

6. Urban design

6.1 Introduction

This urban design chapter identifies potential impacts to the existing urban environment as a result of the South East Busway extension from Rochedale to Springwood, and assesses how they can be best managed with urban design treatments. Opportunities to improve the urban environment as part of the busway planning are also identified. Illustrations are presented to enable the public and technical advisers to visualise potential design options or outcomes for an area. These illustrations are also an effective tool to be utilised in community consultation.

Urban design outcomes for the South East Busway extension from Rochedale to Springwood were considered within the context of current planning being undertaken by Logan City Council for the Greater Springwood Master Plan, and the planning completed for the Pacific Motorway Transit Project. The South East Busway as a whole is also an important consideration to ensure continuation of a recognisable busway design.

6.2 Methodology

Previous urban design investigations and established standards have been utilised in this study where necessary. As the South East Busway extension from Rochedale to Springwood is a long-term planning project, urban design considerations have been strategic in nature and focused on identifying high-level urban design treatments to mitigate any impacts surrounding proposed engineering options.

Urban design treatments were developed to:

- mitigate impacts associated with engineering options
- identify opportunities to improve the urban environment.

Concept drawings were developed to represent urban design treatments. These will be used to communicate and consult with key stakeholders and the community.

6.2.1 Previous investigations

Springwood Bus Station Workshop Outcomes Report

The Springwood Bus Station Workshop was a joint workshop between Logan City Council and the Department of Transport and Main Roads. The workshop identified Springwood busway station location options as well as criteria, which were used to assess the options based on benefits and impacts. The criteria included a range of factors that supported a vision of the busway extension. The preferred station location was identified at a high level and reported in an 'outcomes report'.

This urban design study utilised the findings from the outcomes report and further assessed the preferred station location.

Springwood Town Centre Master Plan Background Report

This report was released by Logan City Council and Buckley Vann in 2006 and identified future aspirations and strategies for the future development of Springwood town centre. Relevant information within this document included structure planning investigations, which indicate future land uses for the Greater Springwood area.

Future land uses include:

- high-density residential
- public space
- core town centre area
- pedestrian-based retail areas.

An analysis of the existing urban environment within the Springwood area was also useful in identifying appropriate urban design treatments to be proposed for the busway extension.

Landscape and Urban Design Guidelines — Pacific Motorway Transit Project

These guidelines were prepared as a design response to the Pacific Motorway Transit Project Sections A and B, from south of the Gateway Motorway through to the Daisy Hill/ Centenary Road region. The Department of Transport and Main Roads has demonstrated commitment to utilising these guidelines for the South East Busway extension from Eight Mile Plains to Rochedale. The South East Busway extension from Rochedale to Springwood will draw upon these guidelines where relevant, with the aim of softening and improving the attractiveness of the corridor. Relevant features from the guidelines include:

- plant species to be used in screening and buffering
- textures and patterns to be used on wall structures
- landscaping themes.

The application of these design features will be investigated in future planning phases.

6.2.2 Additional investigations

A design process was conducted to address the need to mitigate impacts and opportunities associated with concept designs, and the need to communicate these visually when consulting with stakeholders and the community. The design process commenced with a 'launch pad' meeting where the scope of work was identified.

The study area for the urban design investigations was divided into three precincts. These precincts are illustrated in Figure 6-1 and were nominated as:

- Precinct 1: Underwood Road to Rochedale Road
- Precinct 2: Rochedale Road to Springwood Road
- Precinct 3: Springwood Road to Springwood bus station.

Urban design strategies were prepared for each precinct. A workshop was undertaken to discuss the findings according to:

- existing reports and guidelines
- the existing environmental situation
- the engineering options available
- the issues and opportunities related to the site.



Figure 6-1: Urban design precincts

6.3 Preliminary analysis

6.3.1 Existing situation

The existing situation within the corridor was reviewed to identify current characteristics that could be utilised in developing urban design strategies. This analysis also identified characteristics that contribute to a negative impact on existing urban amenity.

The Pacific Motorway has formed an impenetrable visual and physical barrier between the east and west sides of the motorway, in the Rochedale South and Springwood area. Residential, retail and commercial land uses characterise the eastern side while light industrial and residential uses are predominately located on the western side of the motorway.

Rochedale South

The eastern side of the motorway between Underwood Road and Springwood Road is characterised by low to medium density residential development with primarily detached housing and some pockets of townhouse development. Due to the proximity of the Pacific Motorway, the amenity in some sections is subject to significant vehicle generated noise, exhaust emissions, haphazard landscaping as well as visual and physical constraints.

The Pacific Motorway Transit Project Urban Design Guidelines incorporates grid lines into its design textures which reflect the geometric street lines of the Rochedale residential community. The guidelines also note that melaleuca bushland is a dominant feature of this area and as such melaleuca bark textures is also included in the designs. The images below represent the existing environment in the Rochedale South area.

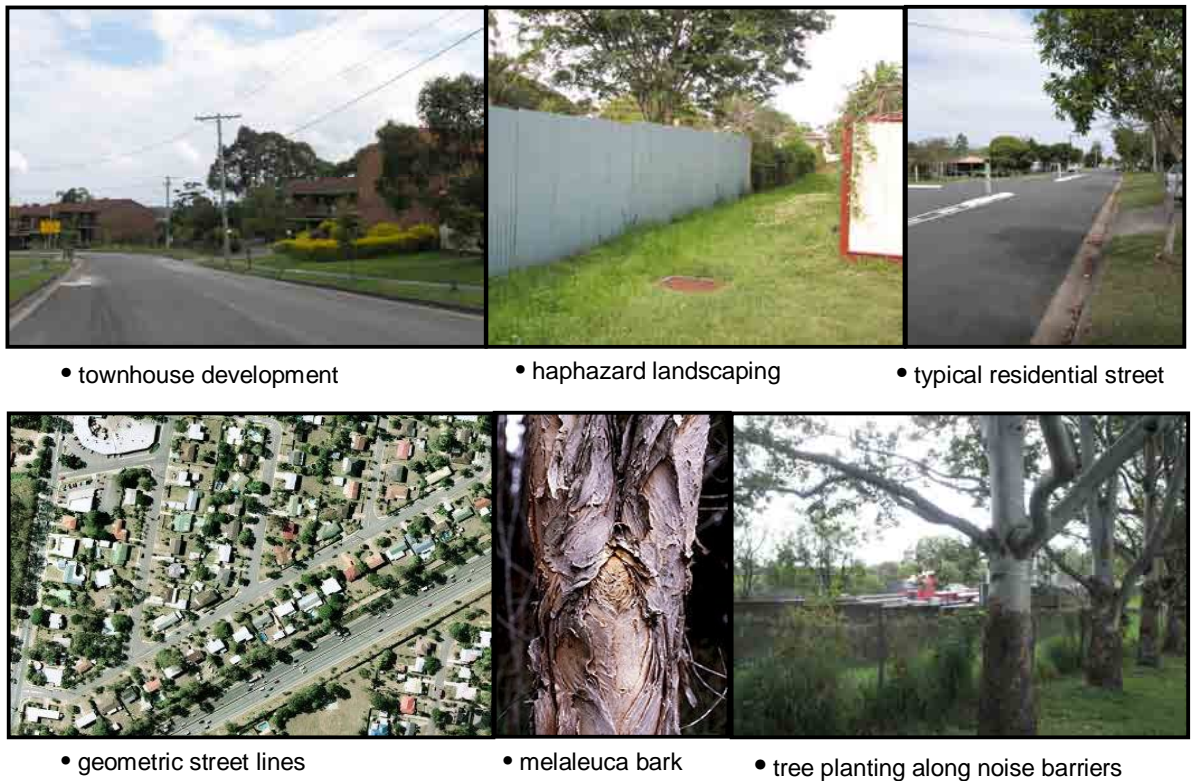


Figure 6-2: Existing urban environment — Rochedale South



Figure 6-3: Existing urban environment — Springwood

Springwood

Commercial land uses, including enclosed shopping centres and large format retail uses, dominate the Springwood town centre. There is a significant amount of low-intensity uses in this area, such as car yards and showrooms, and a number of professional services and smaller-scale office uses (Buckley Vann 2006). There is a lack of active street frontage and legibility within the core Springwood area. Large areas of on-street parking and high traffic volumes also contribute to a poor pedestrian environment (Buckley Vann 2006).

The Pacific Motorway Transit Project Urban Design Guidelines state that the Springwood town centre area is an open zone with mid-distance views to industrial and commercial development. Detailed planting and structural design is to ensure that key views and vistas are retained in the future (EDAW 2006). Kauri pine textures are proposed as a new character element to represent this central Springwood area (EDAW 2006).

The existing Springwood bus station was implemented in 2003 and consists of two bus platforms and a pedestrian overpass with lifts and stairs, and a third platform along the eastern edge (i.e. southbound direction) of Rochedale Road. The Springwood bus station is located adjacent to the Pacific Motorway and Logan Road/Fitzgerald Avenue to enable efficient connections for buses travelling from the western side of the Motorway. The pedestrian overpass is however limited in its connectivity with the shopping precinct due to its orientation towards Fitzgerald Avenue.

The images in Figure 6-3 illustrate the existing land use and environment of the central Springwood area.

6.3.2 Managing issues and opportunities

Precinct 1 — Underwood Road to Rochedale Road

The busway is proposed to run in close proximity to residential houses on the eastern side of the Pacific Motorway and will therefore have an impact on the properties in this location. Between Underwood Road and Rochedale Road, four potential urban design strategies have been proposed to mitigate the impacts of the busway.

The final alignment of the busway extension and associated engineering features is reliant on a range of environmental factors and property impacts. Depending on the findings of future investigations and property consultation, a mix of these strategies could be utilised. The first three strategies apply to the section between Rotheron Drive and Narrawong Street. The fourth strategy applies to Karoonda Crescent.

Strategy 1 is a landscape solution which takes advantage of a wider corridor to create a 'green' busway corridor. This design proposes landscaping treatments which give an attractive park edge to Rotheron Drive and the Pacific Motorway. The noise mound also provides more opportunities for vegetation planting.

The key characteristics of Strategy 1 are:

- attractive landscaping to create a 'park' edge to Rotheron Drive
- 'green' view from the busway corridor
- noise mound (or noise wall)
- extensive property acquisition
- reuse potential limited to parkland
- additional earthworks costs.

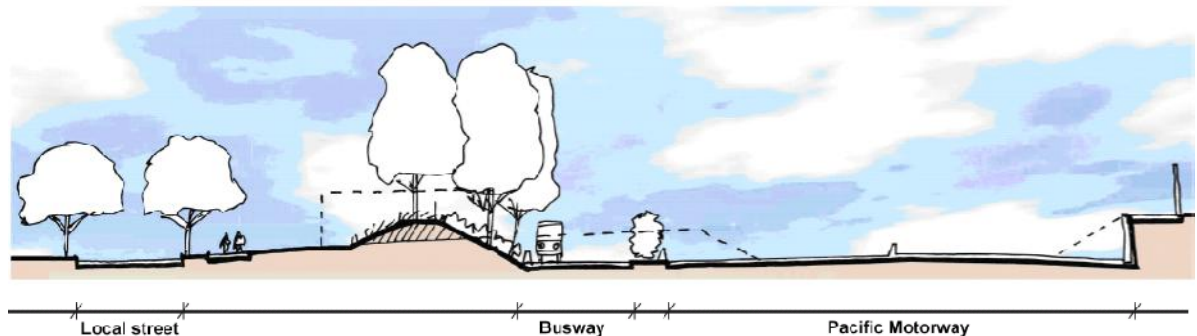


Figure 6-4: Typical cross-section through Precinct 1 — Strategy 1

Strategy 2 responds to the option of building a retaining wall and noise barrier and maintaining the busway extension and motorway in a narrower corridor. The opportunities surrounding the retaining wall include the ability to create a 'green' wall beside the motorway that is achieved by vegetation planting (climbers). However, the greatest opportunity relating to this strategy is that it minimises the amount of property acquisitions required.

The key characteristics of Strategy 2 are:

- minimal property acquisition
- maximises area of remaining land
- potential for 'green' wall
- limited landscaping to busway and motorway
- limited depth of blocks
- additional cost of retaining wall.

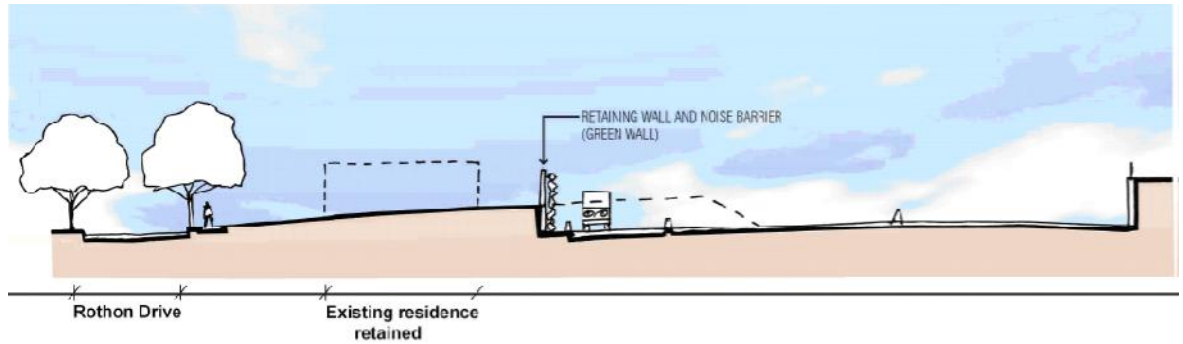


Figure 6-5: Typical cross-section through Precinct 1 — Strategy 2

Strategy 3 uses a mix of Strategies 1 and 2 to protect for potential reuse, utilising remnant land associated with a narrower corridor. A redeveloped site may act as an additional sound barrier for the existing residential community. Noise impacts on redeveloped sites may be mitigated with design treatments to windows such as double glazing.

Key characteristics of Strategy 3 are:

- active use of land is protected
- complimentary land uses can be located with good access to public transport
- requires property acquisition
- difficulty in maintaining landscaping on a steeper batter slope.

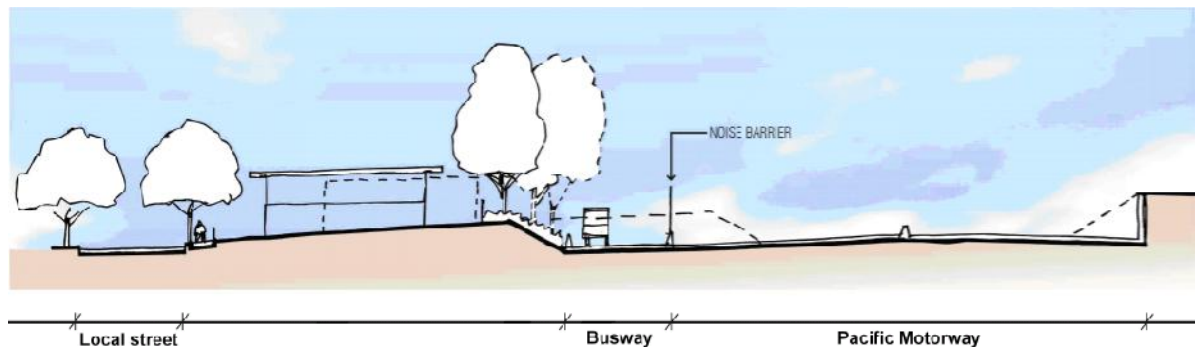
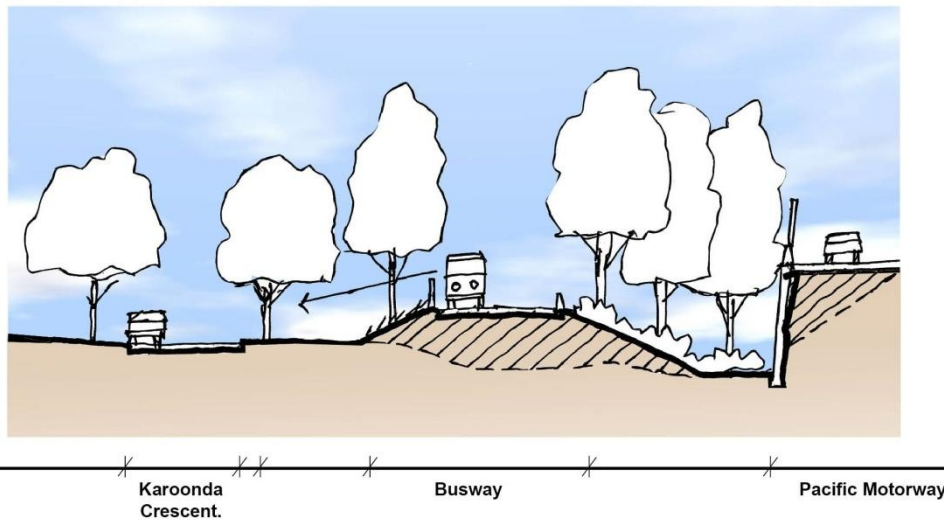


Figure 6-6: Typical cross-section through Precinct 1 — Strategy 3

With Strategy 4, at Karoonda Crescent, the busway diverges east to cross under the realigned Rochedale Road off-ramp. Figure 6-11 represents the section between the motorway and Karoonda Crescent and utilises landscaping opportunities to create an area of 'urban forest'. It would be desirable to apply Crime Prevention Through Environmental Design principles to this area to ensure the urban forest maintains a safe environment. This strategy also provides a 'park' edge to the busway, where property acquisition has occurred. Key characteristics of this strategy include:

- creation of 'urban forest' area
- property acquisition required
- 'park' edge to busway.



**Figure 6-7: Typical cross-section through Karoonda Crescent
Precinct 2 — Rochedale Road to Springwood Road**

The designs proposed in Precinct 2 aim to mitigate the impacts to the urban environment surrounding the realignment of Rochedale Road.

Strategy 1 (see Figure 6-8) illustrates the reuse potential on the resized blocks where existing property has been removed.

The key characteristics of Strategy 1 are:

- 'green' retaining wall
- acquisition of properties
- retain active use of site.

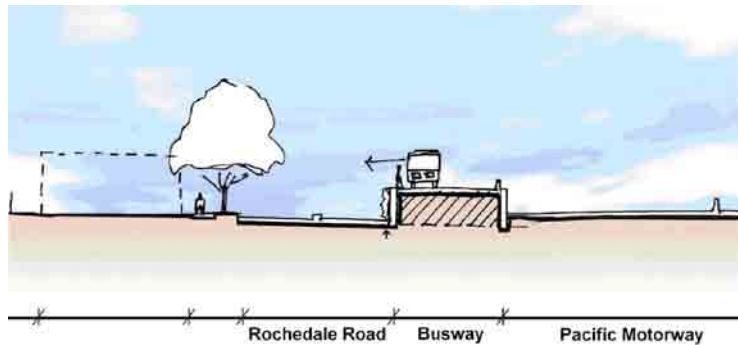
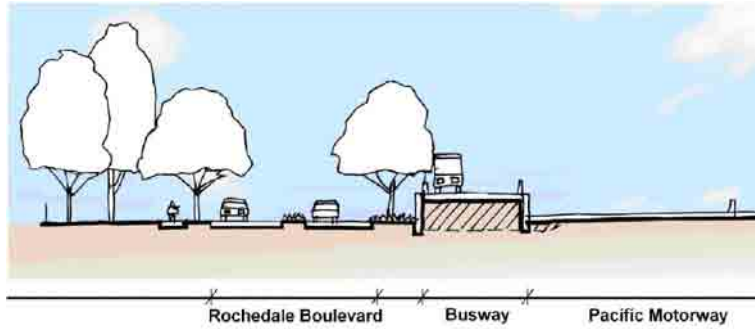


Figure 6-8: Typical cross-section through Precinct 2 — Strategy 1

Strategy 2 shows the alternative of creating a 'Rochedale Boulevard' with an adjacent park. Strategy 2 requires a wider cross-section for Rochedale Road to incorporate amenity and access improvements.

The key characteristics of Strategy 2 are:

- 'green' busway corridor
- acquisition of properties
- significant landscaping opportunities
- improved pedestrian and cycle facilities.



**Figure 6-9: Typical cross-section through Precinct 2 — Strategy 2
 Precinct 3 — Springwood Road to Springwood bus station**

A high-level review of the Springwood Bus Station Location Workshop outcomes was carried out with the aim of identifying and building on the opportunities and further minimising any impacts. This review, along with subsequent design sessions, identified the following issues that required mitigation or management:

- visual/physical impact of bus infrastructure
- further severance and isolation due to the location of the bus station
- noise and acoustics
- the quality of under-croft space
- existing safety issues, particularly at night, surrounding pedestrian walkways.

The following urban design objectives and opportunities are proposed for Springwood (see Figures 6-10 and 6-11):

- activate street edges surrounding Springwood bus station precinct (Rochedale Road and Fitzgerald Avenue/Logan Road)
- maximise safety through pedestrian and traffic surveillance (using Crime Prevention through Environmental Design principles)
- maintain a functional and efficient relationship between the Springwood busway station and local bus interchange
- provide a station 'front door' or 'hub' which will also assist in navigating the station platforms
- design for quality pedestrian and cycle facilities
- provide sufficient pedestrian access from the station to the south-east (where future development is proposed).

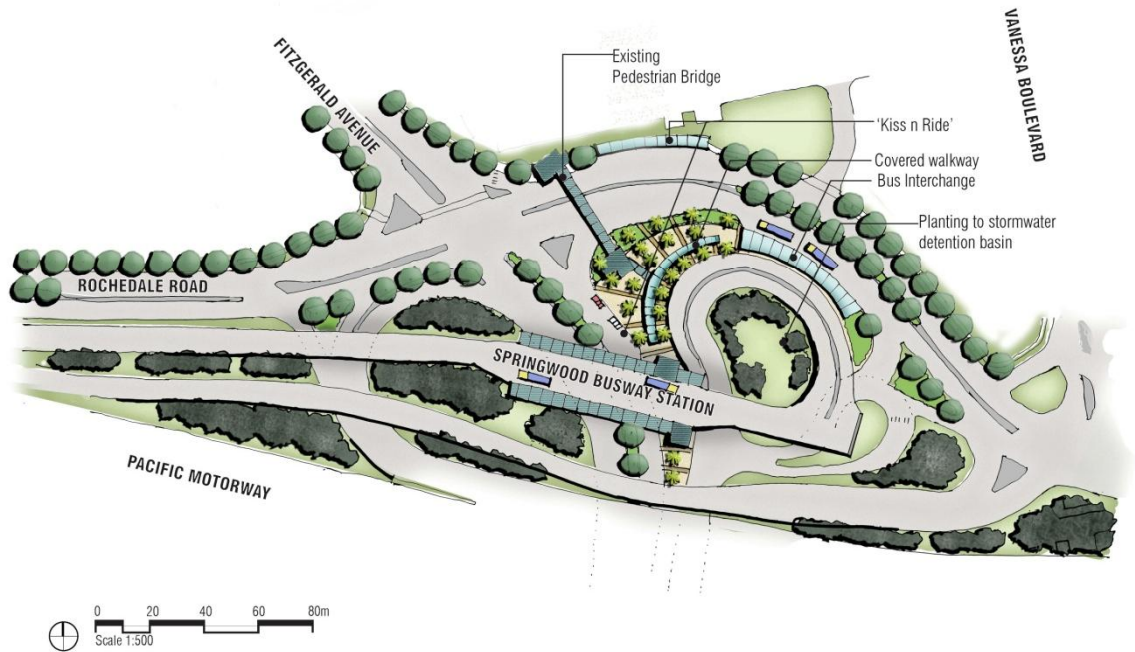


Figure 6-10: Springwood busway station — layout



Figure 6-11: Springwood busway station — 3D view

6.4 Future investigations

The urban design treatments suggested in this chapter will be reviewed in future planning phases to ensure that they respond accurately to the future urban environment. Future changes to the urban environment will need to be identified along with opportunities and impacts that may influence these designs. This process will be undertaken in consultation with key stakeholders and the community.

Future changes or alterations to the concept design as the project progresses into detailed planning will also require a review of urban design mitigation strategies.