

# **Airport Link**

## **Phase 2 – Detailed Feasibility Study**

### **CHAPTER 12**

#### **LAND USE AND PLANNING**

■ October 2006

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## 12. Land Use and Planning

*This Chapter addresses section 5.7 of the Terms of Reference. It describes the existing land uses and the planning framework and discusses the potential impacts of the project on existing and likely future land use including:*

- *Compliance with relevant planning policies and provisions;*
- *Consistency with the SEQ Regional Plan, City Plan and its associated local plans, policies and land use designations;*
- *Compatibility of the project with the desired intent of City Plan as per the relevant planning scheme provisions and emerging urban renewal or future land use opportunities described in or associated with Brisbane City Shape 2026 and the Neighbourhood planning process.*

*Impacts and proposed mitigation measures from construction and operation of the project are described including:*

- *Consideration of necessary land acquisitions and land use implications;*
- *Identification of specific land use restoration proposals such as for public open space and parkland;*
- *Arrangements for property access and associated street closures or widening; and*
- *Land use impacts from amenity mitigation measures such as the construction of noise barriers adjacent to residential areas and other noise sensitive places.*

### 12.1 Description of Existing Environment

#### 12.1.1 Regional Planning Framework

The South East Queensland Regional Plan (SEQRP) came into effect on 30 June 2005. The SEQRP seeks to manage the continuing high rate of population growth experienced in SEQ. Between 1986 and 2004 SEQ's population increased, on average, by 55,300 people per year. The Queensland Government projects this trend to continue, with an average increase of 50,000 people per year from 2001 to 2026 (OUM 2005a:5). The continued high level of population growth places pressure on the natural and built environment of the region, including increased pressure on transport infrastructure.

The SEQRP is a statutory instrument under the *Statutory Instruments Act 1992* and is also a planning instrument under the *Integrated Planning Act 1997*. It is supported by regulatory provisions that ensure the SEQRP is implemented through planning and decision-making processes. Within the identified Urban Footprint and Major Development Areas affecting the study corridor, it is expected that local government planning will incorporate appropriate development control reflecting SEQRP strategies such as for:

- Dwelling targets
- Transit Oriented Development
- Regional Activity Centres
- Integrated transport
- Natural environment

The SEQRP articulates a regional vision, supported by nine strategic directions to achieve the preferred form for future development. The strategic directions are described in **Table 12-1**.

#### ■ Table 12-1 SEQRP – Strategic Directions

Creating a more sustainable future
Protecting and support regional landscapes and rural production values
Identifying land to accommodate future growth
Promoting land use efficiency
Enhancing the identities of regional communities
Facilitating growth in the Western Corridor
Supporting rural futures
Providing infrastructure and services
Integrating land use, transport and economic activity

The SEQRP anticipates that community needs, quality of life and economic development opportunities can be enhanced by easy access to a good transport system. Future land use and transport are to be planned and delivered in an integrated way so that future urban growth will be focussed around transport. Transport infrastructure and service investment across all transport modes will lead and support the desired future urban form (OUM 2005).

The SEQRP is framed to achieve a range of desired regional outcomes, principles and policies that respond to both Brisbane's values and the imperatives of growth management. These are shown in **Table 12-2**.

#### ■ Table 12-2 SEQRP Outcomes

Regional Policy	Desired Regional Outcome
Sustainability	The region grows and changes in the most sustainable way; generating prosperity, maintaining and enhancing quality of life, and providing high levels of environmental protection
Natural Environment	A healthy natural environment supports the region's rich biodiversity, clean air and water; and is sustainably managed to support economic development, outdoor lifestyles and community needs
Regional landscape	The key environmental, economic, social and cultural resources of the regional landscape are identified and secured to meet community needs and achieve ecological sustainability.
Natural resources	The key environmental, economic, social and cultural resources of the regional landscape are identified and secured to meet community needs and achieve ecological sustainability.
Rural futures	Rural communities are strong and viable with sustainable economies, contributing to the health, character and liveability of the region.
Strong communities	Cohesive, inclusive and healthy communities with a strong sense of identity and place, and access to a full range of services and facilities that meet diverse community needs
Engaging Aboriginal and Torres Strait Islander peoples	Aboriginal and Torres Strait Islander peoples are actively involved in community planning and decision-making processes and Aboriginal Traditional Owners are engaged in business about their community
Urban development	A compact and sustainable urban pattern of well-planned communities, and convenient centres close to residential areas, employment locations and transport
Economic development	A strong, resilient and diversified economy – growing prosperity in the region by utilising its competitive advantages to deliver exports, investment and sustainable and accessible jobs
Infrastructure	Regional infrastructure and services are planned, coordinated and delivered in a timely manner to support existing and future settlement patterns and desired community outcomes
Water management	Water in the region is managed on a sustainable and integrated basis to provide adequate supplies for human and environmental uses
Integrated transport	A connected and accessible region based on an integrated transport system that supports more compact urban growth and efficient travel; connects people, places, goods and services; and promotes public transport use, walking and cycling.



Key messages from SEQRP of relevance to the assessment of the Airport Link Project include:

- Promotion of a strong, resilient and diversified economy in the region by utilising its competitive advantages to deliver exports, investment and sustainable and accessible jobs;
- Integrate land use and transport to maintain and enhance the region's strategic freight network through the Western Corridor to the Australia TradeCoast, as well as major linkages to domestic markets via national and state highway networks;
- Maximise employment opportunities in close proximity to transport services and in centres of economic activity such as the Brisbane CBD, Australia TradeCoast and Brisbane Airport;
- The Brisbane CBD is the primary centre for commercial, retail, government and professional services. Higher population and business densities resulting from urban consolidation will drive greater business activity and efficiency, most likely to be focussed on the CBD and Regional Activity Centres;
- Major transport initiatives are required to develop the vibrancy and amenity of the inner city and to enhance the SEQ economy;
- Integrated transport – a connected and accessible region based on an integrated transport system that supports compact urban growth and efficient travel, connects people, places, goods and services and promotes public transport use, walking and cycling;
- The quality of life for SEQ residents relies on a transport system that connects the wider community with goods, services and employment;
- Create an effective integrated transport network of roads, railways, ports and airports to strengthen the competitive advantage of industry and business;
- Public transport provides access for the whole community including those who do not have cars or who cannot drive. Walking and cycling networks provide flexibility as well as significant health and environmental benefits;
- Transport has negative impacts such as greenhouse gas emissions, air and noise pollution, accidents and congestion. The use of cars in SEQ is growing faster than the population. Private cars will continue to be used into the future for the majority of trips in SEQ but walking, cycling and public transport must become more viable and attractive;
- The region is well positioned to adopt an integrated transport solution consisting of an integrated public transport system (bus, ferry, rail), and new roads and improvements to existing roads to address the most congested parts of the network; and
- In SEQ, ensure transport investment produces the maximum benefit to the community by: supporting the preferred form and sequence of development; public transport investment to lead and support land use development; adopt demand management, education, regulation and non-transport solutions.

Integrated transport planning conducted at both the regional and local level in Brisbane over the last 15 years has recognised the need for a shift towards public transport for commuter and other movements, with increases in pedestrian and cycle movements to provide an element of flexibility in the system. To achieve these objectives, public transport needs to be more attractive, but provision for increased road capacity also remains a priority action. The SEQRP identifies a number of key transport infrastructure actions to be undertaken in the Greater Brisbane area. They include:

- Complete the orbital road networks that bypass inner city areas, including the Airport Link;
- Enhance the quality of public transport services in radial corridors and to key activity centres;

- Protect and enhance the ability of freight to move competitively between manufacturing, production and export nodes focusing on the regional road and rail freight network; and
- Investigate optimal solutions for TransApex.

The SEQRP is supported by the South East Queensland Infrastructure Plan and Program (SEQIPP). Investment in transport infrastructure is an important component of the SEQIPP. The key principles for regional transport investment listed in the Infrastructure Plan are:

- Ensuring public transport and roads support the preferred pattern of development;
- Increasing public transport infrastructure to encourage greater usage; and
- Supporting economic development, including improved freight links and a greater emphasis on freight rail.

The Airport Link Project is listed in the SEQIPP as part of the orbital road network in the Greater Brisbane area.

### Other Regional Planning Initiatives

Other regional planning initiatives in South East Queensland include the *Integrated Regional Transport Plan* (QT 1997), *Cycle South East* (QT 1999), *Transport 2007* (QT 2001), and the *Integrated Regional Cycle Network Plan* (QT 2003). All are broad, over-arching strategies with little direct relevance to the assessment of the Airport Link Project. Key messages from the *IRTP* (QT 1997) and *Transport 2007* include the need for an integrated solution to the traffic and transport issues in the region. In Brisbane, the core traffic and transport issues arise from the combination of strong population growth, increasing travel demand, lack of an interconnected orbital motorway network, and constrained crossings of the Brisbane River.

Full details of the regional planning framework are outlined in Technical Paper No 9 – Land Use and Planning in Volume 3 of the EIS, and are discussed where relevant in the project rationale in Chapter 2 of the EIS. The local planning framework is described in detail in the following sections.

#### 12.1.2 Existing Land Uses

Land use information has been obtained from a land use survey undertaken by Brisbane City Council in 2005 and from survey work conducted for the purposes of this report. Land use was identified under the categories defined in **Table 12-1** is shown in **Figure 12-1**, **Figure 12-2**, **Figure 12-3** and **Figure 12-4**.

The Royal Brisbane Hospital (RBH) complex, including allied medical facilities, is a dominant land use on the western side of Bowen Bridge Road. This area also includes a service station and light industrial and commercial premises north of the RBH. The area east of Bowen Bridge Road, between O'Connell Terrace and Enoggera Creek, is occupied by mixed commercial, light industrial and residential uses. The RNA showground is a dominant use along the southern side of O'Connell Terrace. Bowen Hills has seen the commencement of redevelopment of both commercial and residential sites with increasing residential densities through development of multi-unit dwellings and redevelopment of existing commercial/industrial buildings.

There are large areas of vacant land in Bowen Hills, mostly used for car parking. The RNA Showground and the elevated setting and built forms of the RBH form a significant backdrop to the mixed commercial and light industrial and transport dominated areas of Bowen Hills and Windsor either side of Enoggera Creek. The Inner City Bypass and the North-South Bypass Tunnel (NSBT) are significant transport corridors through this area, already dominated by Lutwyche Road, the railway and its associated rail yards. Despite these transport related uses there is an increasing demand for residential accommodation in close proximity to the RBH and the inner city as reflected in such developments as the residential unit complex in Campbell Street.

■ Table 12-3 Land Use Data Categories

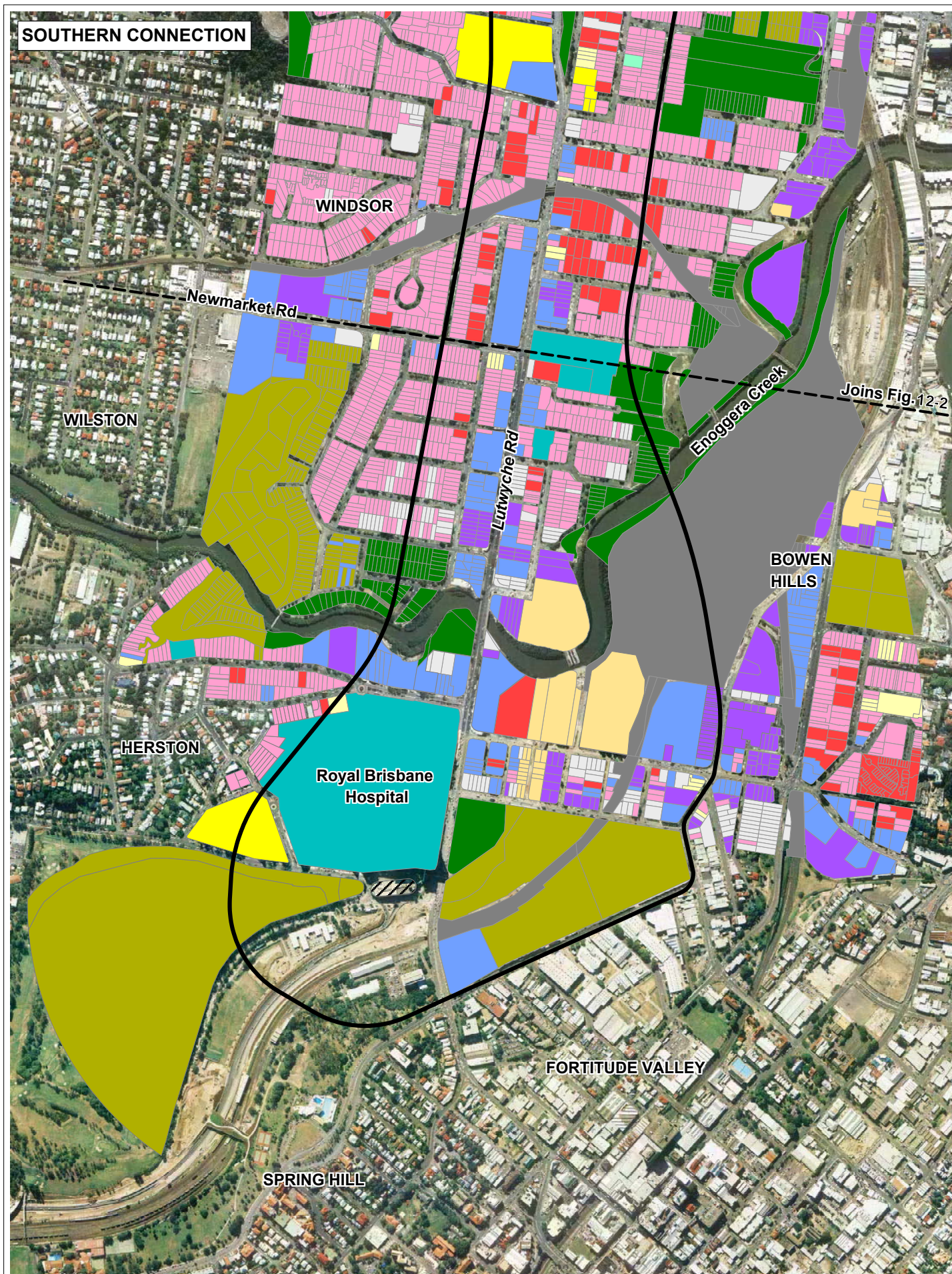
Description	Definition
Multiple attached dwellings	Premises that provide for individual accommodation for more than one group of people (e.g. units, town houses or duplex). Presence of multiple residents verified by several letterboxes and/or additional unit numbers (e.g. 1A & 1B).
Detached house	Individual domestic residences generally identified by a single letterbox.
Industry	Premises used for industrial activity.
Commercial and Retail	Premises used for commercial activity (e.g. office buildings, retail shopping and restaurants).
Health Care	Premises that provide medical care and treatment.
Child Care Centre	Premises that provide the minding or care, but not residence, of children generally under school age.
Park	Public open space for free recreation and enjoyment, e.g. playing field, playground. Facilities for park users may include kiosks, shelters, play equipment, and car parking facilities.
Sport and Recreation	Sporting clubs and facilities e.g. bowls club
Education	Facilities used for educational purposes, e.g. preschool, primary school, secondary school, college, university or technical and further education institution.
Utilities	Premises that contain facilities used for providing the public with a service (e.g. telecommunications tower, electricity substation or infrastructure).
Community Facilities	Community facilities such as a library, cemetery and emergency services
Retirement Village	Use of premises for residential accommodation that meets the particular needs of persons who are retired and do not have children living permanently with them.
Rail	Railway tracks and stations
Vacant Land	Premises with no current recognised land-use.
Car Park	Locations used generally for parking motor vehicles
Boarding House	A detached house that provides accommodation for more than one group of people.
Under construction	Building activity is currently being undertaken on site, with no other operating land use identified.

Commercial and various industrial premises, including a concrete batching plant, dominate land uses north of Enoggera Creek and along either side of Lutwyche Road. West of Lutwyche Road is commercial and light industrial premises and the Northey Street City Farm. Established residential areas and areas of open space, generally associated with the floodplain of Enoggera Creek are located away from Lutwyche Road.

Commercial premises front Lutwyche Road north of Newmarket Road, with residential premises generally set one street back from Lutwyche Road. A high proportion of multi-unit residential premises are located along Rosemount Terrace between Grantson Street and the Ferny Grove rail line.

Residential development dominates the roadside from the Ferny Grove rail line to Albion Road. Residential land uses include detached houses and multi-unit premises in this part of the study corridor. This is the heart of the historic precinct of Windsor and includes examples of early roadside commercial activity, community use, schools, early residential estates and open space.





# LEGEND

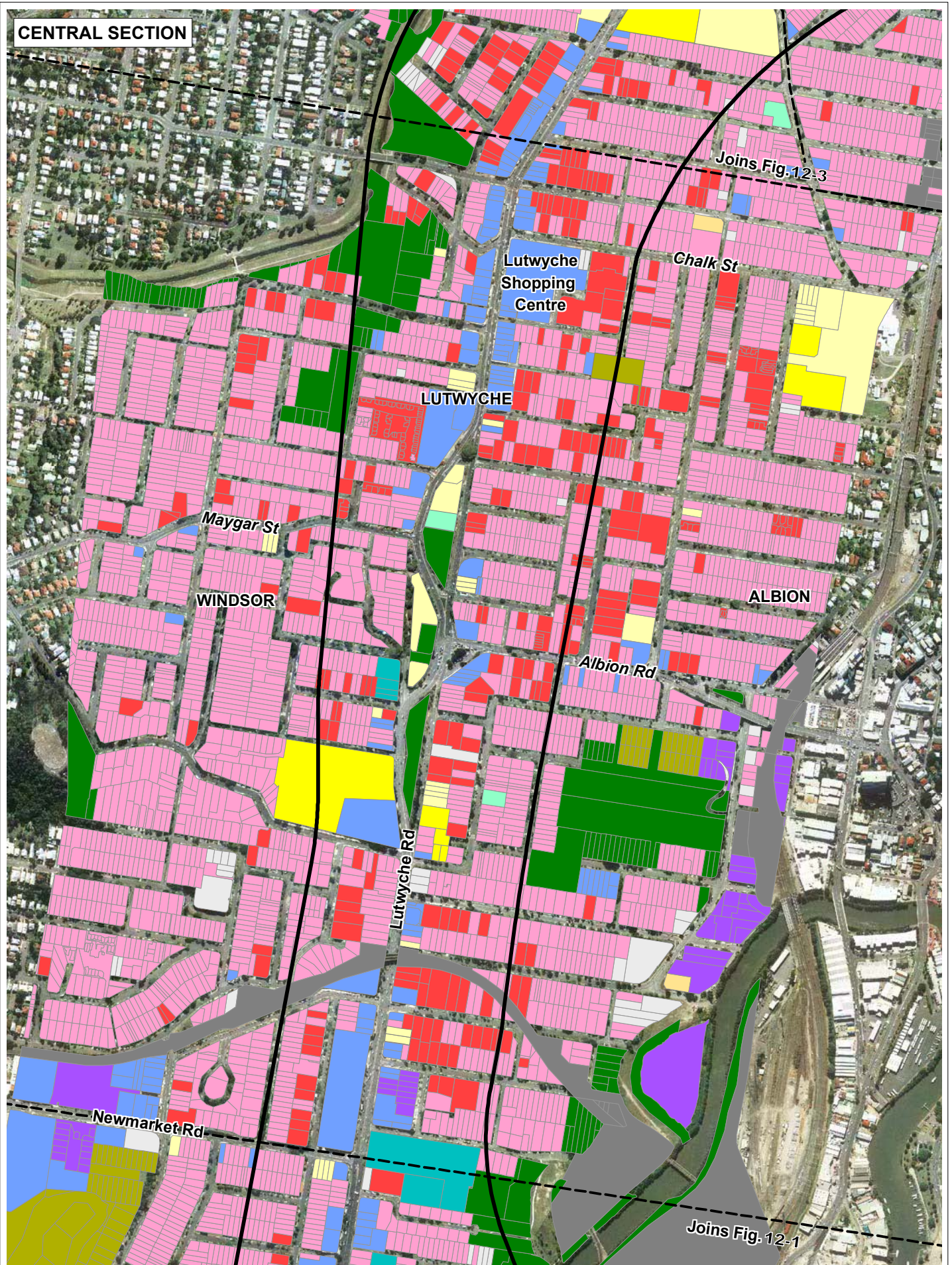
Multiple Unit Dwelling	Park	Rail
Detached House	Sport and Recreation	Vacant
Industry	Education	Car Park
Commercial and Retail	Utilities	Airport Link Corridor
Health Care	Community Facility	Figure Extents
Child Care Centre	Retirement Village	

Figure 12.1  
Landuse - Souther Section





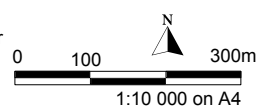
# CENTRAL SECTION



## LEGEND

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> Multiple Unit Dwelling  | <span style="color: green;">■</span> Park                    | <span style="color: grey;">■</span> Rail                   |
| <span style="color: pink;">■</span> Detached House         | <span style="color: yellow;">■</span> Sport and Recreation   | <span style="color: lightgrey;">■</span> Vacant            |
| <span style="color: purple;">■</span> Industry             | <span style="color: orange;">■</span> Education              | <span style="color: black;">■</span> Car Park              |
| <span style="color: blue;">■</span> Commercial and Retail  | <span style="color: lightyellow;">■</span> Utilities         | <span style="color: black;">▬</span> Airport Link Corridor |
| <span style="color: cyan;">■</span> Health Care            | <span style="color: lightgreen;">■</span> Community Facility | <span style="color: black;">- - -</span> Figure Extents    |
| <span style="color: lightblue;">■</span> Child Care Centre | <span style="color: brown;">■</span> Retirement Village      |  |

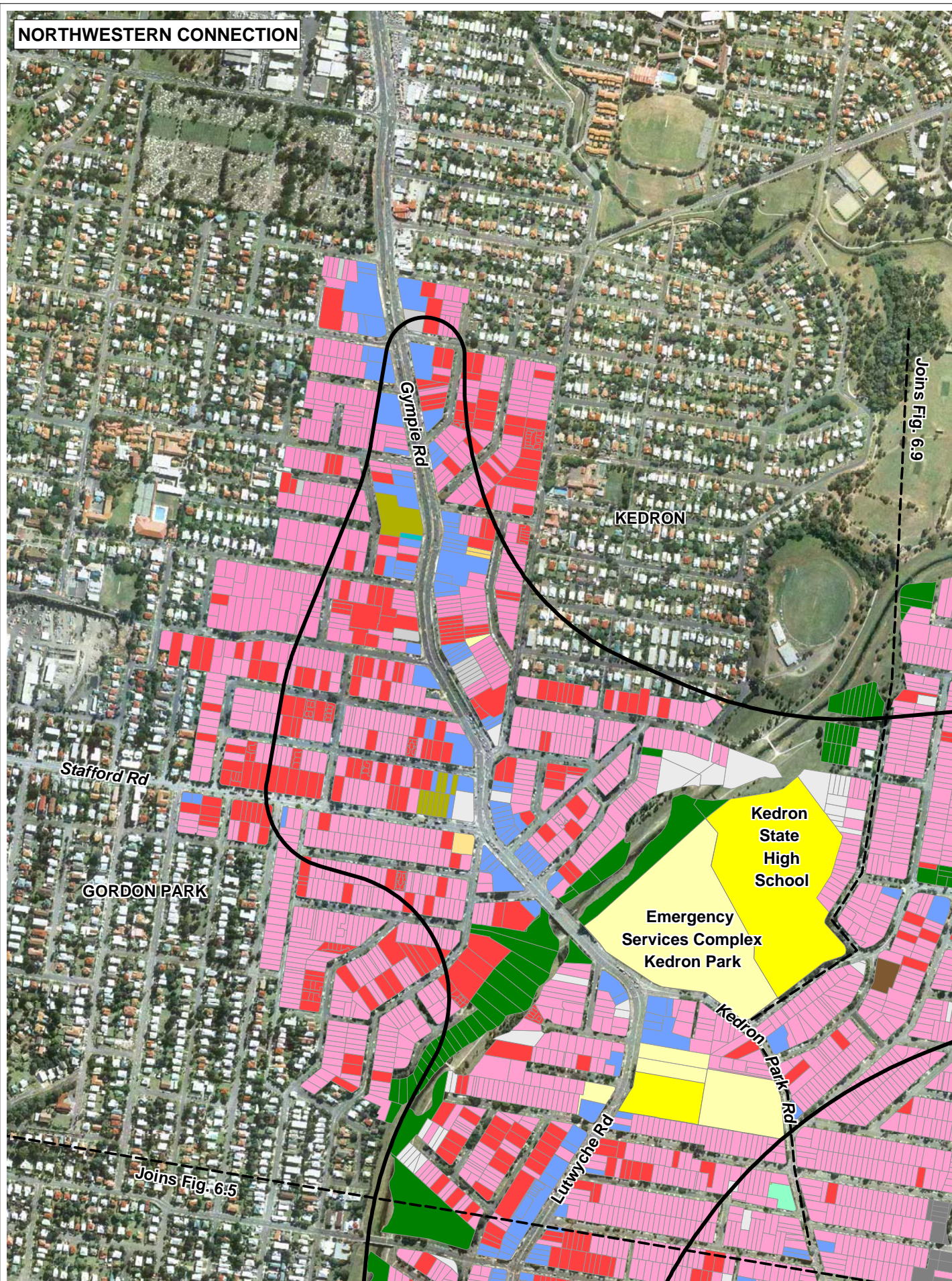
**Figure 12.2**  
**Landuse Central Section**



**SKM Connell Wagner**  
JOINT VENTURE



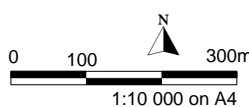
# NORTHWESTERN CONNECTION



## LEGEND

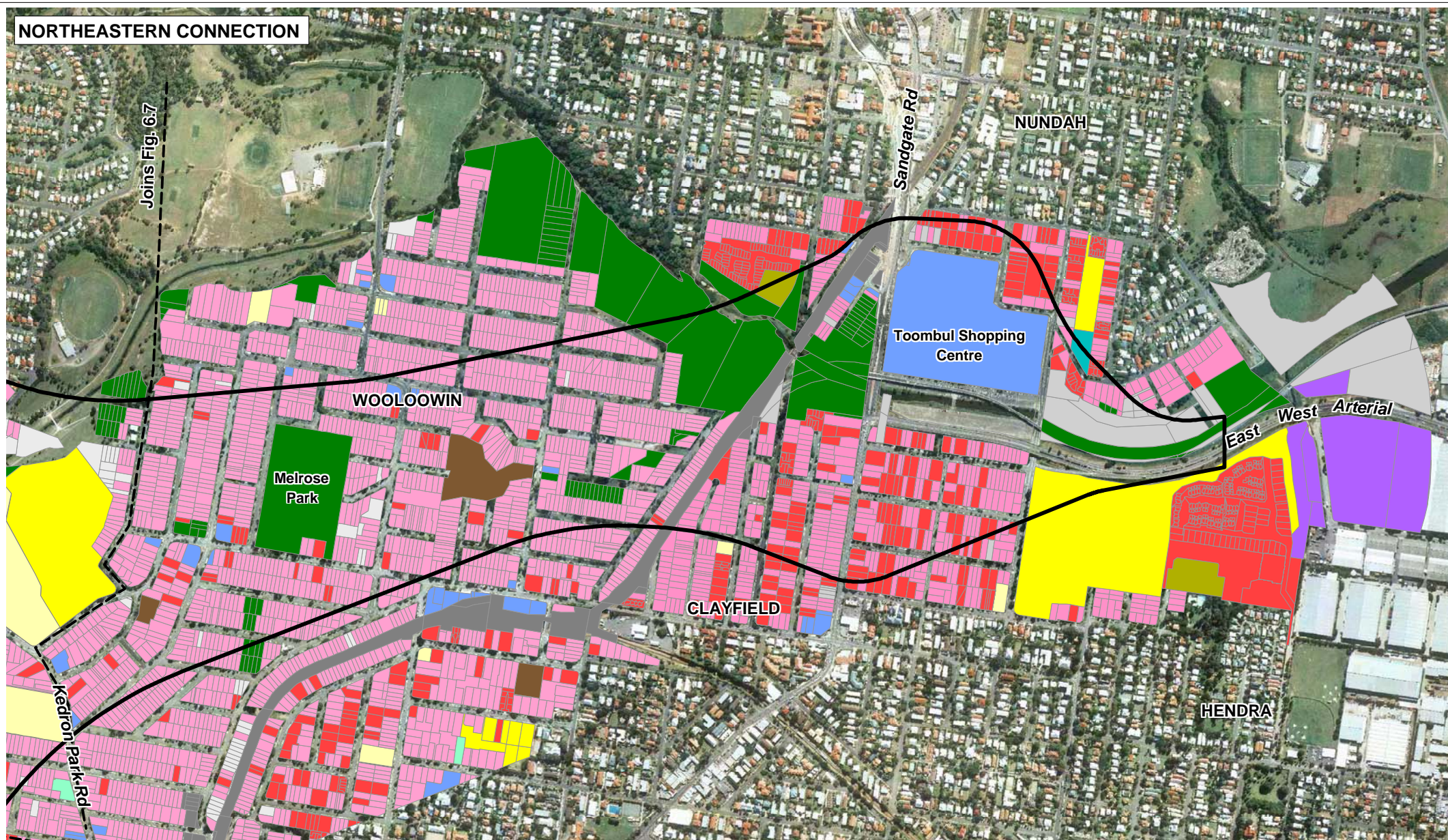
Multiple Unit Dwelling	Park	Rail
Detached House	Sport and Recreation	Vacant
Industry	Education	Car Park
Commercial and Retail	Utilities	Airport Link Corridor
Health Care	Community Facility	Figure Extents
Child Care Centre	Retirement Village	

Figure 6.7  
Existing Land Uses





# NORTHEASTERN CONNECTION



## LEGEND

Multiple Unit Dwelling	Child Care Centre	Community Facility	Airport Link Corridor
Detached House	Park	Retirement Village	Figure Extents
Industry	Sport and Recreation	Rail	
Commercial and Retail	Education	Vacant	
Health Care	Utilities	Car Park	

Figure 6.9  
Existing Land Uses





North of Albion Road is the historic Windsor Town Quarry Park. This strip of parkland, including Windsor War Memorial Park to the south, provides an important green space relief to the busy Lutwyche Road corridor. Major commercial premises include Lutwyche Shopping Centre, the Fitness First Gym, the Crown Hotel and the Good Guys. There is also a concentration of multi-unit residential premises and commercial activity surrounding the Lutwyche Shopping Centre. Residential land uses are generally one lot back from the road. A large amount of detached housing still remains.

There is a hub of community uses around the intersection of Kedron Park Road and Lutwyche Road including the Kedron Park Emergency Services Complex, Kedron State High School, Kedron Park Hotel, Kedron Anglican Church and Woolloowin Primary School. The western side is largely residential development including a motel and community use of the old Lutwyche Police Station as the headquarters of the Police Citizens Youth Club (PCYC). Parkland is located along Kedron Brook.

There is a concentration of multi-unit residential premises along Stafford Road and near Kedron Brook, with some commercial development along Gympie Road, including the prominent JB Hi-fi.

Land between the Kedron Department of Emergency Services Complex and Sandgate Road predominantly contains detached housing and parkland. Melrose Park and Kalinga Park are used for passive and active recreation purposes. Melrose Park contains general recreation space and the Kalinga Bowls Club Inc. Kalinga Park contains sporting fields and general recreation space.

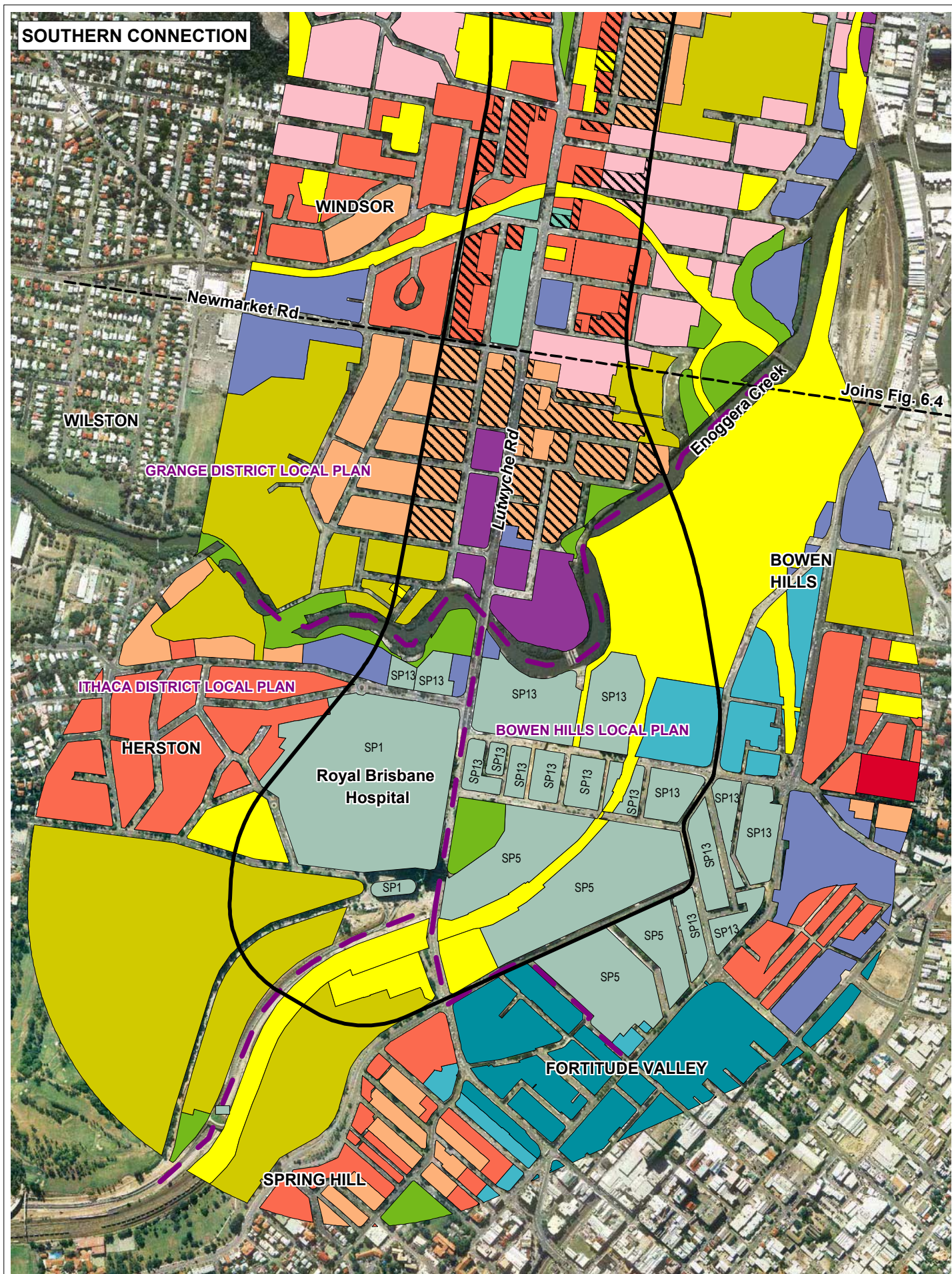
Centro Toombul Shopping Centre is a main destination point for retail/commercial trips in the area of Sandgate Road and the East West Arterial. A mixture of detached houses, multi-unit residential premises, commercial premises and railway uses occupies surrounding land. A small number of premises are vacant.

### 12.1.3 City Plan Area Classifications & Local Plans

Under the provisions of the City Plan, the City of Brisbane is assigned preferred land uses to defined land use areas and determine the appropriate level of assessment for development. This Area classification is identified on the Planning Scheme Maps. Planning Scheme Area Classifications for the study corridor are shown in the following figures, **Figure 12-5**, **Figure 12-6**, **Figure 12-7** and **Figure 12-8**.

A description of the City Plan Area classifications relevant to the Airport link study corridor is provided in **Table 12-4**.





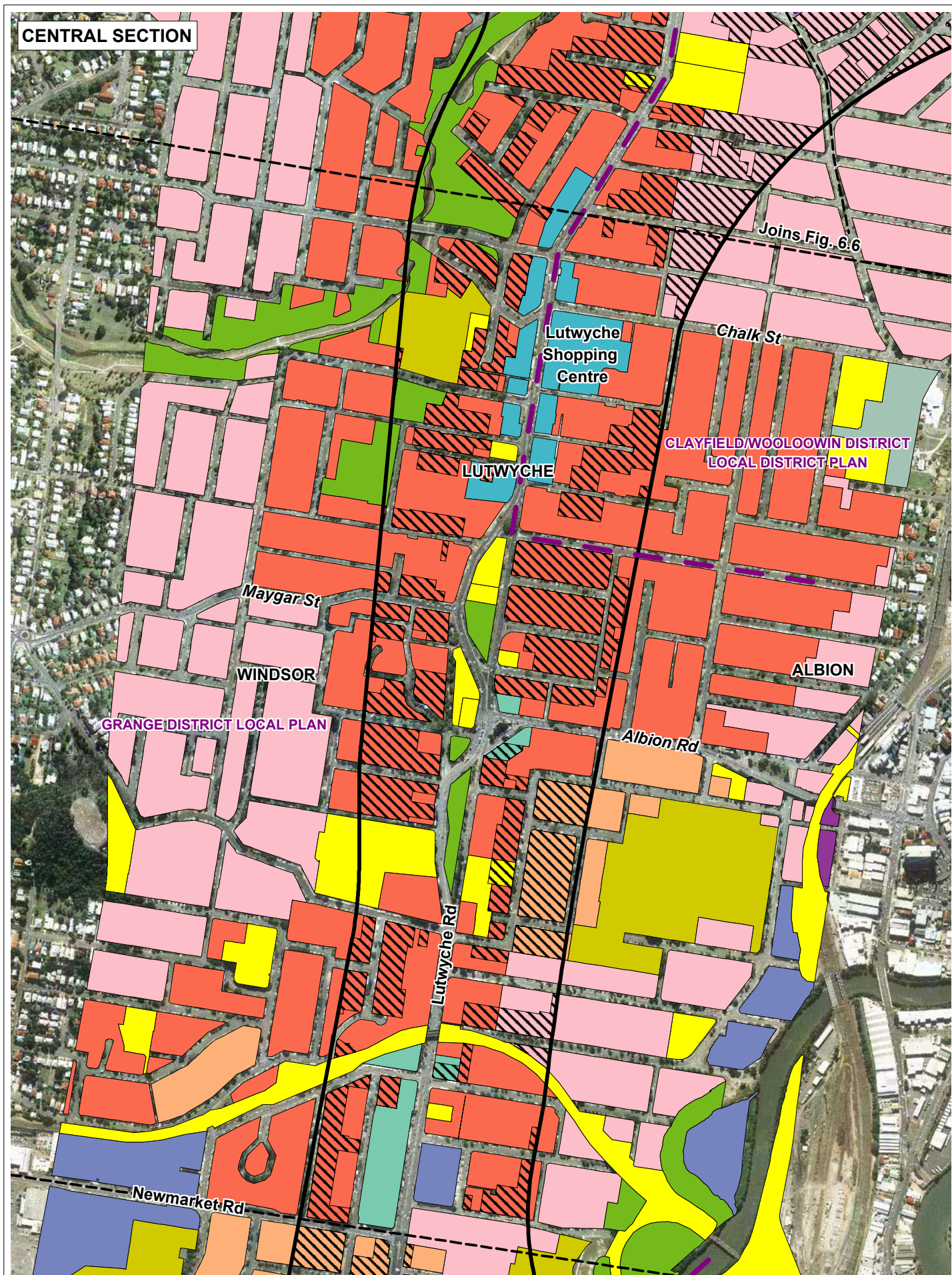
#### LEGEND

General Industry	Emerging Communities	Special Purpose Centre
Light Industry	Environmental Protection	SP1 - Major Medical Facility
<b>Residential</b>	Sport and Recreation	SP5 - Entertainment Centre
Low Density	Community Use Area	SP13 - Office Park
Low-Medium Density	Park Land	Demolition Control Precincts
Medium Density	<b>Multi Purpose Centre</b>	Airport Link Corridor
High Density	Convenience Centre	Local Area Plan Boundary
Character Residential	Major Centre	Figure Extents
	Suburban Centre	

**Figure 12-5**  
**Area Classifications**  
**Southern Connection**



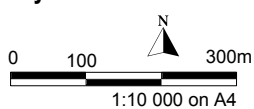




#### LEGEND

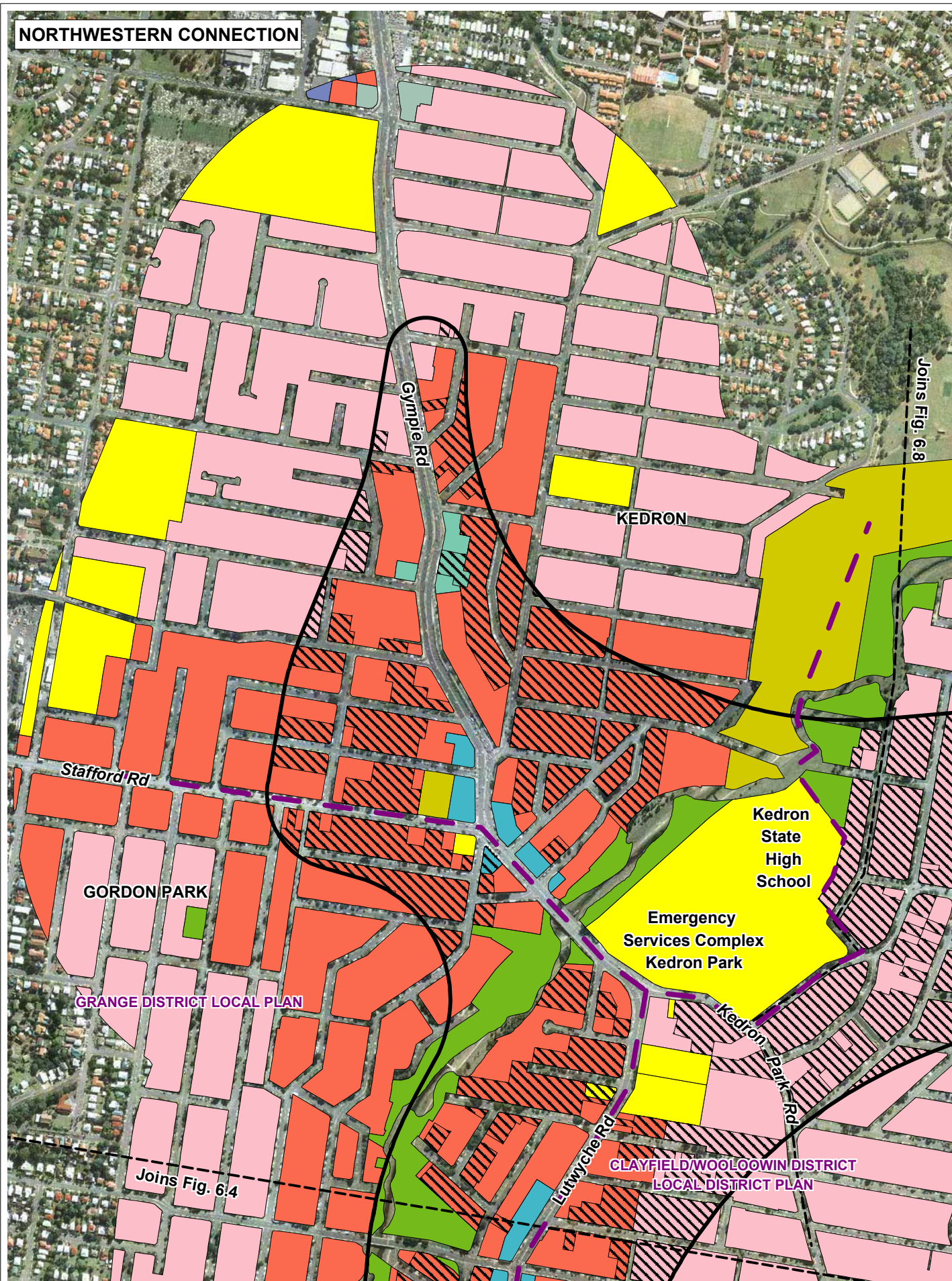
- |                       |                             |                              |
|-----------------------|-----------------------------|------------------------------|
| General Industry      | Emerging Communities        | Special Purpose Centre       |
| Light Industry        | Environmental Protection    | SP1 - Major Medical Facility |
| <b>Residential</b>    | Sport and Recreation        | SP5 - Entertainment Centre   |
| Low Density           | Community Use Area          | SP13 - Office Park           |
| Low-Medium Density    | Park Land                   | Demolition Control Precincts |
| Medium Density        | <b>Multi Purpose Centre</b> | Airport Link Corridor        |
| High Density          | Convenience Centre          | Local Area Plan Boundary     |
| Character Residential | Major Centre                | Figure Extents               |
|                       | Suburban Centre             |                              |

**Figure 12-6**  
**Area Classifications**  
**Lutwyche Rd Connection**



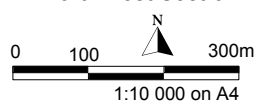


# NORTHWESTERN CONNECTION

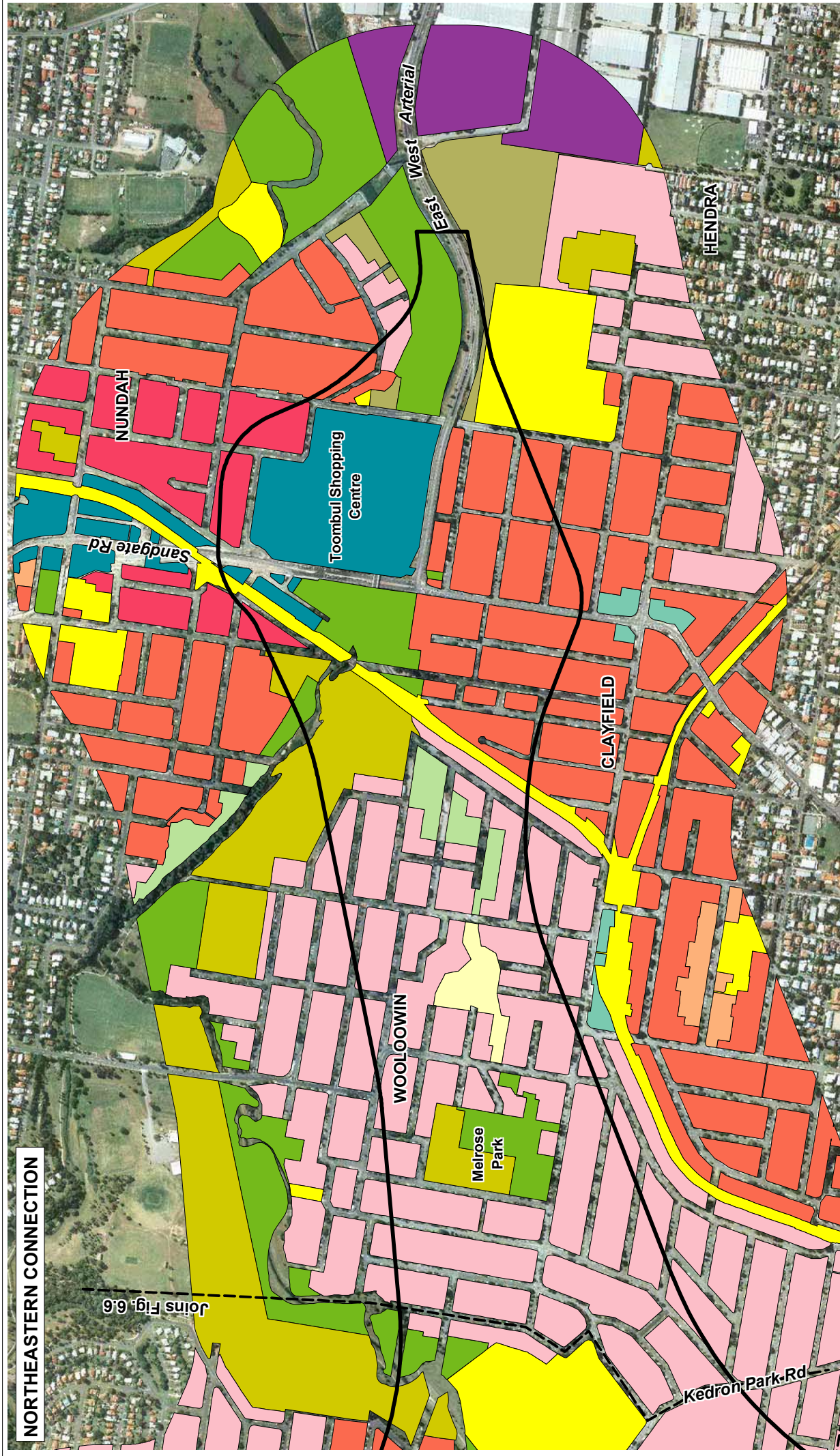


LEGEND		
General Industry	Emerging Communities	Special Purpose Centre
Light Industry	Environmental Protection	SP1 - Major Medical Facility
Residential	Sport and Recreation	SP5 - Entertainment Centre
Low Density	Community Use Area	SP13 - Office Park
Low-Medium Density	Park Land	Demolition Control Precincts
Medium Density	Multi Purpose Centre	Airport Link Corridor
High Density	Convenience Centre	Local Area Plan Boundary
Character Residential	Major Centre	Figure Extents
	Suburban Centre	

Figure 12-7  
Area Classifications  
NorthWest Section







**LEGEND**

- Residential**
  - Low Density
  - Low-Medium Density
  - Medium Density
  - High Density
  - Character Residential

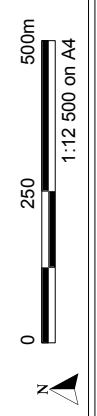
- General Industry**
- Light Industry**
- Multi Purpose Centre**
  - Convenience Centre
  - Major Centre
  - Suburban Centre

- Emerging Communities**
- Environmental Protection**
- Sport and Recreation**
- Community Use Area**
- Park Land**

- Special Purpose Centre**
  - SP1 - Major Medical Facility
  - SP5 - Entertainment Centre
  - SP8 - Major Residential Institution
  - SP11 - Vehicle Sales & Service
  - SP13 - Office Park

- Demolition Control Precincts**
- Airport Link Corridor**
- Figure Extents**

**Figure 6.8**  
**Area Classifications**



■ **Table 12-4 City Plan Area Classifications and Intent**

Area	Purpose/Intent
Character Residential	The Character Residential Area will primarily accommodate pre-1946 houses and new development will reflect pre-1946 architectural themes. These areas are included within the Demolition Control Precinct.
Low Density Residential	The Low Density Residential Area will consist predominantly of detached houses of up to two storeys in height.
Low-Medium Density Residential	The Low-medium Density Residential Area will contain a mix of houses up to 2 storeys and two and three storey multi-unit dwellings and single unit dwellings. Land in this Area is located in those parts of the City that are close to public transport networks or centres.
Special Purpose Centre	<p>Special Purpose Centres provide for particular major activities. The study corridor contains three Special Purpose Centre Areas which are all located south of Enoggera Creek. These are:</p> <p>SP1 - Major Hospital and Medical Facility</p> <p>SP13- Mixed Industry and Business</p> <p>SP5 – Entertainment Centre</p> <p>Development in each Special Purpose Centre Area should contribute to the primary focus specified for that Centre.</p>
Park Land	The Parkland Area is for use by the public for informal outdoor recreational, cultural and educational activities. Small areas may accommodate permanent facilities for limited small-scale organised activities, such as youth clubs, and may be used in some circumstances for infrequent special events. Parkland Area is often publicly owned.
Sport and Recreation	The Sport and Recreation Area is used for formally organised recreational and sporting activities. It accommodates associated facilities such as clubhouses and car-parking. Land in the Sport and Recreation Area is often privately owned, and access may be restricted by physical means such as fencing, or through other measures such as membership.
Multi Purpose Centre MP3 Suburban Centre	<p>Multi-purpose Centres allow for a wide range of activities to be clustered together. They are to be well serviced by all modes of transport, particularly public, bike and pedestrian. Buildings in Suburban Centres are smaller in scale than buildings in Major Centres.</p> <p>Suburban Centres (MP3) provide a variety of services. They may be characterised by small tenancies within a limited area or lower density larger tenancies over a broader area. They generally contain more than 6,000m<sup>2</sup> of gross floor area</p>
Multi Purpose Centre MP4 Convenience Centre	<p>Multi-purpose Centres allow for a wide range of activities to be clustered together. They are to be well serviced by all modes of transport, particularly public, bike and pedestrian. Buildings in Suburban Centres are smaller in scale than buildings in Major Centres.</p> <p>Convenience Centres (MP4) are smaller centres providing local services within walking distance of residents. They generally contain less than 6,000m<sup>2</sup> of gross floor area.</p>
Community Use Area	<p>Land in the Community Use Area may be either privately or publicly owned and accommodates a range of community uses. These uses are shown individually on the Scheme Maps and include:</p> <p>CU1 – Cemetery</p> <p>CU2 – Community facilities</p> <p>CU3 – Crematorium</p> <p>CU4 – Education purposes Education purposes denotes the use of premises for systematic training and instruction designed to impart knowledge and develop skill</p> <p>CU5 – Emergency services</p> <p>CU6 – Health care purposes</p> <p>CU7 – Railway activities Railway activities are the use of premises for activities and associated facilities that support the effective functioning of the railway system</p> <p>CU8 – Utility installation.</p>
Light Industry	The Light Industry Area features a range of light industries and warehousing with low environmental impact.
General Industry	The General Industry Area features a wide range of industries and complementary activities that meet high standards of amenity and environmental standards.



Most of the residential land within the study corridor is also within the Demolition Control Precinct. The Demolition Control Precinct is an overlay on the area classification and triggers assessment codes for particular types of development. For example, demolition or removal of a building within the Demolition Control Precinct will trigger assessment against the Demolition Code. The Demolition Control Precinct is a significant constraint on redevelopment as it seeks to protect the traditional character of buildings and streetscapes developed before 1945.

### **City Plan – Local Plans**

Local plans contained within City Plan provide more detailed planning for specific localities. Because of their detailed nature, Local Plans override other sections of the planning scheme if there is a conflict. The study corridor contains a number of local plans, the provisions of which vary from general to specific with associated codes. Each of the local plans within the study corridor has been reviewed to assess its relevance to the project, specific outcomes and strategy directions, with these addressed in summary in the following sections. Local Area Plan boundaries covering the study corridor are shown on **Figure 12-9**.

#### *Bowen Hills Local Plan*

The study corridor east of Bowen Bridge Road and south of Enoggera Creek is included in the Bowen Hills Local Plan area. The broad development principles of this Local Plan that are relevant to the project are summarised as:

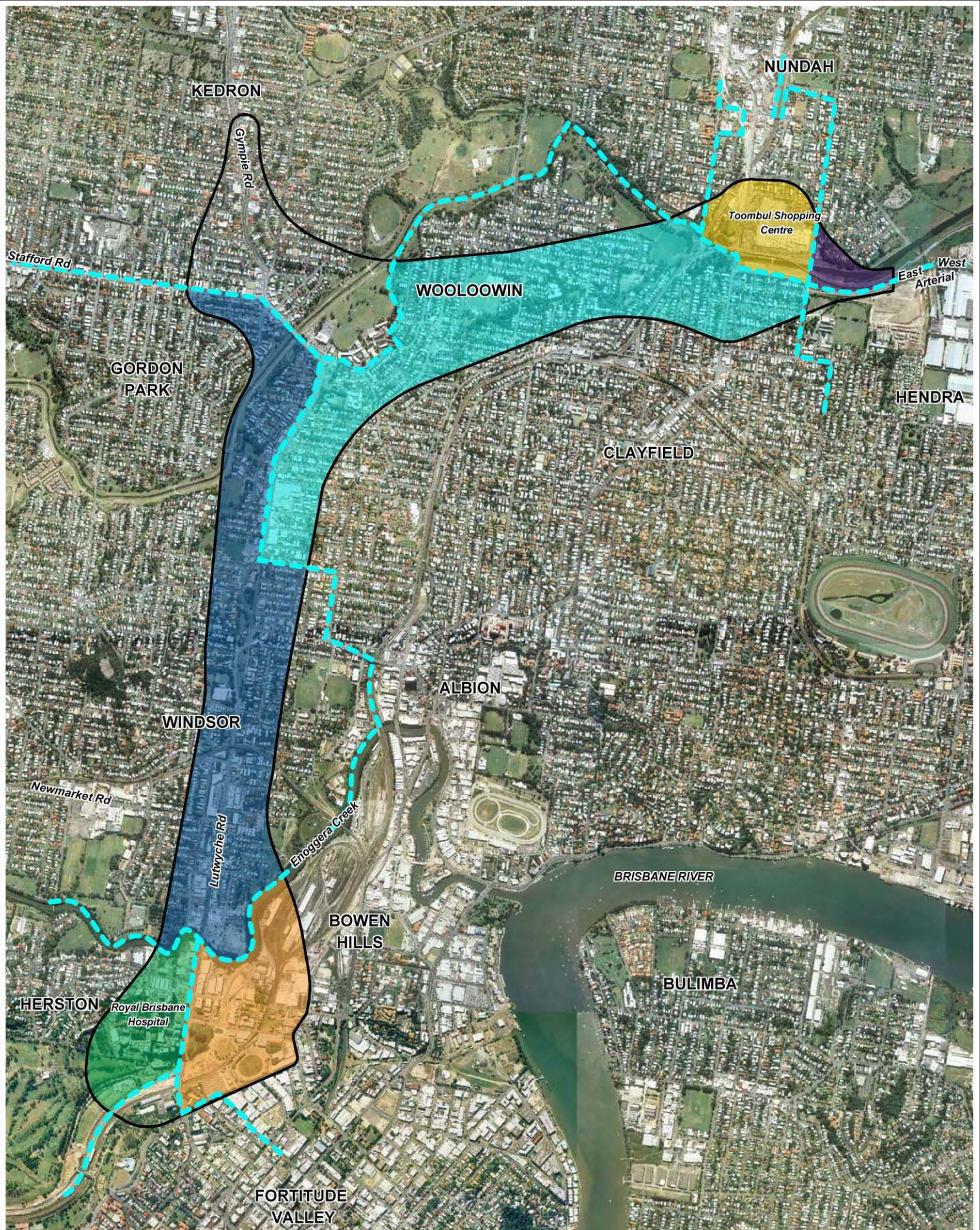
- Facilitate mixed use, transit oriented development around key transport nodes;
- Provide a diverse mix of housing to meet the community's needs;
- Protect the heritage and character of Bowen Hills; and
- Develop an integrated open space system including pedestrian/cyclist pathways.

#### *Ithaca District Local Plan*

Part of the study corridor including the RBH complex is included in the Ithaca District Local Plan area. This Local Plan was introduced on 1 July 2006. The broad development principles of the Ithaca District Local Plan relevant to the project are summarised as:

- Enhance the role and function of the RBH complex through development of the surrounding area (Butterfield Street Precinct) for supporting businesses and low impact industrial activities;
- Protect and enhance Enoggera and Ithaca Creeks for their ecological and recreation values; and
- Provide a range of housing types that serve the needs of the community.





# LEGEND

- Grange District Local Area Plan
- Draft Ithaca Local Area Plan
- Clayfield/Woolloowin District Local Area Plan
- Bowen Hills Local Area Plan
- Toombul-Nundah Major Centre Local Plan
- Nundah District Local Plan

- Busway Corridor
- Local Area Plan Boundary (approx)

**AIRPORT LINK - Figure 12-9**  
Local Area Boundaries





### *Grange District Local Plan*

The Grange District Local Area Plan covers the majority of the area along Lutwyche Road north of Enoggera Creek. The broad development principles of the Grange District Local Area Plan relevant to the project are summarised as:

- Protect the heritage and character of the Local Plan area;
- Protect the natural areas and waterways including Kedron Brook, Enoggera Creek, Breakfast Creek and open spaces;
- Strengthen the role of commercial centres as employment centres providing a wide range of facilities and services; and
- Improve pedestrian/cycle accessibility through provision of pathways along waterways and major roads.

### *Clayfield/Woolloowin District Local Area Plan*

The area east of Lutwyche Road between Lutwyche Shopping Centre and Toombul Shopping Centre is within the Clayfield/Woolloowin District Local Plan area. The broad development principles of the Clayfield/Woolloowin District Local Plan relevant to the project are summarised as:

- Protect 'Timber and tin' housing and pre-1945 streetscapes;
- Facilitate higher densities of development around transport nodes;
- Strengthen the role and function of existing commercial centres; and
- Protect and enhance the ecological and recreation values of waterways and open spaces.

### *Nundah District Local Plan*

The Nundah District Local Plan focuses on the suburb of Nundah and includes Toombul Shopping Centre. The broad development principles of the Local Plan that are relevant to the project are summarised as:

- Retain the mix of low and low-medium density housing to meet the community's needs;
- Facilitate higher density housing around major transport nodes;
- Strengthen the role of Toombul Shopping Centre as the retail and community focus for the district;
- Vehicular traffic is to cause minimal impact on the amenity of the residential areas;
- Protect heritage places and landmarks in the district;
- Preserve parks and open spaces for recreation pursuits; and
- Provide a safe and convenient pedestrian/cyclist pathway network throughout the district.

### *Toombul/Nundah Major Centre Local Plan*

The study corridor north of the East West Arterial is within the Toombul/Nundah Major Centre Local Plan. The broad development principles of the Toombul/Nundah Major Centre Local Plan relevant to the project are summarised as:

- Reinforce the role and function of the Toombul/Nundah Major Centre as the primary service centre for the outer north-eastern suburbs of Brisbane;
- Develop mixed use premises adjacent to the Nundah and Toombul Railway Stations and Toombul Shopping Centre;
- Protect key views and vistas to Corpus Christi Dome, Moreton Bay, the City Centre skyline and surrounding suburbs; and
- Enhance the pedestrian/cycle network in the district, in particular along Schulz Canal.



#### 12.1.4 Current Planning Initiatives

The SEQRP requires all SEQ local governments to review their planning schemes to ensure compliance with the SEQRP. Following the preparation of a schedule of amendments, local governments must prepare Local Growth Management Strategies (LGMS) that identify how the predicted population and dwelling increases will be accommodated within the urban area. LGMS, once completed, will guide further changes to planning schemes. Brisbane City Council is reviewing the current Metropolitan Strategy to meet this requirement.

Brisbane City Council is undertaking a neighbourhood planning process to involve the community in planning for the future of the City. Following an extensive consultation process, Brisbane City Council will begin preparing 'Neighbourhood Plans'. Neighbourhood Plans will serve a similar function to Local Area Plans and will replace the future development of Local Area Plans. As part of the community consultation process, Brisbane City Council has released the draft 'City Shape' document.

#### Draft City Shape

Brisbane City Council released the draft 'City Shape' document in February 2006. The document is an outcome of a series of community consultation events including neighbourhood fairs and City Shape conference. The final City Shape document will articulate the vision for future development in Brisbane, forming the basis for Council's Neighbourhood Plans.

The draft City Shape proposal is based on a multi-centred city, with growth focussed around major centres. The proposal allows for infill development in selected areas identified as 'urban villages'. This concept incorporates clustering homes, jobs, shops, places to socialise and other community facilities within walking distance of each other. Principles for 'urban villages' include:

- A mix of homes, shops, community facilities, public spaces and even offices;
- Excellent streetscapes and public spaces that everyone can enjoy; and
- Quality design that respects the character of the surrounding neighbourhood.

The 'urban villages' concept is similar to the 'Transit Oriented Development' (TOD) vision articulated in the SEQRP.

The transport vision articulated in the document includes:

- Improving the road system through TransApex and other projects;
- Improving facilities for cycling and walking, including building more 'greenways' which are wide and attractive paths that connect with homes and destinations; and
- The bulk of public transport investment will be directed towards buses and the infrastructure required to support it.

The draft City Shape document notes that about 60% of bushland within the city is on privately owned property and 84% of residential tree cover is on private property. The vision includes:

- Wildlife and waterway corridors running through urban areas must link patches of green and allow animals to move between different habitats; and
- The movements of wildlife must also be considered when planning major transport projects.

The draft City Shape identifies the importance of the Australia Trade Coast and the City Centre as strategically important localities for export and employment growth.

### Draft Bowen Hills Masterplan

The Urban Renewal Brisbane team of Brisbane City Council is preparing a Masterplan to guide land use and future development in Bowen Hills. This supports the identification of Bowen Hills for transit oriented development (TOD) in the SEQRP. The Masterplan area is bounded by Campbell Street to the south, the Mayne rail line to the west, the Inner City Bypass to the north and Abbotsford Road to the east.

Three major land holdings within this area are:

- Queensland Newspaper site – Campbell Street;
- Brisbane News site – Mayne Road; and
- Queensland Rail site – Hudd Street.

The draft Masterplan seeks to achieve intensified mixed-use urban development supporting a large employee and resident population, co-located with fully integrated transport infrastructure. The area possesses established transport infrastructure connections including the rail lines into the Mayne Rail Yards, the Inner City Bypass and Bowen Bridge, Abbotsford and Breakfast Creek Roads.

#### 12.1.5 Land Tenure

Land tenure for the study corridor is shown in **Figure 12-10**, **Figure 12-11**, **Figure 12-12** and **Figure 12-13**. Land tenure has been broadly described under the Digital Cadastral Data Base (DCDB) Tenure Codes within the study corridor and includes:

- Council Land – land held by Brisbane City Council under various tenure, including freehold;
- Freehold – Land held in Fee Simple (freehold title);
- State Leasehold – Leasehold land administered by the Department of Natural Resources, Mines and Water;
- Port and Harbour Boards – State land vested under the control of the Port Authority;
- Railway – State land vested for railway purposes in Queensland Transport and Queensland Rail;
- Reserve – State land reserved by the Department of Natural Resources and Mines for community or public purposes, which may be administered by various Government Departments or agencies; and
- State Land – land held by the State of Queensland as Unallocated State Land and other areas vested in the State (or Crown) but not held in Fee Simple or as a lease issued under the *Land Act 1994*. It includes land that has been surrendered back to the State.

Other tenures not described above include:

- Road Reserves – State land dedicated as roads under the control of either the Department of Main Roads (State-controlled Roads) or Brisbane City Council; and
- Unallocated State Land along watercourses including Enoggera Creek and the original alignment of Kedron Brook.

The majority of land within the study corridor is held in freehold title. Freehold land required for the project will either be acquired by private treaty or resumed. State land (including Lands Lease) will require agreement from

the State or party entitled to tenure. A volumetric title will be necessary for the subsurface land requirements. Tenure for surface facilities has not been finally determined, but will be held as either freehold or leasehold.

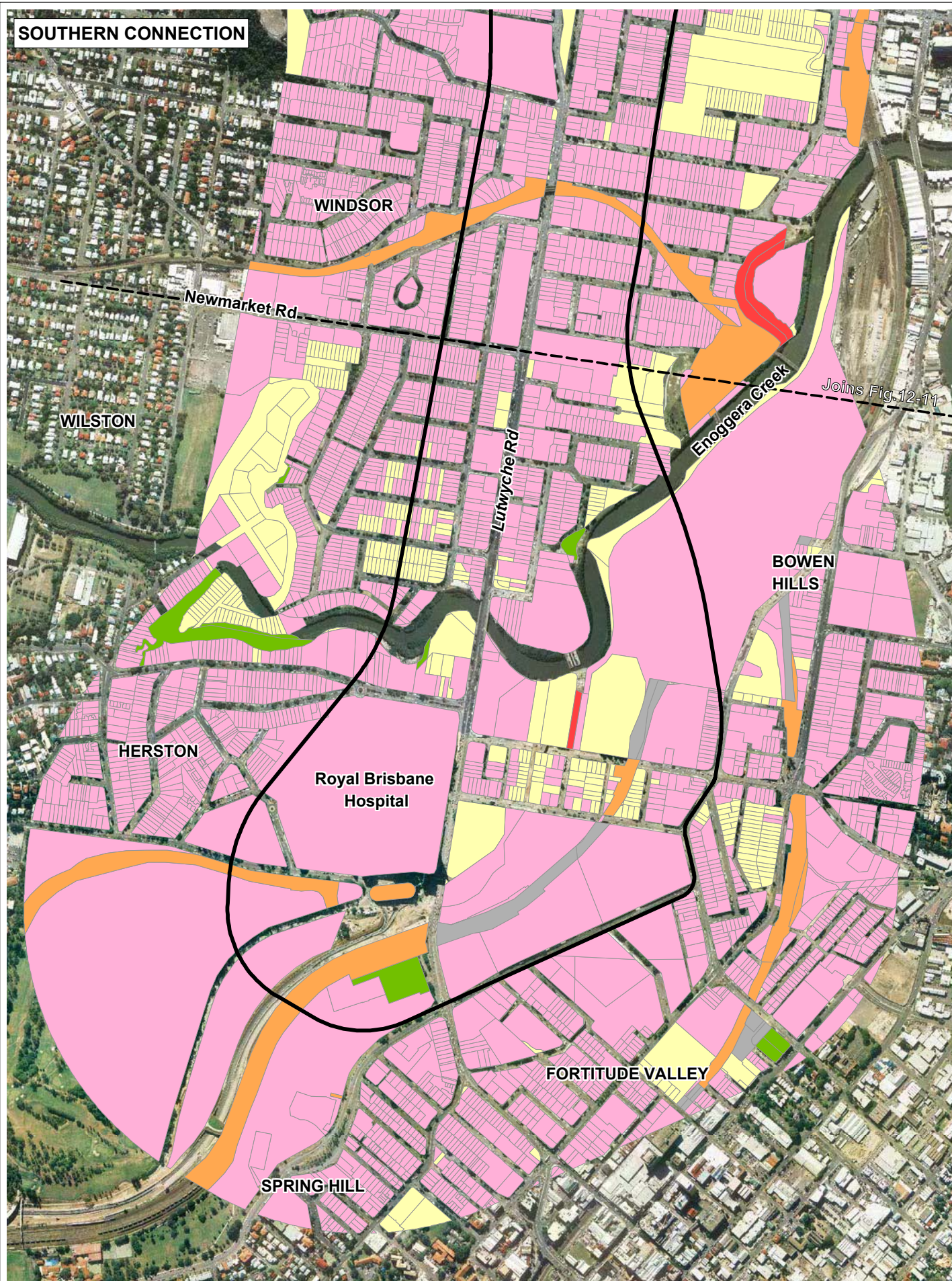
### **Native Title**

There are two registered native title claimants under the Native Title Act. Each claim covers areas of Crown Land across large areas of the City of Brisbane, including the EIS study corridor and beyond. Both claims cover sections of Enoggera Creek and the original alignment of Kedron Brook.

Depending on the process chosen to grant the necessary interests in Crown lands required to construct the Airport Link, native title may either be extinguished or suppressed for the duration of the project. Either of these processes will require compliance with the Native Title Act. The Jagera and Turrbal will need to be consulted and/or negotiations carried out to ensure clearance is obtained.



# SOUTHERN CONNECTION



## LEGEND

- Council Land
- Freehold
- Housing Commission Lease
- Lands Lease
- Railway
- Reserve
- State Land
- Unknown

- Airport Link Corridor
- Figure Extents



0 250 500m  
1:12 500 on A4

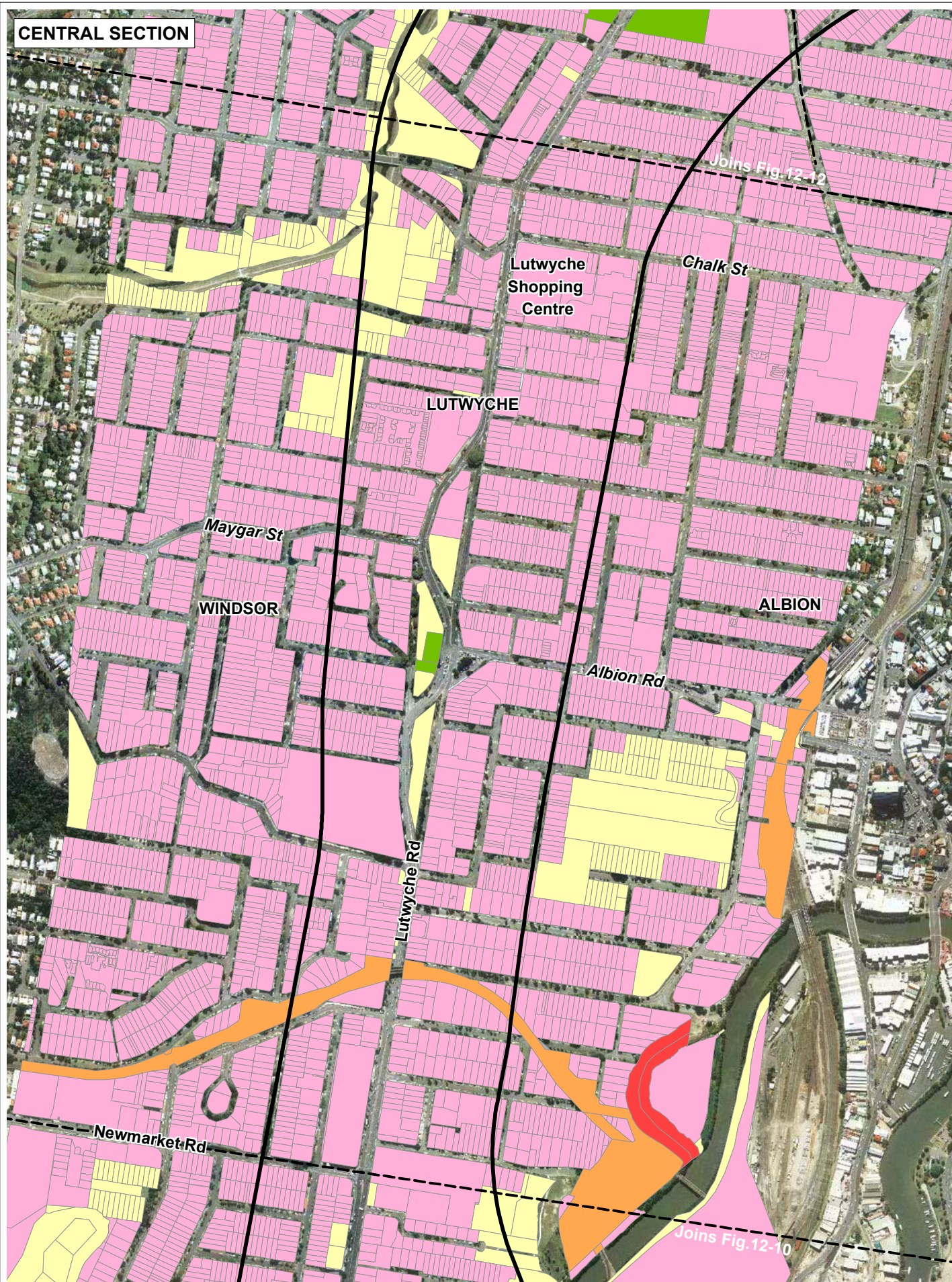
Figure 12-10  
Land Tenure  
Southern Connection



**SKM** Connell Wagner  
JOINT VENTURE



# CENTRAL SECTION



## LEGEND

- |                          |            |
|--------------------------|------------|
| Council Land             | Railway    |
| Freehold                 | Reserve    |
| Housing Commission Lease | State Land |
| Lands Lease              | Unknown    |

- |                       |
|-----------------------|
| Airport Link Corridor |
| Figure Extents        |



0 200 400m  
1:10 000 on A4

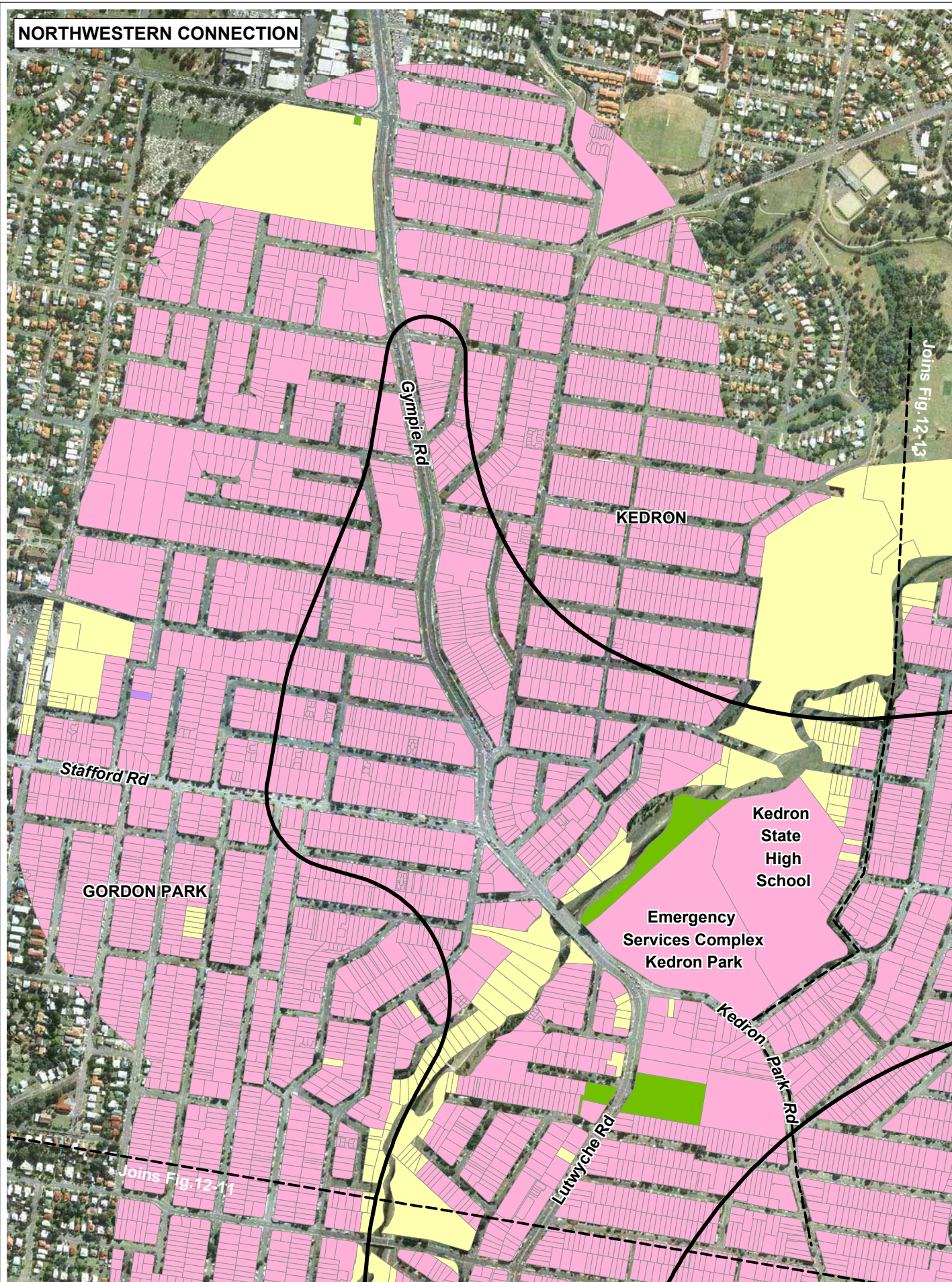
Figure 12-11  
Land Tenure  
Lutwyche Road



**SKM** Connell Wagner  
JOINT VENTURE



# NORTHWESTERN CONNECTION



## LEGEND

Council Land

Freehold

Housing Commission Lease

Lands Lease

Airport Link Corridor

Railway

Reserve

State Land

Unknown

Figure Extents



0 200 400m

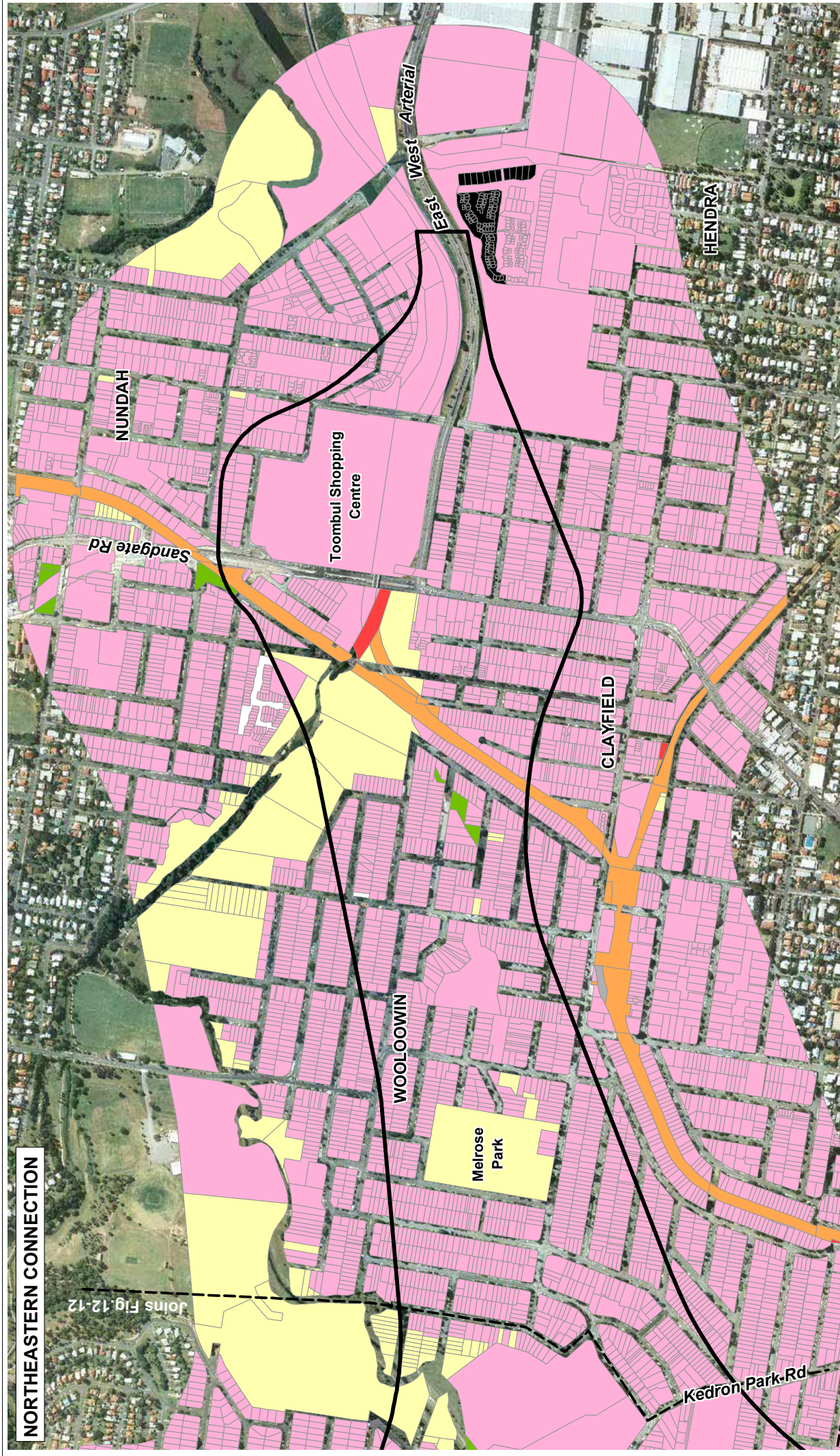
**Figure 12-12**  
**Land Tenure**  
**NorthWestern Connection**

1:10 000 on A4



**SKM** Connell Wagner  
JOINT VENTURE





**NORTHEASTERN CONNECTION**

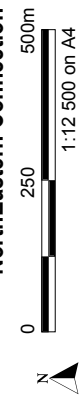
Joins Fig. 12-12

**LEGEND**

- Council Land
- Freehold
- Housing Commission Lease
- Lands Lease
- Railway
- Reserve

- State Land
- Unknown
- Airport Link Corridor

Figure Extents



**Figure 12-13**  
**Land Tenure**  
**North Eastern Connection**

## 12.2 Impact Assessment

### 12.2.1 Regional Planning and Strategic Perspective

Both State and Council policy for integrated land use and transport planning is contained within various planning studies and policy statements where desired outcomes at the highest level variously include:

- Liveable communities – a land use and transport system that improves and supports our urban environment with appropriate connectivity on suitable transport networks that are fit for purpose;
- Safer communities – a land use and transport form that supports the safety and security of users;
- Sustainable communities – a land use and transport form that values, conserves and supports the continuity and health of human and ecological processes; and
- Economic communities – a land use and transport system that supports economic prosperity and growth through the efficient and effective exchange of goods and services.

The project falls under the intended outcome identified in the *BCC Transport Plan for Brisbane* as one element considered necessary to deliver a safe and efficient road network for Brisbane. Equally, it is also considered relevant to assisting achieve the stated outcome in the BCC Plan to deliver goods on time with regard to the safe and efficient movement of freight while protecting residential areas. The project has important relationships to a number of the other strategic transport planning outcomes identified in the *Transport Plan for Brisbane*, notably:

- Assisting with the provision of a quality public transport system through potential integration with the Northern Busway as well as supporting greater public transport opportunities through providing for surface road traffic relief; and
- Providing opportunities for integrated transport and land use through facilitating key land use development opportunities.

The Airport Link Project does not trigger the regulatory provisions of the SEQRP. The study corridor is within the Urban Footprint regional land use category defined in the SEQRP and is not located within a Major Development Area.

Assessment of the potential impact and opportunities of the project in regard to the Regional Policies and Desired Regional Outcomes of the SEQRP are addressed at a strategic level in **Table 12-5**.



■ Table 12-5 SEQRP Regional Policies

Regional Policy	Comment
Sustainability	<p>The SEQRP notes that a key characteristic of a sustainable community in SEQ in 2026 would be high levels of accessibility to activities and services through transport and communication systems.</p> <p>The Airport Link Project will contribute to the sustainability of the SEQ region by improving accessibility between places of residence, work and play. The project will create an alternate transport route through northern Brisbane, which will relieve the existing congested, inadequate and inappropriate surface road network. Improving the capacity of the transport network is particularly important to accessibility of residents given the high population growth predicted in the SEQRP.</p>
Natural Environment	<p>The study corridor is located within the Urban Footprint area of the SEQRP. It does not contain any areas mapped as State significant or regional significant biodiversity areas or koala management areas within the SEQRP.</p> <p>The environmental management plan prepared for the project will need to include mitigation measures for protecting the environmental values of waterways close to project works.</p>
Regional landscape	<p>The study corridor is entirely within the Urban Footprint Area of the SEQRP and does not include areas within the Regional Landscape or Rural Production Area defined in the SEQRP.</p> <p>The Kedron Brook green space network is a recognised component of the Brisbane Green Space System and is valued as a green space corridor providing for conservation and recreation. The Airport Link Project will need to carefully manage impacts on the Kedron Brook green space system in order to maintain the values and functions of this green space system.</p>
Natural resources	The Airport Link Project is not expected to impact the region's natural resources.
Rural futures	The Airport Link Project is not within a rural area.
Strong communities	The Airport Link Project will improve accessibility and connectivity but will need to manage impacts on local access and community distribution near major surface works.
Engaging Aboriginal and Torres Strait Islander peoples	The traditional owners for the area, the Turrbal and Jagera People are actively involved in the cultural heritage assessment of the project. The project may provide opportunity for Aboriginal and Torres Strait Islander people cultural enhancement and employment.
Urban development	<p>Land use change is expected to occur within the study corridor as a result of the urban development strategies outlined in the SEQRP. This will mainly be higher density infill development focussed on major centres (such as the Toombul/Nundah area) and transport nodes.</p> <p>The Airport Link will assist this objective by improving the amenity of the Lutwyche Road corridor. The construction of the project will also create redevelopment opportunities for the area.</p> <p>The Airport Link Project will support the function of the Toombul/Nundah commercial area as a Major Activity Centres by improving the accessibility of the centre and promoting redevelopment as a vibrant, mixed use centre.</p>
Economic development	Airport Link will have a positive impact on the economic development of the SEQ region by improving the movement of people and goods. The project will provide a link in the orbital road system in the greater Brisbane area and will improve access to central Brisbane, the northern suburbs, Brisbane Airport, and other areas of employment such as the Port of Brisbane and places of education and recreation.

Regional Policy	Comment
Infrastructure	<p>The identified strategic transport needs for transport infrastructure investment in Greater Brisbane within the SEQIP are:</p> <ul style="list-style-type: none"> <li>■ Quality public transport connections between Principal Activity Centres;</li> <li>■ Better transport links to industrial and logistics centres, particularly to the Australia Trade coast; and</li> <li>■ Orbital road networks that link centres outside the inner city, reduce traffic congestion and provide a sound basis for future traffic management.</li> </ul> <p>The Airport Link Project will provide an important link in the road system around the Brisbane CBD. The development of the project will contribute to the timely delivery of infrastructure to support the existing and future settlement patterns in greater Brisbane. The project is expected to contribute major improvements in transportation efficiency, providing easier access to the Port of Brisbane, Brisbane Airport and CBD.</p>
Water management	<p>The Environmental Management Plan for the Airport Link Project should seek to minimise water use associated with the project and manage potential runoff.</p>
Integrated transport	<p>The SEQRP emphasises the need for better integration of transport and land use planning recognising the complementary roles played by roads, public transport, walking, cycling and land use. The Airport Link Project is identified in the SEQRP as a project under consideration for establishing a link in an orbital road system around Brisbane CBD. The Airport Link will integrate the road network and provide a more accessible region by increasing accessibility between central Brisbane, the northern Brisbane suburbs, Brisbane Airports, the Port of Brisbane and services and facilities.</p>

### 12.2.2 Local Growth Management Impacts

The BCC Draft City Shape document identifies the Lutwyche Road/Gympie Road corridor, between the RBH complex and Chermside Shopping Centre as an Urban Growth Corridor. It is considered highly likely that the Airport Link Project, through changes in traffic congestion, accessibility, land configuration and amalgamation, will stimulate growth in the Urban Growth Corridor, particularly around the proposed southern and north-eastern portals. Such redevelopment is likely to comprise a mix of land uses that can benefit from the improved accessibility and connectivity provided.

In particular, there is potential for the project to encourage redevelopment around the RBH complex compromising land uses that support the RBH complex. This is consistent with the 'Urban Village' concepts that are articulated in the draft City Shape document and the SEQRP.

These redevelopment opportunities stimulated by the project may be reflected in the final City Shape document as part of the vision of future development in the City. This will promote their inclusion in the Neighbourhood Plans, which are the appropriate pathway for potential growth to be managed.

The portal area at Kedron could also redevelop in line with the 'urban village' concept given the potential transport node associated with a likely northern busway station. Redevelopment of properties affected during construction could include mixed use developments, with active frontages. To encourage 'urban village' development, the architecture of the Airport Link Project will need to be sensitive to the context of the locality.

Kedron Brook is identified in the City Shape strategy as a 'green way'. Green ways are described as wide and attractive pathways connecting homes, transit stops, schools and other destinations. There are potential impacts on the 'green way' from both the north-western connection and the north-eastern connection. The project will need to manage impacts on Kedron Brook and maintain connectivity through the pathway network.

### 12.2.3 Local Area Plans

Land use and building development within the vicinity of ventilation outlets will need to be managed to avoid adverse impacts on the performance of the ventilation outlets after their construction. In particular, building heights near ventilation outlets should be no higher than 10 m below the top of the ventilation outlet. Generally, buildings within 100 metres of a ventilation outlet should not extend above a level equivalent to the height of the ventilation outlet less 10 metres. Beyond that buffer distance, the heights of building should be determined from detailed modelling of air quality impacts.

### 12.2.4 Southern Connection

#### Local Area Plans

##### *Bowen Hills Local Plan*

The project will need to ensure pedestrian accessibility is maintained between key land uses and the Bowen Hills rail station. Essential to pedestrian accessibility is a safe and attractive pedestrian link between Bowen Hills rail station and the RBH. An appropriate connection will need to be provided between Hudd Street to O'Connell Terrace and along O'Connell Terrace to Bowen Bridge Road. To ensure this connectivity, a safe pedestrian access will need to be provided across the Campbell Street, Mayne Road and Hamilton Place intersection. This could be in the form of a pedestrian overpass, given the volume of traffic anticipated. The project will also need to ensure that pedestrian and vehicle access is maintained for commercial and residential properties fronting Campbell Street.

The Airport Link access ramps should not impact existing access to the Mayne Rail Yards and should not preclude the potential for future development of the rail yards.

It is not considered that the project will interfere significantly with the intent of the Bowen Hills Station Structure Plan.

##### *Ithaca District Local Plan*

The project will improve the accessibility of the RBH, which will enhance the role and function of the RBH as a major hospital and allied health facility within the greater Brisbane area. The improved accessibility will increase the attractiveness of surrounding land for redevelopment to provide land uses that can support the role and function of the RBH.

##### *Grange District Local Plan*

The Grange District Local Plan seeks to protect the heritage and character of the Local Plan area north of Enoggera Creek. The project will likely require nearly all the remaining properties within Earle Street and the southern end of Byrne Street as a construction area including for the surface transition and cut and cover works. These domestic dwellings and boarding houses are within the Character Residential Area under City Plan and also the Demolition Control Precinct. While there will be some loss of character housing, the majority, facing Gallway and Bryden Streets and also west of Lutwyche Road remain untouched. It is also unlikely that this will significantly diminish the housing stock in the inner northern suburbs of Brisbane given the expected redevelopment opportunities provided by the project.

The southern connection involves significant structural connections to the planned NSBT over Enoggera Creek. Impacts on the waterway, particularly the mangroves and adjoining open spaces will need to be managed to minimise further losses and protect recreational use of this area.

The project will need to maintain pedestrian/cyclist connectivity through the open space network along Enoggera Creek. Connectivity between the existing pathway at Byrne Street and open space south of the Enoggera Creek crossing is proposed.

## Land Acquisitions and Land Use Implications

The likely number of direct property impacts based on the reference design for the southern connection is shown in **Table 12-6**.

■ **Table 12-6 Property Impacts Southern Connection**

Ownership	Total	Property Usage	Sub Total
Private Residential	22	Investment House	10
		Investment Unit/ Townhouse	1
		Owner Occupied House	10
		Owner Occupied Unit/ Townhouse	0
		Vacant Land	1
Private Commercial	1	Business	1
		Vacant Land	0
Government	11	House	7
		Other	1
		Park	0
		Vacant Land	3
<b>Total</b>	<b>34</b>		<b>34</b>

Premises within the Office Park area at the corner of Evans Street and O'Connell Terrace may be required for the proposed O'Connell Terrace access ramps. These are in addition to premises along Evans Street already acquired for the ICB. The loss of these premises will not significantly impact the overall supply of office premises within this Centre and will not prevent the remaining Special Purpose Area from providing for business and commercial activities to meet the primary focus of the Centre.

Queensland Newspapers Pty Ltd occupies the affected Multi-purpose Centre Area site on Campbell Street. The proposed access ramp connecting to Campbell Street will extend over this site. Impacts on the use of the site are considered to be minimal and will not hinder the continued operation of this land use.

The character housing centred on the construction area along Earle Street is likely to be replaced within modern and mixed commercial/residential development. It is likely that this area will undergo significant land use change associated with redevelopment opportunities over the cut and cover tunnel and around the construction area generally. This will create edges between low density character residential and higher density residential, commercial and transport related development (such as the potential future bus station associated with the proposed Northern Busway). Some urban design and regeneration initiatives will be required to help provide suitable transitions between the old and the new within this area. To manage potential land use change in this area, Brisbane City Council should consider revising the Area classifications and the provisions of the Grange Local Plan relevant to this area. This could be achieved through the Neighbourhood Planning process.

Appropriate redevelopment opportunities will also need to be coordinated with the planned NSBT land uses which included large areas of revegetation and landscape planting on large areas of land isolated by transport

infrastructure. Redevelopment of sites along O'Connell Terrace may also need to be coordinated with the ongoing use and future possible redevelopment of parts of the RNA showground.

### Access and Traffic Movement

There is potential for significant disruption to properties affected by surface road works. The Airport Link Project will need to ensure that access is maintained to:

- Commercial and residential properties in the Office Park area between the ICB and Bowen Bridge Road;
- The residential area in Windsor East; and
- The commercial/industrial area between Campbell Street and Mayne Road.

Traffic diversions may also be required for Gregory Terrace and O'Connell Terrace during the 'Ekka' period and other significant events where requested by the RNA.

### Amenity

Land uses south of Enoggera Creek associated with the Office Park, Special Purpose Centre designation are unlikely to change although there will be direct and significant impacts on the residential apartments adjacent to the western connections. The necessity for noise barriers, in conjunction with the proposal to have a double-decked flyover may significantly impact the outlook to the east and north from these residences.

There is likely to be significant land use change associated with the redevelopment of the area north of Enoggera Creek associated with the construction area of the Airport Link southern portals. Future land use will need to orient itself to the noise barriers and associated landscape of the proposed works and it is likely that building set backs, landscape and design treatments may be required to avoid amenity impacts from the significant roadworks within the area.

#### 12.2.5 Lutwyche Road

Within this section of the corridor, from Federation Street to Norman Avenue, the project will be constructed underground. Land on the western side of Lutwyche Road is within the Grange District Local Plan area. Land on the eastern side of Lutwyche Road is within the Grange District Local Plan south of Stoneleigh Street and within the Clayfield/Woolloowin District Local Plan north of Stoneleigh Street.

The project is likely to provide an overall benefit for the Lutwyche Shopping Centre, reducing traffic on Lutwyche Road by 35%-40%. This will create potential to improve the amenity of the centre area. Potentially, this could benefit outdoor seating and streetscape improvements undertaken as part of a Suburban Centre Improvement Plan. This may create opportunities to improve the pedestrian/cyclist environment, including increased accessibility to the shopping centre, which will strengthen the function of the centre.

The construction phase of the project will result in minimal impact on land uses within this section of the study corridor because no surface land resumptions will be required. However, amenity impacts from trucks transporting soil south along Lutwyche Road from the north-western portal will need to be managed. Sensitive land uses along Lutwyche Road include schools and detached houses. Additionally, the Grange Local Area Plan highlights Council's desire to improve the pedestrian safety of Windsor Primary School. Although most of the pedestrian traffic associated with the school does not use Lutwyche Road, the Environmental Management Plan for the project may facilitate achievement of this initiative through provision of a pedestrian overpass or other management to protect pedestrian safety in the crossing of Lutwyche Road.

## 12.2.6 North-western Connection

### Local Area Plans

Properties between Lamington Avenue/Perry Street and Lutwyche Road are predominantly within the Low-medium Density Residential Area under City Plan, with one premise included within the Community Use Area. The loss of a number of pre-1946 houses adjacent to Lutwyche Road is unlikely to affect the viability of the demolition control areas protecting the remaining “character” residences in this area. Fragmentation of this area is minimised, as the project is effectively a widening of the western side of Lutwyche Road.

The Airport Link if constructed concurrently with the proposed interim stage of the Northern Busway will impact on the Multi-purpose Centre (MP3 - Suburban Centre) Area located around the intersection of Stafford Road and Gympie Road. The potential property acquisitions and access changes will make it difficult for the centre to function effectively, and service the intended purpose of a Suburban Centre outlined in City Plan. It is recommended that investigations be conducted through the Neighbourhood Planning process for a new location for a Suburban Centre servicing the same suburban areas. It may be appropriate to increase the size of the Lutwyche Suburban Centre Area, or the Stafford Suburban Centre Area or to upgrade the Convenience Centre Area located on Gympie Road approximately 500m north of the Stafford Road intersection.

The construction works are likely to impact on the recreational use of the Kedron Brook green space area during the construction phase. The pedestrian and cycle pathway along the Kedron Brook corridor should be maintained as safe and accessible through out the construction phase.

Expected traffic reductions of approximately 15% in Kedron Park Road may provide opportunities for streetscape improvement consistent with local planning intentions.

### Land Acquisitions and Land Use Implications

Land required to facilitate surface works identified for the proposed reference design include commercial premises such as motels and offices, as well as several detached houses and multi-unit residential premises and the PCYC within the remaining premises of the original Lutwyche Police Station. Commercial premises that are directly impacted may potentially relocate to designated centre areas.

The likely number of direct property impacts based on the reference design for the north-western connection is shown in **Table 12-7**.

■ **Table 12-7 Property Impacts North-Western Connection**

Ownership	Total	Property Usage	Sub Total
Private Residential	44	Investment House	16
		Investment Unit/ Townhouse	16
		Owner Occupied House	5
		Owner Occupied Unit/ Townhouse	6
		Vacant Land	1
Private Commercial	13	Business	12
		Vacant Land	1
Government	12	House	2
		Other	5
		Park	3
		Vacant Land	2
<b>Total</b>	<b>69</b>		<b>69</b>



The existing commercial buildings fronting Lutwyche Road, effectively act as an amenity buffer between the activity along Lutwyche Road and the residential neighbourhood behind. The potential loss of these premises may increase the amenity impacts on the neighbourhood, leading to future land use change along Perry Street. This may occur in accordance with the existing Low-Medium Density Area classification, which provides for two to three storey multi-unit residential premises.

Existing buildings and structures in the north-west of the Kedron Department of Emergency Services complex would be demolished as a result of the construction of the proposed reference design. The works would directly impact current land uses both during the construction and operation periods. The function of these buildings could be accommodated in new buildings on a different part of the site. Construction management strategies will need to ensure that the loss of part of the oval does not effect the functioning of the Kedron State High School and safety for students and staff.

Land within the Department of Emergency Services complex, between the tunnel works and Kedron Brook is unlikely to be restored to the current use. Access to this area will be constrained due to the tunnel alignment. The transition structures leading into the east-west connection will also limit connectivity between this area and the remainder of the site. This area of land has been identified for a possible ventilation station, outlet and tunnel control. Access will need to be provided from the western service road off Norman Avenue and passing under the Kedron Brook bridge. There would be associated benefits in providing an active edge to this area under the Kedron Brook bridge.

The majority of properties fronting the eastern side of Gympie Road between Kedron Brook and Leckie Road would be required to allow for the widening of Gympie Road. Affected premises include detached dwellings, multi-unit residential premises and commercial premises including shops, offices and car sales yards. The resultant change, beside the loss of commercial ribbon development, would result in the exposure of residential areas to the redeveloped road.

### **Access and Traffic Movement**

Disruption of access is likely to occur to properties fronting Lutwyche Road between Broughton Road and Norman Avenue. Access to streets connecting to Lutwyche Road in this area may also be affected. Construction of the project is likely to involve staging of the works along Lutwyche Road in order to keep the maximum number of lanes operational at all times. Disruption of access to remaining commercial premises may result in a loss of business and this issue will need to be addressed carefully within recommended construction traffic management plans.

It is likely that construction works will necessitate the temporary closure of part of the pedestrian/cyclist pathway that runs through the Kedron Brook park network. The affected pathway will be in the vicinity of the works across this part of Gympie Road. The temporary disruption could be overcome if an alternative pathway route is constructed across and along the west side of Kedron Brook. Any alternative pathway should be designed and located to ensure adequate public safety.

Current access arrangements for properties along the eastern side of Lutwyche Road, south of Kedron Brook, including Woolloowin Primary, St Andrew's Anglican Church and Kedron Park Hotel will not be negatively affected by the operation of the Airport Link Project. Accessibility to these premises is likely to be improved by the predicted reduction in traffic using Lutwyche Road.

Access to remaining properties along Colton Avenue and Windsor Avenue will be improved by the project, from the extension of Perry Street to Norman Avenue. This will allow access to Lutwyche Road via the signalised intersection.

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Access to properties north of Kedron Brook and east of Gympie Road will be affected by the Airport Link Project. The Gympie Road access from Park Terrace and Lassetter Street will be closed. The Leckie Road intersection will become a left in, left out access to Gympie Road only. Residents travelling north along Gympie Road will need to access the area from Sadlier Street or Castle Street. Likewise, access from the area north along Gympie Road will be from Sadlier Street or Castle Street. The reduced access of traffic into the area may benefit residents, through reinforcing the local nature of the roads and strengthening residential character.

Both the Airport Link Project and the interim stage of the Northern Busway project affect property access on the western side of Lutwyche and Gympie Roads. Swan Street will remain a left in access, however Suez Street will become a bus only access if the interim stage of the Northern Busway proceeds. Commercial premises fronting Gympie Road and residential premises on Suez Street in this area will be accessed by northbound traffic from the left turn into Swan Street. Southbound traffic will be able to access these properties via Stafford Road, Rose Lane then Goulburn Street. This arrangement is likely to impact the local streets of Rose Lane and Goulburn Street with higher traffic flows, which predominantly contain single detached dwellings. This may lead to land use change in the future in accordance with the existing Low Medium Density Area classification, which provides for two to three storey multi unit dwellings.

Safe and attractive pedestrian and cyclist access will need to be provided along Kedron Brook underneath the Airport Link structures.

### Amenity

Design elements incorporated into the road infrastructure will need to be sensitive to the context of the locality. It is likely that acoustic barriers will be required along Perry Street, Gympie Road and Stafford Road in the vicinity of the portal as well as along elevated road infrastructure. The acoustic barriers have the potential to impact on the visual amenity of the locality due to the required height of the barriers and resultant visual intrusiveness to residents, road users and visitors.

Land use impacts from possible amenity mitigation measures such as noise barriers are likely to be significant. Due to the partially elevated nature of the proposed surface road works, noise barriers may be required to a significant height. Generally noise barriers, particularly in a residential area should be designed, sited and constructed to avoid reduced neighbourhood connectivity, reduced visual amenity, unsafe pedestrian environments and reduced penetration of cooling breezes and natural light into buildings located near the barriers. These conditions may not be achievable in certain locations associated with the project and more suitable land uses may need to be considered. Such uses could include commercial and business activities within largely enclosed (air-conditioned) structures. Significant attention will also need to be given to extensive landscape treatment to soften the edge of these structures.

During construction, demolition of existing buildings is anticipated to occur on acquired properties. This will increase the amenity impacts of adjoining properties, as they will form the new 'front line' of properties closest to the tunnel works or main road corridor. Noise barriers will be provided along the edge of the infrastructure in this area. The design of the noise barriers should consider future increases in building height, such as three storey multi-unit residential premises.

## 12.2.7 North-Eastern Connection

### Local Area Plans

#### *Clayfield/Woolloowin District Local Plan*

The project is largely consistent with the intent of the Local Plan to protect the character of the area by preserving 'timber and tin' housing and pre-1945 streetscapes. The role of the Eagle Junction Shopping Centre



will be reinforced as a Convenience Centre through the reduction in through traffic on the Rose Street and Junction Road route, which will increase the accessibility of the centre as a local shopping destination and facilitate increased local interaction. The potential for impact on Kedron Brook during construction will need to be suitably managed. It will be necessary to ensure that a pedestrian and cycle path along the Brook remains accessible during construction and the area is suitably rehabilitated and revegetated consistent with the improvements to the Kedron Brook green space network that are envisaged in the Local Plan.

### *Nundah District Local Plan*

The project is consistent with the broad development principles of this Local Plan which seek to retain the mix of low and low-medium density housing as the dominant land use and encourage higher density housing around major transport nodes. The identified transport nodes include the Toombul rail station and Toombul Shopping Centre. In increasing the accessibility of Toombul, the project will promote redevelopment at increased densities in and around these transport nodes, which will become integral features within the mixed use precinct. This type of development will also assist to strengthen the role of Toombul Shopping Centre as the retail and community focus for the district and this is consistent with the intent of this Local Plan.

Similar to the Clayfield/Woolloowin District Local Plan, it is intended that pedestrian and cyclist connectivity along the Kedron Brook open space network is suitably rehabilitated and revegetated consistent with the improvements to the Kedron Brook green space network that are envisaged in the Local Plan.

### *Toombul - Nundah Major Centre Local Plan*

The project will contribute positively towards enhancing the function and accessibility of the Toombul – Nundah Major Centre, which is a primary objective of this Local Plan. The project will promote redevelopment of the Centre for a wide range of land uses, including higher density residential uses that can benefit from proximity to transport nodes such as Toombul rail station and Toombul Shopping Centre for buses. The increased population in this location may promote after-hours activities, which will add to the vibrancy of the Centre and strengthen its role.

Despite the loss of the overflow car park south of Schulz Canal, it is proposed as part of the Airport Link reference design to redevelop this area for open space, which will provide a vital link between the surrounding open spaces. This is consistent with the intent of the Local Plan.

## **Land Acquisitions and Land Use Implications**

The likely number of direct property impacts based on the reference design for the north-eastern connection is shown in **Table 12-8**.

■ **Table 12-8 Property Impacts North-Eastern Connection**

<b>Ownership</b>	<b>Total</b>	<b>Property Usage</b>	<b>Sub Total</b>
Private Residential	34	Investment House	0
		Investment Unit / Townhouse	22
		Owner Occupied House	3
		Owner Occupied Unit / Townhouse	9
		Vacant Land	0
Private Commercial	1	Business	1
		Vacant Land	0
Government	8	House	1
		Other	0
		Park	4
		Vacant Land	3
<b>Total</b>	<b>43</b>		<b>43</b>

### *Park Road to Kalinga Street*

Construction of the tunnel from Park Road to Kalinga Street will require the creation of volumetric titles through residential properties under which the tunnel will run. All of the affected properties are within the Low Density Residential Area and are occupied by predominantly detached houses. With the exception of one property, these properties are also within the Demolition Control Precinct. Volumetric titling will not affect existing land uses at surface level and there will be no loss of land within the Low Density Residential Area or the Demolition Control Precinct.

Kalinga Park caters for a range of passive and active recreation activities and is valued for its visual amenity and connectivity to the broader green space system. The Queensland Miniature Car Club operates within the park. The project will reduce the supply of Sport and Recreation Area and Parkland Area classified land within Kalinga Park. It is intended that the loss of parkland associated with the transition structures and any areas required above the cut and cover tunnel between Sandgate Road and the North Coast Railway will be offset by the provision of open space east of Sandgate Road.

Construction works associated with the upgrade of the intersection of Sandgate Road and the East-West Arterial Road will require full and partial acquisition of premises fronting Sandgate Road. The impacted premises are included within the Low-medium Density Residential Area and are occupied by detached houses and multi-unit premises. Some premises will be subject to partial acquisition for associated widening of Sandgate Road to allow left hand turn lane into the proposed tunnel. The loss of premises within this area has been minimised and will not fragment the residential area.

Construction works to upgrade the East-West Arterial Road, Sandgate Road and Schulz Canal will result in the loss of land used for car parking included within the Multi-purpose Centre (MP2 - Major Centre) Area occupied by Toombul Shopping Centre. This is an overflow car park and its loss both south and possibly north of Schulz Canal may affect the development approval of the Shopping Centre regarding car parking provisions. The vision for the Toombul/Nundah Major Centre Local Plan includes intensified redevelopment of Toombul Shopping Centre and surrounds. This impact will need to be considered in relation to its effect on the viability of the Shopping Centre and potential alternatives to the loss of this land, such as the development of a multi storey car park.

### **Access and Traffic Movement**

The main impacts of the project on access include:

- Pedestrian/cyclist access to and within the Kedron Brook green space network; and
- Pedestrian access from Sandgate Road to Toombul Shopping Centre.

Access to Kalinga Park and the associated Kedron Brook pedestrian and cycle path will need to be kept open during construction from Lewis Street, Jackson Street and Stuckey Road. The provision of an alternative pathway north of Schulz Canal that connects the pathways east of Melton Road and west of the worksite in Kalinga Park will involve construction of a crossing over Kedron Brook.

Access to properties affected by road widening works on the southern side of Sandgate Road will need to be maintained during construction.

The reduction in through-traffic using Park Road, Rose Street and Junction Road will have an impact on patronage of the Eagle Junction Shopping Centre as this centre currently benefits from passing trade. This centre is classified as a Convenience Centre under the City Plan and such centres are intended to provide local services

within walking distance of local residents. The local service function would however, not be impaired as a result of the project and removal of through-traffic from this route along with centre improvements will enhance the character and accessibility of the centre to local residents and strengthen its local function.

The increased vehicle accessibility of the Toombul/Nundah Major Centre, including Toombul Shopping Centre, as a result of the project will promote redevelopment of premises for intensified mixed use redevelopment in accordance with City Plan. Particular consideration however will need to be given to pedestrian access through and around the Sandgate Road/East-West Arterial intersection.

### **Amenity**

It is likely that acoustic barriers will be required in the vicinity of the north-eastern portal, along the East-West Arterial Road, Sandgate Road and adjacent to the project corridor to meet noise standards. The acoustic barriers have the potential to impact on the visual amenity of the locality due to the required height of the barriers and visual intrusiveness to residents, road users and visitors. Acoustic barriers will need to be designed, sited and constructed to avoid reduced neighbourhood connectivity, unsafe pedestrian environments and enable penetration of cooling breezes and natural light into buildings located near the barriers.

## **12.3 Mitigation Measures**

### **12.3.1 Land Use and Zoning Changes**

Mitigating the impacts of the Airport Link Project on surrounding land holdings and land uses should be focussed on the opportunities presented by the project for urban regeneration as an overarching strategy for possible land use and zoning changes. As such, this discussion is a summary of the land use opportunities presented by the Airport Link Project taken from Chapter 20 – Framework for Urban Regeneration.

The experience with many transport infrastructure projects has seen land use and urban form change dramatically and quickly as the private sector responds to changed conditions such as improved accessibility, environmental conditions and amalgamation of smaller lots. New development fronts can be opened up and land use intensity can increase. Often such change occurs in an ad hoc manner, with the potential benefits flowing from infrastructure investment not being fully realised.

The Airport Link Project has the potential to influence and benefit the City's residents and future generations for the next 100 years. Land use changes considered necessary to complement the ultimate planning for the transport corridor will be the responsibility of Brisbane City Council while having regard for the framework of State policies and regional planning strategies intended to guide infrastructure and development. This strategy would form part of City Plan.

Through amendments to City Plan, redevelopment could occur in ways consistent with desired planning outcomes. Simultaneously, City Plan amendments could offer incentives to the private sector to provide community enhancements such as:

- Additional open space or enhanced areas within the public realm;
- Public access networks through sites to increase permeability for pedestrians and possibly motor vehicles;
- Advantageous locations of public transport connections;
- Supported community facilities in accessible locations (e.g. ground floor library space within a commercial development); and
- Increased opportunities for affordable housing.

Suggesting changes to land use and zoning in order to mitigate the impacts of the Airport Link Project is not a simple matter of suggesting condition for project approval. Local planning outcomes ought to be developed through the neighbourhood or local planning process being pursued by the Brisbane City Council as part of the process of amending planning instruments through an intensive process of community engagement. This process is expected to be implemented over the next five years or more, and in time to manage potential changes to land use and travel demand. Interim measures may need to be introduced to City Plan to manage the process of change during the construction phase as well.

As redevelopment occurs in the study corridor, partly in response to the strategic advantages of the corridor, and partly in response to the benefits of the Airport Link Project, consultation in the plan-making process will need to take place.

Urban regeneration initiatives would seek to avoid some of the more commonly occurring effects of uncoordinated development of infrastructure, land and community structures. Some of these effects could result in the City and its future generations living with unplanned and possibly undesirable consequences, such as:

- Ad hoc development and undesirable land use change;
- Blighted, sterilised land along the study corridor due to surface connections limiting accessibility for multiple transport users;
- Diminished liveability outcomes, such as harsh urban characters created by inappropriate or insensitive design and siting of infrastructure elements, diminished urban environmental quality (e.g. road traffic noise, air quality along congested surface roads), diminished visual quality in urban settings, and loss or alienation of community facilities and landmarks;
- Technical solutions to infrastructure development, possibly leading to inequity in the distribution of local benefits off-setting local impacts;
- Lost opportunities to capture the added value of urban regeneration, leading to a future requirement for future and possibly remedial investment in community infrastructure and other infrastructure; and
- Little if any community support for the project within the corridor.

As outlined in Chapter 20 – Framework for Urban Regeneration of the EIS, there are a number of locations in the study corridor, which would benefit from the implementation of land use programs, which would complement the ultimate planning for the transport corridor. If they could be implemented in step with the implementation of the Airport Link Project, there is potential for added benefits to the long-term liveability of the study corridor. The recommended program initiatives include:

### **Windsor East**

- Neighbourhood planning studies and community consultation to address redevelopment potential, circulation, access and connectivity, built form and infrastructure requirements for sites east of Lutwyche Road and south of Ferny Grove railway.

### **Lutwyche**

- Neighbourhood planning studies and community consultation to address land use change south of Gympie Road – Kedron Park Road to address:
  - Redevelopment of Lutwyche centre, including form, function, mixed use;
  - Accessibility and infrastructure requirements including car parking, and multi-modal transport;
  - Corridor opportunities.

### **Kedron/Gordon Park**

- Neighbourhood planning studies and community consultation to address redevelopment potential, circulation, access and connectivity, built form and infrastructure requirements for:
  - Sites east of Gympie Road and south of Hamilton Road, bounded by Kedron Brook; and
  - Sites along Stafford Road and east of Webster Road.

### **Woolloowin**

- Review of City Plan provisions, including local planning, to manage land use change, for:
  - Sites along Kedron Park Road – Bridge Street corridor; and
  - Sites in Park Road – Rose Street locality

### **Clayfield**

- Review of City Plan provisions, including local planning, for Clayfield (Sandgate Road corridor south of Junction Road, north of Albion Road) to manage land use change.

### **Toombul**

- Neighbourhood planning studies and community consultation to address redevelopment potential, function of Toombul centre, circulation, access and connectivity to the centre and the rail station, built form around the centre and the rail station, and infrastructure requirements for sites east of North Coast Railway, west of Melton Road, south of Nundah centre and north of Schulz Canal.

## **12.3.2 Local Area Plans**

The following mitigation measure is relevant to local area plans in the vicinity of ventilation outlets:

- Review of City Plan provisions, including local planning, to ensure that land use and building development near each ventilation outlet does not cause adverse impacts on the performance of the ventilation outlets.

## **12.3.3 Performance Criteria**

Suggested objectives and a range of potential performance criteria and protection measures for land use and also public spaces particularly during the construction stages of the project are set out below.

### **Residential**

#### *Objectives*

- To minimise the impacts on residential land availability.
- To preserve the residential character of the residential neighbourhoods.
- To protect and enhance the amenity of residential neighbourhoods during the construction and operation phases.

#### *Performance Criteria*

- Minimise the loss of land included in the Residential Area under the City Plan and identify new residential sites as a result of redevelopment sites created by the reference project.
- Incorporate new residential sites in appropriate locations which arise from the reference project.
- Minimise the loss of pre-1945 character housing stock from the study corridor.
- Manage the visual impacts of structures and landform changes through design and use of materials that are sensitive to the context of the locality.

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- Locate, design and construct acoustic barriers to avoid a reduction in neighbourhood connectivity, unsafe pedestrian environments and reduced penetration of cooling breezes and natural light into buildings.

## Multi-Purpose Centres

### Objectives

- To maintain the function of the Multi-Purpose Centres and protect the potential for the centres to develop in accordance with the City Plan.
- To maintain and enhance accessibility of Multi-Purpose Centres from the surrounding suburbs.

### Performance Criteria

- Maintain existing access points to Lutwyche and Toombul Shopping Centres.
- Reflect land use changes to the Multi-Purpose Centres resulting from the reference project in the City Plan, and CityShape planning process.

## Community Use

### Objectives

- To minimise impacts that will constrain the functioning of Community Use Areas.

### Performance Criteria

- Rehabilitate areas affected by cut and cover construction works and worksites to enable re-use of the land for current purposes.
- Erect protective barriers around transition structures to prevent unauthorised access during the construction and operation phases.
- Identify alternative locations for activities that will be affected during construction works to be undertaken.
- Investigate options to relocate Community Uses that will be permanently impacted on by the reference project to redevelopment sites that will be created by the reference project.
- Reflect the land use changes to Community Uses resulting from the reference project in the City Plan and CityShape planning process.

## Industry

### Objectives

- To minimise the loss of land included in the Industrial Areas designation under the City Plan.

### Performance Criteria

- Investigate options to utilise redevelopment sites for industrial purposes.

## Open Space

### Objectives

- To preserve and enhance the Kedron Brook Green Space Network as a regional public open space resource.
- To maintain accessibility to the Kedron Brook Green Space Network from surrounding areas.

### Performance Criteria

- The reference project will not create a nett loss of open space in the study corridor upon completion of construction works.
- Take reasonable and practicable measures to avoid, or mitigate and manage the potential construction impacts on the Kedron Brook Green Space Network.

- Maintain safe access points to the Kedron Brook Green Space Network and provide alternative, safe access points during the construction phase.
- Maintain connectivity between both sides and along both banks of Kedron Brook during the construction and operation phases.
- Provide separate access points to the Kedron Brook Green Network for construction vehicles and the public.
- Erect physical barriers around construction areas and worksites during the construction phase.
- Undertake rehabilitation works to areas impacted by construction works to enable re-use for parkland and sport and recreation purposes consistent with City Plan designations.
- Redevelop the overflow car park area associated with Toombul Shopping Centre, south of Schulz Canal, to develop this area as new green space, which will extend the green space corridor consistent with the intent of the City Plan.
- Identify opportunities for new Green Space areas from other redevelopment sites created by the reference project.
- New pedestrian and cyclist paths shall connect to the existing path system wherever possible.