CASTLE HILL NORTH
PRECINCT PLAN
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1. EXECUTIVE SUMMARY

Castle Hill is a premier centre in north west Sydney. It provides a rich mix of housing, transit, shopping, employment and civic functions. The construction of the Sydney Metro Northwest creates an opportunity to provide increased density to take advantage of a new high frequency transport service.

The Castle Hill centre is the traditional civic, administrative and cultural heart of The Hills Shire. It provides a focal point for a range of business, government, retail, cultural, entertainment and recreation activities. The centre draws trade from a wide catchment area due to the retail focus, including two department stores, discount department stores, specialty stores and supermarkets. Castle Hill should remain the highest order centre within the Shire. The core of the centre is the retail and commercial areas, while the supporting areas surrounding the core are primarily residential.

The interface between these two areas is of vital importance as the delivery of this space in the right way will lead to greater pedestrian activity. The direct influence of Castle Hill centre is related to the ability of people to connect with the centre through the street pattern and the ability of people to access the centre. Currently, access to the centre is predominately car based, however it is expected that following the delivery of the rail line, the number of people who access the centre by public transport will increase.

The vision for Castle Hill includes reconnecting people to each other and the environment around them, building on the centre's strength as an attractive metropolitan location to live, work and play and making citizens proud of the important places which they identify with.

The vision includes aspects of transit oriented development for Castle Hill. The term 'transit oriented development' conveys an image of higher density development that is designed to maximise patronage for the new rail line. In Castle Hill it means a mix of residential, retail and commercial activities centres around transport creating an environment where services, recreation, entertainment, jobs and housing provide a lifestyle alternative to the traditional suburban context.

There is expected to be strong demand for apartment and townhouse living in Castle Hill into the future, and as a result a need to provide greater housing mix as population increases and housing needs change.

Castle Hill North will become the urban village of the centre through the integration of high quality urban design and sustainable development. An urban village is a place in a city, with the characteristics of a village. It involves a mix of different activities and land uses in the same space, generating activity throughout the day and night in the centre. Urban villages are characterised by an attractive and well used public space, and a safe and convenient pedestrian environment.

The Castle Hill North precinct plan provides a way to increase residential densities in proximity to the core of the centre to support its role and function of the premier centre in The Hills Shire into the future. It identifies the way that development will be consistent with the role of Castle Hill as the premier centre for the region. The Castle Hill North Precinct Plan identifies the context and rationale for future residential development north of the Castle Hill centre, in close proximity to the future railway station. It seeks to locate population growth close to the jobs, transport and services in Castle Hill. It includes a site analysis and assessment of opportunities and constraints, and identifies key areas for the high density growth to guide future development outcomes.

The Density Plan identifies different densities based on the potential development outcomes of different sites, based on proximity to the rail station and site capability.

The Character Map identifies interfaces and areas where different building forms are envisaged. The Streetscape Map identifies street types and outlines where the public domain will be embellished to provide attractive streets that encourage pedestrian activity.

A variety and mix of housing types is an important aspect of the centre. The objective of the Precinct Plan is to provide the highest density within the core of the centre, with the closest walking distance to the rail station and taper densities down to the existing low density residential development on the periphery of the centre.

Buildings closest to the station are envisaged as three to four storey podiums with a ground floor setback that enables active uses and a blurring of the public/private boundary. These developments will have slender tower elements that create a distinctive skyline that provide an identity for Castle Hill.

Residential flat building developments further from the station will be courtyard style apartment developments incorporating significant building separation and landscape elements to provide excellent amenity for residents and complement the existing garden shire character.

Areas where terrace style townhouses are identified will be characterised by tree lined streets, small landscaped front setbacks and ornate building styles, reminiscent of Victorian era terraces. Development sites adjacent to sensitive land uses will need to respond with increased setbacks, landscaping, tapered building heights, screening and other innovative building elements to protect properties such as Castle Hill Primary School, Garthownen House heritage items and child care centres.

Development outcomes within the Castle Hill North Precinct will complement the existing area and contribute to the quality of life enjoyed by future residents.

The next steps will be to amend Councils’ planning framework including changes to zones and development controls to facilitate re-development. Such changes will seek to deliver a high quality architecture that speaks of longevity and styles, attractive pedestrian friendly streets and public spaces within developments that to residents, workers and visitors quality of life.
A. DENSITY PLAN

The Density Plan identifies densities for the Precinct that are manageable and sustainable in the context of the Precinct. The density focuses on achievable yield for development sites to guide infrastructure planning.

This approach is considered to provide flexibility for developers in delivering new development by taking the focus off building height and concentrating on achieving the desired built form outcome that responds to individual site opportunities, constraints and context.

B. CHARACTER MAP

The Character Map identifies relationships between properties and on streets to clearly articulate where development controls are needed to manage development outcomes.

The character map increases focus on desired development outcomes to provide clarity for stakeholders as to the outcomes sought and to guide the drafting of Local Environmental Plan and Development Control Plan amendments.

C. STREETSCAPE MAP

The Streetscape Map identifies desired streetscapes that will be determined through developments and public domain works. It is envisaged that developments in closest proximity to the station (400m core) will be characterised by urban active edges, higher density residential and commercial development close to the retail heart of the centre.

Areas beyond the ideal 400 metres walking catchment to the station will be predominately residential. These areas will be characterised by landscape elements that complement the existing garden shire character.
A. OBJECTIVE OF THE PLAN

The objective of this Precinct Plan is to examine the capacity of the Castle Hill North Precinct to accommodate increased residential density, given the strategic location close to jobs, transport and services. The need for the review was identified in the Residential Direction component of Council’s Local Strategy, which recognised the opportunities to accommodate higher density to the north and south east of the Major Centre of Castle Hill and responds to the North West Rail Link Corridor Strategy and the draft Hills Corridor Strategy.

The draft Castle Hill North Precinct Plan was exhibited in January and February this year, generating significant interest from landowners both within and outside the precinct. In light of the feedback received on both the Draft Precinct Plan and the Draft Hills Corridor Strategy there is a need to articulate the current role of Castle Hill, the desired future of the centre, how this will be achieved and how Castle Hill North fits within the overall outcomes anticipated for the centre.

The Castle Hill North Precinct Plan seeks to guide and facilitate future housing that responds to the values of the Hills Shire and is supported by adequate infrastructure. The Precinct Plan capitalises on the implementation of the rail line and train station but focuses on promoting the role of Castle Hill as a premier strategic centre.

Overall, the successful redevelopment of Castle Hill North as envisaged in this Plan, implemented by the planning proposal and supporting documents will take advantage of the delivery of the high frequency public transport in the Shires premier centre in a way that provides for a quality living environment for future residents.

2. INTRODUCTION
B. STRATEGIC FRAMEWORK SUMMARY

A Plan for Growing Sydney

The State Government’s Plan for Growing Sydney defines strategic centres as the largest centres in the Sydney Metropolitan Area, when developed. They contain mixed use activity of an amount, density and diversity that is of metropolitan significance, including commercial, civic and cultural uses, government services and higher density housing. They are typically serviced by high frequency public transport and contain at least 10,000 jobs with the potential to accommodate ongoing jobs over the longer term. They are priority locations for employment and retail activity.

North West Rail Link Corridor Strategy

In March 2011 the Government announced its intention to fast track the North West Rail project. Following on from this the Department of Planning and Environment finalised a Corridor Strategy in September 2013 which identified a high-level vision and structure plans for each of the stations. At the same time as the Corridor Strategy was released a Ministerial Direction was issued under Section 117 of the Environmental Planning and Assessment Act 1979 to promote transit-oriented development and manage growth around the train stations and ensure development is consistent with the proposals set out in the Corridor Strategy and precinct Structure Plans, including the growth projections and proposed future character of the precincts.

The Structure Plan for Castle Hill indicated a total capacity for Castle Hill of an additional 7,900 dwellings and 18,500 jobs. However based on take up rates of 56% for housing and 52% for employment it was anticipated that by 2036 the projected residential growth would be 4,400 dwellings and the employment growth 9,500 jobs. The identified future character included apartment living surrounding the retail/commercial core with higher density apartment living (7-20 storeys) in areas with direct access to the new station and medium density apartment living (3-6 storeys) on the periphery with townhouses and duplexes beyond this to deliver a diversity of housing.
The Hills Corridor Strategy

“The Hills Shire’s ‘Premier Centre’ with the highest density urban setting that includes residential, retail, cultural and commercial uses.”

The Metro Sydney Northwest is a significant transport project that enhances the liveability of the Hills Shire. It is transformational in that it provides a fast and efficient connection to the global arc but importantly within our Shire itself. It is important that the land uses around the stations support each station’s role, achieve housing and jobs targets, create vibrant safe, desirable places and reinforce the garden Shire character and lifestyle.

The objective of The Hills Corridor Strategy (The Strategy) is to articulate Council’s response to land development over the next 20 years around all seven (7) new stations within or adjacent to the Hills Local Government Area. The Strategy has been prepared to provide a more detailed response to the delivery of future housing and employment growth for all rail station precincts. The Strategy translates the vision of the State Government Strategy to reflect the values and lifestyle of Hills Shire residents.

Guiding principles reflect the strategic direction of Council as articulated in the Local Strategy including locating high density in easy walking distance of future stations, maintaining low density housing choice in more peripheral locations, providing a diversity of housing choice with a focus on family living, ensuring access to sufficient infrastructure, providing job opportunities suited to Hills residents and maintaining the significance of strategic centres. These principles have been consistently applied both in the formulation of Council’s Template Local Environmental Plan, LEP 2012 and in the assessment of planning proposals.

The Strategy identifies capacity for close to 25,500 extra dwellings (around 56,550 people) and 57,800 extra jobs by 2036 and embeds Council’s long term principle of placing highest densities near to the centres (and in this case stations) transitioning to town houses and terraces with low density housing in more peripheral locations.

There are currently 2,653 existing dwellings within the Castle Hill Precinct accommodating an existing population of 8,569 people. Under the current development controls, it is anticipated that there is growth potential for an additional 2,316 dwellings (approximately 4,632 additional people).

The growth envisaged under the existing controls, along with the additional opportunity sites, could achieve a yield in the order of 4,807 additional dwellings, resulting in a corresponding increase in population of 10,645. It is also envisaged that approximately 10,304 additional jobs will be accommodated within the Precinct. This is based on uptake rates of 60-100% for high density residential development, 50% for townhouses and 80-100% for commercial development. Land with existing strata development is assumed to have an uptake rate of 0%.

Given the market conditions and high level of interest in development opportunities along the rail corridor, it is important that a sensible planning framework be established for the immediate future and for the next 20 years. This Strategy will provide a tool for meaningful engagement and discussion with the community, land owners, State government and other Councils about the development of land surrounding the rail stations over the next 20 years.
C. CASTLE HILL STRATEGIC CENTRE VISION

The Precinct is located within the suburb of Castle Hill which is approximately 30km northwest of the Sydney CBD and 10km from Parramatta. Since the early 1990s, the population of Castle Hill has continually increased as a result of new dwellings, particularly medium and high density (profile.id, 2014). A Plan for Growing Sydney identifies Castle Hill as a ‘Major Centre’ within the West Central Sub-Region.

Castle Hill is the Shire's premier centre and plays an important retail and commercial role for the Hills Shire and greater region. It also supports the social needs of the surrounding local community through the provision of community facilities, services and leisure facilities and spaces. The introduction of Castle Hill Train Station is expected to increase demand for housing close to the centre. It will provide opportunity for existing and new residents to live in a location that provides good public transport links and a variety of local services.

The Castle Hill Major Centre currently provides a mix of housing, shopping and employment choices. Castle Hill North Precinct will contribute to the critical mass needed for Castle Hill Strategic centre to achieve efficiency. It will transform into a village that is compact, walkable, has a diverse range of housing and is a pleasure to live in. Redevelopment of the Precinct will encourage residents, workers and visitors to support and grow the Castle Hill major centre.

The State Corridor Strategy defines Transit Oriented Development (TODs) 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. Areas of highest built form and density should be located within the 400m core of Castle Hill where it can be demonstrated that topography, overlooking, overshadowing and built form allow for it.

Implementation of TODs will allow Castle Hill and in particular Castle Hill North become a centre that facilitates an active place where residents and visitors will have a reduced need for additional trips. The Centre will become more permeable with sufficient access to the new rail. Use of public transport will increase and private car use will reduce. It is expected that well designed developments will add to the quality of the centre and promote a sense of place and identity.

Transit oriented development is not only about increasing housing density, the fundamental components are pedestrian connectivity, a mix of land uses and quality places for recreation and leisure that provide a lifestyle alternative to the traditional suburban context. For Castle Hill the key considerations in achieving transit oriented development is the appropriate mix of land uses and improved walking connectivity to the station so that the trip is well defined safe and convenient.
3. SITE ANALYSIS

The Castle Hill North Precinct is generally bound by Pennant Street and Castle Street to the south, Gilham Street to the north, Old Northern Road to the east and Carramarr Road to the west.

In determining the Precinct boundaries, an area extending north from Castle Street and Old Northern Road, within an approximate one kilometre radius of the future Castle Hill Station, was investigated. This area encompasses the northern boundary of the Castle Hill Station Structure Plan as identified in the North West Rail Corridor Strategy.

The boundary was established based on walking distance to the train station, constraints imposed by topography and the existing road network. Consideration was also given to the existing physical environment factors such as age and condition of existing housing stock, access to future train station, existing road and pedestrian network and titling arrangements which are likely to constrain the uptake of development opportunities.

A Precinct analysis (Appendix Three) has been undertaken to identify the opportunities and constraints within the precinct. The analysis included a review of the existing planning framework, elements of the built environment, such as land uses, building footprints, housing stock, titling arrangements, public transport, traffic and accessibility, pedestrian movements, open space and services. The natural environment was also reviewed, including topography, vegetation and surface water management.

Pedestrian walking distances to the future railway station and Castle Towers Shopping centre within 400m, 800m and 1km walking distance along publicly accessible routes have been analysed and are shown in the adjacent map. The map shows that the majority of land within the Precinct is within a comfortable walking distance of public transport, services and community facilities and has opportunity for increases in density.
Existing Pedestrian Connectivity in Castle Hill

Land Elevation in Castle Hill

Existing Land Uses in Castle Hill

Existing Character in Castle Hill
A. CONSTRAINTS

- **Land Fragmentation**

  The land in Castle Hill is developed and subdivided into small land holdings of approximately 700 square metres. While there are some large undeveloped sites within the precinct, the majority of property is subdivided. In order for a majority of the precinct to develop, properties need to amalgamate into larger sites to develop for higher densities.

- **Strata Title Ownerships**

  Some properties in Castle Hill are already developed and subdivided in a strata title arrangement. These properties present challenges for redevelopment, as the sale of these properties requires the consent of all the landowners within a scheme. Multiple landowners present a challenge for sale to a developer, as within the group of landowners there will be a variety of financial and personal situations that will dictate whether people wish to sell their property.

- **Cul-de-sac Streets**

  Many of the lower order streets within the precinct end in cul-de-sacs or are dead ends, that do not connect to other streets. This street network makes travel within and around the precinct more difficult.

- **Land Slope**

  Land on Old Castle Hill Road, Garthowen Crescent, McMullen Avenue and Carramar Road is subject to land slope. Steep land makes walking less attractive for people. Furthermore, development of these sites can be more expensive due to the increased cut and fill of land needed to make it flat enough to build on.

- **Sensitive Land Uses**

  The precinct contains a number of sensitive land uses. Garthowen House is a heritage item, currently operating as a child care centre. Development in the vicinity of this property will need to respond to the heritage significance of the item and respect its curtilage. Development adjacent to Castle Hill Public School will need to be carefully designed to avoid overlooking into the school and to respect the lower built form and solar access needs of the classrooms and playgrounds.

- **Poor Access surrounding Castle Towers**

  Castle Towers Shopping Centre is a focal point for the Castle Hill centre however, its presentation to Pennant Street creates a poor streetscape. Castle Towers presents the loading dock, carpark and blank walls to Pennant Street. It also does not provide clear pedestrian access through the centre and creates a barrier to pedestrian accessibility through the centre.

- **Overland Flow Path**

  There is an existing overland flow path between Les Shore Place, Larool Crescent and Carramar Road. Development in this area will need to manage the stormwater through detention pits and pipes in order to redevelop.
B. OPPORTUNITIES

- **Transit Oriented Development**

  The new rail line is the catalyst for redevelopment and Castle Hill North is positioned in close proximity to the new rail station at Castle Hill. Castle Hill North will grow to be part of the centre, which will evolve into a transit oriented development with high quality architecture focussed on connectivity to the station, a mix of land uses and high quality public domain.

- **Improved Connectivity**

  There are opportunities to provide additional linkages between blocks and through sites to improve connectivity within the centre and to the station. Ideal walking catchments to the station will encompass more properties allowing higher density to capitalise on the new transport option and improve pedestrian access within and around the centre.

- **Landmark Development**

  Key sites are identified as landmark developments where increased densities are envisaged subject to meeting exemplary design and quality standards for development. These sites will be able to capitalise on their high topography with development that has distance views to the Sydney CBD and Blue Mountains. These developments will be viewed from areas throughout the district and will represent the character of Castle Hill into the future.

- **High Quality Development**

  The redevelopment of Castle Hill North provides an opportunity to deliver high quality development in close proximity to a new public transport service. Castle Hill North will be the highest density development in The Hills Shire and will demonstrate exemplary design.

- **Public Domain**

  The Castle Hill North Precinct provides opportunities to embellish the streetscape and public domain to make these spaces attractive for pedestrians and encourage increased pedestrian activity in the streets. The redevelopment of Castle Hill North is an opportunity to expand a vibrant town centre.

- **Mix of Housing**

  The Castle Hill North Precinct provides an opportunity to diversify the housing stock within the Castle Hill centre. Castle Hill has traditionally been characterised by low density residential dwellings and in more recent times low rise residential flat buildings. The rail line provides an opportunity to provide new dwelling stock in the form of apartments and terrace homes, while retaining the garden shire character to create a variety of options for people seeking to live near transport.

**Opportunities:**

- Views and landmark buildings through areas of elevated topography
- Established Major Centre with existing local services, infrastructure, open space and amenity
- Good public transport network
- Growing need for different housing options within the
4. PRECINCT PLAN

A. DENSITY PLAN

The approach to density is consistent with the principles of Transit Oriented Development, in that it seeks to accommodate growth in more contained areas close to the future stations that will facilitate walkability and active public spaces. For Castle Hill, the key considerations in achieving transit oriented development is the appropriate mix of land uses, improved walking connectivity to the station so that the trip is well defined safe and convenient.

The Density Plan envisages increased densities in proximity to the station and the core of the major centre. The highest densities identified are within 400 metres of the new rail station. These areas will be characterised by a mix of uses, including café or retail uses and open public plazas at the ground floor fronting the streets. These spaces will blur the line between public and private space, encouraging people into the plazas and cafes. Residential development is envisaged in taller buildings, set back from the street, with balconies and design features addressing the street. The buildings will be characterised by outstanding design, resilient materials and finishes, particularly on the lower storeys.

Areas beyond the ideal 400 metres walking catchment to the station will be predominately residential. Streets that face existing low density development outside the precinct area will be characterised by large landscaped setbacks to retain the landscaped character of the street and soften the view of new higher density buildings from outside the precinct. Internal streets within the precinct will be characterised by smaller setbacks, but still with landscaping. Garthowen Crescent will have setbacks and landscaping character that reflects the existing townhouse and apartment building developments, as well as a character that respects the heritage item Garthowen House. Barrawarn Place and Larool Crescent will be characterised by terrace edge streets.
B. CHARACTER MAP

The Character Map identifies relationships between properties and on streets to clearly articulate where development controls are needed to manage development outcomes. The character map increases focus on desired development outcomes to provide clarity for stakeholders as to the outcomes sought and to guide the drafting of Local Environmental Plan and Development Control Plan amendments.

The Character Map identifies sensitive land uses to ensure that future development responds appropriately to these areas. It also identifies street interfaces such as terrace edges and interfaces to low density to show where streets are intended to be developed with a particular character that creates street character.

Potential overshadowing and interfaces between densities are also identified to mark where future developments may impact on one another. These areas will need to be carefully considered in the design of future buildings.

Areas on Castle Street, Pennant Street, McMullen Avenue and Old Castle Hill Road are identified with active frontages to encourage street activation in these locations. The character map also identifies potential future links that will increase the connectivity in the precinct.
C. STREETSCAPE MAP

The Streetscape Map identifies desired streetscapes that will be determined through developments and public domain works. It is envisaged that developments in closest proximity to the station (400m core) fronting Pennant Street, McMullen Avenue and Castle Street (to Kentwell Avenue) will be characterised by urban active edges, higher density residential and commercial development close to the retail heart of the centre.

Areas beyond the ideal 400 metres walking catchment to the station will be predominately residential. These areas will be characterised by landscape elements that complement the existing garden shire character.

The Streetscape Map identifies desired streetscapes that will be determined through developments and public domain works. It is envisaged that developments in closest proximity to the station and within the core fronting Pennant Street, McMullen Avenue, Castle Street and Old Castle Hill Road will be characterised by urban active edges, higher density residential and commercial development close to the retail heart of the centre.

As land moves away from the core, the character will transition to a residential environment, characterised by moderate height buildings and landscaped setbacks.

Key public domain improvements include footpath paving, street trees, street furniture and lighting. Upgrades will be undertaken on all streets in the precinct to make them pedestrian friendly and desirable places to walk.
**URBAN ACTIVE EDGE**

**Area:** Pennant Street/Castle Street (from Larool Crescent to Pennant Street), Old Castle Hill Road (from McMullen Avenue to the western edge of Garthowen Crescent).

- Private frontages to be open and embellished with chairs, tables, landscaping, ideally active such as café/neighbourhood
- Paving to be consistent with the Public Domain Plan, to create a seamless and identifiable area of public and private space.
- Buildings to be set back at upper levels - max 4 storeys at 10m setback line
- Tree lined streets to connect with landscape elements and existing character
- Marking proximity to Town Centre and Castle Hill Train Station
- Encourage common open space to be accessed and visible from the street. Common open space should have public access, improve amenity and social interaction.

**LANDSCAPE SETBACK**

**Area:** Gilham Street, Gay Street, Old Castle Hill Road (both sides), Castle Street (west of Carramar Road) and Carramar Road (north of Larool Crescent)

- Retain existing Garden Shire feel with large landscaped setbacks including ground cover (grass), shrubs and tree. Landscape treatments are specified in the Castle Hill North Public Domain Plan.
- Wide footpaths to encourage pedestrian activity
- Ensure passive surveillance of street, use of landscaping as a means of softening built form to properties outside the Precinct.
- Garden character on Gay Street to promote a street level landscape feel.
- Tree lined streets (public) - more formal, regular landscape arrangement
- Gardens (private) - less formal nature and regular landscape arrangement
- Mix of native and exotic landscape specifies.
- Use deciduous to get sun in winter.

**OPEN STREET FEEL**

**Area:** Garthowen Crescent

- Character should build from existing townhouse and Northpoint developments, as well as respecting the heritage item Garthowen House
- Moderate landscaped setback with lower 3-4 storey built form at 7m setbacks and taller built elements set back further.
- Retaining some existing Garden Shire character at street frontage while slowing taller building forms behind.
- Design quality and architectural features is a key element. Tall buildings to be potentially located in this area
- Streets need to feel spacious with clear sight lines to the sky from footpaths
- Use deciduous to get sun in winter.

**TERRACE EDGE**

**Area:** Barrawarn Place, Larool Crescent and Carramar Road (south)

- Character should reflect a 3-4 storey development close to the street
- Minimal low level landscaping in private domain street activation and casual surveillance
- Tree lined streets connect to the existing garden Shire character
- Create boulevard style streets - trees are to be planted in regular and consistent intervals
- Wide footpaths to encourage pedestrian activity
- Terraces are to have a variety in finishes (materials and colours). The built form is to be constant in terms of width, height and fenestration.
- Terraces should have bay windows or balconies facing the front of the street
- Boulevards should be used in areas;
  - Leading down Carramar Road to Castle Street
  - Up Barrawarn Place to Maurice Hughes Reserve
  - To Larool Crescent Reserve
**D. YIELD**

It is anticipated that the precinct could accommodate 3217 dwellings (2984 additional dwellings) which will result in approximately 5540 additional people.

This yield will provide sufficient critical mass for the precinct to be a vibrant, active and desirable place to live. The intended yield for the precinct can only be achieved where a number of properties amalgamate to form development sites. This allows developments to be master planned to deliver dwellings with high levels of amenity and attractive and usable common open spaces.

Given the accessibility arising from the delivery of the North West Rail Link and the high level of amenity and quality of life offered by Castle Hill major centre, take up rates consistent with The Hills Corridor strategy have been applied to determine the potential yield.

It is this increased population that will be used to assess the demand for supporting infrastructure services and facilities required as a consequence of future development.

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**TOTAL: 21.3**

**TOTAL: 3217**
5. INFRASTRUCTURE

The Precinct is located within Contributions Plan No.5 - Castle Hill which was originally created in 1993 and covers a much larger area than the Castle Hill North Precinct. Given that the development expected under Contributions Plan No.5 - Castle Hill is almost complete, it is not proposed to amend the existing plan to include proposed higher density residential development opportunities under the preferred development option for this Precinct. Rather it is proposed that the required infrastructure will be delivered through a new Contributions Plan.

The new Contribution Plan will identify the infrastructure required to support the demand generated by the 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 similar to that enjoyed by existing residents. The contributions plan will provide an appropriate mechanism to ensure that funding of infrastructure is equitably distributed throughout the Precinct based on the anticipated growth in population. Where the demand for particular infrastructure is not solely generated by future growth within the Precinct, the cost attributed to Castle Hill North has been apportioned, with the remaining costs to be funded via alternative sources.

Council has undertaken a review of the existing infrastructure and determined that upgrades and new facilities are required to support future growth within the precinct. In particular roundabouts, intersection realignments, new playing fields, the embellishment of passive open space and new stormwater management facilities have been included in the draft Contributions Plan. An overview of the approach toward the provision and funding of local infrastructure within the precinct is detailed below.

Traffic and Transport
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.

Traffic management upgrades include roundabouts at Carramar Road/ Castle Street, Gilham Street/ Carramar Road, Gilham Street/ Old Castle Hill Road and the realignment of Old Northern Road/ McMullen Avenue to Brisbane Road.

Pedestrian facilities
It is envisaged that the Castle Hill North Precinct will develop into a high density transit centre. 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.

In order for this to be realised, shared pedestrian/bicycle paths are proposed along Carramar Road, Gilham Street, Castle Street and Pennant Street and Old Castle Hill Road. These shared paths will be approximately 2.5 metres wide. All remaining streets will contain a single 1.2 metre path. Appropriate landscaping will be provided in conjunction with these paths to encourage pedestrian movement through the centre.

Open Space and Recreational Facilities
The future population within the Precinct will be characterised by a predominance of family households. Accordingly, the planning for this Precinct seeks to ensure that residents of new developments are able to access open space and recreation facilities commensurate with the lifestyle enjoyed by existing Hills residents. It is noted that existing playing fields within the Shire are currently used to capacity. To cater for the additional population, new open spaces and additions and improvements to existing open spaces will be required.

Passive Open Space
An additional population of around 6,200 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 the Precinct will present challenges due to the highly urbanised context and the cost of land. Accordingly, the approach which is proposed for this Precinct is to improve the function and capacity of the existing passive open space areas which are currently located 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 aim is to transform these spaces into more usable urban facilities rather than open spaces.

Active Open Space
An additional population of around 6,200 people will generate demand for around 2 playing fields and 1 cricket oval. As the existing playing fields are already at capacity there is no 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.

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 (north and south) and the Cherrybrook Precinct. The cost of providing any new facility would be apportioned in-line with the envisaged growth within each Precinct.

Stormwater Management
A number of overland flowpaths 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 Carramar 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.
6. IMPLEMENTATION

The assessment of the strategic context and opportunities and constraints has identified that there is capacity within the Precinct for higher residential development opportunities. The Precinct Plan provides the vision for urban growth that responds to expected housing demand and contributes to providing diverse housing and lifestyle opportunities for future residents.

Residential yields have been expressed in terms of ‘maximum dwellings per hectare’ and as such these yields would not be subject to fluctuation or increase as a result of more detailed factors such as the apartment mix and sizes within future development.

It is assumed that these maximum residential yields will only be achieved where future development meets specific design and development criteria prescribed by Council (including compliance with Council’s controls relating to apartment mix and size and car parking). In order to achieve this, it is envisaged that future planning controls under LEP 2012 will be drafted to allow for partial uplift in densities on land within Castle Hill North, with the maximum uplift envisaged only available for development which facilitates the delivery of apartments which satisfy the needs and expectations of the Hills Shire residents and suit the family demographic expected for the Shire into the future.

The maximum yields identified within this Strategy will only be achieved where development can be accommodated within an appropriate built form in the context of each individual site.

To facilitate this, implementation of the Castle Hill North Precinct will require amendment to The Hills Local Environmental Plan 2012 and Development Control Plan 2012.

**Local Environmental Plan 2012 - Amendment**

The Local Environmental Plan 2012 will be required to be amended to achieve the desired outcomes. This will include changes to the Zoning, Height of Buildings and Minimum Lot Size Map. The Local Environmental Plan 2012 Maps will be based upon the Structure Plan within the Precinct Plan.

**Incentives provision**

The Local Environmental Plan 2012 would be amended to prescribe a base floor space ratio and an incentive floor space ratio for the precinct. The base floor space ratio will not facilitate the maximum density envisaged for the precinct. The incentive would enable the envisaged density to be obtainable where a developer provides improved housing diversity and reasonable car parking provision in accordance with key design criteria specified by Council and included within the LEP.

The incentive floor space will provide significant yield and financial incentives to developers that deliver a housing product and choice consistent with the expected future demographic profile of the Hills. Development that does not fully comply with the criteria will be subject to the base floor space ratio and will not receive the additional floor space incentive.

Achievement of the criteria will improve the quality and diversity of apartment stock and make this style of development attractive to a broader range of household types with different needs and expectations.

**Development Control Plan 2012 - Amendment**

While Development Control Plan 2012 contains controls that apply to townhouse and apartment development, it is envisaged that the Castle Hill North Precinct will deliver a new kind of built form for the Shire and have a distinctive character that requires some additional controls to guide future development.

To guide the delivery of Castle Hill as the Shire’s premier centre the emerging focus is on the relationship of development to the rail station and its role as a transit oriented urban environment. Such an environment needs to achieve well-connected road and pedestrian networks, active street frontages, high quality architectural style and character, attractive streetscapes and public realm and common open space that add to resident’s quality of life.

The Development Control Plan will set out a framework for high quality buildings and public realm that combine to deliver the fundamental characteristics of livability, comfort and attractiveness. It will enhance the physical quality and character of the public realm to improve the experience for pedestrians, provide visual pleasure and a range of recreational and leisure opportunities.

New housing typologies are envisaged for the precinct that warrant a significant amendment to Development Control Plan 2012. These include:

- Terrace homes and townhouses
- Low rise residential apartment buildings (3-6 storey)
- Medium rise apartment buildings (7-12 storey)
- High rise apartment buildings (12-20 storey)
- Mixed Use Development

While these types have common factors, development controls specific to each housing typology are needed to ensure that each of the typologies is developed exhibiting high quality architectural design and the best response to site context.

Controls will be drafted to ensure developments contribute to a desired built character that optimises solar access, consideration of open space and has conscious design approach that pays attention to orientation and sensitive interfaces. Controls to achieve a well-connected road and pedestrian network, active street frontages, high quality architectural style and character, attractive streetscapes and public realm and common open space within developments that add to residents quality of life will be included.

**Public Domain Plan**

A key feature of transit oriented development is a high quality public domain. To this end, it is intended that a Public Domain Plan be prepared to provide consistent guidance for the delivery of public domain works. 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.