



City of
STONNINGTON



Stonnington Public Transport Advocacy: Reference Document

JULY 2018

Message from the Mayor

I'm pleased to present to you the Stonnington Public Transport Advocacy Reference Document 2018, Council's manuscript of public transport advocacy actions that will be pursued on behalf of our community.

Improved and connected transport is essential for Stonnington's growing population. With an expected 32,000 more residents and 25,000 more jobs by 2036, it is important we act now to push for public transport changes that will build the network's capacity to accommodate our growing community.

Our Public Transport Advocacy Reference Document highlights areas of concern across all public transport networks that run through the City of Stonnington, and presents improvement opportunities for all three services - trams, trains and buses.

Council looks forward to working with the State Government, public transport operators and the community to ensure the improvements contained in the document are given the necessary priority.

Cr Steve Stefanopoulos
Mayor, City of Stonnington



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▼ Summary

The City of Stonnington lies immediately south-east of Central Melbourne (Figure 1). Several significant radial and circumferential transport routes pass through and alongside the area, carrying substantial amounts of through movement.

Public transport is essential to travel in and around the City of Stonnington. As the area continues to grow at pace with Melbourne as a whole, Stonnington will need to accommodate 32,000 more people and 25,000 more jobs by 2036.

Although public transport network coverage is good compared with many parts of Melbourne, the services, vehicles and infrastructure are substandard in many instances. Also many services, especially trains, serve other areas and are often too full to accommodate Stonnington demand. This discourages use by Stonnington residents and workers and limits the opportunities for growth.

There are very few opportunities to significantly increase road capacity for private vehicles. Public transport, cycling and walking must take the bulk of the growth in travel demand, and public transport infrastructure and services need comprehensive improvement to enable this.

- » Key projects like the Metro Tunnel will help, but the omission of Metro platforms at South Yarra significantly limits the benefit to Stonnington travellers. More train services and larger trains are needed.
- » The tram network needs modernising, with key route changes, more frequent, larger low-floor trams, accessible stops and faster travel times to enable it to play its part fully.
- » Bus services are substandard in many instances, especially regarding service frequency and coordination with other public transport, especially train services. Substantial improvement is needed to bring them up to acceptable standards.

A comprehensive list of advocacy actions has been prepared, as summarised in the table below and given in full in Chapter 4 – The advocacy plan.

The City of Stonnington will work with the state government, public transport operators and the community to give these improvements the necessary priority.

Summary of advocated actions

Planning

Develop an integrated transport plan for Melbourne to guide continued development of transport options. Stonnington will need substantial public transport improvements to cater for projected demand, given the limited opportunities to increase road capacity.

Monitor and encourage research into the effects of new transport technologies, pursuing opportunities for improved capacity, reliability, emissions, safety, flexibility and cost-effectiveness.

Investigate options for improved north–south public transport connectivity between Gardiner and Caulfield (based on a Burke Road alignment).

Summary of advocated actions

Trains

Frankston and Cranbourne/ Pakenham lines	Provide more peak period train capacity at stations in Stonnington.
	Upgrade the existing South Yarra station and provide more train services. Build Metro Tunnel platforms.
	Upgrade Caulfield station to improve the interchange and access between platforms and to/from the station.
	Upgrade Malvern station to Premium status, provide bicycle storage and improve access between platforms and to/from the station.
	Provide bicycle storage, improve access to/from the station and to nearby bus services at Hawksburn, Toorak and Armadale stations.
Glen Waverley line	Increase train services on completion of the Metro Tunnel.
	Improve entry/exit facilities and access between stations and nearby bus services.
Sandringham line	Increase train services on completion of the Metro Tunnel.
	Upgrade Prahran and Windsor stations to Premium status, provide bicycle storage and improve passenger entry/exit.
Level crossings	Agree on the design and commit to constructing the Toorak Road grade separation by 2021.
	Prepare grade separation designs for Toorong Road, High Street and Glenferrie Road as part of a corridor upgrade with Toorak Road.
	Improve the existing level crossings at Greville and Union streets, employing the latest technology and safety measures.
	NOTE: Council advocates for 'rail under road' solutions to level crossing removals in Stonnington.

Trams

Traffic	Increase tram priority at intersections and separation from traffic at accessible stops to improve travel times and reliability.
Stops	Prepare a master plan in consultation with Council to develop and implement accessible stops along all tram routes in Stonnington.
Routes and extensions	Develop plans for post-Melbourne Metro Tunnel tram network changes, including relocating routes from St Kilda Road to run further west through the CBD.
	Extend route 3 to East Malvern station.
	Extend route 5 to Darling station.
	Extend route 6 to Glen Iris station.
	Ensure the best interchange arrangement for route 58 at the new Anzac station (route stays on Toorak Road West).
	Extend route 64 to terminate at Malvern station. Combine the north-south section of the route with route 16.
	Continue route 78 west along Victoria Street towards the city.
	Consult closely with Council while studying the proposed Caulfield-Chadstone-Clayton campus-Rowville light/heavy rail project.
Services	Replace high-floor trams with larger low-floor trams on all Stonnington tram routes.
	Increase peak services to a five-minute headway on all Stonnington routes.

Buses

Stops	Provide full disability access provisions at all bus stops.
Services	Upgrade bus services to coordinate fully with train and tram services at interchanges, and to meet minimum standards of the bus service.
	Improve the span of bus services at Chadstone Shopping Centre.
Traffic	Provide substantial improvements in bus travel times and reliability.

▼ Introduction

This document discusses improved public transport serving the City of Stonnington. It advocates a comprehensive set of actions and priorities for the Victorian and commonwealth governments, public transport operators and others concerned with maintaining and improving transport in our area.

The report is laid out as follows:

- » Chapter 2 summarises travel patterns in Stonnington.
- » Chapter 3 describes existing and planned public transport.
- » Chapter 4 presents the advocacy plan.

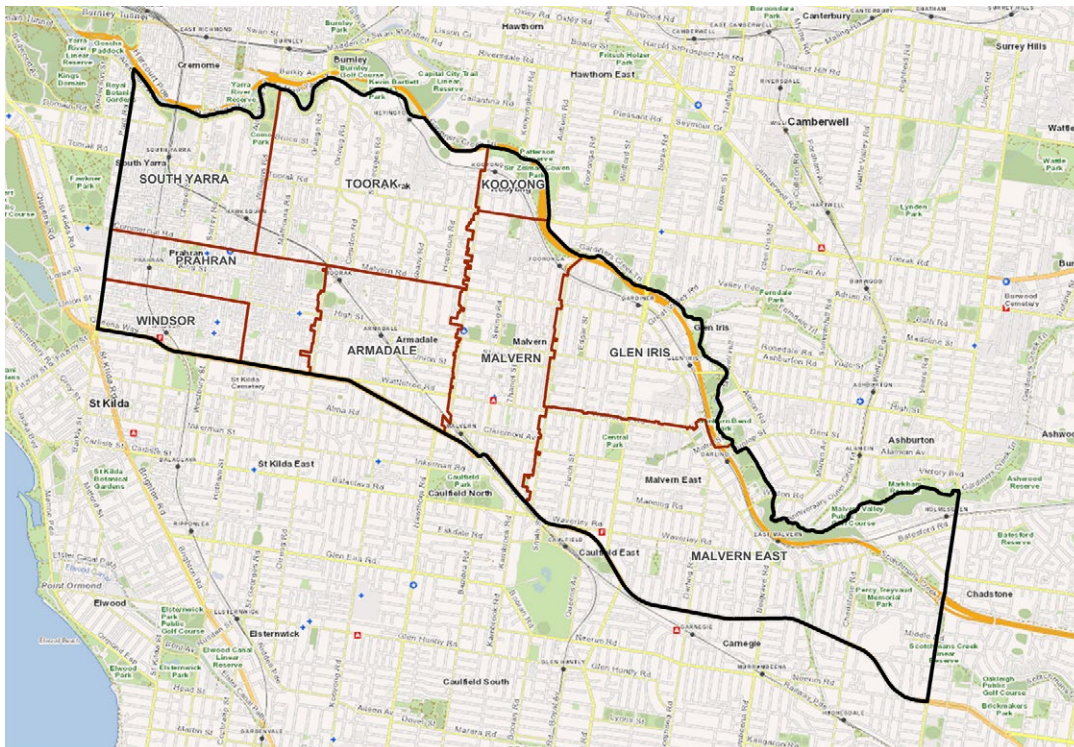
The appendices contain supporting information including references to other reports, data summaries and analyses.



▼2 Stonnington's travel ask

The City of Stonnington lies immediately south-east of Central Melbourne (Figure 1). Several significant radial and circumferential transport routes pass through and alongside the area, carrying substantial amounts of through movement. This influences the transport choices available to Stonnington residents and workers alike.

Figure 1: City of Stonnington



Source: .id consulting pty ltd

Stonnington covers the suburbs of South Yarra, Prahran, Windsor, Toorak, Armadale, Kooyong, Malvern, Glen Iris and Malvern East.

2.1 Land use, population and employment

In 2016 Stonnington's population was 111,600 people, including a resident workforce of 56,500. The area contains about 55,000 jobs (Table 1).

Table 1: City of Stonnington dwellings, population, workforce and employment, 2016

Suburb	Dwellings	Population	People/dwelling	Workforce	Employment
South Yarra	13,044	22,677	1.74	12,512	12,738
Prahran	7,419	14,037	1.89	7,882	10,220
Windsor	3,840	7,071	1.84	4,141	
Toorak	7,109	13,938	1.96	6,486	4,633
Armadale	4,679	9,797	2.09	4,893	6,059
Kooyong	398	876	2.20	406	10,501
Malvern	4,598	10,866	2.36	4,980	
Glen Iris	4,100	9,204	2.24	4,705	
Malvern East *	8,937	23,140	2.59	10,576	10,812
Stonnington total	54,111	111,606	2.06	56,532	54,963

Source: Australian Bureau of Statistics (ABS) 2016 Census data analysis. Employment estimated from workplace data.

* Includes Chadstone Shopping Centre.

Dwelling sizes (people per dwelling) increase from west to east through Stonnington, while dwelling density decreases, from nearly 50 dwellings/ha in South Yarra to fewer than 12 in Malvern East. The lower densities in the eastern part of Stonnington make public transport more dispersed and therefore less attractive to many residents there.

Jobs are also concentrated more in the west of the area than the east, with the notable exception of Chadstone Shopping Centre in East Malvern. South Yarra is an important employment centre, with 23 per cent of all the jobs in Stonnington.

Prahran/Windsor and Armadale also have significant job numbers, centred on the main shopping strips in these areas. Most of the job concentrations are served by trains and trams.

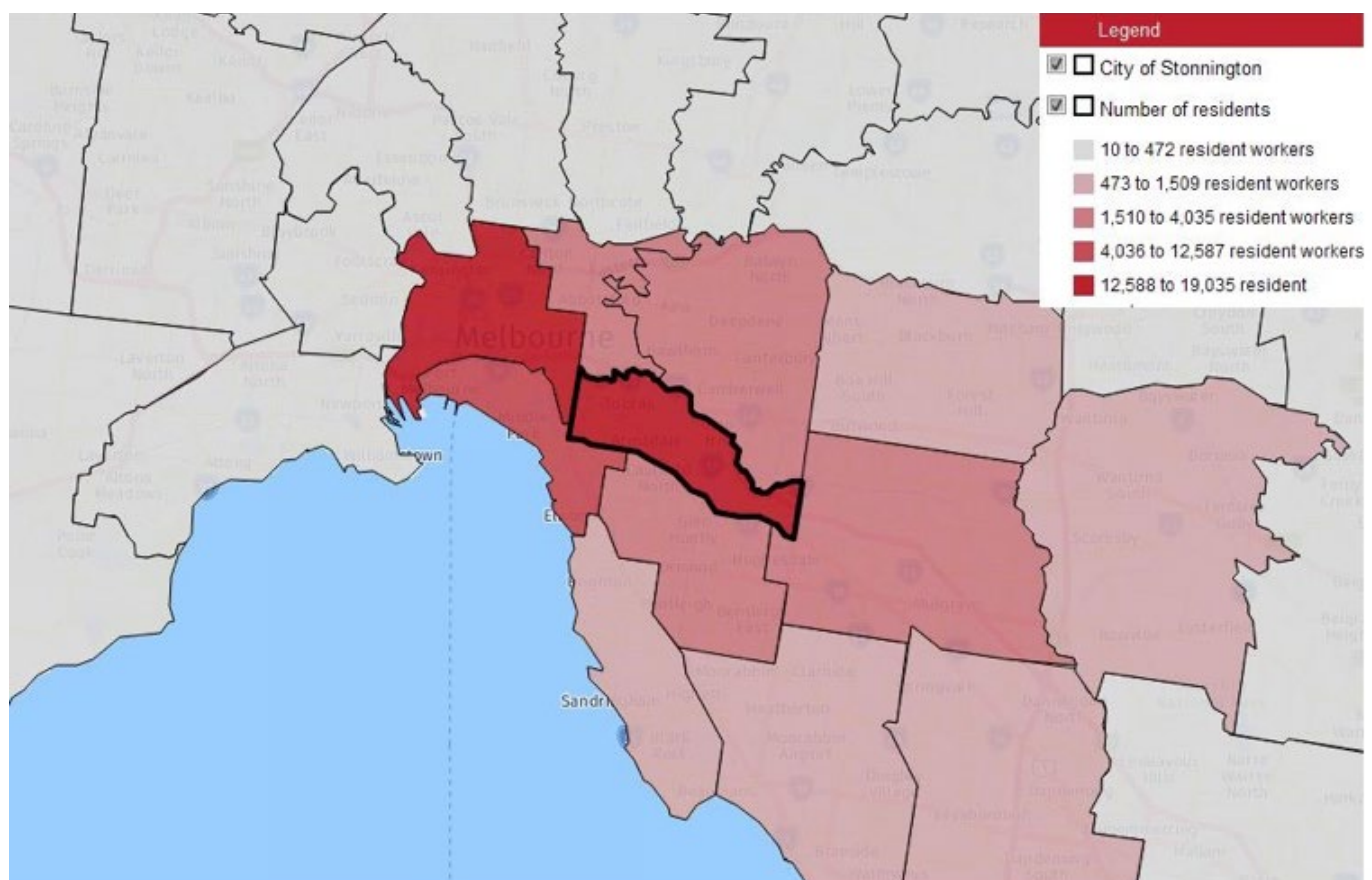
2.2 Travel patterns

To, from and within Stonnington

According to the Australian Bureau of Statistics (ABS) journey-to-work data, while there are roughly the same number of jobs and resident workforce, only about 20 per cent of workers who live in Stonnington also work here. The ABS data tells us 81 per cent of residents work elsewhere, and 80 per cent of workers live elsewhere.

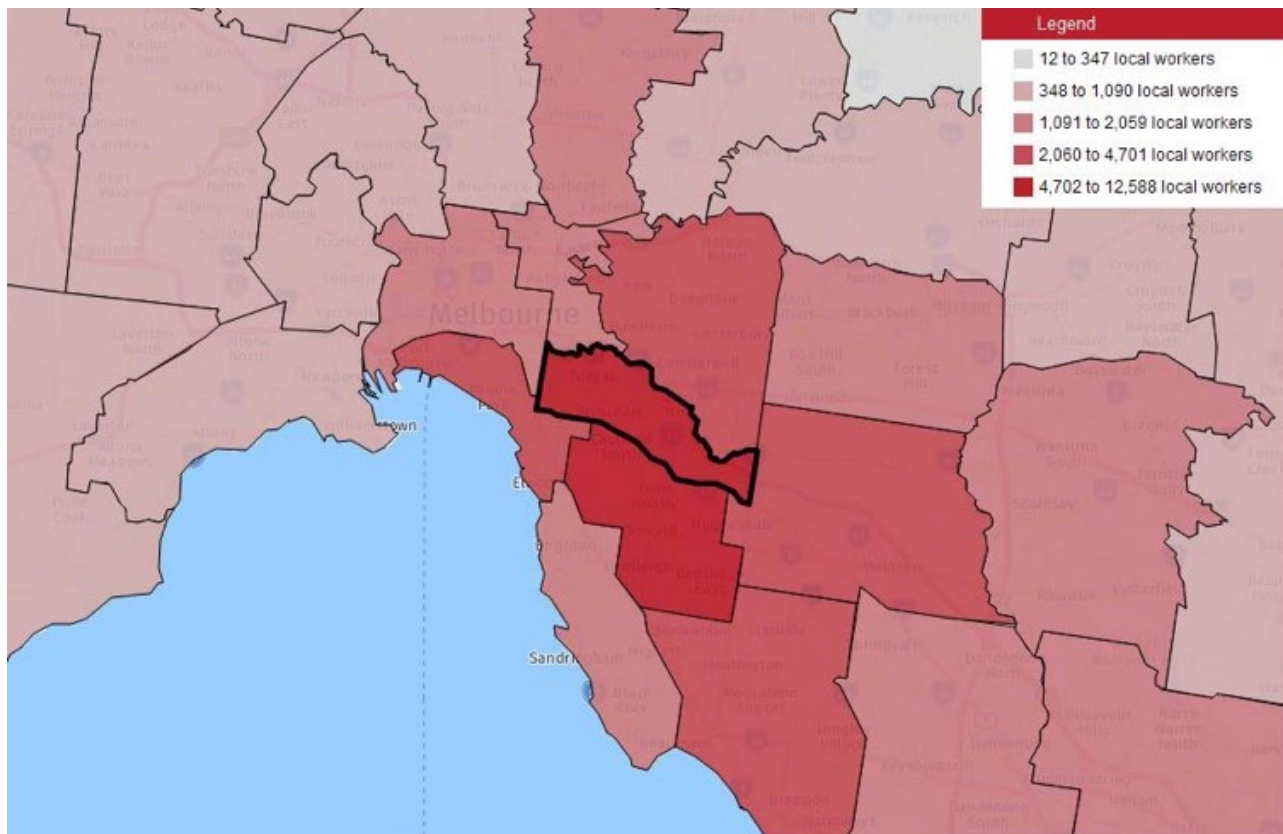
Figure 2 and Figure 3 show that most of the workers living in Stonnington travel to the CBD for work, while most people working in Stonnington come from the immediate south and east.

Figure 2: Employment locations for Stonnington residents, 2016



Source: .id consulting pty ltd

Figure 3: Residential locations for Stonnington workers, 2016



Source: .id consulting pty ltd

In Stonnington, 54 per cent of residents travel to work by car or motorcycle, 33 per cent use public transport and 12 per cent use active transport (walking and cycling). Of those travelling to the CBD, 21 per cent travel by car, 72 per cent by public transport and 7 per cent by active transport. This reflects the high capacity of public transport services available between Stonnington and Melbourne CBD. The proportion travelling by car to the CBD is relatively high compared with other parts of Inner Melbourne, although this is partly because of lower use of active transport from Stonnington.

Examining journey-to-work data by parking precinct shows that travel to work by car is highest (and public transport use lowest) in the eastern part of the municipality (east of Glenferrie Road). It is also higher in areas around railway stations.

Public transport use is therefore clearly related to supply and ease of access, especially to train and tram services. In contrast, 71 per cent of trips to work in Stonnington are by car or motorcycle, with only 20 per cent by public transport and 8 per cent by active transport.

Most of these are from areas south and east of Stonnington, where public transport services are much less extensive.

There is insufficient recent survey data available to examine non-commuting travel patterns in such detail. However, using typical trip-making rates per person, the resident population probably generates around 400,000 trips per weekday, of which about 110,000 are trips to and from work, leaving about 190,000 trips a day that are for non-work purposes (school, personal business, shopping, leisure and so on).

Jobs in Stonnington generate about 100,000 trips a day to and from outside, while other attractors (schools, shops, restaurants and so on) could generate about 180,000 trips a day.

Generally speaking, non-work trips are shorter than work trips, so proportionately more of them will probably take place wholly within Stonnington.

Using assumptions like these, an unofficial estimate of travel to, from and within Stonnington can be estimated, as summarised in Table 2.

Table 2: Estimated 2016 weekday daily travel to, from and within Stonnington

	To	From	Within	Total
Commuter trips	100,000	100,000	22,000	222,000
Other trips	140,000	140,000	140,000	460,000
Total daily trips	240,000	240,000	162,000	682,000

Through travel

A recent study (Sinclair Knight Merz, 2013) showed that travel through Stonnington is substantial. However, through-traffic on roads is mainly concentrated on Monash Freeway and Dandenong Road (largely forming the northern and southern boundaries of the area), although Warrigal Road, Burke Road and Toorak Road also carry significant volumes.

Through-movements on public transport are concentrated on the rail lines (Cranbourne/Pakenham, Frankston and Sandringham) serving Stonnington, and to a lesser extent on the tram routes (because most of them terminate within Stonnington). Buses provide limited through-travel opportunities, although SmartBus routes and the large number of buses serving Chadstone Shopping Centre are important.

2.3 Future growth

Future growth in population and employment is expected to be strong in Stonnington, focusing in areas that are already highly active.

Between 2016 and 2036, forecasts suggest that Stonnington will need to accommodate an extra 32,000 people and 25,000 jobs (Table 3). South Yarra will have continued strong growth in population and employment, with an additional 10,700 people and 6,300 jobs. Prahran, Glen Iris and Malvern East will have population growth approaching 30 per cent, while Windsor, Toorak, Armadale, Kooyong and Malvern will have less than 20 per cent growth. Significant employment growth is also anticipated in Malvern East (mainly due to growth at Chadstone Shopping Centre), Prahran/Windsor and Malvern/Glen Iris.



Table 3: City of Stonnington population and employment forecast, 2016–2036

Suburb	Population			Employment		
	2016	2036	2016–2036	2016	2036	2016–2036
South Yarra	22,700	33,400	10,700 (47%)	12,700	19,000	6,300 (49%)
Prahran	14,000	17,900	3,900 (28%)	10,200	15,200	5,000 (49%)
Windsor	7,100	8,700	1,600 (23%)			
Toorak	13,900	15,700	1,800 (13%)	4,600	7,700	3,100 (67%)
Armadale	9,800	11,900	2,100 (21%)	6,100	9,200	3,100 (50%)
Kooyong	900	14,100	2,300 (19%)	10,500	13,900	3,400 (32%)
Malvern	10,900					
Glen Iris	9,200	11,800	2,600 (28%)			
Malvern East	23,100	29,900	6,800 (29%)	10,800	15,000	4,200 (39%)
Stonnington total	111,600	143,400	31,800 (28%)	54,900	80,000	25,100 (46%)

Source: Population: .id consulting pty ltd. Employment: estimated from available trends data.

Combined with Melbourne’s overall growth, especially in the central area and to the south and east of Stonnington, this growth will increase demand for travel and mobility through and within Stonnington. Intensified development in already dense and congested areas will increase the pressure on all transport facilities serving key activity centres in Stonnington.

It is estimated that, by 2036, Stonnington will need to cater for an additional 180,000 trips to, from and within the municipality, a 25 per cent increase over 2016 levels. With limited opportunities to expand road capacities (see Chapter 3), public transport will probably have to take most of this increase; this implies up to a 50 per cent increase in public transport use, although walking and cycling may also take some of the growth.



▼ 3 Transport infrastructure and services

3.1 Roads

Roads in Stonnington, as elsewhere, serve a multitude of functions including:

- » an arterial function, facilitating longer-distance travel through the area
- » for distribution, providing access to and from smaller areas
- » for local access, providing the last step in travel to and from specific points
- » as public transport routes (buses and trams), including passenger infrastructure for boarding and alighting
- » as cycling and walking routes, giving safe and convenient access for active transport
- » as vehicle parking areas for access to roadside land uses of all types.

It is important to remember that roads are vital to public and active transport, as well as for private travel by car, truck and motorcycle. It has often been pointed out that larger passenger vehicles (i.e. buses and trams) take up a lot less road space than single or low-occupancy cars for the same amount of passenger throughput. There will always be a need to cater for all forms of transport on the road network and to optimise and harmonise all uses rather than favouring one over the others disproportionately.

However, in established areas like Stonnington, where roads are heavily used and there are limited opportunities for road expansion, travel growth must be accommodated by enhancing more space-efficient transport modes (walking, cycling and public transport).



Existing conditions

Traffic flows on the busiest roads in Stonnington are summarised in Table 4. More details are given in **Appendix C: Traffic flows in Stonnington**.

Table 4: Traffic flows on Stonnington's busiest roads

Road	Traffic lanes	Divided/undivided	Tram/bus	2016 AADT		2016 %CVs	
				From	To	From	To
Monash Freeway	8-10	D		157,000	176,000	10%	12%
Dandenong Road	6-8	D	T, B	56,000	66,000	3%	5%
Warrigal Road	6	D	B	28,000	53,000	6%	6%
Punt Road	4-6	U	B	27,000	50,000	2%	6%
Chapel Street	4	U	T	12,800	66,000	2%	6%
Glenferrie Road	4	U	T	11,900	14,800	6%	6%
Grange Road	4	U		31,000	31,000	2%	2%
High Street	4	U	T	11,600	19,400	2%	6%
Orrong Road	4	U	B	11,700	12,900	6%	6%
Toorak Road	4	U	T, B	17,900	38,000	2%	7%
Wattletree Road	4	U	T	8,800	16,000	1%	6%
Alexandra Avenue	2-4	U	B	7,800	30,000	4%	6%
Burke Road	2-4	U	T, B	15,700	22,000	5%	6%
Malvern Road	2-4	U	T, B	8,200	19,200	2%	6%
Tooronga Road	2-4	U	B	13,200	18,700	6%	6%
Waverley Road	2-4	U	T, B	10,400	27,000	1%	6%
Williams Road	2-4	U	B	12,000	23,000	3%	6%
Commercial Road	2	U	T	12,800	66,000	3%	6%
Upton Road	2	U		19,600	19,600	6%	6%

AAADT = annual average daily traffic; CV = commercial vehicle

Freeways and tollways

The Monash Freeway / CityLink runs along Stonnington's northern boundary. It has eight to ten lanes and carries an annual average daily traffic (AADT) in the range of 160,000–180,000 vehicles, which roughly equates to about 1,800 vehicles per lane per hour (vplph) at peak times.

This is close to the maximum theoretical vehicle capacity of a traffic lane, which in turn equates to about 2,000 people per lane per hour (at a typical average car occupancy of 1.1)

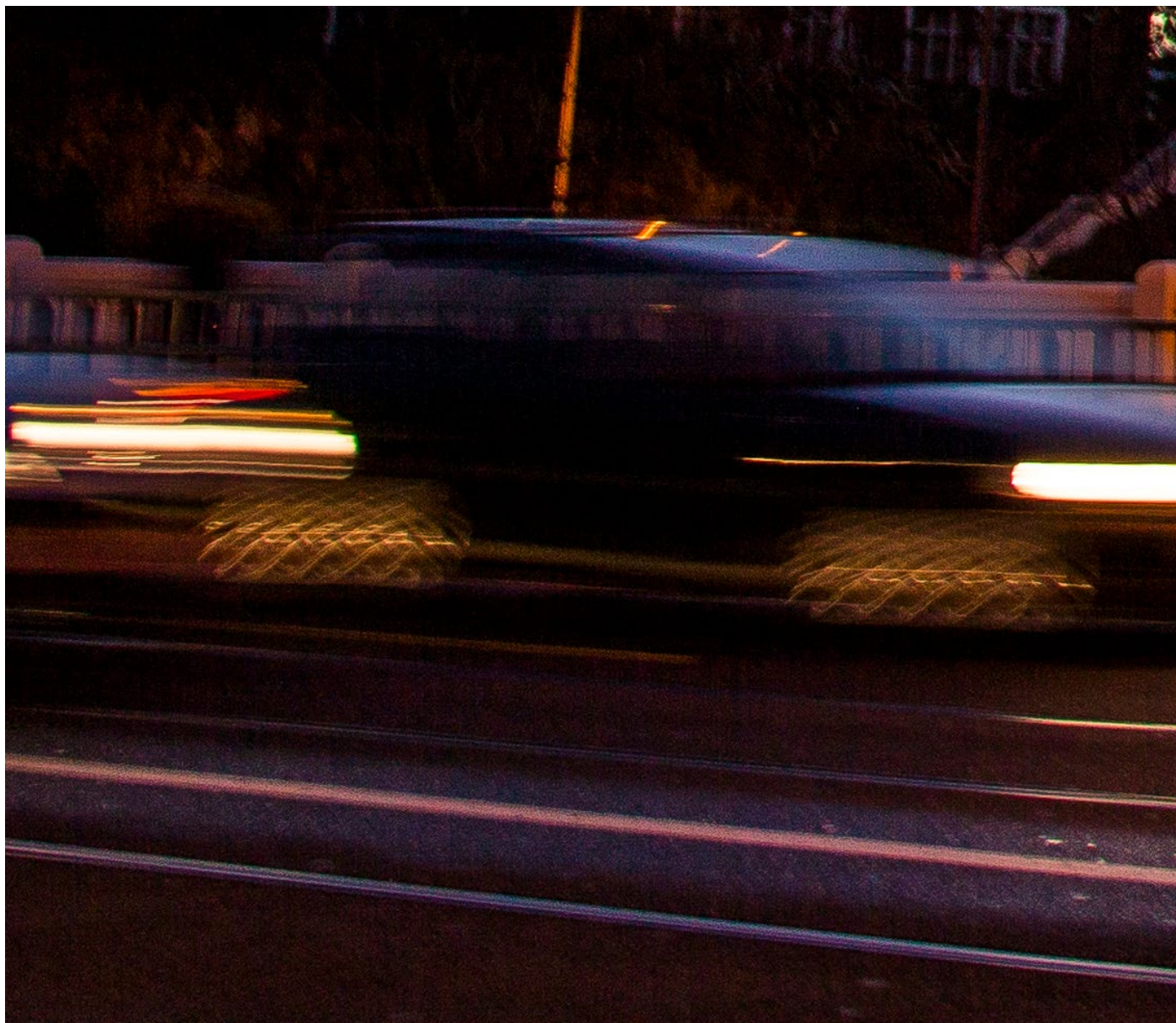
Multilane arterials

The only divided multi-lane arterials in Stonnington are Dandenong Road and Warrigal Road, which largely form the southern and western boundaries of the area respectively.

Dandenong Road has six to eight lanes and carries up to 70,000 vehicles AADT and peak flows of about 750–1,000 vplph. Warrigal Road has six lanes and carries up to 50,000 vehicles (peak flows 500–1,000 vplph). The lower peak flows are due to the capacity being dictated much more by the intersections with other roads than the 'mid-block' road capacity.

Green times on the major roads at signalised intersections can vary between 50 and 70 per cent of total time in road networks like Melbourne's.

Dandenong Road accommodates a tram route in the median for much of its western half and bus routes further east in the vicinity of Caulfield and Chadstone Shopping Centre. Warrigal Road has several bus routes, also centred on Chadstone Shopping Centre.



Undivided main roads

Stonnington has a comprehensive network of undivided main roads with two to four lanes of traffic. Most of these roads also carry tram and bus routes and have multiple intersections with each other and minor roads, which dictate the vehicle throughput capacity of the network. They also run through typical shopping strips with kerbside parking (clearways operating at peak times). These multiple uses reduce their peak traffic carrying capacity considerably to anything between 300 and 800 vplph.

Punt Road is managed to accommodate more vehicle traffic than most other roads in Stonnington, despite being mostly only four lanes (undivided). It accommodates flows of 30,000–50,000 AADT

Main east–west undivided roads include Alexandra Avenue, Toorak Road, Malvern Road, High Street, Wattletree Road and Waverley Road.

Main north–south undivided roads are Punt Road and Chapel Street as well as Williams, Orrong, Kooyong, Glenferrie, Tooronga, Burke, Darling, Belgrave, Chadstone and Warrigal roads.

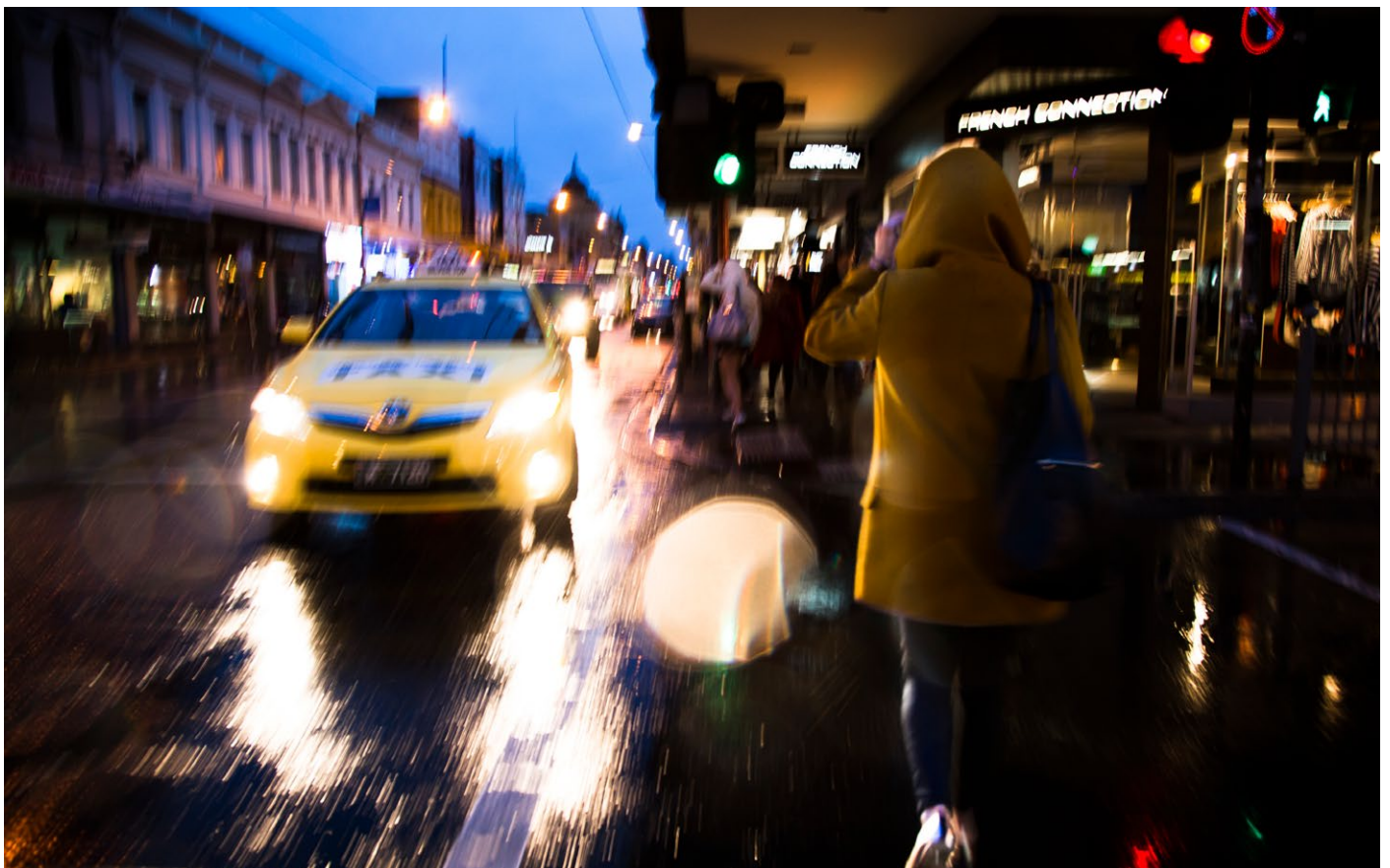
Planned changes

Currently planned changes to roads in and around Stonnington include the following:

- » Monash Freeway / CityLink – the West Gate Tunnel Project will ostensibly relieve the West Gate Bridge. Widening of the Monash Freeway from EastLink to Clyde Road (and smart technology from Chadstone to Pakenham) is an associated project. This will increase traffic, including trucks, on the portion of the route in Stonnington.
- » Punt Road – the Minister for Planning formed an advisory committee in 2015 to advise on the future of the Public Acquisition Overlay (PAO) related to the possible future widening of Punt Road.

The committee recommended in 2016 that the PAO be retained and measures undertaken to increase the road capacity; they concluded that a four-lane road with widening for turn lanes at intersections would be adequate, rather than six lanes throughout. The Minister for Planning has considered the advisory committee's report and decided to retain the entire Punt Road PAO.

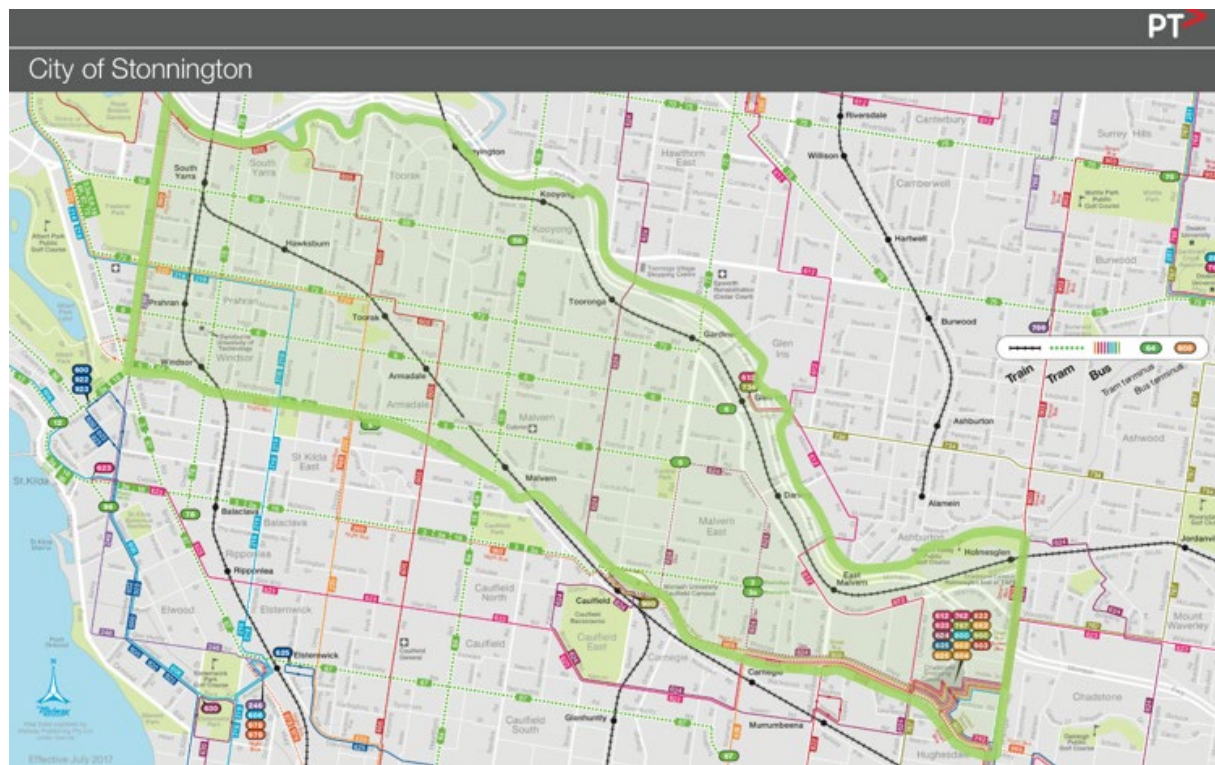
As already mentioned, there are limited opportunities to increase road space in Stonnington. Increasing the role of public transport, and giving it greater priority on the road network, is a good way to improve the road network's passenger throughput. It also provides more mobility choices for all travellers.



▼ 3.2 Public transport

Stonnington's public transport is illustrated in Figure 4 and summarised below. More detail is given in Appendix C: Traffic flows in Stonnington

Figure 4: Public transport in and around Stonnington



Source: Public Transport Victoria. For larger version, see Appendix C.

3.3 Rail

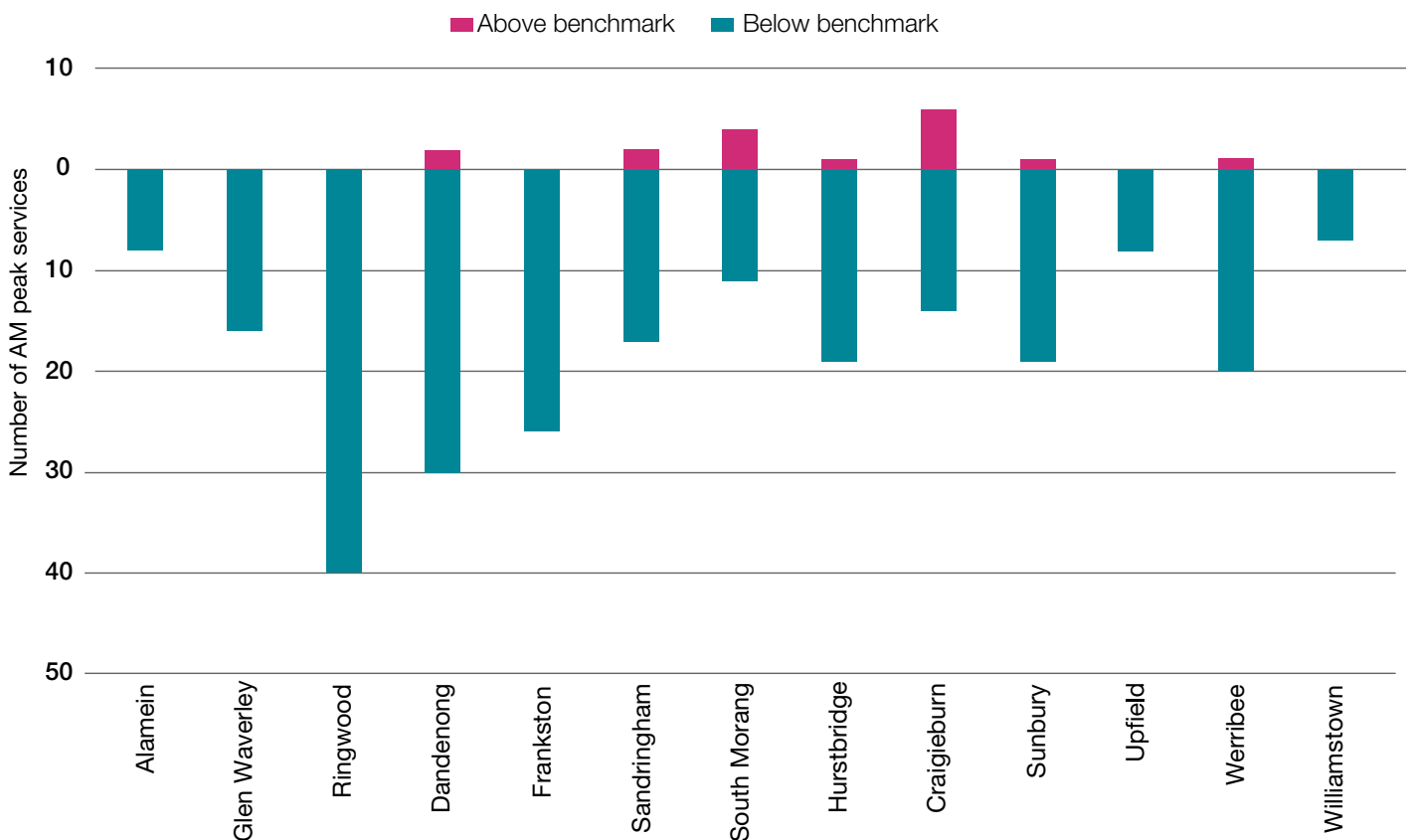
Melbourne's metropolitan rail system is extensive, comprising 16 regular service lines on 869 km of track. It has 218 stations and carries about 415,000 passengers per average weekday.¹

The latest (May 2017) train load standards survey report (Transport for Victoria, 2017) reports that, network-wide, the number of morning peak train services above benchmark crowding levels has reduced since May 2016.

However, this is mainly because trains have been reconfigured (fewer seats and more standing room) since then and the benchmark has increased from 798 to 900 passengers per train.

Figure 5 shows the number of morning peak train services above and below crowding benchmark levels in May 2017, by line. Most crowding occurs on lines north of the city (especially South Morang and Craigieburn), although the Dandenong and Sandringham lines, serving Stonnington, also experience some overcrowding.

Figure 5: Morning peak train services above and below 900 passengers in May 2017 surveys



Source: Transport for Victoria, 2017

Rail services in Stonnington

Stonnington has four rail lines passing through the area: the Pakenham/Cranbourne (Dandenong) line, the Glen Waverley line, the Frankston line and the Sandringham line. On all lines, inbound services are heavily loaded as they enter Stonnington because of the extensive residential areas they serve to the east and south-east.

Trains run at roughly 10-minute intervals in the peaks on all lines, so between Caulfield and South Yarra there is a train every three minutes or so, with 10-minute services on the Sandringham line.

Railway stations

There are 15 railway stations in Stonnington, and Caulfield station (just outside Stonnington’s boundary) is important to Stonnington travellers as well. Table 5 summarises the facilities at each station (as described on Public Transport Victoria’s website), and Figure 6 illustrates the relative patronage.

Stonnington has four Premium stations (South Yarra, East Malvern and Darling), which are staffed daily. Some of the remaining stations (Malvern, Armadale, Holmesglen and Tooronga) are staffed for the weekday morning peak, and the remainder are unstaffed.

Park-and-ride parking is provided at all stations on the Glen Waverley line except Heyington, at Caulfield on the Cranbourne and Pakenham lines, and on the Frankston line. Stations between Caulfield and South Yarra have significant on-street parking around the stations, and in all places car parking is well patronised.

Taxi ranks are few and far between, and bicycle parking facilities are limited to the Glen Waverley line. There are opportunities to provide more secure bike parking at all stations.

Most stations have accessible platforms, although the ramps from ground level are often too steep to meet Disability Discrimination Act 1992 (DDA) standards. It appears there is still some work to be done to provide full DDA-compliant facilities at all stations.

Table 5: Railway stations in Stonnington

Lines	Station	Status	Ticketing			Car, taxi & bike				Accessibility					General facilities				Waiting area					
			Staff	myki machines	myki checks	V/Line bookings	Car parking	Taxi rank	Racks	Lockers	Cage	Wheelchair areas	Stairs	Escalator	Lift	Tactile paths	Hearing loop	Seating	Lighting	Lockers	Public phone	Public toilet	Indoor	Sheltered
Cranbourne/Pakenham & Frankston	Caulfield	Premium	1	Y	N	Y	105	Y	4	0	Y	2	Y	N	N	N	N	Y	0	Y	Y	Y	Y	
	Malvern	Host	2	Y	N	N	0	N	0	0	N	1	N	N	N	N	N	Y	0	Y	Y	N	Y	
	Armadale	Host	2	Y	N	N	0	N	0	0	N	0	N	N	N	Y	N	N	Y	0	Y	Y	N	Y
	Toorak	Host	0	Y	N	N	0	N	0	0	N	0	N	N	N	N	N	Y	0	Y	Y	N	Y	
	Hawksburn	Host	0	Y	N	N	0	N	0	0	N	0	N	N	N	N	N	Y	0	Y	Y	N	Y	
	South Yarra	Premium	1	Y	N	Y	0	N	0	0	N	1	N	N	N	N	N	Y	0	Y	Y	N	Y	
Glen Waverley	Homesglen	Host	2	Y	N	N	195	N	5	10	Y	3	N	N	N	Y	N	N	Y	0	Y	Y	Y	Y
	East Malvern	Premium	1	Y	N	N	676	N	5	6	Y	4	N	N	N	N	N	Y	0	Y	Y	Y	Y	
	Darling	Premium	1	Y	N	N	309	N	6	0	N	4	N	N	N	N	N	Y	0	Y	Y	Y	Y	
	Glen Iris	Host	0	Y	N	N	50	N	5	6	N	3	N	N	N	N	N	Y	0	Y	Y	N	Y	
	Gardiner	Host	0	Y	N	N	217	Y	6	0	Y	3	Y	N	Y	Y	N	Y	0	Y	Y	Y	Y	
	Tooronga	Host	2	Y	N	N	189	N	3	8	N	3	N	N	N	Y	N	Y	0	Y	Y	Y	Y	
	Kooyong	Host	0	Y	N	N	70	N	5	0	N	3	N	N	N	Y	N	Y	0	Y	N	Y	Y	
	Heyington	Host	0	Y	N	N	0	N	0	0	N	0	Y	N	N	N	N	Y	0	Y	N	Y	Y	
Sandringham	Windsor	Host	2	Y	Y	N	0	N	0	0	N	0	Y	N	N	N	N	Y	0	Y	Y	N	Y	
	Prahran	Host	2	Y	N	N	0	N	0	0	Y	0	N	N	N	Y	N	Y	0	Y	Y	N	Y	

Key: Staff

- 0 None
- 1 Daily, first train to last train
- 2 M-F, 0630 - 0900

Wheelchair accessible

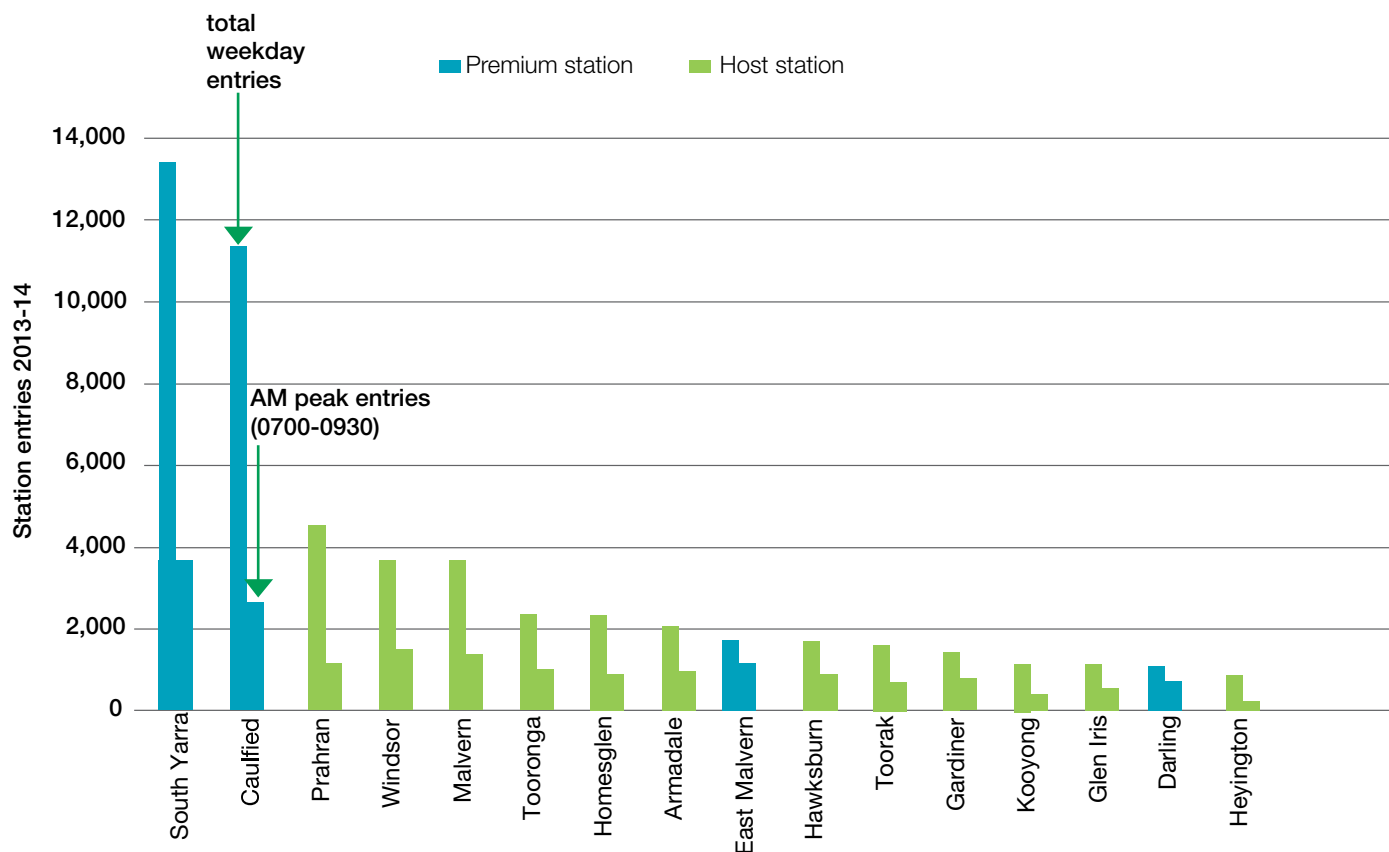
- 0 No
- 1 Toilets
- 2 Parking, toilets
- 3 Parking, phone
- 4 Parking, phone, toilets

Source: Public Transport Victoria (details of station facilities may not be up to date or comprehensive). Caulfield station is included as it is important to Stonnington travellers, although it is just outside the municipal boundary.

South Yarra and Caulfield are the busiest stations by far, with well over 10,000 station entries per weekday. South Yarra is the busiest station outside the City Loop. Prahran, Windsor and Malvern all exceed 3,000 entries per weekday, while the remainder have around 2,000 or fewer. Patronage at South Yarra station has grown considerably since 2013–14 according to regular pedestrian counts by Council staff at the station entrance.

The Premium status of East Malvern and Darling stations is not justified based on patronage alone; it seems that the large number of parking spaces at these two places is a factor. Given the high patronage at Prahran, Windsor and Malvern stations, they should be considered for Premium status with all-day staffing.

Figure 6: Station patronage comparison



Source: Public Transport Victoria station fact sheet (2015 issue)

Level crossings

The Level Crossing Removal Authority (LXRA) is implementing level crossing removals throughout Victoria. The current commitment is 'the elimination of 50 dangerous and congested level crossings across metropolitan Melbourne by 2022'.² The chosen crossings are not the most dangerous 50. Compared with the Australian Level Crossing Assessment Model (ALCAM) ranking of 300 crossings in 2008, they rank between the first and the 270th. Fifteen crossings in the top 50 are omitted from the present commitment.

There are six active road-rail level crossings in Stonnington (listed in Table 6). This excludes the Burke Road, Glen Iris level crossing, which was grade separated in 2016. Only Toorak Road, Kooyong is included on the LXRA's current list. It is understood to be at the planning stage, with a projected completion date of 2022. The design has not yet been decided.

The Tooronga Road, High Street and Glenferrie Road crossings are all adjacent to railway stations on the Glen Waverley line. Glenferrie Road also carries trams across the railway tracks (called a 'tram square'). All carry significant traffic; Tooronga Road is a secondary state arterial while High Street and Glenferrie Road are both primary state arterials. Grade separations would be highly desirable, especially when train services are increased on the Glen Waverley line.

Council's position is that 'rail under road' solutions to these level crossings are preferred to 'rail over'.

The Greville Street and Union Street crossings are both on the Sandringham line, and both are on Council-managed local roads. No grade separation plans have been developed. The light traffic flows, combined with low ALCAM risk scores, indicate that they are a very low priority. Grade separation of these level crossings is unlikely to be justified, however, improvements to safety and accessibility for local vehicle users and pedestrians should be pursued.

Table 6: Stonnington level crossings

Location	ALCAM 2008		LXRA status	Daily flow (veh)	Comments
	Risk score	Rank			
Toorak Road, Kooyong	2257	33	Planning	37,000	Complex site next to Monash Fwy
Toorong Road, Glen Iris	2042	39	None	17,000	Next to Toorong station
High Street, Glen Iris	1674	53	None	28,000	Next to Glen Iris station
Glenferrie Road, Kooyong	1318	71	None	14,000	Tram square, next to Kooyong station
Greville Street, Prahran	443	127	None	4,800	Local road
Union Street, Windsor	81	208	None	1,600	Local road

Source: 2008 ALCAM risk scores and rankings from <https://www.danielbowen.com/2014/09/24/level-crossing-list/>

Current commitments

Current commitments affecting Stonnington rail services include the following:

- » Cranbourne/Pakenham line upgrade – removal of level crossings and other works will improve train travel times and reliability. New, higher capacity trains will be operated on completion. However, Cranbourne/Pakenham trains only stop at Caulfield and South Yarra stations, so the benefits for Stonnington are limited, especially as they will be removed from South Yarra by the Metro Tunnel Project.
- » Metro Tunnel Project: on completion, removal of Cranbourne/Pakenham–Sunshine trains from the City Loop will free up more capacity to increase services on all rail lines, including those serving Stonnington. However, the project will reduce train service levels and connectivity at South Yarra station (although this will be mitigated to some degree by extending Werribee line trains through the city and South Yarra to the Sandringham line, which is under consideration).
- » Grade separation of level crossings: Burke Road was completed in 2016. Discussions are beginning about Toorak Road, Kooyong.

3.4 Tram

Existing conditions

Melbourne has the world's largest tram / light rail network largely because, unlike other Australian cities, its trams were not removed in the 1960s and 1970s. Much of the network, including nearly all the routes serving Stonnington, share space with traffic on roads. This causes considerable delays and inefficiencies in operation and makes passenger access difficult and hazardous compared with modern light rail systems in their own rights of way with platform stops.

Tram patronage has grown particularly strongly in recent years, and many services now run at full passenger capacity in peak times and directions.

Work is continually under way to maintain, modernise and improve the tram system:

- » Tracks and power supplies are regularly replaced.
- » New, larger low-floor trams are built to enable more services and to replace older, smaller high-floor vehicles.
- » Tram stops are replaced and sometimes removed to provide safer access to trams and to improve segregation from road traffic.

Routes

Eight tram routes currently service Stonnington. All but two of them serve the Melbourne CBD via St Kilda Road, the exceptions being route 58 (Toorak to West Coburg via Kingsway and William Street) and route 78 (North Richmond to Balaclava via Chapel Street). Five of the remaining routes (3, 5, 16, 64 and 72) start and finish at the University of Melbourne, and one runs further north (route 6 to Moreland).

Virtually all these routes operate at 6- to 10-minute headways in the peaks, reducing to 12 minutes between peaks. Services generally start between 5am and 6am on weekdays and run until about 1am the following day. They run later on Friday and Saturday nights to provide more choices for leisure and entertainment activities.

Key operational features of the routes serving Stonnington are summarised in Table 7.

Table 7: Key operational features of tram routes serving Stonnington

Route	Tram types used	From depot	Overall route		Route in Stonnington	
			Length (km)	Avg. speed (km/h)	Length (km)	Avg. speed (km/h)
3 East Malvern–Melb Uni	A, B, Z	Glenhuntly	14.8	14.6	1.6	16.2
5 Malvern–Melb Uni	D, Z	Malvern	12.8	15.3	6.1	20.0
6 Glen Iris–Moreland	D, Z	Malvern/Brunswick	19.1	15.4	6.8	18.3
16 Kew–Melb Uni	D, Z	Malvern	20.4	14.3	5.7	15.7
58 Toorak–West Coburg	B, D, Z	Malvern/Essendon	18.3	16.0	4.0	16.1
64 East Brighton–Melb Uni	A, B, Z	Glenhuntly	16.3	16.4	4.9	19.7
72 Camberwell–Melb Uni	D, Z	Malvern	17.0	14.8	8.4	16.9
78 Balaclava–North Richmond	A	Kew	6.8	12.9	3.6	12.2

Source: Estimated from route information and timetables

Most tram routes serving Stonnington are operated using high-floor (A, B and Z class) trams. Low-floor trams (so far only D class) are becoming more common as they replace the Z-class trams through cascading the fleet, but A- and B-class trams will be around for some years to come. The full benefit of installing platform stops will only come when low-floor trams are operating on all routes, although in the meantime (and depending on the designs used) they will provide more waiting space and safer boarding/alighting.

With the exception of Dandenong Road, tram routes in Stonnington operate in mixed traffic along undivided, four-lane roads, which makes them among the slowest in Melbourne.

Table 7 shows that route 78 averages about 12 km/h (along Chapel Street), with other routes generally operating at higher average speeds in Stonnington than overall, mainly because they also pass through the CBD where tram speeds are very low.



Current conditions

Transport for Victoria has advised the following:

- » The Metro Tunnel Project (via the new Anzac station) will provide passengers with an alternative to the St Kilda Road trams, which will allow some routes to be redirected to the west of the CBD. Melbourne Metro Rail Authority is building the Park Street link that will allow these service changes to occur.
- » The Rolling Stock Strategy (Victorian Government, 2015) outlines the requirements to move towards full fleet accessibility by 2032.
- » Tram stops must be upgraded to Disability Discrimination (DDA) compliance to meet Disability Standards for Accessible Public Transport legislation, dependent on state government funding. Currently there is no funding allocated to stops in Stonnington. Opportunities such as new developments, major projects (like the Metro Tunnel Project and level crossing removals) and tram track renewals often provide good opportunities to provide upgraded tram stops.

After the Metro Tunnel opens, reorganising the tram network is essential, yet the state government has not committed to doing this. Plans for tram network changes have not been published or discussed with stakeholders.

The state government recently announced a study into establishing a light rail connection from Caulfield to Chadstone and Monash University's Clayton campus, and eventually to Rowville. This would benefit Stonnington by improving public transport access between Monash's Caulfield and Clayton campuses as well as to and from Chadstone Shopping Centre. The extent of this opportunity will become known as details of the route and its operation emerge.



3.5 Bus

Bus routes in Stonnington are summarised in Table 8.

Table 8: Bus routes serving Stonnington

Route	Via (in Stonnington)	Services per hour			Stations served in Stonnington	
		AM peak	Inter- peak	PM peak		
216	Sunshine station– Brighton Bch	Malvern Rd, Williams St/Hotham Rd	2	2	2	
219	Sunshine South– Gardenvale	Malvern Rd and Williams St/Hotham Rd	2	2	2	
220*	Sunshine City– Gardenvale	Malvern Rd and Orrong Rd	4	4	4	Toorak
246	Elsternwick–Clifton Hill	Punt Rd	6	6	5	
605*	Gardenvale–Flagstaff station	Alexandra Ave, Orrong and Kooyong rds	4	3	4	Armadale, Toorak
612*	Box Hill–Chadstone	High St, Waverley and Chadstone rds	2	2	2	Glen Iris, East Malvern
623	Glen Waverley–St Kilda	Dandenong and Warrigal rds	2	2	2	
624*	Kew–Oakleigh	Tooronga, Dandenong and Warrigal rds	3	2	2	Tooronga, Holmesglen
625	Elsternwick– Chadstone	Dandenong Rd (E of Chadstone SC)	2	2	2	
626	Middle Brighton– Chadstone	Dandenong Rd	2	2	2	
734*	Glen Iris–Glen Waverley	High St	3	2	2	Glen Iris
742	Eastland–Chadstone	Dandenong Rd (E of Chadstone SC)	2	2	2	
767	Southland–Box Hill	Dandenong Rd, Chadstone SC, Warrigal Rd	3	2	3	
800	Dandenong– Chadstone	Warrigal Rd (S of Chadstone SC)	3	3	3	
802	Dandenong– Chadstone	Warrigal Rd (S of Chadstone SC)	1	1	1	
804	Dandenong– Chadstone	Warrigal Rd (S of Chadstone SC)	1.5	1.5	1	
822	Chadstone– Sandringham	Dandenong Rd	2	2	2	
862	Dandenong– Chadstone	Warrigal Rd (south of Chadstone SC)	1.5	1.5	1.5	
900*	Rowville–Chadstone– Caulfield	Dandenong Rd	6	4	6	Caulfield
903*	Altona–Chadstone– Mordialloc	Warrigal Rd (north of Chadstone SC)	7	5	8	Holmesglen
969	City–Caulfield– Rowville–Ringwood	Dandenong Rd	2 (night service only)			

* These routes serve rail stations in or adjacent to Stonnington

Apart from SmartBus routes (900-series) and those serving the CBD (mostly 200-series routes), many of the routes in Stonnington only operate a 30-minute service all day (including peaks). This is not generally suitable or convenient for commuters.

Several bus routes run close to rail stations in Stonnington, but only Glen Iris station (where two bus routes terminate) has well-integrated interchange facilities. In general, there is little or no coordination of bus and train timetables; this has long been an issue in Melbourne.

Many of the bus routes connect Chadstone Shopping Centre with surrounding areas and provide regional connections there, especially to and from Dandenong. However, many of the routes run at low frequencies, especially on weekends (when use of Chadstone is at its peak) and in the evenings. More could be done to improve this, both for shoppers and centre workers.

Patronage figures for each route are given in Table 9. Although three years old, these figures give a good indication of the relative patronage of each route. However, they represent boardings on the whole routes, rather than just the portion in Stonnington.

Table 9: Bus route patronage, 2014–15

Route	Annual patronage	Average weekday	Average Saturday	Average Sunday
216 Sunshine station–Brighton Beach	936,270	3,027	1,707	1,103
219 Sunshine South–Gardenvale	730,674	2,318	1,537	879
220 Sunshine City–Gardenvale	1,655,158	5,142	3,778	2,245
246 Elsternwick–Clifton Hill	1,538,713	4,975	2,775	1,846
605 Gardenvale–Flagstaff station	275,662	1,006	171	–
612 Box Hill–Chadstone	362,880	1,333	284	–
623 Glen Waverley–St Kilda	591,992	1,926	961	755
624 Kew–Oakleigh	684,531	2,309	888	685
625 Elsternwick–Chadstone	262,722	856	418	340
626 Middle Brighton–Chadstone	308,702	1,001	531	381
734 Glen Iris–Glen Waverley	325,660	1,141	312	223
742 Eastland–Chadstone	783,529	2,545	1,441	851
767 Southland–Box Hill	1,070,804	3,441	1,842	1,479
800 Dandenong–Chadstone	631,507	2,312	540	–
802 Dandenong–Chadstone	283,579	1,086	–	–
804 Dandenong–Chadstone	395,289	1,363	753	–
822 Chadstone–Sandringham	492,320	1,618	858	490
862 Dandenong–Chadstone	410,361	1,202	987	869
900 Rowville–Chadstone–Caulfield	1,876,335	5,789	3,931	3,095
903 Altona–Chadstone–Mordialloc	6,032,559	19,310	10,990	8,100
969 City–Caulfield–Rowville–Ringwood		N/A (Night bus)		

Source: Transport for Victoria

Routes serving the CBD (200-series) and SmartBus routes (900-series) have the greatest patronage. The 600/700-series routes are generally shorter and less frequent, and attract lower patronage as a result.

3.6 New technologies in transport

New technologies are emerging in transport, including:

- » changes to energy sources, primarily through many major manufacturers introducing electric vehicles
- » autonomous (self-driving) vehicles, both as privately owned/used and shared (taxi-style) options
- » use of autonomous drones for local deliveries including parcels and fast food.

There is much discussion and speculation about their effects on travel choices and impact on existing transport modes. Implications for public transport include:

- » greater use of electric vehicles for buses and more efficient means of generating and storing electrical energy for all public transport vehicles
- » improved local air quality and reduced noise where electric vehicles replace diesel ones
- » changes to effective road capacities through autonomous vehicles travelling closer together and responding more quickly (although the overall effects are not yet known; greater use of such vehicles may counteract these benefits)

- » driverless public transport vehicles (trains, trams and buses) may reduce costs and improve efficiencies, although the effect on jobs is an issue. Although these technologies are under active development, full adoption could take many years. Their effects should be better anticipated, and planned for, by all concerned.

Driverless vehicles will probably not replace mass transit in cities; it is more likely that shared driverless vehicles will offer a new option to provide access to and from mass transit as well as for tasks currently fulfilled by taxi/ride share providers. They could also provide shuttle-type services at airports, shopping centres and other high-density locations. Individually owned autonomous vehicles will probably fulfil a very similar role to today's conventional private cars, with added flexibility, reliability and safety.



▼ 4 The advocacy plan

4.1 Rationale

As shown in this report, through-travel and movements to and from Stonnington are growing strongly, as Stonnington grows apace with growth in Melbourne as a whole. This is expected to continue for the foreseeable future. There is little or no spare land available to add new capacity for private vehicle transport, therefore much of the increase will have to be carried by public transport, which will need substantial ongoing improvement. Through-travel will need to be concentrated on major routes to enable the rest of Stonnington's transport network to cater for travel to, from and within the area.

Suburban rail services will have to take steadily increasing proportions of travel, especially through-travel and travel to and from Stonnington. Tram and bus services will also need to increase in line with growth, and improvements are needed on all public transport modes to modernise and provide better, safer access for all passengers. Comprehensive improvements are needed to train, tram and bus services covering:

- » vehicles and rolling stock
- » routes and operations
- » level and span of services
- » station and stop facilities
- » public transport information, and
- » assistance for people with disabilities.

Some of the required actions will be fulfilled by existing commitments (such as the Melbourne Metro Rail Tunnel and continuous improvements to trains, trams and buses), but many are not presently planned by the state government.

The absence of detailed, long-term planning for public transport (apart from large projects like Melbourne Metro and level crossing removals) is a considerable concern. There is no defined strategy to increase public transport's role, nor its share of travel demand. Melbourne's future growth requires an integrated and sustainable approach, with public transport investment as a central, core strategy.

New technologies in transport will not alter the important role that public transport needs to perform. Driverless private vehicles could, on the one hand, increase road capacities by more efficient traffic flow, but they could also dramatically increase the demand for vehicular movement by adding empty positioning runs to the mix. Applied to public transport, driverless technology could improve the efficiency and frequency of mass transit as well.



4.2 List of advocated actions

Table 10 lists the actions that the City of Stonnington will advocate for continuous improvement of public transport over the short and medium term.

Table 10: Advocated actions for public transport in Stonnington

Advocated actions				
Planning			Timing	Importance
General	Develop an integrated transport plan for Melbourne to guide continued development of all forms of transport to achieve sustainable, environmental and social outcomes in accordance with the principles of the Transport Integration Act. Stonnington will need substantial public transport improvements to cater for projected demand, given the limited opportunities to increase road capacity.		Short	High
	Monitor and encourage research into the effects of new transport technologies including those applicable to public transport. Opportunities for improved capacity, reliability, emissions, safety and flexibility, as well as cost-effectiveness, should be actively pursued. Technologies include autonomous/driverless vehicles (of all types), ride-sharing and delivery initiatives, and clean and renewable energy for motive power.		Medium	Medium
	Investigate options for improved north–south public transport connectivity, particularly between Gardiner and Caulfield (based on a Burke Road alignment).		Medium	Medium
Trains			Timing	Importance
Rail lines and stations Note: Station actions may be subject to heritage considerations at individual locations				
Frankston and Cranbourne/Pakenham lines	South Yarra	Develop an integrated transport plan for Melbourne to guide continued development of all forms of transport to achieve sustainable, environmental and social outcomes in accordance with the principles of the Transport Integration Act. Stonnington will need substantial public transport improvements to cater for projected demand, given the limited opportunities to increase road capacity.	Short	High
		Commit to providing more train services at the existing South Yarra station.	Medium	High
		Commit to build Metro Tunnel platforms and entry/exit/interchange facilities at South Yarra (all Metro Tunnel trains to stop there).	Short	High
	Hawksburn	Provide adequate, safe bicycle storage, improve passenger entry/exit (including full DDA requirements).	Short	Medium

Advocated actions			Timing	Importance
Trains			Timing	Importance
Rail lines and stations				
Note: Station actions may be subject to heritage considerations at individual locations				
Frankston and Cranbourne/Pakenham lines	Toorak	Provide adequate, safe bicycle storage, improve passenger entry/exit (including full DDA requirements). Improve access between the station and nearby bus services.	Short	Medium
	Armadale	Provide adequate, safe bicycle storage, improve passenger entry/exit (including full DDA requirements). Improve access between the station and nearby bus services.	Short	Medium
	Malvern	Upgrade to Premium status, provide adequate, safe bicycle storage, improve access between platforms and passenger entry/exit (including full DDA requirements).	Short	Medium
	Caulfield	Upgrade to improve access between platforms and all aspects of passenger entry/exit and interchange, including full DDA requirements. Improve pedestrian access between the station and surrounding areas, and with nearby bus and tram services.	Short	High
Glen Waverley line	Heyington	Improve passenger entry/exit (including full DDA requirements).	Short	Medium
	Kooyong	Improve passenger entry/exit (including full DDA requirements).	Short	Medium
	Tooronga	Improve passenger entry/exit (including full DDA requirements). Improve access between the station and nearby bus services.	Short	Medium
	Gardiner	Monitor performance of the new station (in particular the park-and-ride and bicycle storage facilities) and improve as and if required to keep pace with demand and passenger access/egress and interchange needs.	Short	Medium
	Glen Iris	Improve passenger entry/exit (including full DDA requirements). Improve access between the station and nearby bus services.	Short	Medium
	Darling	Improve passenger entry/exit (including full DDA requirements).	Short	Medium
	East Malvern	Improve passenger entry/exit (including full DDA requirements). Improve access between the station and nearby bus services.	Short	Medium
	Homesglen	Improve passenger entry/exit (including full DDA requirements). Improve access between the station and nearby bus services.	Short	Medium
Sandringham line	Prahran	Upgrade to Premium status, provide adequate, safe bicycle storage, improve passenger entry/exit, including full DDA requirements.	Short	High
	Windsor	Upgrade to Premium status, provide adequate, safe bicycle storage, improve passenger entry/exit, including full DDA requirements.	Short	High

Advocated actions		Timing	Importance
Trains		Timing	Importance
Level crossings			
Note: Council advocates for 'rail under road' solutions to level crossing removals in Stonnington.			
Tooronga Road	As one of the 50 most dangerous crossings, Tooronga Road should be prioritised for grade separation. A design should be prepared in consultation with Council and the community for early action.	Short	High
High Street	High Street should be prioritised for grade separation. Ideally the solution should include extending tram route 6 to Glen Iris station. A design should be prepared in consultation with Council and the community for early action.	Short	Medium
Glenferrie Road	As a 'tram square', the benefits of grade separating Glenferrie Road at Kooyong station are likely to be significantly higher than other level crossings. A design should be prepared in consultation with Council and the community for early action.	Short	Medium
Greville and Union streets	The Greville Street and Union Street level crossings are not candidates for grade separation. Existing facilities need to be reviewed and upgraded to ensure the latest technology is used to warn pedestrians, cyclists and road vehicles of approaching trains, including 'second train coming' warnings and all DDA requirements.	Medium	Medium
Services and routes			
Cranbourne/ Pakenham line	Explore further options to provide more peak period train capacity at stations throughout Stonnington.	Medium	High
Glen Waverley line	Confirm that Glen Waverley line services will be increased on completion of the Metro Tunnel Project.	Medium	High
Sandringham line	Confirm that Sandringham line services will be increased on completion of the Metro Tunnel Project.	Medium	High
Other	Commit to providing more services at the existing South Yarra station.	Medium	High
Operations			
Rail safety	Improve the 'safety-proofing' of the rail network throughout Stonnington to reduce unauthorised access to rail tracks.	Short	Medium

Advocated actions		Timing	Importance
Trams			
Traffic			
Priority	Improve reliability and travel times for trams by reducing interaction with other road users at intersections (tram priority) and at accessible stops.	Medium	Medium
Stops			
General	A master plan for all tram routes in Stonnington should be established in consultation with Council to develop and implement accessible stops along all tram routes in Stonnington, with a coordinated plan for each route segment including urban design, pedestrian and cyclist treatments, parking provisions and traffic management.	Medium	High
Routes and extensions			
General	Develop plans for post-Melbourne Metro tram network changes, including relocating routes from St Kilda Road to run further west through the CBD.	Medium	High
Route 3	Extend to East Malvern station.	Medium	Medium
Route 5	Extend to Darling station.	Medium	Medium
Route 6	Extend to Glen Iris station (coincident with High Street level crossing removal), provide bus/tram/train interchange.	Medium	Medium
Route 16	See route 64.		
Route 58	Ensure the best interchange arrangement for route 58 at the new Anzac station (this requires that the route stays on Toorak Road West).	Medium	High
Route 64	Extend to and terminate at Malvern station. Combine the north-south section of the route with route 16.	Medium	Medium
Route 78	Continue west along Victoria Street towards the city instead of terminating at the Church/Victoria intersection (details of city-bound end of route to be determined).	Medium	Medium
Other	Consult closely with Council while studying the proposed Caulfield-Chadstone-Clayton campus-Rowville light / heavy rail project.	Short	High

Services		Services	Services
Replace high-floor trams with newer, larger capacity low-floor trams on all Stonnington tram routes, coordinated with platform stop projects and increasing passenger demand.		Medium	High
Increase tram services on all routes to five-minute headways during peak times.		Medium	Medium
Services	Upgrade bus services in Stonnington to coordinate fully with train and tram services at interchanges and to meet or exceed established minimum standards of bus service.	Medium	High
	Improve bus services at Chadstone Shopping Centre to better cater for centre employees and shoppers.	Short	Medium
Traffic	Install bus priority lanes and signalling at major intersections to provide substantial improvements in bus travel times and reliability.	Medium	Medium

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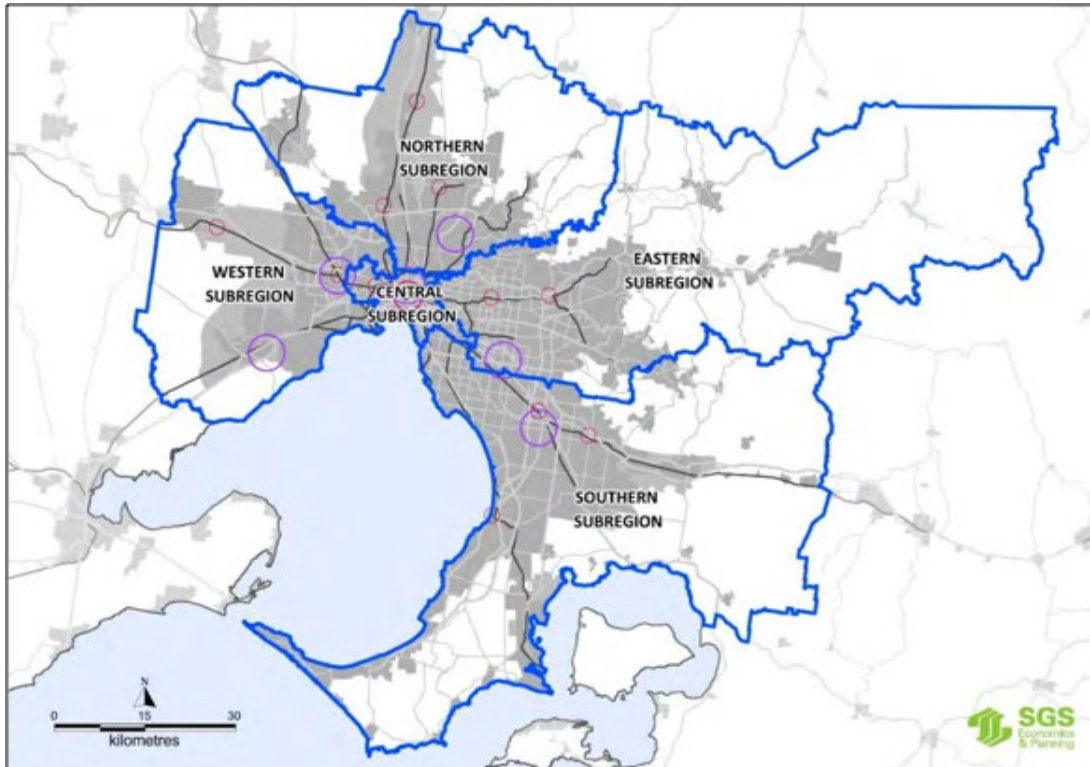
▼ Appendix B: Journey-to-work analysis

Australian Bureau of Statistics Census journey-to-work data is available at the local government level using TableBuilder online for the 2011 and 2016 censuses.

The tables below summarise the journey-to-work movements into and out of the City of Stonnington.

Into Stonnington from:									
ALL MODES									
	Stonnington	Central Melb	East Melb	North Melb	South Melb	West Melb	Rest of Vic	Total	
2011 Public transport	782	1,410	1,365	673	1,533	499	70	6,332	
Car/mc/taxi	4,467	3,109	8,349	1,951	7,647	1,442	321	27,286	
Bicycle	145	280	70	56	89	7	3	650	
Walk	1,671	366	95	7	105	3	5	2,252	
Truck/other	135	10	42	13	36	3	0	239	
TOTAL	7,200	5,175	9,921	2,700	9,410	1,954	399	36,759	
Percent	20%	14%	27%	7%	26%	5%	1%	100%	
2016 Public transport	1,045	2,226	1,700	1,150	2,196	796	136	9,249	
Car/mc/taxi	5,006	3,447	9,539	2,471	9,472	1,886	400	32,221	
Bicycle	224	341	102	78	104	11	0	860	
Walk	2,383	437	93	7	86	3	3	3,012	
Truck/other	145	31	35	24	36	3	0	274	
TOTAL	8,803	6,482	11,469	3,730	11,894	2,699	539	45,616	
Percent	19%	14%	25%	8%	26%	6%	1%	100%	
Out of Stonnington to:									
ALL MODES									
	Stonnington	Central Melb	East Melb	North Melb	South Melb	West Melb	Rest of Vic	Total	
2011 Public transport	782	10,156	681	127	417	80	3	12,247	
Car/mc/taxi	4,467	9,331	4,838	877	3,110	667	173	23,464	
Bicycle	145	883	71	3	53	0	0	1,155	
Walk	1,671	1,187	93	4	78	3	7	3,044	
Truck/other	135	72	19	0	19	0	3	248	
TOTAL	7,200	21,629	5,702	1,012	3,678	751	186	40,158	
Percent	18%	54%	14%	3%	9%	2%	0%	100%	
2016 Public transport	1,045	12,809	947	171	534	102	13	15,621	
Car/mc/taxi	5,006	9,366	5,534	964	3,692	773	211	25,546	
Bicycle	224	1,150	90	8	34	9	0	1,515	
Walk	2,383	1,385	108	4	101	7	5	3,993	
Truck/other	145	116	20	4	12	0	4	301	
TOTAL	8,803	24,826	6,699	1,151	4,373	891	233	46,976	
Percent	19%	53%	14%	2%	9%	2%	0%	100%	

The map below shows the regions of Melbourne listed in the tables.



Some key observations (referring to movements on Census day)

Overall movements

Despite the large number of jobs in Stonnington (around 55,000; similar in number to the resident workforce), the amount of self-containment (people both living and working in Stonnington) is very low. Eighty-one per cent of people living in Stonnington work outside it, and 80 per cent of people working in Stonnington live outside it. On Census day in 2016:

- » 8,800 people travelled from home to work wholly within Stonnington (up from 7,200 in 2011)
- » 36,800 people entered Stonnington from elsewhere to travel to work (up from 29,600 in 2011), and
- » slightly more people (47,000) left Stonnington to travel to work (up from 40,200 in 2011).

Most (63 per cent) of those entering Stonnington to work come from eastern and southern Melbourne, and the majority of them (82 per cent) travel by car. Only 15 per cent of them come by public transport.

In contrast, most (65 per cent) of those leaving Stonnington to work go to central Melbourne, and the majority (63 per cent) of them travel by public transport, cycling or walking (that still leaves 37 per cent travelling by car, motorcycle or taxi to central Melbourne). The number of jobs in Stonnington increased by more than 10,000 between 2011 and 2016, while the resident workforce only increased by about 5,000. This means that proportionately more people are entering Stonnington to work (mostly by car from the east and south), increasing pressure on the traffic system.

Continued strong jobs growth in central Melbourne (especially the CBD) has increased the journey to work there from Stonnington, adding pressure on the public transport system.

Modes of public transport

PT MODES	Into Stonnington from:							
	Stonnington	Central Melb	East Melb	North Melb	South Melb	West Melb	Rest of Vic	Total
2011 Train	395	803	883	588	1,329	477	67	4,542
Bus	45	103	291	15	149	4	0	607
Ferry	0	0	0	0	0	0	0	0
Tram	342	504	191	70	55	18	3	1,183
TOTAL PT	782	1,410	1,365	673	1,533	499	70	6,332
Percent	12%	22%	22%	11%	24%	8%	1%	100%
2016 Train	512	1,366	1,178	1,033	1,897	771	132	6,889
Bus	68	109	292	18	209	8	0	704
Ferry	0	4	0	0	0	0	0	4
Tram	465	747	230	99	90	17	4	1,652
TOTAL PT	1,045	2,226	1,700	1,150	2,196	796	136	9,249
Percent	11%	24%	18%	12%	24%	9%	1%	100%
ALL MODES	Out of Stonnington to:							
	Stonnington	Central Melb	East Melb	North Melb	South Melb	West Melb	Rest of Vic	Total
2011 Train	782	10,156	681	127	417	80	3	12,247
Bus	4,467	9,331	4,838	877	3,110	667	173	23,464
Ferry	145	883	71	3	53	0	0	1,155
Tram	1,671	1,187	93	4	78	3	7	3,044
TOTAL PT	135	72	19	0	19	0	3	248
Percent	7,200	21,629	5,702	1,012	3,678	751	186	40,158
2016 Train	18%	54%	14%	3%	9%	2%	0%	100%
Percent	1,045	12,809	947	171	534	102	13	15,621
Ferry	5,006	9,366	5,534	964	3,692	773	211	25,546
Tram	224	1,150	90	8	34	9	0	1,515
TOTAL PT	2,383	1,385	108	4	101	7	5	3,993
Percent	145	116	20	4	12	0	4	301

The overwhelming majority of public transport users are those using trains from Stonnington to travel to work in central Melbourne – 10,000 in 2016 (up from 7,400 in 2011, so also the strongest growing). Tram users to central Melbourne are the second-largest movement.

Trips between Stonnington and Melbourne CBD

The table below shows the modes of transport for journeys to work between Stonnington and Melbourne CBD in 2016, compared with inner Melbourne as a whole. In total, nearly 10,000 journeys to work are between Stonnington and the CBD.

ALL MODES, 2016	Trips to Melbourne CBD from:			
	Stonnington		Inner Melbourne as a whole	
	No	%	No	%
Train	6,095	61%	11,028	29%
Bus	153	2%	785	2%
Ferry	4	0%	17	0%
Tram	876	9%	13,706	36%
All PT	7,128	72%	25,536	68%
Car/mc/taxi	2,119	21%	6,414	17%
Bicycle	443	4%	3,338	9%
Walk	217	2%	2,096	6%
Truck/other	43	0%	218	1%
TOTAL	9,950	100%	37,602	100%

Although Stonnington has a higher public transport mode share to the CBD than inner Melbourne as a whole, it also has a higher vehicle mode share. This is due to the much lower mode share of active transport.

Also, Stonnington's public transport mode share is dominated by train, while Inner Melbourne's as a whole is shared more equally between train and tram.

▼ Appendix C: Traffic flows in Stonnington

The following table lists traffic flows on main roads in Stonnington.

It has been extracted from VicRoads' data file 'trafficvolumeinfofeb2017.xls', available via:

<https://www.vicroads.vic.gov.au/~media/files/documents/traffic-and-road-use/trafficvolumeinfofeb2017.xls?la=en>

The VicRoads traffic data should be regarded as approximate only. In the table, it has been supplemented with:

- » the number of lanes
- » whether the road is divided or undivided
- » the presence of tram and/or bus routes
- » an estimate of the peak hour traffic flow per lane.

Road	Location	Avg. daily traffic			Avg. daily CVs				%CV 2016	Traffic lanes	Divided/ Undivided	Tram/ bus	Pk hr flow/ lane
		2006	2014	2016	2006	2014	2016						
Alexandra Ave	Punt Rd – Chapel St	28,000	27,000	27,000	1,950	1,830	1,730	6%	4	U	B	700	
	Chapel St– Williams Rd	30,000	30,000	30,000	2,000	2,000	1,900	6%	4	U	B	750	
	Alexandra Ave – Williams Rd	7,800	7,800	7,800	380	320	280	4%	2	U		390	
	Williams Rd – Grange Rd	20,000	19,600	19,600	1,340	1,280	1,200	6%	2	U		980	
Burke Rd	Dandenong Rd– Waverley Rd	17,400	16,800	16,900	1,180	1,090	1,020	6%	2	U	B	860	
	Waverley Rd– Wattletree Rd	17,400	16,800	16,900	1,180	1,090	1,020	6%	2	U	B	860	
	Wattletree Rd– High St	18,500	18,000	18,100	1,270	1,160	1,100	6%	2	U		990	
	High St– Malvern Rd	16,600	15,800	15,700	1,130	1,030	960	6%	2	U		870	
	Malvern Rd – Monash Fwy	24,000	24,000	22,000	1,180	1,620	1,040	5%	4	U	T	550	
	Over Monash Fwy	19,200	17,100	16,300	1,300	1,110	990	6%	4	U	T	435	
Chapel St	Toorak Rd– Alexandra Ave	14,400	14,400	14,600	230	280	250	2%	4	U	T	380	
Commercial Rd	Izett St–Chapel St	14,000	12,800	12,800	940	840	780	6%	2	U	T	640	
Dandenong Rd	Chapel St– Hotham St	63,000	64,000	65,000	2,100	1,950	1,790	3%	8	D	T	825	
	Hotham St– Orrong Rd	66,000	66,000	66,000	2,100	1,950	1,840	3%	8	D	T	875	
	Orrong Rd– Wattletree Rd	60,000	60,000	62,000	3,600	3,400	3,400	5%	8	D	T	775	
	Wattletree Rd– Kooyong Rd	64,000	56,000	60,000	3,800	3,200	3,200	5%	8	D	T	750	
	Kooyong Rd– Hawthorn Rd	59,000	58,000	59,000	3,400	3,200	3,200	5%	8	D	T	775	
	Hawthorn Rd– Glenferrie Rd	57,000	58,000	59,000	3,300	3,300	3,100	5%	8	D	T	750	
	Glenferrie Rd – Normanby Rd	55,000	57,000	57,000	3,200	1,960	1,800	3%	6	D		967	

Road	Location	Avg. daily traffic			Avg. daily CVs			%CV 2016	Traf- fic lanes	Divided/ Undivided	Tram/ bus	Pk hr flow/ lane
		2006	2014	2016	2006	2014	2016					
Dandenong Rd	Normanby Rd– Tooronga Rd	52,000	57,000	58,000	3,100	1,980	1,810	3%	6	D		967
	Tooronga Rd– Balaclava Rd	58,000	60,000	60,000	3,400	2,000	1,870	3%	8	D	B	750
	Balaclava Rd– Waverley Rd	58,000	58,000	60,000	2,060	2,160	2,200	4%	8	D	B	750
	Waverley Rd– Sir J Monash Dr	60,000	61,000	61,000	2,110	2,200	2,200	4%	8	D	B	775
	Sir J Monash Dr –Grange Rd	60,000	61,000	61,000	2,110	2,200	2,200	4%	8	D	B	775
	Grange Rd– Koornang Rd	62,000	62,000	62,000	2,160	2,200	2,300	4%	6	D	B	1,067
	Koornang Rd– Murrumbeena Rd	58,000	60,000	62,000	1,990	2,200	2,200	4%	6	D	B	1,067
	Murrumbeena Rd –Poath Rd	56,000	58,000	59,000	2,300	2,200	2,100	4%	6	D	B	1,000
	Poath Rd – Warrigal Rd	62,000	59,000	56,000	2,500	2,300	2,000	4%	6	D	B	967
Glenferrie Rd	Dandenong Rd– Wattletree Rd	12,100	12,700	12,700	810	820	770	6%	4	U	T	325
	Wattletree Rd– High St	5,600	12,100	12,000	380	790	730	6%	4	U	T	315
	High St– Malvern Rd	12,500	11,800	11,900	850	770	730	6%	4	U	T	300
	Malvern Rd– Toorak Rd	15,300	14,700	14,800	1,040	960	900	6%	4	U	T	440
Grange Rd	Alexandra Ave– Loyola Gr	31,000	31,000	31,000	590	580	570	2%	4	U		800
High St	Punt Rd–St Edmonds Rd	14,800	14,400	13,400	1,000	940	270	2%	4	U	T	335
	St Edmonds Rd– Chapel St	20,000	15,000	15,000	1,380	980	920	6%	4	U	T	375
	Chapel St– Williams Rd	19,900	18,500	18,000	1,400	1,220	1,110	6%	4	U	T	500
	Williams Rd– Orrong Rd	18,300	17,000	16,400	1,240	1,100	990	6%	4	U	T	420
	Orrong Rd– Kooyong Rd	19,000	17,200	16,800	1,290	1,120	1,020	6%	4	U	T	440
	Kooyong Rd– Glenferrie Rd	19,100	17,000	16,500	1,310	350	330	2%	4	U	T	455

Road	Location	Avg. daily traffic			Avg. daily CVs							
		2006	2014	2016	2006	2014	2016	%CV 2016	Traffic lanes	Divided/ Undivided	Tram/ bus	Pk hr flow/ lane
High St	Glenferrie Rd–Tooronga Rd	17,600	15,200	15,200	1,190	310	310	2%	4	U	T	395
	Tooronga Rd–Burke Rd	16,100	16,000	16,500	1,080	330	330	2%	4	U	T	460
	Burke Rd–Malvern Rd	13,500	13,000	11,600	920	850	700	6%	4	U	T	295
	Malvern Rd–Monash Fwy	19,400	17,900	18,000	1,310	1,160	1,090	6%	4	U		460
	Over Monash Fwy	19,800	19,700	19,400	1,380	1,290	1,190	6%	4	U	B	500
Malvern Rd	Chapel St–Williams Rd	16,700	16,800	16,800	1,130	1,090	1,020	6%	4	U	T	455
	Williams Rd–Orrong Rd	17,800	17,900	17,900	1,210	1,160	1,100	6%	4	U	T	500
	Orrong Rd–Clendon Rd	19,000	18,300	18,200	1,290	1,190	1,100	6%	4	U	T	485
	Clendon Rd–Kooyong Rd	18,100	17,600	17,700	1,220	1,140	1,080	6%	4	U	T	450
	Kooyong Rd–Glenferrie Rd	18,900	18,600	18,600	1,330	430	410	2%	4	U	T	500
	Glenferrie Rd–Tooronga Rd	18,100	17,700	17,800	1,230	390	390	2%	4	U	T	460
	Tooronga Rd–Burke Rd	14,700	12,300	11,800	1,000	270	250	2%	4	U	T	355
	Burke Rd–High St	8,900	8,600	8,200	610	560	490	6%	2	U		440
	High St–Wattletree Rd	12,000	11,600	11,600	800	760	700	6%	2	U		580
	Wattletree Rd–Darling Rd	19,800	19,000	19,200	1,340	1,240	1,160	6%	2	U	B	960
	Darling Rd–Waverley Rd	19,900	18,600	18,600	1,340	1,250	1,170	6%	2	U	B	1,100
	Monash Fwy	Under Toorak Rd	127,000	153,000	157,000	14,900	17,900	18,600	12%	8	D	
Toorak Rd–Burke Rd		135,000	160,000	159,000	15,900	18,800	18,900	12%	10	D		1,600
Under Burke Rd		142,000	167,000	168,000	13,600	16,900	16,700	10%	10	D		1,700
Burke Rd–High St		149,000	175,000	176,000	14,300	17,600	19,800	11%	8	D		2,225
High St–Warrigal Rd		144,000	167,000	170,000	13,800	16,900	19,300	11%	8	D		2,150

Road	Location	Avg. daily traffic			Avg. daily CVs				Traffic lanes	Divided/ Undivided	Tram/ bus	Pk hr flow/ lane
		2006	2014	2016	2006	2014	2016	%CV 2016				
	Over Warrigal Rd	141,000	165,000	167,000	15,000	16,700	18,900	11%	8	D		2,100
Orrong Rd	Dandenong Rd–High St	12,800	13,300	12,900	870	870	790	6%	4	U	B	350
	High St–Malvern Rd	13,600	12,700	12,800	920	820	770	6%	4	U	B	325
	Malvern Rd–Toorak Rd	12,300	11,600	11,700	830	750	700	6%	4	U	B	310
Punt Rd	St Kilda Rd–Union St	32,000	27,000	28,000	1,940	1,620	1,570	6%	6	U	B	500
	Union St–High St	31,000	27,000	27,000	1,850	1,580	1,500	6%	6	U	B	467
	High St–Moubray St	30,000	29,000	27,000	1,890	1,720	1,540	6%	4	U	B	700
	Moubray St–Commercial Rd	31,000	30,000	29,000	630	1,720	1,590	5%	4	U	B	750
	Commercial Rd–Toorak Rd	33,000	30,000	30,000	660	1,730	1,660	6%	4	U	B	750
	Toorak Rd–Domain Rd	34,000	31,000	31,000	680	1,800	1,720	6%	4	U	B	850
	Domain Rd–Alexandra Ave	39,000	33,000	32,000	830	720	640	2%	4	U	B	900
	Alexandra Ave–City Link	48,000	50,000	50,000	1,040	1,070	990	2%	4	U	B	1,250

Road	Location	Avg. daily traffic			Avg. daily CVs				%CV 2016	Traf- fic lanes	Divided/ Undivided	Tram/ bus	Pk hr flow/ lane
		2006	2014	2016	2006	2014	2016						
Toorak Rd	Punt Rd– Chapel St	20,300	20,200	19,300	1,420	1,360	1,210	6%	4	U	T, B	550	
	Chapel St– Williams Rd	18,700	18,100	17,900	1,270	1,180	1,090	6%	4	U	T, B	480	
	Williams Rd– Canterbury Rd	24,000	21,000	21,000	1,660	1,440	1,340	6%	4	U	T, B	550	
	Canterbury Rd–Orrong Rd	25,000	23,000	24,000	1,790	1,580	1,510	6%	4	U	T, B	650	
	Orrong Rd– Kooyong Rd	28,000	25,000	23,000	1,970	1,660	1,500	7%	4	U	T	600	
	Kooyong Rd– Glenferrie Rd	29,000	26,000	25,000	1,920	1,670	1,540	6%	4	U	T	750	
	Glenferrie Rd– Monash Fwy	34,000	34,000	34,000	820	820	770	2%	4	U		850	
	Over Monash Fwy	37,000	37,000	38,000	1,050	940	860	2%	4	U		1,000	
	Dandenong Rd– Wattletree Rd	13,400	13,000	13,200	900	840	800	6%	2	U	B	660	
	Wattletree Rd– High St	14,900	14,300	14,600	1,010	920	880	6%	2	U	B	760	
High St– Malvern Rd	13,800	14,100	14,100	930	910	850	6%	2	U	B	710		
Malvern Rd– Toorak Rd	17,500	18,700	18,700	1,180	1,230	1,150	6%	4	U	B	500		
Upton Rd	Wellington St– Peel St	20,000	19,600	19,600	1,340	1,280	1,200	6%	2	U		980	
Warrigal Rd	Dandenong Rd–Middle Rd	44,000	47,000	45,000	3,100	3,000	2,600	6%	6	D	B	867	
	Middle Rd– Monash Fwy	59,000	54,000	53,000	4,100	3,400	3,000	6%	6	D	B	1,000	
	Under Monash Fwy	49,000	47,000	48,000	3,500	3,000	2,700	6%	6	D	B	833	
	Monash Fwy– Waverley Rd	39,000	41,000	41,000	2,800	2,600	2,400	6%	6	D	B	733	
	Waverley Rd– Batesford Rd	33,000	30,000	28,000	1,120	1,730	1,600	6%	6	D	B	500	

Road	Location	Avg. daily traffic			Avg. daily CVs							
		2006	2014	2016	2006	2014	2016	%CV 2016	Traffic lanes	Divided/ Undivided	Tram/ bus	Pk hr flow/ lane
Wattletree Rd	Dandenong Rd– Kooyong Rd	9,600	9,200	9,200	640	600	560	6%	4	U	T	230
	Kooyong Rd– Glenferrie Rd	15,100	12,900	12,900	1,020	160	170	1%	4	U	T	385
	Glenferrie Rd– Tooronga Rd	16,700	16,000	16,000	1,130	200	210	1%	4	U	T	400
	Tooronga Rd– Burke Rd	14,100	12,900	13,000	960	160	170	1%	4	U	T	350
	Burke Rd– Malvern Rd	9,000	8,800	8,800	600	560	520	6%	4	U	B	220
Waverley Rd	Dandenong Rd– Burke Rd	11,800	11,400	11,400	800	740	700	6%	4	U	T	285
	Burke Rd– Darling Rd	11,400	11,000	11,000	780	720	680	6%	4	U	T	275
	Darling Rd– Malvern Rd	10,800	10,400	10,400	160	190	140	1%	2	U		520
	Malvern Rd– Belgrave Rd	18,700	19,400	19,200	290	370	260	1%	4	U	B	500
	Belgrave Rd– Chadstone Rd	25,000	27,000	27,000	420	530	390	1%	4	U	B	700
	Chadstone Rd– Batesford Rd	21,300	21,700	22,700	340	560	490	2%	4	U		700
	Batesford Rd– Warrigal Rd	16,700	17,100	17,600	1,130	540	500	3%	4	U		480
Williams Rd	Dandenong Rd– High St	20,700	19,900	20,000	710	660	620	3%	4	U	B	500
	High St–Malvern Rd	23,000	22,000	21,000	800	720	690	3%	4	U	B	550
	Malvern Rd– Toorak Rd	22,000	21,000	21,000	1,550	1,450	1,360	6%	4	U		550
	Toorak Rd– Bruce St	24,000	23,000	23,000	1,690	1,570	1,480	6%	4	U		650
	Bruce St– Alexandra Ave	12,600	12,000	12,000	860	780	720	6%	2	U		600

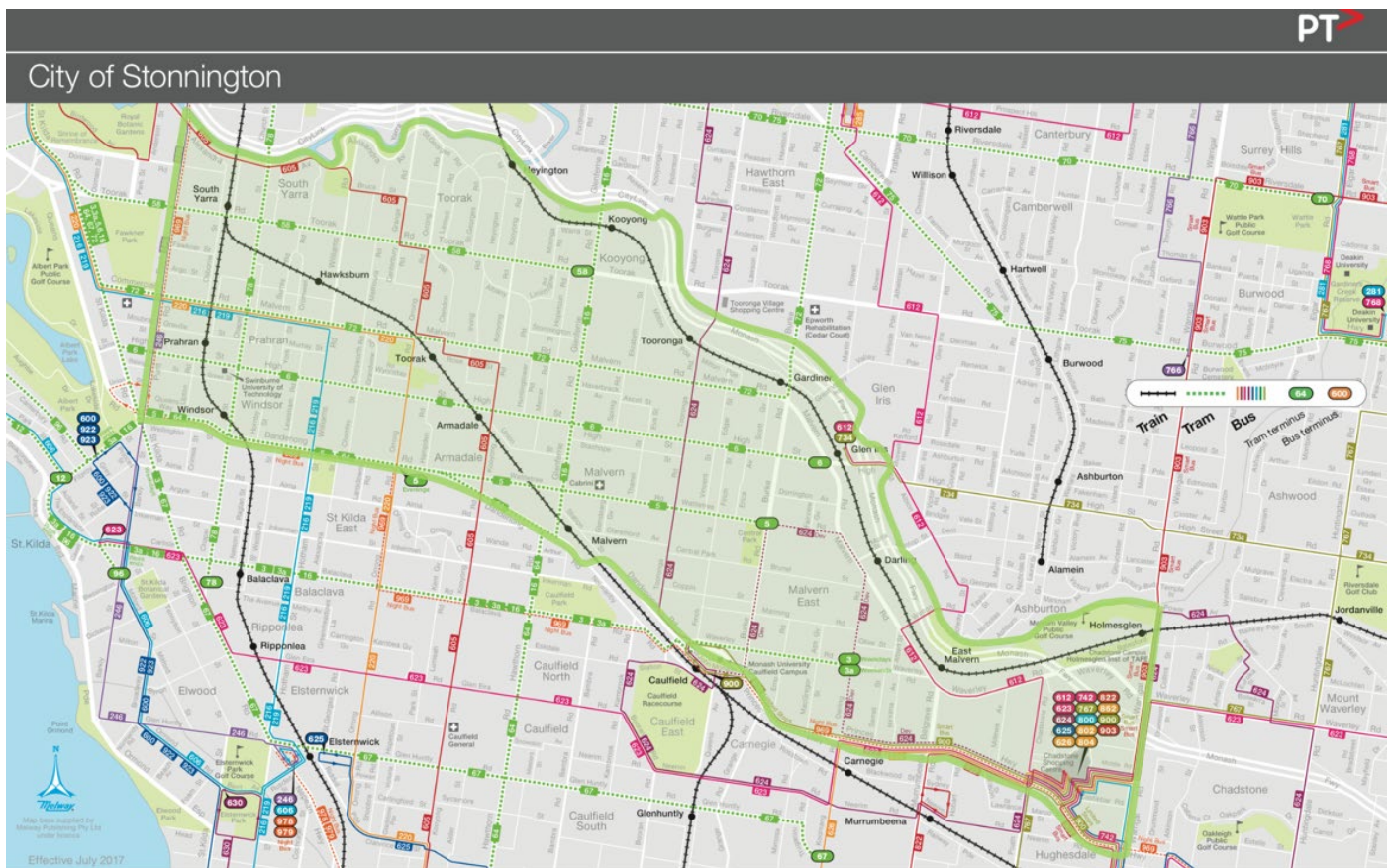
▼ APPENDIX D: PUBLIC TRANSPORT IN STONNINGTON

The following public transport routes serve Stonnington.

Train lines		
Cranbourne/Pakenham and Frankston lines		
Caulfield station		
Malvern station		
Armadale station		
Toorak station		
Hawksburn station		
South Yarra station		
Glen Waverley line		
Holmesglen station		
East Malvern station		
Darling station		
Glen Iris station		
Gardiner station		
Tooronga station		
Kooyong station		
Heyington station		
Sandringham line		
Windsor station		
Prahran station		
Tram routes		Via (in Stonnington)
3/3a	Melbourne University–East Malvern	Balaclava Road
5	Melbourne University–Malvern	Dandenong and Wattle tree roads
6	Moreland–Glen Iris	High Street
16	Melbourne University–Kew via St Kilda Beach	Balaclava, Hawthorn and Glenferrie roads
58	West Coburg–Toorak	Toorak Road
64	Melbourne University–East Brighton	Dandenong and Hawthorn roads
72	Melbourne University–Camberwell	Malvern and Burke roads
78	North Richmond–Balaclava via Prahran	Chapel Street

Bus routes		Via (in Stonnington)
216	Sunshine Station–Brighton Beach	Malvern Road, Williams Street and Hotham Road
219	Sunshine South–Gardenvale	Malvern Road and Williams Street/Hotham Road
220	Sunshine City–Gardenvale	Malvern Road and Orrong Road
246	Elsternwick–Clifton Hill	Punt Road
605	Gardenvale–Flagstaff Station	Alexandra Avenue, Orrong Road and Kooyong Road
612	Box Hill–Chadstone	High Street (Glen Iris), Waverley Road, Chadstone Rd
623	Glen Waverley–St Kilda	Dandenong Road (Malvern East), Chadstone SC, Warrigal Road
624	Kew–Oakleigh	Tooronga Road, Dandenong Road, Chadstone SC, Warrigal Road
625	Elsternwick–Chadstone	Dandenong Road (east of Chadstone SC)
626	Middle Brighton–Chadstone	Dandenong Road (Malvern East)
742	Eastland–Chadstone	Dandenong Road (east of Chadstone SC)
767	Southland–Box Hill	Dandenong Road (Malvern East), Chadstone SC, Warrigal Road
800	Dandenong–Chadstone	Warrigal Road (south of Chadstone SC)
802	Dandenong–Chadstone	Warrigal Road (south of Chadstone SC)
804	Dandenong–Chadstone	Warrigal Road (south of Chadstone SC)
822	Chadstone–Sandringham	Dandenong Road (Malvern East)
862	Dandenong–Chadstone	Warrigal Road (south of Chadstone SC)
900	(SmartBus) Rowville–Caulfield	Dandenong Road (Malvern East)
903	(SmartBus) Altona–Mordialloc	Warrigal Road (north of Chadstone SC)
969	(Night Bus) City–Caulfield–Rowville–Ringwood	Dandenong Road (Malvern East)

The map below from Public Transport Victoria's website, illustrates these routes in the Stonnington area.



The following table summarises weekday public transport service levels.

Route/line Via (in or adjacent to Stonnington)	Services per hour		
	AM peak	Inter-peak	PM peak
Train lines			
Cranbourne/ Pakenham line			
Caulfield station	21	9	19
Malvern station	0	0	0
Armadale station	0	0	0
Toorak station	0	0	0
Hawksburn station	0	0	0
South Yarra station	21	9	19
Frankston line			
Caulfield station	14	6	11
Malvern station	14	6	6
Armadale station	6	6	6
Toorak station	6	6	6
Hawksburn station	6	6	6
South Yarra station	14	6	11

				Services per hour			
Route/line			AM peak	Inter-peak	PM peak		
Via (in or adjacent to Stonnington)							
Train lines							
Glen Waverley line							
Holmesglen station			6	4	6		
East Malvern station			6	4	6		
Darling station			6	4	6		
Glen Iris station			6	4	6		
Gardiner station			6	4	6		
Tooronga station			6	4	6		
Kooyong station			6	4	6		
Heyington station			6	4	6		
Sandringham line							
Windsor station			8	4	8		
Prahran station			8	4	8		
South Yarra station			8	4	8		
All services							
Cranbourne/ Pakenham line							
Caulfield station			35	15	30		
Malvern station			14	6	6		
Armadale/Toorak/Hawkesburn stations			6	6	6		
South Yarra station			43	19	38		
Glen Waverley line							
All stations			6	4	6		
Sandringham line							
All stations			8	4	8		
				Services per hour			
Route/line		Via (in or adjacent to Stonnington)	AM peak	Inter-peak	PM peak		
Tram routes						Depot	Vehicle types
3/3a	Malvern–Melb Uni	Balaclava Rd	6	6	6	Glenhuntly	A, B, Z
5	Malvern–Melb Uni	Dandenong and Wattle tree rds	7	5	6	Malvern	D, Z
6	Glen Iris–Moreland	High St	8	5	8	Malv/Brun	B, D, Z
16	Kew–Melb Uni via St Kilda	Balaclava, Hawthorn and Glenferrie rds	6	5	6	Malvern	D, Z
58	Toorak–W Coburg	Toorak Rd	9	6	12	Malv/Ess	B, D, Z
64	Brighton E–Melb Uni	Dandenong & Hawthorn rds	6	6	6	Glenhuntly	A, B, Z
72	Camberwell–Melb Uni	Malvern & Burke rds	6	5	6	Malvern	D, Z
78	Balaclava–N Richmond	Chapel St	5	5	5	Kew	A, C

Route/line		Via (in or adjacent to Stonnington)	Services per hour		
			AM peak	Inter-peak	PM peak
Bus routes					
216	Sunshine station–Brighton Beach	Malvern Rd, Williams St/Hotham Rd	2	2	2
219	Sunshine South–Gardenvale	Malvern Rd and Williams St/Hotham Rd	2	2	2
220	Sunshine City–Gardenvale	Malvern and Orrong rds	4	4	4
246	Elsternwick–Clifton Hill	Punt Rd	6	6	5
605	Gardenvale–Flagstaff station	Alexandra Ave, Orrong and Kooyong rds	4	3	4
612	Box Hill–Chadstone	High St, Waverley and Chadstone rds	2	2	2
623	Glen Waverley–St Kilda	Dandenong and Warrigal rds	2	2	2
624	Kew–Oakleigh	Tooronga, Dandenong and Warrigal rds	3	2	2
625	Elsternwick–Chadstone	Dandenong Rd (east of Chadstone SC*)	2	2	2
626	Middle Brighton–Chadstone	Dandenong Rd	2	2	2
742	Eastland–Chadstone	Dandenong Rd (east of Chadstone SC*)	2	2	2
767	Southland–Box Hill	Dandenong Rd, Chadstone SC*, Warrigal Rd	3	2	3
800	Dandenong–Chadstone	Warrigal Rd (south of Chadstone SC*)	3	3	3
802	Dandenong–Chadstone	Warrigal Rd (south of Chadstone SC*)	1	1	1
804	Dandenong–Chadstone	Warrigal Rd (south of Chadstone SC*)	1.5	1.5	1
822	Chadstone–Sandringham	Dandenong Rd	2	2	2
862	Dandenong–Chadstone	Warrigal Rd (south of Chadstone SC*)	1.5	1.5	1.5
900	Rowville–Chadstone–Caulfield	Dandenong Rd	6	4	6 SmartBus
903	Altona–Chadstone–Mordialloc	Warrigal Rd (north of Chadstone SC*)	7	5	8 SmartBus
969	City–Caulfield–Rowville–Ringwood	Dandenong Rd			2 (night service only) Night bus

*SC-Shopping Centre

▼ Appendix E: Level crossings data

The table below lists the top 300 ranked level crossings in Victoria, based on the Australian Level Crossing Assessment Model 2008 risk assessment. The current (March 2018) status of the Level Crossing Removal Authority's grade separation projects is given in the right-hand columns, and City of Stonnington crossings are highlighted in blue.

ALCAM 2008					LXRA grade separations		
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
14648	1	Metro	Springvale Rd	Nunawading	Whitehorse	Completed	2010
9783	2	Metro	Springvale Rd	Springvale	Monash	Completed	2014
8140	3	Metro	Mitcham Rd	Mitcham	Whitehorse	Completed	2014
6280	4	Metro	Main Rd W/E	St Albans	Brimbank	Completed	2016
5020	5	Metro	Furlong Rd	St Albans	Brimbank	Completed	2016
4646	6	Metro	Bell St	Coburg	Moreland	Planning	
4540	7	Non-Metro	Werribee St	Werribee	Wyndham	Planning	
4183	8	Metro	Clayton Rd	Clayton	Monash	Construction	2018
3687	9	Metro	Macaulay Rd	Kensington	Melbourne		
3686	10	Metro	Bell St	Preston	Darebin	Planning	
3617	11	Metro	Glenroy Rd	Glenroy	Moreland	Planning	
3578	12	Metro	Grange Rd	Carnegie	Glen Eira	Construction	2018
3574	13	Metro	Cherry St	Werribee	Wyndham	Planning	
3448	14	Metro	Union Rd	Surrey Hills	Boroondara		
3349	15	Metro	North Rd	Ormond	Glen Eira	Completed	2016
3249	16	Metro	Aviation Rd	Laverton	Hobsons Bay	Planning	
3019	17	Metro	Blackburn Rd	Blackburn	Whitehorse	Completed	2017
2948	18	Metro	Buckley St	Essendon	Moonee Valley	Construction	2018
2948	19	Metro	Old Geelong Rd	Hoppers Crossing	Wyndham		
2886	20	Metro	McGregor Rd	Pakenham	Cardinia		

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
2882	21	Metro	Riversdale Rd	Camberwell	Boroondara		
2870	22	Metro	Ferguson St	Williamstown	Hobsons Bay	Planning	
2783	23	Metro	Lower Plenty Rd	Rosanna	Banyule	Construction	2018
2681	24	Metro	Station St	Fairfield	Darebin		
2590	25	Metro	Murray Rd	Preston	Darebin		
2502	26	Metro	Station St	Carrum	Kingston	Planning	
2480	27	Metro	Centre Rd	Clayton	Monash	Construction	2018
2446	28	Metro	Seaford Rd	Seaford	Frankston	Planning	
2394	29	Metro	Moreland Rd	Brunswick	Moreland	Planning	
2376	30	Metro	Heatherton Rd	Noble Park	Greater Dandenong	Completed	2018
2369	31	Metro	Charman Rd	Cheltenham	Kingston	Planning	
2314	32	Metro	Clyde Rd	Berwick	Casey	Planning	
2257	33	Metro	Toorak Rd	Kooyong	Stonnington	Planning	
2140	34	Metro	Hallam South Rd	Hallam	Casey	Planning	
2137	35	Metro	Station St (near Kelvin Grove)	Chelsea	Kingston		
2130	36	Metro	Racecourse Rd	Pakenham	Cardinia		
2117	37	Metro	Koornang Rd	Carnegie	Glen Eira	Construction	2018
2069	38	Metro	Webster St	Dandenong	Greater Dandenong		
2042	39	Metro	Tooronga Rd	Malvern	Stonnington		
2022	40	Metro	Chandler Rd	Noble Park	Greater Dandenong	Completed	2018
1994	41	Metro	Station St	Bonbeach	Kingston		
1913	42	Metro	Overton Rd/Skye Rd	Seaford	Frankston	Construction	2018
1895	43	Metro	Keon Pde	Thomastown	Darebin		
1870	44	Metro	Gaffney St	Coburg	Moreland		
1869	45	Metro	S Gippsland Hwy	Dandenong South	Greater Dandenong	Planning	
1854	46	Metro	Kororoit Creek Rd	Altona	Hobsons Bay	Completed	2010
1840	47	Metro	Maidstone St	Altona	Hobsons Bay		

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
1839	48	Metro	Scoresby Rd	Bayswater	Knox	Completed	2016
1760	49	Non-Metro	Anderson Rd	Sunshine	Brimbank	Completed	2014
1741	50	Metro	Shrives Rd/Webb St	Narre Warren	Casey		
1722	51	Metro	South Rd	Brighton	Bayside		
1696	52	Metro	Main St	Pakenham	Cardinia		
1674	53	Metro	High St	Glen Iris	Stonnington		
1651	54	Metro	Grange Rd	Alphington	Darebin	Construction	2018
1618	55	Metro	Corrigan Rd	Noble Park	Greater Dandenong	Completed	2018
1568	56	Metro	Maroondah Hwy	Lilydale	Yarra Ranges	Planning	
1565	57	Non-Metro	Fitzgerald Rd	Ardeer	Brimbank		
1560	58	Metro	Holmes Rd/Puckle St	Moonee Ponds	Moonee Valley		
1557	59	Metro	Cramer St	Preston	Darebin		
1528	60	Metro	Centre Rd	Bentleigh	Glen Eira	Completed	2016
1496	61	Metro	Prospect Hill Rd	Camberwell	Boroondara		
1486	62	Metro	Normanby Ave	Thornbury	Darebin		
1481	63	Metro	Box Forest Rd	Hadfield	Moreland		
1481	64	Metro	Anderson Rd	Sunshine	Brimbank	Completed	2014
1415	65	Metro	Brunswick Rd	Brunswick	Moreland		
1399	66	Metro	Hampton St	Hampton	Bayside		
1368	67	Metro	Burke Rd	Glen Iris	Stonnington	Completed	2016
1360	68	Metro	Poath Rd	Hughesdale	Glen Eira	Construction	2018
1359	69	Metro	Lochiel Ave	Edithvale	Kingston		
1356	70	Light rail	Bridport St	South Melbourne	Port Phillip		
1318	71	Metro	Glenferrie Rd	Kooyong	Stonnington		
1313	72	Metro	High St	Reservoir	Darebin	Planning	
1309	73	Metro	Hudsons Rd	Spotswood	Hobsons Bay		
1267	74	Metro	Edithvale Rd	Edithvale	Kingston	Planning	
1247	75	Metro	Glen Huntly Rd	Glen Huntly	Glen Eira		
1240	76	Metro	Madden Gr	Burnley	Yarra		
1236	77	Metro	Macaulay Rd	Kensington	Melbourne		
1212	78	Metro	Glen Eira Rd	Ripponlea	Port Phillip		
1107	79	Metro	Murrumbeena Rd	Murrumbeena	Glen Eira	Construction	2018
1103	80	Metro	Munro St	Coburg	Moreland		

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
1093	81	Metro	Warrigal Rd	Parkdale	Kingston		
1032	82	Light rail	Railway Ave (Swallow Ave)	Port Melbourne	Port Phillip		
1028	83	Metro	Chelsea Rd	Chelsea	Kingston		
1023	84	Metro	McKinnon Rd	McKinnon	Glen Eira	Completed	2016
1010	85	Metro	Argyle Ave	Chelsea	Kingston		
1007	86	Metro	Highett Rd	Highett	Bayside		
980	87	Metro	Mountain Hwy	Bayswater	Knox	Completed	2017
972	88	Metro	Mont Albert Rd	Mont Albert	Whitehorse		
967	89	Metro	Devon Rd	Pascoe Vale	Moreland		
966	90	Metro	Bondi Rd	Bonbeach	Kingston	Planning	
884	91	Metro	Eel Race Rd	Carrum	Kingston	Planning	
877	92	Metro	Westgarth St	Northcote	Darebin		
857	93	Metro	Victoria Rd	Northcote	Darebin		
839	94	Metro	Bay St	Brighton	Bayside		
825	95	Metro	Station St	Seaford	Frankston		
806	96	Metro	Marshall St	Ivanhoe	Banyule		
781	97	Metro	Heatherdale Rd	Ringwood	Whitehorse	Completed	2017
778	98	Metro	Bear St	Mordialloc	Kingston		
764	99	Metro	Champion Rd	Williamstown North	Hobsons Bay		
750	100	Metro	Armstrongs Rd	Seaford	Frankston		
749	101	Non-Metro	Grant St (Parwan Rd)	Bacchus Marsh	Moorabool		
746	102	Metro	Dawson St	Brunswick	Moreland		
732	103	Metro	Park St	Parkville	Melbourne		
731	104	Metro	Bedford Rd	Ringwood	Maroondah		
697	105	Metro	Station St (near Lincoln Parade)	Aspendale	Kingston		
694	106	Metro	Anderson St	Yarraville	Maribymong		
670	107	Metro	Gaffney St	Pascoe Vale	Moreland		
670	108	Metro	O'Hea St	Coburg	Moreland		
660	109	Metro	Maidstone St	Altona	Hobsons Bay		
647	110	Metro	Station St	Beaconsfield	Cardinia		
643	111	Metro	Park Rd	Cheltenham	Bayside		
642	112	Metro	Boundary Rd	Merlynston	Moreland		

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
639	113	Metro	Albion St	Brunswick	Moreland		
619	114	Metro	Balcombe Rd	Mentone	Kingston	Planning	
586	115	Non-Metro	Station Rd (Mt Derrimut Rd)	Deer Park	Brimbank		
581	116	Non-Metro	Oak St	Bendigo	Greater Bendigo		
571	117	Metro	Station St (near Paschke Cr)	Thomastown	Whittlesea		
569	118	Metro	Arthurton Rd	Northcote	Darebin		
544	119	Metro	Oakover Rd	Preston	Darebin		
544	120	Non-Metro	Humffray St	Ballarat	Ballarat		
521	121	Metro	Arden St	Kensington	Melbourne		
490	122	Metro	Regent St	Reservoir	Darebin		
481	123	Metro	Dublin Rd	Ringwood East	Maroondah		
463	124	Metro	Rooks Rd	Mitcham	Whitehorse	Completed	2014
459	125	Non-Metro	McMahons Rd	Frankston	Frankston		
450	126	Non-Metro	North Shore Rd	Corio	Greater Geelong		
443	127	Metro	Greville St	Prahran	Stonnington		
441	128	Metro	Parkers Rd	Parkdale	Kingston		
438	129	Light rail	Beach St	Port Melbourne	Port Phillip		
433	130	Metro	Maddox Rd	Williamstown North	Hobsons Bay		
425	131	Metro	Brunt Rd	Officer	Cardinia		
419	132	Metro	Ruthven St	Macleod West	Banyule		
385	133	Metro	Progress St/Tower Rd	Dandenong South	Greater Dandenong		
382	134	Metro	Park St	Moonee Ponds	Moonee Valley		
382	135	Metro	Heyington Ave	Thomastown	Whittlesea		
378	136	Metro	Reynard St	Coburg	Moreland		
371	137	Metro	Melton Hwy	Sydenham	Brimbank	Construction	2018
357	138	Metro	Station St (near Coleman Rd)	Aspendale	Kingston		
338	139	Non-Metro	Station St	Officer	Cardinia		
337	140	Metro	Church St	Brighton	Bayside		
330	141	Metro	McDonald St	Mordialloc	Kingston		
310	142	Metro	Manchester Rd	Mooroolbark	Yarra Ranges	Planning	

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
304	143	Metro	Victoria St	Brunswick	Moreland		
297	144	Metro	Abbotts Rd	Lyndhurst	Greater Dandenong	Construction	2019
288	145	Metro	Taylor's Rd	Keilor Downs	Brimbank	Completed	2007
286	146	Metro	Abbott St	Sandringham	Bayside		
281	147	Metro	Ramsden St	Clifton Hill	Yarra		
270	148	Metro	Settlement Rd	Thomastown	Whittlesea		
257	149	Metro	Thompsons Rd	Cranbourne North	Casey	Construction	2019
252	150	Metro	Wickham Rd	Highett	Bayside		
251	151	Metro	Kororoit Creek Rd	Williamstown North	Hobsons Bay	Construction	2018
244	152	Metro	Neerim Rd	Glen Huntly	Glen Eira		
242	153	Non-Metro	Separation St	North Geelong	Greater Geelong		
239	154	Non-Metro	Lara Lakes Rd	Lara	Greater Geelong		
234	155	Metro	Barry Rd	Coolaroo	Hume		
231	156	Non-Metro	Robinsons Rd	Deer Park	Brimbank		
229	157	Metro	Union St	Brunswick	Moreland		
222	158	Non-Metro	Calder Park Dr	Calder Park	Brimbank		
218	159	Metro	Childs Rd	Epping	Whittlesea		
218	160	Non-Metro	School Rd	Corio	Greater Geelong		
216	161	Metro	Camp Rd	Campbellfield	Hume	Completed	
210	162	Non-Metro	Hopkins Rd	Truganina	Melton		
210	163	Metro	Greens Rd	Dandenong South	Greater Dandenong		
202	164	Non-Metro	Sisely Ave	Wangaratta	Wangaratta		
201	165	Non-Metro	Yarra St	South Geelong	Greater Geelong		
197	166	Non-Metro	Arundel St	Benalla	Benalla		
196	167	Metro	Hutton St	Thornbury	Darebin		
187	168	Metro	Hope St	Brunswick	Moreland		
184	169	Non-Metro	Windermere Rd	Lara	Greater Geelong		
177	170	Metro	Yarralea St	Alphington	Darebin		
177	171	Metro	Main Hurstbridge Rd	Diamond Creek	Nillumbik		
174	172	Non-Metro	Thompson Rd	North Geelong	Greater Geelong		

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
168	173	Metro	Woolton Ave	Thornbury	Darebin		
165	174	Non-Metro	Lloyd St (Waterloo Rd Cros)	Moe	Latrobe		
163	175	Metro	N/A – Memorial Park	Hadfield	Moreland		
159	176	Metro	Railway Ave	Upper Ferntree Gully	Knox		
155	177	Metro	Bakers Rd	Coburg North	Moreland		
154	178	Non-Metro	Nunn St (Midland Hwy)	Benalla	Benalla		
147	179	Non-Metro	St Georges Rd	Corio	Greater Geelong		
146	180	Non-Metro	McKillop St	Geelong	Greater Geelong		
145	181	Non-Metro	Ashby St	Trafalgar	Baw Baw		
141	182	Metro	Beavers Rd	Thornbury	Darebin		
141	183	Non-Metro	Station Rd/Exford Rd	Melton South	Melton		
137	184	Non-Metro	Coleman St	Warragul	Baw Baw		
135	185	Non-Metro	Faithful St	Benalla	Benalla		
134	186	Non-Metro	Gap Rd (Station St)	Sunbury	Hume		
129	187	Metro	Latrobe St	Cheltenham	Kingston		
124	188	Light rail	Inglis St	Port Melbourne	Port Phillip		
114	189	Metro	Poplar Rd	Parkville	Melbourne		
113	190	Non-Metro	Tramway Rd	Morwell	Latrobe		
111	191	Non-Metro	Nar Nar Goon-Longwarry Rd	Nar Nar Goon	Cardinia		
110	192	Metro	Coolstore Rd	Croydon	Maroondah		
110	193	Metro	Cardinia Rd	Pakenham	Cardinia		
109	194	Non-Metro	Edgars Rd	Little River	Greater Geelong		
102	195	Non-Metro	Coburns Rd/Rees Rd	Melton South	Melton		
102	196	Metro	Giffard St	Williamstown	Hobsons Bay		
101	197	Metro	Alpine St	Ferntree Gully	Knox		
101	198	Non-Metro	Station Rd	Gisborne	Macedon Ranges		
100	199	Metro	Millers Rd	Seaholme	Hobsons Bay		
99	200	Non-Metro	Wood St (Fyans St/ Carr St)	South Geelong	Greater Geelong		
97	201	Metro	Station St (nr David St)	Thomastown	Whittlesea		
93	202	Non-Metro	Hamilton Hwy	Cressy	Golden Plains		

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
91	203	Light rail	Bridge St	Port Melbourne	Port Phillip		
88	204	Non-Metro	Swanston St	South Geelong	Greater Geelong		
87	205	Non-Metro	Calder Hwy	Diggers Rest	Hume		
83	206	Non-Metro	Bunyip-Modella Rd	Bunyip	Cardinia		
82	207	Non-Metro	Baxter-Tooradin Rd	Baxter	Mornington Peninsula		
81	208	Metro	Union St	Windsor	Stonnington		
81	209	Non-Metro	Parker St	Castlemaine	Mount Alexander		
80	210	Metro	Linacre Rd	Hampton	Bayside		
78	211	Non-Metro	Stony Point Rd	Bittern	Mornington Peninsula		
75	212	Metro	Charles St	Northcote	Darebin		
72	213	Non-Metro	Station Ave	Heathcote	Greater Bendigo		
71	214	Metro	Dendy St/New St	Brighton	Bayside		
71	215	Metro	Albert St	Brunswick	Moreland		
68	216	Metro	Pier St	Altona	Hobsons Bay		
67	217	Non-Metro	Barwon Heads Rd	Marshall	Greater Geelong		
66	218	Metro	Wattletree Rd	Eltham	Nillumbik		
61	219	Non-Metro	West's Rd	Manor	Wyndham		
59	220	Non-Metro	Birkett St	Euroa	Strathbogie		
59	221	Non-Metro	Eramosa Rd West	Somerville	Mornington Peninsula		
58	222	Non-Metro	Kernot St	Spotswood	Hobsons Bay		
55	223	Metro	New St	Hampton	Bayside		
55	224	Non-Metro	Bank St	Avenel	Strathbogie		
54	225	Non-Metro	Kilgour St	Geelong	Greater Geelong		
53	226	Non-Metro	Broadford-Epping Rd	Wallan	Mitchell		
52	227	Non-Metro	Leakes Rd	Rockbank	Melton		
49	228	Non-Metro	Knight St	Shepparton	Greater Shepparton		
48	229	Non-Metro	Francis St	Yarraville	Maribyrnong		
47	230	Non-Metro	Wahgunyah-Wangaratta Rd	Bowser	Wangaratta		
47	231	Non-Metro	Robinsons Rd	Frankston South	Frankston		
45	232	Non-Metro	High St (Hume Hwy)	Wodonga	Wodonga		
45	233	Non-Metro	Cowslip St	Violet Town	Strathbogie		
44	234	Non-Metro	Troups Rd Nth	Rockbank	Melton		
43	235	Metro	Grieve Pde	Altona	Hobsons Bay		

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
43	236	Non-Metro	Marshalltown Rd	Marshall	Greater Geelong		
42	237	Non-Metro	Kyneton-Trentham Rd	Kyneton	Macedon Ranges		
42	238	Metro	Civic Pde	Seaholme	Hobsons Bay		
39	239	Non-Metro	Witt St	Benalla	Benalla		
37	240	Non-Metro	Bank St	Traralgon	Latrobe		
37	241	Non-Metro	Creswick Rd	Ballarat	Ballarat		
36	242	Non-Metro	Barwon Tce	South Geelong	Greater Geelong		
36	243	Non-Metro	Hayes St	Shepparton	Greater Shepparton		
35	244	Metro	Camms Rd	Cranbourne	Casey		
35	245	Non-Metro	Lochs Creek Rd	Trafalgar	Baw Baw		
34	246	Non-Metro	Shady Creek Rd	Yarragon	Baw Baw		
34	247	Metro	Diamond St	Eltham	Nillumbik		
34	248	Non-Metro	Frankston-Flinders Rd	Hastings	Mornington Peninsula		
33	249	Non-Metro	Sandford Rd	Wangaratta	Wangaratta		
32	250	Non-Metro	Canterbury Rd	Lara	Greater Geelong		
32	251	Non-Metro	Benalla-Yarrawonga Rd	Benalla	Benalla		
31	252	Non-Metro	Kelly St	Wodonga	Wodonga		
31	253	Non-Metro	Lardners Track	Warragul	Baw Baw		
31	254	Non-Metro	Golf Links Rd	Baxter	Mornington Peninsula		
31	255	Metro	Melba Ave	Lilydale	Yarra Ranges		
30	256	Non-Metro	Station Ent	Seymour	Mitchell		
28	257	Non-Metro	McDiarmids Rd	Violet Town	Strathbogie		
27	258	Non-Metro	Reserve Rd	Grovedale	Greater Geelong		
27	259	Non-Metro	Goulburn Valley Hwy	Murchison East	Greater Shepparton		
27	260	Metro	Wilson Rd	Wattle Glen	Nillumbik		
27	261	Non-Metro	Western Hwy	Ararat	Ararat		
27	262	Non-Metro	Telephone Rd	Trafalgar	Baw Baw		
26	263	Non-Metro	High St	Dimboola	Hindmarsh		
26	264	Non-Metro	Donnybrook Rd	Donnybrook	Whittlesea		
26	265	Non-Metro	Osburn St	Wodonga	Wodonga		
25	266	Non-Metro	High St	Seymour	Mitchell		
25	267	Non-Metro	Cochranes Rd	Wodonga	Wodonga		
24	268	Non-Metro	Mornington-Tyabb Rd	Tyabb	Mornington Peninsula		

ALCAM 2008				LXRA grade separations			
Risk score	Rank	Location	Road	Suburb	Municipality	Current status	Year
23	269	Non-Metro	Melrose Dr	Wodonga	Wodonga		
23	270	Non-Metro	Footscray Rd	Melbourne	Melbourne	Completed	2009
23	271	Non-Metro	Gardner and Holman Rd	Drouin	Baw Baw		
23	272	Non-Metro	Glenelg Hwy	Westmere	Ararat		
22	273	Non-Metro	Lake Rd	Stawell	Northern Grampians		
22	274	Non-Metro	Somerville Rd	Brooklyn	Brimbank		
22	275	Non-Metro	Frankston-Flinders Rd	Somerville	Mornington Peninsula		
22	276	Non-Metro	Queen St	Colac	Colac Otway		
22	277	Non-Metro	Fryers St	Shepparton	Greater Shepparton		
21	278	Metro	Ascot Vale Rd	Flemington	Moonee Valley		
21	279	Non-Metro	Stawell-Warracknabeal Rd	Glenorchy	Northern Grampians		
21	280	Non-Metro	Nolan St	Bendigo	Greater Bendigo		
20	281	Non-Metro	Nagambie-Locksley Rd	Locksley	Strathbogie		
20	282	Non-Metro	Shanley St	Wangaratta	Wangaratta		
20	283	Non-Metro	Koo Wee Rup-Longwarry Rd	Longwarry	Baw Baw		
18	284	Non-Metro	Northern Hwy (Mary St)	Rochester	Campaspe		
18	285	Non-Metro	Forest St	Wendouree	Ballarat		
18	286	Metro	Railway Rd	Eltham	Nillumbik		
17	287	Metro	Evans Rd	Lyndhurst	Casey		
17	288	Non-Metro	Anakie Rd	Bell Park	Greater Geelong		
17	289	Non-Metro	Hillcrest Rd	Frankston	Frankston		
17	290	Non-Metro	High St	Hastings	Mornington Peninsula		
16	291	Non-Metro	Bungaree-Wallace Rd	Wallace	Moorabool		
16	292	Non-Metro	Rutherglen-Springhurst Rd	Springhurst	Wangaratta		
16	293	Non-Metro	Surf Coast Hwy	Grovedale	Greater Geelong		
16	294	Non-Metro	Down St	Longwood	Strathbogie		
16	295	Non-Metro	Tylden-Woodend Rd	Woodend	Macedon Ranges		
15	296	Non-Metro	Nelson St	Bendigo	Greater Bendigo		
15	297	Non-Metro	Tynong Rd	Tynong	Cardinia		
15	298	Non-Metro	Wimmera Hwy	Murtoa	Yarriambiack		
14	299	Metro	Allendale Rd	Eltham	Nillumbik		
14	300	Non-Metro	Madden St North	Kaniva	West Wimmera		

Reference notes

1. https://en.wikipedia.org/wiki/Metro_Trains_Melbourne
2. <https://levelcrossings.vic.gov.au/about>





City of
STONNINGTON

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Prahran Town Hall
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Depot
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