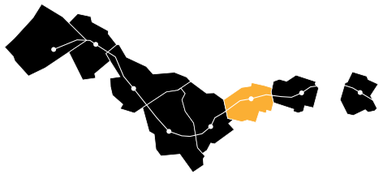
North West Rail Link
Showground Station
Draft Structure Plan
A Vision for Showground Station Surrounds

NSW GOVERNMENT Transport | NSW GOVERNMENT Planning | Hill PDA | COX

Prepared by Hill PDA &
Cox Richardson
March 2013

Showground Draft Structure Plan
Table of Contents



Showground Draft Structure Plan
1. Introduction

1.1 CONTEXT

The North West Rail Link (NWRL) is a priority transport infrastructure project for the NSW Government. The NWRL will include eight new stations and services as part of a 23 kilometre link, running from Epping to Cudgegong in north-west Sydney, connecting with the Epping to Chatswood Rail Link (ECRL) and Sydney's wider rail network.

The north west of Sydney is expected to experience high growth with the need for new dwellings and additional jobs to meet demand. To sustainably manage this growth, metropolitan planning aims to provide for a more compact, accessible city, capable of supporting more jobs, homes and lifestyle opportunities within close proximity of public transport.

The delivery of a new rail line in the North West is a significant investment in public infrastructure and represents an opportunity to carefully consider the wider implications of rail and to comprehensively plan for the future. The North West has great potential to become a major transport-oriented corridor, delivering a significant amount of housing and employment, high levels of self-containment and an unrivalled level of amenity and lifestyle within a desirable residential community.

The NWRL will meet the challenge of future growth, by:

- **Providing rail access** between North West Sydney and Epping, Macquarie University, Macquarie Park, Chatswood, St Leonards, North Sydney and the Sydney Central Business District (CBD), including new rail services to existing centres in the Hills District, such as Castle Hill, Rouse Hill and Norwest Business Park.
- **Reducing vehicle trips**, when rail is introduced to the North West all modes of public transport will become a more attractive and accessible alternative to the private motor vehicle.
- **Improving travel times** from, to and within the North West and delivering a reliable, dependable service.

1.2 REPORT STRUCTURE

The following report is a study to determine the challenges and opportunities the new station will present to the Showground locality. This study will culminate in a collective vision and Draft Structure Plan for the station precinct, to guide the future character of the study area and to reinforce the delivery of the NWRL and a new station at Showground. In preparing the Draft Structure Plan, consideration has been given to the following:

1. **Role of the Study Area in the NWRL corridor.** Consideration is given to the role the Study Area will perform within the rail corridor and the North-West.
2. **Analysis of the physical characteristics**. A comprehensive site analysis has been undertaken to ascertain the natural and physical opportunities and constraints of the Study Area. Please refer to *Section 2: Opportunities & Constraints Analysis*.
3. **Analysis of the existing planning controls in the Study Area.** The key planning controls that apply to the Study Area have been examined to determine their ability to respond to a new rail link and station. Please refer to *Section 3: Current Planning Controls*.
4. **Identification of Opportunities for Growth**. Sites that may contribute to the growth of the Study Area in response to a new rail link and station have been identified. Please refer to *Section 4: Opportunities for Growth*.
5. **Vision for the Study Area.** The overall vision for the Study Area is informed by the above analysis. This vision will be realised through the Draft Structure Plan, which provides an overall guide to the future character of the Study Area. Please refer to *Section 5: Vision and Structure Plan*
6. **Actions and Implementation.** To achieve the overall vision for the Study Area, a series of actions to be undertaken, have been identified. Please refer to *Section 6: Actions and Implementation*

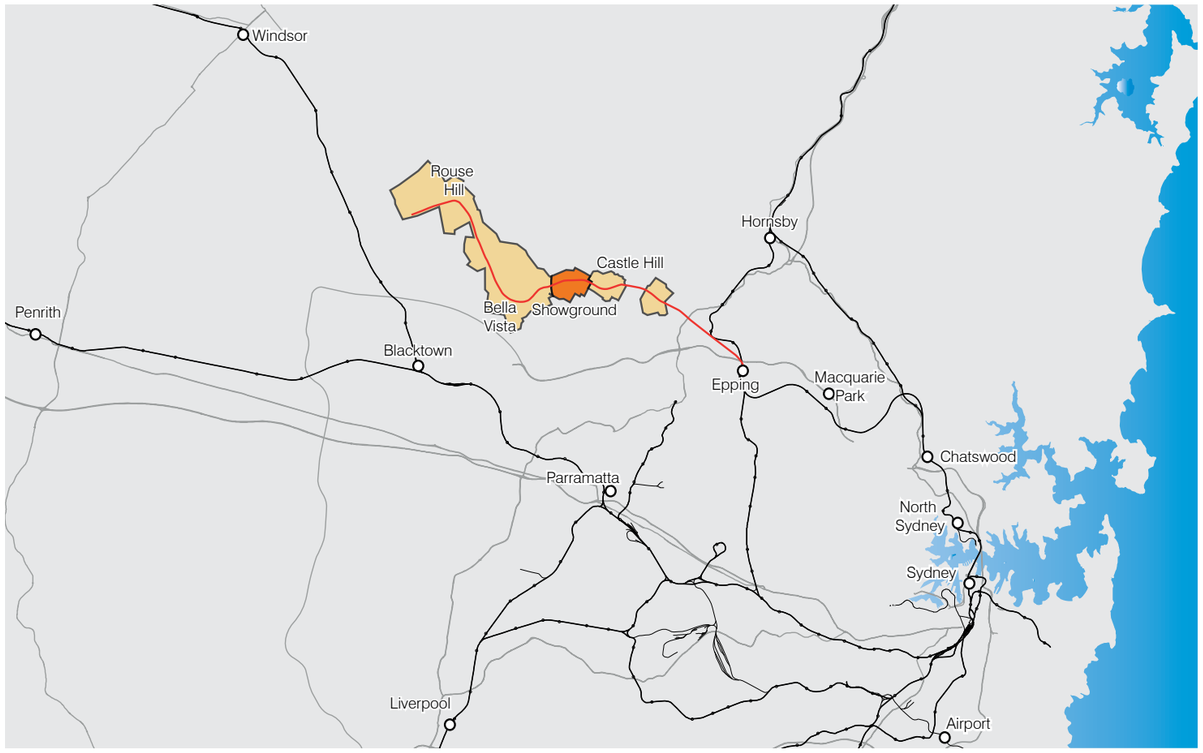
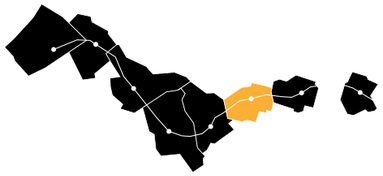


Figure 1: North West Rail Link in the context of Metropolitan Sydney



1.3 STUDY AREA LOCALITY & CHARACTER

The NWRL includes a new station at the Showground. The new train station will be adjacent to Carrington Road.

The Showground currently contains a number of important civic, cultural, retail, light industrial and service uses for North Western Sydney.

The boundary of the Study Area is based on the nearest road boundary within a radius of 800m from the proposed Showground Station, which is a distance normally considered to reflect a 10 minute walking trip. The boundary has also been defined by taking into account the existing character, predominant land uses, built form and natural elements of the area.

The Showground Study Area covers approximately 271 hectares and is entirely located within the Hills Shire Local Government Area (LGA).

The study area extends to Showground Road and slightly beyond to the north, Windsor Road to the west and south, and Fishburn Crescent to the south-east.

The Showground Study Area currently contains a number of distinct precincts.

A significant amount of employment is currently generated within the Showground Study Area in the service, administrative, bulky goods, retailing and manufacturing industries.

The Showground, which forms part of the NWRL Station site, includes a number of multi purpose performance spaces.

The current Hills Shire Council administrative offices and depot are located on Carrington Road, adjacent to the Castle Hill Showground on Doran Drive. However, Council recently resolved to relocate its administrative offices and depot to Norwest Business Park.

The Castle Hill Showground, located in the study area's north-east, contains an oval and a spectator stand and a range of other buildings used throughout the year and during the annual show. In the south-east of the study area lies an established low density residential suburb, which adjoins residential areas of Castle Hill to the east. This area features single dwellings on large blocks, large setbacks with a leafy suburban character. The subdivision pattern, particularly between Cockayne Reserve and Victoria Avenue features a multitude of culs-de-sac.

The western half of the Study Area contains light industrial and bulky goods uses, providing essential services and employment to the surrounding suburbs. These uses are located along Victoria Road, between Showground Road and Windsor Road, in the Castle Hill Trading Zone, which is also known as Castle Hill Industrial Area. The built form character of the area generally comprises low density warehouse-style structures ranging from 1 to 3 storeys, with large setbacks, landscaping and at grade parking on site, located within a street pattern that is generally well connected to the north, but features culs-de-sac in the south.

The study area contains a number of areas of ecological importance, including Cockayne Reserve in the south-east and Cattai Creek corridor though the centre of the precinct, which also contribute to the leafy character of the locality and provide a visual and physical separation between the residential and light industrial areas.

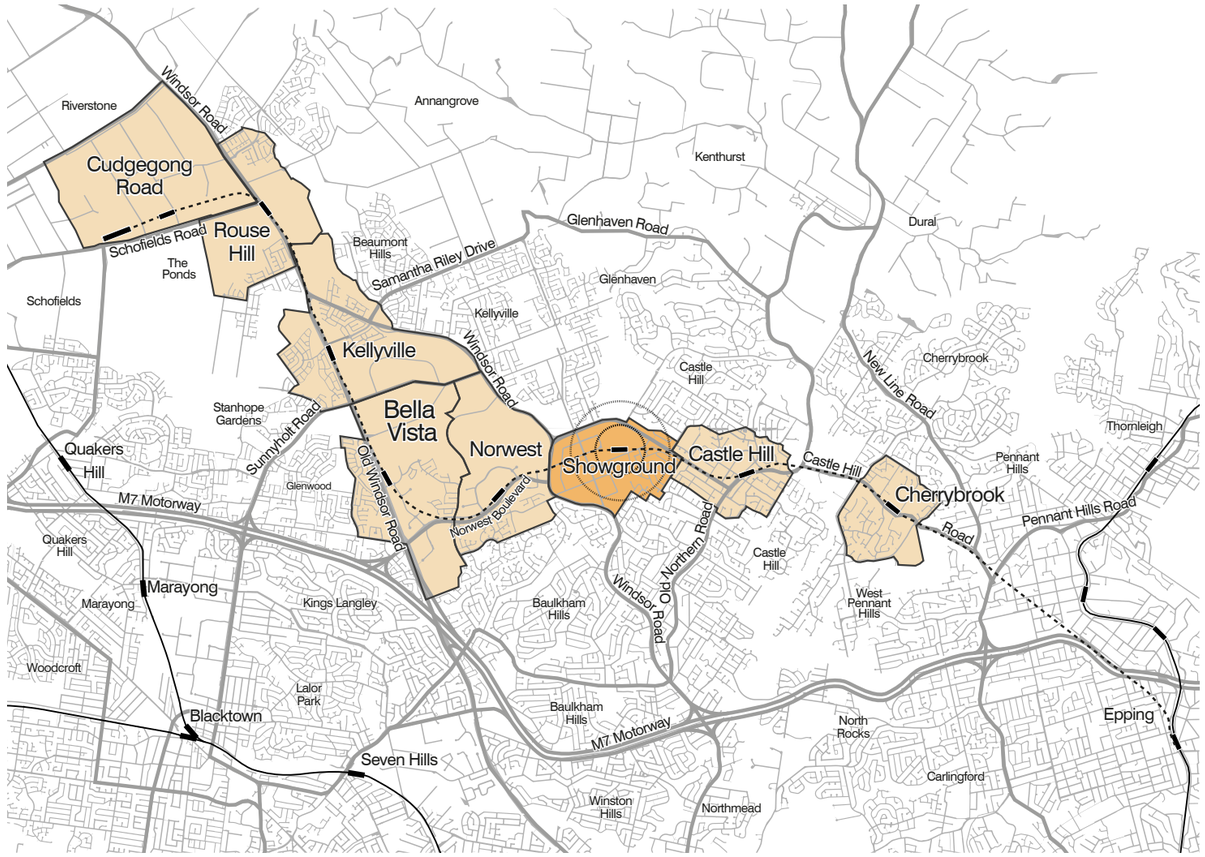


Figure 2: Showground Study Area, in the context of the North West Rail Link.

Showground Draft Structure Plan
2. Opportunities & Constraints Analysis

2.1 INTRODUCTION

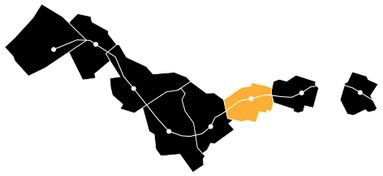
This section is an assessment of the opportunities and constraints within the Study Area. The physical characteristics of the Study Area have been mapped and analysed to identify the Study Area's physical constraints and opportunity sites. These characteristics include; transport, traffic and accessibility; open space networks and ecology; topography and landslip; drainage and hydrology; bushfire risk; and infrastructure easements. Constraints related to recent development, heritage, strata-title and community have also been examined.

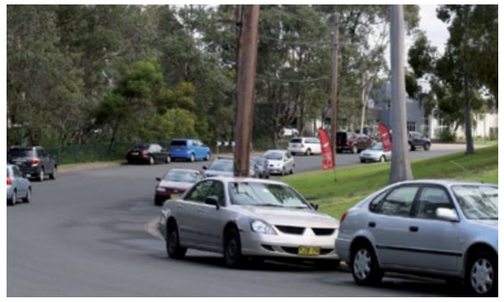
The combination of these elements will reveal the overall level of constraint within the Study Area and highlight those sites which have the opportunity to change in response to a new rail link and station at Showground Road.

The analysis of the information contained within sections 2, 3 and 4 of this report have been drawn from a number of sources including;

- The Hills Shire Council
- Department of Planning and Infrastructure
- Land and Property Information Division of NSW
- Transport for NSW.

Figure 3: Showground Station precinct, showing station location, study area boundary and Key Land Uses
Source: Google Maps 2012





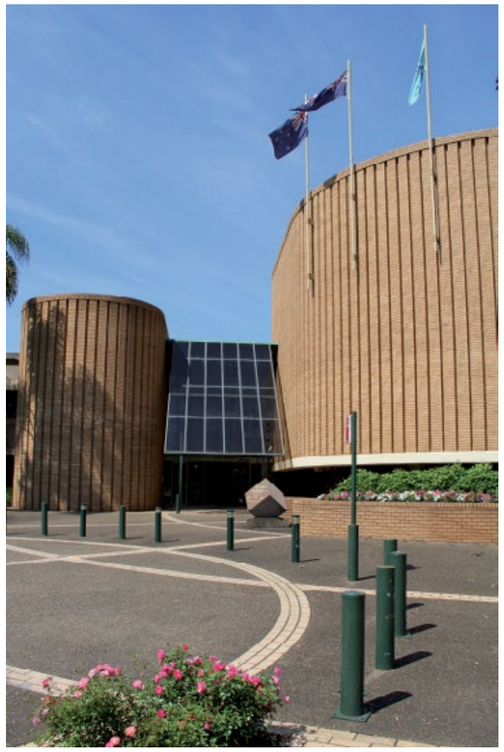


Figure 4: Images illustrating the existing built form and character within the Study Area
Source: TfNSW

Showground Draft Structure Plan
2. Opportunities & Constraints Analysis

2.2 TRANSPORT, TRAFFIC & ACCESSIBILITY

The study area is accessible from three principal routes – Showground Road to the north, Windsor Road to the west and Victoria Avenue through the centre. Showground Rd traverses in an east-west direction, linking the Study Area eastwards and westwards to Castle Hill and North/Bella Vista Business Park, respectively. Windsor Road provides the main north-south connection between the M2 Motorway and suburbs to the north including Beaumont Hills and Kellyville. Victoria Road provides the major north-south link within the Study Area and runs through the existing light industrial area. Carrington Road is a secondary road providing an east-west connection between Showground Road and Victoria Road.

Within the existing light industrial area, the street pattern is large-grain and connective, feeding mainly onto Victoria Avenue and Windsor Road. In the low density residential area the road network is fine-grain and mainly connective, except around Cockayne Reserve where there are a number of culs-de-sac.

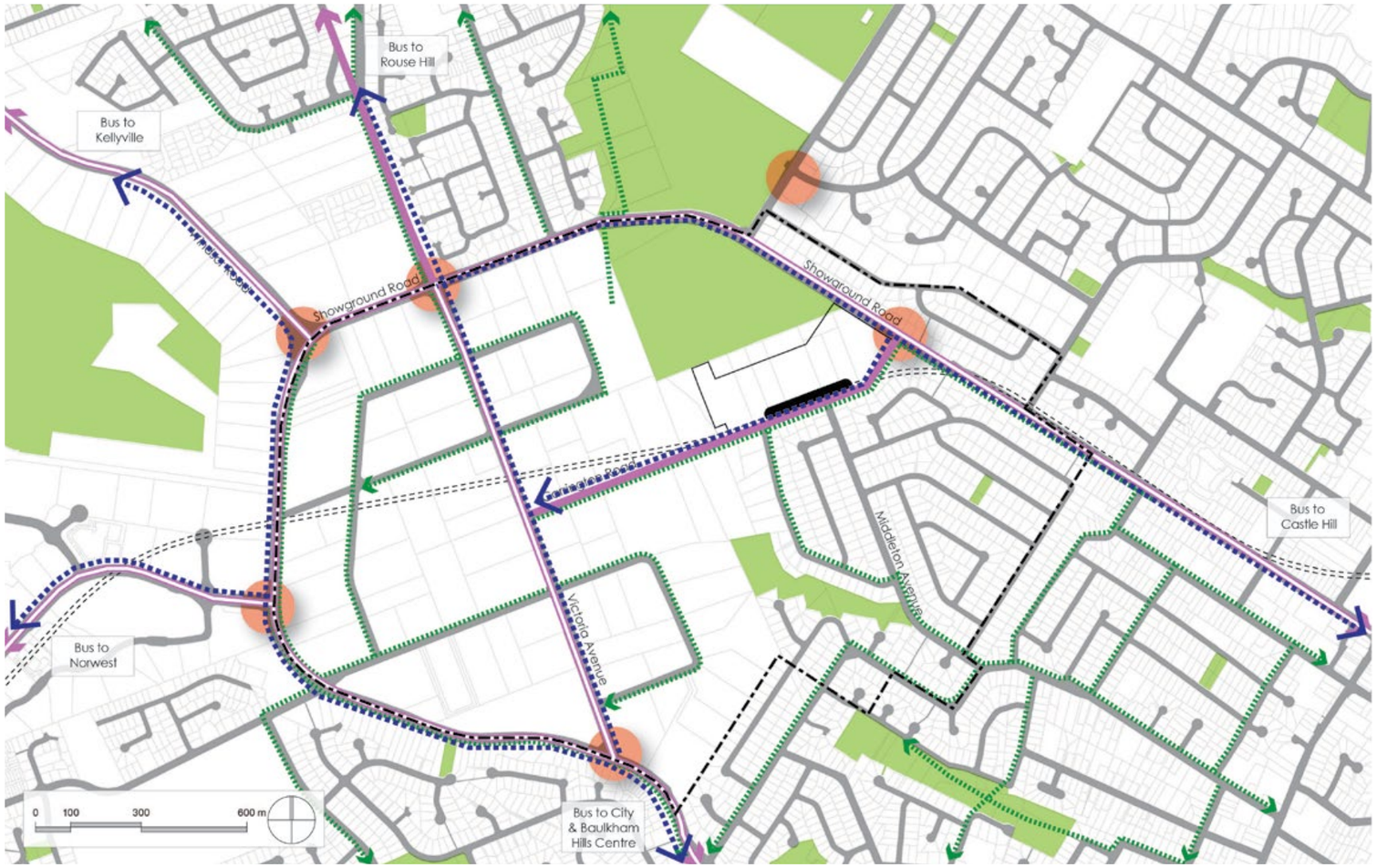
Cycling and pedestrian infrastructure is disjointed throughout the study area. The absence of dedicated cycling lanes creates a hostile environment for active modes of transport. Bus services are provided along Victoria Avenue, Windsor Road and Carrington Road.

Figure 5 below demonstrates the 5, 10 and 20 minute walking catchments from the proposed station location. Within the Study Area, pedestrian and cycling accessibility is restricted by barriers associated with the lack of connectivity between the station and the existing industrial area.

Legend

Study Area Boundary
Station Location
10 minute walk
Station Precinct
5 minute walk
20 minute walk

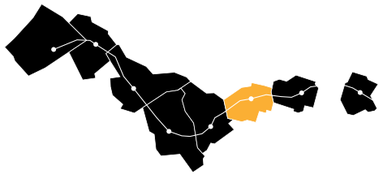
Figure 5: Walking Catchment within the Study Area



Legend

Study Area Boundary
Primary Road
Secondary Road
Existing Bus Route
Existing Cycle Route
Traffic Signals
Station Precinct
Station Location

Figure 6: Access & Movement within the Study Area



2.3 OPEN SPACE & CONSERVATION

Key open spaces within the study area include;

- Castle Hill Showground
- Cockayne Reserve
- Small pocket parks between Chapman and Dawes Avenues.

In terms of biodiversity, the Study Area contains an area of Shale/Sandstone Transition Forest, an Endangered Ecological Community under the *NSW Threatened Species Conservation Act 1995* and the *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, linear in shape, running north-south from the Showground oval in the north to the residential areas in the south, which is partly located within Cockayne Reserve. This tract of sensitive vegetation is a continuation of Fred Caterson Reserve to the north, which is separated by Showground Road.

An isolated pocket of Cumberland Plain Woodland, an Endangered Ecological Community under the *Threatened Species Conservation Act 1995* and the EPBC Act, is located at the north-west corner of the Study Area. The remainder of the Study Area is free from significant vegetation constraints.

Detailed ecological studies will be required to identify impacts on native vegetation and threatened flora and fauna as part of any future rezoning investigations within the Study Area.

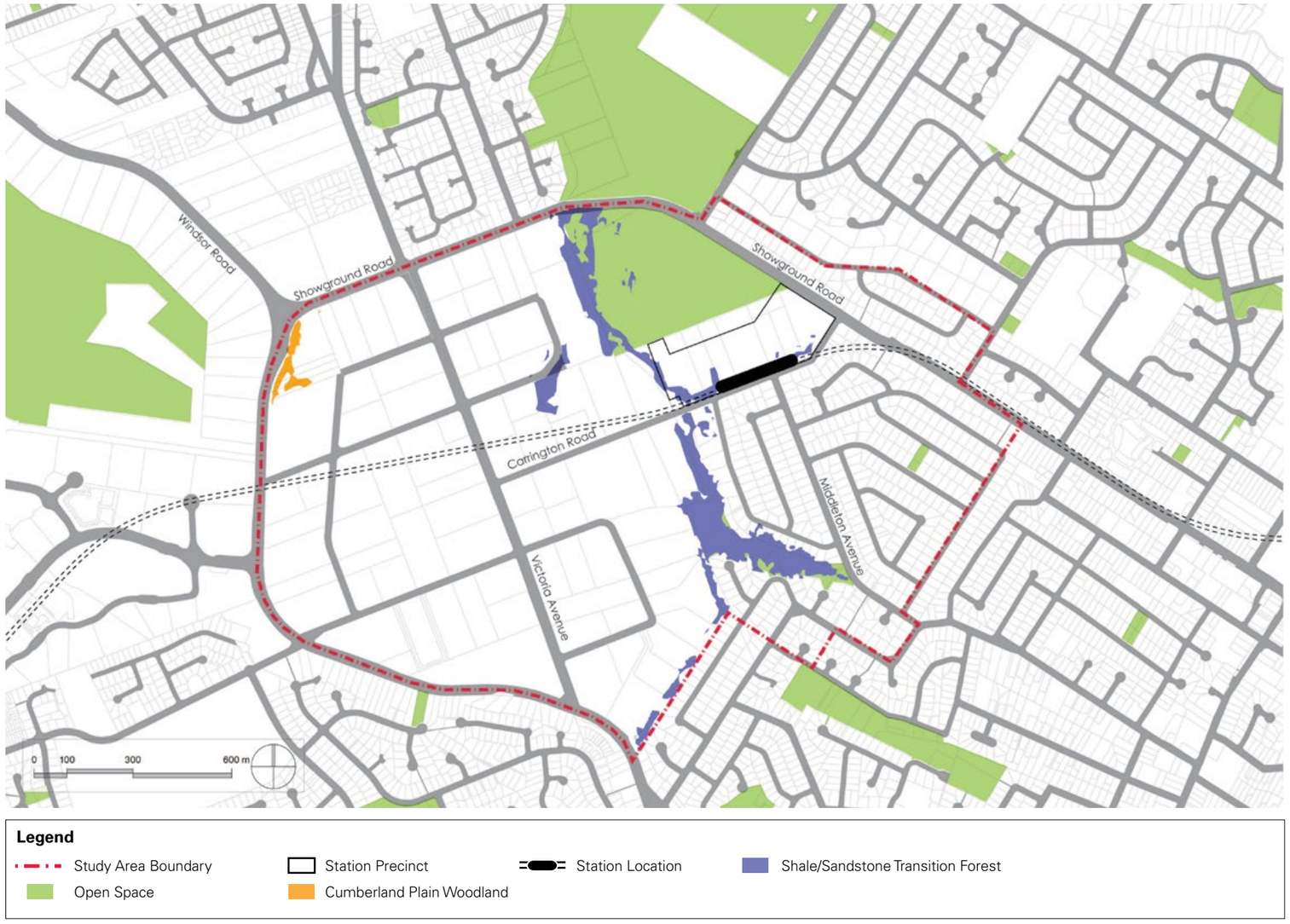


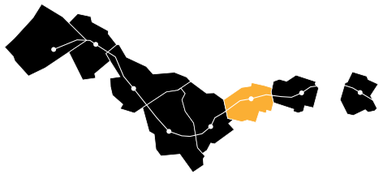
Figure 7: Open Space & Conservation within the Study Area

Showground Draft Structure Plan
2. Opportunities & Constraints Analysis

2.4 HERITAGE

There are two heritage items of local significance located within the Study Area. Windsor Road, from Baulkham Hills to Box Hill, is also identified as a heritage item of local significance.

Figure 8: Heritage Items within the Study Area



2.5 TOPOGRAPHY

The topography within the Study Area is largely undulating, forming a bowl around the Cattai Creek drainage channel that broadly runs south-to-north from Cockayne Reserve, through the western edge of Castle Hill Showground and on to Cattai Creek.

Heights within the Study Area range between approximately 64-124 metres above sea level. The highest points within the Study Area are located near the intersection of Windsor and Showground Road, and Dawes Avenue and Fishburn Crescent.

Figure 9: Topography within the Study Area

2. Opportunities & Constraints Analysis

2.6 DRAINAGE

The Study Area is located within the Cattai Creek catchment. Cattai Creek first emerges from the stormwater drains in Cockayne Reserve and flows north along the western boundary of Castle Hill Showground through Fred Caterson Reserve before eventually draining into the Hawkesbury River to the north.

Land adjoining the creek, which includes land in industrial and residential use, has a risk of flooding. However, this flood prone land largely coincides with significant open space corridors identified in this report.

Given the significant area of drainage catchment within the Study Area, controls governing stormwater capture, treatment and re-use will need to be devised to govern any future growth.

The flooding information captured in this report is preliminary and a detailed flooding study will need to be undertaken at master plan, rezoning or development application level.

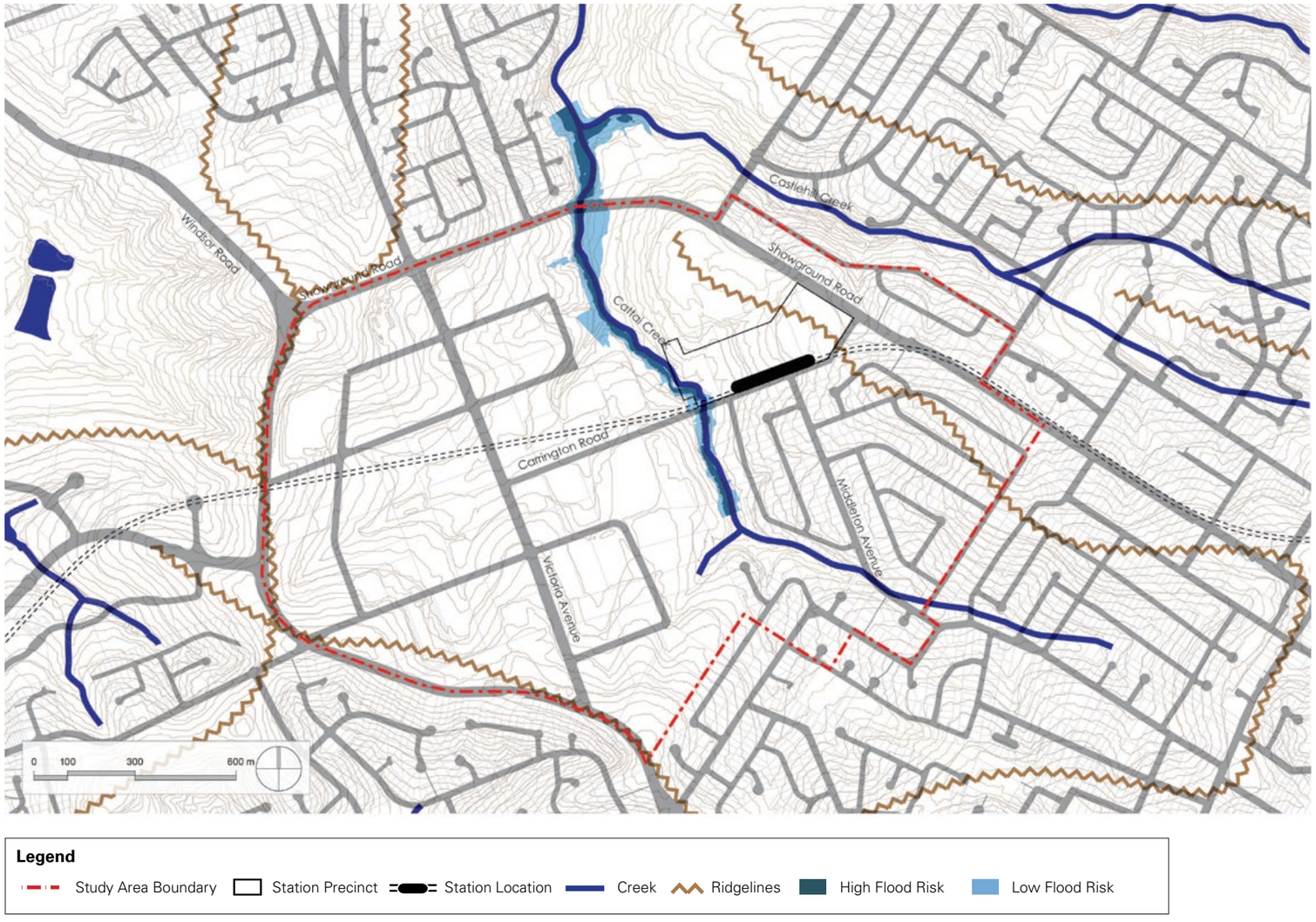
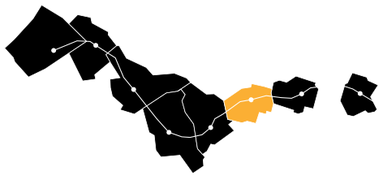


Figure 10: Drainage within the Study Area



2.7 RECENT RESIDENTIAL DEVELOPMENT

The assessment of recent residential development includes any development that has occurred over the last 15 years.

An analysis of recent development indicates that incremental low density residential development has occurred on a very limited number of sites since 1998. These sites are in dispersed locations, north and south of Carrington Road and east of Showground Road, in the east of the Study Area.

Consideration has been given to the condition and age of the existing building stock and impact of these factors on the likelihood of land being redeveloped in the lifetime of the Draft Structure Plan. Recent development is considered a short to medium term constraint to development as the average life cycle of a building is generally 30-40 years. A proportion of dwellings within the Study Area have been recently built and/or are of sufficient quality to be excluded as potential urban renewal redevelopment opportunity sites in the short to medium term. Refer to section 4 for an overview of the opportunity sites within the Study Area.

Figure 11: Recent Residential Development within the Study Area

Showground Draft Structure Plan
2. Opportunities & Constraints Analysis

2.8 OTHER CONSTRAINTS

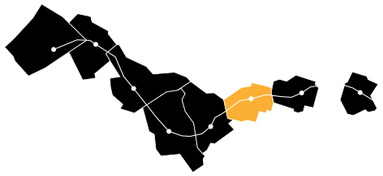
There are a number of sites scattered within the existing industrial areas that are governed by strata title or community title arrangements. Two residential sites within the existing low density residential area are also subject to strata title ownership.

Land governed by strata or community title arrangements are considered a constraint to redevelopment, as under current legislation, the approval of all owners and lenders is first required. Accordingly, these schemes are not likely to contribute to the future residential capacity of the Study Area in the foreseeable future.

A parcel of bushfire prone land, classified as a 'Bushfire Zone Buffer', is located in the north of the Study Area, on land within the Castle Hill Showground.

As a result of its highly urbanised nature, the remainder of the Study Area is free of constraints related to bushfire risk.

Figure 12: Other Constraints within the Study Area



2.9 COMBINED CONSTRAINTS

The constraints mapping indicates there are large portions of the Study Area that are constrained.

Pockets of significant vegetation scattered across the Study Area are likely to restrict any potential growth in this area.

A number of sites within the existing industrial area, governed by strata and community title arrangements, are not likely to contribute to the future employment capacity of the Study Area into the foreseeable future.

The Cattai Creek drainage corridor running through the Study Area is a constraint but can provide the opportunity to increase community facilities, active recreation and passive recreation spaces that contribute to increased levels of amenity for workers and residents of the area in the future.

Figure 13: Combined Constraints within the Study Area

Showground Draft Structure Plan
3. Planning Controls

3.1 INTRODUCTION

This section reviews the existing land use, height, floor space and lot size controls that apply to land within the Study Area.

The key planning controls applying to the Showground Study Area are included in *The Hills Local Environmental Plan 2012*.

Additional relevant controls are also contained in *The Hills Development Control Plan 2011*.

3.2 LAND USE

The majority of lands in the west of the study area, comprising existing light industrial and commercial premises, are zoned for IN2 Light Industrial. Bulky goods retail and commercial uses at sites along Victoria Road are zoned B5 Business Development. In the east, the existing Council Depot and administrative offices are zoned mixed use and B2 Local Centre, with provision for housing (R1 General Residential) to the east. The Castle Hill Showground site is zoned RE1 Public Recreation. Existing low density residential areas in the south-east are zoned R2 Low Density Residential.

A plan illustrating the Study Area's existing zoning controls is provided in *Figure 14: Zoning Controls*.

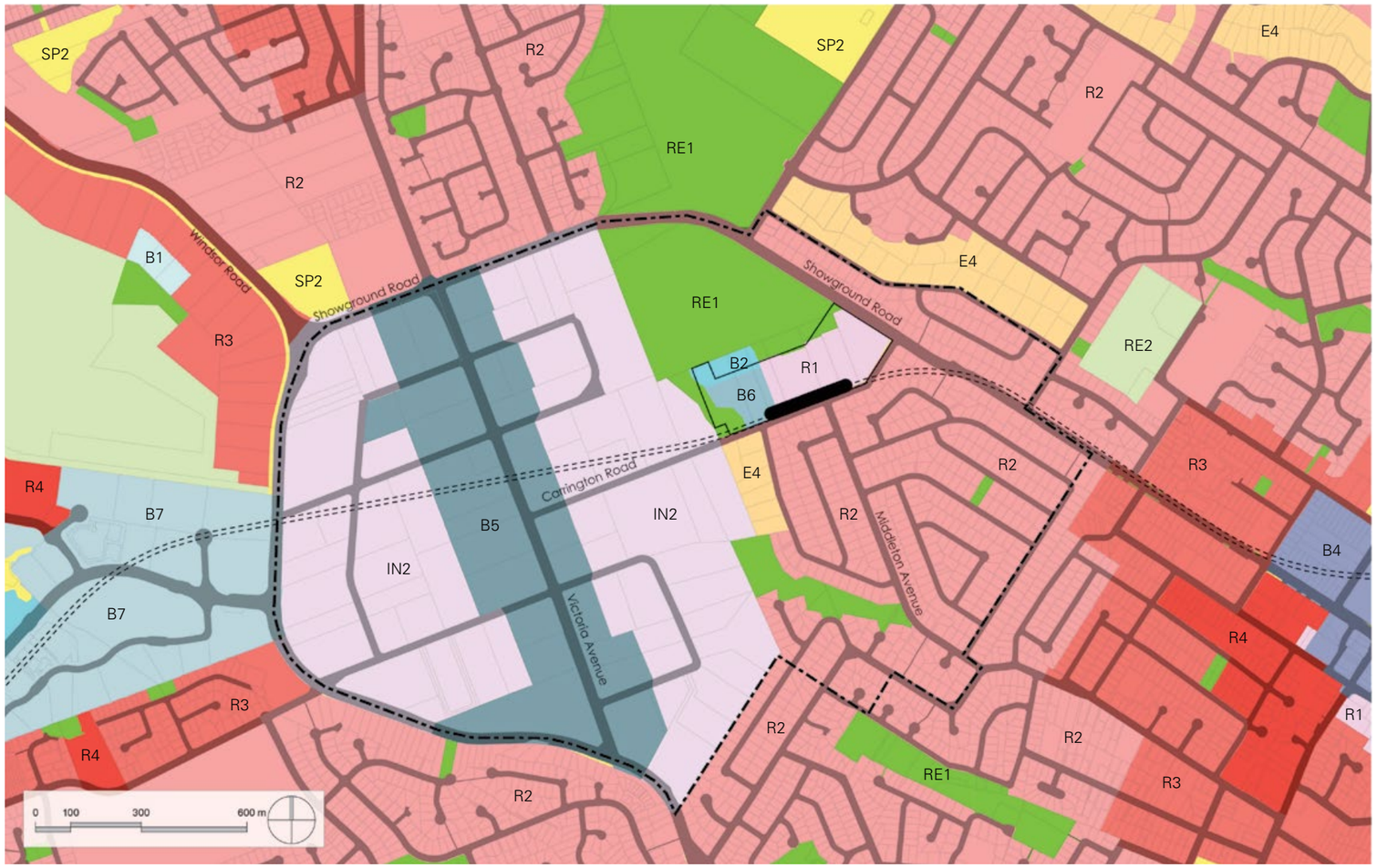
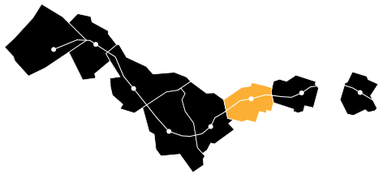


Figure 14: Zoning Controls within the Study Area



3.3 BUILDING HEIGHT

Lands within the Study Area are subject to height controls under the The Hills LEP 2012. The majority of lands zoned for low density residential uses (R2) would be restricted to a 9m height limit. Sites currently occupied by the Hills Shire Council administrative offices, south of the Showground are subject to 12m and 16m height controls. Lands in the west of the study area, comprising lands zoned for light industrial and business development uses, are subject to a 20m height control.

Figure 15: Building Height Controls within the Study Area

Showground Draft Structure Plan
3. Planning Controls

3.4 LOT SIZE

For light industrial and business development lands in the west of the study area, the minimum lot size controls are predominantly 8000sqm. In the east of the Study Area, the low density residential lands, the Showground Station Precinct and sites currently occupied by Council buildings are subject to minimum lot sizes of 700m2. A number of large lot residential sites to the south of Carrington Road are subject to a minimum lot size of 2,000m2.

A plan illustrating the existing zoning controls is provided in *Figure 16: Minimum Lot Size Controls*.

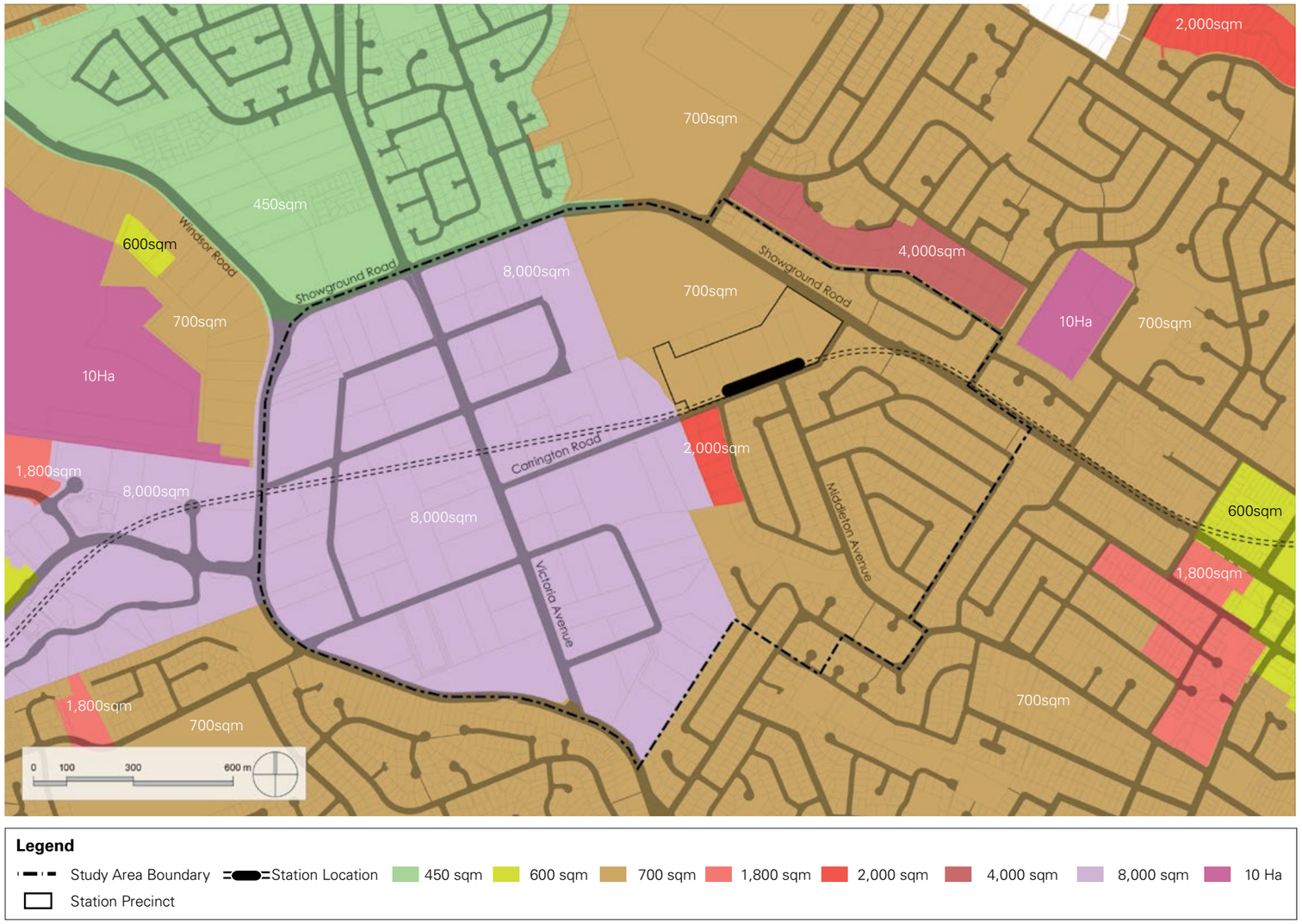
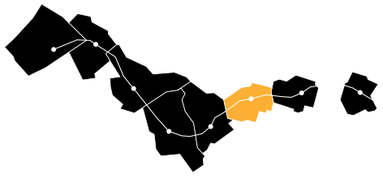


Figure 16: Minimum Lot Size Controls within the Study Area



3.5 FLOOR SPACE RATIO

Floor space ratio (FSR) controls refer to the relationship of the permitted built form to the area of a site.

Under The Hills Local Environmental Plan 2012, the majority of the Showground Study Area has an FSR of 1:1.

A plan illustrating the existing zoning controls is provided in *Figure 17: Floor Space Ratio Controls*.

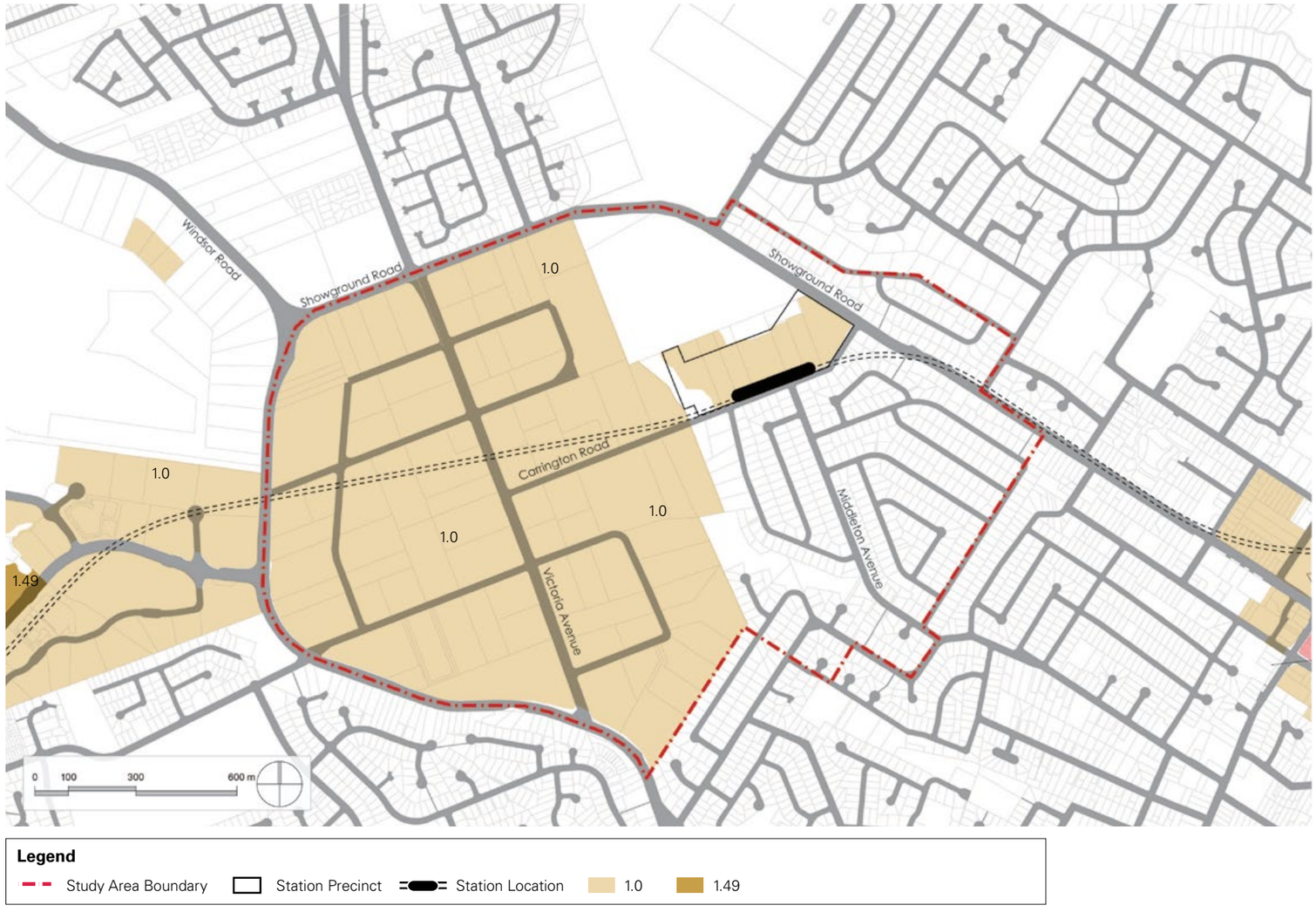


Figure 17: Floor Space Ratio Controls within the Study Area

Showground Draft Structure Plan
4. Opportunities for Growth

4.1 OPPORTUNITY SITES

The outcome of the opportunity and constraints analysis and existing planning controls of the Study Area leads to the identification of sites that could make a contribution to the evolution of the Study Area in response to a new rail link and station.

Those sites which are unconstrained present opportunities for renewal within the Study Area. This includes short term opportunity sites that may be renewed prior to 2036 and long term opportunity sites that are subject to recent residential development, however, due to the average 30-40 year building lifespan, may present opportunities for renewal beyond 2036.

The diagram adjacent highlights these opportunity sites, both short and long term. The sites located to the west of the proposed station present the fewest constraints with good connectivity and within walking distance of the proposed Showground station. Contiguous opportunity sites may also allow for the amalgamation of lots in to larger single landholdings.

In the Showground Study Area, the most significant constraints are biodiversity and open space, strata ownership and land zoned for road widening. Despite these constraints, a large proportion of the Study Area has potential to be redeveloped. Opportunity sites include lands located around the proposed station, the existing light industrial area and the low density residential area in the south-east.

The review of the existing planning controls demonstrates that controls in the east of the Study Area limit residential development to low density outcomes. While it is important to retain the leafy suburban character of the area, residential densities within walking distance to the station, particularly in areas that have not seen much redevelopment in the last 15-20 years, are suitable for medium densities.

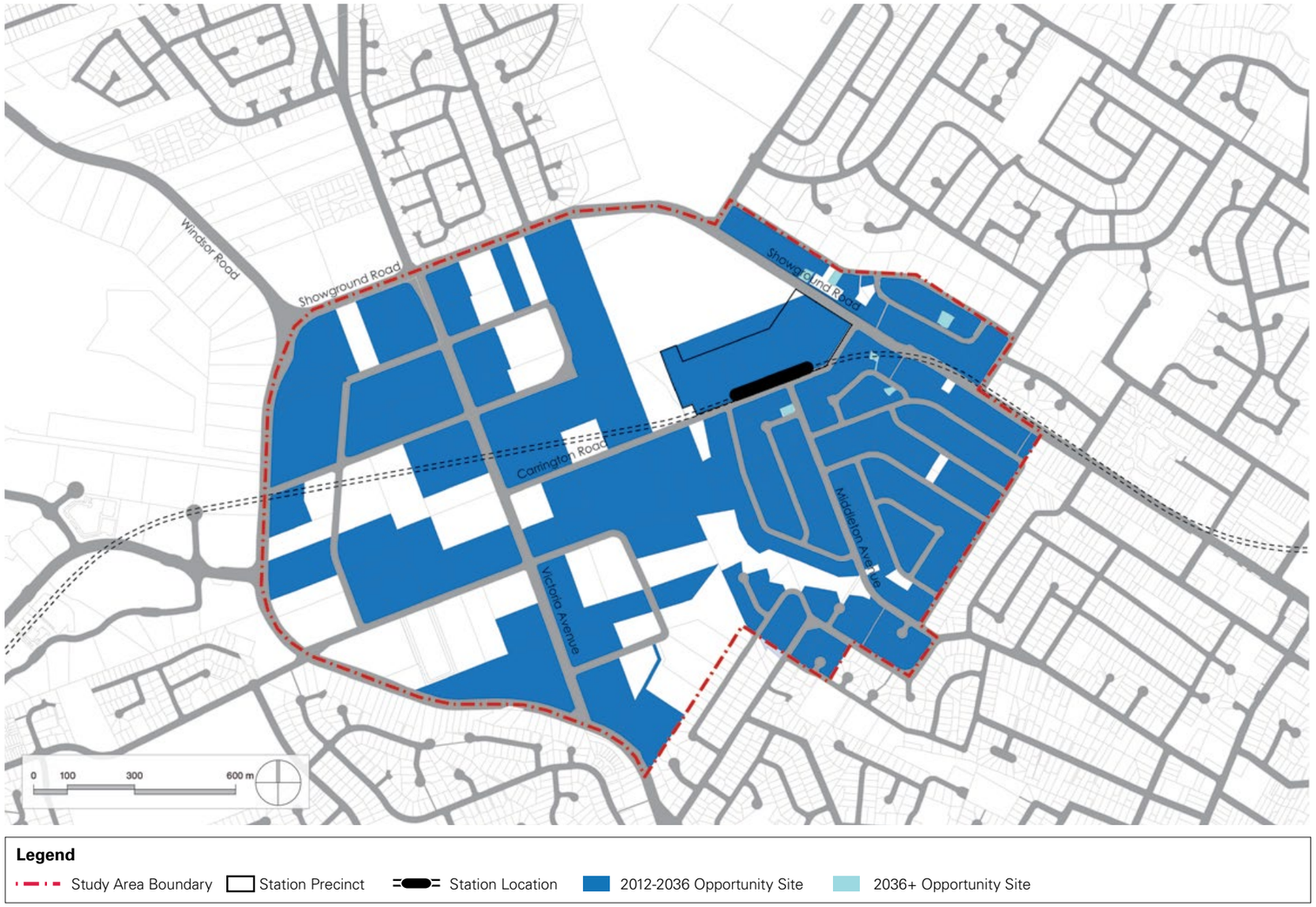
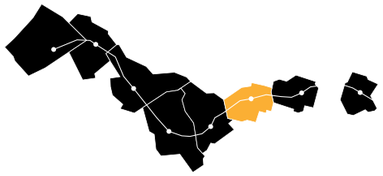


Figure 18: Opportunity Sites within the Study Area



4.2 PROJECTED GROWTH UNDER EXISTING CONTROLS

Under the planning controls contained within the *The Hills Local Environmental Plan 2012*, the opportunity sites within the Showground have a variety of land use, height, floor space and minimum lot size controls and could deliver a variety of uses including retail, commercial and residential.

Within the industrial, business development and local centre zones, development is governed by a permissible FSR of 1:1.

A large proportion of sites within the business development and industrial areas are already developed at 50% (or above) optimisation for the site and at the optimal level for their purpose, i.e. bulky goods retailing with a large proportion of surface car parking. Therefore it is unlikely that under the current FSR controls there will be any significant renewal or uplift within the industrial or business development zones in response to the NWRL.

The existing Council depot and future location of Showground station is zoned a mixture of B6 Enterprise Corridor and B2 Local Centre and the Council Administrative offices and the Showground zoned for General Residential.

These controls permit up to 5 storey business, office, retail, light industrial buildings and apartments in certain locations. To achieve the desired height and FSR under the controls, 5 storey buildings would have a relatively low site coverage of 33%-20%.

In areas zoned low density, residential controls permit 3-storey single detached dwellings on minimum lots of 700sqm or dual-occupancy dwellings on minimum lot sizes of 600sqm. For industrial and business development areas, up to 4 storey development is permitted on minimum lot sizes of 8,000sqm.

An assessment of these current controls on the opportunity sites reveals that the capacity for future growth within the Study Area is predominantly within the industrial and bulky goods retail markets.

The current controls for the Study Area could result in an additional 1,250 jobs (achieved through organic renewal of buildings over time) and 400 dwellings (including 150 apartments on the Council Administration site).

The existing planning controls require some amendments to reinforce the delivery of such a significant investment in infrastructure such as the NWRL. Current controls do not do enough to promote the growth of the Showground as a centre for civic, employment and residential uses, with moderate capacity for an increase in both jobs and housing. Therefore, the vision and draft structure plan contained within this report will detail the desired future character of the area and proposed land uses to complement the new rail link and station.

	RESIDENTIAL		EMPLOYMENT	
	TOTAL DWELLINGS	GROWTH	TOTAL JOBS	GROWTH
2012	750	-	**7,500**	**-**
2036	1,150	400	**8,750**	**1,250**

Table 4.1: Projected growth in Housing and Jobs under existing controls

Showground Draft Structure Plan
5. Vision & Structure Plan

5.1 VISION FOR THE STUDY AREA

The introduction of the NWRL and a station in the Showground Precinct has the potential to provide the catalyst for the development of the area as a mixed use centre with strong public transport links to the city and other centres throughout the north-west region. A new station will provide further impetus for the area to evolve as a vibrant and active Centre comprising offices, retailing, community facilities, recreation, cultural, leisure, education and housing within walking distance of a new station.

Increased utilisation of the existing employment area could deliver a significant amount of jobs for the future residents of the North West in an area with high levels of amenity, recreation and access to public transport.

Similarly, the NWRL will also provide opportunities to increase residential densities within walking distance of the station, introducing a variety of housing types to ensure there is affordable and appropriate housing for all members of the community.

The redevelopment of major land holdings adjacent to the station provides an opportunity to deliver a vibrant hub for the local area, which could include a mixture of apartments, retail, restaurants, and potentially cultural facilities such as galleries and theatres and boutique office space within a pedestrian-oriented environment.

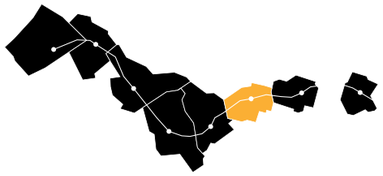
The showground will remain a regional recreational asset and benefit from increased activity generated by the new residents, workers and visitors to the station.

The introduction of the NWRL will enable the Showground Station Precinct to become a transport hub for the local area, centred on a new train station and integrated with a bus interchange. The Showground station will be connected to a local feeder bus network that provides direct access for the residents of the surrounding suburbs to the NWRL and the wider Sydney Rail network.

The Study Area will provide opportunities for increased employment and housing capacities within walking/cycling distance of the station, while ensuring the local amenity, open spaces and natural environment are protected. The vision will be achieved by: identifying and assembling strategic sites and government landholdings within the Centre to attract public and private investment around a vibrant mixed-use core; and improving livability and amenities within the Centre by providing a diverse range of dwellings, retail, recreation and cultural opportunities linked by an enhanced public domain.

Underpinning this vision will be the final Structure Plan, formulated on the principles of Transit Oriented Development (TOD). TODs are generally 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 for the majority of trips.

Figure 19: Images depicting the desired future character of Showground



5.2 PROPOSED DRAFT STRUCTURE PLAN

The Draft Structure Plan is the framework which will guide future planning within the Showground Study Area. It is the result of assessing the natural and built elements of the Study Area and existing planning controls. It is founded on principles of providing where possible greater connectivity and strengthening links between the station and surrounding uses.

Drawing on the analysis and existing land uses, the Study Area is proposed to become a vibrant and active hub comprising offices, light industry, retailing, community facilities, recreation, cultural, leisure, education and housing for the greater North West.

To the immediate west of the station precinct, it is proposed that over time a more intensive commercial employment will occur within the existing industrial area bounded by Showground Road to the north, the Castle Hill Showground to the east, Gladstone Road to the south and the bulky goods retail corridor of Victoria Avenue to the west. This commercial precinct will benefit from a number of public domain upgrades and direct access to station and the associated retail and recreation opportunities.

Victoria Avenue is to be reinforced as a bulky goods retail corridor which will provide a vital service function for the growing population of the North West in to the future. To the south and west of the Study Area, existing areas of industry will be retained and reinforced in to the future which perform a vital function by providing certain types of employment, services and goods for the people of the North West.

Residential uplift is proposed within the Study Area primarily located within the area adjacent to the new station. The Draft Structure Plan provides the opportunity for a range of higher density residential development within the mixed-use village. These buildings will benefit from access to the recreation space of the Showground, the green corridor of Cattai Creek, ground floor activity of retailing and restaurants and direct access to the station and the NWRL. To the east of the station, a variety of medium density living will be located within the residential areas within an easy 10-minute walk of the station to provide a diversity of housing within an attractive and accessible Centre to cater for the growing population of the North West.

New links are proposed in locations within the Study Area where they will enable intensification of the existing broad-grain road layout by enhancing connectivity and permeability. These links could be either pedestrian or vehicular connections and would be subject to detailed analysis to determine the most appropriate location and configuration. Drawing on existing significant vegetation and parks, a green network is proposed linking Cockayne Park, Castle Hill Showground and Fred Caterson Reserve. This link will become a significant pedestrian thoroughfare, linking the key attractions within the Study Area and will also provide significant habitat for wildlife within the Study Area.

The ring road network formed by Showground Road and Windsor Road will remain significant to connect the Showground with the Norwest and Bella Vista Business Parks and Castle Hill whilst removing a large proportion of regional through traffic from the Precinct. Gateway or entry demarcation points are proposed at entry points to the Study Area at Norwest Boulevard, Windsor Road, Victoria Avenue and Carrington Road. These are likely to take the form of a change in streetscape or defined built form.

The redevelopment of sites within the Study Area, and the establishment of a new station and transport interchange, will provide significant opportunities to improve the Study Area's public domain.

The primary public domain initiative nominated within the Showground Draft Structure Plan is the upgrading of the streetscapes in and around the proposed station precinct. The creation of new and widening of existing footpaths, providing barrier-free access and introducing attractive and appropriate street furniture will be required to reinforce the introduction of the NWRL and a new station at the Showground.

Upgrading the public domain of the Showground can be achieved through a number of initiatives:

1. The creation of new open space linkages, streets and connections between transport, new and existing housing, commercial, retailing and civic spaces.

2. The protection of existing green spaces within the Study Area which form part of the Showground identity, such as Cockayne Reserve south of the station; and the Castle Hill Showground north of the station and the strengthening of the link between these significant open spaces.

3. The provision of additional urban plazas, parks and open spaces for the amenity of existing and future residents and workers, particularly within the station precinct

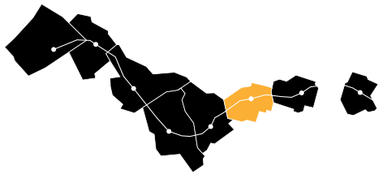
A Public Domain Strategy will be required to detail the delivery of the above initiatives and to guide the broader character of the public domain within the Study Area. This Strategy will need to address a legible hierarchy of streetscapes, treatment of open spaces and plazas, preservation of ecological corridors, pedestrian and cycling linkages, built form response to public and private open space, signage and wayfinding, street furniture, lighting and public art.

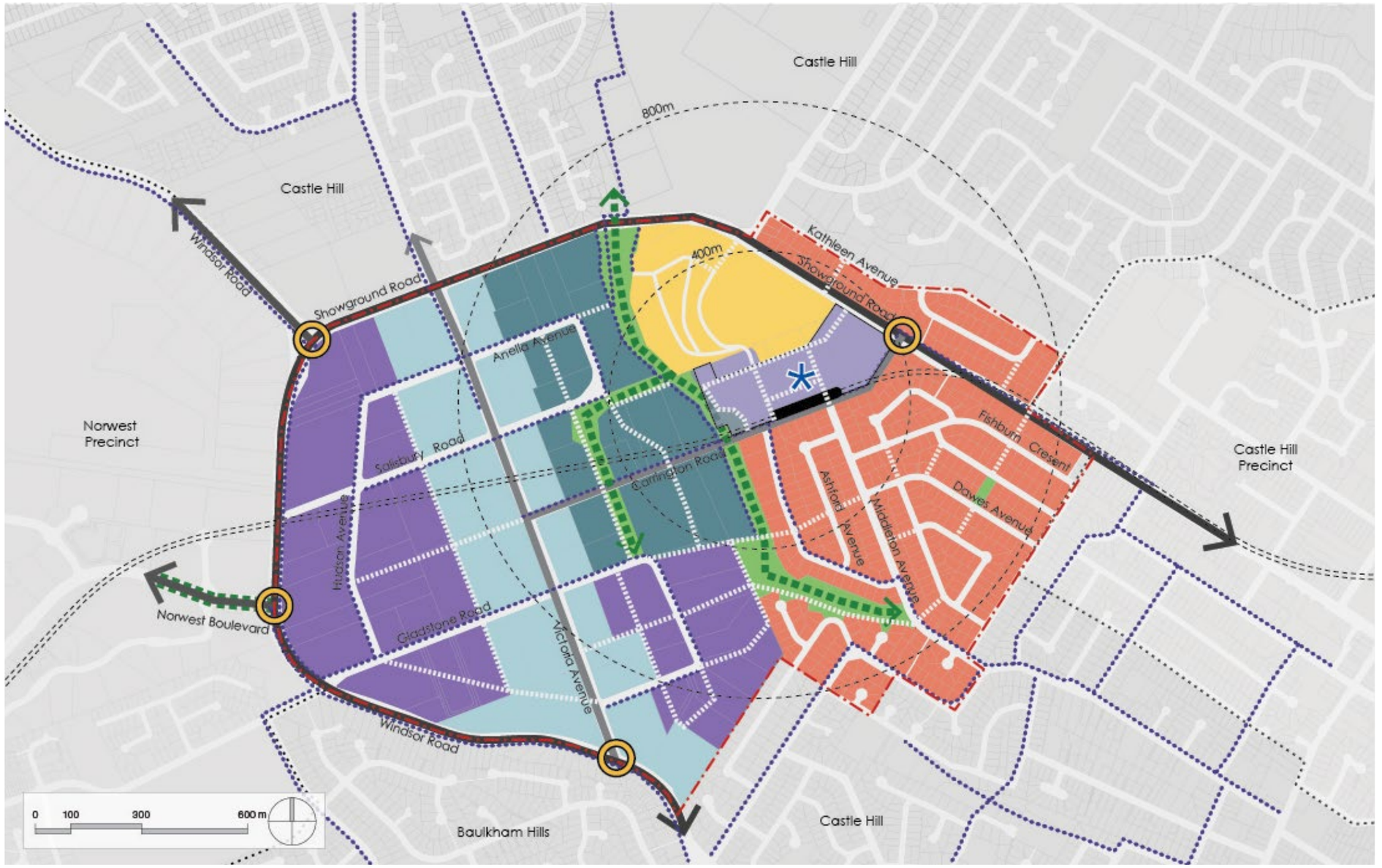
To complement the introduction of the NWRL to the Study Area a number of transport, movement and accessibility initiatives will need to be delivered to ensure safe and attractive movement to, from and within the Study Area.

Within the Showground Study Area, the key connectivity issue is pedestrian access across Showground Road, Victoria Avenue and Carrington Road to and from the core of the Showground and the proposed station location. The anticipated growth within the Draft Structure Plan and increased activity around the new station will require a number of pedestrian priority measures, such as signalised crossings and dedicated off-road paths to provide safe and attractive pedestrian and cycle access to the station from the south.

There are opportunities for dedicated, sealed cycling and pedestrian paths along Carrington Road and Victoria Avenue, which have generous setbacks available in the road reserve for such infrastructure. Pedestrian priority crossings and adequate street lighting will need to be implemented at key locations, such as along Victoria Avenue and Carrington Road, to ensure pedestrian safety and encourage walking, particularly from the residential areas in the south-east to the location of the new station.

Complementing these connections within the core will be a number of new links through the revitalised areas of medium density living, employment area and the mixed use village directly adjacent to the station and Centre. The existing large blocks will be renewed and deliver a network of mid-block connections, linking the gardens and plazas of the apartment buildings, internal courtyards of the commercial offices and the pedestrian streets of the mixed use village with the parks, Showground and transport interchange of the Centre.





Legend

- Study Area Boundary
- Station Location
- Station Precinct
- Primary Road
- Secondary Road
- Bulky Goods
- Mixed Use
- Employment
- Light Industrial
- Cultural/Leisure/Education
- Medium Density Residential
- Open Space
- Cycle/Pedestrian Link
- Green Link
- Indicative New Link
- Gateway
- Proposed New Local Centre

Figure 20: Draft Structure Plan for the Showground Study Area

Showground Draft Structure Plan
5. Vision & Structure Plan

5.3 FUTURE PRECINCT CHARACTER

The following diagrams and images demonstrate the desired future character for the sites which may contribute to the growth of the Showground Precinct in the future.

Station Precinct/Mixed Use Core

Objectives: To provide a mixed-use, leisure-focused precinct and local centre providing for the day to day needs of residents, that suits the surrounding character and is located in close proximity to the proposed station.

Character: It is anticipated that under the vision and draft structure plan this precinct could accommodate retail, commercial and residential uses that would complement the character of the local area. It would create a mixed use local centre that is carefully designed to integrate into the existing streetscape. This precinct would also provide residents with direct access to the new rail link and station which would be located underground.

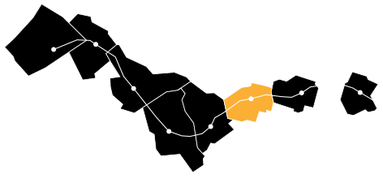
Figure 21: Proposed Location of Station Precinct

Figure 22: Proposed Location of Public Domain and Open Space

Public Domain and Open Space

Objectives: To provide attractive open spaces of high amenity for the public and protect the unique character of Showground. To integrate and connect showground with surrounding land uses and the protection of Cattai Creek.

Character: The draft structure plan identifies green open spaces for residents that are accessible and safe. They should be landscaped appropriately to integrate with and enhance the existing character of the area.



Employment

Objectives: To provide for the employment needs of a growing community and to encourage the emergence of a prominent employment area with direct access to the new rail link and station. Enhancement of the public domain will provide safe and efficient access for employment areas to surrounding uses, particularly the station.

Character: It is anticipated that under the vision and draft structure plan that this precinct could accommodate large floorplate commercial offices on sites that are carefully designed to integrate into the cultural/leisure/education area.

Figure 23: Proposed Location of the Employment Area

Bulky Goods

Objectives: To provide a vital retailing and service function for a growing community and the greater North West. As well as a public domain that provides safe and efficient access to employment areas for pedestrians and cyclists.

Character: It is anticipated that under the vision and draft structure plan this precinct could accommodate bulky good retail and service centres on sites that provide off-street parking within a landscaped setting with generous setbacks from the street.

Figure 24: Proposed Location of the Bulky Goods Area

Showground Draft Structure Plan
5. Vision & Structure Plan

Industrial

Objectives: To provide certain types of employment, services and goods for the people of the North West.

Character: It is anticipated that under the vision and draft structure plan this precinct could accommodate a variety of industrial uses on larger sites that are landscaped and that integrate into the existing streetscape.

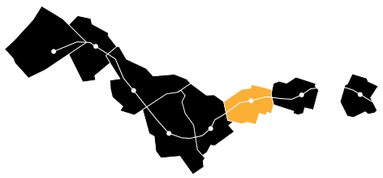
Figure 25: Proposed Location of the Industrial Area

Mixed Use Core

Objectives: To provide for residential, retail and recreation opportunities within close proximity of the station and to cater for the needs of a growing community. As well as providing an open and engaging public domain that provides safe and efficient access to the station for pedestrians and workers.

Character: It is anticipated that under the vision and draft structure plan that this precinct will evolve to become a mixed use village centre within the North West Region. This could comprise of 7-12 storey apartment buildings, carefully master planned around communal open spaces and incorporating landscaped setbacks to existing streetscapes.

Figure 26: Proposed Location of the Mixed Use Core



Medium Density Apartment Living

Objectives: To provide for the housing needs of a growing community and to provide a variety of housing types within close proximity of the station and associated uses.

Character: It is anticipated that under the vision and draft structure plan that this precinct could accommodate multi-dwelling housing only where the site is an appropriate size to deliver a high level of amenity for the existing and future residents. This could comprise of 3-6 storey apartment buildings, carefully master planned around communal open spaces and incorporating landscaped setbacks to existing streetscapes.

Figure 27: Proposed Location of Medium Density Apartment Living

Medium Density Townhouse Living

Objectives: To provide for the housing needs of a growing community and to provide a variety of housing types within close proximity of the station and associated uses.

Character: It is anticipated that under the vision and draft structure plan that this precinct will evolve to become a mixture of single detached dwellings, townhouses, duplexes and medium density apartments.

Figure 28: Proposed Location of Medium Density Townhouse Living

Areas Expected to Remain Unchanged

Within the Study Area there are areas and sites which are expected to remain largely unchanged through the delivery of the NWRL and the Structure Plan.

This is due to a number of factors including existing uses, varying degrees of constraints, connectivity, accessibility and market demand.

Figure 29: Areas Expected to Remain Unchanged

Showground Draft Structure Plan
5. Vision & Structure Plan

5.4 PROJECTED GROWTH

Calculating Projected Growth

The projected growth is a calculation of the amount of residential and employment development that is expected to take place in the Study Area. The projected growth calculations take into consideration the following factors:

- **Development on Opportunity Sites.** Development is projected to occur on the opportunity sites identified in Section 4.1 of this report.
- **The Proposed Future Character and Built Form.** The Draft Structure Plan identifies the future desired character and built form for areas within the Study Area. These character/building types have been applied to the opportunity sites.
- **Assumptions.** A series of assumptions related to the different development types have been applied to calculate the land areas required for each built form. Details can be found in the North West Rail Link Corridor Strategy.
- **Demand.** The amount, and rate of development is influenced by market demand for different types of development within the Study Area. Market demand is determined by 'take-up' or 'realisation' rates, which reflect market conditions and has been informed by a high-level feasibility analysis. Due to the high level of amenity and quality of life afforded within the Study Area at present and the added accessibility delivered by the North West Rail Link, the take up/realisation rate is considered to be 53% for housing and 28% for employment. Take-up/realisation rates have been identified for each development type and these have been used in the projected growth calculations.

Projected Growth in the Study Area

The outcome of these projected growth calculations is provided in the tables below. Total opportunity site area within the Study Area equates to approximately 163 hectares.

Application of the proposed land uses and typologies within the Draft Structure Plan will result in a total capacity for an additional 6,900 dwellings by 2036. However, it is anticipated that 53% of this capacity will be realised, delivering an additional **3,600** dwellings within the Study Area.

The proposed Draft Structure Plan will result in an additional employment capacity of 35,000 jobs by 2036. However it is anticipated that only 28% of this capacity will be realised, delivering an additional **7,700** jobs within the Study Area.

RESIDENTIAL

TYPE OF HOUSING	DWELLINGS IN 2012		DWELLINGS IN 2036		GROWTH
	TOTAL	%	TOTAL	%	TOTAL
SINGLE DETACHED	500	67%	400	9%	-100
TOWNHOUSE	0	0%	350	8%	350
3-6 STOREY APARTMENT	250	33%	2,600	60%	2,350
7-12 STOREY APARTMENT	0	0%	1,000	23%	1,000
TOTAL DWELLINGS	**750**	**100%**	**4,350**	**100%**	**3,600**

Table 5.1: Projected Residential Growth in Showground under the Draft Structure Plan

EMPLOYMENT

TYPE OF JOBS	JOBS IN 2012		JOBS IN 2036		GROWTH
	TOTAL	%	TOTAL	%	TOTAL
COMMERCIAL	1,000	13%	6,400	42%	5,400
RETAIL	0	0%	800	5%	800
BULKY GOODS	4,000	53%	5,500	36%	1,500
INDUSTRIAL	2,500	33%	2,500	17%	0
TOTAL JOBS	**7,500**	**100%**	**15,200**	**100%**	**7,700**

Table 5.2: Projected Employment Growth in Showground under the Draft Structure Plan

Demand Analysis

A high level demand analysis has been undertaken to ascertain the demand for potential development scenarios on opportunity sites within the Study Area. The analysis:

- Assessed the proposed future desired character and built form, including densities, as proposed under the Draft Structure Plan, against market conditions and demand; and
- Identified take-up/realisation rates for each land use within the Study Area, which informed the calculation of projected growth.

Outcomes of the demand analysis:

1. **Demand for Additional Dwellings**. Future demand for additional residential development in the Study Area is estimated to be in the order of **165** dwellings per annum comprised of 25% 7-12 storey apartments, 65% 3-6 storey apartments, and 10% townhouses in addition to existing stock resulting in the total dwelling diversity shown in the adjacent table in 2036. Such demand is related to the high level of amenity and quality of life afforded within Showground, the demand for housing diversity and improved access to social, recreational and employment opportunities as a result of the North West Rail Link.

2. **Demand for Employment Lands**. Future demand for additional employment (commercial, retail, bulky goods and industrial) floorspace within the Study Area is projected to increase within the Study Area at a rate of **5,200m2** p.a. of commercial, **1,000m2** p.a. of retail, **4,000m2** of bulky goods whilst industrial remains a constant.

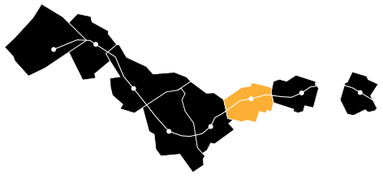
3. **Type and Location of Development.** The demand analysis supports the provision for 7-12 storey and 3-6 storey garden apartments within the mixed use station precinct and within close walking distance of the new train station. These areas of residential uplift and renewal may serve as the catalyst for regeneration within the broader precinct. In particular, future residents will be attracted to these areas for their levels of amenity, employment opportunities, retail and community facilities and close proximity to the station.

   The analysis supports the provision for townhouse development on the periphery of the Study Area where large single lots could accommodate 2-4 townhouses each and the possibility to amalgamate sites into larger contiguous landholdings exists.

   In terms of future employment generating development, the feasibility analysis supports the provision for retail land-use at the mixed use area around the new station to provide for the day to day needs of residents and workers and the broader regional catchment. Future retail floorspace within Showground is to be located within the mixed use station precinct and is expected to increase in line with the growth of the local population catchment.

   Showground will also provide a significant amount of employment across a variety of sectors with an employment area supported by bulky goods retailing and light industrial.

Showground Draft Structure Plan
6. Actions and Implementation



6.1 INTRODUCTION

The Draft Structure Plans for the NWRL Station Precincts are to be considered at the strategic planning level, similar to that of the Subregional Strategies for Sydney. The Draft Structure Plans will inform, and be implemented through, appropriate zonings, amendments to built form controls and to guide the assessment of major projects and development applications within the Study Area.

To deliver the Draft Structure Plan's projected growth, zoning and planning controls for the study area will require review. Current controls, such as those relating to minimum lot size, height, and FSR constrain intensification of land use and thus should be revisited. Similarly, Development Control Plans, Section 94 Schemes and Public Domain Strategies may also need to be revised in light of the NWRL. Current parking policies and minimum apartment sizes are constricting the type and variety of dwellings being offered within the study area.

The above will be carried out in consultation with relevant agencies, stakeholders and key landholders. Other matters for consideration include public domain, transport, accessibility and infrastructure servicing.

6.2 PUBLIC DOMAIN, URBAN DESIGN & OPEN SPACE

Consideration is to be given to public domain and open space planning for the study area including:

- Streetscapes, with open space linkages and connections to transport, new and existing housing and open space, commercial, retailing and civic spaces,
- The need for open spaces and civic spaces,
- Preservation of existing green spaces,
- Pedestrian and cycling linkages,
- Built form response to public and private open spaces,
- Signage and wayfinding,
- Street furniture, lighting and public art.

6.3 TRANSPORT, MOVEMENT AND ACCESSIBILITY

Consideration is to be given to transport, movement and accessibility planning for the study area including:

- Safe and efficient movement to, from and within the Study Area,
- Improvements to connectivity, particularly for non-vehicular transport modes, to the new station and new centres including the identification and provision of cycle and pedestrian infrastructure along key routes within the study area,
- Identification of improvements to bus networks serving the precinct,
- Parking requirements,
- Road upgrades, including local road widening, to accommodate increased movements associated with the introduction of a new rail station in the Showground Study Area,
- Bus, taxi, kiss n ride interchange which is integrated with the stations.

6.4 INFRASTRUCTURE AND SERVICES

The projected growth in population and employment within the Study Area will require consideration of infrastructure networks, such as water, sewer, electricity and gas to meet projected demand.