



Rail Futures Inc

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Future Proofing Melbourne:

Advocating a Plan for Melbourne that integrates metropolitan land use and transport strategy and ensures a sustainable, resilient, less car dependent city.

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For convenience, the content of the paper is grouped under the following headings:

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This paper has been prepared by Rail Futures Incorporated in the public interest. Rail Futures Inc is an independent non-partisan group formed to advocate cost-effective rail and intermodal solutions for public transport and freight problems based on sound commercial, economic and social reasoning. Rail Futures members include experienced rail professionals, engineers and economists.

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EXECUTIVE SUMMARY

The former Coalition Government's *Plan Melbourne* is currently being reviewed and modified. ***Plan Melbourne contained useful elements, but it failed to adequately address some key issues***, was insufficiently directive, lacked performance measurements, placed too much reliance on market-driven decisions and insufficient emphasis on government leadership, was not integrated with transport planning; and failed to provide effective implementation mechanisms.

This paper outlines important components for a revised metropolitan plan, with particular emphasis on integration of land use and transport, a focus on appropriate provision of rail-based passenger and freight transport, feeder bus services and encouragement of active personal transport – walking and cycling.

Melbourne has reached a critical point in its history. It is undergoing rapid and transformative change from a city of four million towards one of eight million people by 2050. The major arterial roads and freeways are already at or near capacity. They cannot handle further very large increases in travel demand and adding road space simply induces more traffic and congestion. Incremental, uncoordinated, fragmented planning and decision-making and infrastructure implementation cannot properly serve an emerging mega-city.

Without integrated planning, Melbourne will degenerate into dysfunction, with significant and unsustainable economic, social and environmental consequences and loss of international reputation and investment. Instead, the Victorian Government should develop a new strategic plan that progressively re-shapes and re-balances Melbourne's urban form and provides much improved public transport.

The new plan must:

- Embrace a proper role for government intervention to achieve necessary long-term outcomes, including a shift from private car to public transport use;
- Link planning mechanisms such as zoning with strategic aims;
- Connect planning between key sectors such as transport, infrastructure, the environment and land use;
- Contain a bold and visionary approach for new transport infrastructure if Melbourne is to continue to function effectively;
- Provide high quality transport connections to large inner urban brownfield developments and outer urban growth corridors while constraining unsustainable urban fringe development and associated inflated infrastructure costs; and
- Be written in language that makes evaluation possible and contain specific measures of its effectiveness, for example, in relating housing supply to projected demand.

Development of transport infrastructure that prioritises the movement of people rather than vehicles will be a key element of effective transport and land use integration to improve the liveability and sustainability of Melbourne and regional cities and towns as the State moves toward a population of 10 million.

Redevelopment in established city locations, particularly on inner urban brownfield sites (such as Fishermans Bend), activity centres and other infill sites, must be fully integrated with the public transport network before development approvals, and a range of housing choices must be offered across inner, middle-outer ring, and growth corridor spatial areas. The new Melbourne plan should effectively match land supply in these areas to demand. Inner Melbourne, well serviced by public transport and other services, is under increasing development pressure leading to escalating property prices. Height controls and restrictions on site coverage are needed to protect amenity and lessen off-site impacts.

Unconstrained urban fringe development has already led to the transport system operating at or beyond maximum capacity, creating an unsustainable situation in growth areas. This growth comes at an inflated cost for all infrastructure due to low density and Melbourne's sprawl. There are serious transport implications from this dominant model of outer urban development which remains based on low density detached housing, with little variability in poorly serviced car-based suburbs. Most housing is being constructed far from heavy rail, with inadequate bus connections. Separated land uses, such as stand-alone car-based retail stores built on arterial roads rather than on heavy rail locations and the relative lack of local and regional employment have entrenched car dependency, especially for extended journeys to and from workplaces.

Existing rail routes and services are under increasing pressure, car parking at stations is almost unobtainable after 7am on weekdays, major arterial roads are approaching gridlock during extended peak periods and large housing estates in most areas are poorly served by infrequent feeder bus services which cannot function effectively when stuck in long lines of barely moving traffic.

The current and projected increase in population for these areas is already taking them towards dysfunction. This can only be avoided through a radical change in the dominant model. Past planning failures in the outer urban growth corridors that have already led to car dependency and severe road congestion must be addressed as a matter of urgency before the disconnect between residency location and commuting destinations becomes totally dysfunctional.

Government leadership and intervention is needed in activity centre and employment cluster planning if a connected polycentric urban model is to be achieved. Government intervention will be essential to promote the creation of knowledge, business and other service employment in activity centres, even when large amounts of land are available.

An improved legislative framework is needed to implement the necessary policy and institutional instruments, and especially to ensure transport and land use integration is planned and consistently applied in practice. *Plan Melbourne* lacked effective implementation instruments or “tools” and many of the tools that do exist were likely to deliver opposite outcomes to stated intentions. There needs to be a clear relationship between policies and implementation instruments: the new metropolitan plan must establish the principles which guide the direction of instruments such as zones and other planning scheme provisions. These principles should also complement those in the *Transport Integration Act*.

The potential to better connect Melbourne to its expanding regional centres and transfer some growth from the metropolis to these centres should be a high priority. Better utilisation of land could enable population increases in regional centres of up to 100 per cent without expanding town boundaries or diminishing heritage values. Building such connections would require formal adoption of a *network city* model where frequent fast rail services link regional centres with the metropolitan area; and a range of policies to deliver infrastructure and services that promote and induce decentralised city development.

Much of the transport infrastructure needed to meet the challenges of Melbourne’s growth will require investment on an unprecedented scale, a financial challenge that will necessarily involve government at all levels, the private sector (including contributions from value capture) and, almost certainly, an increased contribution from transport users (including road users) who have the capacity to pay.

More effective institutional arrangements will be vital, including genuinely independent infrastructure advisory bodies at State and Commonwealth level, transparent evaluation of project proposals and business cases, far closer coordination between State planning and transport departments and much better processes for wide and authentic community consultation and education.

The revised metropolitan plan must acknowledge that further road network development on almost any scale cannot possibly accommodate future demand for inner area and CBD travel, quite apart from the damaging effects of congested suburban roads on the environment and the city’s livability. Further, there will be a need for selective re-allocation of existing road space for the exclusive use of high capacity public transport vehicles (trams and buses) and provision of safe cycling lanes to increase the utilisation of costly road space on key arterial routes when measured in terms of moving people rather than cars.

A long-term plan based around identifying, delivering and maintaining opportunities for future transport projects is desperately needed to future-proof Melbourne against the combined pressures of population growth, development, climate change and the certainty of having to deal with major unplanned events. Previous transport plans have been weak at identifying a long-term public transport vision. A bold and visionary approach is urgently needed for new transport infrastructure if Melbourne is to continue to function effectively.

To translate these views and important ideas into constructive proposals for incorporation into a revised *Plan Melbourne*, Section 8 of this paper lists 10 recommended actions:

“A 10-Point Plan for Future Proofing Melbourne.”

1. INTRODUCTION AND CONTEXT

Integrating Land Use and Transport Planning

Integrated land use and transport planning is the coordinated allocation of resources to achieve complementary transportation and land use outcomes. Such integration involves mandatory consideration by both land use and transportation decision makers of the reciprocal impacts of their decisions.

Integration requires an agreed set of underlying principles. These are commonly the alignment of transport infrastructure and services with land uses through:

- a) Increased urban densities and mixed uses around public transport and improved public transport infrastructure;
- b) A mode shift in urban transport from private vehicle use to public transport for both mass transit and freight logistics; and
- c) Prioritised spending on public transport over road construction.

Integrating transport and land use planning is essential for successful strategic urban planning and the overall development and liveability of cities. Despite various attempts at such integration, no Victorian Government has ever adopted and successfully implemented a properly integrated plan as a key basis for the city's future. Instead, much planning has been ad hoc, uncoordinated and based primarily on road construction and land use policies which do not support the principle of integration. While the *Transport Integration Act* provides sound transport planning principles, the counterpart land use planning legislation does not provide corresponding and interlocking principles and processes.

Melbourne's Land Use and Transport Disconnect

Melbourne's more recent development has been a contrast between intensive inner urban high-rise and extensive low-density outer urban sprawl. There is a significant disconnect between stated land-use policy, actual development and the planning and delivery of sustainable transport services. For example:

- Large new inner urban brownfield sites are poorly served by public transport.
- Development along tram corridors without implementing corresponding tram priority is placing unplanned pressure on both public transport and road users.
- Inadequate transport services and poor transport connections (both between major employment/activity nodes and in outer suburbs) is leading to high rates of costly private vehicle use and ever increasing congestion.
- Extensive dispersal of retailing to large car-based centres contradicts a land use policy seeking consolidation of urban development in retail centres well served by public transport.

Melbourne has reached a critical point in its history. It is undergoing a transformative shift from a city of four million towards one of eight million people by 2050. Melbourne's major arterial roads and freeways are already at or near practical capacity. How could they handle further very large increases in travel demand when more road capacity simply induces more traffic and more congestion? Incremental, uncoordinated, fragmented decision-making and governance cannot properly serve an emerging mega-city, nor will it result in complementary land use and transport policies and plans.

Without integrated planning, Melbourne will degenerate into dysfunction, with significant and unsustainable economic, social and environmental consequences and loss of international reputation and investment. How to avoid this by developing and implementing a new strategic plan that progressively re-shapes and re-balances Melbourne's urban form and provides much improved public transport is a major challenge that must be addressed by the Victorian Government.

What is Necessary in a Revised Metropolitan Plan?

The Victorian Government is currently revising *Plan Melbourne*. **This revision provides an opportunity to develop an integrated plan to guide the next 50 years of Melbourne's development.**

To be successful, this must be a long-term plan, ideally with some level of bi-partisan political support, involvement of major stakeholders and the broader community. Otherwise, it will fail, as all other plans since the 1980s have failed to survive beyond changes in State administration. It must also be guided by a sustained long-term vision. This vision should be based around a high amenity, effectively functioning, economically prosperous and socially equitable city. These principles are inter-related: for example, high quality expanded public transport is needed for Melbourne to continue to function effectively and this adds to amenity and economic efficiency.

Plan Melbourne outlined many of the challenges facing the city and contained useful information on trends and the scale of projected growth. It purported to be a radical departure from previous plans, but in fact built on much that came before. However, *Plan Melbourne* failed as a strategic document because it:

- assumed the ongoing dominance of market-driven decisions and a facilitative rather than a leadership role for government;
- did not propose adequate implementation mechanisms;
- was often vague;
- accepted decision making silos which will not achieve integration between sectors; and
- it did not provide a viable transport vision to support the changes in population, density and land uses.

The new plan must embrace a proper role for government intervention to achieve necessary long-term outcomes, including a shift from private vehicle to public transport use. It must link planning mechanisms such as zoning with strategic aims, and connect planning between key sectors such as transport, infrastructure, environmental performance and land use. It must be bold and the government must provide firm leadership.

Ultimately, it must link spatial and transport planning by planning a new city model both for new development and redevelopment areas. This should include:

- Dense low-to-medium rise housing connected to high quality public transport on the vast inner urban brownfield sites, drawing from the best of European cities;
- Medium density infill close to public transport on the many suitable sites in established suburbs;
- A radically transformed urban form for new outer corridors based on mixed uses, a range of housing types and denser development near transport nodes; and
- A much more efficient public transport network, built around fast and reliable rail connections between key employment and activity nodes throughout the metropolitan area using light and heavy rail technologies differentiated by their economic and strategic advantages and supported by bus feeders and strategic bus links to provide critical local links.

Transport Infrastructure

Development of **transport infrastructure that prioritises the movement of people rather than vehicles** will be a key element of any effective process of transport and land use integration to improve the liveability and sustainability of Melbourne and regional cities and towns as the State moves toward a population of 10 million. Active personal transport (walking and cycling) will also be an important element of the overall picture. The role of rail (heavy rail – metropolitan and regional, light rail and tram) in this scenario will be to handle much of the mass transit task, supported by local feeder and cross-city bus routes to provide critical network links.

Previous transport plans have been weak at identifying a long term public transport vision. A bold and visionary approach is urgently needed for new transport infrastructure if Melbourne is to continue to function effectively.

2. TRANSPORT AND LAND USE PLANNING IN MELBOURNE – *A Historical Overview*

Melbourne was founded in 1835 and the central Hoddle Grid laid out in 1837. During the 1850's Victorian gold rush, it became one of the world's largest and wealthiest cities. The first railway opened in 1854. Well before World War 1 most of today's metropolitan rail network was already in place. Electrification of most lines was completed by the mid-1920s and the final pre-World War 2 line extension opened to Glen Waverley in 1930.

The Melbourne tramway network, originally established by municipal councils, came under the unified control of the Melbourne and Metropolitan Tramways Board (MMTB) in 1921. By 1923 the Board had prepared a *General Scheme for Tramway Development* which it rapidly began to implement before all work stopped in early 1930s when funding became unavailable due to the Great Depression. With the exception of the Bourke Street lines¹, the work never resumed².

Melbourne's first comprehensive town planning effort produced the 1929 *Plan of General Development* which recommended a regional open space system and the first zoning system in Australia, together with a portfolio of major public works. However political opposition and the impact of the Great Depression thwarted the overall package. Creation of the Housing Commission of Victoria in 1937 partially filled the vacuum and it became something of a de facto metropolitan planning agency until the *Town and Country Planning Act 1944* established a basic statutory planning framework of centrally coordinated planning responsibility.

In 1949, the Melbourne and Metropolitan Board of Works (MMBW) became responsible for devising the *Melbourne Metropolitan Planning Scheme* issued in 1954 which guided development for decades. It sought to address the issues of low density sprawl and traffic congestion and led to a system of zones for land use control.

The 1954 plan did not foresee a need for increased densities in established areas but nominated six District Business Centres - Central (Melbourne CBD), Footscray, Preston, Box Hill, Moorabbin and Dandenong. These centres were the first recognition that central Melbourne could no longer continue to serve all the needs of the growing city and that some 'decentralisation' was required. These were very modest proposals for local centres and did not anticipate the rise of the free standing shopping mall. The 1954 plan reinforced the established tendency of the city to grow to the south east. It also seriously underestimated post-war population growth and the influence about to be felt of popular car ownership and use.

The pattern of growth by the 1950s clearly shows the city strung out along rail lines but not extending much beyond what are now the inner and middle suburbs. However, the inner suburbs continued to decline until the 1990s, losing as much as two-thirds of their peak population. There was a fear that Melbourne could become a 'doughnut city' – a place with few living in the inner suburbs. The exception was the development of high rise Housing Commission estates in inner Melbourne with their genesis in the 1954 plan. This proved to be an unfortunate start to urban renewal.

Cars were not generally affordable until the mid-fifties and people were much more reliant on public transport than they are today. In 1950 there were 160 cars for every 1,000 people in Victoria, by 2006 there were 730. Development from the 1960s continued the growth along rail corridors but also included car-based suburbs between and somewhat distant from the established pattern of rail lines. Public transport use commenced its decline in the 1950s and this continued into the 1970s matching car ownership increases. Many bus services were withdrawn or reduced to skeleton services.

The 1969 *Melbourne Transportation Study* identified a 307 mile future freeway network for Melbourne and recommended construction of the City Rail Loop as well as some new suburban railways, none of which were built. The plan proposed an extravagant network of new freeway routes and reserved land well in advance of

¹ The Bourke Street routes (East Brunswick and East Preston) were operated by cable trams until 1940. Due to the war effort, buses were temporarily substituted until the routes could be converted to electric operation, but they were not popular. Trams were reintroduced to these routes during 1955 and 1956 in contrast to trends in other Australian cities at the time.

² This explains why many Melbourne tram routes still end at "nowhere in particular" rather than at key activity centres.

development. Following intense public opposition, the proposed freeway network was refined in 1973 by removing some of the more controversial inner city alignments. However the plan has generally endured, setting the basis for the current freeway network. There has been no similar enduring plan for public transport.

Funding of the City Loop project was through debentures, with the State Government paying 60 per cent of the cost, while a special city levy was to fund the remainder. The levy was to last for 53 years, but was ended in 1995. Tunnelling works under the city streets commenced in mid-1972 and the Loop was opened in stages between 1981 and 1985.

The 1971 MMBW plan, *Planning Policies for the Melbourne Metropolitan Region*, introduced long-term conservation and development policies through growth corridors and contained outward growth to a limited number of areas on the edge of the city. For the first time planning incorporated physical constraints and adopted a corridor approach to urban growth combined with satellite towns at Melton and Sunbury. Land between the corridors was called 'non-urban' and the areas identified for conservation significance have formed the basis of later restriction to growth in those areas.

District centre policy was introduced in the 1980s through the nomination of 14 centres in a polycentric urban form. By this time a number of car-based free standing centres had been established – Chadstone in 1960, Northland in 1966 and Highpoint in 1975. The 1970s also saw a renewed interest in inner Melbourne as heritage housing was protected and areas became 'gentrified' as owners, architects and builders began to value the grace and style of heritage properties as well as the convenience and amenity offered by the inner suburbs.

The MMBW's 1980 *Metropolitan Strategy* and subsequent 1981 *Metropolitan Strategy Implementation* encouraged development in existing areas. The Metropolitan Strategy sought to concentrate housing, transport, employment and community facilities at highly accessible points. In 1983, new district centre zones encouraged office development in 14 centres and restricted it elsewhere. Implementation included the introduction of new zones and controls to the Melbourne Metropolitan Planning Scheme.

The 1980 *Victorian Transport Study* (the Lonie Report), studied freight and passenger transport within Victoria and recommended the closing of a number of train lines, replacing almost half of the tram network with buses and the closure of all country rail passenger services with the exception of the Geelong line. This approach did not anticipate that patronage might increase to the extent that new services would be needed. The subsequent community outcry was sufficient for abandonment of virtually all of Lonie's recommendations in relation to public transport and for the Government to accelerate the purchase of new trains and trams and start re-investing in the country passenger network as part of its 1981 *New Deal for Country Passengers*.

The *Transport Act 1983* brought significant institutional change with the abolition of the century-old Victorian Railways, the MMTB and Country Roads Board and replaced them with a State Transport Authority (trading as V/Line), a Metropolitan Transit Authority ("*The Met*") and two new road authorities responsible for traffic management and road infrastructure respectively. Subsequently in 1989, the two public transport authorities were merged to form the Public Transport Corporation and the road authorities were merged to form VicRoads.

The *Planning and Environment Act 1987* sought to achieve "the fair, orderly, economic and sustainable development of land". It established a legal framework for the preparation and administration of local planning schemes and specified when planning permits were required for particular types of developments. It provided for the Victorian Civil and Administrative Tribunal (VCAT) to hear disputes over the issue of permits and allowed for independent panels to receive public submissions and provide advice regarding significant amendments to planning schemes.

In 1992 the City of Melbourne introduced its 'Postcode 3000' policy aimed at increasing residential development to house 3000 people in the central business district and St Kilda Road. This saw the conversion of unoccupied lower grade office buildings which due to a glut of office space had no real prospect of being used as offices. Around this time higher density and high rise development began to feature more prominently in Melbourne's development. While there had previously been some high rise buildings outside of the CBD, such as along the St Kilda foreshore, St Kilda Road and at Doncaster Hill, the mid 1990s saw medium rise development begin to spread to other areas of inner Melbourne and then into middle suburban locations.

The 1994 *Creating Prosperity: Victoria's Capital City Policy* laid the path for central city revitalisation and sought to emphasise urban quality. The plan identified renewal projects including some that have significantly changed Central Melbourne in last 20 years or so. This included demolition of the Gas and Fuel buildings and

building Federation Square, the Melbourne Exhibition Centre at Southbank and a new museum in Carlton, completing the Melbourne Casino, extending the National Tennis Centre, commencing redevelopment of Docklands and creating new open space in the redevelopment of the Jolimont rail yards (Birrarung Marr).

The Bracks Government's 1999 *Linking Victoria* plan initiated the successful *Regional Fast Rail* project, proposed redevelopment of Southern Cross Station and extension of the Eastern Freeway to Ringwood shortly after the Kennett Government had privatised the operation of all Victorian public transport and rail freight.

The 2002 *Melbourne 2030* plan continued the strategic principles of the preceding 20 years but for the first time quantified the task of urban consolidation. This plan expanded the notion of activity centres to include 114 mixed use activity centres catering for higher density residential development. It also introduced the most far-reaching policies for limits to urban expansion and protection of Melbourne's hinterland since the 1971 Melbourne and Metropolitan Board of Works strategic plan. It led to legislation to define an Urban Growth Boundary (UGB) which excluded landscape and conservation areas from urban development and new regulatory non-urban zones similar to those introduced after the 1971 plan. However, at the same time the UGB was extensively modified to excise about 50,000 hectares of land from the green belt for urban development. In 2012 the Baillieu-Napthine Government subsequently excised a further 6,000 hectares.

In 2004, the *Linking Melbourne: Metropolitan Transport Plan* was released. This consolidated several metropolitan regional transport studies and proposed various projects such as *Eastlink*, originally designated as a "south-east integrated transport corridor" but never designed to integrate public transport. In 2006 *Meeting our Transport Challenges* followed – a 10 year plan to provide additional trams and trains, enhance rail capacity and service levels, improve regional bus services and introduce orbital *SmartBus* routes. It also funded construction of the Deer Park Bypass (a commuter route to the new suburb of Caroline Springs) and strengthening of the West Gate Bridge. However, it seriously underestimated metropolitan growth, forecasting that Melbourne's population would not reach 4.5 million until 2031.

The 2008 *Victorian Transport Plan* responded to the Eddington plan for east-west road and rail connectivity and proposed an ambitious program of works including *Peninsula Link*, the North-East link, *Melbourne Metro*, *Regional Rail Link*, *Myki* ticketing, electrification to Sunbury and rail extension to South Morang. However, it still failed to set out a comprehensive vision for the public transport network in the same way that the 1969 plan set out a vision for the freeway network.

The 2008 *Melbourne @ 5 Million by 2030* adopted the concept of a 'polycentric city' with the nomination of six Central Activities Districts in addition to Principal and Major Activity Centres. It also identified employment corridors being probably the first significant spatial policy that moved beyond land supply for industrial uses and attempted to tackle employment and economic development in a systematic way.

In 2009 *Delivering Melbourne's Newest Sustainable Communities* expanded the Urban Growth Boundary and reserved land for *Regional Rail Link*, the Outer Metropolitan Ring (a road and rail corridor), and land for grassland reserves in Melbourne's west. Important legislation followed in the form of the *Major Transport Projects Facilitation Act 2009* and the *Transport Integration Act 2010* which came into force on 1 July 2010. The latter Act legislated important principles for integrated and consultative transport and land use planning.

Following the change of State Government in November 2010, the Department of Transport (DOT) became the Department of Transport, Planning and Local Infrastructure (DTPLI) however little practical headway was made to effectively integrate planning and transport policy. Most of DOT's former public transport planning and oversight functions were transferred to Public Transport Victoria (PTV) which became operative in April 2012.

In May 2014 the Government announced that *Melbourne Rail Link* would replace *Melbourne Metro*. With the reversion to a Labor administration in November 2014, *Melbourne Metro* is back on the agenda, together with the proposed removal of 50 metropolitan level crossings over an 8-year period, upgrading of the Dandenong rail line and extension of the South Morang line to Mernda.

Whilst the various strategic planning documents have attempted to promote a networked development approach, these have largely become operational plans for capacity increases but have failed to drive an integrated and multi-modal approach to public transport and land use provisions. Frequent revision and re-issue of plans with changes of government contrasts with the more enduring influence of the 1929 and 1954 plans.

3. DISTRIBUTING POPULATION GROWTH AND HOUSING

Plan Melbourne proposed that almost 1,500,000 new dwellings will need to be provided in Melbourne by 2051, with 302,000 in inner areas, 576,000 in established areas and 582,000 in growth areas (see tables below). This proposed distribution of over 60 per cent in established metropolitan areas and almost 40 per cent in new growth areas, a substantial increase in the proportion of outer urban growth proposed by the 69:31 distribution in the 2002 *Melbourne 2030* plan.

TABLE 4 POPULATION (REGIONS), 2011-2051

	2011 (Actual)	2021	2031	2041	2051	Change 2011-2051	AAGR
Melbourne							
Inner	450,000	604,000	719,000	868,000	1,053,000	603,000	2.1%
Middle	2,707,000	3,001,000	3,278,000	3,607,000	4,050,000	1,343,000	1.0%
Growth Area	952,000	1,385,000	1,831,000	2,190,000	2,497,000	1,545,000	2.4%
Regional Victoria							
Peri Urban	330,000	402,000	505,000	609,000	718,000	388,000	2.0%
Major Regional City	413,000	488,000	577,000	665,000	757,000	344,000	1.5%
Rural	383,000	395,000	418,000	444,000	476,000	93,000	0.5%
Regional City	303,000	332,000	371,000	412,000	460,000	157,000	1.0%

Source: VIF 2014 - DTPLI

TABLE 5 OCCUPIED PRIVATE DWELLINGS (REGIONS), 2011-2051

	2011 (Actual)	2021	2031	2041	2051	Change 2011- 2051	AAGR
Melbourne							
Inner	211,000	285,000	341,000	417,000	513,000	302,000	2.2%
Middle	1,034,000	1,161,000	1,282,000	1,424,000	1,610,000	576,000	1.1%
Growth Area	321,000	475,000	640,000	785,000	903,000	582,000	2.6%
Regional Victoria							
Peri Urban	132,000	165,000	208,000	251,000	296,000	164,000	2.0%
Major Regional City	169,000	203,000	243,000	282,000	323,000	154,000	1.6%
Rural	162,000	171,000	184,000	196,000	209,000	47,000	0.6%
Regional City	124,000	139,000	158,000	176,000	197,000	73,000	1.2%

Source: VIF 2014 - DTPLI

Plan Melbourne proposed to achieve these dwelling targets through massive large-scale development in a series of interlocking locations with complementary functions, inner urban high and medium rise development, large-scale suburban redevelopment and continuing low density development in growth corridors. In doing so it failed to provide a sound rationale based on integrated transport and land use planning or land value scenarios.

High and medium rise apartment construction dominates dwelling construction in the CBD and surrounds and inner suburbs. However, medium rise apartment blocks and townhouse numbers in the middle ring suburbs closely match inner urban new dwelling numbers. Detached housing in the outer growth corridors presently accounts for only about 28 per cent of new dwelling construction, down from 48 per cent in 2009.

Under this plan, large brownfield and other sites surrounding the CBD would be extensively redeveloped as high rise areas including Fishermans Bend, City North, E-Gate, Arden-Macaulay, Dynon and the Flinders Street to Richmond corridors. These would complement existing sites at Southbank, Docklands and the CBD. Extensive infill development and redevelopment on tram routes and main roads with medium rise residential and mixed-use development was also proposed.

High amenity strip centres with valued heritage assets and relatively good public transport have attracted new

economy professionals but are being transformed into low amenity retail enclaves. Strip centre redevelopment which assumes a continuation of high and medium rise development will place increasing strains on the public transport system and lead to extensive cross-town car use. Road space changes which provide tram and/or bus priority and safe lanes for cyclists are critical for strip centre sustainability. Only more integrated land use and transport policy can address these anomalies.

Both options of small high-rise apartments in the inner city and detached housing on the urban fringe are unsatisfactory to the large cohort of young adults emerging from established suburbs and seeking diverse housing choices, particularly medium-density housing. High-rise development is largely low quality one and two bedroom apartments populated mainly by transient occupants, particularly visitors, students, shared households, and young singles or couples without children, along with some older retirees.

Unconstrained urban fringe development has already led to the transport system operating at or beyond maximum capacity, creating an unsustainable situation in growth areas where the bulk of projected growth is yet to occur. This growth comes at an inflated cost for all infrastructure due to the low densities and their wide spread. These planning failures require urgent action to ensure that proper planning and implementation of integrated land use and transport proceed together. This will include appropriate forms of medium density development around transport nodes, increased public transport capacity and new transport linkages supported by a range of planning tools including development contributions.

Finally, the revised metropolitan plan must be written in language that makes evaluation possible. It should contain specific measures of its effectiveness in relating housing supply to projected demand. The plan should also seek to increase the affordability of housing in different parts of the city, for example by mandating the proportion of varying housing types or the proportion of affordable housing in larger housing developments. Links should also be made between land use and economic policy, for example, by preventing land speculation and speculative investment and their impacts on housing prices by implementing measures such as height controls outside the residential zones.

Inner Urban Areas:

The redevelopment model for the inner urban brownfield sites is a critical decision and major opportunity for the city. Continuing the current high-rise model will help propel Melbourne to dysfunction. Alternatively, adopting the best of low to medium rise European city design would increase Melbourne's livability and reinforce its reputation as a functioning world-class city. This would emphasise dense, mixed uses and high quality environmental design, based around connections to the public transport system, the CBD and the rest of the metropolis.

The existing and alternative European style models have important implications for transport. Under the alternative model, new inner urban residential areas would attract new family households and contain broader demographic groups with different transport patterns and needs compared to the dominant high-rise demographic. Mixed uses, local employment and high quality local services would emphasise internal walkable connections but also attract trips into these areas. Such transport patterns should be considered during the planning of land use and design of these brownfield sites.

Plan Melbourne identified the need to link major infrastructure provision to designated development areas. However in practice, there are presently no plans to link many of these areas through high quality public transport. Public transport connections to the large brownfield development locations are either inadequate or non-existent. In particular, Arden-Macaulay, Dynon and E-Gate are served poorly by public transport connections and nothing additional is currently proposed to Fishermans Bend.

However, a large number of building permits have been issued in some areas and extensive redevelopment is proceeding. Further approvals should be withheld until precinct structure plans are completed and all extensions of time for existing approvals refused if they are not consistent with new plans. Public transport planning must be integrated into the overall planning process, reservation of new transport corridors confirmed and construction of transport connections progressed in tandem with or before commencement of large scale redevelopment.

Further road network development on almost any scale cannot possibly accommodate future demand for inner area and CBD travel given the following simple propositions:

- the practical capacity of a single modern tram occupying about 50 metres of a single traffic lane is generally the same as a line of cars 1.8km in length each with an average of 1.2 occupants;
- the practical capacity of an articulated bus occupying about 25 metres of a single traffic lane is the same as a line of cars some 800 metres in length; and
- a single train line operating at 3 minute frequency with the current metropolitan trains has the same capacity as nine free-flowing freeway lanes. When this is lifted to 2½ minute frequency with next generation trains soon to be ordered, a single train line will have equivalent capacity to 13 freeway lanes.

Moreover, car usage to destinations within the CBD or inner areas should be actively discouraged by appropriate road pricing and by hypothecating the proceeds to further public transport and active personal transport development. This includes the re-allocation of road space to provide tram and bus priority and safe lanes for cyclists. Examples of appropriate public transport responses to service inner urban brownfield development areas are described in Section 7 of this paper.

Established Suburbs:

Established suburbs must find room for over twice the number of dwellings provided in the large-scale redevelopment of the central city and surrounds. New planning zones are to be the means of delivering the suburban contribution to additional housing for a growing city of 7.7 million by 2051, but as yet there is no clarity on the capacity of these zones to deliver dwellings through housing types and locations. Local councils have been given responsibility for implementing the new planning zones and so will determine the scale, location and type of new suburban housing development with unknown impacts on land supply.

It has been claimed by some that the adoption of new residential zones, particularly the restrictive *Neighbourhood Residential Zone*, will significantly limit the amount of land available for redevelopment in established suburbs. This is not the case. There is ample land available in suburban areas for redevelopment while still retaining all historic and high-value housing areas, because the total land supply available for redevelopment includes vast supplies of non-residential land and significant redevelopment potential in most residential zones.

For example, large land supplies are potentially available in and around the post-World War Two activity centres such as North Coburg, Preston, Box Hill, Blackburn, Nunawading, Burwood, Moorabbin/Highett, Cheltenham and Oakleigh/Huntingdale and on extensive infill sites in older suburbs such as Yarraville/Spotswood, West Footscray, Kensington, Brunswick, Collingwood, Hawthorn, Camberwell, South Yarra, Prahran/Windsor and Gardenvale. Many of these sites are close to stations or existing tram routes. Many other smaller localised sites for potential redevelopment exist in most other established suburbs. Scope also exists for enhanced public transport connections between some of these suburbs and other major activity centres, including those involving cross-town journeys. Examples are described in Section 7 of this paper.

Other locations less than 20km from the CBD where land close to stations (including some land presently used for commuter car parking) appears suitable for mixed use densification and which could be leveraged by planned level crossing removals over the next eight years include St Albans, Essendon, Glenroy, Moreland, Coburg, Bell, Reservoir, Carnegie, Murrumbeena, Clayton, Ormond and Bentleigh. Where development takes place on railway land presently used for commuter car parking, viable solutions will be needed to offset the spaces lost which would otherwise need to be (at least) replaced as part of the overall development.

A new metropolitan plan must address the comparative potential for suburban infill urban renewal sites, commercial zones, activity centres and the potential redevelopment under the three new major residential zones to accommodate the proposed number of dwellings. In applying the new zones, the revised plan must relate estimated housing supply in various categories and in each Council area to housing need or demand. This failure to relate estimates of housing supply to demand was a critical defect of *Plan Melbourne*.

Outer Urban Growth Corridors:

Plan Melbourne noted that "...it is no longer sustainable to accommodate most of our population and household growth by continuing to expand Melbourne's outer urban growth areas..." (*Plan Melbourne*, 2014:61). But in practice both *Plan Melbourne* and municipal planning schemes in their current form will continue to result in rapidly developing new outer urban growth areas containing large amounts of housing.

There are serious transport implications from this dominant model of outer urban development. This remains based on low density detached housing, with little variability in poorly serviced car based suburbs. Most housing is being constructed far from heavy rail, with inadequate bus connections. Separated uses, such as stand-alone car based retail built on arterial roads rather than on heavy rail locations and the relative lack of local and regional employment have entrenched car dependency, especially for extended journeys to and from workplaces. Existing rail routes and services are under increasing pressure, car parking at stations is almost unobtainable after 7am on weekdays, major arterial roads are approaching gridlock during extended peak periods and large housing estates in most areas are poorly served by infrequent feeder bus services which cannot function effectively when stuck in long lines of barely moving traffic.

As such, the current and projected increase in population for these areas is already taking them towards dysfunction which can only be avoided if a radical change in this dominant model occurs urgently. These new suburbs are examples of past failure to properly plan and implement effective land use and transport integration in a timely fashion. This is particularly evident in areas such as those around Epping and Mernda in the north, Point Cook, Hoppers Crossing, Werribee, Wyndham Vale and Melton in the west and Hallam, Berwick and Cranbourne in the south-east and yet much of the projected growth in these areas is still to be built.

From a heavy rail perspective, this underlines the urgency of constructing the (now approved) extension from South Morang to Mernda and to significantly accelerate implementation of other planned rail extensions from Werribee to Wyndham Vale, from Cranbourne to Cranbourne East and Clyde and to electrify the Ballarat line at least as far as Melton. These projects, together with substantial park and ride facilities, a carefully planned network of feeder buses using transit lanes on major roads to frequencies compatible with train services and safe bicycle access with adequate storage at stations will do much to alleviate these past planning failures.

The new Wyndham bus network, introduced to coincide with the opening of Wyndham Vale and Tarneit stations on the Regional Rail Link, exemplifies the type of bus network improvement required in each of the outer suburban growth areas. However, this is a costly exercise not borne by either the land developers or those who purchase houses in these suburbs.

Higher densities should be mandated around public transport locations and new major retail centres prohibited away from rail nodes via planning controls that provide a contribution to land development. The model of mixed-use nodes around stations should be retrofitted to existing areas and mandated for new suburbs. Such retrofitting could be implemented around many suburban railway stations 20km or more from the CBD having contiguous commercial land use. Potential examples include Hoppers Crossing, Upfield, Craigieburn, Epping, Greensborough, Ringwood East, Croydon, Springvale, Dandenong and Pakenham. Frankston CBD has potential for very significant redevelopment around the station precinct once the rail stabling sidings are removed in conjunction with the planned extension of electrification to Baxter.

Planned level crossing removals over the next eight years at other locations 20km or more from the CBD which could leverage mixed use densification on land close to stations include Werribee, Sydenham, Heatherdale, Bayswater, Mooroolbark, Lilydale, Noble Park, Hallam, Berwick, Merinda Park, Cheltenham and Mentone.

Examples of new suburbs with existing or proposed new stations where such forms of development should be mandated include Williams Landing, West Werribee, Black Forest Road, Tarneit, Ravenhall, Rockbank, Toolern, Calder Park, Diggers Rest, Donnybrook, Beveridge, Wallan, Mernda, Cave Hill and Officer.

Plan Melbourne proposed more diverse housing types, but did not regulate density, proposing only “a variety of lot sizes and housing types” (*Plan Melbourne*, 2014:69). A range of housing and lot sizes should be required and an average gross residential density of 25 dwellings per hectare mandated for all growth corridors. This model for outer growth areas would do much to limit the continuing spread of Melbourne.

Plan Melbourne noted that a 30-year supply of urban zoned land exists in the growth corridors but proposed that a permanent urban growth boundary (UGB) should be established. However, to avoid the concept of the UGB becoming fairly meaningless, the 30-year land supply should also mandate minimum average housing densities and targets for municipalities or large nominated sites. Fundamental decisions also need to be made to define Melbourne’s future as inextricably linked to the protection of the green belt from any further urban and commercial development through bi-partisan legislation and policy to lock-in the current UGB for all time. This will protect against the further loss of valuable agricultural land and significant landscapes.

4. ACTIVITY CENTRES, EMPLOYMENT CLUSTERS AND URBAN RENEWAL PRECINCTS

Plan Melbourne defined five “layers” of development activity:

- *Large-scale urban renewal* in a series of large sites surrounding the city (see above).
- *National Employment Clusters* at Parkville, Monash, Dandenong South, La Trobe, Sunshine and East Werribee.
- Nine *Metropolitan Activity Centres* (adding Epping, Fountain Gate and Sunshine to the previous six of *Melbourne @ 5Million*) and two emerging centres at Toolern and Lockerbie.
- The remaining 114 former *Principal and Major Activity Centres* and all 900 neighbourhood centres previously identified in *Melbourne 2030*, industrial and health-education precincts, and transport “gateways” (ports and airports).
- 29 *Potential Urban Renewal Precincts* and sites close to heavy rail.

Varying functions were identified for these layers. The expanded central city sites and national employment clusters will provide knowledge and business sector jobs and promote innovation in mixed-use commercial and residential developments. These development opportunities are placed in an emerging “economic triangle” from Hastings, Pakenham and Dandenong in the east through an expanded CBD to the Hume corridor and Melbourne Airport in the north and the Wyndham/Geelong corridor in the south-west although there was no strategic rationale to explain the origin or purposes of the “triangle”. The plan assumed that existing and the developing commercial/residential centres will be developed jointly with necessary infrastructure provision, including transport requirements.

Rather than listing every conceivable redevelopment precinct and area, the plan needs to direct activity and intervene to achieve outcomes after considering a range of scenarios. A list that is primarily a description of development opportunities is not an effective plan. This contrasts with the 1970s MMBW District Centre Policy which identified 14 large areas close to public transport for new commercial and retail development and sought to prevent large scale retailing outside these centres.

The revised plan should establish a hierarchy of importance among its redevelopment areas and the intended functions of centre types. It is not satisfactory to propose a modified centres policy which concentrates mixed use development in and around activity centres, while dispersing retailing to “out-of-centre” locations through its new permissive commercial zones. Population will be concentrated but retailing dispersed.

The revised policy should discourage further increases in car based shopping away from public transport and instead reinforce the broad range of retail and commercial activities traditionally performed in strip and suburban shopping centres. Broader regulatory measures governing the type of development should also be proposed to guide the preparation of local structure plans.

The revised plan should be the basis for a polycentric (or multi-centred) city which nominates a limited number of major multi-use development locations, hierarchically distributed functionally across the metropolitan area and much better connected by public transport. It should explicitly recognise that nominated national employment clusters and major renewal centres differ from each other radically, particularly through different spatial characteristics, supporting infrastructure and socio-economic bases.

For example:

- **Parkville** contains a concentrated cluster of knowledge workers linked to medical, scientific, engineering and other research close to universities, hospitals, and has good public transport provided by three tram and two bus routes, but no direct heavy rail service. Many professionals live in nearby high amenity and historic Victorian housing linked to vibrant mixed-use traditional retail centres. It currently provides around 33,000 jobs.
- The **Monash Cluster** contains scientific, health and knowledge related employment with nearly 60,000 jobs. It is reasonably well served by Clayton and Springvale Stations on its southern boundary and by three SmartBus routes but lacks direct rail access to its main trip attractors.
- The **La Trobe Cluster** includes university and major health related precincts as well as activity centres at Northland and Heidelberg. It has reasonably good access from Heidelberg Station to the nearby health precinct and along a north-south axis by tram to La Trobe University (as part of the CBD-oriented radial network) but the University is poorly served by public transport on its east-west axis and Northland only has limited access by bus. The Cluster has around 25,000 jobs
- **Dandenong South Cluster** is primarily an industrial location including some advanced manufacturing, wholesale trade and warehousing and several noxious industries. Apart from the central Dandenong activity centre, it is very poorly served by public transport. It currently has around 55,000 jobs.
- The emerging **Sunshine Cluster** is well served by heavy rail in Sunshine and St Albans activity centres however its key university and health precincts have poor public transport access at present. It also contains a large amount of land available for redevelopment, but there is little interest in office development. It currently has around 14,000 jobs
- The emerging **East Werribee Cluster** has university and health precincts but is at an early stage of development. Most of its current and potential employment generators are within one to five kilometres of Hoppers Crossing Station and workers could have viable public transport options with a combination of high frequency shuttle buses and local area bus services. It currently provides some 7,000 jobs.

A vast gulf has developed between employment type and location in Melbourne. Professional and business services and high technology knowledge employment is located primarily in the CBD and inner suburbs where managers and employees are attracted by the agglomeration of like activities, high amenity historic residential and retail precincts, high quality infrastructure and services and generally good public transport. In particular, the various plans have struggled with how to deal with Melbourne's traditional shopping strips (some being kilometres long) within a theoretical framework that only emphasises 'centres'. From time to time, zoning patterns or strategies have sought to develop nodes along the longer strips with potential damage to the integrity and continuity of these areas.

Only major government intervention can modify the current pattern of cluster concentration and extend this spatial pattern to a connected polycentric urban model. The revised plan will need to do much more than list new cluster locations, identify available land and propose structure plans for new precincts and sub-regional planning.

Government intervention will be essential to promote the creation of knowledge, business and other service employment in activity centres even when large amounts of land are available, such as in the Coburg, Sunshine and Broadmeadows activity centres. Ad hoc government initiatives have resulted in some employment agglomeration in Box Hill/Ringwood and Dandenong activity centres, each of which are closely linked to good quality rail services on the CBD-oriented network and have a reasonable network of feeder bus services. The Footscray activity centre has some mixed development attraction due to its proximity to the CBD, education precincts, excellent rail services and strong multi-cultural influences.

However, employers have shown little interest in locating such employment in the new outer urban corridor activity centres at Epping, Fountain Gate/Narre Warren and Frankston other than in retail related jobs. While Epping, Narre Warren and Frankston have good rail access from Melbourne, for the main activity centres at Epping and Narre Warren to be readily accessible from their respective stations a frequent shuttle bus service would be required. A further common factor is the generally poor quality of public transport links between these centres and most of their surrounding residential areas.

Melbourne Metro will efficiently connect the concentrations of professional and knowledge employment from Sunshine in the west through Parkville and the CBD while better connecting and increasing the capacity of much of the radial rail system. To the east it will pass near the Monash Cluster and connect to the emerging major outer urban hub at Dandenong, in turn establishing strong rail links along the Monash-CBD-Parkville axis. However, to complete the connectivity with the capacity that Melbourne needs to link its key knowledge centres, a second stage of Melbourne Metro should be planned to extend in a new (largely underground) corridor from South Yarra to Springvale via Caulfield and Oakleigh with underground stations at Chadstone Shopping Centre and Monash University.

Effective public transport links using an appropriate combination of heavy rail, light rail, tram and bus modes, together with walking and cycling links, are key to the long term success of the other National Employment Clusters and major activity centres. It is not the intent of this paper to provide a blueprint for the extensive changes and improvements that will become essential over time to reduce car dependency and underpin these developments on a sustainable basis, however examples of potential new linkages³ that should be fully investigated include:

- an east-west light rail spine along the Wellington Road/North Road corridor extending from Gardenvale to Rowville to provide efficient access to the Monash Cluster. This would include key interchanges at Huntingdale, Ormond and Gardenvale Stations and connectivity with the Route 64 tram in East Brighton and SmartBus routes on Warrigal, Blackburn and Springvale Roads.
- an east-west tram connector extending from Reservoir station to Macleod station to provide efficient access to the La Trobe Cluster. This would be created as a further extension of the Route 11 tram from West Preston to Reservoir Station and then to La Trobe University and Macleod station with key interchanges at Reservoir and Macleod Stations and with the Route 86 tram at Plenty Road.
- an east-west Ballarat Road light rail spine connecting Footscray and Sunshine North to service the Sunshine Cluster. This would extend from Footscray station, running for a short distance in common with an altered Route 82 tram line to link the Victoria University Footscray campus, Maidstone, Braybrook, Victoria University Sunshine Campus, Albion Station and Sunshine Hospital.
- extension of tram Route 3 from East Malvern to Chadstone Shopping Centre to provide a direct link between Caulfield Station, Monash University Caulfield Campus and the major activity centre at Chadstone via Waverley, Belgrave and Dandenong Roads.
- extension of tram Route 48 from North Balwyn to Westfield Doncaster Shopping Centre to provide a direct link via Doncaster Road to the Doncaster major activity centre. At the Doncaster end, this route would be shared with a proposed CBD to Doncaster light rail service.
- extension of tram Route 64 along Nepean Highway from East Brighton to Moorabbin Station and activity centre.
- extension of the Route 401 North Melbourne Station to Parkville high frequency bus service to also link to Victoria Park and Richmond Stations, thus providing more direct access to the Parkville precinct from the Clifton Hill and Burnley Groups of lines that will not benefit from Melbourne Metro.

New tram, light rail and bus links between existing transport nodes and employment and activity centres such as those outlined above will provide significant additional network connectivity, support inner and middle suburban densification and create land value uplift along the respective corridors – all essential elements in reducing car dependency for work and shopping trips and for improving urban amenity.

There is significant potential for urban renewal close to and along rail lines. These include areas close to stations at Footscray, Essendon, Keon Park, Watsonia, Richmond, Nunawading, Ringwood, Glen Waverley, South Yarra, Caulfield and Highett. *Plan Melbourne* invited business proposals for these areas together with areas adjacent to rail corridors between North Richmond and Victoria Park and from

³ These and other relevant proposals are described in fuller detail in Rail Futures companion paper “Trams and Light Rail in Melbourne’s Transport Future”, issued in May 2015 and available on the Rail Futures website www.railfutures.org.au.

Brunswick to Batman via Coburg. The revised plan should confirm the nature of these opportunities and identify others, for example, along the Dandenong line in connection with the proposed elimination of nine level crossings between Caulfield and Dandenong.

Plan Melbourne assumed that designating land for industrial and other employment in outer urban growth corridors will lead to its development, despite little interest being shown by business other than for specified sectors such as warehousing. Freight transport is also an important consideration. The relocation of freight and distribution centres and warehousing to outer urban locations based on the freeway network has altered the pattern of distribution and led to a large increase in road transport.

The renewed use of rail for metropolitan freight distribution, linked to the port and strategically placed hub terminals in Melbourne's west, north and south-east and using spare capacity on the existing rail network outside of weekday peak periods, provides a low capital cost opportunity to offset ever-increasing heavy vehicle use, similarly to systems in other cities, notably Sydney. This will be essential as Melbourne doubles in population and increases its building intensity.

5. LEGISLATION AND IMPLEMENTATION MECHANISMS

The transformation of Melbourne into a mega-city with an expected population approaching 8 million by 2050 means that Melbourne and our regional cities cannot continue to evolve into their predicted scale and remain reliant on the existing largely ad hoc, market driven planning and implementation processes that have characterised the last half-century. It follows that an improved legislative framework is needed to implement the necessary policy and institutional instruments, and especially to ensure that transport and land use integration is not only planned in concert, but is consistently applied in practice.

Creation of the Metropolitan Planning Authority (MPA) has been a forward step and under its direction work is proceeding at a rapid pace to develop Precinct Structure Plans for each of the relevant precincts within the seven municipalities that cover the growth areas of Melbourne and which lie within the extended Urban Growth Boundary. However, the MPA does not have powers to act as an overarching planning authority for greater Melbourne and relies on specific functions delegated to it by the Minister. Moreover, it is unclear that it contains any transport planning expertise or that its work is tightly dovetailed with that of Public Transport Victoria and other transport agencies.

Part of the required legislative framework to ensure integration and coordination of the planning and transport functions is contained within the 2010 Transport Integration Act – generally considered to be an excellent piece of legislation. Section 11 of that Act deals specifically with integration of transport and land use. The key provisions of this section can be paraphrased as under:

- *The transport system should provide for the effective integration of transport and land use*
- *Transport and land use integration should have a focus on:*
 - *maximising access to residences, employment, markets, services and recreation*
 - *planning and developing the transport system more effectively*
 - *reducing the need for private motor travel and the extent of travel*
 - *facilitating better access to, and greater mobility within, local communities.*
- *The transport system and land use should be aligned, complementary and supportive to ensure that:*
 - *transport decisions are made having regard for the current and future impact on land use*
 - *land use decisions are made having regard for the current and future development and operation of the transport system*
 - *transport infrastructure and services are provided in a timely manner to support changing land use and associated transport demand.*
- *The transport system should improve the amenity of communities and minimise impacts of the transport system on adjacent land users.*

Currently, there are no complementary provisions within the Planning and Environment Act to govern the operation of MPA and the planning processes involving VCAT, Planning Panels and local government. The Planning and Environment Act merely cross-references the Transport Integration Act as interface legislation. This needs to change. It should be a mandatory requirement that Planning Schemes, Precinct Structure Plans and important permit approvals prepared by Councils and MPA, and deliberations of VCAT and Planning Panels be required to assess the relevant transport implications in making their determinations. This might be best achieved by a requirement for inclusion of a Statement of Transport Impact in each relevant case.

Public Transport Victoria, VicTrack and VicRoads are referral agencies in relation to planning applications that are considered to have transport implications. However, this process operates in a purely reactive way, often when the planning processes are well advanced. It is not a substitute for pro-active planning.

Plan Melbourne lacked effective implementation instruments or “tools” and many of the tools that do exist were likely to deliver opposite outcomes to the stated intentions. Instead, there needs to be a clear relationship between policies and implementation instruments. This should establish the principles which guide the direction of instruments such as zones in planning schemes.

Detail of the new planning zones was finalised well before *Plan Melbourne* was produced. These zones are largely deregulatory and facilitative and in many ways preempt policy on major urban issues including transport provision. For example, commercial zones allow extensive retail development away from traditional activity centres, preventing a retail policy that concentrates retailing into centres that are (or could be) well served by public transport. In recent years, the percentage of Melbourne’s retail floor space contained in malls and free-standing “big box” shopping centres has increased from 22% to 38%.

The revised *Plan Melbourne* needs to say more about retailing, one of the most important urban land uses. In the absence of retail policy linked to transport accessibility, the planning system prevails with the implementation instrument becoming the policy. Integrated land use-transport planning should help to eliminate the present contradictions such as out-of-centre retailing with little or no public transport access being promoted by the planning zones but with *Plan Melbourne* advocating consolidated mixed-use centres on or close to public transport corridors.

The real power must lie in a metropolitan strategy that leads and directs rather than relying on the *planning system* (the zones and planning scheme controls) which effectively deregulate the process. The revised *Plan Melbourne* needs to replace the current vague language with clear commitments and regulatory measures, and with measurable commitments in place of generalised statements about future processes that lack clear criteria to determine outcomes. As examples:

- a) Rather than proposing effective tools, *Plan Melbourne* observed that no regulations govern apartment and dwelling size or design, but proposed only a “review and update” of design guidelines and that “the appropriateness of current planning and building controls” be considered.
- b) In place of a commitment to the use of inclusionary zoning to increase the supply of affordable housing, *Plan Melbourne* proposed to: “create a codified approval process for development in defined residential change areas”, “investigate planning provisions to deliver more affordable housing” and “identify government actions that could..... provide long-term housing options to lower-income households”.

Plan Melbourne also promoted the importance of heritage buildings as a vital element in the distinctiveness of the city and identity of its citizens. However, while a new *Neighbourhood Residential Zone* protects urban heritage housing, *Plan Melbourne* would have allowed continued intensive redevelopment of the CBD and major activity centres with little regard to large-scale loss of the city’s heritage value. It justified this by claiming that high-rise construction in the central city reduces pressure on suburban residential areas for higher-density development, a claim that ignores the reality of different land markets and land availability in established suburbs with significant potential for urban renewal along tram routes or close to stations and along rail corridors.

6. MELBOURNE'S RELATIONSHIP WITH ITS HINTERLAND AND REGIONAL CITIES

Plan Melbourne attempted to reposition Melbourne towards integrated planning with its hinterland by retaining productive agriculture, biodiversity, water resources and landscapes within its peripheral area. It sought to expand metropolitan planning to include regional planning by redirecting some metropolitan growth into regional towns, proposed to designate regional towns for growth, encourage urban infill and more diverse housing in regional townships and protect high quality agricultural land for food production.

Plan Melbourne's commitments provided the basis for implementation, but still relied on future investigations into a high-value agricultural food overlay and further statutory protection of peri-urban land. The revised plan should specify the required further work and provide guidance on the likely outcomes. It should also discuss the necessary links between regional growth, improved public transport connections, access, amenity, types of regional employment, education, improved infrastructure and other services and link spatial issues to those of these other sectors.

The potential of regional planning to better connect Melbourne to its expanding regional centres and transfer some growth from the metropolis to these centres, should be strongly promoted. Better utilisation of land could enable population increases in regional centres such as Bendigo, Ballarat, Geelong and the Latrobe Valley and some smaller towns such as Ballan, Kyneton, Kilmore, Seymour and Warragul, of up to 100 per cent, without expanding town boundaries or diminishing heritage values. This should be a minimum growth target over a period of say, 25 to 30 years but would need to be somewhat greater (such as a target population approaching two million within the above cordon) to make a useful dent in Melbourne's growth progression. This compares with Victoria's official population projection⁴ for 2051 of 10 million which includes a population of 2.2 million beyond the greater Melbourne area, of which around 1.3 million would reside within the above cordon.

Building such connections would require formal adoption of a network city model where frequent fast rail services link regional centres with the metropolitan area and provide easy access to Melbourne Airport. It would also require a range of policies to deliver infrastructure and services that promote and induce decentralised city and township development.

The 2002 to 2006 Regional Fast Rail (RFR) project laid the groundwork for the successful introduction of much more frequent, faster and more comfortable services linking Melbourne with the Geelong, Ballarat, Bendigo and Latrobe Valley regions. The ensuing decade has seen growth of over 100% in the use of these services accompanied by almost continuous further rolling stock procurement. The recently completed Regional Rail Link (RRL) project provided new infrastructure at the Melbourne end of three of these links to enable regional trains from the Geelong, Ballarat and Bendigo corridors to be largely segregated from metropolitan train operations and thus allow significantly increased track capacity for additional services.

Further enhancement of infrastructure capability to consistently achieve RFR standards⁵, increase capacity and reduce travel time on all five regional corridors emanating from Melbourne and associated further rolling stock procurement will be an essential element in order to accommodate and induce accelerated growth into regional cities and towns within a distance of approximately 160 kilometres and a maximum of 90 to 100 minutes travel time. Linking the RFR network to the airport is a prime requirement and a feature of most European cities. Each city and town will also require enhanced local bus services (or, in the case of Geelong, possibly light rail) operating in full coordination with the rail services.

Examples of enhanced rail infrastructure capability and train services which are likely to be needed over the coming years to achieve these outcomes include:

⁴ "Victoria in Future – Population and household projections to 2051", Victorian Government, May 2014.

⁵ The Regional Fast Rail (RFR) project established target trip times to and from nominated regional cities which have generally not been achieved, partly because only parts of these lines were upgraded to the required standard.

Geelong corridor:

- track duplication South Geelong to Waurn Ponds to support more reliable and frequent services
- operation of more peak express and off peak limited stop services
- provision of metropolitan services to Wyndham Vale/Tarneit area stations with overtaking lanes at key locations to allow effective timetable integration with faster Geelong express services
- longer, higher capacity trains providing around 8 trains per hour during peak periods and four trains per hour at other times with target trip times Geelong to Melbourne of 45 minutes for express and 55 minutes maximum for stopping services.

Ballarat corridor:

- track quadruplication Sunshine to Deer Park Junction
- track duplication Deer Park Junction to Melton, Parwan to Bacchus Marsh and Gordon to Ballarat to support more reliable and frequent services
- upgrading of all track sections Sunshine to Ballarat to 160km/h standard
- electrification for provision of metropolitan services Sunshine to Melton and Bacchus Marsh
- operation of around 6 trains per hour during peak periods and twice per hour at other times with target trip times Ballarat to Melbourne of 65 minutes for express and 75 minutes for stopping services.

Bendigo corridor:

- restoration of track duplication from Kyneton for 2.5km towards Malmsbury and from Castlemaine to Harcourt to support more reliable and frequent services, including additional peak express services
- upgrading of all track sections Sunbury to Bendigo to 160km/h standard
- provision of a Northern Rail link to separate Bendigo line services from metropolitan services south of Sunbury and to link Melbourne Airport with the CBD.
- operation of around 6 trains per hour during peak periods and twice per hour at other times with target trip times Bendigo to Melbourne of 90 minutes for express and 105 minutes for stopping services

Seymour corridor:

- new signalling Craigieburn to Seymour to support more reliable and frequent services
- diversion of Seymour services to operate via Upfield (instead of Broadmeadows) to allow faster running through the metropolitan area and create capacity for additional Metro services
- electrification for extension of metropolitan services from Craigieburn to Wallan
- operation of around three trains per hour during peak periods and twice per hour at other times with target trip times Seymour to Melbourne of 80 minutes for stopping services.

Traralgon corridor:

- partial quadruplication Oakleigh to Dandenong and an overtaking lane near Beaconsfield to allow fast Traralgon services to effectively integrate with metropolitan stopping and semi-express services
- track duplication from Bunyip to Longwarry, from Moe towards Hernes Oak for 3km and from Traralgon towards Morwell for 3km to support more reliable and frequent services
- upgrading of additional track sections Pakenham to Traralgon to 160km/h standard
- operation of around four trains per hour during peak periods and twice per hour at other times with target trip times Traralgon to Melbourne of 110 minutes for express and 125 minutes maximum for stopping services.

Additional stations and/or service extensions may also become justified at some centres. Potential network extensions, by using existing or reserved corridors could include Marshall or Waurn Ponds to Torquay and Eaglehawk to Marong. New stations are likely to be provided at Corio Parkway⁶ (replacing the existing little used Corio Station) and at Warrenheip (on the eastern side of Ballarat). In addition, a rail passenger connection is likely to have been restored between Geelong and Ballarat with new or restored stations at Batesford, Bannockburn, Lethbridge and Meredith.

Rail services to cities and towns beyond the Melbourne commuting zone will also need enhancement (and in some cases, re-instatement) in coming years through improved frequency and amenity to match anticipated demand, community expectations and population increases. This will include services to Warrnambool, Horsham, Swan Hill, Mildura, Echuca, Shepparton, Albury, Bairnsdale and intermediate centres.

⁶ The proposed site for Corio Parkway station, large “park and ride” facility and bus interchange is at the junction of the Geelong Ring Road, Princes Freeway and Forest Road (reference Melway map 432, K1).

7. TRANSPORT INFRASTRUCTURE PLANNING AND DELIVERY

Development of transport infrastructure that prioritises the movement of people rather than vehicles will be a key element of any effective process of transport and land use integration directed to ensuring the livability and sustainability of Melbourne and Victoria's regional cities and towns when the State has a population approaching 10 million. Active personal transport (walking and cycling) and a much improved network of feeder and cross-town bus services that are coordinated with rail will also be important elements of the overall picture. However Rail Futures' focus is on the critical role of rail-based public transport and freight movement.

The role of rail in this scenario will be to handle much of the mass transit task using a range of technologies, some very familiar, and (very likely) some that will be new to Melbourne. Over the next 20-35 years, assuming that the task of ensuring liveability and sustainability in the face of significant challenges of population growth and climate change is embraced by government, the "big picture" for rail in Melbourne is likely to include some or all of the following as part of an overall hierarchical public transport network plan:

Heavy Rail (Passengers):

- A new high capacity metropolitan train fleet⁷, including complete replacement of the 93-strong ComEng trains introduced during the 1980s and later replacement of other trains delivered from around 2002.
- New regional trains including a dedicated high capacity fleet for the Geelong corridor and modern replacements for the 35 to 60 year old rolling stock operating long distance services beyond the Melbourne commuting zone.
- Electrification and full metropolitan services to Melton (later extended to Bacchus Marsh), Wyndham Vale (from Sunshine), Wallan (from Craigieburn), Baxter (from Frankston) and line extensions to Mernda, Wyndham Vale (from Werribee) and from Cranbourne to Clyde.
- Melbourne Metro linking the Sunbury and Dandenong corridors via Parkville, the CBD and Domain⁸.
- An extension to Melbourne Metro on a new corridor (mainly underground) from South Yarra to Springvale via Caulfield, Chadstone shopping centre, Oakleigh and Monash University.
- A new underground line, possibly originating at Burnley and running via East Melbourne, Parkville, Southern Cross, Fishermans Bend and Newport that would link the Glen Waverley and Alamein lines to Werribee and Wyndham Vale.
- Modification to the existing Melbourne Underground Loop to enable linking of the Craigieburn and Frankston/Baxter lines.
- Duplication of most remaining single line sections on the metropolitan network
- New high capacity signalling permitting up to 30 trains per hour to operate on some lines
- Increased service frequencies on all lines.

High Speed Rail:

- A new Melbourne Airport railway operating partly in tunnel on a dedicated corridor linking Southern Cross to the Airport, either via Footscray and Sunshine or more directly via Maribyrnong, that would provide a common exit from Melbourne for a high speed railway to Sydney and a Northern Rail Link to join the Bendigo line north of Sunbury.

⁷ The Government committed to the procurement of the first 37 new high capacity metropolitan trains in the 2015/16 State Budget, initially for use on the Dandenong corridor.

⁸ The Government announced an initial commitment of \$1.5 billion to the Melbourne Metro project in its 2015/16 State Budget with an expectation that major construction of the project would commence in 2018.

Light Rail:

- Several new lines using high performance, high capacity LRVs on largely segregated corridors but linked to the street tramway network at key interchange points. These could include:
 - Doncaster Shoppingtown to the CBD via the Eastern Freeway and Alexandra Parade
 - Docklands to Footscray via E Gate, North Melbourne Station and Dynon Road
 - Footscray to North Sunshine (Western General Hospital) via Ballarat Road
 - Gardenvale Station to Rowville via North Road, Ormond and Huntingdale Stations, Monash University and Wellington Road.

Tram:

- Additional new trams to progressively replace all of the non-DDA compliant non air-conditioned fleet.
- Selected route extensions designed to provide much improved network connectivity by terminating at key activity centres, railway stations and/or major shopping centres including Chadstone and Doncaster⁹.
- Fully DDA compliant platform stops.
- Tram priority lanes through strip shopping centres and other high usage roads.
- Tram priority at signalised intersections.

Heavy Rail (Freight)

- Introduction of metropolitan rail shuttle trains operating between the Port of Melbourne and strategically placed hub terminals in Melbourne's west, north and south-east, using spare capacity on the existing rail network outside of weekday peak periods.

Much of this will require investment on an unprecedented scale, a financial challenge that will necessarily involve government at all levels, the private sector and, almost certainly, an increased contribution from transport users (including road users) who have the capacity to pay. It will also require changed institutional arrangements, hopefully including genuinely independent infrastructure advisory bodies at State and Commonwealth level, transparent evaluation of project proposals and business cases, far closer coordination between State planning and transport departments and much better processes to ensure that wide community consultation and education takes place regarding transport projects and issues.

Short term, while it is pleasing that the current State Government has re-committed to the construction of *Melbourne Metro* and is pressing ahead with level crossing removals, Dandenong line upgrading and new rolling stock orders, it is critical that a pipeline of other rail and tram projects (some quite modest) be implemented during the 8-10 year period before *Melbourne Metro* can be completed. Rail Futures recommended several of these in its 2015/16 State Budget submission¹⁰ and will continue to press for adoption of these and other projects in its ongoing communications with the State Government and relevant agencies.

Equally critical is the need to progress planning for the development of other major and many lesser projects that will become essential in the years following completion of *Melbourne Metro*. This will be particularly important where it will be necessary to identify and protect reservations for future rail corridors. To provide the level of transport connectivity and support required by Victoria with 10 million people, a project similar in scale to Regional Rail Link must be planned for each decade – and objective analysis should be used to prioritise these projects and establish a pipeline and process for their funding and delivery.

⁹ These and other tram route modification and extension proposals are described in fuller detail in Rail Futures companion paper "Trams and Light Rail in Melbourne's Transport Future", issued in July 2015 and available on the Rail Futures website www.railfutures.org.au.

¹⁰ Also available on the abovementioned Rail Futures website.

The revised *Plan Melbourne* must seek to integrate land-use objectives with identified and potential transport infrastructure works and service enhancement required to meet demand, even if these can presently only be described at a conceptual level. It must acknowledge that further road network development on almost any scale cannot possibly accommodate future demand for inner area and CBD travel given the simple propositions described in Section 3 of this paper, quite apart from the damaging effects of congested suburban roads on the environment and the city's liveability. It is for this reason that planning must provide for future (mainly underground) heavy rail corridors in the CBD and near CBD areas to provide high capacity access from the radial rail network to such locations as East Melbourne and development areas at Fishermans Bend.

Public transport also needs to play a far greater role in providing cross-town mobility on key corridors linking Melbourne's established suburbs. This requires a coordinated multi-modal network which allows for minimum practicable waiting time at interchange locations resulting from service frequencies that should not exceed 15 minutes at all times and much less at peak periods, supported by high quality information systems. Where such frequencies cannot be justified, timetabled service connections will be essential, as will effective operational control systems that ensure connections actually occur. A combination of logical tram route extensions, new light rail corridors and bus route re-structuring coupled with much improved interchange infrastructure will be the elements that can significantly reduce car dependence for many such journeys.

The past planning failures in the outer urban growth corridors that have already led to unavoidable car dependency and severe road congestion must be addressed as a matter of urgency before the disconnect between residency location and commuting destinations becomes totally dysfunctional. The solutions for CBD and inner suburban oriented travel lie in:

- a small number of critical rail network extensions;
- additional park and ride capacity where feasible;
- a carefully planned network of feeder buses operating at frequencies compatible with train services using protected transit lanes on major roads;
- safe bicycle lanes with storage at stations and/or bus terminals; and
- application of travel demand management to road use, including targeted road pricing, transit lanes, motorway management technology and other measures.

Mandatory land use densification around new railway stations in outer urban growth corridors and with structure plans requiring densification retrofit around existing stations wherever feasible will also serve to gradually ease the problem over the medium term. With the exception of the north-east link to complete connectivity between the Metropolitan Ring Road and Eastern Freeway, further road development in outer areas should be limited to that required to ensure local access and to provide road based public transport wherever possible with policed priority transit lanes during peak periods.

The current State government has made major commitments to repositioning the traditional relationship between road and rail funding by abandoning the East-West Link project and committing to major rail, level crossing and other public transport projects. Comprehensive planning for further major new rail, light rail and tramway works and related improvements is needed now.

A long term plan based around identifying and maintaining opportunities for future transport projects that can be realised when required is desperately needed to future proof Melbourne against the combined pressures of population growth, development, climate change and the certainty of having to deal with major unplanned events. Previous transport plans have been weak at identifying a long term public transport vision. A bold and visionary approach is urgently needed for new transport infrastructure if Melbourne is to continue to function effectively.

8. RECOMMENDED ACTIONS:

A 10-point Plan for Future Proofing Melbourne

1. Integrating Transport and Land Use Planning:

Make legislative and “machinery of government” changes to require integrated land use & transport decision-making, legislation and policy development. These should include (inter alia) the following:

a) Include Performance Evaluation Measures in the Metropolitan Plan

Ensure the revised Metropolitan Plan contains specific measures that enable proper evaluation, accountability and performance monitoring, rather than general statements of intent that are not measurable.

b) Incorporate Metropolitan Plan Provisions into the VPPs

Ensure the revised metropolitan strategy contains clear and specific directions that are measurable and are translated effectively into the Victoria Planning Provisions (the planning schemes or “planning system”). This will require a careful review of most sections of the VPPs. This is essential to reverse the current “disconnect” whereby the metropolitan strategy provides insufficiently clear direction and the greatest influence over land use and development comes from individual land use planning scheme decisions that incrementally undermine the intended metropolitan vision.

c) Ensure use of Transport Integration Act and Transport Impact Statements

Make machinery of government and legislative changes to ensure the provisions of the *Transport Integration Act 2010* are properly considered and implemented at all levels of land use decision-making. This should include cross-references to the Planning and Environment Act, Victorian Civil and Administrative Tribunal Act, Local Government Act, Planning Panels Victoria processes, Metropolitan Planning Authority operations, Department of Transport / PTV decision-making and require mandatory Transport Impact Statements for all planning decisions above a specified threshold. Cross-sectoral planning should relate the provision of schools, hospitals and other public services to effective public transport connections.

d) Integrate Metropolitan Transport Plans with Metropolitan Planning Strategy

All state government transport plans - including for passenger and freight rail, tram, bus, bicycle, road and ports - should be fully integrated with the metropolitan strategy to form a single document endorsed by State Cabinet, in place of the current practice of producing separate land use and transport strategies inconsistent with each other.

e) Ensure that rail connections precede release of development Land

Require the provision of rail transport, readily accessible by walking or cycling and/or by local feeder bus services, before new land is released and rezoned for urban development. This should apply both in greenfield outer suburban growth corridors and brownfield urban renewal areas and should be implemented by prioritising land release and or planning approvals in those areas where rail transport is already available.

f) Relate transport funding to delivery commitments

Set and commit to clear priorities, delivery times and funding commitments for each item of transport infrastructure.

2. Activity Centres and Employment Clusters:

a) Tighten Retail Location Controls and new Commercial Zones

Modify the recently introduced new commercial zones to provide stricter controls over the location of retailing in order to support the viability of existing traditional shopping precincts.

b) Define clear hierarchy and roles for Activity Centres

Re-introduce a clear hierarchy for activity centres in metropolitan Melbourne and re-introduce statutory tools in the planning scheme to ensure development is directed into the priority centres, in contrast to the current provisions which are not sufficiently directive. This should include, for example, mandating that particular uses and developments over a given size must be located in metropolitan or principal activity centres and mandating that all new major retail development be in locations served by rail.

c) Service Activity Centre expansions by rail

No further expansions should be permitted of large activity centres not served by rail, without commensurate investment in rail facilities and/or services.

d) Define roles and boundaries of National Employment Clusters

Define more clearly the boundaries of identified “national employment clusters”, articulate their role clearly, and develop statutory controls to reflect these aims and ensure clear implementation.

3. Population, Dwelling Density and Mix:

a) Direct growth into preferred residential locations

Introduce strong mechanisms to direct growth into preferred residential locations, in contrast to the current highly discretionary and flexible policy directions and laissez-faire market approach.

b) Match land supply to dwelling demand and set targets for different metropolitan and regional city categories for population, dwelling density, dwelling mix and affordable housing by a clearly defined residential strategy

Match land supply to dwelling demand by adopting a clear residential strategy which links construction and dwelling types to identified supplies of land in three metropolitan city categories - inner, established and outer growth corridors. This strategy would involve a more directive role for government in place of a deregulatory planning system that facilitates private sector decision-making.

The preferred method for achieving this strategic approach would be to:

- Adopt a different (European) model of dense low to medium rise mixed use housing for inner urban brownfield sites;
- End high-rise residential construction in the CBD;
- Build medium density development in acceptable infill locations in established suburbs;
- Double the average residential density in new outer urban growth corridors;
- Mandate high quality urban design codes to apply to these three general development types;
- Set mandatory requirements for minimum dwelling densities and yields in appropriate locations;
- Mandate higher densities around all railway stations throughout the metropolitan area;
- In setting dwelling targets and estimates, include the potential for additional suburban infill housing on urban renewal sites, commercial zones, activity centres in addition to capacity under the three new residential zones, to reduce development pressure on heritage and high quality residential areas; and
- Revisit implementation of the new residential zones to ensure they are linked to and achieve the metropolitan strategy population and housing distribution objectives.

4. Planning Outer Urban Growth Areas and Corridors:

Introduce the following measures in outer urban growth areas and corridors:

- a) Permanently fix the urban growth boundary and embed it in legislation;
- b) Mandate a range of housing and lot sizes;
- c) Require a minimum average gross residential density of 25 dwellings per hectare;
- d) Mandate higher densities and mixed use around public transport nodes;
- e) Provide rail services to serve areas without such transport;
- f) Prohibit retail centres away from rail nodes;
- g) Retro-fit mixed use development around existing rail stations; and
- h) Medium and higher density housing to be within 400m walk of a rail station, tram or light rail line.

5. Planning New Inner Urban Brownfield Renewal/redevelopment Areas:

a) In planning proposed new inner urban brownfield renewal/redevelopment areas:

- Commence rail (heavy or light as appropriate) public transport planning immediately;
- Halt the issue of further development permits until structure plans, transport plans, community facility plans and infrastructure financing mechanisms are in place;
- Refuse extensions of time for existing approvals if not consistent with the structure plans, and
- Replace the current high-rise high-density urban model with a European low/medium rise model emphasising dense, mixed uses and high quality environmental design based around connections to the public transport system, the CBD and the rest of the metropolis.

b) Maximise urban renewal opportunities created by level crossing removals

- Provide immediate urban renewal/planning expertise to a body such as the *Level Crossings Removal Authority*, to maximize the land use redevelopment opportunities at these sites, most of which involve rebuilding of railway stations and reconfiguration of the surrounding precinct; and
- Require the LCRA to deliver integrated urban renewal outcomes consistent with the revised Metropolitan Plan, for every level crossing removal located at a railway station.

c) Prioritise residential and mixed-use densification at Railway Stations

- Identify railway stations within 20km of the CBD where adjacent land is available for residential and mixed-use densification. Nominate these as priority development sites or urban renewal precincts with specific dwelling/population targets; and
- Partner with Local Governments for the planning and implementation, and/or assign the task to a dedicated authority or body.

6. Regional Towns and Cities:

a) Promote development within urban areas of regional towns

Include a *regional network strategy* as part of the revised Metropolitan Plan by promoting development within existing boundaries of regional towns identified for additional urban growth, promoting employment and high quality services. Potentially most regional cities and towns can accommodate a doubling of population and density within their existing urban footprints, without further outward growth.

b) Divert Metropolitan Growth to Regional Cities and Towns

Give a high priority to increase population and density in regional cities and towns on rail corridors within a radius of approximately 160kms or 90-100 minutes travel time from the CBD, with the aim of accommodating a population of 2 million within such towns by 2051, being approximately 20% of Victoria's projected 10 million population and reduce growth pressures on the metropolitan area.

c) Upgrade Regional Rail Services

Progressively upgrade the speed, capacity, frequency and quality of rail services to regional cities and towns as detailed in Recommendation 8 (b).

7. Urban Expansion and Green Belt:

Limit outer urban expansion and protect green belt

Reduce the proportion of development planned for outer growth corridors, double the density of development in corridors, and revise the Urban Growth Boundary inward to limit unsustainable outer urban expansion and provide long-term protection for Melbourne's green belt.

8. New Rail Transport Infrastructure:

a) Identify and plan new Metropolitan Rail, Tram and Light Rail Routes

- Identify new heavy rail, tram and light rail routes and extensions to existing routes necessary to provide sustainable transport throughout metropolitan Melbourne, including outer growth areas and to better connect identified employment clusters and activity centres; and
- In addition to rail infrastructure proposals already committed or commenced by State Government (Regional Rail Link, Melbourne Metro, Mernda rail extension, Dandenong line upgrade, level crossing removals) further recommended projects are detailed in Section 7 / Pages 19-20. (See also the Rail Futures Paper "*Trams and Light Rail in Melbourne's Transport Future*" and other Rail Futures publications).

b) Upgrade Rail Services to Regional Cities and Towns

To cater for and stimulate growth in regional cities and towns (see Recommendation 7), plan and implement the rail infrastructure upgrades detailed in Section 6 / Page 20 on the Geelong, Ballarat, Bendigo, Seymour and Traralgon corridors, with commensurate increases in service quality, speed, and frequency.

c) Plan for a new Melbourne Airport railway

Progress planning for a new Melbourne Airport railway on a dedicated corridor linking Southern Cross to the Airport that would provide a common exit from Melbourne for HSR (High Speed Railway) to Sydney and a Northern Rail Link to join the Bendigo line north of Sunbury.

d) Limit new major road construction

With the exception of the north-east link to complete connectivity between the Metropolitan Ring Road and Eastern Freeway, further major road development in outer areas should be limited to that required to ensure local access and to provide road based public transport wherever possible, with policed priority transit lanes during peak periods.

e) Facilitate port rail freight transport

Act to facilitate the use of spare off-peak capacity on the metropolitan rail network for transport and distribution of freight between the Port of Melbourne and metropolitan intermodal transfer hubs, to reduce heavy truck congestion.

9. Tram Priority and Road Space Allocation:

Program tram priority measures and road space re-allocation

Develop a program to re-allocate road space to provide tram priority (and for buses where relevant) and safe lanes for cyclists. This should be trailed by one or two demonstration projects to assist in gaining public acceptance.

10. Pricing Tools:

a) Embrace the use of pricing tools to achieve strategic outcomes and fund infrastructure

Make use of the full range of pricing mechanisms to achieve desired strategic land use outcomes and fund infrastructure. These include betterment levies on land zoned for more intensive development, special rates on properties benefiting from new rail links, value capture and road pricing.

b) Introduce selective Road Pricing

Actively discourage car usage to destinations within the CBD and inner areas (say within a 10km radius of the CBD) by appropriate road pricing (utilizing modern electronic technology) on all main roads and hypothecate the proceeds to further public transport and active personal transport development.
