

# S U B M I S S I O N

## **Review of bus services in the cities of Hobsons Bay, Maribyrnong & Moonee Valley**

seven day service

modern operating hours

direct & legible routes

high frequency

harmonised headways

serves major trip generators

better connections

area & corridor planning

**Peter Parker | April 2007**

## Introduction

The recently-announced area reviews of metropolitan bus services are welcome. They potentially present a 'once in a generation' opportunity to make public transport a mode of choice for the sixty per cent of Melburnians beyond walking distance of fixed rail services.

### **Area-based bus service review and reform is the single biggest item that would improve public transport's effectiveness, economy and efficiency.**

This submission supports comprehensive reform of bus services in the cities of Hobsons Bay, Maribyrnong and Moonee Valley. Its major recommendations are as follows:

- 1. A network of direct and frequent routes serving major trip generators and transport corridors.* With operating spans and service frequencies similar to trains, these primary routes shall bring high-quality service to most suburbs.
- 2. Upgraded local routes.* Within ten minutes walk of most homes and businesses, these shall operate seven days per week until at least 9pm, in line with 'minimum hours' standards. A 'headway hierarchy' will ensure consistent connections with every train or every second train at most stations seven days per week.
- 3. Route review, rationalisation and redirection of resources.* Parts of the study area have routes that are slow, indirect and have short operating spans. The removal or straightening of such routes would release driver and vehicle time that could be used to boost services on primary and local routes of greater patronage potential.

The aim of bus reform shall be to build an integrated public transport network that meets modern travel needs and links suburbs with direct, frequent and well-connected services. Although the review area encompasses the cities of Hobsons Bay, Maribyrnong and Moonee Valley, the term 'inner west' will often be substituted for brevity. Appendices One and Two provides information about the area.

### **The need for route and service reform**

I have no grounds for suggesting that when expressed in certain measures (such as operating costs per kilometre), our bus operators are anything but efficient. However it cannot be denied that in Melbourne the *effectiveness* of bus services compared to trains and trams is lagging. This is true whether effectiveness is judged from a passenger perspective (operating spans, service frequency, overall travel speed, passenger information etc) or from a management view (eg boardings per kilometre, vehicle occupancy and cost-recovery ratios).

There is nothing much wrong with the buses themselves, their drivers or the fare system. Rather, the ineffectiveness of buses can be put down to a long-term lack of area-based service planning. Except for extensions to new suburbs, buses have generally been slow to respond to changing travel needs that for many trips has made them irrelevant.

Where change has occurred it has generally been piecemeal. Also, the emphasis seems to have been on operators and routes rather than corridors, regions and connections. Hence a new route may be grafted onto an area that is already served by other routes, without adjustment made to the existing routes. This results in 'lumpy' service provision (underserved in some areas, overserved in others) and a lack of correlation between a route's strategic importance to the network and the service level provided.

In much of Melbourne this leads us to a paradox; a significant level of route-kilometres is provided (at not inconsiderable cost) yet performance on actual service levels, patronage and cost-recovery remains low. This review represents an opportunity to break the stalemate and make buses an accepted part of Melbourne's public transport, rather than something of an afterthought.

### **Some principles of bus route planning**

This submission supports a key performance indicator for public transport service provision along the lines of the following:

- 80 percent of residents are within fifteen minutes walk of a public transport service that operates at least every fifteen minutes seven days per week.

Given widespread 20 minute running of trains and trams in the study area, a fifteen minute target requires more than just bus reform. However achieving a looser twenty minute frequency target is much easier and could be an aim of this review.

As well as good frequency and operating hours, bus routes must be direct and serve major trip generators. This is both for the benefit of passengers (in reduced travel time) and the Department (in operating economies). From our current network (which includes many circuitous routes) it should be possible to extract an 'efficiency dividend' which can be used to provide more frequent services for more hours of the day over more days of the week.

Other planning principles may include the desirability of providing access to nearby railway stations and regional shopping centres. Ideally routes should have trip generators at either end so that it can attract patronage in both directions. For example, a local route serving Newport might run between Newport Station and Altona Gate Shopping Centre.

Except to augment capacity on major corridors or to provide short-distance travel in suburban activity centres, route duplications should generally be kept to a minimum. However where they exist there are major opportunities to exploit overlaps to provide a more frequent combined service.

An example would be staggering the timing of two 40 minute routes to provide an even 20 minute service over the combined section. If the combined section is near a railway station, this would result in buses meeting every train, thus strengthening their 'rail feeder' function. If connections are poor, this can be overcome by bringing all services forward or back by ten minutes or so.

Headway harmonisation has similar benefits. If all buses in the area are either every 20 or 40 minutes this provides consistent connections that are not possible with a mix of 25, 40 and 60 minute services (which exists at the moment). Any excessive dwell time could be modified by shortening or lengthening the bus route.

Harmonised headways are no cure; unless all services are frequent some connections may be poor. However this would be a lower risk for connections with major routes (due to their frequency) and at least it would be consistent. In addition there is the possibility of remedy if the connection is deemed important enough. Opportunities for bus to bus connections potentially exist at any point where two routes intersect, but are greatest at railway stations and near major shopping centres.

## **Problems and Opportunities with existing bus routes**

The following is a list of problems and opportunities that a bus service review could embrace.

*Example 1: Illegible and circuitous routes.*

Sometimes it's quicker to walk than to take the bus. Examples are routes 409 and 432, which wind through the back streets of Yarraville and Newport. In addition circuitous routes are difficult for passengers to understand so are likely to attract low patronage.

An excessive density of bus routes costs bus and driver time that could instead be used to provide faster services that are more frequent, connect better and run later.

*Though it may provoke some opposition, a full bus review could examine the high opportunity costs of our current tangled network and recommend rationalisation in some areas. If a genuine travel need still exists in a pocket, this can be met by providing a local service operating to a reduced frequency.*

*Example 2: Buses and modern lifestyle patterns.*

Saturday afternoon trading was introduced in the 1980s. Trading hours were further deregulated in the 1990s. Saturday and Sunday afternoons are now peak sales periods for many retailers. The labour market has also changed, with greater part-time, casual and weekend work.

However some bus routes (eg 429 and 430) still cling to the noon Saturday shop closing of a generation ago, with last buses departing around midday. Many others stop running around 5:00pm Saturdays, which may still be too early for many working people and shoppers.

*A comprehensive bus route and service review would provide routes with extended operating hours to reflect peoples lives today, with seven-day running the rule rather than the exception.*

*Example 3: Routes that try to connect with everything*

Some long routes serve so many railway stations that good connections happen by fluke rather than design. Examples are 471 (North Williamstown – Newport – Footscray – Sunshine) and 472 (North Williamstown – Newport – Footscray – Moonee Ponds). Alternatively they have an unusual dog-leg (eg 408 Highpoint – Sunshine – St Albans). To make it easier to plan good connections, certain long routes could be broken up into two shorter routes with optimised connections at selected stations. Route splitting also have the bonus of permitting extended hours or greater frequency on the busiest sections and assisting on-time running.

*The review could examine long routes that are more logical when split and recommend same.*

*Example 4: Different routes on different days*

On weekdays people in a certain part of Newport catch route 432. On Saturdays they must remember to catch 471. Route numbers that vary with the day of the week are confusing for passengers.

*The review could recommend that all routes operate with the same route number seven days per week.*

### *Example 5: Buses not meeting trains*

Footscray Station and peak periods excepted, trains in the inner-west run every 20 minutes during the day. Yet there are some bus routes that have service intervals of 25, 30 or 70 minutes (eg 406, 407, 408, 409, 471). Such headways do not mesh with trains and good connections are strictly pot luck.

*A revised bus network would provide that unless they are frequent (eg <15 minutes), bus headways should mesh with trains to keep connection times predictable. This means service intervals of 20 minutes during the day. Quieter routes could be arranged to connect with every second train instead (ie 40 minute headway). To harmonise headways efficiently, bus routes could be planned to be 15, 35, 55 or 75 minutes in length, allowing five minutes for recovery.*

### *Example 6: Services not relating to need.*

The back streets of Yarraville (route 223) receive a more frequent service than a substantial shopping and employment centre such as Altona Gate. Williamstown with three railway stations gets more buses than the majority of Williamstown North which is distant from its station. Industrial areas such as Laverton North have significant employment but large parts still have no service.

*A revised bus network would have routes and service levels determined not by historical accident but by travel need, with a service hierarchy of routes according to importance. More later.*

### **A bus route hierarchy**

A large part of preparing this submission was studying routes timetables for each of the routes operating in the inner west. A great deal of inconsistency in service levels was found. For instance Route 467 provides the most frequent peak service of any bus route in Melbourne, but drops down to 30 minutes interpeak and nothing on Sundays. Other routes do run on Sundays but at a difficult to remember service interval, for instance every 1 hour and 20 minutes for Routes 414 and 415.

Although there will be variations for local circumstances, the concept of a service hierarchy with three broad levels of service is supported (see table below).

The most important routes are those deemed to be strategically important to the entire public transport network. This is due to their linkages to and between major trip generators and transport interchanges. These have been labeled 'Primary Routes' with direct and frequent service from early morning to late at night. Primary routes may account for about 40% of routes in the area.

Most of the remainder are secondary (or local) routes. These link residential suburbs to major trip generators and transport interchanges. In contrast with present routes, they will be more direct and run seven days per week to minimum standard hours.

Tertiary routes are those for a more localised need. Compared to primary and secondary routes they are less direct and less frequent. Tertiary routes serve pockets where route rationalisation has deleted a service but a small travel need in the area exists. In the early stages of route reform, tertiary routes may be run for a short time after a less efficient route has been removed. Once people get used to the more frequent direct route and patronage on the tertiary route has reduced, it may then itself be removed, with the resources used for a second round of service improvements.

## Proposed classifications of bus routes

Route type	Role	Days & Span	Frequency
<b>Primary</b>	<p>Links key railway stations, major activity centres, regional shopping centres and large education campuses.</p> <p>Also a feeder for major suburban areas remote from railway stations.</p> <p>Fast and direct along main roads.</p>	<p>Early morning until midnight seven days per week.</p> <p>NightRider services may overlap some primary routes, providing later services.</p>	<p>Peak: 10 or 15 min Day: 15 or 20 min Night: 20 or 30 min</p> <p>Services are train frequency or better at all times.</p> <p>Due to the frequency of existing routes and the importance of Footscray, Sunshine and Highpoint as destinations in their own right, services may run more frequently than trains even if not headway harmonised.</p>
<b>Secondary</b>	<p>Links residential suburbs to local railway stations and shopping areas.</p> <p>As direct as possible between and within suburbs.</p>	<p>Early morning until 9pm seven days per week.</p>	<p>Peak: 20 min Day: 20 (or 40) min Night: 30 or 60 min</p> <p>Consistent connections with every train or every second train.</p> <p>Headway harmonised.</p>
<b>Tertiary</b>	<p>Serve localities or destinations that are poorly served by primary and secondary routes.</p> <p>Circular, loop and/or unidirectional routes allowed.</p>	<p>Five or six days per week.</p> <p>Normally between morning and afternoon peak periods only</p>	<p>Every 40, 60 or 120 minutes.</p> <p>Between 2 and 10 services per day.</p> <p>Connections with selected trains only.</p>

## Institutional arrangements

This submission supports an arrangement where services are specified and purchased by a public transport authority (such as the Department of Infrastructure) and provided by privately-owned bus companies (the provider).

The Department could draft timetables for all bus routes. Such timetables shall be determined after annual bus route kilometre budgets have been allocated to each metropolitan region (eg western suburbs, northern suburbs etc). Private bus companies shall act as contractors, selling route kilometres to the Department.

An audit process will exist to ensure that services meet standards with regards to delivery, punctuality, customer service, safety, cleanliness, etc. Operators shall be encouraged to recommend various efficiency gains, for which they, along with passengers and the Department, should expect some benefit.

Given that operators have made significant investments in facilities, staff, fleet, etc it is not unreasonable for them to expect some recognition for this by providing a stable operating regime. However operating arrangements must still provide value for the purchaser and not inhibit service reforms such as route additions, deletions or restructuring if deemed necessary.

The concept of operators 'owning' routes, though upheld in the Driver case, is dubious since few if any routes would survive without public subsidy. With public subsidy come duties of accountability and the public interest, ie providing the most effective service possible for a given budget. Perusal of examples given elsewhere emphatically show this is not currently the case, and that bus reform is necessary as well as merely desirable.

Current arrangements for passenger information are convoluted, with operators, Metlink and the Department having various roles. If the Department sets (as well as approves) timetables, it is suggested that responsibility for their publication and installation at stops either rest with it or be delegated to Metlink. Operators will only then be responsible for ensuring that drivers are well-supplied and notices of service changes are posted in buses.

### **Other matters**

Although this review concerns bus routes and services, several external matters impinge on bus service delivery and potential patronage. These include:

- Ability to transfer between modes and services. Footscray is severely hampered as an effective transit interchange point due to the long distances between train and bus stops and poor or missing wayfinding and passenger information. Similar comments apply to other key centres such as Moonee Ponds, Highpoint and, to a lesser extent, St Albans, where a major road intersection impedes pedestrian access.
- Limited pedestrian access to bus and tram stops. Main roads provide buses with direct routes that are easily understood by the passenger. However where bus stops are not at signalised intersections (or widely spaced traffic signals or roundabouts ensures an uninterrupted traffic stream) many bus and tram stops become inaccessible except via long detours.

Good access is of particular importance near major trip generators such as universities and shopping centres. Two examples include Droop/Tiernan St Footscray (nearest access point to VUT from Route 82 tram) and the area near Central Square Shopping Centre in Altona Meadows. An important part of bus revitalisation requires making bus stops directly and safely accessible, either through providing extra pedestrian signals, zebra crossings or mid-road pedestrian refuges.

- Limited services on the Route 82 tram. The Route 82 tram between Footscray and Moonee Ponds runs less frequently and finishes several hours earlier than other Melbourne trams. Improving its weekday service frequency from twenty to fifteen minutes, extending its finishing time to midnight and providing a more direct route via Rosamond Road has potential efficiencies for buses. This is because it allows the deletion of the largely parallel and duplicating bus route 223. The resources released could then be used to boost services on nearby routes that do not duplicate, for instance 404, 406 or 472.

## Specific recommendations

The following are some suggested amended routes. The main thrust has been to provide more direct and frequent services between major centres, extend service to currently under-served areas and rationalise routes where these are considered too close. A map is provided in Appendix Three.

Route	Reasons and Comments
The following existing high-frequency routes be deemed primary routes: 216, 219, 220.	This formalises existing arrangements where these routes already offer a high level of service.  Existing service frequencies to be maintained where these exceed the requirements for primary status.
Upgrade following routes to primary status:  406, 408 (part), 410, 411, 471, 472.	These routes are considered of sufficient network importance to merit elevation, especially with regards to extended operating hours and more frequent weekend services.  471 need be primary north of Newport only.
Upgrade following routes to secondary status with minimum hours and connections with every train or every second train:  215, 232, 404, 414, 415, 467, 468.	Maintain services where these are already more frequent.
Route 223 south of Footscray to be abolished.	Much of this section overlaps with Route 472, for which an upgrade is proposed.
232 – Extend some trips to Westona Station via Grieve Pde, Koroit Creek Rd and Maidstone St.	This would provide service to a large unserved areas.
406 – consider lengthening by extending it to Niddrie to replace current Route 475.	This would bring frequent service to a wide area of Keilor East and provide a feeder service for the Route 59 tram.
408 – split at Sunshine.  Make Sunshine – Highpoint portion primary.  Make Sunshine – St Albans section secondary.	Removing deviation via Northumberland Ave in favour of McIntyre Rd would speed trips on the Sunshine – St Albans portion of 408.  However Sunshine North is under-served and a new route between Sunshine and St Albans via Northumberland, Suffolk, Duke, Berkshire, McIntyre & Main Road East would be required.
409 - abolish	Most of this route duplicates other services.
409 – NEW ROUTE: Altona	Secondary route

Route	Reasons and Comments
<p>Gate SC – Millers Rd – Francis St – Roberts St – Sunshine Rd – Tottenham Station – Ashley St – Hampstead Rd – Highpoint SC.</p> <p>Secondary route</p>	<p>Replaces existing 409.</p> <p>Connects Braybrook and West Footscray to Altona Gate and Tottenham Station. Provides cross-suburban link without transferring at Footscray.</p>
<p>Re-routing of 411 through Altona. From Pier St, Altona, west along Civic Pde until Maidstone Street, then resume existing route at Queen Street.</p> <p>Route would run to Aircraft Station along Railway Ave.</p>	<p>The revised route increases coverage of Altona including Harrington Square shops &amp; Westona Station (where trains cross).</p> <p>The Aircraft extension would serve the community centre on Crown St and permitting pedestrian access from Heffernan St.</p>
<p>412 – abolish (and replace with a new 412)</p>	<p>The incorporation of these services into an upgraded 411 would improve speed and service along Millers Road.</p> <p>Replaced by new 412, 429 and 471.</p>
<p>412 (new route): Ferguson St Pier – Ferguson St – Kororoit Creek Rd – Maddox Rd – Mason St – Hansen rd – Blackshaws Rd – Mills St – McIntosh Rd – Altona Nth Bus interchange – Altona Gate SC.</p>	<p>Secondary route. Replaces old 412 and 432. Timed to connect with every second train at North Williamstown.</p> <p>In conjunction with 415 provides connection with every train (until 9pm) between Ferguson St Pier and Maddox Rd.</p> <p>Extends service to previously underserved North Williamstown.</p>
<p>414 – revert to previous routing where route passed nearer Laverton railway station.</p>	<p>Though the more convenient routing may have added a minute to travel time, it is desirable that passengers can efficiently transfer between train and bus.</p> <p>This is especially important on a zone boundary location since Zone 1 passengers will want to transfer at Laverton rather than Aircraft.</p>
<p>415</p>	<p>Upgrade to minimum hours. Timed to connect with every second train at North Williamstown. Every 40 minutes day, 60 minutes night.</p> <p>In conjunction with 412 provides connection with every train (until 9pm) between Ferguson St Pier and Maddox Rd.</p> <p>Operate via Blyth St Altona to compensate for changes to Route 411.</p>
<p>429 Consider replacing existing route with a local service between Newport Station and Altona Gate via Blackshaws Rd.</p>	<p>Secondary route</p> <p>May through-route with 430 at Altona Gate</p>
<p>430 Consider replacing existing</p>	<p>Secondary route</p>

Route	Reasons and Comments
route with a local service between Yarraville and Altona Gate.	May through-route with 429 at Altona Gate.
432 - abolish	Replaced by 412, 429 and 471
471	<p>Primary route</p> <p>Start in Osborne or Victoria St Williamstown to provide additional link from North Williamstown Station to Douglas Pde.</p> <p>Straightened to operate via Mason St between Newport and Millers Rd.</p> <p>Sunshine end amalgamated with Route 219 extension (via Fairbairn – Wright- Hampshire St). 219 could then be truncated to commence at Sunshine at all times.</p> <p>Consider splitting route: Williamstown – Altona Gate, Altona Gate – Sunshine for better timekeeping and train co-ordination.</p>
472	<p>Primary route from Moonee Ponds to Newport.</p> <p>Not all services need extend to Williamstown (as this area is well served with rail).</p>
NEW ROUTE 454 (extended): Central Square Shopping Centre – Aircraft Station – Maher Rd – Laverton Station - Lohse St – Thomas St – Bladin St – Old Geelong Rd – Fitzgerald Rd – Glengala Rd – Sunshine Station.	<p>Secondary route (future primary)</p> <p>Provides service to expanding industrial area not currently served.</p> <p>Provides a fast link between Sunshine and Laverton.</p> <p>A direct service between Laverton and Central Square (combining with Route 415 to meet every train).</p> <p>It is suggested that the route could be amalgamated with 454.</p>

## Conclusion

Described is an approach with suggested changes that would go a long way to improving public transport service quality and thus patronage in the cities of Hobsons Bay, Maribyrnong, and Moonee Valley. It advocates an integrated network of frequent routes between major trip generators and timetables that mesh with trains. Special attention has been paid in responding to modern travel patterns, such as freer trading hours, the growth of shopping centres and light industrial areas in outer areas.

## **Appendix One: Historical, social and transport overview of Melbourne's inner west**

Suburbs in Melbourne's inner-west range from the nineteenth century centres of Footscray, Moonee Ponds and Williamstown to the modern industrial estates of Laverton North. Most suburbs were developed by the first half of the 20<sup>th</sup> century, though there has since been significant 'infill' residential development as factories and defence facilities closed down or moved. Housing density tends to be highest in the older areas, though not necessarily near railway stations which still show signs of the area's industrial heritage. Postwar areas such as Altona and Laverton tend to be residential around the railway line, with large industrial areas to the north. Shopping is split between old rail-based centres such as Footscray, Moonee Ponds and Sunshine and the newer centres of Altona Gate and Highpoint.

The inner-west is home to a variety of income groups, with it encompassing some of Melbourne's poorest areas (Braybrook, Sunshine, Laverton) and its richest (Williamstown, Moonee Ponds). Parts of the west, such as Yarraville and Altona, have 'gentrified' with property values comparable to many eastern suburbs.

The St Albans/Sunshine/Footscray corridor has long had a large migrant population. The composition of this is continually changing, with refugees from Sudan replacing Vietnamese who in turn replaced Europeans. People from all these groups are heavy users of public transport.

The established parts of the inner-west generally has a pedestrian-friendly urban form, though even here long intervals between traffic lights and a lack of traffic calming can reduce access to otherwise useful bus and tram stops. Unlike the more rapidly settled eastern suburbs, some areas have a discontinuous road network, which can limit possible bus routes. Outer suburbs generally have less correspondence between shopping centres and transport nodes, with some rail-based centres (such as Laverton and Albion) now virtually defunct with newer car-based centres a few kilometres away.

Railways to Broadmeadows, Sydenham, Werribee and Williamstown form the public transport spine of the area, with Footscray being a major junction station. Train services generally run every twenty minutes during the day on all lines, with some stations (eg Sunshine and Moonee Ponds) receiving more trains during peak periods.

Trams serve the area around Moonee Ponds and Footscray. Much like the Footscray tram system of which it is the sole surviving remnant, Route 82 is an 'orphan' route, with operating hours shorter than other trams.

Buses depart from the streets surrounding Footscray Station to all parts of the inner west. Some routes operating along former tram routes at tram-like service levels. Frequent around the clock bus service is most common in the Footscray-Sunshine-Highpoint triangle.

Buses get more patronage in the inner-west than almost anywhere else in Melbourne. This is due to the long hours and high frequency of some routes (particularly in the Footscray triangle), the remoteness of railway stations from the bulk of housing in the suburb (eg Tottenham, West Footscray) and the large population without cars (partly due to service quality, partly due to income).

Elsewhere in the area buses are much more like the rest of Melbourne, though usually more frequent with slightly shorter operating hours. However there is great unevenness of service, with small pockets intensively served (eg west of Newport and Yarraville) and large swathes of employment-intensive industrial areas with very little (eg Laverton North). This may be one reason why inner-west census statistics over the last 20 years show great declines in bus patronage but steady or even growing train patronage for the journey to work as the inner areas deindustrialised and employment patterns changed.

## Appendix Two: Key trip generators

The following are key trip generators and transport nodes in the review area.

- Footscray **B E R S T**
- Moonee Ponds **B E R S T**
- Highpoint SC **B E S T**
- Sunshine **B E R S**
- Altona Gate **B E S**
- St Albans **B E S**
- Williamstown **B E S**
- Footscray – VUT **B E T**
- Footscray Hospital **B E T**
- Altona **B S**
- Central Square SC (Altona Meadows) **B S**
- Newmarket **B S**
- Milleara SC (Avondale Hts) **B S**
- St Albans **B E**
- Sunshine Hospital **B H**
- Newport **B R**
- Laverton & Altona North industrial areas **E**

**B** = bus

**E** = major employment or study location

**H** = health

**R** = railway junction

**S** = shopping or tourist

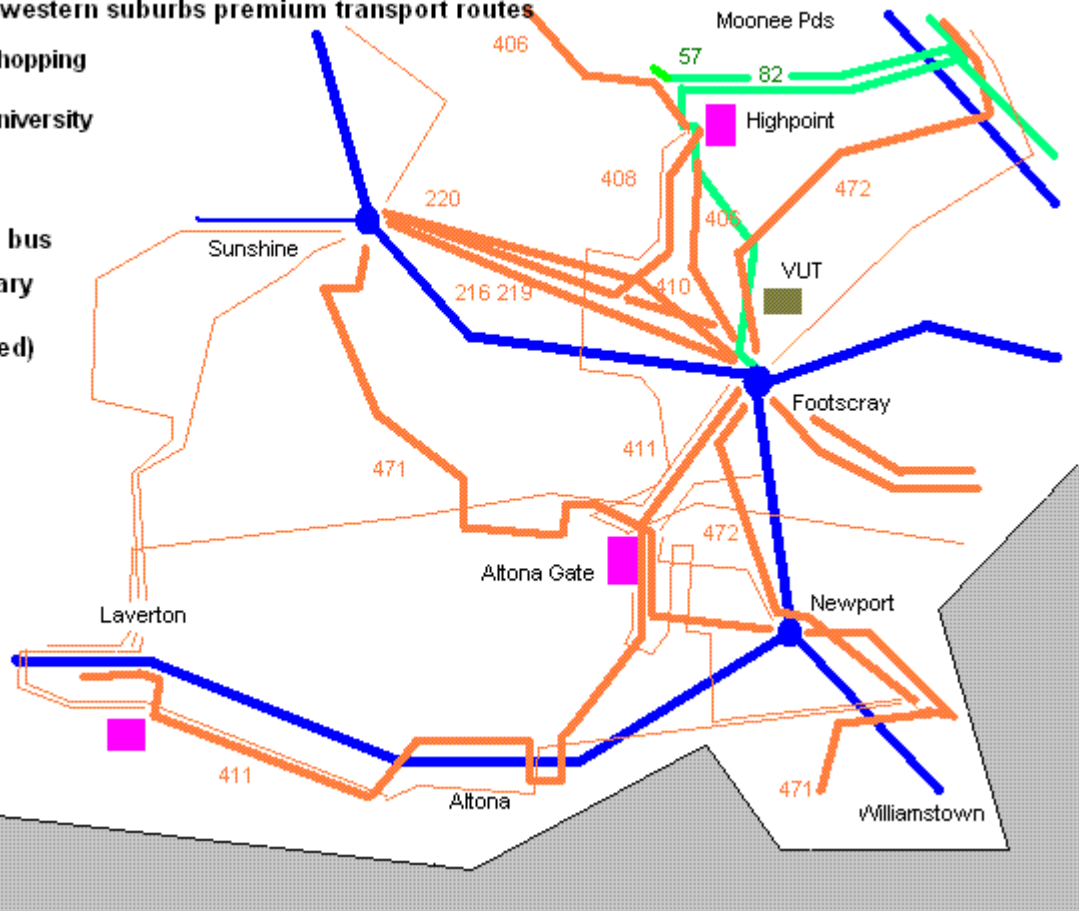
**T** = tram

The above centres should play a key role in the review. In particular, all should be served by frequent 7-day routes from several directions. Though it is neither necessary (nor probably desirable) for there to be direct services from each centre to all others, travel between them should still be possible and practical from early morning to late at night, ideally requiring no more than one transfer.

# Appendix Three

## Proposed inner western suburbs premium transport routes

- Major Shopping
- Major University
- Train
- Tram
- Primary bus
- Secondary bus (not numbered)



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