

10. Network integration

10.1 Introduction

The CoastConnect — Caloundra to Maroochydore project is aimed at improving the speed and reliability of bus services operating in the Caloundra to Maroochydore corridor by providing the following infrastructure improvements:

- bus priority lanes
- bus stop upgrades and bus stations in key activity areas
- bus queue bypass lanes at intersections
- dedicated on-road cycle lanes.

The CoastConnect corridor is designed to cater for local trips by local residents, shoppers and tourists. The project provides a cost-effective public transport solution that builds on the existing bus network and can be delivered in stages over the short to medium term.

The CoastConnect project is closely inter-related with the proposed CAMCOS: Beerwah to Maroochydore rail line (CAMCOS) and the Multi-Modal Transport Corridor project that is currently being delivered in stages. Bus services using the CoastConnect corridor will connect with public transport services on these corridors.

10.1.1 Methodology

The Network Integration Strategy outlines the proposed strategy for operating buses on the CoastConnect corridor and integrating the corridor with the broader public transport network. Details of this strategy have been incorporated into the CoastConnect Concept Design and Impact Management Plan to inform design requirements including:

- capacity requirements for bus lanes, stops and stations
- locations for bus access points along the corridor
- locations for bus stops and stations along the corridor
- operational arrangements
- passenger access to the corridor.

The bus service strategy only considers the proposed 'trunk' high frequency priority bus routes that will operate between Maroochydore and Caloundra and inner-connect with services using the corridor. 'Feeder' routes that will connect local areas to the CoastConnect corridor have not been considered in this strategy beyond identifying the locations where they could access the CoastConnect corridor.

Detailed planning on how local routes will service communities and interface with the corridor will be undertaken when service changes are being rolled out in preparation for the project opening. However, additional capacity for these has been allowed for in station and infrastructure designs.

10.2 Existing public transport network

The public transport network on the Sunshine Coast includes:

- rail services operating on the North Coast railway line from Brisbane to Landsborough, Nambour, Yandina, Eumundi and Cooroy
- bus routes that service the activity centres, corridors and communities within the urban footprint.

The TransLink Transit Authority manages the public transport network in South-east Queensland and contracts the operation of rail services to Queensland Rail and the operation of bus services on the Sunshine Coast to Sunbus.

Buslink operates school services on the Sunshine Coast on behalf of Queensland Transport.

10.2.1 Local bus routes

Route descriptions

The public transport network on the Sunshine Coast includes 25 bus routes as shown in Figure 10-1.

The bus network is structured around the following key trunk routes that connect the three major urban centres in the region:

- route 600/601, operating between Maroochydore and Caloundra
- route 610, operating between Maroochydore and Nambour
- route 620, operating between Maroochydore and Noosa.

Timed connections between the rail and bus services are provided at Landsborough and Nambour. Bus routes servicing the bus–rail interchange function include:

- route 605, operating between Landsborough and Kawana Shoppingworld via Caloundra
- route 615, operating between Landsborough and Maroochydore via Mooloolaba and Sippy Downs
- route 630, operating between Nambour and Noosa
- route 631, operating between Nambour and Noosa via Coolum.

Several additional trunk routes and a number of feeder routes service localities and suburbs in the Noosa, Nambour, Maroochydore, Buderim, Sippy Downs, Kawana and Caloundra areas.

Service frequency

The timetabled service frequency for all bus routes operating on the Sunshine Coast is detailed in Table 10-1.

Table 10-1: Current bus service frequencies (as at 29 June 2010)

	Route	Weekday				Saturday		Sunday	
		AM Peak	Day-time	PM Peak	After 7 pm	Day-time	After 7 pm	Day-time	After 7 pm
600	Maroochydore to Caloundra	15	15	15	30	15	60	30	60
601	Maroochydore to Caloundra (express)	60	60	60	—	—	—	—	—
602	Caloundra to Nambour via Maroochydore	60	60	60	60	60	60	60	60
603	Bellvista to Corbould Park Racecourse	60	60	60	—	60	—	60	—
605	Kawana to Landsborough via Caloundra	Infreq	Infreq	Infreq	Infreq	Infreq	Infreq	Infreq	Infreq
607	Caloundra to Sippy Downs via Parrearra	60	60	60	—	—	—	—	—
609	Caloundra to Pelican Waters Loop	60	60	60	—	60	—	60	—
610	Nambour to Minyama via Maroochydore	30	30	30	—	60	—	60	—
613	Twin Waters to Maroochydore	—	Infreq	—	—	—	—	—	—
615	Maroochydore to Landsborough via Mooloolaba	30	Infreq	30	Infreq	Infreq	Infreq	Infreq	Infreq
616	Maroochydore to University via Buderim	30	30	30	30	60	60	60	60
617	Maroochydore to University via North Buderim	60	60	60	60	60	—	60	—
618	Sippy Downs to Minyama via Mountain Creek	30	30	30	30	60	60	60	60
619	Maroochydore to Kawana	60	60	60	—	—	—	—	—
620	Noosa Heads to Maroochydore	30	30	30	60	30	Infreq	30	60
622	Peregian Springs to Kawana via Maroochydore	60	60	60	—	60	—	60	—
626	St Andrews Drive to Sunrise Beach	30	30	30	—	30	—	30	—
627	Tewantin to Sunshine Beach via Noosa Heads	30	30	30	—	30	—	30	—
628	Tewantin to Noosa Heads via Noosaville	60	60	60	—	60	—	60	—
629	Tewantin Central to Noosa National Park	60	60	60	—	60	—	60	—
630	Noosa to Nambour via Eumundi	Infreq	Infreq	Infreq	Infreq	Infreq	—	Infreq	—
631	Noosa to Nambour via Eumundi and Cooroy	Infreq	Infreq	Infreq	—	Infreq	—	Infreq	—
632	Noosa to Cooran via Cooroy and Pomona	Infreq	Infreq	Infreq	—	Infreq	—	Infreq	—
636	Nambour to University via Buderim	60	60	60	—	—	—	—	—
639	Nambour to University via Buderim	Infreq	Infreq	Infreq	—	—	—	—	—

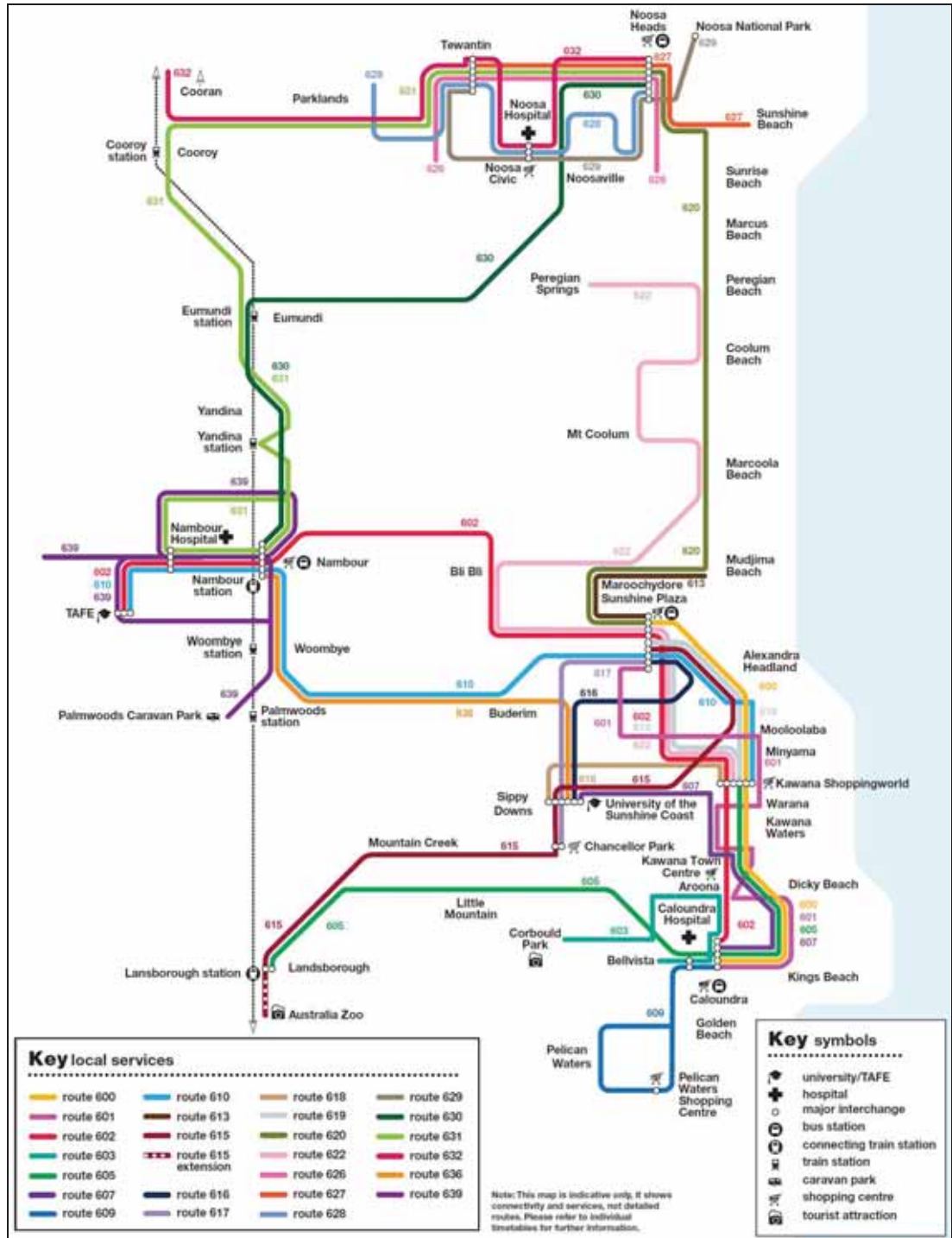


Figure 10-1: Current Sunshine Coast network diagram (effective 29 June 2009)

10.2.2 Current bus operations along the CoastConnect corridor

Bus routes operating between Maroochydore and Caloundra include:

- route 600, operating between Maroochydore and Caloundra
- route 601, operating between Maroochydore to Caloundra as a limited stop service
- route 602, operating between Caloundra and Nambour via Maroochydore
- route 610, operating between Nambour and Minyama via Maroochydore.

There are also eight feeder bus routes that use various sections of the CoastConnect corridor to service local areas adjoining the corridor.

The number of bus routes and AM peak hour services operating on various sections of the CoastConnect corridor is detailed in Table 10-2. The combined service frequency of trunk routes in 2009 operating between Maroochydore and Caloundra provides the following approximate level of service (in one direction during the AM peak):

- a bus every 10 minutes between Maroochydore and Mooloolaba
- a bus every 7.5 minutes between Mooloolaba and Kawana Shoppingworld
- a bus every 10 minutes between Kawana Shoppingworld and Caloundra.

The combined service frequency at specific points along the corridor is better when feeder routes operating on the corridor are included. These routes have been omitted from the calculation of combined service frequency for comparative purposes with the proposed network strategy for CoastConnect which at this point in time has not considered feeder services.

Table 10-2: Current bus operations in the CoastConnect corridor

Route		Service type	CoastConnect corridor section			
			Maroochydore to Mooloolaba	Mooloolaba to Kawana Shoppingworld	Kawana Shoppingworld to Kawana Town Centre	Kawana Town Centre to Caloundra
Trunk routes						
600	Maroochydore to Caloundra	line-haul	✓	✓	✓	✓
601	Maroochydore to Caloundra (express)	line-haul		✓	✓	✓
602	Caloundra to Nambour via Maroochydore	line-haul		✓	✓	✓
610	Nambour to Minyama via Maroochydore	line-haul	✓	✓		
Trunk bus routes on corridor section			2	4	3	3
Scheduled trunk bus services on corridor section in the AM peak*			6	8	6	6
Feeder routes						
603	Bellvista to Corbould Park Racecourse	local				✓
605	Kawana to Landsborough via Caloundra	link to rail			✓	✓
607	Caloundra to Sippy Downs via Parrearra	local			✓	✓
615	Maroochydore to Landsborough via Mooloolaba	link to rail	✓			
616	Maroochydore to University via Buderim	local	✓			
618	Sippy Downs to Minyama via Mountain Creek	local	✓	✓		
619	Maroochydore to Kawana	local	✓	✓		
622	Peregian Springs to Kawana via Maroochydore	local		✓		
Feeder bus routes on corridor section			4	3	2	3
Scheduled feeder bus services on corridor section in the AM peak*			7	4	2	3
Total bus routes operating on corridor section			6	7	5	6
Total scheduled services on corridor section in the AM peak			13	12	8	9

* Assumed 1-hour peak period

10.2.3 TransLink Network Plan

Intent

The TransLink Network Plan guides the development of the public transport network in South-east Queensland. Planning instruments contained in the plan to guide the provision of services and infrastructure include:

- a 10-year plan that includes strategic intent, policies and priorities for network improvements
- a 4-year rolling program that leads towards the 10-year plan, through specific improvements to public transport services, infrastructure, ticketing and information.

The TransLink Network Plan is consistent with the strategic directions for public transport set out for South-east Queensland in the:

- South East Queensland Regional Plan
- South East Queensland Infrastructure Plan and Program
- Integrated Regional Transport Plan.

The CoastConnect project is a key infrastructure priority identified in these plans.

Network design principles

The TransLink Network Plan provides guidelines to shape the development of a 'trunk and feeder' public transport network. This concept is underpinned by direct 'trunk' services that connect key locations.

Passengers can conveniently transfer at key interchanges because high frequency services can be provided on the simplified network.

The improved interchange opportunities reduce the need for long multideestination services. The advantage of the 'trunk and feeder' network to passengers is an overall higher frequency network providing more connections and a faster journey despite having to interchange between services.

The 'trunk and feeder' public transport network includes:

- 'trunk' routes, based on a series of high frequency priority bus and rail services. These routes provide a direct connection between activity centres and form the backbone of the network
- 'feeder' routes which provide access from residential areas to local activity centres and public transport nodes to allow for interchanging with other services.

The high frequency priority services are intended to operate with a 15-minute or better all-day headway. Bus routes included in the network of high frequency priority services will operate on major road corridors and be aided by bus priority measures where there is congestion. Figure 10-2 illustrates the proposed configuration of services with the new trunk and feeder network and demonstrates the capacity for higher frequencies.

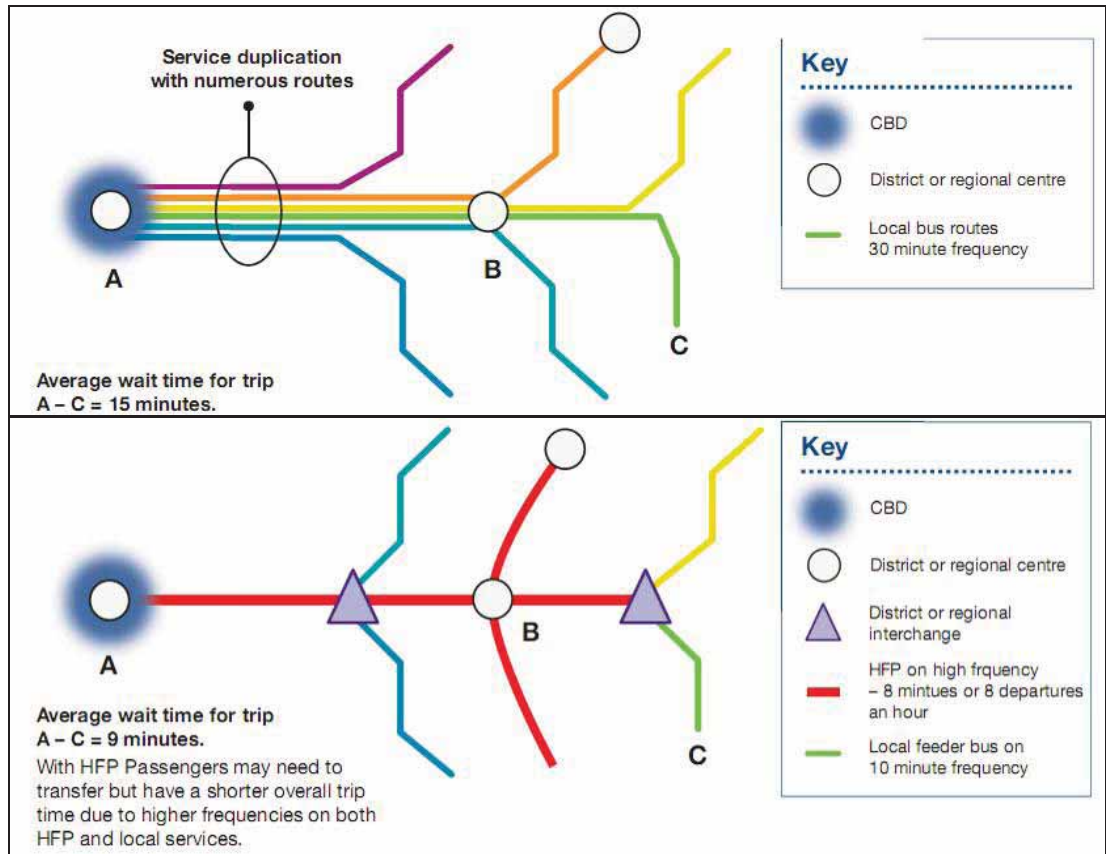


Figure 10-2: Connectivity between public transport services

Land use requirements

The TransLink Network Plan identifies that for high frequency priority public transport to be viable, demand for public transport needs to be concentrated and urban densities need to reach particular thresholds along corridors and in activity centres.

Table 10-3 details the desired match between land use density and public transport provision.

Table 10-3: Density requirements to support high frequency priority public transport

Density	Public transport service
High density urban core +50 dwellings per hectare or 100 residents or jobs per hectare	High frequency priority services and peak express
Medium density 20-25 dwellings per hectare or 50 residents or jobs per hectare	High frequency priority services on major corridors, supported by local feeder services
Low density suburban 15 dwellings per hectare or 20 residents or 10 jobs per hectare	Local services and some access to high frequency priority services and peak express

10.3 Planning considerations in the CoastConnect corridor

10.3.1 Future public transport demand

Sunshine Coast public transport had estimated daily boardings of 14,000 in 2008; and TransLink Transit Authority is targeting an increase to approximately 35,000 daily boardings in 2018. This equates to a public transport mode share increase from 1.5 % in 2008 to 3.3 % in 2018.

In developing the future bus route network, forecast changes in residential population and employment patterns have been used to understand where people will be living and working as the Sunshine Coast grows. New developments such as Caloundra Town Centre, Caloundra South, Kawana Town Centre and Palmview will all generate and attract public transport patronage, whilst the intensification of development in existing areas will also increase travel demand.

10.3.2 Future land use and infrastructure investment

The proposed Caloundra South area may create a major generator and attractor for public transport trips at the southern end of the CoastConnect corridor and will need to be integrated with the CoastConnect corridor. Kawana Town Centre is being developed in stages, including a new hospital planned to open in 2016. This area will contain major commercial development and a considerable residential population. It will be a major mid-corridor generator and attractor of public transport trips.

The Greenfield areas of Palmview and Sippy Downs will generate demand for travel to Maroochydore, Kawana and Caloundra. These areas are intended to be serviced by high quality bus services, many of which will link to the CoastConnect corridor. The proposed CAMCOS corridor between Beerwah and Maroochydore will need to be provided with bus connections at Caloundra Town Centre, Kawana Town Centre and Maroochydore, but will also serve intermediate stations.

10.4 Proposed bus service strategy for CoastConnect

10.4.1 Network design concepts

Network structure

Many metropolitan transport systems are anchored at one end by a dominant attractor like a city centre with a series of intermediate attractors located along its length. The bus network is structured so that bus services access the corridor at various points along the corridor and most are destined for the same location in the city centre. By contrast, CoastConnect corridor will be anchored at the northern end by Maroochydore and at the southern end by Caloundra and will also support a number of significant town centres that are located on and off the corridor. These include Kawana Town Centre, Caloundra Town Centre, Caloundra South, Palmview, Sippy Downs and Nambour. The CoastConnect corridor will require an operating strategy that allows trunk services to travel between Caloundra and Maroochydore while allowing others to use short sections of the corridor.

The network plan to support this pattern will need to include:

- routes that travel the length of the corridor and service key attractors at the corridor ends in Maroochydore and Caloundra as well as providing access to key attractors along the corridor such as Kawana Town Centre
- routes that use sections of the corridor and connect key attractors on the corridor with key attractors not located on the corridor, such as Sippy Downs.

Connectivity between services

An interconnected network includes interchanges at strategic locations that allow passengers to change from one service to another. Interconnecting public transport services can make it easier for passengers to travel to where they want to go while offering convenient access to many destinations. The more opportunities there are to transfer between various services, the more journey combinations and destinations are possible for passengers.

Direct public transport services can be provided to major centres if there is sufficient demand to justify the service or during peak period. However, the demand for trips to many other destinations is too low to justify the provision of direct services.

For the CoastConnect corridor, there is a need to strike the right balance between maximising the interchange opportunities while minimising the need for passengers to transfer. Where demand is sufficient, the principle of 'same seat' journey should apply. In some cases, 'feeder' routes will be provided to key CoastConnect stations where passengers can transfer to reach their final destination. This can be done at significantly lower costs than direct services and allows services to be provided at frequencies that would not be viable otherwise. This approach also makes use of spare capacity on trunk services thereby increasing the overall efficiency of the system.

While transfers can allow access to more destinations, they must be done in a seamless and coordinated way to minimise inconvenience to passengers. Transfers will be made easy through timetable connections at key CoastConnect stations (coordinated arrival and departure times) together with the high service frequencies proposed at CoastConnect stations.

10.4.2 Strategy overview

The proposed bus network strategy for the CoastConnect corridor includes a number of core routes, developed in accordance with the principles for the high frequency priority network contained in the TransLink Network Plan.

The high frequency priority network consists of routes that link major transport nodes, such as Caloundra and Maroochydore, and will offer all-day service frequencies of 15 minutes or better. Within the CoastConnect corridor, several high frequency priority services are proposed which will combine in certain locations to offer very high frequency service along common sections of route (such as Maroochydore to Mooloolaba). In other areas, such as Kawana Town Centre and Caloundra, the different high frequency priority services will offer alternative travel choices, such as one route that will travel via the Kawana Town Centre and another that will stay on Nicklin Way.

Supporting the high frequency priority services, feeder routes will meet local travel needs. These routes will be generally shorter in length and travel via suburban streets to connect to the CoastConnect stations and major stops. Key interchange points are envisaged at Caloundra, Kawana Town Centre, Kawana Shoppingworld and Maroochydore.

The network has been designed to minimise the number of buses that terminate at intermediate stations along the corridor such as Kawana Shoppingworld and Kawana Town Centre. Buses that terminate have specific operational needs, such as space to park and facilities for bus drivers. Meeting these needs in an area such as a town centre would take valuable space and result in buses being parked in locations that could be better utilised.

In the Kawana Town Centre area, the network has been designed so that buses that approach from the north will travel through the area before terminating to the south at the future Creekside rail station site. Buses approaching from the south would travel through the town centre before travelling to a terminus location near the Main Drive industrial precinct. In both cases, buses travel through the full length of the densely developed town centre, overlapping to provide higher service levels in the most densely populated areas.

The network design process also considered the following factors:

- providing transfer opportunities to local network services and intra-regional services at major and principal activity centres. This will occur at Caloundra bus interchange, Currimundi, Kawana Town Centre, Kawana Shoppingworld and Maroochydore
- providing connections to the stations on the proposed CAMCOS corridor
- planning services that continue through the major and principal activity centres to key destinations. For example continuing some bus routes from Caloundra, Kawana Town Centre and Maroochydore to destinations away from the corridor such as Caloundra South, the University of Sunshine Coast, Palmview, Buderim, Nambour and Noosa.

10.4.3 Bus routes

The following bus service strategy only considers the proposed ‘trunk’ routes (the high frequency priority bus services) that will operate between Maroochydore and Caloundra and inter-connect with services at Maroochydore. ‘Feeder’ routes that will connect local areas to the CoastConnect corridor have not been considered in this strategy beyond identifying the locations where they could access the CoastConnect corridor.

The proposed high frequency priority bus services that will operate on and connect with the CoastConnect corridor are shown in Figure 10-3.

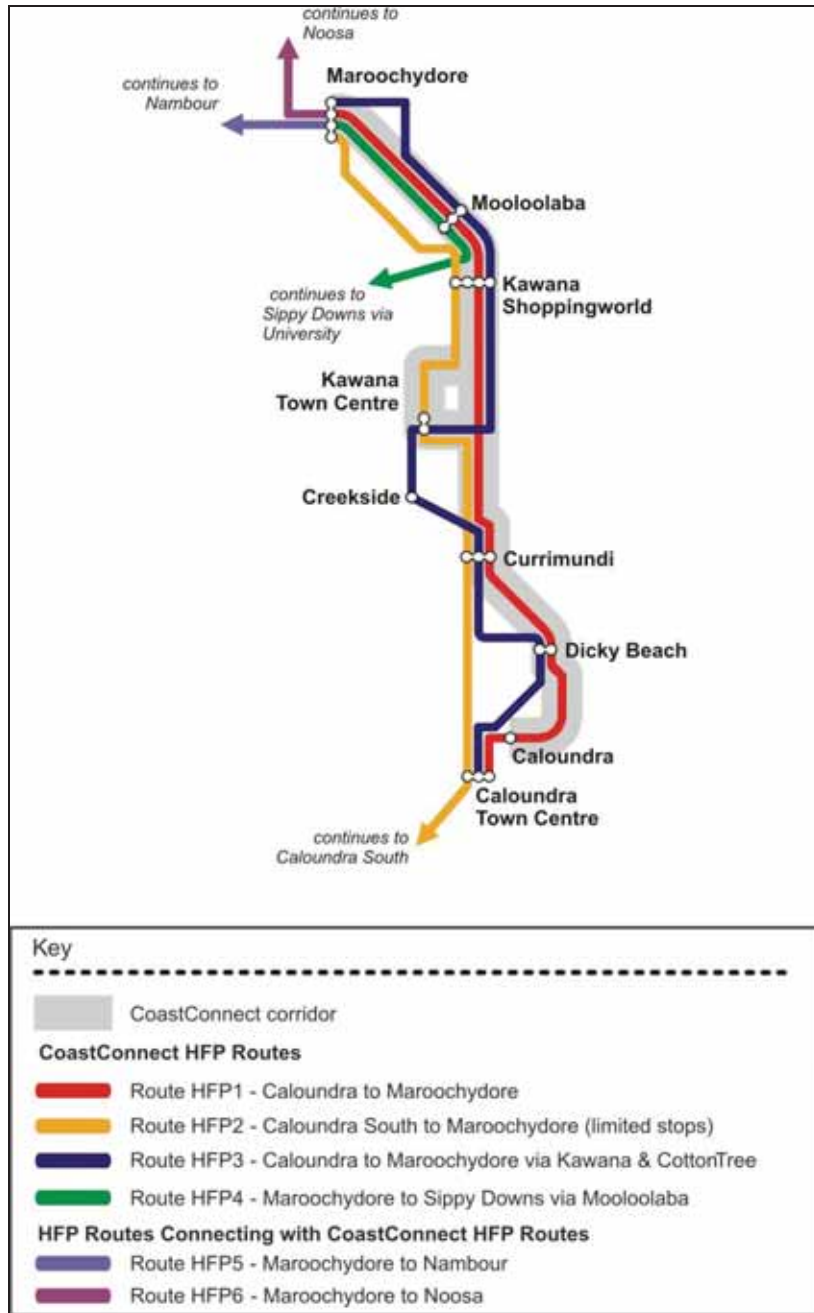


Figure 10-3: Proposed trunk routes (high frequency priority services) for the CoastConnect corridor

Trunk routes — High frequency priority services operating on the CoastConnect corridor

Route descriptions

A description of the route attributes for the different high frequency priority (HFP) bus services is detailed in Table 10-4.

Table 10-4: Route alignment of HFP services operating on the CoastConnect corridor

	Route	Route purpose	Service area	Route attributes
HFP1	Caloundra to Maroochydore	The route is an all-stop service between Maroochydore and Caloundra using the full length of the CoastConnect corridor. It is intended to provide a direct service suitable for longer trips along the full corridor length and for shorter trips between various destinations along the corridor.	Maroochydore Mooloolaba Kawana Shoppingworld Currimundi Dicky Beach Caloundra Caloundra Town Centre	Similar to the existing Route 600. Uses the full length of the CoastConnect corridor.
HFP2	Caloundra South to Maroochydore	The route is a limited-stop service between Maroochydore and Caloundra South. It is intended to provide an express connection between the various town centres and shopping precincts along the corridor and provide a service to the growing greenfield sites at Caloundra Town Centre and Caloundra South.	Maroochydore Kawana Shoppingworld Kawana Town Centre Currimundi Caloundra Town Centre Caloundra South	Similar in parts to the existing Route 602. The route uses Sunshine Motorway between Maroochydore and Mooloolaba and then follows the CoastConnect corridor to service Kawana Shoppingworld, Kawana Town Centre and Currimundi before leaving the corridor to use Nicklin Way to access Caloundra Town Centre and Caloundra south.
HFP3	Caloundra to Maroochydore via Kawana and Cotton Tree	The route is an all-stop service between Maroochydore and Caloundra. It is intended to provide an extended route between Maroochydore and Caloundra that connects with the fringe areas adjoining the Maroochydore, Kawana Town Centre and Caloundra. The route also provides additional capacity in the expected high patronage demand areas of the corridor between Maroochydore and Kawana Town Centre.	Maroochydore Cotton Tree Mooloolaba Kawana Shoppingworld Kawana Town Centre Creekside Currimundi Dicky Beach Caloundra Caloundra Town Centre	Similar to the existing Route 601 in the southern part of the corridor and Route 600 in the northern part of the corridor. The route follows the CoastConnect corridor between Maroochydore and Kawana Town Centre and then uses local roads between Kawana Town Centre and Caloundra Town Centre.
HFP4	Maroochydore to Sippy Downs via Mooloolaba	The route is an all-stop service between Maroochydore and Sippy Downs. It is intended to provide access between the highly urbanised areas between Maroochydore and Mooloolaba with Sippy Downs and the University of Sunshine Coast. The route also provides additional capacity in the expected high patronage demand areas of the corridor.	Maroochydore Mooloolaba Sippy Downs	Similar to the existing Route 615 between Maroochydore to Sippy Downs. The route follows the CoastConnect corridor between Maroochydore and Mooloolaba and then uses the Sunshine Motorway to access Sippy Downs.

Bus service frequency

The high frequency priority bus services using the CoastConnect corridor will be operated with a 15-minute service frequency. Services will operate for the minimum operating hours between 6 am and 9 pm seven days a week.

The combined service frequency of the high frequency priority services on the CoastConnect corridor will provide the following approximate level of service (in the one direction during the AM peak):

- a bus every 5 minutes between Maroochydore and Mooloolaba
- a bus every 3 minutes between Mooloolaba and Kawana Shoppingworld
- a bus every 5 minutes between Kawana Shoppingworld and Caloundra.

The inclusion of feeder routes operating between Maroochydore and Caloundra will further improve the combined service frequency at specific points of the corridor.

A detailed breakdown of the level of service provided on various sections of the CoastConnect corridor, including the increase in services on the current bus network is detailed in Table 10-5.

Table 10-5: Combined service frequency for trunk routes on the corridor

Route		CoastConnect corridor section			
		Maroochydore to Mooloolaba	Mooloolaba to Kawana Shoppingworld	Kawana Shoppingworld to Kawana Town Centre	Kawana Town Centre to Caloundra
Proposed trunk HFP routes on the CoastConnect corridor					
HFP1	Caloundra to Maroochydore	✓	✓	✓	✓
HFP2	Caloundra South to Maroochydore (limited stops)		✓	✓	✓
HFP3	Caloundra to Maroochydore via Kawana and Cotton Tree	✓	✓	✓	✓
HFP4	Maroochydore to Sippy Downs via Mooloolaba	✓	✓		
HFP bus services operating on corridor section		3	4	3	3
Minimum number of services on corridor section in AM peak		12	20	12	12
Current trunk routes on the CoastConnect corridor					
Current trunk bus routes operating on corridor section		2	4	3	3
Total trunk services on corridor section in AM peak		6	8	6	6
Increase in trunk services on corridor section in AM peak		+6	+12	+6	+6

Feeder routes connecting with the CoastConnect corridor

Feeder routes that will connect local areas adjoining with the CoastConnect corridor have not been considered in this strategy, beyond identifying the locations where they could access the CoastConnect corridor. It is expected that the existing configuration of local bus routes will make up the majority of the local feeder network into the future.

It is acknowledged that some modifications to existing routes as well as the introduction of new routes may be required to service new urban areas along the corridor and ensure adequate integration and minimal duplication with the high frequency priority services operating on the CoastConnect corridor

For the feeder route network, service frequencies will be either 60 minutes or 30 minutes, depending on demand.

10.4.4 Network connections

Trunk routes — HFP services connecting with the CoastConnect corridor

The proposed high frequency priority services that will operate outside the CoastConnect corridor and connect at Maroochydore with services operating on the CoastConnect corridor include:

- route HFP5, operating between Maroochydore and Nambour
- route HFP6, operating between Maroochydore and Noosa.

These services will allow for extended trips to/from the CoastConnect Corridor to the west and further to the north.

Rail services

Prior to the opening of the CAMCOS to Caloundra, the following existing rail link services will continue to operate and connect with the high frequency priority bus services operating on the CoastConnect corridor:

- route 605, operating between Landsborough and Kawana Shoppingworld via Caloundra
- route 615, operating between Landsborough and Maroochydore via Sippy Downs.

Route 605 will terminate at Caloundra as this service will overlap on the proposed CoastConnect services between Kawana Shoppingworld and Caloundra. Passengers will be required to interchange onto the high frequency priority services operating on the CoastConnect corridor to complete their journey.

The key interchange points between the CoastConnect bus services and the proposed CAMCOS line will be at Maroochydore, Kawana Town Centre and Caloundra Town Centre. It is proposed that once CAMCOS is operating to Caloundra, the existing Route 605 will no longer be required to operate to Landsborough Station.

10.4.5 Land use planning

Land uses adjoining the CoastConnect corridor are typically low density with different land uses separated. It is anticipated that in the short to medium term, greater levels of urban infill and new urban areas could be developed to support a greater mix of uses and to achieve minimum density thresholds identified in the TransLink Network Plan to support high frequency services. Without intensified land uses along the corridor, it will be difficult to achieve higher public transport use.

10.4.6 Triggers for strategy review

The proposed bus network strategy will be staged in line with the construction of bus priority measures, new Greenfield development and increased demand.

Two key events will trigger the need for a redevelopment of the existing bus network around the CoastConnect corridor. The first of these is the development of Kawana Town Centre where, over the next 5 years, a new hospital will be developed and the surrounding area will gradually be developed into a significant commercial and residential hub. Services to the area will be gradually increased over the next 5 years, but the opening of the hospital will trigger the need to redevelop the local bus network to provide a much higher level of service to the area.

The next key event will be the development of Caloundra South and the commencement of CAMCOS services to Caloundra. When this happens, existing services that travel to the Caloundra bus interchange at Cooma Terrace will need to be extended to the station, whilst a range of new services will be required to accommodate new travel demand to the station.

Following this, the extension of the rail line to Kawana Town Centre will refocus some travel demand away from Caloundra to the new station (i.e. people who are travelling from further to the north to access the train). However, as Kawana Town Centre will already be a key travel destination, services to this area may not need to be altered significantly but may need to be increased in frequency.

10.5 Proposed access to CoastConnect

10.5.1 Stations and stops

Stations will be provided at key locations along the CoastConnect corridor where services converge and passenger numbers are at their highest. Stations will have high quality waiting environments with sheltered platforms, pedestrian overpasses, static and real-time information display capability and security monitoring by closed-circuit television.

Bus station locations are proposed to be located at:

- Cooma Terrace, Caloundra
- Nicklin Way, Currimundi (at Currimundi Market Place)
- Nicklin Way, Minyama (at Kawana Shoppingworld)
- Horton Parade, Maroochydore (at Sunshine Plaza).

It is proposed that bus–rail interchange with the future CAMCOS services will occur at:

- Caloundra Town Centre
- Kawana Town Centre
- Maroochydore Town Centre.

The bus network will also provide bus–rail transfer opportunities at other stations along CAMCOS.

Planning for 36 (north/south bound pairs) bus stops has been included in the CoastConnect corridor to provide local access to bus services between the bus stations. Stops will be spaced appropriately 400 metres apart and be appropriately located to optimise the benefits of bus priority measures, provide good access to key attractors/generators, and connect with pedestrian/cycle facilities and catchments.

The design and type of facilities at stations and stops along the corridor will be provided in accordance with standards set in the TransLink Stop/Station Hierarchy and the TransLink Infrastructure Manual.

Sections 1 and 2 — Caloundra to Currimundi

Passenger access points in the Caloundra to Currimundi corridor section will include:

- bus station at Cooma Terrace in Caloundra
- bus–rail interchange at Caloundra Town Centre in the long term
- bus stops (13 north/south bound pairs)
- bus station with possible future pedestrian overpass on Nicklin Way at Currimundi Market Place.

In the short term, the existing Caloundra bus interchange with new on-road bus stops on Cooma Terrace will serve as the southern terminus for the corridor. Urban bus services will operate from the on-road bus stops. The existing interchange facility will be used for bus layover and long-distance bus services.

In the longer term, it is anticipated that interchange activities will be relocated to the future Caloundra bus-rail interchange.

Local bus services will access the CoastConnect corridor at Buccleugh Street, Beerburrum Street and Currimundi Road. At Cooma Terrace, services travelling from the west will also feed into the corridor.

Sections 3 and 4 — Nicklin Way and Kawana Town Centre

Passenger access points in the Nicklin Way to Kawana Town Centre corridor section will include:

- 33 bus stops on Nicklin Way, Lake Kawana Boulevard, Kawana Way and Main Drive
- bus station with pedestrian overpass on Nicklin Way at Kawana Shoppingworld
- bus–rail interchange at Kawana Town Centre in the long term.

As an interim solution, the main bus stops for Kawana Town Centre will be located on Kawana Way. Ultimately, a bus–rail interchanged will be developed at the Kawana CAMCOS station.

Section 5 — Mooloolaba

The final design and delivery of this section is subject to Sunshine Coast Regional Council planning.

Section 6 — Alexandra Headland

There will be 10 bus stops provided in Section 6.

Local bus services will access the CoastConnect corridor at Buderim Avenue and Mayfield Street.

Section 7 — Maroochydore

Passenger access points on the Aerodrome Road corridor section will include:

- bus station with pedestrian overpass on Horton Parade at Sunshine Plaza
- six bus stops (three north/south pairs).

The new Maroochydore bus station located on Horton Parade will serve as the northern terminus for the corridor. Bus services operating on the CoastConnect corridor and terminating at the bus station will have a timed connection with buses travelling from Maroochydore to Nambour and Noosa.

Local bus services will access the CoastConnect corridor at Sixth Avenue, Wrigley Street, Maud Street, First Avenue and Plaza Parade.

10.5.2 Walking and cycling

Walking and cycling is the highest order or preferred mode to access TransLink public transport network. The proposed station and bus stop locations along the CoastConnect corridor will be accessible via the local road network and pedestrian/cycle paths. End of trip cycle facilities including secure bike racks/storage will be provided at bus stations and major stops.

10.5.3 Kiss-and-ride facilities

Kiss-and-ride facilities provide a designated kerb-side zone that is safe and convenient for drivers to temporarily park, drop off or pick up passengers next to a public transport station or stop. They are intended to encourage car passengers to make at least part of their journey by public transport, rather than being driven the entire way to their destination.

The provision of kiss-and-ride facilities provided at bus stations and some major stops along the CoastConnect corridor will be further investigated in future stages. The drop-off/pick-up points should be located as close as practical to the bus loading areas and be designed for efficient access from the surrounding road network.

The detailed planning of kiss-and-ride facilities will ensure no impacts on the safe operation of the road, avoid conflict with buses, and minimise effects on adjoining properties.

10.5.4 Park-and-ride facilities

Park-and-ride is the lowest order mode to access TransLink public transport services; however, it does serve an important role in the transport network. They are intended to intercept car journeys before entering congested areas and encourage a transfer to priority public transport to reach final destinations. Park-and-ride facilities can significantly expand the catchment area for public transport, allowing people in low density areas or distant from line haul services to use public transport.

The provision of park-and-ride facilities associated with the CoastConnect corridor is not supported in the TransLink Park 'n' Ride Policy. This means access is prioritised for higher order access modes including walking, cycling and feeder public transport services. To this end, no planning for park-and-ride facilities has been undertaken as part of the CoastConnect Concept Design and Impact Management Plan.

The TransLink Park 'n' Ride Policy identifies the following sites along the proposed CAMCOS line that are suitable for park-and-ride facilities:

- Caloundra South Town Centre rail station
- Caloundra South District Centre rail station
- Parrearra rail station (adjoining Kawana Way)
- Currimundi rail station (adjoining Woodlands Boulevard)
- Aroona rail station (adjoining Kalana Road).

10.6 Bus access to proposed Maroochydore bus–rail interchange

The proposed future internal road network for Maroochydore by the Sunshine Coast Regional Council, as identified in the Maroochydore Centre Position Paper, includes a network of priority public transport corridors. These corridors are focused along the main access routes to the town centre and lead to the proposed bus–rail interchange located on the current Horton golf course site near Carnaby Street.

The proposed Maroochydore bus–rail interchange is approximately 500 metres off the CoastConnect corridor. Given the high volume of buses that are expected to access the bus–rail interchange and possible congestion from high traffic volumes in the town centre, the use of the identified bus priority corridors is essential for efficient bus operations.

Bus priority measures along these corridors are being provided by Sunshine Coast Regional Council and are expected to include full bus lanes, signal priority and bus stops strategically located to meet the needs of passengers.

The preferred roads for buses to access the proposed bus–rail interchange, based on the bus priority roads identified in the position paper are shown in Figure 10-4.

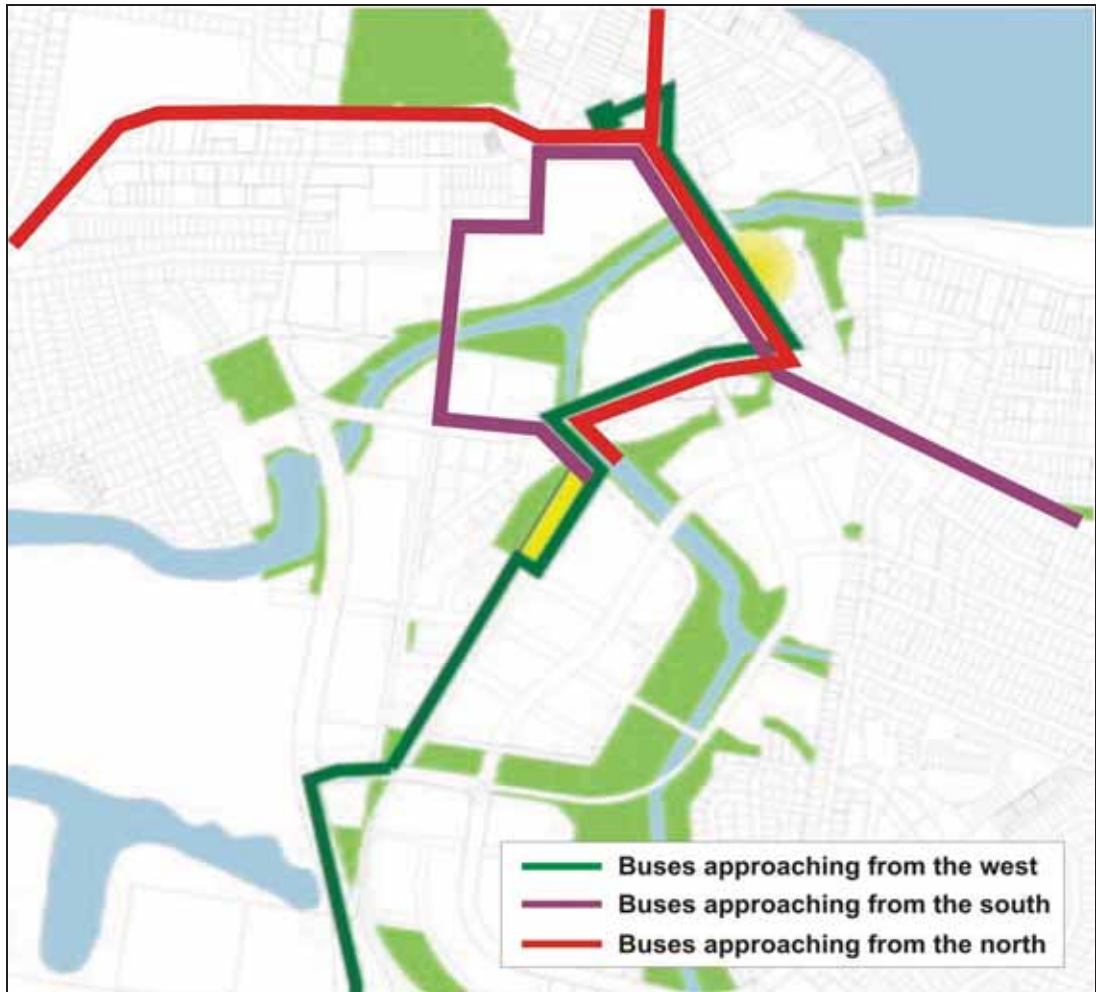


Figure 10-4: Bus access to the proposed Maroochydore bus-rail interchange

10.7 Future investigations

The CoastConnect Network Integration Strategy provides information that will:

- inform the detailed design process by outlining key requirements for various corridor sections and at stops and stations based on proposed operational arrangements
- assist with preparing a detailed operating plan for construction and operations of the CoastConnect corridor including:
 - planning for service changes that include high frequency priority routes
 - reviewing the existing local feeder network to ensure appropriate service coverage and integration with services operating on the corridor
 - optimising travel times, frequency and operating hours for services
 - coordinating bus and rail services
 - timetabling and vehicle scheduling
 - planning for detailed operational needs including bus-turnaround facilities, layover areas and driver amenities.

Additional planning would also inform and be informed by future updates to the TransLink Network Plan.

