

23 April 2009

Committee Secretary
Senate Standing Committee on Rural and Regional Affairs and Transport
PO Box 6100
Parliament House
Canberra ACT 2600

Dear Sir,

Thank you for the opportunity to present this submission to the Inquiry into the investment of Commonwealth and State funds in public passenger transport infrastructure and services.

My submission deals only with Melbourne's public transport network.

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1. TRAIN
 - 1.1 CURRENT SITUATION

See Table 1.1.1 for a summary of current train operation through Melbourne CBD.

- 1.1.1 Williamstown Altona and Werribee

Two tracks from Flinders Street to Williamstown and Werribee with a flat junction at Newport. Also a single line from a flat junction at Altona Junction via Altona to Laverton with a crossing loop at Westona and another flat junction at Laverton. The Werribee line is shared with country passenger and freight trains (see 1.1.15 and 1.1.16).

- 1.1.2 Watergardens

Shares Northern Loop with Craigieburn and Upfield lines.

Two tracks to Watergardens. This line is shared with country passenger and freight trains (see 1.1.15 and 1.1.16).

1.1.3 Craigieburn

Shares Northern Loop with Watergardens and Upfield lines.

Two tracks to Craigieburn. This line is shared with country passenger and freight trains (see 1.1.15 and 1.1.16).

1.1.4 Upfield

Shares Northern Loop with Watergardens and Craigieburn lines.

Two tracks to Gowrie then single track to Upfield. This line is shared with country passenger trains through North Melbourne (see 1.1.15).

1.1.5 Epping

Clifton Hill Loop, double track to Keon Park with a flat junction at Clifton Hill to Hurstbridge, then single track to Epping with a crossing loop at Lalor.

1.1.6 Hurstbridge

As per Epping line to Clifton Hill (see 1.1.5), double track to Greensborough with single track through the Heidelberg tunnel and beyond Greensborough with crossing loops at Eltham and Diamond Creek.

1.1.7 Lilydale

Burnley Loop, four tracks to Burnley with a flyover junction to Glen Waverley, three tracks to Box Hill with a flyover junction at Camberwell to Alamein, two tracks to Mooroolbark with a flat junction at Ringwood to Belgrave, then single track.

1.1.8 Belgrave

As per Lilydale line to Ringwood (see 1.1.7), two tracks to Ferntree Gully then single line with crossing loops at Upper Ferntree Gully and Upwey.

1.1.9 Alamein

Two tracks from Flinders Street to Richmond then as per Lilydale line to Camberwell (see 1.1.7), two tracks to Ashburton then single line to Alamein.

1.1.10 Glen Waverley

As per Lilydale line to Burnley (see 1.1.7) then two tracks to Glen Waverley.

1.1.11 Pakenham

Caulfield Loop, four tracks to Caulfield where there is a flat junction to Frankston, then two tracks to Pakenham with a flat junction at Dandenong to Cranbourne.

This line is shared with country passenger and freight trains (see 1.1.15 and 1.1.16).

1.1.12 Cranbourne

As per Pakenham line to Dandenong (see 1.1.11) then single line to Cranbourne with a crossing loop at Lyndbrook.

This line is shared with country passenger and freight trains (see 1.1.15 and 1.1.16).

1.1.13 Frankston

As per Pakenham line to Caulfield (see 1.1.11), three tracks to Moorabbin then two tracks to Frankston.

This line is shared with country freight trains (see 1.1.16).

1.1.14 Sandringham

Two tracks from Flinders Street to Sandringham.

1.1.15 Country Passenger Trains

Country passenger trains share tracks with suburban trains from Werribee, Watergardens, Craigieburn and Pakenham to Southern Cross.

Standard gauge passenger trains are not included.

1.1.16 Country Freight Trains

There are independent freight lines from Newport and Sunshine to Southern Cross and from Broadmeadows to Albion.

Country freight trains share tracks with suburban and country passenger trains from Werribee, Watergardens, Craigieburn and Pakenham. They also share tracks with suburban trains to Frankston.

Standard gauge freight trains are not included.

1.1.17 Summary

TABLE 1.1.1

CURRENT TRAIN OPERATION THROUGH MELBOURNE CBD							
REF.	LINE	NORTH MELBOURNE PLATFORMS	SOUTHERN CROSS PLATFORMS	VIADUCT TRACKS	FLINDERS STREET PLATFORMS	MELBOURNE CENTRAL PLATFORMS	RICHMOND PLATFORMS
1.1.1	WILLIAMSTOWN ALTONA & WERRIBEE	5 & 6	13 & 14	SOUTH PAIR	10	n/a	n/a
1.1.2 1.1.3 1.1.4	WATERGARDENS CRAIGIEBURN & UPFIELD	1, 2, 3 & 4	11	NORTHERN LOOP	4 & 5	3	n/a
1.1.5 1.1.6	EPPING & HURSTBRIDGE	n/a	9	CLIFTON HILL LOOP	1	1	n/a
1.1.7 1.1.8 1.1.10	LILYDALE BELGRAVE & GLEN WAVERLEY	n/a	10	BURNLEY LOOP	2 & 3	4	7, 8, 9 & 10
1.1.9	ALAMEIN & BLACKBURN	n/a	n/a	n/a	6	n/a	7 & 10
1.1.11 1.1.12 1.1.13	PAKENHAM CRANBOURNE & FRANKSTON	n/a	12	CAULFIELD LOOP	7, 8 & 9	2	3, 4, 5 & 6
1.1.14	SANDRINGHAM	n/a	n/a	n/a	12 & 13	n/a	1 & 2
1.1.15	COUNTRY PASSENGER	1, 2, 3, 4, 5 & 6	1, 2, 3, 4, 5, 6, 7, 8, 13 & 14	SOUTH PAIR	8 & 9	n/a	3, 4, 5 & 6
1.1.15	COUNTRY FREIGHT	n/a	n/a	SOUTH PAIR	9A	n/a	3, 4, 5 & 6

1.2 MAXIMISING CAPACITY WITHOUT INFRASTRUCTURE CHANGES

Introduction of some through operation of trains across the CBD will reduce delays caused at Flinders Street.

See Table 1.2.1 for a summary of the proposed train operation through Melbourne CBD maximising capacity without infrastructure changes.

1.2.1 Williamstown Altona and Werribee to Frankston

Trains travel between North Melbourne and Richmond via Flinders Street and on the south tracks between Richmond and Caulfield. This eliminates Caulfield as a flat junction.

During peak times, Werribee trains run express between Laverton and North Melbourne stopping only at Newport and Footscray. Similarly, Frankston trains run express between South Yarra

and Moorabbin stopping only at Caulfield. Local trains stop all stations between Williamstown/Laverton via Altona and Moorabbin.

1.2.2 Watergardens

Trains travel anti-clockwise around Northern Loop, otherwise no change (see 1.1.2).

1.2.3 Craigieburn

Trains travel anti-clockwise around Northern Loop, otherwise no change (see 1.1.3).

1.2.4 Upfield

Trains travel anti-clockwise around Northern Loop, otherwise no change (see 1.1.4).

1.2.5 Epping and Hurstbridge

Trains travel clockwise around Clifton Hill Loop.

Epping trains travel express between Jolimont and North Richmond and Hurstbridge trains travel express between North Richmond and Clifton Hill.

1.2.6 Lilydale and Belgrave

Trains travel anti-clockwise around Burnley Loop.

Lilydale trains travel express between Box Hill and Nunawading and Belgrave trains travel express between Nunawading and Ringwood. If local trains travel to/from Ringwood, Belgrave and Lilydale trains travel express between Box Hill and Ringwood.

During peak times Lilydale and Belgrave trains travel express between Richmond and Box Hill stopping only at Glenferrie and Camberwell. Alamein and Box Hill trains stop all stations and travel direct between Flinders Street and Richmond.

1.2.7 Alamein and Blackburn

No change with Alamein trains (see 1.1.9) and Blackburn locals terminate at Box Hill.

1.2.8 Glen Waverley

Trains travel anti-clockwise around Burnley Loop otherwise no change (see 1.1.10).

1.2.9 Pakenham and Cranbourne

Trains travel clockwise around Caulfield Loop.

Trains travel on the north tracks between South Yarra and Caulfield. This eliminates Caulfield as a flat junction (see 1.2.1). At all times, all trains travel express between South Yarra and Caulfield.

Pakenham trains travel express between South Yarra and Caulfield and Clayton and Dandenong. Cranbourne trains travel express between South Yarra and Clayton stopping only at Caulfield.

1.2.10 Sandringham

No change (see 1.1.14).

1.2.11 Country Passenger Trains

No change (see 1.1.15).

1.2.12 Country Freight Trains

No change (see 1.1.16).

1.2.13 Stations

The three underground stations would have the upper two platforms with trains running from west to east (clockwise) and the two lower platforms with trains running from east to west (anti-clockwise).

1.2.13 Summary

TABLE 1.2.1

PROPOSED TRAIN OPERATION THROUGH MELBOURNE CBD MAXIMISING CAPACITY WITHOUT INFRASTRUCTURE CHANGES							
REF.	LINE	NORTH MELBOURNE PLATFORMS	SOUTHERN CROSS PLATFORMS	VIADUCT TRACKS	FLINDERS STREET PLATFORMS	MELBOURNE CENTRAL PLATFORMS	RICHMOND PLATFORMS
1.2.1	WILLIAMSTOWN WERRIBEE & LAVERTON – FRANKSTON	5 & 6	13 & 14	SOUTH PAIR	8 & 9	n/a	3 & 4
1.2.2 1.2.3 1.2.4	WATERGARDENS CRAIGIEBURN & UPFIELD	1, 2, 3 & 4	11	NORTHERN LOOP	4 & 5	3	n/a
1.2.5	HURSTBRIDGE & EPPING	n/a	9	CLIFTON HILL LOOP	1	1	n/a
1.2.6 1.2.8	LILYDALE BELGRAVE & GLEN WAVERLEY	n/a	10	BURNLEY LOOP	2 & 3	4	8 & 9
1.2.7	ALAMEIN & BLACKBURN	n/a	n/a	n/a	6	n/a	7 & 10
1.2.9	PAKENHAM & CRANBOURNE	n/a	12	CAULFIELD LOOP	7	2	5 & 6
1.2.10	SANDRINGHAM	n/a	n/a	n/a	12 & 13	n/a	1 & 2
1.2.11	COUNTRY PASSENGER	1, 2, 3, 4, 5 & 6	1, 2, 3, 4, 5, 6, 7, 8, 13 & 14	SOUTH PAIR	10	n/a	3, 4, 5 & 6
1.2.12	COUNTRY FREIGHT	n/a	n/a	SOUTH PAIR	9A	n/a	3, 4, 5 & 6

1.3 INCREASING CAPACITY WITH INFRASTRUCTURE CHANGES

Introduction of through operation of all trains across the CBD will further reduce delays caused at Flinders Street. Also, duplicating all single line tracks (see 1.1) and replacing each flat junction with a flyover or duckunder will reduce congestion.

Across the south side of the Melbourne CBD there are six tracks and across the north side there are four tracks.

As four of the south-side tracks connect with the north-side tracks to form the City Loop, there are in effect only six tracks available across the CBD.

As all train traffic is squeezed onto six tracks through the CBD, an increase in capacity would be beneficial and an increase to a maximum of ten tracks may be achieved by having the north-side tracks through Melbourne Central connected to both North Melbourne and Richmond.

To obtain this increase in capacity through the CBD a change from current train operation is required as well as infrastructure changes to make it achievable.

Build flying junctions on the CBD side of Richmond to allow interchangeability between tracks either side of the flying junctions and re-configure the west side of North Melbourne to give similar results.

See Table 1.3.1 for a summary of the proposed train operation through Melbourne CBD increasing capacity with infrastructure changes.

1.3.1 Williamstown Altona and Werribee to Frankston

- (a) Build a flyover at Laverton with the Werribee bound track passing over the Altona Line and the Altona line terminating at a double sided platform between the two Werribee line platforms.
- (b) Build a flyover at Altona Junction with the Werribee bound track passing over the Altona Line.
- (c) Re-locate Newport station towards Melbourne with the Werribee line passing under the Williamstown line. Also, lowering Newport station will eliminate two existing road overpasses.
- (d) Build an electrified single track from South Kensington up the hill to the top of the existing flyover at North Melbourne.
- (e) Build a flyover between North Melbourne and Southern Cross to allow country passenger trains to gain access from the west side of North Melbourne to Southern Cross.
- (f) Build a flyover at Richmond from Platform No.3 to the south side of the Sandringham tracks similar to the existing flyover from Platform No.10 to enable westbound Frankston line trains to cross the Sandringham line without conflicts in train movement.
- (g) Increase curve radii on the south tracks between South Yarra and Malvern to improve speeds.
- (h) Extend third track from Moorabbin to a new station at Southland.

1.3.2 Watergardens to Pakenham and Cranbourne

- (a) Build a tunnel from North Melbourne Platform 4 to Flagstaff Platform 2.
- (b) Build a tunnel from Parliament Platform 3 to Richmond Platform 5.
- (c) Increase curve radii on the north tracks between South Yarra and Malvern to improve speeds.

1.3.3 Craigieburn to Sandringham

Build a flyover between North Melbourne and Southern Cross (see 1.3.1(e)) and at Richmond (see 1.3.1(f)).

1.3.4 Upfield to Glen Waverley

Build a flyover between North Melbourne and Southern Cross (see 1.3.1(e)).

Trains travel between North Melbourne and Richmond via Flinders Street sharing with Alamein and Box Hill trains (see 1.3.6) and country passenger trains (see 1.3.7).

1.3.5 Epping and Hurstbridge to Lilydale and Belgrave

- (a) Build a new tunnel from Parliament Platform 1 to Richmond Platform 9.
- (b) Build a flyover on the CBD side of Clifton Hill.
- (c) Build a fourth track between Burnley and Camberwell.

1.3.6 Alamein and Box Hill

Extension of the Alamein line to Oakleigh will help relieve the capacity problem on the Dandenong line. This section of line was closed over a century ago but the new line via Chadstone should be in a tunnel.

Blackburn local trains to be cut back to Box Hill and re-build the Camberwell flyover to allow local trains to use the centre track to Box Hill so opposing moves are eliminated. The centre platform at Box Hill to be double-sided as at Laverton (see 1.3.1(a)).

1.3.7 Country Passenger Trains

Wherever possible, country trains should travel on their own tracks or share with express suburban trains.

Country passenger trains travel on their own tracks from Sunshine through the Bunbury Street tunnel to North Melbourne platforms 7 & 8, then under the suburban tracks (see 1.3.1(e) to Southern Cross.

North East country passenger trains travel through North Melbourne platforms 1 & 2 sharing with Upfield trains.

1.3.8 Country Freight Trains

As the Bunbury Street tunnel does not have sufficient height clearance for double stack container trains from Swanson Dock, build a bridge over the Maribyrnong River at South Dynon and a tunnel from there to West Footscray.

1.3.9 Stations

Station alterations need to occur and/or new stations built to maximise efficiency of the proposed operations.

Sunshine will need re-building to better serve the proposed extra trains utilising flyovers and duckunders on the CBD side of the station. Also, lowering Sunshine station will eliminate an existing road overpass.

North Melbourne needs two more platforms to be built to handle the extra trains.

Southern Cross needs Platform 15 and 16 to be completed.

Aquarium is a new station on the south tracks of the viaduct over King Street served by Werribee and Williamstown line trains.

Flinders Street needs Platform 11 to be reopened and restored to through operation.

Melbourne Park is a new station located near the Melbourne Cricket Ground served by Sandringham line trains.

Richmond will need a new concourse under the middle of the platforms east of Punt Road making it more suitable for interchange traffic.

Camberwell and Ringwood will each need two island platforms.

East Malvern to have new platforms to serve the extended Alamein line with interchange capabilities with the Glen Waverley line.

Chadstone is a new underground station.

Oakleigh will need platform alterations to allow Alamein line trains to reverse.

Southland is a new station to allow the third track to be extended from Moorabbin (see 1.3.1(h) with local trains terminating in the double-sided centre platform as at Laverton (see 1.3.1(a)).

1.3.10 Summary

TABLE 1.3.1

PROPOSED TRAIN OPERATION THROUGH MELBOURNE CBD INCREASING CAPACITY WITH INFRASTRUCTURE CHANGES							
REF.	LINE	NORTH MELBOURNE PLATFORMS	SOUTHERN CROSS PLATFORMS	VIADUCT TRACKS	FLINDERS STREET PLATFORMS	MELBOURNE CENTRAL PLATFORMS	RICHMOND PLATFORMS
1.3.1	WILLIAMSTOWN ALTONA & WERRIBEE – FRANKSTON	5 & 8	13 & 16	SOUTH PAIR	8 & 11	n/a	3 & 4
1.3.2	WATERGARDENS – PAKENHAM & CRANBOURNE	3 & 4	n/a	n/a	n/a	2 & 3	5 & 6
1.3.3	CRAIGIEBURN – SANDRINGHAM	6 & 7	13 & 16	SOUTH PAIR	9 & 10	n/a	1 & 2
1.3.4	UPFIELD – GLEN WAVERLEY	1 & 2	11 & 12	MIDDLE PAIR	4 & 7	n/a	7 & 10
1.3.5	EPPING & HURSTBRIDGE – LILYDALE & BELGRAVE	n/a	9 & 10	NORTH PAIR	1, 2 & 3	1 & 4	8 & 9
1.3.6	BOX HILL & ALAMEIN	n/a	n/a	n/a	5 & 6	n/a	7 & 10
1.3.7	COUNTRY PASSENGER	1, 2, 5 & 8	1, 2, 3, 4, 5, 6, 7, 8, 14 & 15	SOUTH PAIR	8 & 11	n/a	5 & 6
1.3.8	COUNTRY FREIGHT	n/a	n/a	SOUTH PAIR	9A	n/a	5 & 6

1.4 NEW LINES

The most efficient form of public transport in Melbourne is the train. Therefore the public transport network should be based on the train with new lines opened to give reasonable access to as many Melburnians as possible. Flyovers and duckunders should be constructed to eliminate conflicting moves at flat junctions.

See Appendix ‘A’ for a description of the proposed train routes.

See Appendix ‘B’ for the Train Plan

See Table 1.4.1 for a summary of proposed train operation through Melbourne CBD Ultimate Network.

- 1.4.1 R1 Williamstown to Frankston via Greensborough
- 1.4.2 R2 Laverton to Lilydale/Healesville/Warburton
- 1.4.3 R3 Drysdale to Portsea
- 1.4.4 R4 Marshall to Warragul via Sunshine
- 1.4.5 R5 Staughton Vale to Lang Lang via Chadstone
- 1.4.6 R6 Bacchus Marsh to Belgrave
- 1.4.7 R7 Kyneton to Cardinia
- 1.4.8 R8 Sunbury to Emerald via Airport
- 1.4.9 R9 Oaklands Park to Southland
- 1.4.10 R10 Wallan to Stony Point/Flinders

1.4.11 R11 Craigieburn to Beaconsfield Upper

1.4.12 R12 Woodstock to Lang Lang

1.4.13 R13 Whittlesea to Hurstbridge

1.4.14 R14 Spotswood to Science Museum

1.4.15 Country Passenger

1.4.16 Country Freight as before (see 1.1.16) except freight bound for south of Frankston travels to Yarraman then a new line to Langwarrin using R12 through Bangholme.

1.4.17 Stations

North Melbourne needs a total of twelve platforms to handle the extra trains.

Flinders Street needs two new underground platforms to handle the new north-south lines.

1.4.18 Summary

TABLE 1.4.1

PROPOSED TRAIN OPERATION THROUGH MELBOURNE CBD							
ULTIMATE NETWORK							
REF.	LINE	NORTH MELBOURNE PLATFORMS	SOUTHERN CROSS PLATFORMS	VIADUCT TRACKS	FLINDERS STREET PLATFORMS	MELBOURNE CENTRAL PLATFORMS	RICHMOND PLATFORMS
1.4.1	WILLIAMSTOWN – FRANKSTON	n/a	n/a	n/a	n/a	n/a	n/a
1.4.2	LAVERTON – LILYDALE HEALESVILLE & WARBURTON	5 & 8	n/a	n/a	n/a	1 & 4	7 & 9
1.4.3	DRYSDALE – PORTSEA	5 & 8	n/a	n/a	n/a	1 & 4	7 & 9
1.4.4	MARSHALL – WARRAGUL	10 & 11	12 & 13	MIDDLE PAIR	5 & 9	n/a	3 & 4
1.4.5	STAUGHTON VALE – LANG LANG	9 & 12	n/a	n/a	n/a	2 & 3	6 & 8
1.4.6	BACCHUS MARSH – BELGRAVE	10 & 11	n/a	n/a	n/a	2 & 3	6 & 8
1.4.7	KYNETON – CARDINIA	3 & 4	11 & 14	MIDDLE PAIR	4 & 8	n/a	5 & 10
1.4.8	SUNBURY – EMERALD	6 & 7	15 & 16	SOUTH PAIR	10 & 11	n/a	1 & 2
1.4.9	OAKLANDS PARK – SOUTHLAND	6 & 7	15 & 16	SOUTH PAIR	10 & 11	n/a	1 & 2
1.4.10	WALLAN – STONY POINT & FLINDERS	n/a	n/a	n/a	15 & 16	n/a	n/a
1.4.11	CRAIGIEBURN – BEACONSFIELD UPPER	n/a	n/a	n/a	15 & 16	n/a	n/a
1.4.12	WOODSTOCK – LANG LANG	n/a	9 & 10	NORTH PAIR	1, 2 & 3	n/a	n/a
1.4.13	WHITTLESEA – HURSTBRIDGE	n/a	9 & 10	NORTH PAIR	1, 2 & 3	n/a	n/a
1.4.14	SPOTSWOOD – SCIENCE MUSEUM	n/a	n/a	n/a	n/a	n/a	n/a
1.4.15	COUNTRY PASSENGER	1, 2, 9 & 12	1, 2, 3, 4, 5, 6, 7, 8, 12 & 13	MIDDLE PAIR	6 & 7	n/a	3 & 4
1.4.16	COUNTRY FREIGHT	n/a	n/a	SOUTH PAIR	9A	n/a	3 & 4

2. TRAM

2.1 UPGRADE EXISTING ROUTE STRUCTURE

The tram network should be consolidated as too many tram routes do not have a traffic generator such as a railway station or shopping centre at the outer terminus.

Also, there are too many tram routes in Swanston Street and some of these should be diverted to other streets in the CBD.

See Appendix 'C' for the Tram and Ferry Plan.

A summary of tram routes and extensions are as follows:

- 2.1.1 1 South Melbourne Beach – East Coburg no change
- 2.1.2 3 Melbourne University – East Malvern to become Exhibition – Bourke Street – St.Kilda – East Malvern - Chadstone
- 2.1.3 5 Melbourne University – Malvern to become Northland – Swanston Street – Malvern – Darling
- 2.1.4 6 Melbourne University – Glen Iris to become Doncaster – Box Hill – Swanston Street – Glen Iris – Ashburton
- 2.1.5 8 Moreland – Toorak to be replaced (see 2.1.10)
- 2.1.6 19 CBD – North Coburg to become Garden City – Elizabeth Street – North Coburg – Reservoir
- 2.1.7 30 Docklands – East Melbourne to become Docklands – La Trobe Street – North Richmond
- 2.1.8 48 Docklands – North Balwyn to become Docklands – Flinders Street – North Balwyn – Doncaster
- 2.1.9 55 West Coburg – Domain to become Gowrie – William Street – South Yarra
- 2.1.10 57 CBD – West Maribyrnong to become Avondale Heights – West Maribyrnong – Elizabeth Street – Toorak – Wantirna South
- 2.1.11 59 CBD – Airport West to become Port Melbourne – Elizabeth Street – Airport West – Keilor Park
- 2.1.12 64 Melbourne University – East Brighton to become Exhibition – Bourke Street – St.Kilda – East Brighton – Southland
- 2.1.13 67 Melbourne University – Carnegie to become Doncaster – Belmore Road – Swanston Street – Carnegie – Oakleigh
- 2.1.14 69 Melbourne University – Kew via St.Kilda no change
- 2.1.15 70 Docklands – Wattle Park to become Docklands – Flinders Street – Wattle Park – Doncaster
- 2.1.16 72 Melbourne University – Camberwell to become Caulfield – Camberwell – Kew – Swanston Street – Camberwell – Heidelberg
- 2.1.17 75 CBD – Vermont South to become North Melbourne – Flinders Street – Camberwell – Hartwell
- 2.1.18 78/79 North Richmond – Prahran/St.Kilda to become North Richmond Railway – Prahran/St.Kilda
- 2.1.19 82 Footscray – Moonee Ponds to become Footscray – Moonee Ponds – Heidelberg
- 2.1.20 86 Docklands – Bundoora to become North Melbourne – Collins Street – Bundoora
- 2.1.21 96 St.Kilda – East Brunswick to become Brighton Beach – St.Kilda – Bourke Street – East Brunswick – West Preston – Reservoir
- 2.1.22 109 Port Melbourne – Box Hill to become West End – Collins Street – Barkers Road – Camberwell
- 2.1.23 112 St.Kilda – West Preston to become St.Kilda – Collins Street – St.Georges Road – Bell

With the above, concentration of tram routes has been evened out as Swanston Street has been reduced to six routes with three each in Elizabeth, Flinders, Collins and Bourke Streets, one each in William and La Trobe Streets and the City Circle.

2.2 NEW LINES

- 2.2.1 Victoria Market – William Street – Southbank Boulevard – National Gallery of Victoria (business hours only)
- 2.2.2 Port Melbourne to St.Kilda tourist tram
- 2.2.3 Batman Avenue – Exhibition Street – Exhibition Tourist cable tram

2.3 EMERGENCY ROUTES THROUGH CBD

To allow trams to still operate when CBD streets are closed to traffic, extra curves at intersections need to be installed. The most important would be when Swanston Street is closed with a left turn from St.Kilda Road into Southbank Boulevard, right turn into Queensbridge Street (see 2.2.1), right turn into Flinders Street and left turn into Elizabeth Street (see 2.1.6, 2.1.10 and 2.1.11), right turn into La Trobe Street and left turn on existing curves into Swanston Street. Similarly when other CBD streets are closed.

3. BUS

Buses suffer from the wandering minstrel syndrome. I.e., they do not travel in as straight a line as possible but tend to wander all over the place. An example is Route 737 which has some trips during the day travelling via Terama Crescent in Bayswater which shows no extra running time added to the timetable for the diversion. If, for example, there are ten passengers on the bus and only one boards/alights in Terama Crescent, that means ninety per cent of the passengers have their journey time increased. The Terama Crescent person could walk to the main road bus stop in less than the total time of the other nine passengers.

Bus routes should be based on current main roads wherever possible and generally travel in a straight line with an emphasis placed on interchange.

See Appendix 'D' for a Bus Plan for the municipalities of Manningham, Whitehorse and Monash.

4. FERRY

Melbourne does not have an abundance of navigable waterways but a ferry from Melbourne CBD to Williamstown is a suggestion.

See Appendix 'C' for the Tram and Ferry Plan

5. CONCLUSION

If Melbourne is to grow it requires a superior public transport network which is better than the current spaghetti bowl of individual routes all trying to be all things to all people.

Yours Sincerely

Glen Mills