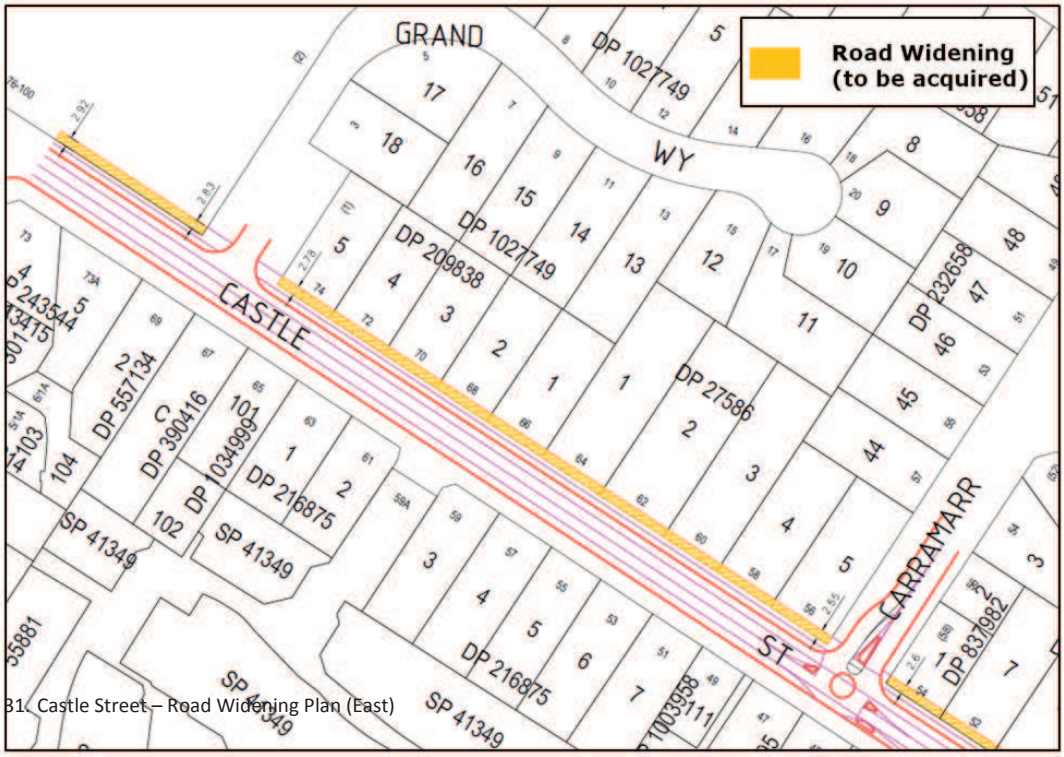


29. Profile – Local Road 2 (Garthowen Crescent)

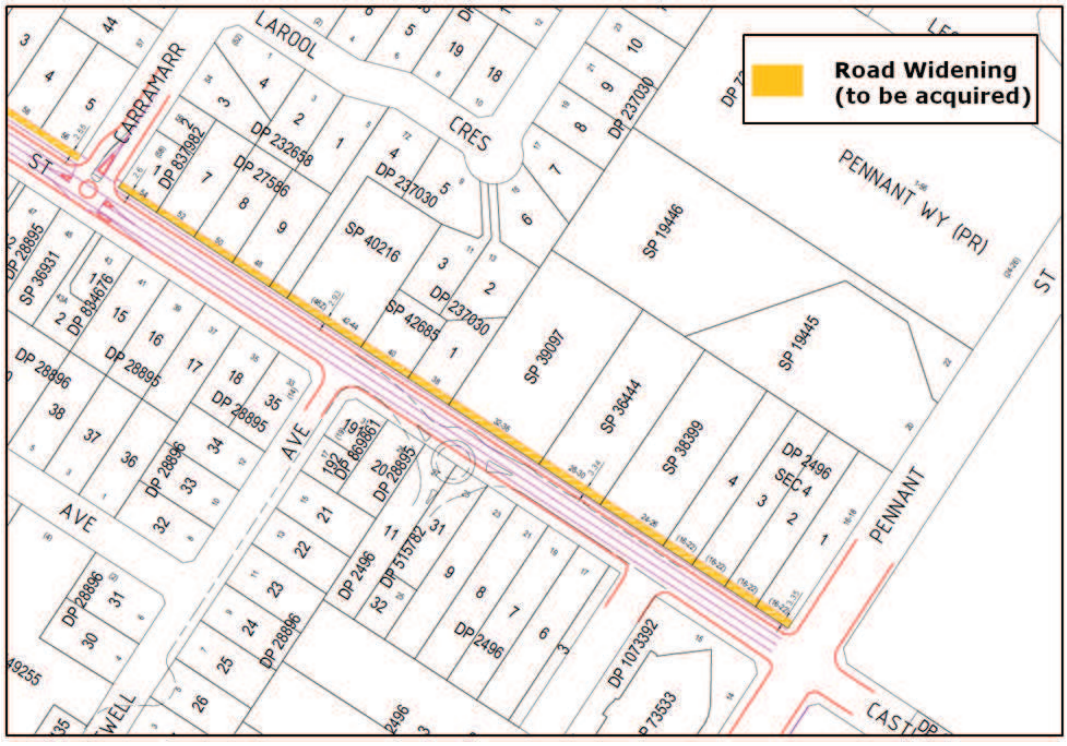
25



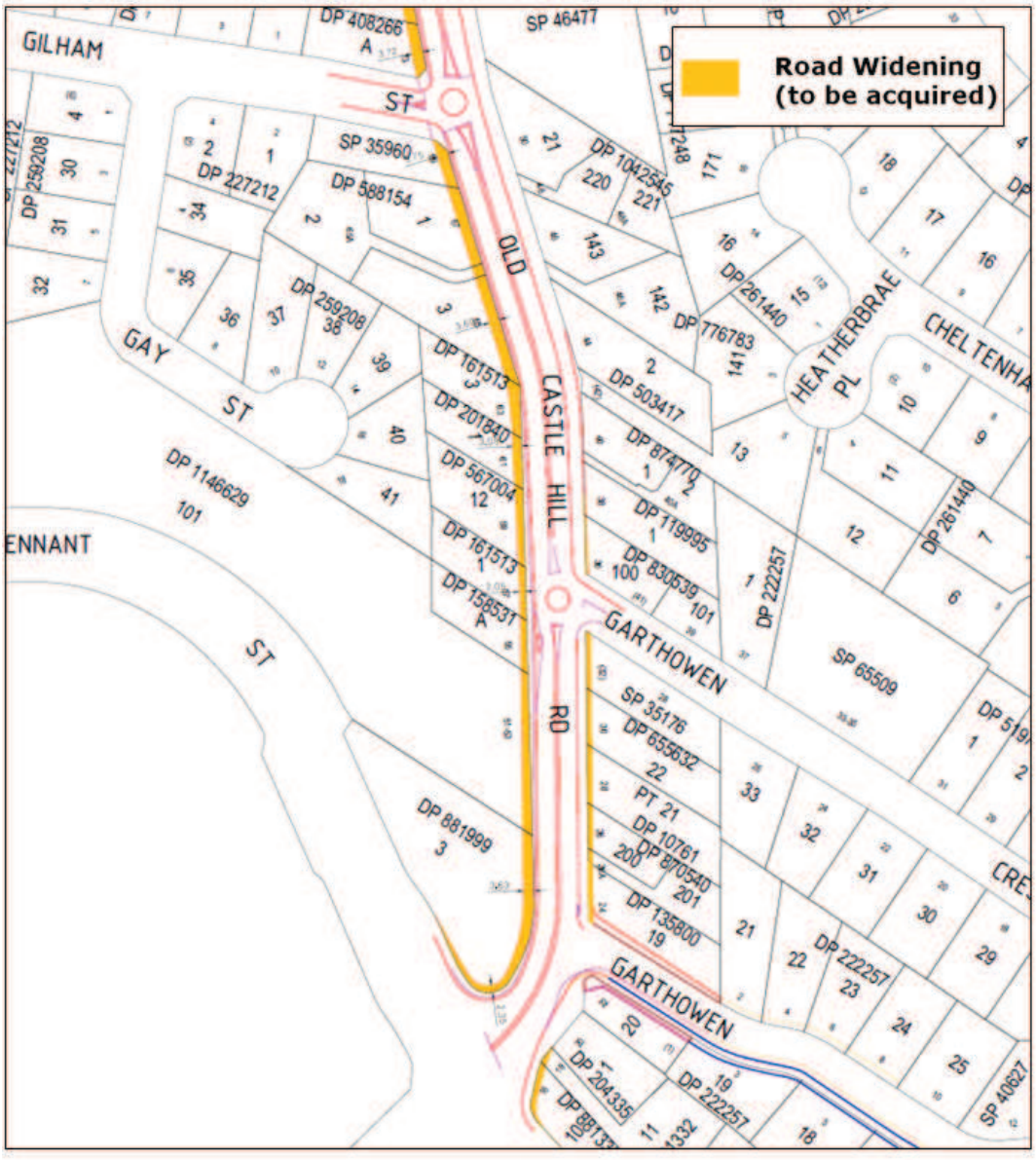
30. Garthowen Crescent Land Dedication Plan



31. Castle Street – Road Widening Plan (East)



32. Castle Street - Road Widening Plan (West)



33. Old Castle Hill Road – Road Widening Plan

4.2 Public Domain

Objectives

a. To provide a range of quality public spaces to support new residential and employment uses.
b. To improve the quality and aesthetic of the public domain to reflect the transitioning of Castle Hill North into a Transit Centre.
c. To provide an improved pedestrian experience.
d. Undergrounding of power lines to improve the aesthetics and liveability of the centre and to facilitate increased space within road reserves to install public domain improvements.

Controls

1. Development applications shall comply with the Castle Hill North Public Domain Plan and demonstrate how high quality elements (driveways, footpaths, street trees, street furniture etc.) will be incorporated into future development.
2. As part of future development, developers shall arrange with the utility provider for the undergrounding of the power lines adjoining the development site. The undergrounding of the power lines shall be at no cost to Council.
3. No additional utility objects shall be located in the public right of way or street verge for any development.

4.3 Sunlight to Public Spaces

Objectives

a. To provide a comfortable and enjoyable public realm.
b. To ensure new buildings and works allow good sunlight access to public spaces.
c. To ensure that overshadowing from new buildings or works does not result in significant loss of sunlight and diminish the enjoyment of public spaces for pedestrians.
d. To protect, and where possible increase the level of sunlight to public spaces during the times of the year when the public space is most commonly used.

Controls

1. Development is to ensure that the private open space of adjoining properties including the common open spaces of private developments is to receive a minimum of 4 hours of sunlight between the hours of 9am to 3pm on June 21.
2. No additional overshadowing of public open spaces such as local parks and plazas, including public open spaces adjoining the precinct is to occur between the hours of 11am and 2pm between the dates of April 21 and August 21.

4.4 Integrated Water Management

Objectives

a. To adopt best practice techniques for stormwater quality management.
b. To minimise flooding and reduce the effects of stormwater pollution on waterways.
c. To ensure that land is appropriate to managing and minimise risks from flooding.
d. To ensure an integrated approach to water management through the use of water sensitive urban design (WSUD) principles.

Controls

1. A Stormwater Management Plan is to be prepared for each development application to include consideration of various sustainable practices including stormwater harvesting and re-use and water conservation.

2. All Stormwater drainage designs are to comply with the most up to date revision of Council's Design Guidelines Subdivision/Developments (September 2011) and Contributions Plan No.17 – Castle Hill North Precinct, or an appropriate alternative approved by Council.

Flood Management

3. Any site that is identified as a Flood Control Lot is to comply with Part C Section 6 – Flood Controlled Land, of this DCP.
4. Flood planning levels for new development shall comply with the requirements of Part C Section 6 of this DCP.
5. Development is to comply with the flood risk management provisions of Part C Section 6 of this DCP.
6. All landscaping is to be compatible with flood risk and not impede overland stormwater flows.
7. All vegetation species and structures, including paths, walls and fences, are to be able to withstand temporary flood inundation in any areas designated as detention basins.
8. During the construction phase of development, the relevant Stormwater Management Objectives for New Development as set out in the most up to date revision of "Managing Urban Stormwater: Soils and Construction" (NSW Department of Housing) must be complied with in full.
9. Erosion and sediment control measures are to be implemented and regularly maintained on site, while sediment trapping measures are to be located at all points where stormwater runoff can enter inlets to stormwater systems, or where runoff may leave the construction site.

Water Sensitive Urban Design (WSUD)

10. WSUD is to be adopted throughout all development, incorporating water quality management and attenuation of runoff to acceptable levels following development.
11. The following stormwater management objectives are to be achieved for all development within the Precinct:
    - 90% reduction in the post-development average annual gross pollutant load;
    - 85% reduction in the post-development average annual total suspended solids (TSS) load;
    - 65% reduction in the post-development average annual total phosphorus (TP) load; and
    - 45% reduction in the post-development average annual total nitrogen (TN) load.
12. For developments generating oils and grease, the additional objective of no visible oils for flows up to 50% of the one-year ARI peak flow shall be achieved.
13. WSUD infrastructure elements are to be designed and constructed in accordance following publications:
    - Australian Runoff Quality (Engineers Australia 2005); and
    - Water Sensitive Urban Design Technical Guidelines for Western Sydney (NSW Government Stormwater Trust and UPRCT, May 2004).
14. The WSUD strategy prepared for all development is to take into account water quality and stream erosivity objectives, together with attenuating flow rates and runoff volumes to acceptable levels following urban development.
15. Water quality modelling to support development proposals within the Precincts shall utilise MUSIC Version 5 or later and adopt modelling parameters in line with the most up to date version of the NSW Music Modelling Guidelines (CMA).
16. Stormwater runoff must be treated before being discharged into riparian zones or watercourses.
17. To minimise the impact of stormwater on the health and amenity of upper Cattai Creek Catchment, stormwater is to be retained on development sites by:
    - collecting and storing water from roofs and hard surfaces;
    - maximising porous surfaces and deep soil zones; and
    - draining paved surfaces to adjacent vegetation.
18. All buildings must install rainwater tanks to meet a portion of supply such as outdoor use and toilets. All residential dwellings are required to provide a (minimum) 3,000 litre (3 KL) rainwater tank, and such tank is to be connected for use in toilet flushing and external uses. Larger tanks than the requirement are permitted.

19. Each rainwater tank is to be provided with potable water trickle top-up with a back flow prevention device, complying with Sydney Water requirements.
20. On-site detention is to be provided in accordance with Section 4.22 of Council's Design Guidelines Subdivision / Developments.

4.5 Cut and Fill

Objectives

a. Developments minimise the impact of earthworks on the stormwater regime, salinity and groundwater.

b. The extent of cut and fill required for large scale development does not detract from the appearance and design.

c. Development visually integrates with the surrounding environment.

d. Fill material imported to a site is to be clean and comply with the contamination and salinity provisions of this section.

e. Land is appropriately stabilised and retained.

f. Cut and fill does not encroach within, or adversely affect the efficiency, integrity and stability of any open space area.

Controls

1. In the areas of fill relevant provisions of Council's Flood Controlled Land DCP are to be applied, with reference to the Flood Risk Management Section of this DCP.
2. A Fill Plan must be prepared.
3. All cut and fill works shall be in accordance with Council's Design Guidelines Subdivisions/ Developments and Works Specification Subdivisions/ Developments.
4. All landfilled areas must comprise clean material free from contamination. Imported material shall be certified "Virgin Excavated Natural Material (VENM)".
5. Landfilled areas must be suitably compacted and stabilised with density tests to verify that compaction was achieved in accordance with Council requirements.

4.6 Ecologically Sustainable Development

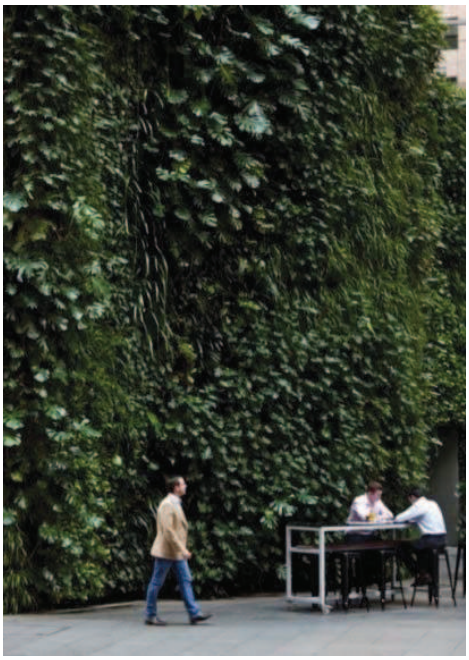
Objectives

f. Building designs are innovative and sustainable to reduce the reliance on, and consumption of, fossil fuels and potable water supplies.
g. Development adapts to climate change.
h. Developments contribute to improved quality of life, health and well-being of the community.
i. The design, construction and operation of development minimises adverse impacts on the natural environment.
j. Use landscape treatments to improve amenity for people using open space.

Controls

1. Residential flat buildings, townhouses and terraces built as a development lot should achieve a minimum 5 star NatHERS energy rating for each dwelling unit.
2. Development other than residential should achieve a minimum 5 star Green Star Design and as Built rating, respectively,
3. Building operation should achieve a minimum 4.5 star base building and tenancy NABERS Energy rating, where applicable.

4. The incorporation of green walls and roofs into the design of buildings is encouraged. Where suitable, building facades should incorporate vertical landscaping features to soften the visual bulk of buildings and to improve streetscape appeal.
5. Canopy trees, understorey planting and permeable surfaces should be provided where possible to reduce the extent of paved surfaces and to enhance the amenity of the development and streetscape.
6. Buildings are encouraged to incorporate a trigeneration energy facility that provides energy-efficient power, heating and air conditioning for use on site.
7. Building designs are to:
    - Maximise the use of natural light and cross ventilation;
    - Reduce the reliance on mechanical heating and cooling through the use of eaves, awnings, good insulation and landscaping;
    - Include energy efficient light fittings and water fittings;
    - Allow for separate metering of water and energy usage for commercial and multi-unit tenancies.



34. Green Wall at 1 Bligh Street, Sydney
Source: City of Sydney

Green roofs *can help to decrease heat absorption, reduce the ambient temperatures of buildings, and improve air quality and building efficiency. They can also provide a habitat for urban ecology and have amenity and recreational benefits for a building's occupants.*

Green walls *are plant systems that are grown on the vertical façade of a building and are often a striking and attractive design feature. Benefits include reducing the radiation of absorbed heat from buildings, they provide insulation from noise and heat, and make public spaces more appealing for the community to use and enjoy.*

35. Greened Balconies to residential apartments
Source: Stefano Boeri Architects

36. Greenroof in cityscape
Source: Susanne Jesperson

4.7 Ecology

Objectives

a. To protect and enhance areas of significant native vegetation.

b. To protect and enhance wildlife habitat.

c. To protect and enhance the integrity and environmental functionality of riparian corridors.

Controls

1. Wherever practical, development within the Precinct should be sited to minimise impacts on the existing vegetation and avoid removal of significant trees.
2. Provide green roofs and walls wherever practical to mitigate the loss of green canopy and vegetation as a result of development.

37. Green roofs on higher density development
Source: Google Maps

4.8 Heritage (Garthowen House)

Objectives

a. To ensure that development within the vicinity of Garthowen House does not impact on the heritage significance of the heritage item.

Controls

1. Development in the vicinity of Garthowen House shall have regard to Part C Section 4 – Heritage of this DCP.
2. The curtilage of the heritage item, being the existing allotment boundary of 14 Garthowen Crescent (Lot 2 DP 533390), shall be maintained and protected.
3. Development on sites within the vicinity of Garthowen House shall be designed to ensure that building elements, which interface the western boundary of the heritage site, have a maximum height of (4) four storeys or no more than 13.5m in height whichever is the lessor (exclusive of building services).
4. Development on sites adjoining the heritage item should consider locating landscaped areas and common open space areas between future building elements and the heritage site to assist in providing greater separation between the heritage cottage and future development.
5. Development to the west of the heritage item shall incorporate a transition of height and density, with the lower scale elements located closest to the heritage site.
6. Development within the vicinity of the heritage site shall ensure that significant view lines to and from the heritage item are appropriately maintained.
7. Development within the vicinity of the heritage site shall ensure that significant view lines to and from the heritage item are appropriately maintained.
8. No additional overshadowing of the gardens of the property that serve as private open space is to occur between the dates of April 21 and August 21.

5 Built Form

5.1 Residential flat buildings and shop top housing

5.2 Site requirements

The Hills LEP 2012, clause 4.1A (Minimum lot sizes for dual occupancy, multi dwelling housing and residential flat buildings) specifies the minimum lot size for residential flat buildings in the R1 General Residential, R3 Medium Density Residential, R4 High Density Residential and B2 Local Centre zones.

Objectives

a. To encourage the amalgamation of sites and discourage the creation of isolated development sites.

b. Developments provide high quality space for recreation and for use by residents of developments.

c. Development sites have sufficient area to provide adequate access, parking, landscaping and building separation.

Controls

1. Development sites shall have a minimum road frontage of 30m.
2. Development sites shall have a minimum site depth of 40m.
3. Residential flat buildings and shop top housing are to have a frontage (address) to the street and are not to be located on battle-axe allotments or rely of a right of access arrangements for access to a public road.

5.3 Building Design

Objectives

a. To ensure the street frontage heights and setbacks reinforce the future precinct character and residential identity.

b. Develop a cohesive architectural expression based on a consistent high quality built form, facade design and external materials and finishes.

Controls

1. Development shall incorporate high quality architectural materials and urban design that contributes and reflects a modern suburban character and preferably light in colour. The palette of the selected materials are to be a combination of natural building products such as stone or tile cladding, facebrick, render and painted concrete block work, and terracotta or painted compressed fibre cement (CFC) facade feature walls.

5.4 Built form controls

Objectives

a. To ensure the street frontage heights and setbacks reinforce the future precinct character and residential identity.

b. Building heights and articulation to provide a sensitive transition to the surrounding areas.

c. To ensure the bulk and massing of the precinct provides a high quality pedestrian street experience.

d. To create an active interface between ground floor uses and the street.

e. To ensure buildings are able to adapt to differing uses.

Controls

1. The proposed development must not exceed the maximum height in stories shown on the Structure Plan refer to figure 6. The maximum height in storeys may only be achieved when it is demonstrated that:
   a. the built form achieves the desired street character;
   b. Is sympathetic to the heritage context, contributes positively to the precinct setting; and
   c. Does not provide additional overshadowing to public open space between the hours of 11am-2pm between the dates of 21 April to 21 August. This includes public open spaces outside and adjacent to the precinct.
2. A horizontal architectural hierarchy is to clearly define the ground floor street zone, upper podium and tower elements.
3. The podium element of any development is to be broken up horizontally to provide a combined ground floor and level 1 street zone articulation equal in height or to align with a two story terrace configuration.

38. Street façade articulation
Source: THSC

4. On streets with a road reserve of less than 20m the width of the façade shall not exceed 40m. On streets with a road reservation of 20m or greater the street frontage shall not exceed 65m .
5. Developments greater than 40m in length are to be designed so as to express the appearance of two distinct building elements with individual architectural expression.
6. Adjacent buildings are to comply with the provisions of SEPP65 ADG building separation. For developments of 3 stories or less the minimum building separation is 4m. This is to be provided as a pedestrianised public right of way.
7. Pedestrian links should be connected to the existing and proposed pedestrian network.

39. Pedestrian right of way
Source: THSC

40. Clearly identifiable entries
Source: THSC

8. The entry to the development is to be visually identifiable from the street frontage with clear sight lines. Separate entrances are required for commercial / retail and residential uses.
9. All ground floor lobbies are to have a direct visual connection to the street.
10. Balconies to upper levels are to provide a minimum 50% opaque / solid balustrading to provide for residential amenity.
11. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.
12. Car parking areas at lower levels must be sleeved by other uses with a minimum depth of 10m to activate the street. Car parking at the ground floor level is not encouraged in a mixed use building.
13. Underground car parking is not to intrude into the setback zone of 5m from the street boundary or be aligned with the building line

41. Services visually concealed from street view, Lindfield.
Source: Google Maps

42. Two storey terrace appearance to street level portion of podium.
Source: THSC

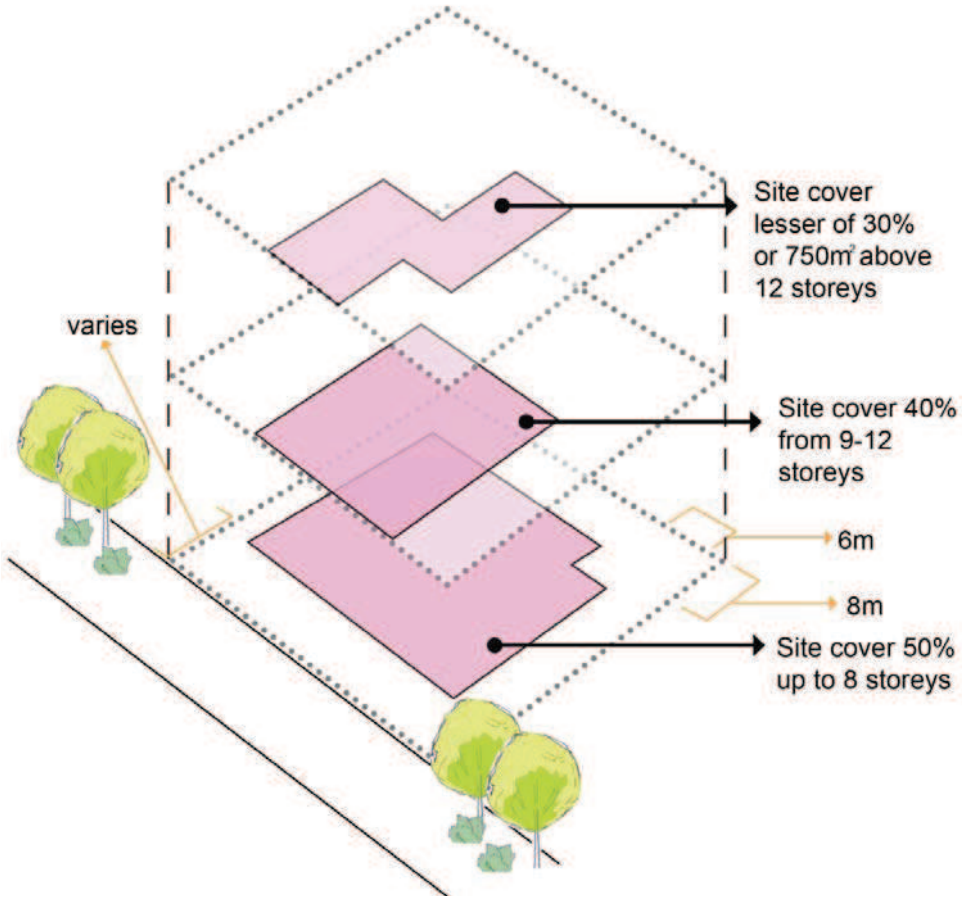
5.5 Building height and form

Objectives

a. To provide for a range of building heights and forms across the Precinct and within each street block to create variety and encourage different architectural styles.
b. To reinforce key landmark sites and defining entries / gateways through the location of taller buildings.
c. To allow reasonable daylight access to all developments and the public domain.
d. To ensure buildings are sufficiently articulated to reduce the appearance of building bulk and scale and provide for visual interest.
e. To ensure that high density residential development promotes a slender built form.
f. Buildings are articulated to reduce the appearance of building bulk and scale and provide for visual interest and innovative design.
g. Buildings allow reasonable daylight access and privacy to all developments and the public domain.
h. Development includes buildings of a mix of sizes, heights and architectural expressions.

Controls

1. Buildings are to have a maximum depth of 18m measured from glass line to glass line.
2. Street corners must be addressed by giving visual prominence to parts of the building façade, such as a change in building articulation, material or colour, roof expression or height.
3. Each street façade is to be articulated into smaller elements at a scale or grain that reflects the use of the building and its various components, the location of the building relative to pedestrian or outdoor recreation activity, and elements such as building entries.
4. Site cover shall not exceed a cumulative total of:
   - 50% of the site area (excluding land to be dedicated or acquired for a public purpose) up to 8 storeys;
   - 40% of the site area (excluding and land to be dedicated or acquired for a public purpose) from 9 to 12 storeys; and
   - 30% of the site area (excluding and land to be dedicated or acquired for a public purpose) or 750m^2 per building, whichever is the lesser, above 12 storeys.



43. Example High density residential including site cover outcomes

5.6 Floor to floor heights and floor to ceiling heights

Objectives

f. To provide for future flexibility in use.

g. To provide for improved solar access to ground floor of developments.

Controls

1. Buildings are to have the following minimum floor to floor heights;

Use	Storey Height (floor to floor)	Minimum ceiling to floor height
Ground floor commercial or retail *	4.2m minimum	3.6m
Ground floor residential	3.6m minimum	3.3m
Residential floors above first floor	3.1m minimum	2.7m
Commercial floors	3.6m minimum	3.3m
Allowance for green roofs	0.5 - 1m	
Structure such as transfer beams	250mm	3.3m – subject to location of transfer
Plant equipment, lift over-runs and stairs.	No more than 4.5m **	

*Greater heights may be required for showrooms and facilities such as gyms, swimming pools and common areas.

** Subject to number of storeys greater allowance (6m) for buildings greater than 12 storeys.

Building setbacks

Objectives

a. To provide strong definition to the public domain and create a consistent streetscape.

b. To set taller building elements back from the street to reduce building scale and bulk and enable adequate sunlight access to the public domain

c. To provide articulation zones to complement building mass and emphasise key design elements such as entrance points and respond to environmental conditions including solar access, noise, privacy and views.

d. To ensure adequate separation between buildings on different sites to alleviate amenity impacts, including privacy, daylight access, acoustic control and natural ventilation.

e. To create a landscaped streetscape that can accommodate high canopy trees.

Controls

1. Variations to the front setback requirement will be considered where land is dedicated, at no cost to Council, for the purpose of road widening.

2. Front Setbacks are to be provided in accordance with the 'Street Setbacks Map' identified within Figure 28. If not identified on this Figure, setbacks shall be provided in accordance with the following table.

Setbacks – Residential Flat Buildings and Shop Top Housing	
Front Setback from boundary	• 7.5m
Primary Frontage Setback	• For all buildings, on a street reservation greater than 20m in width (Old Castle hill Road and Castle Street), all storeys above the 6th storey shall be setback 3m behind the front building line. • For all buildings on a street reservation less than 20m in width, all storeys above the 4th storey shall be setback 6m behind the front building line. • Underground car parking is not to intrude into the primary frontage setback.
Secondary Frontage Setback	• For all buildings on a street reservation greater than 20m in width, all storeys above the 8th storey shall be setback 9m behind the front building line.
Rear Setback	• 8m or to comply with SEPP 65 whichever is the greater
Side Setback	• 6m or to comply with SEPP 65 whichever is the greater • Zero lot on designated active streets in which the intended street character is to provide a street wall.
Balconies	• Balconies shall not protrude into the setback area.

44. Street Setback Map

5.7 Streetscape and the Public Domain Interface

Objectives

a. Development contributes to the activity, safety, amenity and quality of streets and the public domain.

b. Development addresses the street and creates a human scale for pedestrians.

Controls

3. Buildings shall address any shared open space and adjacent public areas to increase the natural surveillance of these areas and contribute to their safety and security.
4. Residential developments are to address the primary street frontage. Where a development comprises a number of buildings with a variety of orientations, a major part of the overall development is to face the street.
5. Building design shall avoid creating opportunities for personal concealment.
6. The siting and design of dwellings should take advantage of any views to open space, public reserves and bushland to promote natural surveillance and to enhance the visual amenity of residents.
7. Blank courtyard walls along boundaries shared with open space or reserves should be avoided and opportunities to create and orient dwellings to permit direct views from living areas into the open space/reserve should be pursued in design. Any blank wall or portion of blank wall is to be treated with an anti-graffiti paint application and / or vegetation treatment.
8. Lighting is to be provided for safety at night for all public and semi-public entry ways.

5.8 Residential Uses on Ground and First Floors

Objectives

a. To activate the street.
b. To provide for residential identity and legibility.
c. Encourage the provision of housing for a diversity of dwelling types and users.
d. To introduce a fine grain built form and architectural diversity within a street block and / or building development.
E. To provide for future flexibility in use.

Controls

1. Higher density development with residential ground and lower floor uses is to adopt a two story terrace house appearance to present a fine grain articulation to the street frontage.
2. Ground floor apartments are to have a minimum floor to floor height of 3.6m to allow for greater solar access and flexibility in future use.
3. Residential ground floor units are to have individual gates and entrances accessed directly from the street.
4. Ground floor residential apartments are to be elevated from the street level by a minimum of 300mm and a maximum of 600m.
5. Ground floor residential fences are to be no more than 1.2m in height with a minimum 50% transparency. Contemporary palisade fence designs in a dark recessive colour are encouraged.
6. Soft landscaping to the front of the terrace is to be a minimum of 40% of the setback area, contiguous, and a minimum of 2m in any direction.
7. Small trees suitable for the landscaped area provided are encouraged.
8. Underground car parking is not to intrude into the primary setback by more than 500mm.

45. Terrace style housing with access to street.
Source : THSC

46. Entry detail
Source: THSC

5.9 Podium Design

Objectives

a. Development contributes to the activity, safety, amenity and quality of streets and the public domain.
b. Development addresses the street and creates a human scale for pedestrians.
c. Podium facades reinforce the intended neighbourhood character and enhance the pedestrian experience.
d. Podium form animates the street level by engaging primary and secondary street frontages appropriately.

Controls

1. Podium shall be used to frame adjacent park land and on-site open space.
2. Tower base facades shall avoid blank, featureless walls by patterning high quality architectural elements, like window bays, canopies and fenestration.
3. Refer to 5.4 Built Form Controls for precinct specific controls.

47. Podium addressing public open space , Pyrmont
Source: THSC

48. Podium interface with street, Rhodes
Source: THSC

5.10 Tower Form and Design

Objectives

a. Towers minimise the bulk and scale of the proposed development and reflect a slender built form.

b. Slender tower built forms are to be provided which promote:
   - open, attractive and distinct skyline;
   - small, fast moving shadows;
   - view corridors between nearby towers;
   - efficient interior climate control; and
   - balconies as an extension of indoor living space.

c. Tower form mitigates negative visual and physical impacts, including impacts on privacy, by setting back from streets, parks, open space and adjacent properties and tower forms.

Controls

1. Tower floor plate is limited to 750m^2 per tower (includes all services, lift and stairwells, etc.). Note: Balconies are excluded from calculations to encourage larger private outdoor space areas.
2. Tower form provides a unique profile when compared to nearby existing and proposed towers of similar height.
3. New towers are separated a minimum distance of 25m from any adjacent tower(s) where existing or approved.
4. Tower form is coordinated to off-set with adjacent towers to ensure:
   - prominent tower views to natural features are not obstructed; and
   - views of the sky and access to sunlight from the public realm and private open space areas are maximised.
5. Tower form is orientated to:
   - reduce the perceived mass of the building; and
   - provide privacy for both communal and private open space areas.
6. Tower façades are:
   - articulated to manage passive solar gain in summer;
   - well-glazed with functional windows where possible to reduce reliance on artificial cooling;
   - designed with high-quality sustainable materials and finishes that promote building longevity; and
   - varied in design and articulation to promote visual interest.

5.11 Roof design and roof features (tower caps)

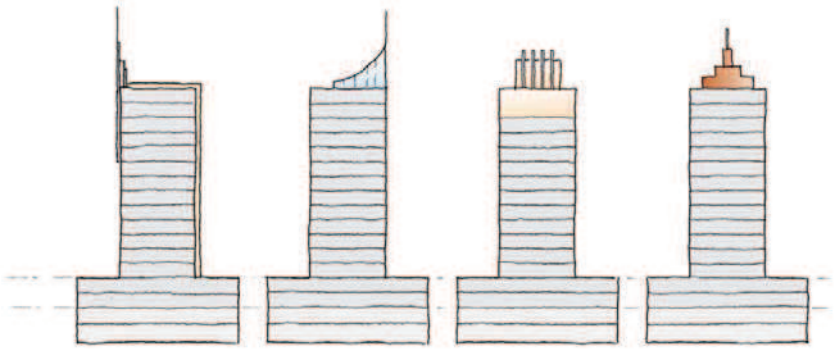
Objectives

a. Roof design and roof features shall attractively integrate telecommunications, service structures, lift motor rooms and mechanical plants.

Controls

1. Where building height creates an identifiable protrusion in the skyline, the following shall be provided:
   - a signature cap or roof feature which strengthens the identity of the building as a landmark; and
   - decorative lighting that highlights key architectural features.

2. Tower cap design shall integrate all signage, telecommunications, service structures, lift motor rooms and mechanical plants.
3. Roof features shall be designed to generate an interesting skyline and enhance views from adjoining developments and surrounding areas.
4. Lift over-runs and all other service equipment shall be incorporated into the roof design and be obscured from general view.



49. Variety of tower caps

5.12 Adaptable housing

Objectives

a. To ensure a sufficient proportion of dwellings include accessible layouts and features to accommodate changing requirements of residents.
b. To encourage flexibility in design to allow people to adapt their home as their needs change due to age or disability.

Controls

1. Residential flat buildings are to meet the requirements for adaptable housing within Part B Section 5 Residential Flat Buildings of The Hills DCP 2012.
2. All types of residential accommodation are to consider flexibility in the design to allow adaption to meet the changing needs of residents due to ageing or disability.

5.13 Open space and landscaping

Objectives

a. To provide communal open space for the enjoyment by residents.
b. To maximise opportunities for landscaping, including the retention and/or planting of trees within deep soil areas to ensure a high level of amenity.
c. To assist with the management of water quality.

Controls

1. Development provides sufficient space for landscaping that will complement the building form and enhance the landscape character of the street.
2. Communal space areas:
   - are accessible, useable and safe;

- enhance the attractiveness of the development;
- provide opportunities for social interaction; and
- create shaded outdoor areas.
- Be of high quality design and allow for a range of active and passive uses.

Landscaping

1. 50% of site area - exclusive of building footprint/s, access driveways and parking. Terraces and patios within 1m of natural ground level shall be included in the calculation of landscaped open space.
2. Landscaped areas are to have a minimum width of 2m. Areas less than 2m in width will be excluded from the calculation of landscaped area.
3. Native ground covers and grasses are to be used in garden beds and path surrounds (turf is to be confined to useable outdoor areas).

Roof Gardens and Planting on Structures

1. Green walls are encouraged on podium walls along active frontages to soften the interface between future development and the public realm.
2. Rooftop gardens must be adequately enclosed and accessible to occupants of the development.
3. The design of exterior private open spaces such as roof top gardens is to address visual and acoustic privacy, safety, security, and wind effects.
4. Where roof gardens and green walls are provided, consideration should be given to the Urban Green Cover in NSW – Technical Guidelines, published by the Office of Environment and Heritage.
5. For planting guidance refer to ,

   http://www.growinggreenguide.org/technical-guide/design-and-planning/plant-selection/green-roofs/

50. New Acton Roof Top
Source : unknown

Communal Open Space

1. A minimum of 20m^2 per dwelling shall be provided as common open space.
2. A minimum of 25% of the site area is be allocated for communal open space. The remaining communal open space requirement may be provided internally or on a rooftop.

3. Common open space areas at ground level are to be centrally located with high quality landscape treatments.
4. External (outside) common open space areas are to be capable of accommodating substantial vegetation and are to be designed to incorporate active and passive recreation facilities (such as seating, shade structures, BBQs and children's play equipment).
5. External (outside) common open space areas are to be located and designed to:
   - be seen from the street between buildings.
   - provide for active and passive recreation needs of all residents.
   - provide landscaping.
   - present as a private area for use by residents only.
   - include passive surveillance from adjacent internal living areas and/or pathways.
   - have a northerly aspect where possible.
   - be in addition to any public thoroughfares.
6. Plant species appropriate to the context and the specific microclimate within the development are to be selected to maximise use of endemic and native species and opportunities for urban biodiversity.
7. Drought tolerant plant species, and species that enhance habitat and ecology, are to be prioritised.
8. Landscape design is to be integrated with water and stormwater management.

5.14 Safety and Security

Objectives

a. Building design enhances safety and security for intended users.

Controls

1. Above ground floor windows and balconies overlook all on-site pedestrian paths and communal open spaces.
2. Lighting at 4m intervals is provided along all on-site pedestrian paths and communal open spaces.
3. Entrances and exits to the street are directly accessible, illuminated and highly visible.
4. Dead-end corridors, alleyways, pathways and refuse areas are signed and secured to prevent unauthorised access.
5. Development is to address the principles of Crime Prevention Through Environmental Design (CPTED).

Note: Consideration shall also be given to The Hills Council's Policy Designing Safer Communities, Safer by Design Guidelines (June 2002).

5.15 Noise

Objectives

a. To ensure the amenity of future residents and workers by appropriately responding to noise impacts.

Controls

1. Site planning, building orientation and interior layout is to lessen noise intrusion as far as possible.
2. The provisions of State Environmental Planning Policy (Infrastructure) 2007 and Development near Rail Corridors and Busy Roads Interim Guideline must be taken into consideration to minimise impacts of busy roads and railway corridors on residential and other sensitive development.

5.16 Wind

Objectives

a. To allow for cooling summer breezes to move through the precinct.

b. To ensure the built form does not provide adverse wind conditions which will impact upon the amenity of pedestrian comfort in streets and public open spaces.

c. The built form does not adversely impact upon the amenity of residents in common open spaces.

Controls

1. Built form is to demonstrate that the passage of cooling summer breezes will not be impacted.

2. Buildings of 8 or more storeys in height (or over 25 m) whichever is the lessor require wind tunnel testing, irrespective of whether they are built to the street frontage or not, which demonstrates the following:

a. In open areas to which people have access, the annual maximum gust speed should not exceed 23 metres per second, which is the speed at which people begin to be blown over;

b. In walkways, pedestrian transit areas, streets where pedestrians do not generally stop, sit, stand, window shop and the like, annual maximum gust speed should not exceed 16 metres per second;

c. In areas where pedestrians are involved in stationary short-exposure activities such as window shopping, standing or sitting (including areas such as bus stops, public open space and private open space), the annual maximum gust speed should not exceed 13 metres per second;

d. In areas for stationary long-exposure activity, such as outdoor dining, the annual maximum gust speed should not exceed 10 metres per second.

e. The report is to be prepared by a suitably qualified engineer.

5.17 Vehicular and Pedestrian Access

Objectives

a. Vehicles and pedestrians enter and exit developments in a safe and efficient manner.

b. Visual impacts of access and parking facilities on the public realm are minimised.

c. Pedestrian and cycle access to, from and through development is simple, safe and direct.

Controls

Vehicular Access

1. Car Parking shall be provided at the rates identified within Part 6 of this Section of the DCP.
2. Adequate vehicular entry and exit and circulation areas are to be provided. The design must:
   - Provide a safe environment for both pedestrians and vehicles using the site and surrounding road networks;
   - Ensure vehicular ingress and egress to the site is in a forward direction at wall times;
   - Provide for service vehicles where possible; and
   - Be designed to minimise the visual impact of hard paved areas.
3. The driveway shall be centrally located within the development and be a minimum of 10 metres from any side boundary or street.
4. Driveways are to have a minimum width of 6 metres for a distance of 6 metres within the development to ensure easy entry/exit of vehicles.
5. Parking shall be provided underground or at the rear of buildings.

Pedestrian Access

1. Developments in excess of 10 units are to provide pedestrian access from the street separate from the vehicular access.
2. A pedestrian link through the site must be provided as part of the development to increase the connectivity of the area for local pedestrians. The following factors should be considered when identifying the most appropriate location for the link of the pathway:
    - The link must be no less than 3m wide;
    - It should be a straight-line link through the site linking streets or other public spaces; and
    - The link shall not include stairs.
3. The design and layout of any building adjoining and landscaped spaces adjoining the pathway shall ensure there is natural surveillance of the pathway to protect the amenity of users. Solid fences will not be permitted along the boundary of the pathway as they will restrict passive surveillance over the pathway.
4. The pedestrian link, including links identified on the 'Indicative Street Network Hierarchy' figure, must be either dedicated to Council at no cost or be subject to a right of legal public access.

Garages

1. Where possible, any ground level car parking, garages and/or basement garage doorways should be screened from public areas by planting.

5.18 Terrace housing (attached housing)

Site requirements and layout

Objectives

a. To achieve a high standard of amenity for future residents.

b. Development sites have sufficient area to provide adequate access, parking and landscaping.

c. To minimise impact on the amenity of neighbouring sites.

d. To allow a range of allotment types to suit most household types and allow for diversity.

e. To provide a distinct urban character sympathetic to existing and new development.

Controls

1. Sites shall have minimum site depth of 30m~~.~~
2. Terrace housing (as single lot or as a townhouse type development) shall be provided on land zoned R3 Medium Density Residential.
3. Rear laneways are to be a minimum of 6m in width (AS 2890.1: 2004). Allow for 1.5m planting zones at end of sightlines in entry ways.
4. All dwellings with a frontage to the street (including a secondary street) must address the street.

Building height

Objectives

a. Terraces integrate with the character of surrounding development and are of a high architectural quality.

b. Designs reduce the visual bulk of buildings from the street.

c. The scale of terrace development reinforces the desired future neighbourhood character.

Controls

1. Terrace houses are to be a minimum of 2 storeys and a maximum of 3 storeys inclusive of attic rooms.

Building setbacks

Objectives

a. Developments contribute to an attractive and diverse neighbourhood that is characterised by high quality landscaping and innovative building design.

b. To provide strong definition to the public domain and create a consistent streetscape.

c. To alleviate impacts on amenity including privacy, solar access, acoustic control and natural ventilation within the development and adjoining neighbours.

Controls

1. Setbacks shall be provided in accordance with the following table.

Front setbacks	• 3m (to front building line for the first and second storeys) • 4m (to front building line for the third storey)
Front articulation zone	• Minor façade elements such as balconies, porches or verandahs may be 1m forward of front building line. On corner blocks the articulation zone may be extended along the secondary frontage for a max of 3m or 25% of façade length with a min. of 1m setback from boundary.
Side setbacks	• 0m between terraces • 3m from side property boundary (end terraces)
Rear Setback • 1-2 storey element • 3 storey element • Garages of rear lanes	 • 8m • 10m • 0.5m

Building design and streetscape

Objectives

a. To incorporate high quality façade design and finishes.

b. Designs reduce the visual bulk of buildings from the street to reinforce the desired future neighbourhood character.

c. Developments provide usable private open space areas to improve the amenity for future residents.

Controls

1. Each dwelling is to include individual access from the main street frontage.

2. Building entry must be integrated with building façade design. At street level, entry is to be articulated with awnings, porticos, recesses or projecting bays for clear identification. The entry path to the building is to be accessible and visible from the street.

3. The minimum internal floor area for each dwelling, excluding common passageways, car parking spaces and balconies shall be as follows:

Dwelling Type	Minimum Floor Area
1 bedroom dwelling	75m^2
2 bedroom dwelling	110m^2
3 bedroom dwelling	135m^2

4. For strata developments, a minimum of 10m^3 storage space is to be provided for each dwelling in either a lockable garage or a basement. Storage areas shall have a minimum base of 5m^2 and minimum width of 2m.
5. The minimum width of each dwelling is 6m.
6. The maximum building length is 50m (block of attached terraces).
7. Waste collection is to be undertaken from the rear laneway, or as per residential flat building if strata development subject to council discussion.
8. Bin storage areas must be located so that bins can be easily wheeled to the rear laneway for collection.
9. Hedge and shrub planting or open style fencing shall be provided along the street frontage. Where proposed, the height of front fences should not exceed:
   - 0.9m for solid masonry fences; and
   - 1.2m for open or transparent style fences.
   - Chain-link, sheet metal or timber paling fencing is not permitted to front or secondary frontages.
10. Side and rear fences are to be a maximum of 1.8m in height.
11. Front fencing and courtyard walls are permitted on the boundary line. Courtyard walls are only permitted on secondary frontage to corner lots.
12. Minimise direct overlooking of main internal living areas and private open space of dwellings both within and adjoining the development through building design, window locations and sizes, landscaping and other screening devices.
13. Rear laneways to provide for low maintenance soft landscaping treatments to reduce impact of hardscaped surfaces and wall treatments.

51. Terrace style housing, Kingston
Source: THSC

52. Terrace style townhouses, Botany
Source: Google Streetview

53. Modern Terrace design, Alexandria
Source: www.realestate.com

54. Terraces, Pyrmont
Source: THSC

Open space and landscaping

Objectives

a. To cater for the recreational needs of building occupants.

b. To improve amenity and soften the impact of buildings through the provision of landscaping, including the retention and/or planting of trees within deep soil zones.

c. A high level of amenity for residents is achieved through the provision of sufficient solar access, natural ventilation, privacy and open space.

Controls

1. Minimum 36m^2 for each dwelling (6m x 6m). Must be located at ground level at the rear of the dwelling, directly accessible from the main living area.
2. 50% of the private open space area shall comprise deep soil planting and be located such that a canopy tree can be planted.
3. 40% of front setback area shall comprise soft landscaping.

4. Landscaped areas are to have a minimum width of 2m within front setback.
5. Roof terraces and roof gardens are encouraged where the privacy of adjoining properties can be maintained.
6. The siting of dwellings is to provide good solar access to private open space and is not to adversely impact upon the solar access of adjacent dwellings POS.
7. At least 50% of the required private open space for each dwelling is to receive direct sunlight for a minimum of 3 hours between 9am and 3pm on 21 June.
8. A collapsible or permanent clothes drying device is to be provided within private open space areas and located to maximise the amount of direct sunlight received.

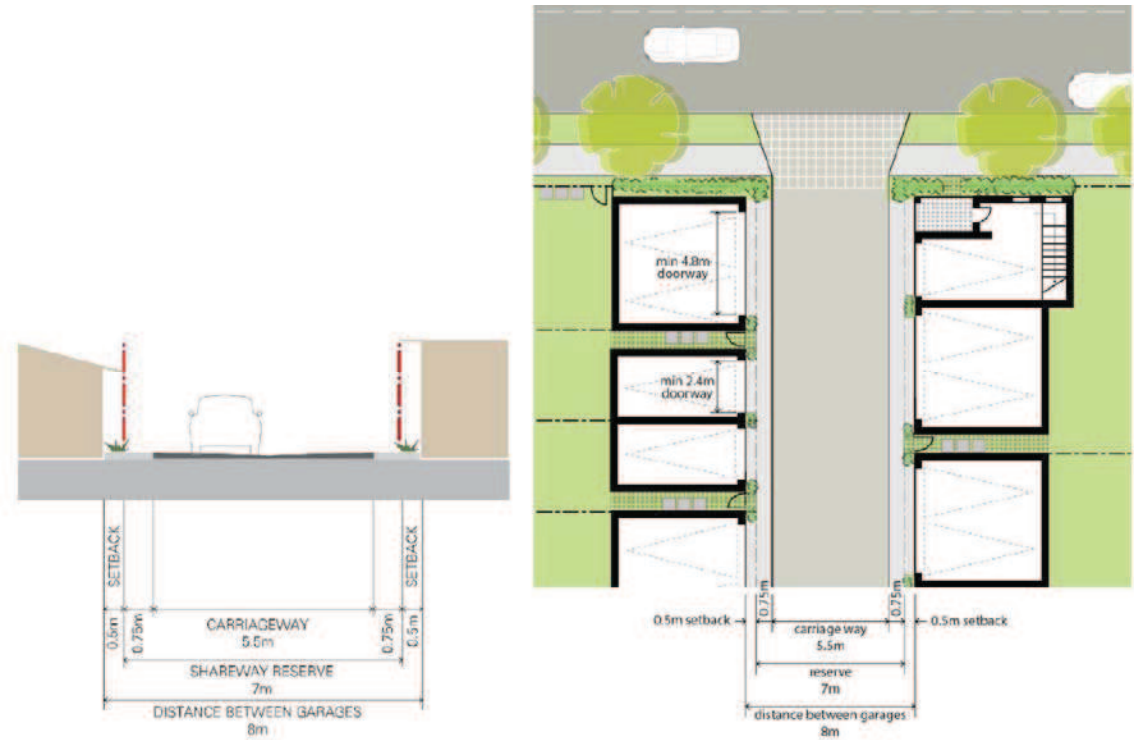
Rear laneways

Objectives

a. To facilitate orderly development within the R3 Medium Density zone through the provision of rear laneways.
b. To provide vehicular access to the rear or side of lots to reduce garage dominance in residential streets.
c. To reduce vehicular conflict through reduced driveway cross overs and focusing of traffic to known points.
d. To enable garbage collection along rear laneways.
e. To facilitate the use of attached and narrow lot housing to achieve an attractive streetscape.

Controls

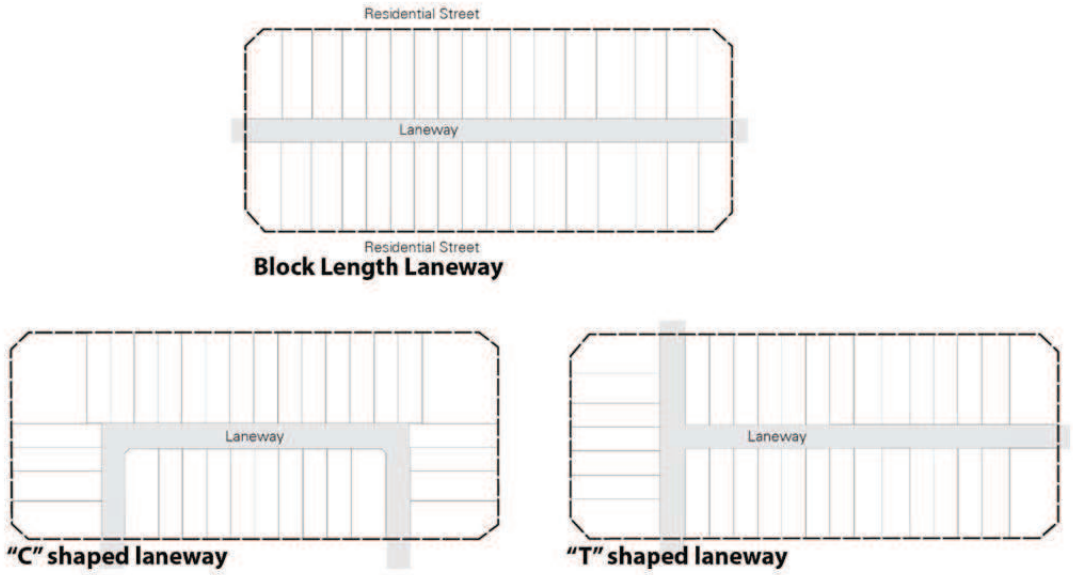
1. The design and construction of laneways is to be consistent with Figure 53.



Source: North Kellyville DCP

55. Rear Laneway Principles

2. The laneway is a public "shareway" as the paved surface is for cyclists, pedestrians and cars etc, with a 10 km speed limit and driveway-style crossovers to the street rather than a road junction.
3. On-street car parking within the rear laneway carriageway shall not be permitted.
4. The minimum garage doorway widths for manoeuvrability in this laneway section are 2.4m (single) and 4.8m (double).
5. Rear laneway design shall have regard to the following lot layouts. Entry way sightlines are to end with a landscaped treatment or the continuation of the laneway.



Source: North Kellyville DCP

56. Sample Lane Sections

6. Laneways that create a 'fronts to backs' layout (front addressed principle dwellings on one side and rear accessed garages on the other side) are to be avoided.
7. All lots adjoining a laneway should utilise the laneway for vehicular/garage access.
8. Terraces shall be designed so as to facilitate passive surveillance along the rear laneway through the positioning of windows and balconies facing the laneway.

6 Car and bicycle parking

6.1 Car parking

Objectives

a. To minimise adverse traffic impacts.

b. To provide sufficient parking spaces for development while encouraging public transport use.

c. To ensure that car parking is appropriately located.

Controls- General

1. Car parking spaces are to be provided at the rates specified in the Car Parking Rates table below. For any use not specified, the car parking rates in The Hills DCP 2012 (Part C Section 1 – Parking) shall apply.

Table 1 Car parking rates – all land uses

Land Use	Rate
Dwellings – detached, attached and semi-detached	1 space per dwelling (minimum)
Multi dwelling housing	To comply with the rates in Part C Section 1 – Parking.
Residential flat buildings, and dwellings in shop top housing	1 resident space per unit and 1 visitor space per 5 units.
All other uses	To comply with the rates in Part C Section 1 – Parking.

Controls- Residential Flat Buildings and Shop Top Housing

2. For residential flat buildings and shop top housing, the following is required:
   - Parking is to be underground and generally within the footprint of the building above.
   - Where above ground parking cannot be avoided due to site conditions, it must be well integrated into the overall façade design and create a good relationship to the public domain.
3. Garages and parking structures are not to project forward of the building line and are to be screened from the public domain by active uses.
4. Any parking located within the front setback area must be suitably landscaped to add positively to the streetscape.
5. Car share spaces are encouraged within residential flat buildings and shop top housing developments. Car share spaces are to be for the exclusive use of car share scheme vehicles, and included in the number of car parking spaces permitted on a site. The car share parking spaces are to be:
   – exclusive of visitor car parking;
   – retained as common property by the Owners Corporation of the site, and not sold or leased to an individual owner/occupier at any time;
   – made available for use by operators of car share schemes without a fee or charge;
   – grouped together in the most convenient locations relative to car parking entrances and pedestrian lifts or access points;
   – located in well-lit places that allow for casual surveillance;
   – signposted for use only by car share vehicles; and
   – made known to building occupants and car share members through appropriate signage which indicates the availability of the scheme and promotes its use as an alternative mode of transport.

Development Applications are to demonstrate how the car share parking space(s) is to be accessed, including where access is through a security gate. A covenant is to be registered with the strata plan advising of any car share parking space. The covenant is to include provisions that the car share parking space(s) cannot be revoked or modified without prior approval of Council.

Controls- Terrace Housing

1. All terrace housing shall be accessed via a rear laneway where the rear laneway is also accessed by a second and opposite row of terrace housing.
2.
3. Garages are to face the rear lane.
4. Where basement car parking is provided, the parking area is to be accessed by a single front driveway. The car park entry is to be integrated with the building design.
5. Basement car parking is to be consolidated under building footprints to maximise opportunities for deep-soil planting on the site.
6. Basement car parking must not protrude more than 0.5m above the natural ground level.
7. Where basement car parking is provided, waste collection shall occur within the basement car park.

6.2 Bicycle parking

Objectives

a. To ensure that bicycle parking is considered in all development and provided appropriately in developments.

b. To ensure that end of trip facilities are provided in new buildings featuring employment uses.

Controls

1. Secure, conveniently located bike parking facilities are to be provided at the rates specified in the Bicycle Parking Rate table below.

Table 2 Bicycle Parking rates

Land Use	Bicycle parks rate (minimum)
Residential flat buildings	1 space per 3 apartments 1 space for 12 apartments for visitors
Industrial	1 space per 1500m^2 GFA for staff
Commercial	1 space for 600m^2 GFA for staff
Shops/cafes/restaurants	○ space per 450m^2 for staff

2. End of trip facilities such as change rooms, showers and secure areas for bicycle parking are to be provided within employment development.

Appendix A: Housing Diversity

As the Hills Shire population grows there will be greater reliance on higher density development to accommodate future housing demand. A more sustainable Sydney is a more compact Sydney and more new homes in the future will be in the form of higher density developments. More people need to be able to choose to live, raise families and retire to an apartment located in an area of high accessibility and amenity.

The Hills Shire Council is expected to be home to an additional 37,934 households between 2016 and 2036 and population forecasts indicate that 23,519 (or 62%) of these will be 'larger' household types such as couples with children, single parents with children and multiple family households. It will be critical that future high density development provides 'dwelling diversity' to ensure the market caters for the different living needs, expectations and household budgets within the community. This will require the provision of an appropriate mix of one, two and three bedroom apartments which are varied in size.

Apartment buildings are a long term building stock so it is very important that if they are to be built, they are resilient over the long term. Unlike detached housing where landowners can choose the style and size of their home, a homeowner wanting an apartment can only choose from what is being provided. Whilst smaller apartments should be provided to meet the needs of a certain demographic within the market, moderate and larger apartments should also be provided to meet the latent demand for this housing option. This will then reduce pressure on smaller, more affordable housing options.

In order to achieve appropriate housing diversity within the Corridor, a floor space incentive provision has been established within The Hills Local Environmental Plan 2012 which permits additional floor space for developments that provide the required mix of apartment types and sizes.

This document provides an overview as to why the housing diversity provision has been prepared, how it was prepared, and how it should be applied. This document will assist applicants, consent authorities and community in understanding the intent behind the housing diversity provision.

1. Housing Diversity within the Sydney Metro Northwest Corridor

As part of the planning for the Sydney Metro North West Corridor, a development incentive provision has been implement which will facilitate:

- the delivery of at least 20% of future apartment development in the form of three or more bedroom apartments and
- at least 40% of all future two and three bedroom apartments will be at a larger apartment adopted size.

This will provide a greater diversity of product and will help meet the future housing needs of our community. The application of the development incentive provision to the Castle Hill North Precinct is outlined below.

1. All land is subject to a 'base' floor space ratio which is identified on the Floor Space Ratio Map.

2. Land within the Castle Hill North Precinct is also assigned with an "incentivised" floor space ratio through an Incentive Floor Space Ratio Map.

   For ease of reference all land that is also subject to an incentivised floor space is identified as 'Area A' on the Floor Space Ratio Map.

   Development will only be permitted at the 'incentivised' floor space ratio if it satisfies the requirements set out within Clause 7.12 'Dwelling Mix and Diversity within the Sydney Metro Northwest Corridor'. In summary the provision requires the following:

a) Maximum of 25% of all dwellings to be studio or one bedroom apartments;
b) Minimum of 20% of all dwellings to be three or more bedroom apartments;
c) 40% of all two and three bedroom apartments to comply with a minimum apartment size set by Council (110m^2 for two bedrooms and 135m^2 for three bedrooms); and
d) Parking rates to be 1 space per apartment and 1 visitor space per 5 apartments.

Development that does fully comply with the above requirements will only be permitted to develop at the 'base' floor space ratio, as identified on the Floor Space Ratio Map.

3. For certain key sites within the Precinct, 20% floor space incentive, in addition to the floor space potential under the Incentive Floor Space Ratio Map, will be permitted. The additional floor space bonus will only be permitted subject to full compliance with the relevant key site provisions under cl. 4.4B 'Additional floor space ratio incentive for key sites' of LEP 2012.

The overall yield anticipated within the Castle Hill North Precinct is 3,575 dwellings (comprising 3,425 units).

The following table provides a breakdown of the 3,425 additional units within the Castle Hill North Precinct in accordance with the new mix and size requirement. The incentive provision would facilitate the delivery of approximately 70% at SEPP 65 sizes and 30% of the apartments at the larger apartment. As 2 and 3 bedroom apartments would comprise around 75% of apartments, 40% of 2 and 3 bedroom apartments would equate to approximately 30% of the overall number of units within the Precinct.

Total Units	**Unit Mix**			**Unit Size**			**% of Total Units**
	Unit Type	**Mix**	**No. Units**	**Unit Size**	**% of Unit Type**	**No. Units**	
3,425	1 Bed	25%	856	**SEPP 65**	**100%**	856	**25%**
				Council	0%	0	0%
	2 Bed	55%	1,884	**SEPP 65**	**60%**	1,130	**33%**
				Council	40%	754	22%
	3 Bed	20%	685	**SEPP 65**	**60%**	411	**12%**
				Council	40%	274	8%
				Total Units		3,425	100%
				Total SEPP 65 Sized Units		2,398	**70%**
				Larger Sized Units		1,028	30%

Hypothetical Development Scenario with New Apartment Size Requirement

The delivery of around 30% of the apartments at the larger sizes will facilitate an appropriate diversity of housing stock and will provide developers with sufficient flexibility to determine the sizes for the remaining units. The provision will facilitate a greater level of apartment diversity than what would be achieved if development was only subject to the minimum apartment area requirements within SEPP 65 and the Apartment Design Guide.

4. State Environmental Planning Policy No. 65

State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development (SEPP 65) has been prepared to promote better apartment design across the State. The policy aims to deliver a better living environment for the residents now choosing this form of housing, and enhance our streetscapes and our neighbourhoods across the State.

SEPP 65 establishes nine design quality principles which are intended to ensure high quality development outcomes and more liveable urban areas. The SEPP 65 design quality principles must be considered by design professionals when designing residential apartment development, by design review panels when giving advice on proposals and by consent authorities. The nine principles are listed below:

- Principle 1 – Context and Neighbourhood Character;
- Principle 2 – Built Form and Scale;
- Principle 3 – Density;
- Principle 4 – Sustainability;
- Principle 5 – Landscape;
- Principle 6 – Amenity;
- Principle 7 – Safety;
- Principle 8 – Housing Diversity and Social Interaction
- Principle 9 – Aesthetics.

In determining a development application for consent to carry out development to which this Policy applies, a consent authority is to take into consideration (in addition to any other matters that are required to be, or may be, taken into consideration):

a) the advice (if any) obtained from the design review panel, and
b) the design quality of the development when evaluated in accordance with the design quality principles, and
c) Apartment Design Guide.

Through the Design Principles, SEPP 65 recognises that housing diversity is a critical design requirement when assessing applications for high density development. Principle 8 – Housing Diversity and Social Interaction provised the folowing.

- *Principle 8 – Housing Diversity and Social Interaction*
  Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

  Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.

  Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.

As outlined within the principle, well designed apartment developments respond to social context by providing housing and facilitites to suit the existing and future social mix. The approach being implemented within the Sydney Metro Northwest Corridor is directly consistent with this Principle as the provisions have been prepared having regard to the future demographic characteristics of the Shire.

5. Housing to Meet the Needs of the Future Hills Shire Population

The housing diversity provision which is being applied within the Sydney Metro Northwest Corridor has been prepared to ensure that the future housing stock is appropriate to meet the needs of the future population.

There are two critical and equally important issues being diversity of mix (i.e. 1 bedroom, 2 bedroom and 3+ bedrooms) and diversity of mix of size (provision of a mix of small, moderate and larger apartments).

Ensuring a Diversity of Apartment Mix
The following table identifies the projected household types for The Hills Shire from the Department of Planning and Environment's 'Household and Implied Dwelling Projection Data (2014)'.

Household Type	2011	2016	2021	2026	2031
Couple only	13,750	16,250	18,650	21,050	23,450
Couple with children	30,350	34,150	38,250	42,400	45,950
Single parent	4,350	5,050	5,850	6,700	7,550
Other family households	650	700	800	900	1,050
Multiple-family households	1,600	1,850	2,150	2,400	2,600
Lone person	5,450	6,700	8,050	9,600	11,200
Group	750	850	900	1,000	1,100
Total	**56,900**	**65,600**	**74,600**	**84,000**	**92,900**

Household Type Projections
NSW Department of Planning and Environment

Based on the above projections, by 2031 approximately 62% of households within The Hills Shire will be a family household including couples with children, single parents with children and multiple family households. Accordingly, it is reasonable to assume that approximately 62% of the additional housing stock that will be provided within The Hills Shire by 2031 will need to be capable of accommodating these household.

The Draft North West Subregional Strategy, prepared in December 2007, set The Hills Shire a target of an additional 36,000 dwellings by 2031. Council's Local Strategy and Residential Direction demonstrated how this target would be predominately met through the provision of 35,925 new dwellings in existing urban areas, the North West Growth Centre and the release areas of Kellyville/Rouse Hill and Balmoral Road. It should be noted that the dwelling targets represented Council's projected yield at the time of preparing its Local Strategy in June 2008, prior to the Government commitment to the delivery of the Sydney Metro Northwest.

Of the original dwelling target, approximately 4,600 were planned on land south of the M2 Motorway, on land which has now been transferred to the Parramatta City LGA. This land included Carlingford, Northmead, North Rocks, North Parramatta and Oatlands. As this analysis is principally focussed on ensuring that housing within The Hills Shire is sufficient to meet the needs of the future Hills Shire population, planned growth and approvals on land south of the M2 Motorway has been excluded from this analysis.

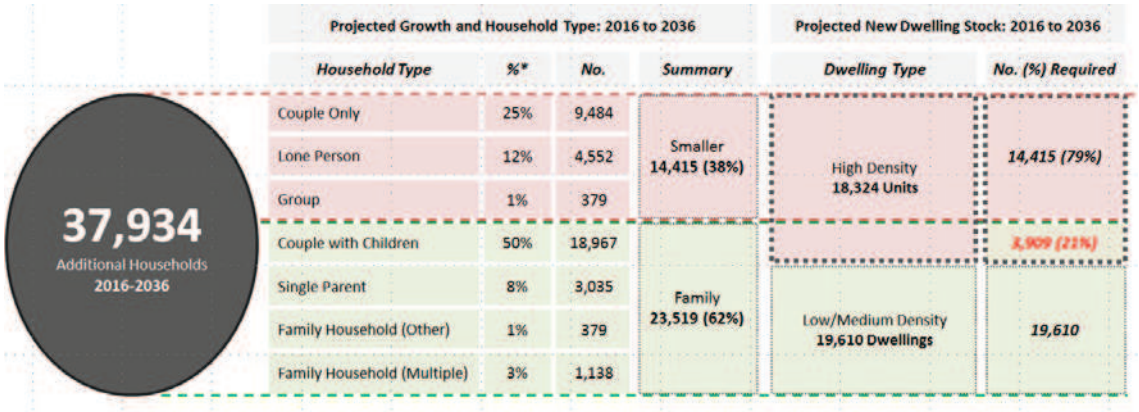
The following table provides a summary of the Shire's current dwelling targets, the additional growth opportunities which have arisen since the targets were established and Council's progress toward achieving its targets. It is noted that the planned dwellings and past approval figures have been adjusted to account for land that has transferred to Parramatta City Council.

SUMMARY	Planned Dwellings (Total)	Planned Apartments	Planned Low and Medium Density Dwellings
Target Dwellings 2004-2031	**31,375**	**5,623**	**25,752**
Additional Growth Opportunities			
Baulkham Hills Town Centre	1,000	1,000	0
Rural Subdivision	700	0	700
Box Hill North	4,600	645	3,955
Hills Corridor Strategy	16,050	15,604	446
Revised Dwelling Supply 2004+	**53,725**	**22,872**	**30,853**
Actual Dwellings 2004-2016	15,791	4,570	11,221
Revised Dwelling Projection 2016+	**37,934**	**18,302**	**19,632**

Dwelling Targets and Residential Activity

When accounting for the additional growth opportunities and actual dwellings that have been approved since 2004, a revised dwelling projection of approximately 37,934 dwellings could be achieved within The Hills Shire from 2016, of which 18,302 dwellings (48%) would be apartments.

The following table provides justification for requiring at least 20% of future high density apartments within The Hills Shire as 3 bedroom units.



Projected Growth and Household Type: 2016 to 2036				Projected New Dwelling Stock: 2016 to 2036	
Household Type	*%**	*No.*	*Summary*	*Dwelling Type*	*No. (%) Required*
Couple Only	25%	9,484	Smaller 14,415 (38%)	High Density 18,324 Units	*14,415 (79%)*
Lone Person	12%	4,552			
Group	1%	379			
Couple with Children	50%	18,967	Family 23,519 (62%)		*3,909 (21%)*
Single Parent	8%	3,035		Low/Medium Density 19,610 Dwellings	*19,610*
Family Household (Other)	1%	379			
Family Household (Multiple)	3%	1,138			

Justification for Apartment Mix

Of the 37,934 additional dwellings projected within The Hills Shire from 2016, approximately 23,519 (62%) will need to be able to accommodate a family household. It is assumed that the 19,610 dwellings within the low and medium density residential areas will be capable of accommodating family households. This means that the remaining 3,909 family households will need to be accommodated within high density apartments which equates to approximately 21% of the future high density apartment stock.

Having regard to the above analysis, the incentive provision being applied within the Corridor requires a minimum of 20% of the future apartment stock incorporates 3 or more bedrooms. This will ensure that the housing stock matches the needs of the Shire's future households.

Ensuring a Diversity of Apartment Size

It is imperative that an appropriate mix of apartment sizes is produced so as to facilitate housing diversity within the marketplace. Having a diverse housing stock will provide improved housing choice for the future Hills Shire residents and will ensure that the apartments which are produced cater for a wider range of households with varying needs, expectations and living requirements.

In order to ensure that an appropriate diversity of apartment sizes is being produced within the Corridor, the incentive provision requires a proportion of 2 and 3 bedroom apartments to be at the larger apartment size. The requirement would require the following:

- at least 40% of 2 bedroom dwellings forming part of the development have a minimum internal floor area of 110m^2; and
- at least 40% of 3 bedroom dwellings forming part of the development have a minimum internal floor area of 135m^2.

So long as 40% of 2 bedroom apartments have an area of 110m^2 and 40% of 3 bedroom apartments have a minimum area of 135m^2, developers will have full discretion with respect to the distribution of sizes for the remaining apartments.

The incentive provision would facilitate the delivery of approximately 70% at SEPP 65 sizes and 30% of the apartments at the larger apartment. As 2 and 3 bedroom apartments would comprise around 75% of apartments, 40% of 2 and 3 bedroom apartments would equate to approximately 30% of the overall number of units within the Precinct.

As previously mentioned, Principle 8 of SEPP 65 requires that 'Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets'. Accordingly,

requiring a mix of apartment sizes, including a proportion of larger apartments, is consistent with this principle as it will ensure that an appropriate diversity of apartment sizes is provided to suit different needs and budgets.