As the rate of decline in activities such as manufacturing can be expected to stabilise in the near future, the effect of office-based activities will result in overall increases. The current and planned construction of office floor space is at a considerably greater rate than the pre-1966 period.

An important trend in recent years has been that workforce employed in the CBD generally now lives at locations more remote from that area than in previous periods.(Appendix 2.6).

The CBD at present contains less than 17% of the metropolitan workforce as compared with 25% in 1951.

Manufacturing Employment

Melbourne for a long time has been the most highly industrialized capital, where manufacturing industry employs almost four out of ten workers. Although its relative importance has remained fairly constant during the post-war period, there have been very considerable increases in the number of people employed and significant locational changes have taken place. Figure 9 indicates the basic changes which have occurred in the location of manufacturing employment since 1949.

Figure 9

Manufacturing Employment

Sector	1949	1968	Percentage Change 1949-1968
Central	142,413	123,207	− 13.5%
West	34,998	54,543	+ 55.9%
North	27,117	69,300	+155.6%
East	9,876	33,294	+237.1%
South	24,231	88,747	+266.3%
Melbourne Region Total	238,635	369,091	+ 54.7%

In the past, the focus of Melbourne's factory employment was located in the Central Sector and Inner Ring close to the port and railheads. Over the past two decades there has been a distinct outward movement towards the Suburban Ring and in this outward movement the South Sector in particular, had a growth rate that was considerably higher than the rest of Melbourne.

An analysis of major industry groups, which attract 80 per cent of total manufacturing workforce, shows that the growth of the dominant group—industrial metals, machines conveyances—is strongest in the Southern Sector. (Appendix 2.7).

Improved accessibility to a range of employment opportunities is an important planning goal, and the location of key manufacturing employment nodes is a major consideration. The proposals in the 1954 metropolitan planning scheme assisted this shift in manufacturing location which considerably reduced the imbalance of the 1950's when 85 per cent of work places were located in the Central, West and North Sectors whilst two-thirds of the population lived in the South and East Sectors.

The two key considerations which have influenced the outward movement of industrial activities have been land availability and proximity to labour. The greater land requirements of industrial establishments are brought about with the growth in the average size of the factory, the modern single storey production techniques, the economics of large scale production, greater land needs for onsite parking and trucking, and more stringent controls over site layout and landscaping. In addition to the above location determinants there are others, such as, proximity to raw materials, associated industries and services, and growing markets. Also, accessibility in general is enhanced through the progressively improved metropolitan road system.

The end result of increased land availability, better work force distribution and the improved roads has been a greater flexibility in locational choice.

Further work needs to be done on the question of maximising industrial location benefits, and the Board, in consultation with the Victorian Chamber of Manufactures is preparing a comprehensive survey of various locational determinants, including land requirements.

Whilst major manufacturing growth has taken place in the Suburban Ring and especially in the South Sector, the Central Sector still retains its significance as the major employer of manufacturing labour. However, industries which because of their special locational requirements, are retaining their centrality in the Central Sector or the Inner Ring, tend to be

less significant as growth industries from an employment viewpoint.

In the outward movement of industry, individual municipalities have been attracting the bulk of such increases. Oakleigh, Moorabbin, Waverley, Dandenong and Springvale have emerged as leading areas. In other directions, Altona, Broadmeadows, Knox and Croydon have become attractive locations for manufacturers.

Although the manufacturing industry has shown a greater propensity towards dispersal than other industries, in general, this has been accompanied by an outward movement of associated industries and services.

Journey to Work Changes

In 1961, the journey to work flows were centred mainly on the municipalities that were fully developed. However, between 1961 and 1966 there was a significant increase in the work flows to the outer municipalities especially in the South and East. Rather than being oriented towards the centre of Melbourne, the change in emphasis was towards suburban municipalities such as Moorabbin, Oakleigh, Broadmeadows, and Sunshine.

In the developing "white collar" municipalities, such as Waverley, and Doncaster and Templestowe there was an increase in the numbers travelling to the CBD; but a more significant part of the increase in resident workforce was absorbed in local, or neighbouring municipalities where new employment nodes emerged. (Appendix 2.6).

In the municipalities in the South and East, people entering the work force found employment in areas further out into these Sectors, such as Oakleigh, Moorabbin and Dandenong, rather than continuing the 1961 pattern of orientation towards the Central Sector. Thus, the previous journey to work patterns of strong concentrations towards the centre have "decentralized" with increased movements to the outer suburban employment centres.

Transportation

Land Transport

Following the establishment of the Metropolitan Transportation Committee in 1963, a transportation study was commenced within an area embracing Melbourne and its environs in 1964. This study determined the patterns and volumes of movement of people and goods which occurred at that time.

At the same time, the Board prepared land use estimates indicating the extent of growth and change which might be expected to occur in the area by the year 1985. Through the application of mathematical models to this data, and the testing of a series of alternative transport networks a Transportation Plan was derived intended to service the movement needs of Melbourne for a population of 3,700,000.

The plan is a comprehensive and balanced system of transport and envisages a substantial upgrading of existing public transport services, based, with some exceptions, on existing rights-of-way, the creation of an extensive freeway system and an improved arterial road system.

It includes an expanded rail system providing for higher speed long distance travel in radial directions towards and away from the Central Business District, trams with medium density loadings and buses with low density loadings for shorter trips, and a road network which would provide for cross city movements in all directions.

Plan 3 shows the Transportation Plan superimposed on present urban zoning in the metropolitan area.

The plan shows the general networks required for the various transport modes.

The proposed network is based on anticipated future need and a free travel choice, consequently it provides for an expanded use of the private motor vehicle, based on expanding vehicle ownership but at the same time, seeks to encourage a maximum practical use of all forms of public transport. Melbourne already has an excellent rail network compared with most cities of comparable size, however this system needs considerable improvement, particularly in enabling higher speed movement with greater comfort.

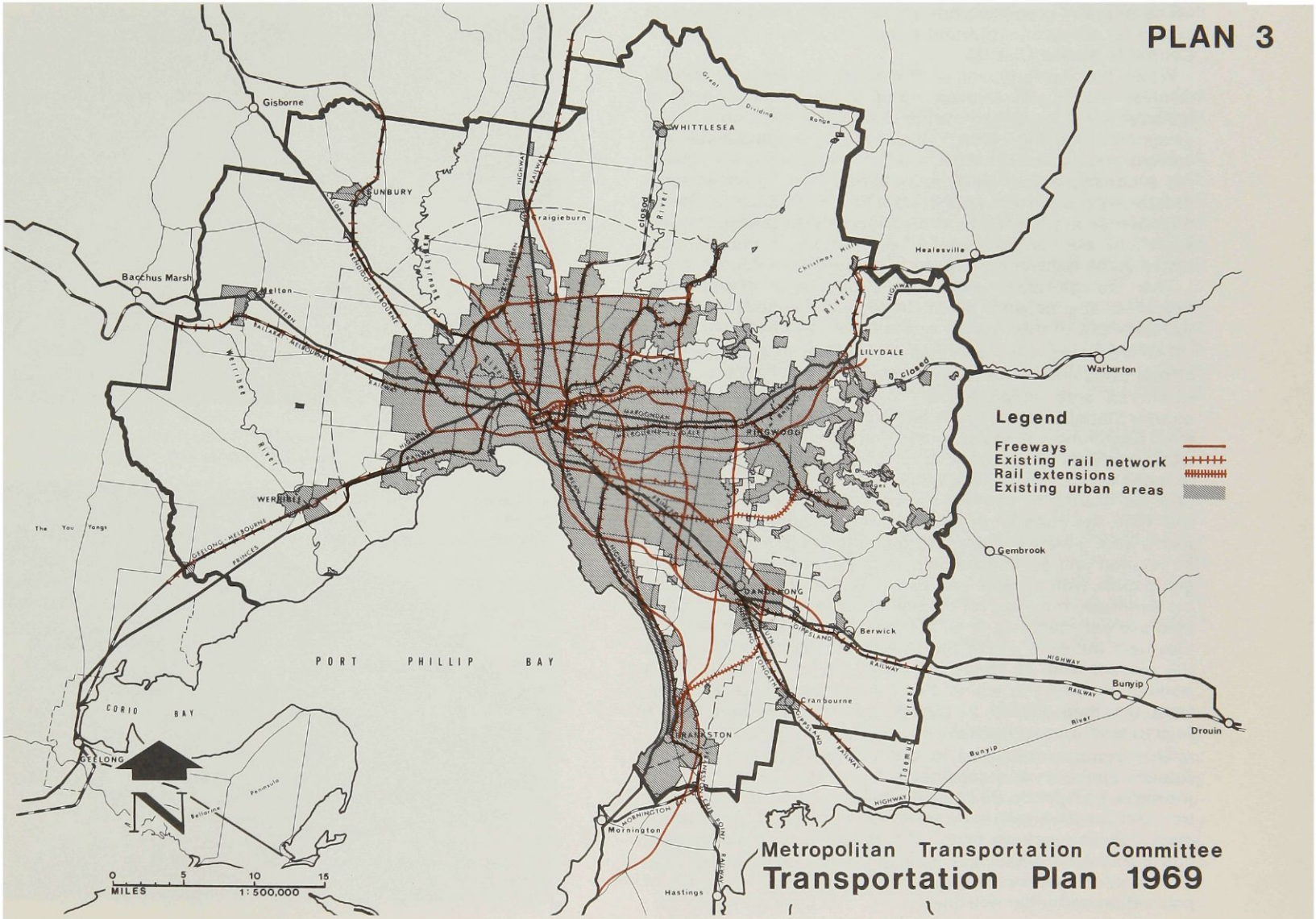
The railways improvement proposed are substantially within existing rights-of-way but with the following exceptions:

City Underground Loop—basically underground except at some stations.

City—East Doncaster Line—substantially within the Eastern Freeway reservation, ultimately connecting to the Underground Loop.

Huntingdale to Ferntree Gully Line.

Frankston to Dandenong Line.


PLAN 3
Gisborne
SUNBURY
WHITTLESEA
Traigieburn
Healesville
Bacchus Marsh
Melton
LILYDALE
Warburton
RINGWOOD
WERRIBEE
The You Yangs
Gembrook
FRANKSTON
Berwick
PORT PHILLIP BAY
CORIO BAY
Cranbourne
Bunyip
Drouin
GEELONG
Mornington
Hastings
Legend
Freeways
Existing rail network
Rail extensions
Existing urban areas
0 5 10 15
MILES
1:500,000
Metropolitan Transportation Committee
Transportation Plan 1969

The tramway proposals follow the existing fixed rail system except for some underground proposals in and adjoining the Central Business District.

While the development of the fixed rail systems largely involves the use of existing rights-of-way, a major part of Melbourne's arterial road system was established prior to the development of the motor vehicle, and is incompatible with current and expected needs in terms of capacity, and safety. As a consequence, the Transportation Plan provides for a greatly expanded freeway system and a very much upgraded arterial road system. While some 56% of the proposed freeway system is already covered by reservations in the planning scheme, the remainder have yet to be defined in detail.

The Transportation Plan also proposes a considerably extended bus network which in turn is dependent on the development of the freeway and arterial road network.

The future land use estimates prepared in 1964 provided for a total population with related activities of 3,700,000 by 1985, within an area which broadly corresponds with the Melbourne Statistical Division. In terms of population and employment distribution, it was assumed that the major part of growth would occur in fringe areas at relatively low densities, similar to those which now prevail. Whilst the Government and Board policies relating to corridor growth had not been adopted at that time, the constraints which limit opportunities for settlement, were generally known. In broad terms, the locations for population and activities which were adopted were therefore compatible with current proposals. Within the built up area, the estimates provided for limited increases in population and employment, particularly within the Central Sector. An employment increase within the Central Business District from the current level of about 155,000 to 216,000 workers, and a population increase within the Central Sector as a whole, from the then 200,000 to 250,000 persons, together with a related employment increase in that area was assumed.

The assumptions used in the transportation study, that future population and activities will interact in terms of work journeys and goods flows in a similar manner to that which occurred in 1964, results in an expanded road system which must necessarily have major effects within the built up area and particularly within the inner portions. Quite substantial and expensive works are involved entailing major relocation of population and other activities.