

Improve Sydney Public Transport (ISPUT)

Improve Sydney and Rural Railways (IMSARR)

EXPANSION AND UPGRADE

OF THE

SYDNEY METROPOLITAN

AND

REGIONAL AND RURAL NEW SOUTH WALES

RAILWAYS

CONCISE OVERVIEW

September 30, 2009.

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This Concise Overview report gives provides for a future plan that should be read with the detailed Overview. These railway plans were produced originally in **January 2001 at which time** I produced a comprehensive plan to expand the Sydney Metropolitan Railways.

The '*Long-Term strategic plan for rail*', overview report for the greater Sydney metropolitan region was produced in **June 2001**, of which I received a copy. These plans which have been updated were for **heavy rail**.

The idea of Metro rail was **not** evident at face value to me as contained in that report, as produced by the state government. The notion of Metro Rail was intended to be kept a secret until such time as what was intended to be done with the future of the heavy rail network.

Importantly, my proposals **DO NOT** need to sell off the electricity grid in order to finance their construction. Also more than one new rail line should be under construction at the same time.

My plans contain a 4 point funding formula and our railways will remain in public ownership.

Key priorities are:

- Extend the light rail from Central-Circular Quay & Lilyfield-Dulwich Hill.
- Any other light rail lines should form part of an extended network and not in isolation.
- Connect Parramatta to the Carlingford line and extend to Epping.
- Duplicate the Richmond line.
- Electrify every railway line.

Construction of new, or extension to existing rail lines are as follows:

SYDNEY METROPOLITAN LINES:

Bankstown Line Extension:

Linking Bankstown airport and Green valley, provides residents with an improved link to the Sydney CBD.

Bradfield Line:

The current city lines are at capacity. A new city Railway is long overdue.

Brookvale Line:

This new line will connect Brookvale with the Sydney CBD and Narrabeen and enable Commuters to change trains for Chatswood and Hornsby at Wheeler Heights.

Campbelltown Line:

Connecting St. Mary's with Campbelltown on an above ground line.

Carlingford Line Extension:

Provides trains on the Carlingford line to continue to Liverpool. Leaving the Carlingford line as a single track branch line is an under utilised yet important piece of rail infrastructure.

Cronulla Line Extension:

This will provide the residents of Menai with a railway. As the Cronulla Line is now being duplicated, it would also ease congestion on the Illawarra Line, by linking it to Bankstown.

Eastern Suburbs line Extension:

Linking Bondi Junction to Green Square will provide Randwick & UNSW with a much needed railway.

East Hills Line Extension:

This extension will allow for the increasing demand of the residents of the south-west with better access to the Sydney CBD.

Eastwood Line:

Running under Victoria Road, emerging at White Bay, proceeding across the **OLD GLEBE ISLAND ROAD BRIDGE** and connect to the North Shore line Extension.

Ermington Line:

The Ermington Line commences from the Western Line at West Mead and intersects with the Carlingford Line whereby it proceeds on the old goods line corridor and continues in an easterly direction towards West Ryde Top Ryde and joins the Eastwood Line at Quarry Road. This line will ease congestion on the Western Line.

Hills Line:

While the Eastwood Line is under construction, it would proceed to Castle Hill, Kellyville, Parklea and end at Erskine Park.

Lower Blue Mountains Line:

It would ease congestion on the narrow, windy western line at Glenbrook. The line would commence at Mt. Victoria and connect via a high viaduct with the Richmond Line. This line would become a major tourist attraction with clear top carriages similar to that of the Canadian Rockies train.

Macarthur Line:

Linking Macarthur with Parramatta, trains could then proceed onto the Carlingford line to Epping and the Sydney CBD. This would ease congestion on the East Hills Line and reduce travel times to the Sydney CBD.

North Shore Line Extension:

Another harbour rail crossing is required, particularly when the Epping to Chatswood line opens.

North Western Line:

Allows Hornsby to be linked across to Riverstone and beyond to St. Marys. This will add a much needed boost to public transport users in this heavily populated area of Sydney.

Northern Beaches Line:

The construction of a Northern Beaches Line is long overdue. Long suffering residents are due for a decent transport option.

Northern Line Extension:

Extend above and below ground the Northern Line to Hurstville. This will ease traffic congestion on **METROAD 3**.

Princes Line:

Utilising an above and below ground route from Sydney and Green Square to Wollongong. This would ease congestion on the Illawarra line, and reduce travel times to Wollongong for commuters.

Richmond Line Extension:

The Richmond Line at Blacktown would go underground, emerging at Villawood. This would ease congestion on the western line and improve services on the Richmond line.

South Eastern Line:

Connecting the Eastern Suburbs line with the Bankstown line via some of Sydney's favourite tourist destinations and easing pressure, improving reliability and frequency of the Illawarra line.

Winston Hills Line:

Linking Parramatta to Riverstone provides the residents of Baulkham Hills with a railway.

REGIONAL LINES:

Armidale Line Extension:

Tenterfield and Raymond Terrace will be connected via a new straight alignment which will significantly boost tourism for Northern New South Wales.

Broken Hill Line:

In addition to the Western Line this new line will enable trains to operate from the South Australian border and continue into Queensland.

Central Coast Line:

Commencing from Newcastle this line will join at Woy Woy onto a new line that links to Chatswood via the Northern Beaches Line.

Central Western Line:

This line will open up the central west of New South Wales and give the residents of Bourke and Broken Hill easy access to Canberra.

Cessnock Line:

Cessnock will see a restoration of passenger services that commences from Newcastle and proceeds via Kurri Kurri and Maitland and extends to Cowan whereby it joins with the Northern Line. The line will be a dual track, electrified line that also ensures that coal train movements are uninterrupted.

Grenfell Line:

Commencing at Albury this line will proceed to Narrabri and head east towards Raymond Terrace.

Hunter Line:

The Hunter Line continues to operate from Newcastle and includes the fast growing region of the Hunter such as Aberglassyn.

Illawarra Line Extension:

The Illawarra Line will extend from Nowra and continue onto Batemans Bay and then in a direct line to Canberra.

Narromine Line:

Commencing at Broken Hill the Narromine line proceeds east on a new rail corridor to Dubbo and continues to Sydney via the Lower Blue Mountains, Richmond and Bankstown lines.

Newcastle Line:

Originating from Newcastle this line would operate along both the former Belmont and Toronto corridors and continue to Warnervale whereby the line rejoins the Northern Line. The Toronto and Belmont Lines will be joined by a railway bridge across Toronto Bay. The line will cross Swansea Channel via a new road/rail bridge.

Pacific Line:

The Pacific Line heads north along the east coast and continues to Brisbane at Tweed Heads and will provide a boost to tourism.

Raymond Terrace Line:

The Raymond Terrace Line runs from Broken Hill to Raymond Terrace and intersects at Mudgee whereby the line proceeds to Albury.

Riverina Line:

The Riverina Line allows trains to operate from South Australia to Victoria via the Riverina district of New South Wales.

South Coast Line:

This new line restores rail services to Cooma and gives the residents of Narooma, Bega and Eden a new transport option.

Southern Line Extension:

The Southern Line will extend from Canberra to Albury thus providing the people of Southern New South Wales better access to either Sydney or Melbourne.

Whitton Line:

The Whitton Line runs through the South and North West of New South Wales and gives the residents of Albury easy access to beautiful Port Macquarie.

The 'Y' Link AND 'DIAMOND' JUNCTION POLICY:

Today's travel patterns have dramatically changed and the need to expand the current rail network is undeniable.

One of the solutions to ease Sydney's chronic Peak Hour traffic congestion and thus encourage the use of public transport is to add 'Y' Links and 'DIAMOND' JUNCTIONS onto the existing lines and incorporate them into new rail lines.

Grade Separations for key rail junctions to improve the operating capacity of existing lines. The benefits of this are:

- Flexible timetabling
- New and innovative services
- Increased patronage on existing lines

Easy Access Policy

Railway stations need to continue to be upgraded to ensure all commuters can access the station. As the population continues to age, the need for lifts, escalators and pedestrian bridges is long overdue.

Some of the stations that require upgrades are:

- Marrickville
- Newtown
- Redfern
- Cardiff
- Willow Tree

The Easy Access Policy also relates to stations with short platforms. There are many stations that have had short platforms for many years, however with an increasing demand and use of the railways the time has come to lengthen platforms at every station so trains can accommodate an 8 car set.

Among the lines with short platform stations are as follows:

- Blue Mountains
- Central Coast
- Hunter
- South Coast
- Southern Highlands

Financing

1. Federal Govt. Funding: The commonwealth constitution provides for the construction of railways.
2. State Govt. Funding: Every government department **EXCEPT HEALTH** would have their budgets cut by **10%** for **Four years** to pay for new railway lines. When costing of Capital works is undertaken all stages and reports that are required will be produced in the one report thus reducing the overall cost of the project.
3. Private Consortium Involvement: Enables new railway lines to be built years ahead that is normally possible.
4. Railway Bonds: These are the same as government bonds. Railway bonds would have the guarantee of the NSW Treasury.

Construction:

1. The period of time to construct new railway lines would be a 30 year period.
2. There would be three lines under construction at the same time.
3. New railway lines would incorporate sewerage and drainage pipes, Pay TV and electricity cables.

Minister of Railways:

- With a comprehensive Rail expansion programme over the next 30 years, there will be a need to have a Minister for Railways at the Cabinet Table as well as a Minister for Transport.
- The Minister would have a single Department which would incorporate the Transport Infrastructure Development Corporation.

Legislation:

1. Railway Construction Act
2. Railway (Land development) Provision Act
3. Transport Timetable Co-ordination Act.
4. Transport Zonal Ticketing Co-ordination Act
5. Transport Zonal (Operations) Dissolution Act
6. Transport Zonal (Ticketing) Dissolution Act
7. Transport Zonal Multi Use (Ticketing) Act

Service Scheduling:

Service Scheduling:

The travelling public should be able to go to their railway station and to catch a train without having to wait an inordinately long period of time for it to arrive. In Switzerland there is a saying that 'people set their time by the time that trains arrive.'

If trains operated on the principle that there is no printed timetable and that a train will arrive with a great deal of frequency then this idea will sink into the mind of the public's consciousness that a train will arrive quickly and frequently and within a short timeframe people will use the railways in greater numbers and this will in turn increase the need to build new railway lines.

Timetabling schedules without a printed version will be as follows:

Sydney Metropolitan Lines: 5 minutes in Peak Hour, 15 minutes in Off-Peak & Weekends.
Newcastle & Hunter Lines: 15 minutes in Peak Hour, 15 minutes in Off-Peak & Weekends.
Illawarra Lines: 15 minutes in Peak Hour, 15 minutes in Off-Peak & Weekends.
Country Lines: 30 minutes on every line.

All lines will have express, intermediate and all station services operating.

Timetabling and Ticketing:

New rail lines with 'Y' and 'Diamond' links and rail grade separations are built into the current network so that services can operate more frequently than at present. The abolition of printed timetables will make for a more effective and highly patronised rail network and thus provide for new and innovative services that are currently on offer.

Electronic Ticketing & Internet Sales:

Immediate introduction of an electronic ticketing system for all modes of transport, public and private.

Enable commuters to purchase rail, bus and ferry tickets on the internet. Tickets could still be sold through the usual outlets.

Summary of proposed general rail improvements:

Reconstruction/realignment of:

- Northern Line between Hornsby, Newcastle and Brisbane.
- Northern Line between Woy Woy and Cowan.
- Illawarra Line between Sutherland and Wollongong.
- Southern Line between Macarthur, Goulburn, Canberra, Cooma & Melbourne.
- Western Line between Penrith, Orange and Broken Hill.
- All other lines to key Regional towns throughout New South Wales.

- Quadruple the Northern line between Hornsby & Strathfield.
- Quadruple the North Shore line between Chatswood & North Sydney.
- Quadruple the Southern Line between Macarthur & Granville.
- Quadruple the Illawarra line between Hurstville & Sutherland.
- Quadruple the East Hills line.
- Quadruple the Bankstown line between Birrong & Marrickville.
- Quadruple existing Freight corridors to allow for passenger use.
- Connect Parramatta to the Carlingford line and extend to Epping.
- Duplicate the Richmond line.
- Duplicate every Country line.
- Amplify the Western line between Strathfield & Olympic Park.
- Construction of a Sydney Harbour Rail Tunnel or restore Eastern tracks of the Sydney Harbour Bridge.

- The Northern Line at Epping will be realigned so that the underground platforms contain dive tunnels for the trains to enter and rejoin the surface tracks on the Northern Line thus allowing passengers to board trains to Chatswood and Parramatta easily. These new dive tunnels allows for the unused Platform 4 to be placed into commission.

High Speed Rail Travel:

- Reconstruction and realignment of existing railway lines will enable high speed trains to operate at speeds of 300 km/h.

- High Speed rail travel will not only improve existing service and reliability but encourage business commuters to use rail. Currently passengers who use the airlines are required to take off personal effects such as shoes when going through security screening at airports.

- Despite worldwide terrorism concerns and events rail travel does not have that same security concern. Enforcing the same security demands on rail passengers as those for airline passengers would effectively grind railways to a halt.

- High speed rail travel is very enjoyable and has the benefit of taking passengers into the heart of the central business district. This is in contrast to airlines where airports are located many kilometres outside of a central business district.
- High speed trains such as the Japanese '*bullet*' train that operates at 300 km/h or the '*tilt*' train in Queensland are very successful and popular.
- Existing rail corridors will be duplicated and electrified.

High Rail can operate at speeds of 300 km/h for the following routes:

- Sydney-Melbourne CBD in 4 hours.
- Sydney-Brisbane CBD in 4 hours.
- Sydney-Adelaide CBD in 6 hours.
- Sydney-Perth CBD in 24 hours.
- Sydney-Canberra CBD in 1½ hours.
- Sydney-Newcastle CBD in 1½ hours.
- Sydney- Wollongong CBD in 1½ hours.
- Sydney-Alice Springs CBD in 3 hours.
- Sydney-Darwin CBD in 6 hours.
- Sydney-Broken Hill CBD in 2 hours.
- Sydney-Mt Isa CBD in 4 hours.

Australia is a vast continent. The '*tyranny of distance*' can be overcome and ensure that all the people living throughout regional and rural Australia can access the benefits of the large cities and vice versa.

Train/Tram/Light Rail Coexistence:

Unlike Metro Rail, Heavy Rail and Light Rail and Tramways will coexist throughout New South Wales. Until 1934 the movement of tramcars to the tramway system from the heavy railways occurred at West Ryde. From the Northern Line at West Ryde a single track tramline proceeded from the heavy railway tracks onto Ryedale Road along Victoria Road and Church Street where the line joined the tramway system at Blaxland Road.

This joint use of tracks also occurred at platforms 3 & 4 of Milsons Point railway station until 1958 where the heavy railway lines on the eastern side of the Sydney Harbour Bridge were used by the tramways.

As such the use of heavy railway lines can enable tramcars and light rail vehicles to join streets in suburbs, towns and cities throughout New South Wales.

This multi use of heavy railway lines will allow for the provision of a very frequent service for all communities particularly in regional and rural areas. Where the 'tyranny of distance' forces the permanent isolation of vast numbers of people this multipurpose approach to the use of railway lines will bring people together and in turn revive towns that are currently struggling. Heavy rail, tramways and light rail operate on the same rail gauge and overhead wiring system.

Heavy railway lines operate on a higher voltage than for trams or light rail vehicles. The multiple uses of heavy railway lines will encourage the need to duplicate and quadruple railway lines which will allow for the separation of freight, express and slower passenger services.

New rail depot/maintenance centres:

- Riverstone and Kemps Creek.

The expansion of the rail network will require the construction of new rail Depot/Maintenance Centres at Riverstone and Kemps Creek. Currently Sydney Metropolitan Rail Depots are at Mortdale, Flemington and Hornsby. New stabling facilities would be constructed at Broadmeadow. This would eliminate the need to stable trains on line into the Newcastle CBD.

New Rolling Stock:

- Single deck carriages.
- Multi-directional seating.
- Side of carriage electronic destination signs.
- Wheel chair bays.
- Stainless Steel exteriors
- Air-conditioning
- 8 or 4 car sets
- 3-2 plus aisle seat configuration
- Multi-Directional seating
- Concertina carriage connections
- Luggage Racks
- Japanese style 'bullet train' carriages
- 'Canadian Rockies' style clear top carriages
- New South Wales railway carriage manufacturing industry
- New Sleeper carriages.
- Pay to view video screens
- Restaurant/lounge carriages on every train.

Single Deck carriages have a role to play in our Rail network. Off peak and weekend services would suit single deck carriages.

When the rail network began operating electric rail services in Sydney in 1926, the mass production of single deck red coloured electric trains was undertaken to meet the increased patronage of the railways. The earliest carriages were of timber construction and narrow carriages were merely widened. The 'red rattlers' were relatively cheap to produce and lasted on the network for over 60 years.

The construction of new railway lines in Sydney will ensure that unlike 1995, new rail carriages are built. The Double-Deck trailer carriages and Tanagra's are very good carriages and provide a very reliable and safe journey.

The Olympic Games showed that the downside of Double-Deck carriages is increased loading times at stations. Single-Deck carriages have a faster loading time and thus service frequency can increase.

Having trumpeted the virtues of single or double-deck carriages, when the rail network expands again with the opening of the Epping-Chatswood line, a combination of single and double-deck carriages should be used with a combination of 8 or 4 car sets.

The location of Wheel chair bays on rail carriages is very easy to provide. One of the side facing seat arrangements in the saloon ends of a rail carriage could be removed at one end of an existing carriage or not provided in any new carriages. As well as enabling wheel chair bound commuters to use the rail network; the other advantage to this is the increased standing capacity of the carriages.

Japanese style '*bullet train*' carriages will be built in New South Wales and operate on newly built or realigned railway lines so as to operate at speeds of 300 km/h and provide people with a transport option that in 2009 does not exist.

'*Canadian Rockies*' style clear top carriages will be built in New South Wales and provide people with a travelling experience that allows for tourism to be encouraged.

The New South Wales railway carriage manufacturing industry will be encouraged so as to provide long term employment to people and also boost indirect employment in associated industries. New South Wales will lead the way for other States and Territories throughout Australia to '*buy Australian*'.

New Sleeper carriages built that are of a luxurious nature with beds laid further apart and designed to attract passengers to high speed long distance travel.

Pay to view video screens will be located on the backs of seats for the use of passengers. Security camera surveillance would reduce vandalism in the vicinity of these video screens. Passengers will be able to view the daily news or a G rated movie.

Restaurant/lounge carriages would be included on every train. Passengers will be able to purchase food and beverages and consumed within the same carriage. By utilising a whole carriage passengers can sit and relax on lounge style seating so that the other carriages are maintained in their present format and thus enable laws relating to the consumption of food and beverages on a train remains unaltered.

Restaurant /lounge carriages would be leased to independent operators and would only relate to the provision of food and beverages.

Every railway depot could have a different provider of the food and beverage operation. Ownership of the carriages will remain with RailCorp.

Other key initiatives include:

Railway Archives:

The Railways Archives Office should be adequately funded with the public encouraged to visit. The NSW Government should maintain Railway restoration at the Eveleigh workshops.

Luggage Trolleys:

Luggage Trolleys similar to those at Sydney airport should be provided at large railway stations such as Central and Strathfield.

Regional and Rural railway station improvements:

Parkes, Dubbo, Orange, Yass Junction and Canberra would be upgraded to include additional full length platforms and a station roof to protect passengers from the elements similar to Calais or St. Pancras Railway Stations.

Concrete sleepers:

All new and realigned railway lines will have concrete sleepers so the rails are able to absorb varying weather conditions. Concrete sleepers also have a longer life than timber sleepers.

Multi track rail corridors:

All new and existing railway lines throughout Metropolitan Sydney, Regional and Rural New South Wales will have rail corridors that allow for trains to travel in different directions at the same time. There is almost nowhere that a road is a single lane only and tracks on a railway corridor are like lanes on a road. Single track railway lines will be either duplicated or where necessary quadrupled.

Electrification:

All new and existing railway lines throughout Metropolitan Sydney, Regional and Rural New South Wales will be electrified. The steam age has come and gone and in 2009 the time is suitable to electrify every new or existing railway line. While high speed trains do not necessarily require electrification once a railway line has electrification different trains can operate on any railway line and provide shorter more flexible services. In order to electrify all existing and new multi track rail corridors New South Wales will require additional power generating capacity and this in turn will improve the supply of electricity to the people of New South Wales.

Pipelines:

All new and existing railway lines throughout flood prone areas of Metropolitan Sydney and all Regional and Rural parts of New South Wales will have pipelines built alongside the lines. Floods in Bourke, North Coast, Coffs Harbour in New South Wales, and Queensland in 2009 showed how the large torrents of water could not be channelled to the drought affected areas of New South Wales. The bushfires throughout Victoria in 1983 and 2009 could also have been stopped had pipelines been placed alongside of railway lines. Railway lines could also be built through National Parks and in doing so would create natural fire breaks and allow for regular back burning in National Parks.

Conclusion:

Expanding the current rail network rather than building a new network of metro lines is far more likely to reduce traffic congestion. These plans can be built into an existing network. One large disincentive to people commuting by public transport is because of the need to change to different modes of transport to complete one journey.

Metro rail lines are a separate network and it is likely that they will not achieve the desired outcome sought by the State Government.

If the emphasis is for Metro over the existing Rail Network what do current or future Governments propose we do to it?

Bus Transit ways are limited in their potential as commuters prefer not to use more than one mode of transport where ever possible.

Bus lanes are a limited measure as they still are affected by varying traffic conditions.

An expanded rail network has its own dedicated tracks and can link into the current rail network seamlessly.

New Railway lines will lead to a boom in construction and housing.

Yes, we need to maintain our AAA credit rating however Railway expansion will bring to the State economy investment, employment growth and new Infrastructure.

Expansion of the current rail network is long overdue and cannot be put off if Sydney is not going to come to a standstill.

Commuters will continue to use Public Transport, particularly as petrol reaches \$2.00 or \$2.50 Per Litre soon.

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Source: personal research and information gathered over many years.