

18. Urban design

18.1 Introduction

The corridor from Caloundra to Maroochydore on the Sunshine Coast is a rapidly maturing urban environment. But like other urbanising areas it is in danger of becoming a homogenous, car-based, urban continuum. An efficient mix and balance of public and private transport would reduce the likelihood and impacts of this outcome. A highly efficient and visible bus transport system that is appropriately integrated into this evolving coastal urban environment will encourage the timely consolidation of the existing centres.

This chapter identifies:

- the existing character and form of the built environment and the characteristics of the street environment along the route
- issues that may require alternative design approaches, and opportunities that can be captured through the design process
- potential impacts to the existing urban environment resulting from the preferred CoastConnect bus corridor design, and how these could be best managed with urban design treatments
- further studies required to realise the CoastConnect bus priority corridor from Caloundra to Maroochydore, and to maximise the opportunities and minimise the impacts of the project.

There are substantial opportunities that the project can deliver to improve the urban environment while providing a strong public transport initiative by delivering:

- strong built form
- improved pedestrian activity and amenity
- a catalyst for land use changes that stimulate business stimulation and provide improved active frontages
- clear but subtle branding of the bus corridor.

Urban design outcomes for CoastConnect — Caloundra to Maroochydore were considered within the context of current planning being undertaken by Sunshine Coast Regional Council for Maroochydore City Centre Concept Plan, and the planning completed by the TransLink Transit Authority for the future Maroochydore train station. An important consideration for the urban design of the project was the development of a recognisable design for the entire corridor.

The urban design process has also produced illustrations which can be presented to the public and technical advisers to enable them to visualise potential design options or outcomes for an area.

18.2 Methodology

Previous urban design investigations and established standards have been utilised in this study where necessary. Since CoastConnect — Caloundra to Maroochydore is a long-term planning project, urban design considerations have been strategic in nature and focused on identifying options for providing better urban design outcomes. High-level urban design treatments are proposed to mitigate the impacts from engineered options where necessary.

The methodology included desktop analysis of the route via satellite imagery and Google Earth Street View, combined with local knowledge and experience to map urban form, consider views and view sheds, and identify detailed positioning of stations.

The urban design team has assessed the technical urban design impact of each of the route options for Sections 3, 4, 6, 7 and the station options for:

- Caloundra
- Kawana Shoppingworld
- Maroochydore.

Urban design treatments were developed to:

- identify impacts that determine whether the design strategy requires adaptation or change
- improve the urban environment
- assist with branding and theming of the corridor
- mitigate impacts associated with engineering options.

Concept drawings were developed to illustrate urban design treatments and options. These were used to communicate and consult with key stakeholders and the community.

18.3 Preliminary analysis

18.3.1 Existing situation

Corridor-wide considerations

Description

The existing corridor to be considered for the CoastConnect — Caloundra to Maroochydore project presents a range of differing urban forms, land uses, road conditions, issues and opportunities. There are a number of constrained areas where the corridor passes through existing major centres, local centres in commercial strip development form, and unconstrained areas where there is ample room to include bus priority lanes with little impact.

Issues

The urban design analysis identified a range of corridor-wide issues, such as:

- potential changes in character caused by introduction of extra bus lanes
- potential conflicts between existing low-speed, high pedestrian use areas and bus priority corridors.

Opportunities

The urban design analysis identified a range of corridor-wide opportunities that may result from the implementation of the corridor:

- partial resumptions could trigger land use changes and increases in residential density, at nodes and along sections of the route
- Integration of new stations with surrounding areas could lead to higher value land uses
- landscape improvements to mark nodes and centres, and improve and manage amenity
- built form changes to improve legibility of emerging nodes and centres
- dedicated cycle lanes.

Sections 1 and 2 — Caloundra to Currimundi



Figure 18-1: Plan of Sections 1 and 2

Section 1 — Description

The urban form of Caloundra is best described as a network of streets that generally follow the topography (see Figure 18-1). A single main commercial street dominates the street hierarchy. The predominant built form of single dwellings has been progressively replaced by medium- and high-density residential development.

The existing intercity bus terminal in Cooma Terrace is the nominated location of the main bus station in Caloundra (see Photo 18-1).



Photo 18-1: Existing bus terminal in Cooma Terrace

Issues

Public open space on the north side of Cooma Terrace adjacent to the existing interchange is limited, which constrains the pedestrian environment.

Where non-active uses front onto high pedestrian use areas around the bus stop, casual surveillance is reduced. Residential uses on lower levels may cause conflicts with the proposed bus station.

Over time, the street network has become a slow-speed traffic environment conducive to pedestrian movement. This amenity could be reduced if increasing volumes of buses are not managed well.

Opportunities

The location of the bus station in Cooma Terrace allows for co-location of the local and intercity services.

Improved pedestrian connections to Bulcock Street from the bus station will provide the opportunity to integrate with future redevelopment in partnership with the Sunshine Coast Regional Council and landowners.

Section 2 — Description

Section 2 generally consists of suburban development between the older beachside suburbs of Tooway and Dicky Beach, and the newer development of Battery Hill (see Figure 18-1). The route is clearly legible and travels through some highly pedestrianised local centres

Issues

Over time, the street network has become a slow-speed traffic environment, conducive to pedestrian movement.

Opportunities

There are numerous opportunities for bus stops that would connect local centres.

Section 3 — Nicklin Way



Figure 18-2: Section 3 plan

Description

The predominant urban form of Section 3 (see Figure 18-2) is low-rise development, with a significant amount of retail and commercial development along the Nicklin Way through a number of smaller, local centres. Some sections are primarily residential and access the Nicklin Way directly via service roads or from an internal street network. Generally, the Nicklin Way can be described as a typical arterial road corridor with poor definition and character (see Photo 18-2).

The road environment is wide and suited to bus priority lanes.



Photo 18-2: Nicklin Way

The route passes through a number of centres described below.

Currimundi Market Place

This centre occupies approximately 180 metres of frontage along Nicklin Way (see Photo 18-3). The corridor route in this section is characterised as a high-speed traffic environment centred on the controlled intersection of Nicklin Way and Buderim Street.



Photo 18-3: Currimundi Market Place

Southern end of Currimundi

The local centre situated on the corner of Erang Street and Currimundi Creek consists of a variety of commercial and retail uses (see Photo 18-4). Access is gained directly from Nicklin Way and off-street parking is provided to some premises. On-street parking exists on both sides of Nicklin Way.



Photo 18-4: Southern end of Currimundi

Warana (Main Drive to Palkana Drive)

The local centre consists of a variety of commercial and retail uses confined to the western side of the corridor, many of which have access directly from Nicklin Way and provide car parking at the front of the premises. The eastern side of the corridor is dominated by residential dwellings. On-street parking exists on both sides of the Nicklin Way.

Kawana Shoppingworld

Kawana Shoppingworld is a significant single-story mall-based shopping centre with associated off-street parking (see Photo 18-5). The shopping centre itself is set back from the Nicklin Way to provide areas for traffic circulation and parking within its grounds. As a result, parking space dominates the local landscape. Buses currently access the site on the northern side. Future redevelopment of the area may result in a multilevel urban form.



Photo 18-5: Kawana Shoppingworld

Issues

- potential loss of on-street car parking resulting from narrowing sections of road that pass through areas with a higher concentration of retail outlets
- potential resumptions for changes to intersections and provision of bus stops
- potential loss of vistas and views from Currimundi Creek Bridge
- loss of some on-street parking spaces.

Opportunities

- possibility of separate bus lanes and cycle lanes due to the wide road corridor
- possibility of sections of separated high-speed bus lanes with priority access through intersections
- possibilities for increased density through land use changes at areas where resumptions are required for bus stops
- at the bus station at Kawana Shoppingworld, the possibility of land use changes that would support a major public transport node.

Section 4 — Kawana Town Centre

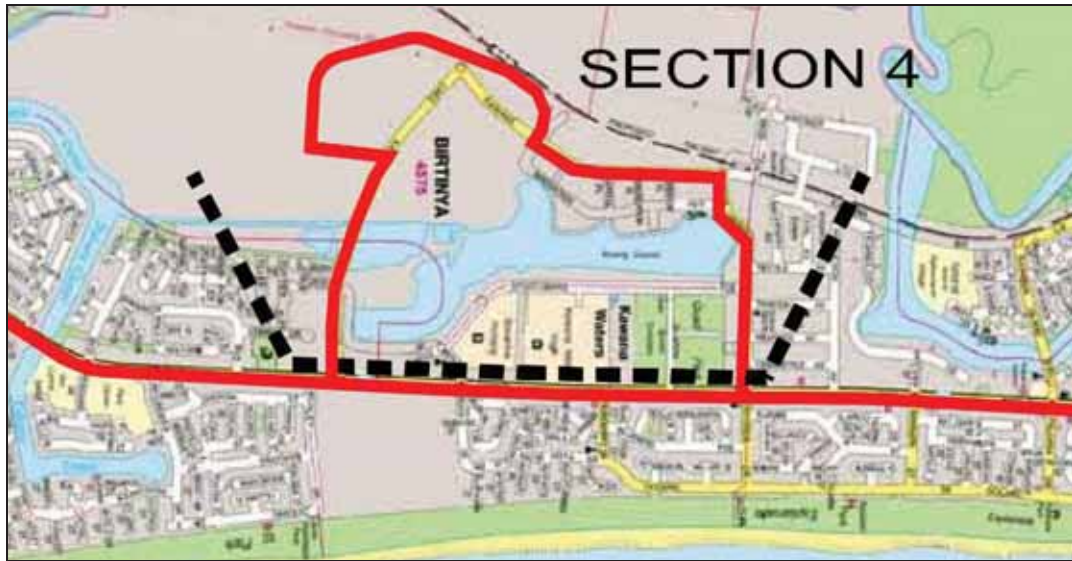


Figure 18-3: Section 4 plan

- The current urban form of the first part of Section 4 (see Figure 18-3) is open land pending development. Review of current planning indicates that development along the corridor at this location is likely to be dominated by low- to medium-density residential development. It is also likely that the current developer will landscape the route, as has been done within similar areas of the locality.
- The corridor passes through the Kawana Town Centre, where the future bus station will be co-located with the future train station. The area to the north of the town centre precinct is characterised by one- and two-storey offices and large bulky-goods retailers. Kawana Way is a wide four-lane road with signalised intersections and landscaped median strips.
- Before returning to Nicklin Way via the industrialised area of Main Drive, the route passes through Metier Linkway, a two-lane road with a landscaped centre median, street trees, on-street parking and high levels of pedestrian amenity. The built form consists of new two- and three-storey office buildings with occasional ground floor retail.

Issues

- potential impacts on future landscaping to Lake Kawana Boulevard resulting from road widening
- potential loss of on-street parking
- the design of Metier Linkway, which is not conducive to accommodating buses.

Opportunities

- opportunity to provide quality public transport prior to the construction of Kawana Town Centre
- potential for a dedicated cycle way
- opportunity, resulting from redevelopment triggered by resumptions, for council to consider the desired urban form and to change the built form and urban character of Main Drive.

Section 5 — Brisbane Road, Mooloolaba

Planning and delivery of this section is being lead by the Sunshine Coast Regional Council.

Section 6 — Alexandra Parade



Figure 18-4: Section 6 plan

Description

Section 6 is characterised by its prominent topography and the ocean views available from the beginning of Alexandra Parade (see Photo 18-6), which runs as an esplanade from Mooloolaba to Pacific Terrace (see Figure 18-4). The built form is characterised by medium-density three-storey holiday residential buildings on the west side of the corridor and an area of well-frequented public open space providing access and views to the ocean to the east and north. Various passive and active uses occur along the foreshore.



Photo 18-6: Alexandra Parade traversing the headland

From Pacific Terrace to Cotton Tree, the built form is varied. The residential buildings are generally tower and podium format, with commercial and retail on the ground floor fronting the esplanade (see Photo 18-7). The buildings vary from 3 to 13 stories in height. While the area's character is varied, it retains a remnant of the coastal village character that residents and visitors identify with.

From Mooloolaba to Pacific Terrace, the road generally comprises two lanes within a wide road corridor. Beyond Pacific Terrace, the road predominantly comprises four lanes with various areas of on-street parking. At various locations the road widens to accommodate turning lanes and standing lanes at controlled intersections.

Although there is significant space, very little landscaping has been provided to date within the road reserve.



Photo 18-7: Alexandra Parade and foreshore

Issues

- potential loss of on-street parking, which affects business and the pedestrian environment
- preservation of the coastal village character
- potential visual impact of increased road pavement on the character of the existing esplanade
- potential loss of existing vegetation caused by construction of the corridor
- determining the form and location of possible offset areas for car parking.

Opportunities

- opportunity to include bus priority measures, due to the width of the road corridor and the lower level of pedestrian activity — subject to resolution of on-street parking, pedestrian and character issues
- opportunities for improved landscape options, particularly to the grassed median strips
- opportunity to provide suitably placed alternative car park areas that incorporate landscape elements appropriate to the coastal environment.

Section 7 — Maroochyore



Figure 18-5: Section 7 plan

Description

Section 7 (see Figure 18-5) is the most highly urbanised, with a generally continuous strip of varying retail/commercial along the full length of Aerodrome Road. The built form is generally low rise and transitional. Although the road corridor is wide, it contains on-street parking and a large centre median, which in some locations contains street trees.

The previous Maroochy Shire Council developed a landscape treatment master plan in consultation with the tenants and owners, which generally proposed a boulevard treatment with substantial numbers of street trees in the median and along the verge.

Where Aerodrome Road changes into Horton Parade the commercial retail uses intensify, with more substantial buildings and higher order land uses (see Photo 18-8). The previous Maroochy Shire Council developed a separate landscape urban design master plan for this area in consultation with the tenants and owners. This plan generally proposed a range of pedestrian links to open spaces throughout the Maroochy CBD. One of those links crosses Horton Parade at the Cornmeal Creek Bridge at the location of the future Maroochy Bus Station. Generally, this area has a low-speed traffic environment and a high-volume of pedestrian movements. As this area is redeveloped, amenities and facilities conducive to pedestrian use would be provided, making the area more pedestrian-friendly.



Photo 18-8: Horton Parade

Issues

- potential need to maintain or improve the level of pedestrian amenity commensurate with Maroochydore’s role as the Principal Activity Centre; this area carries a high volume of pedestrian traffic, which is likely to increase in the future as the area is redeveloped
- potential loss of on-street parking along Horton Parade
- potential need to keep existing, or provide future, boulevard style entry into Maroochydore CBD
- potential conflicts with views and vistas to and through the Cornmeal Creek open-space network.

Opportunities

- opportunities for land use changes that would intensify use and urban form to offset impacts of land resumptions; these changes could also consolidate off-street parking and rationalise driveway entries
- opportunity for a signature bus station integrated with, or proximate to, the future rail station
- opportunity to increase pedestrian links to existing buildings, due to the redevelopment process triggered by resumptions.

18.3.2 Potential benefits, impacts and typical mitigation measures

Corridor-wide considerations

Potential benefits

The CoastConnect — Caloundra to Maroochydore project has the capacity to catalyse land use change. This change can be beneficial in providing the opportunities for consolidation of existing and emerging centres and establishment of nodes/concentrations of density around bus stops — undoubtedly, a key benefit of the project.

Considered urban design will help visually mark the corridor. Such branding is intended to raise the profile of public transport on the Sunshine Coast. If it is to be successful, the branding needs to be consistent with the aspirations of the coastal community — that is, to be sustainable, relaxed coastal villages with urban convenience.

The CoastConnect — Caloundra to Maroochydore project will deliver hard infrastructure to existing and emerging centres —for example, increased pedestrian access to key local destinations, and integrated and extended cycle links.

It offers the potential for the provision of limited landscaping around stops and stations to create nodes and preserve or introduce local character areas. These could then form the basis for additional works and maintenance by Sunshine Coast Regional Council. This will help create variety and interest along the corridor, in particular along the Nicklin Way, which at present is a typical arterial road corridor with poor definition and character.

The CoastConnect — Caloundra to Maroochydore project will encourage development of mixed uses in existing and emerging centres, which contributes to economic and social infrastructure, increases economic opportunities along the transit corridor and, importantly, provides a more coordinated approach to Crime Prevention Through Environmental Design (CPTED). As a result, future centres around transport nodes and centres should be more active and thus safer due to increased passive surveillance.

Potential impacts

Improved access to public transport may result in character changes along the corridor. This may include increased road cross-section, changes in streetscape environment, loss of on-street parking, changes in built form, and increased land use intensity in key centres. While these changes may bring commensurate and even increased benefits for some, any change could also be an impact.

Increased road cross-section

Increased road corridor and pavement widths in some locations will increase the amount of hard-surface area and may diminish the amount of variety within the road reserve (see Figure 18-6). This could result in a general reduction of amenity for users of the corridor as a greater proportion of the corridor is occupied for transport movement.

This would have greater impact in areas where traffic movements have historically been slower and pedestrian movements are less formalised. In these areas there is usually less width for movement and any increase in road width could reduce the number of existing trees and planters, which will further diminish user amenity.

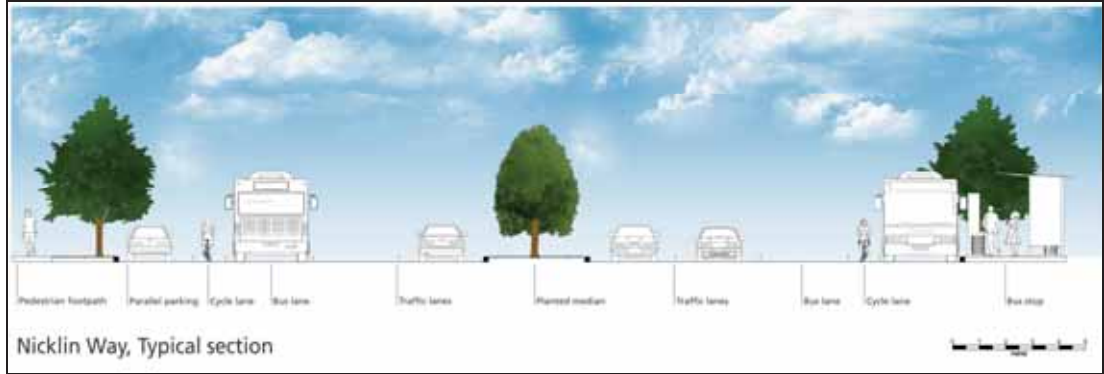


Figure 18-6: Sketch of increased cross-section width

Change in streetscape environment

The extension of existing bridges may mean loss of existing view corridors. The current relatively narrow bridges provide a traffic constriction where views to river or creek are easier to obtain from cars and from within the road reserve. The often-informal design of bridge handrails (like that over Mayes Canal at Mooloolaba) also maximises views.

New bridge widths and solid sides will impact on views from the bridge and along the road corridor.

Loss of on-street parking

While the issue of on-street parking is generally considered a traffic issue, on-street parking in urban centres performs a number of other functions and contributes to the urban environment in many ways. The absence of on-street parking in a heavily trafficked area has significant impacts on pedestrian amenity and safety. The likely loss of street-based parking may have a two-fold impact. In local centres, especially those with a more ‘village feel’, loss of convenience parking may affect some traders. This could result in provision of replacement ‘en masse’ car parking elsewhere, which would potentially further impact built form and land use intensity. In highly pedestrianised areas, kerbside parking not only appears to slow general traffic movements, but the parking lane also separates the pedestrian zone from the traffic lane. This increases feelings of safety, security and amenity.

In some cases, removing on-street parking is beneficial — for example, where there is a desire to add more pedestrian space and the adjoining road is a slow-speed low-volume street.

Proposed themes/typical treatments

Proposed design themes for the CoastConnect — Caloundra to Maroochydore corridor are centred on creating a local ‘look and feel’. This is best captured by the reason many people move to the Sunshine Coast — that is, to be a part of distinct coastal communities that have urban facilities and services. This idea is the antithesis of the idea of the ‘200-mile city’ (2004 AILA National Conference) or of continuous strip development.

The proposed urban design objective for the CoastConnect — Caloundra to Maroochydore project could be characterised as *integrating bus infrastructure to facilitate the continual evolution of distinct coastal nodes and villages but with urban convenience.*

This idea involves far more than a design palette. It identifies a broad range of urban design ideas that are not just about how the corridor looks. More importantly, it attempts to capture the energy from the infrastructure investment and use it to create compact local centres along the corridor — known as the ‘string of pearls’ concept.

In urban design terms, this is more likely to deliver mode shift from cars to public transport than ‘thin’ urban design treatments that focus on colour and brand alone.

The delivery of this urban design objective can be achieved using the following themes:

- a hierarchy of built form infrastructure and services from local bus shelters through to high-use stations which are commensurate with surrounding land use intensity
- a range of integration strategies for bus infrastructure, from minimal impact of bus shelters on streetscapes in less dense areas up to a high-level of integration into the surrounding built form for bus stations
- a focus on enhancing pedestrian movements and active frontages around platforms in centres to ensure delivery of accessible, safe and vibrant streetscapes
- a series of simple and refined shelters/buildings which have a relaxed appearance and are generous in their shelter and shade amenity
- the use of a range of robust, lightweight and transparent materials consistent with the local coastal subtropical vernacular architecture
- the use of high-quality landscaping elements to provide variety in texture as well as generous shade at stops and stations. Landscaping could also be used rhythmically along the corridor to mark nodes and to provide threshold treatments into key centres
- consistent verge widths and preservation of existing pedestrian pathway widths that are not compromised by reduced verge widths imposed by resumption constraints.

The central urban design objective has been carefully considered throughout the design of key parts of the corridor. The underlying themes have been tested in general and incorporated into the design consideration for bus stop shelters and platforms. The built form outcomes articulated in this report are conceptual designs only and are offered as an idea of what could be achieved. They are intended to illustrate the likely impact of chosen themes for the CoastConnect — Caloundra to Maroochydore project and are not intended to be viewed as final designs.

Sections 1 and 2 — Caloundra to Currimundi

Cooma Terrace

Potential benefits

Locating the bus station within the streetscape of Cooma Terrace delivers a more visible street-based outcome, which is safer for users (see Figure 18-7). Access through the existing transit centre is currently challenging due to the change in grade from Bulcock Street and poor after-hours visibility through the existing Transit Centre. However, the relocation of the station will promote the redevelopment of sites in partnership with the Sunshine Coast Regional Council and landowners. This redevelopment in turn has the potential to deliver better integration with, and safer more legible access to, the proposed station on the north side.

Potential impacts

The redevelopment site to the south of the proposed station is currently intended for a single-use residential development. The relocation of the proposed station may generate land use conflict and could discourage integration of bus infrastructure, which will limit street activity and vibrancy.

Mitigation measures

Although outside the scope of this project, investigations could be undertaken regarding the change of land use to the redevelopment site to the south of the proposed station. Potential redevelopment to a mixed-use development with residential uses over ground floor retail is recommended to ensure the long-term compatibility between the station and the adjoining land use.



Figure 18-7: 3-D sketch of Cooma Terrace

A preferred footpath width of 5 metres should be preserved behind each platform, commensurate with Caloundra’s role as a key centre (see Figure 18-8). Changes to the existing street alignment can deliver this and reduce the impact of the station on adjoining redevelopment sites.



Figure 18-8: Cooma Terrace cross-section

Moreton Parade and Buderim Street

Potential benefits

The proposed bus network provides a clear hierarchy of feeder and spine services operating between Moreton Parade and Buderim Street. A distinct service will reduce the likely impact on the currently relatively slow-speed, pedestrianised villages of Dicky Beach and Currimundi (on Buderim Street). This will enable the existing character of these places to be carefully consolidated, while providing localised services to beachside residential catchments and schools along Moreton Parade and Buderim Street, without compromising the line haul express service to Maroochydore.

Potential impacts

- potential impacts from relocating bus stops along the route, particularly if stops are located in front of residential properties.

Mitigation measures

- consideration of alternative, non-residential locations for bus stops that have been located in front of residential properties
- provision of adequate street lighting to improve surveillance.

Currimundi Market Place

Potential benefits

- the location of this station and associated overhead walkway will provide a highly visible and clearly branded expression of the CoastConnect public transport infrastructure (see Figure 18-9)
- additional separate bridge lanes over Lake Currimundi will ensure increased pedestrian amenity and deliver better integration into existing ground levels to ensure safe trafficability
- currimundi Market Place station marks the beginning of the new dedicated cycleway along the Nicklin Way.

Potential impacts

- the location and form of the proposed station at the Nicklin Way and Buderim Street intersection deliver a visually dominant built form in an area which is open and expansive.



Figure 18-9: Currimundi plan

Mitigation measures

- visual impact of the bus station may be mitigated by extensive landscape planting that could be implemented by council
- managed in conjunction with council, improved kerbside planting would reinforce pedestrian amenity and streetscape variety
- median planting concentrated between Currimundi Market Place and Currimundi Creek may be considered to provide a PlaceMaking statement to mark the centre
- to retain key views from the bridge (as discussed earlier) and prevent the feeling of enclosure, the bridge redesign could include transparent panels.

Section 3 — Nicklin Way**Nicklin Way corridor****Potential benefits**

- locating stops at existing or future local business nodes is an important strategy to help reinforce local centres as neighbourhood hubs. Opportunities in future for a mix of uses around these locations will allow stops to become better integrated over time as sites redevelop
- bus stops are generally located near intersections with existing or proposed traffic lights to provide safe and dedicated access.

Potential impacts

- loss of on-street parallel parking in front of residences removes a buffer between pedestrians and the proposed dedicated bus lane
- on-street parallel parking in front of retail centres such as Warana could be lost
- the area could lose or change its character as a result of the road widening and increase in intersection area.

Mitigation measures

- the buffer originally provided by on-street parking may be replaced by landscaping and, where space permits, mounding. Where there is insufficient space for a landscape buffer, there is no effective mitigation measure
- character changes can be mitigated by median plantings that would create important placemaking statements at each major stop along the corridor
- improved kerbside planting can be implemented to reinforce pedestrian amenity and streetscape variety and to reduce the impact of increased road and intersection widths.

Kawana Shoppingworld

Potential benefits

- potential redevelopment and increasing densities afforded by infill redevelopment initiatives supported by council at this location would allow associated improvements in urban design
- the bus station provides high levels of patron amenity (shade, shelter, and increased pedestrian and cyclist access) at ground level, as well as across the road and, potentially, directly to Kawana Shoppingworld as an elevated link.

Potential impacts

- the visual impact of the elevated structure associated with the bus station potentially adds to and worsens the visual clutter in this part of the Nicklin Way. The structure's height of approximately 9 m is higher than the adjoining existing residential development
- locating the elevated walkway and stairs close to the existing residential development on the west side causes potential loss of privacy and overlooking issues for those properties
- locating the high station, walkway and stair structures close to the existing residential development creates potential visual impacts for those properties
- the location of the bus platform has a range of impacts on the adjoining residential properties
- partial resumptions could constrain the scope and width of the public realm between the bus station and the residential properties.

Mitigation measures

- the bus station structure can be integrated into other built forms to reduce its visual impact. Landscape planting in the median and on the verges could also be used to soften the built form
- the impacts on residential properties close to the proposed station could be overcome by allowing an intensification of land uses, which would result in a more appropriate adjoining built form and urban design outcome. This would also provide more opportunities for activity and casual surveillance
- changes to the adjoining built form on the west side would also provide opportunities to maintain an appropriate width of the verge and public realm to allow for pedestrian pathways, bus station, and open space for potential landscape planting and screening
- the corresponding change in land use could allow for better integration of the in-line station architecture, and this could also catalyse development on the eastern side of the station (see Figure 18-10).

Change in built form could provide an important entry into the existing Minyama Centre. A stronger built form helps reduce the perceived width of the current road reserve by providing edges either side of the road.



Figure 18-10: Street view of in-line station

Section 4 — Kawana Town Centre

Bus lanes will be provided along Lake Kawana Boulevard and Main Drive. The design of this section is unresolved between Lake Kawana Boulevard and Metier Linkway. While the route generally follows Kawana Way, it also goes through the town centre precincts linking with the proposed train station and the town centre core.

Potential benefits

- the provision of a high-speed bus system, integrated with a future rail station, provides a high-quality transit system for a key regional centre. This is expected to increase opportunities associated with higher densities around transit-oriented development nodes, leading to the development of a sustainable and vibrant local community
- there is also the potential to create a good civic space in the vicinity of the station.

Potential impacts

- loss of existing landscaping in Lake Kawana Boulevard due to road widening
- loss of pedestrian amenity, landscaping and character in Metier Linkway
- loss of on-street parking in Metier Linkway.

Mitigation measures

- loss of existing street landscaping in Lake Kawana Boulevard can be mitigated by replacement of equal quality landscaping.

Section 5 — Brisbane Road, Mooloolaba

Planning and delivery of this section is being lead by the Sunshine Coast Regional Council.

Section 6 — Alexandra Parade

Potential benefits

The general retention of the existing corridor along Alexandra Parade will help to maintain the existing character of the area — that of a relaxed, mixed-use, beachside community with direct access to the beach. Changes to the existing built form are not the focus of this section as it already has a vibrant and diverse mix of uses and is providing a good urban environment without requiring additional stimulus. Interventions are largely aimed at increasing access to bus stops and key destinations (beach, surf club, skate park etc.) and reinforcing the slower speed character of the area.

Possible changes entail the introduction of short sections of widening to provide bus queue bypass lanes for local buses. Diverting express bus services along the Sunshine Motorway will ensure that Alexandra Parade is served only by local services, which is more consistent with the preferred character of the area.

Possible treatments allow for increased ground-based vegetation to separate pedestrian paths from bus lanes/queue bypass lanes, and from adjacent car parking areas in the case of the Alex Surf Club and Okinja Road car parks. In addition, median planting could mark nodes at the surf club and Okinja Road, and provide an increasing level of formality on the lead-up into the city centre towards Maroochydore. It is anticipated that this work would be done in partnership with the Sunshine Coast Regional Council.

The CoastConnect— Caloundra to Maroochydore project provides for the retention of the majority of kerbside parking, to preserve this important buffer between pedestrians and the shared bus/car lane and so maintain the existing sense of safety, security and amenity. While important to local businesses, these lanes are also a vital part of the existing beachside character of 'Alex'. The possible consolidation of beachside car parks could provide safer access to the beach for a range of users at a single dedicated access point. It would also restrict access to fewer locations and limit damage to the dunal system.

Potential impacts

Provision of bus queue bypass lanes for local buses at the intersection of Pacific Terrace and Alexandra Parade requires space to be taken from the foreshore park adjacent to and around the existing surf life saving club. Off-street parking in this area will need to be reconfigured to maintain the current number of car parks and the pedestrian pathway on the eastern side of Alexandra Parade.

Providing off-street car parking areas to offset losses of on-street car parking would result in loss of park space and vegetation, even though the locations chosen are less used areas of the foreshore with poor existing vegetation.

Mitigation measures

Existing foreshore vegetation around the car parking areas could be reinforced, and shade trees could be planted to improve pedestrian amenity along the pedestrian path on the eastern side of Alexandra Parade. The existing Reginald Charles Hooper and Okinja Road parks could be given landscape treatments to maximise amenity and local use. Figure 18-11 shows possible landscaping in Alexandra Parade.



Figure 18-11: Possible treatment — Alexandra Parade

Section 7 — Maroochydore

Potential benefits

The urban design opportunities in Section 7 focus on increasing pedestrian accessibility and amenity across Aerodrome Road/Horton Parade and the provision of the new Maroochydore bus station.

The existing built form for much of Aerodrome Road is of a poor quality. The CoastConnect — Caloundra to Maroochydore project provides an opportunity to increase urban amenity for the area through:

- actively encouraging the amalgamation of sites
- increasing the intensity and mix of land use
- potentially resolving site access points
- amalgamating off-street parking, although this is unlikely to occur in the short term.

The retention of the existing corridor and on-street parking will allow this to occur in the short to medium term as public transport usage increases and Maroochydore develops its own critical mass. Potential new bus stops and associated signalised crossings at Wrigley and Rose streets could add increased choice to pedestrians moving east–west.

The introduction of a new high-quality, integrated in-line bus station on Horton Parade is intended to provide a short- to medium-term focus for bus patrons in the town centre (see Figure 18-12).

The station has been designed to allow for two stages of development: interim and ultimate. Both stages will provide high levels of patron amenity (shade, shelter, increased pedestrian access) at ground level, and the ultimate stage will deliver access across Horton Parade as an elevated link. While this link has been provided for bus patrons, it is also accessible to other pedestrians.



Figure 18-12: Street-based perspective of Maroochydore in-line station

Four-metre-wide pedestrian pavements will be provided independent of the 4-metre-wide platforms, commensurate with the requirements of a regional centre. Shelter and shade from street awnings will be provided independently as adjoining sites are redeveloped to deliver mixed use with active frontages (see Figure 18-13). These new uses will provide increased casual surveillance and safety to the station.

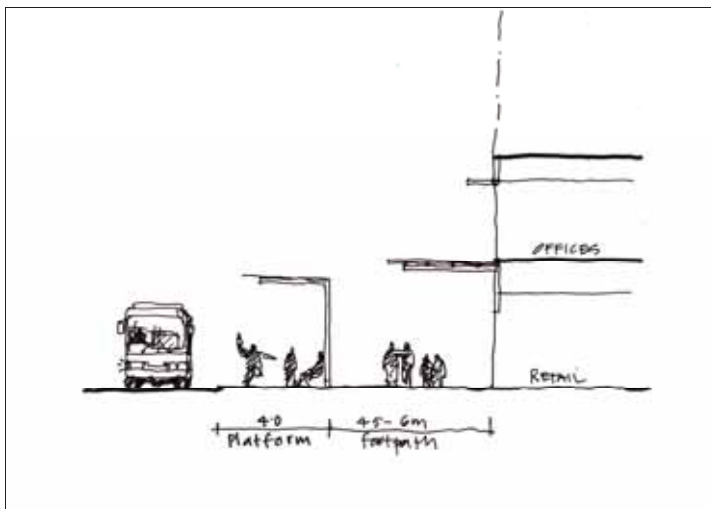


Figure 18-13: Sketch showing Horton Parade bus station cross-section

Potential impacts

- reduced setbacks to buildings that result from partial or minor resumptions along Aerodrome Road contribute to a poor built environment. Often redevelopment does not occur for some time and buildings can be left with reduced setbacks or reduced landscaping to on-site car parks
- loss of on-street parking on Aerodrome Road from Rose Street to Cornmeal Creek contributes to a poor urban design outcome in which pedestrian amenity is compromised
- pedestrian amenity from Rose Street to Cornmeal Creek could be lost.

Mitigation measures

- where resumptions are intended to be minor and not include the whole site, consideration could be given to resumption and amalgamation of sites to ensure that viable built form outcomes are possible
- adding to recent plantings along the rest of the length of Aerodrome Road will reinforce the sense of entry to a Principal Activity Centre. These plantings can be further supplemented at new bus stops
- pedestrian amenity could be improved further by inclusion of street trees.

18.4 Future investigations

The opportunity for changes in land use and built form at key locations needs to be further investigated, particularly where there are partial resumptions or where the built form of new stations is incompatible with the existing built environment.

The Sunshine Coast Regional Council needs to develop a policy on how to facilitate, or create incentives for, development opportunities arising from resumption to ensure that the future development outcomes contribute positively to the new urban environment and are compatible with the proposed stations.

Sites that offer these opportunities include:

- residential site immediately south of Caloundra station
- Kawana Town Centre
- Kawana Shoppingworld and the sites west of the station
- the area east of Maroochydore bus station, including Cornmeal Parade, Cornmeal Creek bridge, Horton Parade crossing and the future road connection beside the police station to Civic Square redevelopment.

This policy needs to be articulated through any subsequent urban design master plans incorporated into future planning schemes.

Additional investigation to provide further detail will be needed in future phases. These will include:

- pedestrian and movement studies around all of the proposed bus stations
- an overarching urban design concept sympathetic to the corridor's existing local character.

18.5 References

2004 AILA National Conference — 200 mile city: designing a sustainable urban future