ACTIVITY CENTRES REVIEW

A study of policy and centres of activity in metropolitan Melbourne and Geelong

FINAL REPORT

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LIST OF FIGURES

LIST OF WORKING PAPERS

EXECUTIVE SUMMARY I

INTERNATIONAL AND INTERSTATE EXPERIENCE WITH CENTRES POLICIES I
CENTRES POLICIES IN MELBOURNE III
THE PERFORMANCE OF INDIVIDUAL ACTIVITY CENTRES AND THE OVERALL NETWORK OF CENTRES IV
POLICY DIRECTIONS AND IMPLEMENTATION MECHANISMS VI

CHAPTER 1 INTRODUCTION 1

1.1 CONTEXT OF THE REVIEW 1
1.2 THE PROJECT BRIEF 1
1.3 APPROACH TO THE BRIEF 2
1.4 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD) 2
1.4.1 The Meaning of Ecologically Sustainable Development 2
1.4.2 ESD and Activity Centre Policies 3
1.5 ACTIVITY CENTRES DEFINITION 4
1.6 CONSULTATION AND MARKET RESEARCH 5

CHAPTER 2 INTERSTATE AND OVERSEAS EXPERIENCE AND 'BEST PRACTICE' 6

2.1 ORIGINS OF CENTRES POLICIES 6
2.1.1 The Garden City 6
2.1.2 Linear Cities and Corridors 7
2.1.3 The Radiant City 7
2.1.4 Central Place Theory 7
2.2 ARCHETYPAL CITIES 8
2.2.1 London 8
2.2.2 Stockholm and Copenhagen 9
2.2.3 Canberra 10
2.2.4 North America 12
2.3 CONTEMPORARY CENTRES POLICIES 12
2.3.1 Centres Policies and Sustainable Development 12
2.3.2 Clustering for Economic Growth 13
2.3.3 Contemporary Centres Policies in Australia and New Zealand 14
2.3.4 Contemporary Policies in Canada 15
2.3.5 Portland, Oregon 16
2.3.6 European Centres Policies 17
2.3.7 The Dutch A-B-C concept 18
2.3.8 United Kingdom 18
2.3.9 Singapore 19
2.4 ASSESSING THE RESULTS OF CENTRES POLICIES 20
2.4.1 Self-Containment Versus Public Transport Use 20
2.4.2 'The 'Sustainable Automobility' Alternative 21
2.4.3 The Royal Commission on Environmental Pollution 22
2.4.4 What Determines the Effectiveness of Centres Policies? 23
2.4.5 What Kinds of Land Uses are Directed to Centres? 26
2.4.6 Conclusions 27

CHAPTER 3: CENTRES POLICIES IN MELBOURNE AND GEELONG 30

3.1 INTRODUCTION 30
3.2 THE ORIGINS OF MELBOURNE CENTRES POLICY: THE 1950S 30
3.3 IMPLEMENTATION OF MELBOURNE POLICY FROM THE 1950'S TO THE EARLY 1970'S 31
3.4 REVIVAL OF CENTRES POLICIES: THE LATE 1970S AND 1980S 33
3.4.1 MMBW's New Metropolitan Strategy 33
3.4.2 Selection of 14 District Centres and Amendment 150 35
3.4.3 The Policy Comes Under Pressure 36
3.4.4 Summary of Melbourne Policy in the 1980's 37
3.5 ABANDONMENT OF DISTRICT CENTRE POLICY: THE LATE 80S AND 1990S 38
3.5.1 Shaping Melbourne's Future - 1987 38
3.5.2 Metropolitan Statutory Planning Provisions 41
3.5.3 Review of District Centre Policy in 1990-91 42
3.5.4 Shaping Victoria's Future and Cities in the Suburbs 1992 43
3.5.5 Pressure Points in the Early 1990's 44
3.6 MELBOURNE CENTRES POLICY DURING THE KENNETT GOVERNMENT 46
3.6.1 Perrott Committee Review and August 1993 Ministerial Statement 46
3.6.2 Living Suburbs and Transporting Melbourne – 1995/96 46
3.6.3 Urban Villages Project 1995-1997 47
3.6.4 Retailing Victoria 48
3.6.5 StreetLife Program 49
3.6.6 Victorian Planning Provisions 50
3.7 GEELONG ACTIVITY CENTRE POLICIES 52
3.8 LOCAL GOVERNMENT POLICIES AND PROGRAMS 54
3.9 SYNTHESIS OF ACTIVITY CENTRE POLICY ORIENTATION AND OUTCOMES 55
3.9.1 Recognised Need for Activity Centres Policies 55
3.9.2 Sustainability Not a Driving Force 56
3.9.3 Focus on Retail and Commercial Centres 57
3.9.4 Emphasis on Larger Centres 58
3.9.5 Special Role for the Melbourne Central City 58
3.9.6 Emphasis on Framework and Classification Systems 59
3.9.7 Regulatory Orientation 60
3.9.8 Limited Facilitation Policies and Implementation Measures 60

CHAPTER 4 ECOLOGICALLY SUSTAINABLE DEVELOPMENT ANALYSIS OF MELBOURNE AND GEELONG ACTIVITY CENTRES 62

4.1 INTRODUCTION 62
4.2 THE NETWORK OF MELBOURNE AND GEELONG CENTRES 63
4.2.1 General Description of the Network 63
4.2.2 Regional Description of the Network 64
4.2.3 Hierarchy of Retail Centres 75
4.2.4 Office Development and Activity Centres 82
4.2.5 Tertiary Educational Institutions and Hospitals 83
4.2.6 Network of Metropolitan Melbourne Centres with Highest Number of Trips 84
4.2.7 Mode Share of Trips to A Selection of Activity Centres 87
4.2.8 Business and Resident Perceptions of Centres 90
4.3 URBAN DYNAMICS IN THE MELBOURNE METROPOLITAN AREA AFFECTING THE NETWORK OF CENTRES 92
4.3.1 Demographic and Social Changes 92
4.3.2 Industry and Employment Forces 93
4.3.3 Retailing Forces 94
4.3.4 Public and Private Health Changes 95
4.3.5 Tertiary Education Changes 96
4.3.6 Environment and Transport Pressures 96

4.3.7 Implications for Activity Centres ... *98*
4.4 EVALUATION OF MELBOURNE AND GEELONG CENTRES OF ACTIVITY ... 101
4.4.1 Evaluation Approach ... *101*
4.4.2 The Evaluation of Individual Centres ... *103*
4.4.3 Comments on Different Types of Centres ... *119*
4.4.4 Summary Evaluation of Individual Centres ... *124*
4.5 EVALUATION OF THE OVERALL NETWORK OF CENTRES ... 125
4.5.1 Network Evaluation ... *125*
4.5.2 Conclusions From The Evaluation – Desired Metropolitan Pattern ... *125*
4.5.3 Conclusions From The Evaluation – Desired Characteristics of the Network ... *128*
4.5.4 Opportunities for Improvement ... *134*
4.5.5 Improvements in Overall Metropolitan Pattern of Centres ... *135*

CHAPTER 5 ACTIVITY CENTRE POLICY DIRECTIONS AND IMPLEMENTATION MECHANISMS ... 139

5.1 INTRODUCTION ... 139
5.2 POLICY ISSUES ... 139
5.2.1 Approach to Clustering – Centres Policy Versus No Centres Policy ... *140*
5.2.2 A Hierarchical or Classification Framework for Centres ... *141*
5.2.3 Key Focus of Centres Policy ... *143*
5.2.4 Facilitation of Particular Uses in Centres ... *144*
5.2.5 Targeting Certain Centres for Special Attention ... *144*
5.2.6 Sustaining A Robust Network of Centres throughout the Metropolitan Area ... *146*
5.2.7 Control of Activities Outside of Transit-Oriented Centres ... *147*
5.3 PREFERRED POLICY APPROACH ... 148
5.4 IMPLEMENTATION MECHANISMS ... 150
5.4.1 Specific Policy Statement for Activity Centres as Part of the Metropolitan Strategy ... *150*
5.4.2 Designation of A Small Number of Mixed Use Transit-Oriented Centres in Melbourne's Outer Areas for Special Attention ... *151*
5.4.3 Strengthening of Neighbourhood Centres Particularly in Middle and Outer Areas ... *152*
5.4.4 Maintenance of the Predominant Role of the Melbourne CAD within the Metropolitan Network ... *153*
5.4.5 Revisions to the State Planning Policy Framework (SPPF) ... *153*
5.4.6 A New Set of Development Guidelines in the State Planning Policy Framework ... *155*
5.4.7 Preparation of Guidelines for the Revitalisation of Activity Centres ... *157*
5.4.8 Supportive Transport Policies ... *158*
5.4.9 New Government Program Geared to Improving Mixed Use Transit Oriented Centres (TOC Program) ... *159*
5.4.10 Corporate Government Commitment and Partnerships ... *160*
5.4.11 Regular Monitoring and Evaluation ... *161*
5.5 FOCUS FOR DIFFERENT TYPES OF ACTIVITY CENTRES AND OTHER USES ... 162
5.5.1 Major Suburban Centres ... *162*
5.5.2 Neighbourhood Retail and Commercial Centres ... *163*
5.5.3 Office Parks ... *163*
5.5.4 Industrial Estates ... *164*
5.5.5 Strings of Peripheral Sales Outlets and Stand Alone Office Complexes ... *164*
5.5.6 Stand Alone Superstores ... *164*
5.5.7 Major Institutions and Public Facilities ... *164*

REFERENCES ... 165

LIST OF FIGURES

- Activity Centres Across the Melbourne Metropolitan Area and Geelong Region
- Activity Centres in the Central Region of Melbourne
- Activity Centres in the Western Region of Melbourne
- Activity Centres in the Northern Region of Melbourne
- Activity Centres in the Eastern Region of Melbourne
- Activity Centres in the Southern Region of Melbourne
- Activity Centres in the Geelong Region
- Hierarchy of Retail Centres across Metropolitan Melbourne and Geelong
- Top 201 Trip generators in the Metropolitan Melbourne area

LIST OF WORKING PAPERS

(not included with report)

Working Paper 1a	Melbourne Activity Centre Pro Formas by Region
Working Paper 1b	Summary Tables of Activity Centres by Region
Working Paper 2	Roy Morgan Business and Customer Perceptions Survey Data for Four Centres in Melbourne and Geelong
Working Paper 3	ARUP Transportation Planning Report 'Activity Centre Characteristics that Support Low Car Use', Nov. 2000
Working Paper 4	Summary of Focus Group Discussions
Working Paper 5	Jebb Holland Dimasi Report 'Activity Centre Policy Review – Retail Trends', Oct. 2000, prepared for The Gandel Group
Working Paper 6	ESD Framework and Evaluation of 26 Sample Centres in Melbourne and Geelong
Working Paper 7	UK Planning Policy Guidance 6 (PPG6)
Working Paper 8	Summary Information on 201 Top Trip Generating Centres in the Melbourne Metropolitan Area

EXECUTIVE SUMMARY

Activity centre policy is one of the key strategic issues identified by the Government to be addressed in a new Metropolitan Strategy. Underlying the strategy is the Government's concern for ecological sustainable development. For activity centres this highlights the need for better integration between mixed use development clustered in activity centres and increased public transport usage.

This report provides an innovative and comprehensive approach to activity centre policy. It considers the key outcomes that activity centre policies should be aiming to achieve. It examines this question by considering 'best practice' in such policies interstate and overseas, then reviews past policies in Melbourne. This leads to an evaluation of the performance of a sample of different centres in Melbourne and Geelong, as well as of the whole metropolitan network of centres, using an evaluation framework suggested for testing by the Department of Infrastructure.

Ecologically sustainable development (ESD) is the driving force behind this review. ESD encompasses a diverse range of issues from bio-diversity to global warming and greenhouse gas emissions. For activity centres in a metropolitan context the key ESD concerns are: conserving land; encouraging use of travel modes other than the automobile; making it easier for all people to gain access to employment, goods and services; creating and maintaining attractive, safe and functional community focal points; and providing robust clusters of jobs and services.

In this project, we have used a broad definition of 'activity centres'. They include about 1000 concentrations of activity of various kinds including the Central Activities Areas in Melbourne and Geelong; large and small retail and commercial centres, some of which also perform a civic, administrative, education, health or entertainment function; clusters or strings of superstores, peripheral sales or office developments along major roads; office parks; the four airports in Melbourne and Geelong; stand-alone campuses of tertiary education; and industrial estates including the Ports of Melbourne and Geelong. This broad approach has been used to examine the most appropriate policy response for different types of centres to achieve better ESD outcomes.

International and Interstate Experience with Centres Policies

The report takes a fresh look at some of the key assumptions and directions of past centres policies in Melbourne, drawing upon international and interstate examples where transit-oriented centres policies are central to metropolitan strategies promoting ESD. While the details of the various policies employed in cities around the globe may vary, there is considerable consensus on the importance and value of such policies.

From overseas experience, clustering activity and higher-density housing in designated centres that are well-served by public transport has increased both walking and public transport usage. Clustering activities has also contributed to innovation and economic growth. Overseas examples also highlight the importance of public transport infrastructure primarily based on a fixed rail system, complemented by an extensive bus network.

Transit-oriented sites for major activities seem to work best when coupled with networks of smaller centres for convenience shopping and other local activities, based around walking and cycling as the preferred access modes.

From the overseas and interstate experience, planning for the internal structure of centres needs to emphasise compactness, pedestrian-friendly layouts and mixing of land uses. This needs to be backed up by policies to assemble appropriate sites for developments, especially those which require large sites. Planning policies also need to restrain developments from locating outside centres. Policies that rely only on 'carrots' have not succeeded.

Supportive transport policies also are essential. These include provision of high-quality, integrated public transport services connecting the centres to their regions; parking policies within centres which emphasise 'demand-management' (e.g. ceilings rather than minimum requirements); and road construction policies which similarly emphasise demand management and which refrain developments which encourage travel patterns inconsistent with centres policies.

Consistent commitment to centres policies by local and state level governments is the final necessity. This commitment must be maintained over a significant period of time and includes ensuring that government agencies themselves locate people-attracting activities in centres. Since there will always be pressure on centres policies from developers wishing to avoid them, it is important to establish regular, orderly cycles for monitoring and review of centres policies to reduce the opportunity for ad-hoc modifications in response to developer pressure.

The overseas experience underlines the fact that, while it is possible to use integrated transport and land-use planning to promote modal shift, the task is not simple and requires firm, co-ordinated policies pursued consistently over many years. Cities which have pursued half-hearted policies, or which have failed to back land-use policies with supportive transport policies, have generally produced only partial success and in some cases no benefit at all.

Centres Policies in Melbourne

Activity centre policies for metropolitan Melbourne and Geelong have evolved over the last 50 years, acknowledging that most uses and activities should be in centres. There has been widespread acceptance of the need for centres policies, based on the central role that activity centres are considered to play in providing retail, commercial, industrial, education, health and entertainment goods and services; community infrastructure; employment; housing; identity and focus for communities; meeting places; and business synergies.

In Government policies, the primary concern has been with larger retail and commercial centres, including the Melbourne CAD. There have been virtually no policy directions for smaller, neighbourhood scale centres. However, this scale of centre is considered important overseas in providing a wide range of facilities at local level which can be reached on foot or bicycle.

Activity centre policy has been based on the need to provide certainty and clear decision-making mechanisms to resolve conflicts about the location of activities. The policy has gone some way to provide mechanisms to weigh up the interests of the various parties – developers, current operators, and the community – and assess the net community benefit of future land uses and developments.

Except for a brief period in the late 1970s and early 1980s, ESD has not been a driving force of centre policies. Unlike 'best practice' in international and national experience, there has not been a real emphasis on transit sustainability. The Government has had few supportive transport policies in place of the kind considered essential to achieve long-term ecological sustainability.

Centre policies were largely concerned with an orderly and hierarchical framework of centres and to some extent achieving self-containment in regions. A central tenet has been to reinforce the established pattern of activity centres. This emphasis has provided a sense of certainty and security for developers and investors in centres. It also has given preference to the status quo, and thereby required proponents of new developments to go through an extensive and prolonged review process. This is considered to have prevented much speculative development in Melbourne and Geelong and resulted in a system of fairly robust centres.

However, in terms of an ESD framework, this has been a static policy approach. It implies maintaining a fairly rigid framework of centres in the face of changing economic, social and environmental forces. It does not indicate any aspirations for a better pattern of centres nor improved conditions in centres to meet wider community and ESD goals.

Until the early 1990's in Melbourne, the emphasis in Government centres policy has been on fairly prescriptive statutory provisions governing major new retail and office development as well as overall centre development. Since the mid-1990's, there has

been a more laissez-faire approach allowing business growth in a wide range of locations. There are not sufficient controls within the existing State Planning Policy Framework to regulate development outside of centres. Policy and regulatory measures do not seem to be strong enough to control the proliferation of major stand-alone big box retailing outlets, or strings of convenience or peripheral sales retailing along major roads.

This flexible approach has been accompanied by limited facilitation policies and implementation programs of any real substance. There has been a very limited range of supportive Government programs with respect to transport management in centres; land consolidation to facilitate new developments; provision of major new infrastructure (hospitals, tertiary education campuses, public transport interchanges) and services; streetscape improvement programs; mainstreet initiatives; urban village projects; structure or business planning in centres; development incentives; and higher density housing in selected areas within or adjacent to centres.

Similarly, Government has not identified a range of pro-active programs that could be undertaken in centres in partnership with private sector or community interests.

The Performance of Individual Activity Centres and the Overall Network of Centres

To complement the review of metropolitan centres policy, the report provides an overview description of the current network of centres in Melbourne and Geelong using different variables, and examines the implications for activity centres of changing economic, social and environmental forces. This leads to an ESD evaluation of the performance of 26 different types of centres in Melbourne and Geelong, as well as the overall metropolitan network, using a framework developed for testing by the Department of Infrastructure and the consultant team. The evaluation approach was derived from the core objectives in the National Strategy for Ecologically Sustainable Development.

Several different concentrations of activity, in keeping with our expanded definition of 'activity centres' were examined - shopping and business centres of different sizes, ownership, location in different regions, and with different public transport and non-motorised transport infrastructure and services; a string of superstores, a stand-alone tertiary education campus, an office park, an industrial estate and an airport. The type, role, size and location of a centre of activity, its particular mix of uses and activities, and the availability of public transport services within individual centres were evaluated to assess how important they were to achieving ESD.

The results of the evaluation question previous assumptions. The key variables influencing ESD performance at the individual centre level did not relate exclusively to the role or size of the centre, or its perceived position in a 'hierarchy' of centres. The critical determinants had much more to do with whether the centre and its surrounding

area had a particular urban form, mix of uses and transit arrangement that encouraged low car use, high levels of walking, cycling and public transport usage, and encouraged high levels of social interaction.

Centres with different forms of public transport, particularly a railway station in the heart of the centre and high frequency of transit services, performed better. Centres in urban areas with a high level of density that are easily accessible from multiple entry points performed better. Centres with a mixture of uses and activities (without specifying what that mixture is) that generated a high level of business activity as well as multi-purpose trips performed better. Centres with a compact and integrated urban form with a sense of vitality and community focus performed better.

The desirable form arising from our evaluation is a mixed-use, pedestrian friendly, transit-oriented centre that has a distinctive sense of place and community, and is integrated with surrounding areas.

The more specialist concentrations of activity we have examined such as airports, industrial estates, and, to a lesser extent, business parks, and stand alone tertiary education campuses have difficulty fitting entirely into this desirable form. Whilst they did not achieve a high sustainability rating, these centres are necessary and could achieve better sustainability outcomes with appropriate strategies in place. Measures should be developed to enhance the concentration of activity in these centres and to encourage urban forms that facilitate a reduction in motorised trips to and within them. Other clusters of activity, such as stand alone superstores and strings of highway retailing, should be curtailed.

The evaluation of the overall network of centres also raises important policy issues. There are a large number of retail and commercial concentrations of activity, distributed throughout Melbourne and Geelong, which make up a viable and vibrant network of centres. Most centres have continued to evolve and change. Whilst most new development in Melbourne and Geelong has occurred in established or planned new centres, there has been continued growth in superstores (big box retail) and stand-alone corporate office complexes along major roads, as well as clusters of highway convenience retailing. This has undermined the environmental sustainability of the network.

Melbourne's CAD maintains its unique and predominant role. This has been critical to the sustainability of the overall network of activity centres. Other employment clusters, increasingly concentrated in knowledge-based industries and located strategically throughout the metropolitan area add to the economic competitiveness of the network. However, apart from those in Melbourne's inner areas, many new employment clusters have established quite removed from established mixed use transit-oriented centres. This also has occurred with most campuses of tertiary educational institutions and public hospitals in Melbourne's middle and outer areas. The potential for integrating land use and public transport at key locations has been reduced, inevitably leading to increased car dependency.

There is a key difference between the inner and outlying areas of Melbourne in all regions. While the inner area with its density of urban form and extensive public transport system has created a well serviced network of overlapping activity centres with generally high levels of environmental and social sustainability, this pattern has not been replicated in outlying areas. The sprawling subdivision layouts of the outer suburbs and limited public transport services have created a more dispersed network of centres with poor sustainability.

To improve this situation, it is considered important for the network to have a small number of major mixed use transit oriented centres in Melbourne's middle or outer areas to act as suburban demonstration projects. The focus on these centres also would be to facilitate a significant shift in transport mode towards non-motorised modes of transport at key points in the network.

Across the metropolitan area there has been a continuing increase of car usage, with few centres in the network exhibiting high levels of walking or cycling as the main means of access. This is the result of a multitude of factors including the deficiency of land use strategies to cluster sufficient or appropriate uses at key nodes, as well as the lack of supportive transport management strategies to shift more trip travel from car to public transport. There has been very little higher density housing within or adjacent to activity centres throughout the network. Only in the inner areas of Melbourne has this occurred to any significant extent.

Policy Directions and Implementation Mechanisms

We have developed a preferred policy approach that relates to sustainability outcomes derived from our evaluation of international, national and local centres as well as centres policies.

From the critical environmental sustainability point of view, the desired outcome is a network of centres which minimise overall transport requirements by achieving more multi-purpose trips to a single destination. They are centres that make maximum use of non-motorised transport so as to limit the depletion of fossil fuels and thereby reduce greenhouse gas emissions. They are centres that are efficient in terms of land use and infrastructure provision. They are centres that achieve energy efficient building design and layout, and protect the integrity of the natural environment.

From a social sustainability point of view, the desired outcome is a network of centres which have a high degree of attractiveness and liveability in terms of safety, convenience, comfort and aesthetics. They provide a lively community focus with increased opportunities for social interaction. There are increased opportunities to work and obtain services nearer to where people live. There is equality of access for users of centres to a wide range of facilities and services. There is equitable access to meet the

needs of those groups such as the young, elderly, disabled and low income earners normally disadvantaged by the lack of access to private transport.

From an economic sustainability point of view, the desired outcome is a network of centres which have an ongoing viability in terms of the goods and services provided. There are enhanced opportunities for business growth and increased employment, as well as business synergies. The centres contribute to the economic competitiveness of the urban system.

With these outcomes in mind, we recommend an action-oriented approach to a centres policy with the following directions:

- outline an overall performance evaluation process to assess, and recommend improvements to, new development applications both within and outside activity centres, in line with desired ESD outcomes;
- facilitate the further clustering of uses in mixed use transit-oriented as well as neighbourhood centres, so as to create a robust network of these centres having an integrated sense of place and community throughout the metropolitan area;
- give special attention to a limited number of major transit-oriented centres at strategic points in the outer areas of Melbourne along the radial rail network**,** to establish key demonstrations of the benefits of this approach including a significant shift in transport mode away from non-motorised transport;
- develop a network of strong neighbourhood centres in middle and outer areas;
- maintain the predominance of the Melbourne CAD within the network;
- outline a development approvals process for all private and public development proposals (particularly major retail and commercial development proposals) so as to curtail the dispersal of uses outside of transit-oriented and neighbourhood centres;
- develop upgraded transit arrangements geared to activity centres throughout the metropolitan area.

Implementation is critical to the success of our preferred centres policy. As a result, we suggest a comprehensive package of implementation measures. This package consists of:

- a specific policy statement for activity centres within the Metropolitan Strategy highlighting the importance of this policy;
- designation of a small number of mixed use transit-oriented centres in Melbourne's middle and outer areas for special attention;
- measures to strengthen neighbourhood centres, particularly in middle and outer areas;
- measures to maintain the predominant role of the Melbourne CAD within the metropolitan network;
- revisions to the State Planning Policy Framework (SPPF);
- revisions to the Retail and Office Development Guidelines;
- guidelines for the revitalisation of activity centres;
- supportive transport policies;

- a new Government Program geared to improving mixed use transit-oriented centres (TOC Program);
- measures to enhance corporate government commitment and partnerships;
- regular monitoring and evaluation.

Chapter 1 Introduction

1.1 Context of the Review

In December 1999, the Government announced the preparation of a Metropolitan Strategy as part of the State Planning Agenda, *A Sensible Balance*. The Strategy is intended to provide strategic guidance for Melbourne's future. Two principal themes of the Strategy are ecologically sustainable development (ESD) and the integration of land-use and transport planning.

One of the key strategic issues identified by Government to be addressed in the Metropolitan Strategy is activity centre policy. "A key element of sustainability is the need for better integration between mixed-use development concentrated around activity centres, and improved public transport use" (*A Sensible Balance*, p.23).

With this in mind, the Government has called for a review of activity centre policy to assess its "relevance and appropriateness….. in the light of emerging social, economic, land-use and institutional trends and influences". One of the aims of the review is to "provide a clear framework for decision-making so that industry can confidently make investment decisions in Victoria" (p.7). Another is to consider activity centre policy within the Government's commitment to the objectives of sustainability, equity and efficiency.

1.2 The Project Brief

The project brief, outlined by the Department of Infrastructure, is to undertake selected research and analysis on a range of activity centres in Melbourne and Geelong, and to review the Government's activity centre policy as it has emerged over the last fifty years.

Key components of the brief are to:

- understand the role and function of activity centres, present and future;
- review activity centre policy and objectives within the context of the Victorian land use planning system and the changing nature of activity centres;
- investigate the information and communication systems required to support ongoing strategic decision making on activity centre policy.

1.3 Approach to the Brief

The key questions posed by the Government for this review include: in the light of ESD, what are the economic, social and environmental outcomes that centres need to achieve in the evolving metropolitan urban system?; what kind of framework is necessary to guide decision-making on future private development?; what policies and programs are necessary for public and private organisations to improve individual centres, and the network of centres, to make them more sustainable?; and what are the priorities for State Government action and investment?

We have taken an innovative and comprehensive approach to the brief. Rather than examine activity centres and activity centre policy in terms of types and classifications of centres, our focus has been on the desired outcomes to achieve ESD and the policy measures needed to realise those outcomes.

Furthermore, we have not looked at activity centre policy simply in terms of the more traditional focus on retailing or commercial development. Consequently, we have not focused in this project on developing a revised statement of retail or office development policy for centres.

Our methodology has involved four stages. First we have examined, in the context of ESD, 'best practice' in centre policies interstate and overseas as it relates to desired outcomes (Chapter 2). Then, in a similar context, we have reviewed past and current centre policies in Melbourne and Geelong (Chapter 3). Then we have described and analysed patterns of activity centres in Melbourne and Geelong, and have undertaken an evaluation of a sample of centres of different type, as well as the whole metropolitan network of centres (Chapter 4). This evaluation has led to a discussion of policy issues, the development of a preferred outcomes-based policy approach and a set of implementation measures necessary to successfully achieve that approach (Chapter 5).

1.4 Ecologically Sustainable Development (ESD)

ESD is a fundamental principle of the Metropolitan Strategy and the activity centres review, so it is important to begin with a clear understanding of its origins and meaning.

1.4.1 The Meaning of Ecologically Sustainable Development

In the 1950s and 1960s, the notion of 'development' emerged as nations sought to define what was meant by 'progress'. It was soon agreed that, while economic growth was an essential element, social equity was critical for real human progress. In the late 1960s, the notion of ecological sustainability emerged, with growing public awareness about environmental issues such as global climate change, deforestation, depletion of the ozone

layer and pollution of air, water and land. Some observers, notably the Club of Rome in their famous 1972 report *Limits to Growth,* questioned whether development could be ecologically sustainable. Economic growth was, they argued, a major cause of environmental problems.

This was the issue that the United Nations Committee on Environment and Development, also known as the Bruntland Commission, addressed in its 1987 report *Our Common Future*. Development and ecological sustainability could be reconciled, the Bruntland report argued, if humanity found new ways of creating economic growth and social equity. It was not necessary to sacrifice the environment for the sake of development, or development for the sake of the environment. This idea, christened Ecologically Sustainable Development, was adopted by most governments of the world at the 1992 Rio Earth Summit and is embodied in the accompanying document *Agenda 21: Program of Action for Sustainable Development*. World governments, including Australia, re-committed themselves to Agenda 21 at the second World Conference on Environment and Development in New York in 1997.

The concept of ESD, while perhaps difficult to put into practice, is not difficult to understand. Its essence is the prohibition against trade-offs between development goals and environment goals. The same idea has been expressed in different words in the concept of the 'Triple Bottom Line' adopted at the Victorian Community Summit called by the Bracks Government earlier this year.

1.4.2 ESD and Activity Centre Policies

While ecological sustainability encompasses a diverse range of issues from bio-diversity to the greenhouse effect, some of these problems are not directly the province of a metropolitan strategy. The two issues that most clearly and directly bear on a metropolitan strategy are conserving land and sustainable transport.

In the case of transport sustainability, there are a range of views about the most useful policy measures. One school, often referred to as 'sustainable automobility', argues that technological advances in motor vehicles will solve air pollution problems. Critics argue that such developments are unlikely (for example, the fuel consumption of the Australian car fleet has not improved at all in the last four decades) and in any event will not deal with other environmental problems such as land wastage and noise. Fortunately, it is not necessary to revisit these debates in this report, because *Agenda 21*, to which Australia is committed, lays down clear recommendations in this area:

> *Promoting efficient and environmentally sound urban transport systems in all countries should be a comprehensive approach to urban transport planning and management. To this end, all countries should:*
>
> *(a) Integrate land-use and transportation planning to encourage development patterns that reduce transport demand;*

(b) Adopt urban transport programs favouring high occupancy public transport;

(c) Encourage non-motorised modes of transport by providing safe cycleways and footways in urban and suburban centres,(Agenda 21, 7.52).

The essence of the *Agenda 21* approach is the integration of transport and land use policies to reduce the demand for car travel, and promote walking, cycling and public transport. This reflects the objectives of the State Planning Agenda set out in section 1.1.

1.5 Activity Centres Definition

In this project, we have used a new and very broad definition of 'activity centres'. In our approach, 'activity centres' are places where people congregate to carry out business, study, recreate, socialise, shop and/or work. They are locations where there has been private and public investment, in varying degrees, in buildings, transport and parking infrastructure, as well as public spaces and community facilities. They are places that attract a reasonably high number of trips to them.

In the Melbourne and Geelong context, activity centres for this project consist of:

- the Central Activities Areas in Melbourne and Geelong;
- retail and commercial centres, some of which also perform a civic, administrative, education, health or entertainment function;
- clusters or strings of superstores, peripheral sales or office developments along major roads
- office parks;
- the four airports in Melbourne and Geelong;
- stand-alone campuses of tertiary education;
- stand-alone hospitals;
- industrial estates including the Ports of Melbourne and Geelong.

In this context, there are about 1000 activity centres in metropolitan Melbourne and Geelong. Most of these are relatively small with a community or neighbourhood orientation towards shopping, local business activities and leisure pursuits.

Figure 1 illustrates the distribution of these centres across the Melbourne metropolitan area and Geelong region.

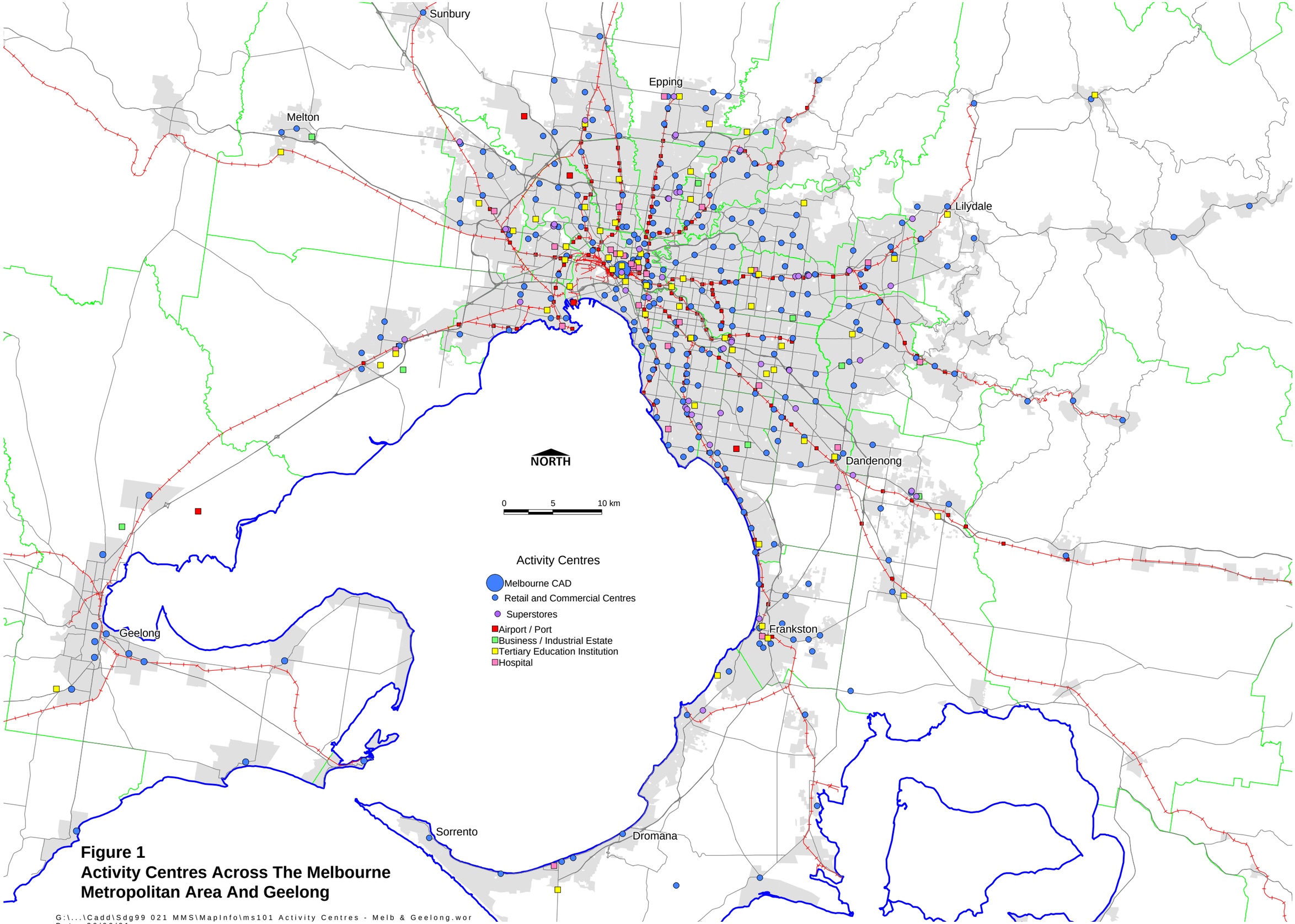

Figure 1
Activity Centres Across The Melbourne Metropolitan Area And Geelong

G:\...\Cadd\Sdg99 021 MMS\MapInfo\ms101 Activity Centres - Melb & Geelong.wor
Date: 26/06/01
Source: DOI

1.6 Consultation and Market Research

We have considered it important to obtain the views of a range of stakeholders interested and involved in activity centre development in Melbourne and Geelong. Time limitations have prevented us covering all these people or institutions in detail, but the following have been covered in one form or another:

- State Government departments;
- all local Councils;
- retailers and retail associations;
- retail property owners and developers;
- representatives of key commercial operations (eg, REIV);
- investment and property interests (eg, Property Council of Australia);
- representatives of employer and employee peak bodies;
- social welfare, environmental and transport peak bodies;
- planning and local government associations;
- users of activity centres (eg, businesses, residents).

The techniques that we have used in this project are:

- focus group meetings with stakeholder representatives organised on both a geographical (for local government representatives) and interest basis;
- questionnaire and survey forms to all local Councils requesting comments on activity centre policy and details on the performance of about 15 activity centres in each local government area;
- telephone surveys of business and consumer users of four centres in different parts of Melbourne and Geelong Central, conducted by Roy Morgan Research.

Chapter 2 Interstate and Overseas Experience and 'Best Practice'

2.1 Origins Of Centres Policies

'Centres' policies have been a central theme of urban planning strategies in most Western cities since the Second World War. But their origins lie earlier in time.

The first half of the 20th Century saw the dissemination of a series of key concepts which, combined in different ways in different cities, formed the basis for much post-War city planning. Some of these ideas originated in the 19th century, but it was only in the 1920s and 1930s that they were discussed and debated by city planners. At the end of World War II, reconstruction was firmly on the agenda in Britain and Europe, where cities had been devastated by bombing, but also in countries like Australia and Canada, which had been devastated by the Depression. Urban planning was central to this reconstruction agenda, and this provided an opportunity for the application of many of the planning concepts debated before the War.

2.1.1 The Garden City

Probably the most influential idea of all was the Garden City model of Ebenezer Howard, which in Britain was promoted by the Town and Country Planning Association, founded by Howard. Howard proposed a 'Social City' comprised of a kind of federation of 'Garden Cities'. The garden cities were to be walking-scale towns, each with a full range of employment, retailing and cultural facilities. They would be separated by countryside and linked to one another – and the central city, for Howard realised that some specialised functions would still require an urban centre – by road and rail. The idea was to combine the advantages of country life – quiet, greenery, short travel distances – with the access to employment and urban services provided in cities.

The central, and most enduring, notion of Howard's scheme – apart from the 'green belts' surrounding each garden city – is self-containment. Self-containment would reduce the need to travel, thus cutting the length of the journey to work (a major concern at the time due to the high cost of public transport for all but the middle classes) and reducing crowding and congestion. Self-containment was also to be complemented in the political sphere by the garden cities being made self-governing municipalities organised on a co-operative basis. (Howard was influenced by the quasi-anarchist 'guild socialism' of William Morris.) Each of the garden city towns would be designed around a commercial and cultural centre of its own to give it a civic focus and sense of identity.

Two London suburbs – Letchworth and Welwyn – were designed in the early 20th century on principles derived from Howard's writings, but self-containment (like co-operative government) proved elusive. After World War II, the concept was tried on a

larger scale in the New Towns built around London and other major English cities (see below). Possibly the only attempt to plan an entire city – as opposed to individual suburbs – on the basis of Howard's ideas was Canberra (see below also).

2.1.2 Linear Cities and Corridors

At first glance the next major planning idea, the 'Linear City' first proposed by the Spanish engineer Arturo Soria y Mata, looks very different from Howard's scheme. The garden city was justified on the basis of the quality of life it offered its inhabitants: the linear city was intended primarily to maximise the efficiency of a fixed rail system. Soria y Mata's idea was that, by aligning the city as a whole with a linear rapid transit corridor, and by locating the activities that generated the most travel at stations on that system, transport efficiency would be maximised. The spread of activities would generate more even flows of patronage along the rail line, in contrast with the conventional, single-centred city, which focussed demand on the city terminal. So, like Howard, Soria y Mata advocated decentralising a uni-centred city; and he also supported his argument by noting that, in a linear city, all residents would have countryside close at hand, just as in Howard's model (Hall, 1996: 112-3).

Few complete linear cities have been attempted (again – see below – Canberra is one), but the linear notion has significantly influenced planning practice in a modified form, the 'corridor' metropolis featuring linear growth corridors separated by 'wedges' of green space.

2.1.3 The Radiant City

Integrating transport with land use was also a theme of the third great 20th century planning notion, Le Corbusier's 'Radiant City'. The primary objective here was to adapt the city to the motor vehicle by separating pedestrians from motor vehicle traffic. The street was to become a 'machine for traffic', just as the house was to be a 'machine for living in.' In stark contrast to Howard's notion of reducing congestion through self-containment, Le Corbusier proposed a paradoxical solution: 'to decongest the city, we must increase its density'. Providing residential and commercial premises in high-rise towers would free up land at surface level for open space and wide, grade-separated freeways. Le Corbusier's radiant city also incorporated rail rapid transit systems coverging on a central station, around which were arrayed the tallest buildings, but trams were to be banished: 'the tramcar has no place in the heart of a modern city', decreed Le Corbusier.

2.1.4 Central Place Theory

A final influence is the 'central place theory' developed by the German geographer Walter Christaller (1933). Although Christaller's theory was not extensively debated

before World War II, it greatly influenced urban planning following its publication in English in 1966. Christaller examined the role of villages and towns in southern Germany and surrounding areas, and proposed that they could be classified into a functional hierarchy, based around notions of catchment areas and specialisation. Thus, the small village served local needs, mainly for food shopping; the next step up the hierarchy was the local administrative centre; then the town; then the regional city. The arrangement was described as a 'nested' hierarchy, because the 'catchment' of each centre (except the lowest) was comprised of the catchments of a group on the next lowest centre (i.e. the catchments of the lower order centres are 'nested' within those of the next-highest order centre).

In the 1950s and 1960s, Christaller's ideas were adapted to describe the distribution of commercial centres in cities, with the most common categorisation following the pattern beginning with the neighbourhood or convenience centre, running through the sub-regional level to the regional centre and, at the top, the central business district. The theory could be used to explain urban phenomena, such as the reason why CADs of larger cities tend to contain a smaller share of metropolitan retailing than those of smaller cities.[1] From the 1960s, observers began to argue that the dominance of the automobile was changing the pattern, particularly in US cities. The walking-based neighbourhood centres were disappearing and the dominance of the CAD was declining, even for metropolitan-wide functions, as a new 'super-regional' category of centre emerged of which the CAD was but one example (Jones & Simmons, 1996).

In summary, then, the post-War planners inherited a body of sometimes-conflicting ideas from this debate in the first half of the century, with an important role for 'centres' policies. Centres were intended to promote self-containment (reducing the stress of travel as well as congestion); to help create local identity; to achieve efficient use of rail public transport systems. Centres may or may not be high-rise, but should be compact. Interestingly, one idea that is absent at this point is that rail-based centres would actually promote modal shift from the car to public transport (perhaps because car use was not at this time seen as a problem). This was to come later.

2.2 Archetypal Cities

2.2.1 London

The first application of these ideas to post-War reconstruction came with Patrick Abercrombie's two great plans for London: the 1943 County of London Plan (which dealt with what we would now consider the inner part of greater London) and his 1944

[1] The CAD is a neighbourhood centre for CAD residents, a sub-regional centre for the city fringe and a regional centre for the inner city, as well as the primate centre for the whole metropolis; as the metropolis grows larger, the relative importance of the inner city declines, and along with it the relative importance of the local, sub-regional and regional role of the CAD.

Greater London Plan (which dealt primarily with the outer areas, and the Home Counties beyond, but also restated the basic ideas of the 1943 plan). Although the very high densities of Le Corbusier's radiant city were rejected, his freeways were not. Most of the other key elements of pre-War thinking can be identified: a green belt to limit the built-up area; 'green wedges leading from the open country into the heart of London' (p.99); decentralisation of both industry and population from inner London to reduce overcrowding.

Abercrombie proposed that some 700,000 people – almost a quarter – of inner London's residents be decentralised, both to existing towns and to purpose-built new towns beyond the green belt. The new towns were sited on existing rail lines, for ready access to London, but at sufficiently great distances – up to 80 km – to discourage regular commuting. The new towns were to be planned as self-contained communities: industry was to be decentralised along with residents, and a full range of retailing and community facilities provided in the towns.

The new towns were to be planned with clearly defined centres, a principle that was also to be applied to suburban centres within London. The rationale was to create local communities to address the formless 'urban sprawl' that had grown up before the War. As Abercrombie said:

> The sprawling outward expansion of London has engulfed many towns and villages… they are now embedded in a vast sea of inchoate development. Here they remain the only real centres of community life… it is noteworthy that within them is to be found a civic pride and healthy community life which is almost entirely lacking in the surrounding sea of incoherent housing… The planning task in the suburban ring is one of defining, completing and reclaiming communities (Abercrombie, 1944: 110-1).

In London, many activity centres had grown up around key points on the city's extensive rail system, and Abercrombie proposed reinforcing this pattern. This was partly because the majority of motorised travel in London at this time was by public transport, and this situation was expected to continue. By contrast, in the new towns, centres were not always placed near railway stations, since the stations served travellers to regions outside the town, not intra-town movement to the town centre. So in Abercrombie's plan, centres were primarily intended to provide civic focus rather than transit/land use integration. Indeed, the major transport concerns expressed were that each centre should be free of through traffic and should have sufficient car parking (p. 119).

2.2.2 Stockholm and Copenhagen

The first urban plan to directly link activity centres to transport policies was the General Plan for Stockholm, developed between 1945 and 1952, which proposed a series of satellite towns partly modelled on Abercrombie's London new towns (see Hall, 1998: 861-5). But there were crucial differences.

Firstly, the Stockholm satellites were much closer to the central city, and planners therefore aimed at only 50% self-containment (Hall, 1996: 308). There would be a considerable amount of external travel, mainly to the central city.

Secondly, the satellite centres were designed to ensure that this travel was undertaken by rail. The city council had in the 1940s decided to build a subway system, the Tunnelbana, and the satellites were designed around its stations with the express objective of generating sufficient ridership to make the subway economically viable. Each had its commercial and civic centre at the station, surrounded by high-rise housing on the Le Corbusier model, with densities declining with distance from the station. And the settlements were laid out in a linear pattern along the rail line. Interestingly, the concern was to protect rail from competition from buses, not cars (car ownership in Sweden was very low at the time). If the towns were allowed to spread too far from rail stations, then 'a demand would arise for bus connections direct to the centre [of Stockholm] which would cost, per person and per kilometre, 50 per cent more than the Tunnelbana' (Hall, 1996: 864).

Stockholm's suburban centres influenced generations of planners. As Hall (1996: 310) observes: 'The pilgrims still come in their reverent thousands to see them and are duly impressed.' Apart from the high quality of the urban design employed, planners have been impressed by the very close integration of transport and land use planning. The centre of Vallingby is perhaps the most famous example: above the Tunnelbana station is a town centre consisting of a major retail centre, together with civic, cultural and recreational facilities, grouped around a pedestrian town square. The centre is flanked on all sides by high-rise apartments.

The rail-based linear form of Stockholm's plan was parallelled by the Copenhagen 'finger plan' of 1947, which proposed a metropolis shaped like a hand, with 'fingers' of urban growth along rail corridors separated by 'green wedges' of farmland and open space. Each urban corridor would be a kind of linear city, with urban development following the city's rail lines, and activity centres located at railway stations. The original objectives of Copenhagen's plan were decentralisation, transport efficiency (particularly reducing the time taken to travel to work) and providing urban dwellers with green space close at hand. As in Stockholm, promoting the use of rail as an alternative to the car was not originally an explicit objective, because car ownership was very low.

2.2.3 Canberra

Canberra is about as different as a city can get from London, Stockholm and Copenhagen, being explicitly designed around low-density housing and the motor car. But like these three cities, Canberra's planning has been strongly influenced by notions of the ideal city derived from before World War II. The two strongest influences have been the linear city and garden city ideas, and 'centres' policies were again crucial to the result.

Canberra had been originally planned as a 'garden city' in the simplistic sense of being set in a treed, landscaped environment. But as the population began to grow rapidly in the late 1950s, the National Capital Development Commission (NCDC), strongly influenced by British planning experts, attempted to create the first complete example of Ebenezer Howard's 'social city', by surrounding the original settlement planned by Walter Burley Griffin with self-contained new towns. Each town was to feature a town centre comprising a full range of retail and community facilities, and a substantial concentration of employment, in the form of the headquarters of a government department.

Linear cities enjoyed a particular vogue among architects and urban planners in the 1960s (Fischer, 1984), and this corresponded with concern by the NCDC about the potential for transport problems as Canberra grew towards its then-anticipated likely population of one million. Even with decentralised new towns, the amount of traffic converging on the city centre would be considerable, and would require expensive and destructive freeways. And by the late 1960s, the NCDC for the first time expressed concern about the need to promote a viable public transport system.

The solution, adopted in 1969 and published in the 1970 report 'Tomorrow's Canberra', was to increase the degree of decentralisation of the new towns – and thus self-containment – and to change their physical arrangement. The NCDC's original plan of 1965 had the towns arranged around the city centre, but this was altered to a linear pattern following a public transport spine. To fit the linear city within the boundaries of the Australian Capital Territory, the linear form was modified to a 'Y' shape (NCDC 1970, p. 214), and thus the plan came to be known as the 'Y-plan'. There was also to be a hierarchy of retail centres, clearly influenced by central place theory (see above). At the top of the hierarchy was the city centre, Civic; next was the town (regional) centre; then a 'group centre' (sub-regional) based around a large supermarket, then finally a walking-based local (neighbourhood) centre (see Fischer, 1984).

The decentralised, linear pattern was intended to make large-scale car use possible without creating traffic congestion at the city centre, while leaving open the option for provision of trunk public transport along the spine connecting the town centres (at the time, it was assumed that this would be an express busway). Clustering activities and higher-density housing at the town centres and connecting them with a direct public transport route was intended to provide sufficient density of patronage to make a frequent service possible. Local (intra-town) bus services would connect residential areas to their respective town centres and thus to the express intertown public transport service.

The towns were also to be connected by an extensive freeway network located in the spaces between the towns. As it turned out, the freeway network was built, but the public transport spine was not. In its 1984 revision of the Y-plan, the NCDC quietly dropped the express public transport route, arguing that it did not anticipate a modal shift in the future (NCDC, 1984).

2.2.4 North America

Although ideal city concepts were debated just as enthusiastically in North America as in Britain, Europe or Australia, they were rarely implemented, largely owing to the absence of legal and institutional structures that would permit strong regional planning (Downs, 1992). Victor Gruen, the 'father' of the suburban shopping mall, tirelessly advocated the transformation of suburban malls into multi-use town centres on the European model. Perhaps ironically, the planner of the car-based mall strongly criticised the automobile-dominated nature of American cities during the 1960s, and expressly cited rail-based Stockholm satellites like Vallingby as models of 'the taming of the motor car' he advocated (Gruen, 1965: 240-1, 286-7). Similar arguments were raised, again based on the model of Stockholm, in Humphrey Carver's influential 'Cities in the Suburbs' (Carver, 1962).

While the absence of effective regional planning prevented the adoption of 'centres' policies in US cities, the 'cities in the suburbs' notion has been implemented in a number of Canadian cities from the 1970s onwards (see below).

2.3 Contemporary Centres Policies

2.3.1 Centres Policies and Sustainable Development

Contemporary activity centres policies in developed countries reflect a shift in focus from earlier concerns with providing a focus for the community and promoting self-containment. Although many cities justify 'centres' strategies by reference to these goals, in virtually all cities with 'centres' strategies, the primary justification for such policies now is the desire to achieve environmental benefits through transport/land-use integration.

Centres policies are generally designed to cluster activities and higher-density housing in walking-scale centres with high public transport accessibility, in order to promote a modal shift from the automobile to 'greener' modes. Specific objectives include:

- the use of public transport for 'inward' travel by people travelling to the centre for work, shopping, business and recreation;
- the establishment of sufficient density of demand to justify 'rapid transit' systems, preferably with 'balanced' flows on those systems (as in the original linear city proposal);
- the use of public transport for 'outward' journeys by centre residents and by those working in the centres (e.g. business travel to the CAD during the day);
- mixing of land uses to promote multi-purpose journeys and internal travel on foot (e.g. people employed in the centre doing business or shopping at lunch time); and

- reductions in the amount of car parking through multi-use of spaces (e.g. for office workers during the day; cinemas and restaurants at night).

In some cases, such as contemporary British planning, the focus is primarily on strengthening existing, transit-based centres – either traditional towns that existed before mass-suburbanisation, or pre-automobile suburb centres that grew up around railway stations. In North America, where suburban development generally proceeded prior to the construction of rapid transit systems, the emphasis tends to be on establishing such centres 'from scratch' to provide a focus for new, or proposed, rapid transit systems amid a 'sea' of automobile-based development.

2.3.2 Clustering for Economic Growth

In the last decade, a further rationale for centres policies has emerged in response to the emergence of a 'post-industrial' economy (cf. DOI, 1998: 15-19). A range of commentators have noted the relative decline in the importance of traditional manufacturing, as a source of employment, but also as a contributor to exports. Traditional, low-skilled 'Fordist' assembly-line manufacturing has either moved offshore to places with cheaper labour, or mechanised, reducing employment. Meanwhile, the growth in exports and employment is increasingly concentrated in 'knowledge-based' industries – the service sector and 'elaborately transformed manufactures'. A related trend has been for an increase in the number of firms, but a decrease in their average size, as out-sourcing and other forms of 'flexible specialisation' proceed.

Under the older 'Fordist' system, planners could encourage economic growth by providing large areas of industrially-zoned land, transport infrastructure and housing for industrial workers. It is less clear how 'footloose', knowledge-intensive industry can be attracted. It requires less land than older-style manufacturing, and arguably is less reliant on land-based transport. Those employed in such industries tend to be relatively highly-paid and can find their own housing.

Most current work on responses to post-industrial economic growth draws on Michael Porter's influential study *The Competitive Advantage of Nations*. Porter argues for the importance of 'creative milieux' or clusters which facilitate innovation through competition and knowledge-sharing (Porter, 1990; see also Hall, 1998). The need for clustering may be increased by the tendency for a larger number of smaller firms. This provides another reason for clustering suburban activity into multi-use centres: indeed, NIEIR (1996) argue that the lack (or at least small size) of such 'mini-CADs' in suburban Melbourne is a factor restricting the potential for growth of post-industrial economic activity in these areas.

A final point is worth noting here. Cost-benefit analyses of major transport infrastructure projects count 'economic benefits' almost exclusively in terms of travel time savings, with a higher 'value' assigned to business travel. If activity clustering enables businesses within a centre to interact without external travel, as in the Porter thesis, it presumably

generates such economic benefits as well. Past planning analyses have not brought these benefits into account, but perhaps they should be counted, given that activity clustering may prove less expensive than new infrastructure. So even if activity clustering does not reduce home-work travel time through self-containment, perhaps it has the potential to reduce business travel time. Unfortunately, there appears to be no empirical evidence available on this issue to date, but this is not a reason for ignoring it.

2.3.3 Contemporary Centres Policies in Australia and New Zealand

With the exception of Brisbane, all of the larger Australian cities prepared post-war metropolitan plans that were heavily influenced by Abercrombie's Greater London Plan 1944 (Alexander, 2000). The County of Cumberland Plan (released in 1948), Melbourne Metropolitan Planning Scheme (1953), Perth Metropolitan Region Plan (1955) and Metropolitan Adelaide Plan (1962) all featured 'District Centres' or 'District Business Centres'. Although (as in London) the primary motivations were community-building, reducing commuting to the CAD and civil defence, in all cities the proposed centres were adjacent to existing or proposed rail lines. The adoption of such locations seems to have been a response to the dominance of Australian urban travel by public transport at this time, rather than a deliberate policy to promote public transport.

The district centres suffered different fates in different cities. In Melbourne, the policy was quietly dropped in the 1960s, only to be revived in 1980, then dropped again in 1993. In Perth and Adelaide, the nominated centres remained in successive generations of plans with some additions and deletions, but until recently, few firm measures were enacted to support or enforce the policies. Sydney has adhered most strongly to its original 'centres' concept. For example, most of the regional shopping malls built in the 1960s were directed to district centres, in contrast to Melbourne, where these were largely constructed on greenfield sites. Although individual centres were added and deleted, the district centres notion has been retained with every revised metropolitan strategy prepared for Sydney, right down to the most recent revision, 'Shaping Our Cities' (1998), which states:

> Concentration of activities in centres ensures that public investment in transport infrastructure is supported and vehicle kilometres travelled are minimised through use of the public transport system (DUAP, 1998: 14).

Sydney's centres policy has been fairly consistently supported by a range of measures, including land assembly. But the policy has always relied heavily on development control to prohibit, or at least discourage, out-of-centre developments. Thus, the planning strategy for Sydney's West states:

> Policy: Intensive commercial activity should be located in centres.
> Actions: Strengthen existing policy of discouraging rezoning proposals for retail, office, entertainment and service uses to be located outside centres (DUAP, 1999: 15).

One thing that has changed is the rationale for district centres policies. As has been the case overseas, in other Australian capitals, district centre policies are now primarily directed at transport sustainability objectives. An example is provided by South-East Queensland, which in 1995 adopted a Regional Framework for Growth Management, which promotes five 'key employment centres' which are, or are planned to be, served by rail or other high capacity public transport, with the objective of encouraging public transport as an alternative to the private car.

New Zealand's cities share many similarities with their Australian counterparts, including low-density urban forms and car-dominated transport patterns. Auckland, with a regional population of 1.2 million, is of comparable size to Australia's mainland state capitals. Despite having a different urban planning system (under the Resource Management Act) and a long (until recently) history of national government support for deregulatory policies, Auckland's regional land use and transport strategy, like those of Australian cities outside Melbourne, promotes 'intensification of housing and employment around a number of inner city and suburban activity centres', selected on the basis of their ability to 'help reduce reliance on motor vehicles' (ARC, 1999: 32). This generally means the centres must be at stations on existing, or proposed, rapid transit lines.

2.3.4 Contemporary Policies in Canada

The three largest Canadian cities – Toronto, Montreal and Vancouver – have all adopted centres policies. Montreal has nominated three centres, Longueil, which is on a metro line and Anjou and Fairview, which are planned for connection, but few concrete measures have been enacted in support of the policy.

Toronto's activity centres policy, adopted by the Municipality of Metropolitan Toronto in 1980, has been widely – and perhaps excessively – praised in Australia. The policy was influenced by the ideas of Carver (see above), and of Jane Jacobs (who moved to Toronto from New York in the 1960s) and citizen's action groups of the 1970s. The idea of promoting suburban centres appealed to suburban councils concerned about the formlessness of Toronto's post-war sprawl, but also of inner city residents concerned at high-rise development in the city centre, and traffic problems. The policy was intended to reduce car commuting to the city centre and to make the urban rail system more efficient by promoting bi-directional commuting. Six centres were nominated, located at strategic sites along the rail rapid transit network, but one centre, which was performing poorly, was dropped in a review in 1990. A further revision in 1994 saw the adoption of a two-tier categorisation, with three'major metro centres' and a much larger number of smaller 'centres'.

The longest-standing centres policy in Canada, is Vancouver's, which dates from the first 'Livable Region' strategy adopted by the Greater Vancouver Regional District in 1975. The adoption of this strategy followed public controversy that effectively ended urban

freeway building in Vancouver. A decision was made to build a rapid transit system (at the time, Vancouver was served only by buses), and the centres policy was, like Stockholm's decades earlier, expressly designed to create concentrations of activity and residential development that would ensure the viability of rapid transit (GVRD, 1993b: 9). Originally, four suburban centres were nominated, located at strategic points along the proposed rapid transit system. Subsequently, two further centres were added, based on extensions to the rapid transit system.

By the early 1990s, the rapid transit system had been partially built (in the form of a single 'Skytrain' line and an express ferry service called 'Seabus'), serving four of the six centres. The GVRD embarked on a revision of the Livable Region Strategy which had, to some extent, fallen into disuse during the 1980s. The process was an exemplar of participatory, co-operative planning, and produced a surprising degree of consensus among local governments, provincial agencies and community groups.

A renewed centres policy was a centrepiece of the resulting strategy, which focuses on curbing sprawl and shifting travel from the car to other modes (GVRD, 1993a). An extension of the Skytrain service is currently underway to Coquitlam, one of the two unserved centres, and this is to be followed by a final line to Richmond, the last unserved centre. The centres are to be promoted as preferred sites for major developments. As the strategy states:

> The development of centres is aimed at harnessing the trend to a dispersal of economic activity in growing metropolitan communities. The objective in Greater Vancouver is to take the activities that seek decentralised locations and accommodate them in centres, as opposed to a multitude of dispersed locations (GVRD, 1993b: 8).

Vancouver's centres are intended to promote self-containment as well as mode shift away from the automobile. As indicated above, this is an objective that has proven elusive in other places, but there are some grounds for thinking that Vancouver may have more success. In contrast with most other cities, Vancouver's transport policies are intended to reinforce self-containment as well as mode shift. In the case of roads, the policy is to use parking restraint, tolls and congestion as 'demand-management' tools and to refrain from building new high-speed expressways. The transit policy emphasises medium-speed, all-day 'regular' transit in preference to high-speed, limited stop 'commuter' transit that is seen as promoting sprawl.

2.3.5 Portland, Oregon

In the United States, as indicated above, the absence of effective regional planning makes the introduction of centres policies difficult, although they have widespread support among urban planners. A rare exception is Portland, Oregon, where a federal metropolitan government, modelled on Toronto's, was introduced in 1978. Metro Portland was given regional urban planning responsibility in 1990.

The Portland regional plan, the *Region 2020 Growth Concept*, was adopted by Metro in 1994. It shares many similarities with Vancouver's. Sprawling growth is to be contained by a 'growth boundary'; expressway building is de-emphasised in favour of expanding the (currently small) rapid transit system. The transit-oriented development pattern is to be reinforced through nine regional centres at strategic locations along existing and planned rapid transit lines. Significantly, this new planning direction was adopted as an alternative to proposed major new freeways. The policy change was largely the result of a transport and land-use modelling study carried out by a community group, the '1000 Friends of Oregon', called LUTRAQ (for Land use, Air Quality And Transport), which successfully discredited the traditional highway-based modelling which had produced the freeway plans (Cervero, 1998: 416-23).

2.3.6 European Centres Policies

Most European cities have in place planning policies designed to cluster activities in transit-oriented suburban centres. Paris provides an example, with suburban centres policy beginning in the 1960s with the objective of decentralising activities and providing a focus for otherwise centre-less suburbs, and gradually moving to a more explicit focus on promoting the use of public transport. Stockholm has already been discussed and is considered further in section 3.4. The European Commission's 1990 Green Paper on the Urban Environment formalised the situation, with express advocacy of concentration of activity in transit-oriented locations, along with controls on residential sprawl (CEC, 1990).

The transit/land-use integration objectives of Copenhagen's 'finger plan' were not vigorously pursued in the 1970s and early 1980s and suburban development began to assume an 'American' pattern. This led to a 'shoring-up' which began in 1987 and was progressively strengthened in the 1990, and which reasserted the requirement for residential development to follow the rail-based corridors and for major commercial development to be located at stations (Cervero, 1998: Chapter 5).

In 1997, the Danish government amended the national planning Act to require all urban areas to plan for the siting of retail facilities in locations that promote access on foot, by bicycle, or by public transport. The amendment was motivated by sustainability concerns and was expressly designed to prevent proposed 'out of centre' developments occurring (Laursen, 1997). Retailing is to be located in transit-oriented centres, but there are four exceptions. Three of these – local shopping; factory sales outlets; cities where the central core cannot expand due to historic conservation controls; are unexceptional, but the final exception is worth noting in the Melbourne context.

The 1997 amendment offers an exception for stores selling space demanding goods that cannot be located in centres. But the shops in question must sell only goods of this type, and there is a strict definition, which includes timber, building materials and cars, but specifically excludes food, electrical equipment such as televisions and washing

machines, furniture and hardware (Laursen, 1997). It is clear that most 'big-box' retailing in Denmark will be required to locate in centres.

2.3.7 The Dutch A-B-C concept

A final European approach that is worthy of mention is the Dutch 'A, B, C' concept. The national government issues planning guidance statements in a similar fashion to the United Kingdom (see below), and the 1995 guidance, titled 'The right business in the right place' requires local authorities to designate and promote activity centres on the basis of accessibility.

'A' locations are highly accessible by non-automobile forms of transport, a stipulation which usually means access by rail rapid transit. Activities that generate large volumes of person-traffic, but are not freight-intensive are directed to these sites.

'C' locations are usually poorly served by public transport, but well-served for freight transport (for example, near expressway exits). Warehousing, heavy industry and other freight-intensive activities are directed to these sites. These activities usually generate relatively few person-trips.

'B' locations are an intermediate state: with reasonable public transport (e.g. bus service along an arterial road) and road access, and activities that produce moderate intensities of fright and person movement are directed to these sites (Newman & Kenworthy, 1999: 180-1).

2.3.8 United Kingdom

Possibly the most strongly regulatory-based approach to 'centres' policy is that employed in the UK since 1993. That this should be so is remarkable, because the new policy was introduced under the Thatcher Conservative government, which in the 1980s had exhibited strong hostility to urban planning.

Planners in London and other UK cities in the 1950s, 1960s and 1970s strongly promoted existing 'town centres' as locations for retail and other commercial development. The original motivation appears to have been the desire, deriving from Abercrombie's London plans (see above) for clear centres of community activity. Free-standing suburban shopping malls and office parks were, by and large, simply prohibited.

With the election of the Thatcher government in 1979, this strong regulatory approach to planning was swept away in pursuit of an ideological commitment to the free market. The 1980s saw a boom in office and retail construction in the UK and, with the relaxation of planning controls, much of this development took the characteristically American 'edge city' form. This pattern was strongly criticised by practising and academic planners as well as by environmentalists.

But in the early 1990s, the British government – even Mrs. Thatcher herself – began to voice a commitment to environmental sustainability that coalesced with the 1990 publication of a national environmental strategy called 'This Common Inheritance', and was strongly reinforced by the 1994 report of the Royal Commission on Environmental Pollution. The commitment to sustainability saw a reappraisal of national planning and transport policies. A new national Planning Policy Guidance (PPG6)[2] was introduced in 1993 to cover 'town centres and retailing', followed by a related new guidance for transport (PPG13), then, in 1996, an updating and strengthening of PPG6.

The 1996 version of PPG6, which remains in force despite the election of the Blair government in 1997, explicitly states that its objective is to 'focus development' where it 'maximises the opportunity to use means of transport other than the car' (1.1). This is to be achieved by a strongly 'plan-led approach':

> Structure plans… should set out the hierarchy of centres and the strategy for the location of employment, shopping, leisure and entertainment, hospitals, higher education and other uses which generate many trips and should be well served by public transport. In particular, the development plan should indicate a range and hierarchy of centres, from city centre, through town centre, district centre, to local centres, where investment in new retailing and other development will be promoted and existing provision enhanced (1.5).

Proposals for new development are to be directed to existing, transit-oriented town centres. Only if such locations are unavailable are freestanding sites permitted (1.11). Local authorities are to help makes sites available through measures such as land assembly (1.13); developers wishing to locate in out-of-centre sites bear the onus of proving that a suitable site within a centre cannot be found (1.9); developments must be refused planning permission if they would undermine existing transit-oriented centres (4.2).

The new PPG6 is, if anything, stronger than the planning controls which applied to activity centres before the 1980s, since it includes things like hospitals and higher educational institutions that in past decades were allocated free-standing sites. The environmental justification is repeatedly stressed throughout the document.

2.3.9 Singapore

The ultimate realisation of the ideas of Stockholm city's planners came not in Sweden, but in Singapore (Hall, 1998: 885-7). As a unitary city-state with a shortage of land, Singapore provided an almost ideal proving-ground for the ideas pioneered in Stockholm. Comprehensively-planned, high-density mixed-use suburban centres have been planned along an excellent rail system, in an urban concept plan dating from 1971 (Cervero, 1998: Chapter 6).

[2] PPGs are binding directions from central government to local authorities about how to prepare planning strategies and controls.

2.4 Assessing The Results Of Centres Policies

The experience of cities that have attempted to implement 'centres' policies has been extensively debated, but there has been surprisingly little rigorous statistical analysis of results. The 1991 report by Marjory Moodie on Melbourne's district centre policy (see Chapter 3) appears to be virtually unique. Some data collection has been carried out in other cities, but most of the research into the effectiveness of centres policies in promoting modal shift is based on modelling, rather than empirical evidence. When considering the success of centres policies, two questions logically arise. Have cities which have adopted centres policies actually succeeded in clustering activity in the way they sought? And has the clustering of activity produced the transport consequences desired? We will begin with the second of these.

2.4.1 Self-Containment Versus Public Transport Use

Cities and towns designed to promote self-containment have rarely fulfilled their planner's ambitions. In Canberra's new towns, self-containment (measured as the percentage of workers living in new towns who also work there) has been about half the 60% planned for by the NCDC. In Stockholm, which set a more modest target of 50%, again only about half as many workers as expected were employed locally (Cervero, 1998). The English new towns have achieved the highest self-containment ratios, in part at least due to their being built at long distances from London. But even here, the performance was less than planned for, with significant numbers of workers commuting to London, and also to other peripheral settlements.

But while self-containment has proven elusive, Stockholm's planned suburbs exhibit very high rates of public transport use, as well as moderately-high rates of walking and cycling, in contrast with Canberra and most British new towns[3], where transport patterns are dominated by the car. Robert Cervero (1998: 129) argues that there seems to be a trade-off between self-containment and non-automobile commuting, and Peter Hall (1998: 969) points out:

> If we decentralise activities two contradictory things happen: commuter journeys are shortened, but there is a huge transfer from public transport to the private car.

Cervero argues that the latter effect more than outweighs any benefits from the former, and that even self-contained, car-oriented English New Towns have among the highest per capita vehicles travel levels in Europe. Newman and Kenworthy (1999) cite statistics showing similar results in Canberra.

[3] One small new town, Runcorn, was specifically designed to promote internal travel by public transport, with residential areas and activity centres grouped along a figure-of-eight-shaped busway. The result has been very high shares of internal travel – roughly 50% for all trip types – by public transport (Dupree, 1987).

2.4.2 'The 'Sustainable Automobility' Alternative

The apparent trade-off between self-containment and mode share has led to something of a debate among urban commentators. Peter Gordon and Harry Richardson of the University of Southern California at Los Angeles are the strongest proponents of what has been dubbed 'sustainable automobility'. They argue that people's natural reluctance to travel long distances produces spontaneous decentralisation of employment, which in turn promotes self-containment. Although the car will dominate travel, journeys will become shorter, leading to reductions in pollution and congestion. In summary:

> Spontaneous relocation decisions by firms and households do a very nice job of achieving balance, and keeping congestion within tolerable limits without costly planning intervention. The appropriate role for [planners] is to facilitate the decentralisation of jobs by relaxing zoning restrictions…. In other words to help the market work rather than strangle it (Gordon, Richardson & Jun, 1991: 419).

Australian support for such views can be found in the work of Kevin O'Connor (e.g. O'Connor, 1994) and John Brotchie (e.g. Brotchie et al, 1995).

The strongest American critic of the Gordon/Richardson thesis is Robert Cervero, who argues that unplanned decentralisation of employment to car-dependent 'edge cities' produces increases, not reductions, in travel. This is particularly because 'edge cities' have tended to cluster around key points on high-speed freeways (cf. Garreau, 1991). Although the debate in the USA continues, most commentators accept that it has been resolved in favour of Cervero's views. This is because the proponents of the 'sustainable automobility' view themselves proposed an empirical test of the hypothesis that, once the results came in, falsified it.

Gordon and Richardson argued that their hypothesis was validated by an apparent fall in commuting times between 1980 and 1985. The US census, which is conducted every 10 years, includes a question on the time taken for the journey to work, and Gordon & Richardson compared the results for the 1980 census with those from the 1985 American Housing Survey. They found the average time taken appeared to fall by around 8% and proclaimed that their hypothesis had been validated. The first response to this 'finding' is that it reflected faster, not shorter journeys, so environmental problems may still have been worsened.

A more telling response is that, since the figures were from two quite different sources, the discrepancy might have been due to incompatibility of data, rather than a genuine fall in times. The real test would have to await the results of the 1990 census. Prior to release of these results, one of Gordon & Richardson's supporters predicted that the average time taken for work journeys would fall from 21.7 minutes to 'closer to 20 minutes' (see Garreau, 1991: 127). In fact, the 1990 census showed an increase, to 22.4 minutes, and in urban areas, the increase was greater, from 22.8 to 24.5 minutes (Cervero, 1995: 340).

This finding has been backed up by detailed analysis of work journeys in the San Francisco Bay Area, which found that car-based employment dispersal was the main factor behind increasing work-related travel (Cervero, 1995). Further confirmation comes from the comparative travel data collected by Newman & Kenworthy (1999), which shows that US cities, where employment is more dispersed than in Australian, Canadian or European cities, have by far the highest travel per capita. In Australia, work by Brotchie based on the Australian census and apparently showing declining times for the journey to work in Melbourne turned out to have been based on an error (Mees, 1994).

Cervero concludes that 'transit-oriented' activity dispersal on the Stockholm model is the most efficient arrangement from a transport point of view, a position supported by other observers such as Hall (1998).

2.4.3 The Royal Commission on Environmental Pollution

The UK Royal Commission on Environmental Pollution's landmark 1994 report Transport and the Environment constitutes probably the most extensive and objective review of the evidence on the question of the influence of land-use patterns on transport generally. The Commission notes that the evidence – derived mainly from modelling, but also from some empirical work – is not always consistent, but that it does support 'centres' policies.

> We conclude, from a large amount of often confusing evidence, that there is no single pattern of land uses that will reduce the need to travel… but avoidance of obviously travel-intensive development patterns would be a significant improvement on the present situation…. In our view [policies] should include the promotion of development which does not rely on car access (hence no new out-of-town superstores, retail centres and business parks unless they bring demonstrable environmental benefits); the location of developments which generate high travel demand where they can be reached on foot, bicycle or public transport; the encouragement of a wide range of facilities at local level so that journeys can be made on foot or bicycle; traffic management (for instance by limiting parking provision); the encouragement of housing development which enables people to live near their work; the siting of freight depots where they can be served by rail or water; the encouragement of lively and attractive town centres; and the adoption of measures to foster walking, cycling and public transport. (RCEP, 1994: 151-2)

Interestingly, even the critics of 'urban consolidation' policies – or at least those critics who continue to support the concept of regional planning – strongly support centres policies. Thus, Patrick Troy in 'The Perils of Urban Consolidation' suggests:

> A series of sub centres in each metropolitan area would be identified to which commercial and cultural development would be directed… Government

> administration would be decentralised to these centres and could even be accompanied by a substantial degree of devolution of responsibility…. local government would be reorganised so that the centres were the natural focus of local government activity and administration… The transport system, including the public transport system, would be developed to focus on and connect these centres to one another… (Troy, 1996: 175-6).

The reference to decentralisation of administration and local government even echoes Ebenezer Howard. The support for 'centre' policies, however, echoes that of other defenders of Australian suburbia, including Hugh Stretton and Miles Lewis (1999: 129-33).

2.4.4 What Determines the Effectiveness of Centres Policies?

This then brings us to the other question raised earlier, namely the effectiveness of planning policies in actually bringing about the desired clustering of activity in transit-oriented, mixed-use centres. Again, the field is remarkable for a lack of solid, empirical work, but some general conclusions can be drawn. In places where pro-active planning for greenfield sites has been coupled with strong regulatory planning – notably the City of Stockholm and Canberra – the resulting urban form closely resembles that laid down in the plans (Fischer, 1984; Cervero, 1998). In Stockholm's case, planned satellite suburbs (see above) were built from the 1950s through to the 1980s, but they did not comprise the only form of suburban development. As has been the case in many other cities, urban development has outgrown the boundaries of the City of Stockholm, and suburban municipalities have pursued much less stringent planning policies. Although regional plans were formulated, they seem to have been ineffective because real power rested with local government (Hall, 1998: 868).

Many of these municipalities were consciously reacting against the design of master-planned communities like Vallingby, which many Swedes regard as soulless examples of modernist architecture and planning. This partly parallels the average Australian's view of Canberra, except with the added problem of the unpopularity of high-rise public housing. A divide began to develop between higher-income, low-density suburban municipalities and the planned, high-density settlements, which increasingly attracted low-income residents (Hall, 1998: 872-8). And alongside the low-density residential developments grew dispersed, car-based commercial and retail developments on the American 'edge city' model. The result is an urban landscape that is divided along social lines, but also along transport mode share lines.

Canberra is probably the city where the planner's desired urban form has been most fully realised. Most higher-order suburban retailing and employment can be found in one of the three designated centres of Belconnen, Woden and Tuggeranong. Canberra is, of course, an unusual case given the high degree of control exercised by the National Capital Development Commission, which built the city's suburbs from scratch on greenfield sites.

Interestingly, however, while the land-use outcomes coincided with the planners' intentions, they did not produce the desired transport outcome (i.e. self-containment). As a result, per capita car travel in Canberra is actually higher than in Melbourne and Sydney (Newman & Kenworthy, 1999: 84). The high-speed freeways connecting the towns encourage travel between them and undermine the potential for self-containment. But Hugh Stretton and other commentators have argued that Canberra's structure, being based around activity centres along a linear public transport spine, would permit a relatively painless transition to a higher mode share for public transport.

In 1977, a modelling study commissioned by the NCDC and carried out by John Paterson Urban Systems and Pak-Poy & Associates, concluded that such a mode shift would be feasible, if a 'demand management' policy was adopted, comprising restraint on road building, improved public transport and charging for car parking in Civic and the town centres. It was estimated that the city-wide public transport mode share for work trips could be increased from 14% at that time to 33% (Pak-Poy et al, 1977, tables 5.21-5.25; by comparison, the current public transport mode share in Melbourne is approximately 15%[4]).

The possibility of a shift in transport mode existed because planning had clustered activity into a limited number of centres arranged along a public transport spine, underlining the point that supportive land-use policies are a necessary, but not sufficient, condition for mode shift. Unless they are backed up by supportive transport policies, land-use measures alone are likely to be ineffective.

At the other extreme, where 'centres' policies have consisted largely of exhortations in documents, they have had little impact on actual land-use trends. Examples here include Montreal, Perth and Adelaide.

Where centres policies have been pursued with positive incentives such as promotion and land assembly – as notably in Toronto – some success has been achieved. In the decade following the adoption of the 1980 centres policy, some 760,000 square metres of office space was added to the six designated centres, which planners in Metropolitan Toronto interpreted as evidence of success. This was, however, only a little more than a third of the suburban office space added in Metropolitan Toronto at the time (Metro Toronto, 1992). The share of new retailing that went to centres was considerably lower than for office space. The mixed fortunes of the six centres led to the 1990 and 1994 revisions of the policy (see above). The new policy also incorporates a mode share target that seeks to have 50% of travel to major centres by non-automobile modes (walking, cycling and public transport). Currently, the best-performing centre, North York, manages only 30%, but this is planned to improve as public transport links to the centres are upgraded. So Toronto's centres policy can be seen as a partial success.

Vancouver's centres policy initially relied mainly on 'carrots', like Toronto's, but has more recently begun to use the 'stick' of negative zoning (i.e. prohibition or

[4] These figures refer to motorised trips, i.e. with walking and cycling excluded, as was the practice in the 1970s.

discouragement of major developments outside the designated centres) as reinforcement. This is easier to achieve than in Toronto, owing to the existence of more effective regional planning processes in Vancouver. It is too early to tell what the effects of this policy are, but a review of the much weaker policy adopted in the 1970s suggested that it had been moderately successful at attracting commerical development, and quite successful at attracting higher-density housing to the designated centres (GVRD, 1993b).

Sydney also provides an example of positive measures (land assembly) backed up with negative zoning. Its district business centres policy has been pursued with varying degrees of consistency for five decades, but in contrast with Melbourne's (see next chapter) has remained in force throughout this time. Significantly, during the critical period of the 1960s, the policy was enforced and backed up with a program of land assembly. As a result, most suburban department stores and regional shopping malls are in designated, rail-based centres (see Chapter 3).

Surprisingly, there has been little research on the mode share effects of the policy. The more effective clustering of major suburban retailing and office space is an important reason for the much higher per capita patronage of rail in Sydney when compared with Melbourne.

A 1998 study (Gee et al, 1998) found that, between 1981 and 1996, employment in the 10 designated suburban centres in Sydney increased from 108,000 to 148,000, a rise of 37%, slightly higher than the overall rate of increase in employment across Sydney. The share of suburban (i.e. non-CAD) jobs in these centres increased from around 11% to around 12%. Sydney's centres are on average considerably larger than Melbourne's: Parramatta and North Sydney each employed 33,000 people in 1996, making them around twice the size of Box Hill, Melbourne's largest centre. The public transport mode split to most of Sydney's centres varies, but is also higher than in Melbourne. The highest share (for work trips) is 50% for North Sydney, followed by 36% for Chatswood, 28% for Parramatta, 28% for St. Leonards and 22% for Hornsby. The remaining centres vary from 9% to 16%, while in all 10 centres, walking and cycling account for around 5% of access trips.

Sydney's response (as discussed in section 3.3.3) has been to strengthen planning policies to concentrate more activity in centres, and to dramatically expand the urban rail system to better serve existing centres and also to bring two further centres – the Macquarie University area and the Central Industrial Zone adjacent to the Airport – into the 'transit-based' category. The overall concept, of a multi-nodal city served by a multi-directional rail system, corresponds (on a larger scale) to the structural principles underlying centres policy in Metropolitan Toronto.

What policy-makers in Sydney appear not to have realised, however, is that further supportive transport policies will be required. Most centres do not apply 'demand management' policies to car parking, and public transport access remains poor because, while the centres are on rail lines, most people travelling to them do not live within walking distance of rail stations. The poor quality of suburban bus services and the

absence of a multi-modal fare system make the bus-rail trips required to reach the centre unattractive for many patrons. This can be seen from the experience of the North Sydney centre which, under the leadership of Mayor Ted Mack in the 1980s began to adopt a demand management policy for parking, with the minimum levels in planning controls being replaced instead with maximums or 'caps'. The result is a mode split in favour of public transport of approximately 50%, compared with around 35% two decades ago (source: City of North Sydney). This result is probably also due to the unusually high level of public transport access provided to the centre, which is served by rail, but also by an extensive bus network.[5]

In the United Kingdom, the strict planning controls in place prior to the Thatcher era ensured that US-style freestanding retail and commercial parks barely existed. The return to planning only commenced in 1993, with the enactment of PPG6 and arguably really only commenced with the revision and strengthening of PPG6 in 1996, so it may be too early to judge the results. However, discussions with British planners suggest that, at the level of land use at least, significant change is occurring. It appears that no major new freestanding retail developments have received planning approval since 1996, and many retailers who formerly favoured such sites have found creative ways of adapting themselves to locations in centres. For example, smaller supermarkets with minimal or even no car parking have become popular – and the concept is spreading to Australia with concepts like 'Coles Express'. It seems that many apparently space-hungry uses are more flexible than many observers have assumed.

2.4.5 What Kinds of Land Uses are Directed to Centres?

As the objectives of centres policies have evolved over time, ideas have changed about the kinds of activity-generating land uses that should be located in centres. The tendency has been to add to, rather than subtract from, the list.

In the earliest, 'community-building' centres policies (such as Abercrombie's Greater London Plan), the emphasis was on the kind of uses traditionally found in town centres: town halls and libraries, churches, shops and local businesses. As the agenda shifted towards self-containment of travel, and as the importance of office jobs as a source of employment increased, attention was focused on employment and retailing, which were seen as major generators of travel (a notable example is Canberra – Fischer, 1984).

In earlier plans, industry was not seen as appropriate for siting in centres because of its large requirements for land and externalities like noise and air pollution. In addition, large public facilities like hospitals and, even more so, new universities, were given large freestanding sites. This seems to have been more a response to architectural fashions of the 1950s and 1960s, which favoured remote campuses surrounded by parkland to buffer

[5] The bus network is an accident of history, rather than the result of conscious planning. Milsons Point used to be the terminus for the North Shore tram, bus and rail systems, as passengers transferred to ferries there prior to the opening of the Sydney Harbour Bridge. A reduced version of this network remained in place following the opening of the Bridge and exists to this day.

them from 'the world' (Monash and LaTrobe Universities in Melbourne are good examples), than to any inherent unsuitability of these uses to locations in centres. As more attention has focussed on environmental sustainability, and as ideas about the relationship between higher education institutions and the rest of the community have changed, these older views have begun to change. So, for example, the British PPG6 expressly refers to hospitals and higher education as uses which are to be directed to centres.

Industry and transport remain the classic examples of uses unsuited for location in centres – although some 'high-tech' industry probably is now clean enough and sufficiently economical in use of space to be considered. The major source of tension has been with newer forms of retailing, beginning with supermarkets and more recently including 'big box' stores and factory outlets. But even here, as the example of Denmark discussed in section 2.3.6 shows, there are relatively few retail uses that genuinely require spacious sites. In most cases, the large sites required are needed for extensive car parking, and so in cities where centres policies are co-ordinated with transport policies to promote mode shift, the force of this argument for freestanding sites is greatly diminished.

2.4.6 Conclusions

It is clear from this review of the international and interstate experience that an activity centres policy is an essential planning tool for achieving desired environmental, economic and social sustainability outcomes such as a significant shift in transport mode towards non-motorised transport. While the details of the various policies employed in cities around the globe may vary, there is considerable consensus among urban planning commentators and practitioners on the importance and value of such policies.

Activity centres policies have featured prominently in urban plans since the Second World War, in Australia and other developed countries. Although originally intended to serve a variety of purposes, such policies have increasingly become oriented primarily to transport sustainability objectives. Clustering activity and higher-density housing in designated walking-scale centres that are, or will be, well-served by public transport is intended to encourage use of public transport for trips to and from the centre, and walking for trips within the centre. Some commentators also argue that clustering can promote innovation and economic growth. Transit-oriented sites for major activities seem to work best when coupled with the encouragement of networks of smaller centres for convenience shopping and other local activities, based around walking (and cycling) as the preferred access modes.

Centres policies differ according to local circumstances: in some places, they are designed to reinforce existing, transit-oriented centres; in other places they are designed to create such centres where none exist. Some cities see their suburban centres as genuine alternatives to the CAD, leading to the creation of multi-centred urban areas served by multi-directional rapid transit systems; other places see such centres as

subordinate to CADs, drawing from locally- and radially-based catchments, and thus compatible with radial rapid transit systems and urban development corridors. But while cities differ on the details – how many centres; how strongly planning promotes them, etc – what is remarkable is the near-unanimity among urban planning commentators and practitioners in supporting such policies.

The actual experience with centres policies overall underlines the fact that, while it is possible to use integrated transport and land-use planning to promote modal shift, the task is not simple and requires firm, co-ordinated policies pursued consistently over many years. Cities which have pursued half-hearted policies, or which have failed to back land-use policies with supportive transport policies, have generally produced only partial success and in some cases no benefit at all. But conversely, cities which have pursued co-ordinated policies for long periods have managed to effect significant improvements in transport sustainability patterns.

The critical ingredients in successful interstate and overseas centres policies are:

- Designation or targeting of a small number of major mixed use centres that are, or will become, well served by public transport. This usually amounts to a rail rapid transit connection, coupled with an extensive bus network that doubles as a feeder service to rail and a direct service to the centre. In the case of a corridor-based centres policy, rail access from only one direction (radially outwards) may suffice; in the case of 'multi-CAD' style policies, multi-directional rapid transit access (as is being provided for Parramatta in Sydney) is required.
- Potential for expansion in priority transit-oriented centres. This means that suitable land be available, and the regional economic situation is supportive. This latter factor is much harder to quantify and is the subject of considerable debate.
- Integration of transit-oriented centres encompassing major activities with networks of smaller centres for convenience shopping and other local activities, based around walking and cycling as the preferred access modes.
- Emphasis in the planning of the internal structure of centres on compactness, pedestrian-friendly layouts and mixing of land uses. This needs to be backed up by policies to assemble appropriate sites for developments, especially those which require large sites.
- Regulatory planning policies that restrain developments that should be located in centres from locating outside centres. Policies that rely only on 'carrots' have not succeeded.
- Supportive transport policies. These include provision of high-quality, integrated public transport services connecting the centres to their regions; parking policies within centres which emphasise 'demand-management' (e.g. ceilings, rather than minimum requirements); and road construction policies which similarly emphasise demand management and which refrain developments which encourage travel patterns inconsistent with centres policies.
- Consistent commitment to centres policies by local and State level governments. This commitment must be maintained over a significant period of time and includes

ensuring that government agencies themselves locate people-attracting activities in centres.

- Orderly cycles for monitoring and review of centres policies to reduce the opportunity for ad-hoc modifications in response to developer pressure**.**

Chapter 3: Centres Policies in Melbourne and Geelong

3.1 Introduction

Centres policies came to Victorian urban planning in the 1950s, and were initially very closely derived from then-current British models. Subsequent decades have seen waxing and waning of enthusiasm for policies of this kind, together with rises and falls in the degree to which the policies are based on objectives consistent with ecologically sustainable development. This chapter reviews those changes, commencing with Metropolitan Melbourne and concluding with Geelong. The chapter concludes with a synthesis of the general orientation and effects of the policies, with an outline of policy issues to be considered in Chapter 5.

3.2 The Origins Of Melbourne Centres Policy: The 1950s

The first discussion of a centres policy for Melbourne was outlined in the two-volume report which accompanied the proposed Melbourne Metropolitan Planning Scheme 1954. This report, which was released in 1953, was the product of a two-year study by the Melbourne & Metropolitan Board of Works, which in 1949 had been appointed the regional planning agency for metropolitan Melbourne.

In contrast with other studies, notably Sydney's County of Cumberland Plan of 1948, which were copied on a wholesale and largely uncritical basis from Abercrombie's Greater London Plan, the MMBW's plan was based on a real attempt to adapt British planning ideas to the actual conditions of Melbourne, as uncovered in the Board's very comprehensive survey and analysis of existing conditions and trends. Thus, for example, the idea of a London-style green-belt was considered and rejected as unsuited to Melbourne's corridor pattern of urban growth.

Similarly, Abercrombie's emphasis on decentralisation of population from inner areas was also rejected in favour of an early version of what we would now call 'urban consolidation'. This policy was based on a survey of residential preferences which revealed, as early as the 1950s, a strong preference for centrally-located housing, provided it was affordable and of good quality. But the Board did strongly support decentralisation of industry and retailing from central Melbourne, which the Board believed was becoming too crowded.

Industrial decentralisation was to take the form of spacious factory zones, but commercial decentralisation was based around centres:

> "A policy of business decentralisation is essential if our future civic development is to be sound, and should be encouraged in Melbourne. For such a policy to be effective, the decentralised activities should be grouped in centres which are not only well located geographically, but in which the existing physical conditions make it feasible to provide the necessary amenities and facilities by a program of progressive development…"

A hierarchy of existing shopping centres was identified - Major Shopping Centres, Secondary Shopping Centres, Minor Shopping Centres, Local Shops - but not all of the examples listed for 'major shopping centres' were regarded as suitable sites for major retail growth. Five District Business Centres were selected

> "because they are well located geographically, and because they have the potentialities for progressive development. Whatever activities may be attracted to those centres, the main activity will be shopping but it is visualised that besides this nucleus these centres will provide facilities for retail marketing, for medical, dental and other professions, for branch offices for businesses and public administration and for entertainment and cultural activities. They will offer to residents of the locality many of the facilities of the central city area under more attractive conditions nearer to their homes." (p 53)

The five designated District Business Centres were Footscray, Preston, Box Hill, Moorabbin and Dandenong. The policy was expressed through the designation in the planning scheme of a hierarchy of business zones – District Business Zone, Restricted Business Zone and Local Business Zone. The Board also prepared sketch plans for the comprehensive redevelopment of each of the five centres to accommodate cinemas, department stores and offices.

It is significant that the five sites chosen were all adjacent to railway stations, but the Board's report does not expressly refer to the objective of promoting public transport use (or walking or cycling). Rather, the siting appears to have been a response to the then-current reality that the vast majority of travel in Melbourne was by public transport. Although the Board anticipated a growth in car usage, it did not predict the dramatic nature of the decline in public transport. Activity centre policy at this time was based more on a desire for self-containment in decentralised regions, intended to reduce pressure on both public transport and roads serving the city centre, than on the key principles underlying ecologically sustainable development. Sustainability was not on the planning agenda at that time.

3.3 Implementation of Melbourne Policy from the 1950's to the early 1970's

The MMBW's 1954 activity centre policy was implemented principally through the zoning of the designated centres or activity areas. None of the District Business Centres

was redeveloped as planned by the Board. Neither the MMBW nor the State Government provided any pro-active measures such as land assembly to channel new development into these preferred areas or provide supporting infrastructure. The reasons for this failure are unclear. It may have been a lack of legislative power for compulsory acquisition on the part of the Board; it may also have been a lack of funding (the MMBW had access only to a small levy on sewerage and water rates and devoted virtually all of this to road-building); it may have been the departure from the MMBW of some of the most able planners following the disbanding of the team which had produced the 1953 report (McLoughlin, 1992).

The result was that the Board's District Business Centres policy relied on adherence to a regulatory framework where decision-making responded to development applications from different industry sectors. The manufacturing sector largely followed the planning scheme's locational directions, because large tracts of broad-acre land had been set aside in the planning scheme. Major retail organisations found obtaining suitable sites more difficult.

The first company to begin planning a suburban retail centre was the Myer Emporium. Ken Myer had spent considerable time in the United States and was familiar with American retail malls. The history of the Myer Emporium claims the final impetus to move was driven by the declining quality and rising price of CAD-oriented public transport. But Myer initially sought a site in one of the MMBW's nominated, rail-served centres, because the firm was wary of relying solely on the automobile for access. But it proved impracticable to negotiate with the dozens of individual land-holders who owned sites in the nominated centres, so Myers sought other sites. After considering a site in Burwood, the firm purchased an orchard from the Sisters of the Good Shepherd in Dandenong Road, East Malvern and constructed the Chadstone centre, which opened there in 1960 (Marshall, 1964). The success of this centre led Myer and other firms to drop further attempts to find sites in transit-oriented locations (although when Ringwood Council provided one, Myer was happy to use it for Eastland). Chadstone was followed by Northland in 1964, then Doncaster, Eastland, Southland and Highpoint.

The MMBW, having reluctantly approved the rezoning necessary for Chadstone to go ahead, quietly abandoned its District Business Centre policy during the 1960s. The 1971 MMBW Report *Planning Policies for the Melbourne Metropolitan Region*, did not mention centres at all, not even to announce that the policy had been abandoned. It seems clear that the MMBW was embarrassed by the failure of its centres policy. The Board had good reason to feel embarrassed: by this time, Sydney had a considerably larger number of suburban retail centres than Melbourne, but with the crucial difference that most of them were located in transit-oriented sites. This was a result of strong land-assembly programs by the Cumberland County Council, the State government and some local councils. In Sydney, freestanding regional centres like Chadstone were the exception, rather than the rule.

The MMBW's 1971 report argued strongly in favour of a dominant role for the CBD, particularly maintaining and improving employment levels in the CBD in the face of

growing dispersal of activity, particularly retailing, to suburban areas. This may also have been a factor behind the abandonment of the District Business Centres.

The existing pattern of growth in the metropolitan area was to be continued, with a pattern of growth corridors based around radial rail lines separated by green wedges. This pattern was an adaptation of the linear city model from the influential Copenhagen 'finger-plan' (see Chapter 2), and was justified partly by reference to efficient provision of infrastructure and partly on the conservation value of some of the green wedges.

3.4 Revival of Centres Policies: The Late 1970s and 1980s

3.4.1 MMBW's New Metropolitan Strategy

The absence of policies to promote alternatives to automobile travel in the MMBW's 1971 plan soon caused public concern. As the 1970s unfolded, environmental consciousness and the OPEC oil embargo combined to produce a shift in public attitudes towards unrestrained growth in private car use. These concerns were initially highlighted by 'fringe' groups such as the Communist Party (through its influential 1969-72 *Plan for Melbourne* produced by Ruth and Maurie Crow), the Town and Country Planning Association and the Conservation Council of Victoria. These concerns were crystallised in two books, *Seeds for Change* (published by the Conservation Council in 1978), and *Melbourne's Development and Planning* (published in 1981 by Dr. Clive Beed of Melbourne University).

By the end of the 1970's, the MMBW's planners had begun to share some of these concerns. There were serious issues emerging from an increasingly dispersed city - energy management, capital shortage, structural unemployment and concern for the environment. Declining rates of investment and population growth, rising unemployment, rising fuel costs and concern about future fuel supplies, structural and technological change also were influencing the thinking about the future form of the metropolitan area.

The environmental concerns also coincided with concerns by retailers in the CAD and traditional centres about the effects of shopping mall growth on their viability. This led the State government to freeze new mall development and appoint a Technical Advisory Committee (TAC) on Retailing. The TAC reported in 1980 and argued the merits of agglomeration of complementary uses into selected centres rather than widespread dispersal. The TAC Report recommended the encouragement of large integrated activity centres and indicated a preference for the redevelopment or extension of existing centres prior to the establishment of major, one stop stores in freestanding locations, and the control of peripheral retailing uses away from industrial zones.

The Report's policy principles for retail development demonstrate the 'dual constituency' of environmental and local retail concerns that lay behind centres policies:

- "To ensure that net benefits to the public as a whole will result from retail development proposals, having regard to the strategic concerns relating to energy, efficiency, equity, environment and employment (the five E's) with associated structural implications for land use and transportation.
- To minimise the undue environmental impact of retail development proposals and to ensure the adequacy of public works and services.
- To keep the supply of retail facilities in reasonable balance with demand having regard to the influence and timing and location of development on that balance and the need to provide innovations in retailing which improve service to the consumer.
- To seek to ensure that established centres containing significant community assets are not prejudiced by new developments elsewhere.
- To reflect concern for a wide range of retail business operations including the particular interests of small business".

The MMBW's analysis of the problems associated with dispersal began with a series of seminars and discussion papers in 1978-79 and culminated in a new Metropolitan Strategy released in 1980 and an accompanying Implementation Report released in 1981. The new strategy emphasised urban consolidation and an MMBW recommended an "incremental approach to metropolitan policy" building on the existing metropolitan infrastructure. The policy encouraged growth primarily within existing areas while allowing for moderate expansion at the urban fringe. The MMBW believed that such an approach would entail better use of the vast public and private investment that already existed in urban areas, while enhancing the range of housing, employment and investment opportunities.

A major focus in the strategy was to

> "encourage and facilitate multi-purpose suburban activity centres at points of high accessibility, particularly by public transport and of high development potential and promote the supportive role of housing at such centres… The activity centre concept is one key element in the Board's strategic approach. They entail the application in a comprehensive way at selected locations, of all other policy objectives on housing, transport, employment and community facilities."

The Implementation Report, while perhaps a little inaccurate in its history, demonstrates the importance of environment and equity objectives:

> "The concept of activity centres, or the grouping of retail, commercial, entertainment and cultural uses in designated suburban centres has been a major component of Melbourne's planning policy for over 15 years. The Melbourne and Metropolitan Board of Works Metropolitan Strategy of 1980 outlined the benefits of activity centres as including reduced travel needs, better community

> access to wide range of services and facilities, provision of a community focus, improved social and economic interaction, better support for public transport services, reduced pollution and more efficient use of land, buildings and urban infrastructure" (p 60).

The 1981 document conceptualised 'district centres' as mixed use regional centres spread strategically throughout the metropolitan area. They were to be secondary centres to the CBD serving people of their surrounding districts. The centres would be based not only on retailing but also on commercial and community offices, general commercial services, light and service industrial activities, and leisure and entertainment facilities. Opportunities were to be provided for residential development within these centres.

In addition to specifying strategic objectives for the District Centres, the Strategy Implementation Report set down proposed actions and supporting measures to be followed up by the MMBW and local Councils to implement the policy.

Although the overriding emphasis was on district centres, the 1981 *Metropolitan Strategy Implementation Report* also recognised, in a much more limited way, the role of other centres. It indicated, for example, that there was a need to provide for the continued functioning of commercial and community services at various levels, but did not propose any specific measures for achieving this.

3.4.2 Selection of 14 District Centres and Amendment 150

The selection of the 14 District Centres underlined the importance of retail uses as a key component of the MMBW's activity centre policy. This reflected the Board's thinking as far back as the 1950's. The Board initially identified the 35 largest suburban centres in Melbourne from a survey of retail floorspace undertaken in June 1979. These 35 centres were then scored in terms of the following criteria:

- accessibility of public and private transport;
- range of retail services;
- range of commercial services;
- range of community services;
- capacity of utility services.

As a result, 18 centres were chosen. The number was then reduced to 14 centres and six potential centres by the requirement that there be only one centre for every 100,000 – 150,000 persons. This meant that in the inner and middle areas of Melbourne, it was possible to have only one centre (eg, Prahran, Camberwell Junction) for a particular sub-regional area, whereas other centres in that area (eg, Glenferrie Hawthorn, High Street Armadale/Glenferrie Road Malvern) also met the original criteria. The influence of Central Place Theory in this decision is clear.

The nominated 14 District Centres were Box Hill, Camberwell Junction, Cheltenham/Southland, Dandenong, Footscray, Frankston, Glen Waverley, Greensborough, Moonee Ponds, Oakleigh, Prahran (Chapel St.), Preston, Ringwood and Sunshine. The six potential centres were indicated as Berwick, Sydenham, Mill Park, Broadmeadows, Werribee and Knox City.

In this process, the MMBW attempted to combine the provision of an orderly arrangement of 'higher order' mixed use centres (although predominantly retail centres) with environment and equity objectives. The result was that central place criteria overtook sustainability objectives, notably reducing car dependency.

Amendment 150 created a new District Centre Zone over the existing non-residential zones at the 14 designated centres. The new District Centre Zone allowed for larger office developments (up to 4,000 m^2 without a permit), more intense retail and residential developments and the encouragement of community services. A strategic plan was to be developed for each district centre to provide a positive framework for development.

Amendment 150 went to a Panel hearing in 1983 which suggested modifications to the proposed MMPS. The Panel's recommendations included that Chadstone and Northland be integrated with the district centres of Oakleigh and Preston in the same way that Southland was attached to Cheltenham. The Panel also wanted Doncaster to be added to the list of designated centres. The Panel's reasoning, that the most 'successful' existing centres should be included among the District Centres, indicated that in the Panel's mind at least, environmental sustainability was not the dominant consideration.

The State Government, however, supported the environmental objectives and rejected the Panel's advice. Only the 14 centres nominated by the MMBW were included when Amendment 150 was gazetted in 1984.

3.4.3 The Policy Comes Under Pressure

The District Centre policy was bound to produce opposition from vested interests in the development industry, particularly in its early stages. What was perhaps more surprising was the almost universal disdain expressed by academic urban planners. While it may have been poorly argued and largely unsupported by evidence, the academic assault magnified the normal pressure from development interests that would be expected to afflict any serious centres policy. The State government began to retreat from the original vision almost as soon as it had been given force in Amendment 150.

The District Centre concept was endorsed in the State Government's economic strategies of 1984 and 1987, but with a subtle shift in emphasis away from the environmental and equity concerns that had actually motivated the policy in the first place. The 1984 *Economic Strategy - Victoria. The Next Step* – considered that District Centres had a major role in enhancing the economic viability of Melbourne and Victoria as a whole, without indicating why that was the case. The Strategy stated that

> "major new commercial activity was to be concentrated in these centres, together with the necessary infrastructure and support services, in order to make the suburbs more attractive as a business location. Particular attention is being given to transport and land use issues. Government activities are being regionalised to make services more accessible."

The focus of this Strategy was not so much on achieving an integrated set of ESD-type objectives, as on making the district centres stronger business nodes in Melbourne's suburbs. This lay the seeds for future conflict between economic development objectives and sustainability concerns.

During the early and mid-1980's, the pressure points on the Government's activity centre policy, particularly with its emphasis on district centres, came from retail developers proposing expansions to the major stand-alone shopping complexes such as Chadstone, Highpoint and Northland or applying to establish new complexes in free-standing locations. This was seen as undermining the Government's focus on all district centres to become major retail centres serving a wide regional catchment.

Other pressures came from large companies proposing to move their corporate headquarters out of the Melbourne CBD to large, stand-alone suburban locations removed from established activity centres. A critical decision was the approval in 1984 of an amendment allowing Coles Myer to establish a 30,000 square metre office development on a stand-alone site at Tooronga.

These decisions were considered to be contrary to the Government's district centre and activity centre policies, and the provisions of Amendment 150. This back down soon set the precedent for others: for example, the RACV obtained approval to establish its headquarters in a 16,000 square metre office block on a stand-alone site along the Princes Highway at Noble Park.

3.4.4 Summary of Melbourne Policy in the 1980's

It is clear that there was an overriding emphasis by the MMBW and later the State Government on a hierarchy of activity centres with particular focus on district centres. However, the difficulty with these strategies was the undue emphasis on rhetoric, reliance on a prescriptive statutory planning framework, and occasional planning decisions on major development applications which undermined the policy basis.

There was a lack of a comprehensive and adequately resourced Government programs to ensure substantial results on the ground. The Government provided very little of the necessary infrastructure and support services in district centres. A small pool of funds was allocated to the production of structure plans and to streetscape improvements in selected centres. No assistance was provided by the Government in land assembly and consolidation for major new developments.

Along with the lack of land assembly, the most serious policy failure was in the transport measures necessary to support the policy. The MMBW's policy direction as set out in the 1980 and 1981 Strategy documents was fundamentally opposed to that being pursued by the Ministry for Transport. The Ministry had more regard to the Victorian Transport Study or Lonie Report (released in the same year as the Board's Metropolitan Strategy) which recommended closure of the tram system, severe cuts to the rail system, and an accelerated program of freeway construction.

This conflict was alluded to in the Board's 1981 report (p. 96):

> "There is significant common ground between the Board's approach and the approach to transport advocated in the [Lonie Report]… Both the [Lonie Report] and the Board accept the objective of efficient use of resources. The Board's strategy would take up excess capacity by means of an increase in potential patronage of the public transport system".

Because the Ministry for Transport, not the MMBW, controlled transport policy, transport was not used to support the District Centre policy. Freeway construction continued apace, but there was little improvement in public transport services at or connecting with district centres, although this had been recognised as one of the major factors behind a successful policy. For example, shortly after Camberwell was nominated as a district centre, timetables on the Ringwood rail line were revised to reduce the number of express services calling at Camberwell.

The Government's effort concentrated on preparing structure plans for individual centres, implementing a limited area improvement program, and trying to control major new retail and commercial development through the regulatory land use planning system.

3.5 Abandonment of District Centre policy: the late 80s and 1990s

3.5.1 Shaping Melbourne's Future - 1987

The Government's *Metropolitan Policy - Shaping Melbourne's Future* – released in August 1987 marked a step back from the Government's previous emphasis on district centres. Rather like the MMBW in the 1960s, the Government appeared to have decided that the District Centre policy was 'too hard' and that 'going with the flow' would be more productive, at least economically. This is particularly remarkable, given that the policy had only been in force statutorily for some three years at this time.

Shaping Melbourne's Future highlighted the need for "a number of changes and refinements" to policy in recognition of:

- the changing patterns of retail and office development;
- the need for more flexible retail/office/business/light industrial mixed use zonings in appropriate areas;
- the different 'structural' roles played by various centres; and
- pressures for the development of adjoining areas and major sites outside district centres.

In fact, however, all these factors had been present at the time the policy was enacted. Their citation reads more like a rationalisation, than an explanation, of the back down. The same factors were present in Sydney at the same time, but did not produce a similar outcome.

The following key parameters of the policy reflected this changing emphasis:

- development, where appropriate, of creative new zones that offer incentives for development and new mixtures of land use;
- encouragement of individual distinctions between centres to help establish 'local' identity;
- creation of areas of high technology and knowledge-based industries in appropriate centres;
- better integration of environmental, design, and technical assistance into the policy measures being applied to all types of centres; and
- development of community and neighbourhood activity centres using a 'cluster and connect' concept, (pp 37-38).

This was a significant change of policy. The new emphasis was not on bolstering strategies to achieve environmental or social objectives, but on creating opportunities for economic growth and reclassifying existing centres to more accurately reflect their roles at that time. The District Centres were classified into three categories – 'established inner', 'regional' and 'outer strategic' as a basis for applying office and retailing and development policies.

In addition to this classification system, *Shaping Melbourne's Future* outlined a range of Government actions to be undertaken in the District Centres. It committed the State Government to:

- assist local councils to prepare structure plans for District Centres reflecting their designated role and local identity, and nominating a suitable mix of activities and locations for new developments;
- identify opportunities for major office and mixed use developments in and around District Centres and on other major industrial or publicly owned sites;

- use government land holdings, where appropriate, to assist in achieving appropriate forms of development and public facilities in all District Centres;
- assist local councils with land assembly and consolidation programs where existing patterns of ownership prevent redevelopment;
- continue investigation of other centres for designation as District Centres;
- encourage regional offices of Commonwealth and State agencies to locate in 'regional' and 'outer strategic' District Centres;
- continue a funding program for transport and traffic improvements in District Centres, and continue funding for environmental improvements; and
- increase provision of public housing near District Centres, (p. 38).

A few actions to achieve ESD-type objectives were outlined, but there was little Government implementation. The focus of the overall Strategy was on providing a new orderly framework which reflected changing land use patterns and on which major development applications could be assessed, rather than outlining a pro-active Government approach to achieving ESD-type outcomes.

The change in Government emphasis on activity centres was picked up in the *Metropolitan Activity Centres* document, produced by the Ministry for Planning and Environment in 1989. The document stated that:

> "The clustering of activities in a set of preferred centres, as far as practicable will help to achieve the fundamental objectives of efficiency and equity by:
> - promoting single destination multi-purpose trips;
> - improving access to services and facilities for those without cars;
> - maximising opportunities for viable public transport, thus minimising pollution and other costs associated with the use of private cars; and
> - maximising the benefits to businesses by the clustering of mutually supportive activities", (p 2).

In essence, the 1989 MAC report provided more of a practical explanatory framework of established activity patterns at that time and guidelines for developers, than a pro-active strategy to achieve desirable outcomes in line with current ESD-type principles. Contrary to previous and stronger statements of district centre policy, the MAC Report provided a flexible policy basis for the Government on which to justify a wide range of new retail and office developments – both in established activity centres but also in new locations. This flexibility diminished the Government's focus on a limited number of key suburban activity centres, and reduced the intensity of effort to achieve sustainability outcomes in areas such as public transport delivery.

There was a lot of focus on the different activity centre and retail hierarchies. It was inevitable that this would create confusion. As the *Report of the Retail Development Policy Review Panel* observed in 1996,

> "the policies espoused in the 1989 MAC Report represent the culmination of planning policy's focus on a fairly prescriptive retail hierarchy. However, in seeking to meld activity centre policy with a hierarchical retailing policy, it led to a confusing statutory framework and debate on interpretation. This was largely due to the fact that the (activity centre) policy was not just about retailing, and yet did include this notion of a hierarchy of centres. The hierarchy of shopping centres was simply not the same as the hierarchy of more broadly based activity centres", (p 22).

3.5.2 Metropolitan Statutory Planning Provisions

The MAC report, however, did provide a set of retail and office development guidelines against which new development proposals were to be assessed. These guidelines were in operation until 2000. They were previously referenced in Clause 17.02-2 of the State Planning Policy Framework section of all new planning schemes.

The guidelines were based on a set of principles around the concept of net community benefit. This approach placed an emphasis on achieving a balance between new, innovative and competitive developments on the one hand, and certainty and consistency for industry, the wider community and activity centre patterns on the other. What the guidelines established was a conservative 'checks and balances' mechanism that necessitated rigorous and careful investigation of all new proposals.

These guidelines, which basically involve trading environmental sustainability off against other objectives, were the antithesis of Ecologically Sustainable Development.

Several other metropolitan policies directly relevant to activity centres and associated retail and office development were spelled out in Clause 14 of the Metropolitan Regional Section of planning schemes during the 1980's. A planning authority preparing amendments to these schemes, or a responsible authority administering these schemes, had to consider these policies.

The relevant policy clauses were outlined in Clauses 14-1 (Pattern of future metropolitan development), 14-3 (Urban growth corridor), 14-4 (Activity centres and commercial development), 14-5 (Retail development), and 14-6 (Office development). It is interesting to note that Clause 14-2 (Housing and Urban Consolidation), and Clause 14-13 (Transport) had few policies directly related to activity centres.

The key policy clauses relating to activity centres were designed to:

- reinforce the established pattern of activity centres;
- retain and strengthen Central Melbourne as the prime metropolitan focus for a range of activities;
- retain District Centres as secondary focuses for a similar range of activities;

- concentrate major suburban retail, commercial, administrative, entertainment and cultural developments around District Centres;
- differentiate between inner area, regional and outer strategic District Centres as a basis for applying the most appropriate office and retailing development policies;
- provide infrastructure, services and suitably zoned land to encourage employment growth throughout the metropolitan area, with emphasis on Outer Strategic District Centres;
- encourage individual distinctions between centres to help establish local identity;
- encourage the integrated planning of activity centres at all levels, including the planned location of land uses in centres and environmental improvements;
- improve the provision of family care facilities to a level consistent with the role of centres;
- minimise the effects on local amenity of the concentration of activity;
- give preference to new retail or office development in Central Melbourne or District centres, or locations that consolidate the role of existing centres rather than at new locations; and
- assess new retail or office development proposals according to published Retail and Office Development Guidelines (1989) with the key evaluation criteria being 'net community benefit'.

In essence, the policies contained in the statutory framework had a strong emphasis on an ordered and hierarchical approach to activity centres. The established pattern of centres was to be retained. This provided a sense of security to developers and investors in centres.

The policies also required a rigorous review of new development proposals. This prompted extensive and prolonged evaluations which sustained the existing order of centres, and probably restricted the establishment of completely new retail centres.

The statutory provisions provided the basis of a static approach to centres. There were no requirements to achieve a better pattern of activity centres, nor to attain improved conditions in centres to meet wider community or ESD-type goals.

3.5.3 Review of District Centre Policy in 1990-91

In 1990 the Department of Planning and Housing commissioned Marjorie Moodie to conduct a review of the district centre policy and its implementation. That report was completed in August 1991 and provided a comprehensive understanding of retail and office development patterns in the various centres, level of public sector employment, range of entertainment, leisure and community services, transport infrastructure and availability of medium density housing within or adjacent to these centres.

Key conclusions of this important review were:

- district centres vary a great deal in terms of their achievements, progress and interest shown in them, and the commitment of local government;
- the number of district centres fulfilling a fully fledged 'district centre' role is few – few provide for a broad spectrum of activities and fulfil a number of different roles at a regional level;
- the State Government's support for and promotion of the program has been ad hoc, fragmented and under-resourced;
- there should be a clear definitive statement of office and retail policy which discourages developments which are likely to have detrimental economic impacts on the viability of nearby district centres;
- policies relating to business office parks require re-examination. All future proposals should be assessed in terms of whether they warrant a freestanding location outside of an activity centre, and their impact on nearby district centres;
- the State Government should restate and widen its commitment to the District Centre Program, in terms of both resource allocation and awareness by all departments and agencies. All agencies of Government needed to adopt the policy and give priority to traffic improvements, public transport interchanges, and service upgrading;
- it was too early at this stage to make a final judgement on a policy only now being enacted in some centres, and which up to now has not enjoyed a high priority on the Government's agenda.

The Moodie report is a significant document in the history of 'centres' policies, for the breadth and thoroughness of its analysis. Its conclusions debunked the widespread 'urban myth' that centres policies had failed.

3.5.4 Shaping Victoria's Future and Cities in the Suburbs 1992

In the latter days of the Kirner Government, *Shaping Victoria's Future – A Place to Live* was released in August 1992. No mention was made of district centres, although activity centres in general were seen as part of a strategy to create a more compact city that was ecologically sustainable and had higher levels of regional self-containment. However, the language in the whole document is considerably vaguer than in the past and it is clear that the regulatory approach has been dropped.

The strategy was critical of single-function land uses such as office parks and stated that in future, office parks should host a broader mix of uses and be better integrated with public transport The overall preference, however, was to locate office developments in or around activity centres. *Shaping Victoria's Future* suggested that Melbourne would become a multi-centred city with three distinct sub regions - Central Melbourne, the north western suburbs focussing on a yet to be specified centre, and the south eastern

region focusing on Dandenong. Studies were to be carried out on practical ways of further developing Dandenong and the yet to be decided centre in the north-west.

The continuing expansion of the major freestanding shopping centres such as Chadstone caused the Government to initiate a review of District Centre Policy in 1991. This resulted in the release of *Cities in the Suburbs. The District Centre Policy for the 1990s*, in August 1992, just before the election of the Kennett Government.

The document presented a review of the current situation, and found a number of major shortcomings. It highlighted that there was considerable confusion over the relevance, role and meaning of district centres. The concept was not well understood and the place of the stand-alone shopping centres needed to be clarified. *Cities in the Suburbs* suggested that the State Government needed to take a stronger role in administration of the policy rather than leaving it to local government. It reported that there had been little higher density housing occurring around centres, and improvements were needed in the range of services (community, entertainment and recreation) at centres, with greater provision of facilities for all age groups during and after business hours.

Cities in the Suburbs put forward a "district centre policy for the 1990's". The new policy confirmed the primary role of Central Melbourne both as Victoria's national and international focal point and as a district centre for the inner suburbs. It outlined a further reclassification of District Centres - instead of three types there would now be two – 'Strategic District Centres' and 'Community District Centres'. While this policy supported more varied and intensive activities within all existing mixed-use activity centres that were well served by public transport and other public infrastructure, it also acknowledged the role of major free-standing retail centres as locations for regional shopping and entertainment activities.

Cities in the Suburbs outlined three further actions to support the new policy:

- redoubling of efforts to increase housing densities in and around activity centres, including district centres;
- more fully co-ordinated Government programs focusing on district centres; and
- a careful monitoring of the performance of both the policy and the district centres.

None of the policy framework or implementation actions outlined in *Cities in the Suburbs* was implemented owing to the change of government in 1992.

3.5.5 Pressure Points in the Early 1990's

A few key retail and office development applications tested the Kirner Government's activity centre and district centre policies just prior to the election.

In 1992, there was a rezoning proposal to extend the Parkmore Keysborough "sub-regional" shopping centre by an additional 25,000 square metres, particularly to

accommodate a new discount department store. Minister McCutcheon refused to approve the amendment. It was considered that this expansion at Parkmore would have an adverse impact on the further retail development of the Dandenong District Centre, particularly its ability to attract a new Target store as part of the Lend Lease development plan for Dandenong Plaza.

At about the same time in the then City of Waverley, there was a rezoning proposal to establish a new office park of some 30,000 square metres on a publicly owned, stand-alone site in England Road near the South Eastern Freeway, with very limited public transport. This rezoning was refused because it was considered that it did not provide a net community benefit.

The most controversial proposal at the time was a rezoning request to allow for the development of a 60,000 sq m corporate office block by National Mutual on the former Nicholas Kiwi site in Warrigal Road, Chadstone. Minister McCutcheon did not approve the amendment on advice from an independent panel. The panel concluded that the development proposal would not result in a net community benefit based on:

- the need to retain Central Melbourne as the prime metropolitan focus for administrative, cultural, retail, commercial and entertainment activities; and
- the need to reduce overall demand for private vehicular travel.

The panel argued that the development would not be contrary to certain elements of the Metropolitan Activity Centres Policy (particularly the clause on page 17 of the MAC report encouraging developers to submit major proposals for large sites occupied by redundant industrial activities). However, the panel considered it would be contrary to the underlying objectives of activity centres policy and would seriously undermine them.

Despite these pressure points and the watering down of the District Centre Policy, there were a number of applications in the early 1990's for major retail development proposals in district centres. By mid-1991, there were proposals in 13 of the 17 centres, with over half of these involving additions of between 20,000 and 80,000 square metres. The major proposals were at Sunshine, Glen Waverley, Frankston, Dandenong, Broadmeadows, Ringwood and Fountain Gate/Narre Warren, and all of them involved elevating the centre to a regional retailing position.

These applications also indicated developer support for the further significant clustering of activities at designated centres, in line with the District Centre Policy. In fact, the developers at Glen Waverley, Greensborough and Dandenong all confirmed that the status of the three centres as District Centres had been a significant factor in their confidence in investing there. Perhaps ironically, the new State government shortly indicated that the developers' confidence had been misplaced.

3.6 Melbourne Centres Policy During The Kennett Government

3.6.1 Perrott Committee Review and August 1993 Ministerial Statement

In late 1992, the Hon. Robert Maclellan as the new Minister for Planning established an Advisory Committee headed by Les Perrott to restructure the planning system in Victoria.

Various projects were initiated including one on Metropolitan Urban Centres. The aim of this project was to "propose a new metropolitan urban centres policy for Melbourne which reflects both market preferences and community interests." The report indicated that there were over 300 centres in the metropolitan area, but there was a need to concentrate on the 100 or so which had a regional or sub-regional role, and which therefore would be of concern to the State Government. The principles and actions recommended for these centres could also be applied to the many smaller centres.

The report recommended that "the State's task in future will be to encourage viable development in centres through a more dynamic policy framework. This will require a shift from control to facilitation, from negative regulations to positive incentives".

The Minister's Statement in August 1993 provided a general endorsement of the value of activity centres in the metropolitan area, formally abandoned the district centre policy, and signalled a more laissez faire approach to centres policy. The process of retreat from the 1980/81 District Centre Policy, which had begun in the early 1980s, was now complete.

3.6.2 Living Suburbs and Transporting Melbourne – 1995/96

Living Suburbs, adopted by the State Government and released in 1995, supported the long standing policy of promoting the development of multi-functional activity centres to serve local and regional needs, but subject to the 'more flexible' approach recommended by the Perrott Report. Consistent with the Minister's Statement in 1993, it did not include the designation of specific district centres, nor a prescriptive approach to the location of any suburban activity centres. Rather, it spelled out some general objectives for having a network of centres of various sizes and mixtures of uses, as well as the need for having a range of activity centres with a mixture of uses.

> "It is especially important to build up suburban activity centres at key locations which can offer a range of local services, contribute to a sense of place and support multiple activities, including shopping, employment and leisure. There are major efficiencies to be gained from promoting activity centres with good rail and road access." (p 9)

The policy did not have a strong emphasis on achieving ESD outcomes. The only reference to this seemed to be on creating a "more functional city" with "major efficiencies". It is by no means clear what these efficiencies are: after all, motor traffic functions less efficiently when destinations are concentrated; it is only public transport, walking and cycling that benefit from clustering.

Development of multi-functional activity centres was indicated, but these "key locations" were not specified, nor were criteria spelled out to indicate what they should constitute. Instead, the policy made general assertions:

> "Particular attention will be paid to developing and promoting centres offering a range of activities, services and employment opportunities. It is expected that each of these centres – or activity clusters – will be integrated with medium density housing and be directly served by several forms of transport."
> "The City centre …will be supported by other activity clusters, ranging from major regional centres to small neighbourhood ones", (p 67).

The Government adopted a laissez faire approach to the implementation of the policy. No specific Government projects or programs were outlined to assist the development and promotion of the activity clusters. It was assumed that these clusters would evolve naturally, or that the private development sector would focus on activity centres in preference to out-of-centre sites.

The strangest notion of all was the "Metropolitan Orbital Corridor", introduced in Living Suburbs and built upon in Transporting Melbourne. "Transport terminals, hotel and recreational developments, residential development, office park development, and high-technology industry" were encouraged as part of this concept.

The metropolitan orbital does integrate transport and land use, but it does so in the same way as the US "edge cities" do so. The likely outcome would be, as in the USA, the encouragement of car travel, and the discouragement of walking, cycling and public transport use. The Metropolitan Orbital concept marks the point at which the increasingly confused policies on district centres in Melbourne actually began to be used to promote the precise opposite of the ESD policies in *Agenda 21*.

3.6.3 Urban Villages Project 1995-1997

An indication of the lack of strategic direction in urban planning in Melbourne by this time is the release, simultaneously with Living Suburbs and Transporting Melbourne, of the Urban Villages report. The Urban Villages project was established to examine the role that mixed use centres in Melbourne with medium density housing, workplaces and a central public transport stop could play in achieving sustainable development. The project was jointly managed by the Department of Planning and Development; Energy Victoria and the EPA.

The project identified several benefits of urban village design over conventional urban form. The project conclusions and recommendations were released by the Minister for Planning in 1996 as a research document. Many of the concepts were then referred to individually in metropolitan strategies or State planning provision released during the next couple of years. However, the Government did not adopt and market an integrated package of urban village policies as part of metropolitan activity centre policy.

The important thing, however, was that the urban villages concept was picked up by local government and became a matter of local and rather than State planning policy. A number of metropolitan councils, for example, included urban village policies in their municipal strategic statements and initiated case studies. The Urban Villages Project provides a good example of the considerable efforts by many metropolitan councils during the 1990's to revitalise traditional mixed use centres to make them more sustainable. Structure plans were prepared; development and centre improvement projects were facilitated; and centre management and marketing programs were initiated to enhance the position of these centres.

3.6.4 Retailing Victoria

Living Suburbs promised a new retail development policy for Melbourne, indicating the growing dissatisfaction with a completely laissez-faire approach, even among retailers and developers. The result was *Retailing Victoria: The Report of the Retail Development Policy Review Panel*, May 1996. The Panel was

> "strongly supportive of the principle of aggregation of uses into activity centres, coupled with the provision of more walking-distance convenience and weekly shopping facilities. The Panel considers this to be in the interests of infrastructure efficiency, equitable access, environmental concerns, and the creation of a healthy sense of community", (p 1, 10).

The report recognised the importance of the existing network of centres of various sizes, as well as the need for these centres to evolve and change. Reference to ESD principles relating to the achievement of broad environmental, economic and social outcomes seemed to be an important consideration underlying the Panel's support for clustering of activities at centres, and its endorsement of the policy principles behind the *Report of the Technical Advisory Committee on Retailing* in 1980.

The Review Panel Report made several recommendations about retail development policy, transport policy, and activity centre policy. A couple of key recommendations reinforced ESD principles:

> "(A new retail development) policy should contain a series of objectives which spell out the principles underlying it. These should have as the overall objective community benefit and refer to issues of accessibility, efficient infrastructure use and the aggregation and sustainability of retail functions." (p 2, 11)

> "Retail policy should embody the principle that every shopping centre should be adequately served by public transport." (p 2, 25)

But how was this to be done? Did it mean a return to the policy of designating specific centres? The answer was no:

> "The (retail development) policy should contain an objective based on the principles behind activity centre policy and the aggregation of uses without specific reference to locations: that is, based on functional rather than geographical criteria… The policy should not include references to any priority among centres, or nominate specific preferred locations for retail development. Policy statements should contain statements which refer explicitly to retailing of every scale" (pp. 2, 26; 31)

The Report did not give any indication of the functional criteria that would be used. The Report rejected a prescriptive hierarchical framework as a means to guide development and infrastructure, although it recognised the value of a retail hierarchy as a means of describing the current retail system.

> "The policy should contain a description of elements in the retail hierarchy to provide a common terminology with which to describe the retail system." (p 2, 33)

The report recognised that activity clustering can be used to promote sustainability, but did not indicate how.

The Retailing Victoria report was not formally adopted by the Minister for Planning. A comprehensive Retail Development Policy, as suggested, was not issued. However, it appears as if the recommendations of the Panel were taken into account when the Victorian Planning Provisions and in particular the State Planning Policy Framework were prepared. Development interests consider that many retail development applications are based to some extent on the recommendations in this report.

3.6.5 StreetLife Program

The StreetLife Program, a State Government initiative in 1996, is a program designed to assist communities in metropolitan and rural Victoria to have thriving commercial centres as well as strong small businesses. In the last four years, It has been one of the very few Government programs geared to activity centres.

Inspired by Mainstreet programs operating in the USA and Canada, StreetLife encourages communities to develop local strategies that would facilitate employment growth. The strategies focus on creating vibrant commercial centre environments

through an appropriate mix of businesses, a unified marketing and promotional image, and improved business performance. The Program is based on the premise that suburban and town centres are major concentrations of employment located at the local trading heart of communities.

In the last year, the StreetLife Program has focused more on small business retention, growth and attraction within communities. It has facilitated projects not only in centres but also with clusters of businesses in particular industry sectors.

3.6.6 Victorian Planning Provisions

During the 1990's, Minister Maclellan introduced a planning reform program with two major components:

- provision of a common set of tools to be used across the State in the form of the Victorian Planning Provisions,
- a shift in emphasis in decision-making from reliance on a prescriptive set of controls to encouragement of strategic outcomes.

A State Planning Policy Framework (SPPF) was incorporated into the beginning of all new format planning schemes. This framework sets out State Planning Policies that must be taken into account when preparing amendments to all planning schemes, or making decisions under these schemes.

Clause 13 of the SPPF outlines seven statements of general principles relating to settlement, environment, management of resources, infrastructure, economic well-being, social needs and regional co-operation. Although some of these statements relate to ESD principles, sustainability is not a driving force behind them

The key clauses in the SPPF relating to activity centres are outlined under the following headings:

- Metropolitan Development (Clause 14.02)
- Activity Centres (Clause 17.01)
- Business (Clause 17.02)

It should be emphasised that, in the SPPF, 'activity centres' are considered as retail and commercial centres (with ancillary uses), and are quite separate from airports or ports. There is no reference to tertiary educational institutions, hospitals, business parks or industrial estates in the SPPF, and they are not included as activity centres except where they might be part of a larger retail or commercial centre.

The major activity centre policies and implementation measures indicated in the SPPF are that:

- the Capital City role of the City of Melbourne is to be strengthened;
- major suburban retail, commercial, administrative, health, education, entertainment and cultural developments should be concentrated in and around activity centres which provide a variety of land uses, have good access to integrated transport modes, and are highly accessible to the community;
- higher land use densities and mixed use developments should be encouraged near railway stations, major bus terminals, transport interchanges and trams and principal bus routes;
- the location of new activity centres in the metropolitan area is to be consistent with the objectives of Transporting Melbourne;
- developments are to be encouraged which meet community's needs for retail, entertainment, office and other commercial services and provide net community benefit in relation to accessibility, efficient infrastructure use and the aggregation and sustainability of commercial facilities;
- commercial facilities should be located in existing or planned activity centres unless they are:
    - new freestanding commercial developments in new residential areas which have extensive potential for population growth or will accommodate facilities that improve the overall level of accessibility for the community, particularly by public transport;
    - new convenience shopping facilities to provide for the needs of the local population in new residential areas and within, or immediately adjacent to, existing commercial centres;
    - outlets of trade-related goods or services directly selling or ancillary to industry and which have adequate on-site car parking;
- cinema based entertainment facilities should be located within or on the periphery of existing or planned activity centres and such facilities should not be encouraged on freestanding sites;
- A five year limit for commencement should be attached to the planning approval for all shopping centres or expansions of over 1,000 square metres in floorspace.

In 2000, Clause 17.02-2 was amended to remove the following implementation clause:

Information in support of retail and office development proposals in excess of 4000 square metres in floorspace must include an assessment of net community benefit and costs of the development as well as its traffic and environmental impacts in accordance with the Retail and Office Development Guidelines (Ministry for Planning and Environment 1989).

The provisions in the SPPF, which still apply as a cornerstone of activity centre policy, place strong emphasis on business growth and the general planning of activity centres, rather than the achievement of ESD outcomes. They still incorporate a requirement that the location of new activity centres be consistent with Transporting Melbourne, which in key respects, does not promote ESD-oriented outcomes.

The result of the policy emphasis in the SPPF in the late 1990's was that business growth was allowed in a wide range of locations. The laissez-faire approach implied in policy and regulatory measures led to the proliferation of new forms of retailing such as stand-alone outlets or as strings of related uses along major roads quite removed from existing or planned centres**.**

3.7 Geelong Activity Centre Policies

Activity centre policies for Geelong over the last 30 years have been structured to provide a framework more at the regional than broader metropolitan level.

The Geelong Regional Commission was established in the early 1970's. Working with the Department of Urban and Regional Development in Canberra and the Town and Country Planning Board in Melbourne, the Commission developed a package of planning policies and strategies to make Geelong and its hinterland an important growth centre.

During the 1980's, the emphasis of the Geelong Regional Commission was to expand the economic and physical base of Geelong as a major regional centre. Growth was encouraged in the tertiary sector to diversify Geelong beyond its strong manufacturing base. With respect to activity centres, the policy emphasis as espoused in the *Geelong Regional Development Strategy* was on retaining a hierarchy of retail centres in the main urban area of Geelong with the Geelong Central Area as the predominant focus.

There was some recognition that although Geelong and its activity centres had a distinctive regional identity, there were close economic and social links to metropolitan Melbourne.

Encouragement was given to the further expansion of centres associated with identified residential growth areas to the south of Geelong such as Grovedale and Mount Duneed.

The Commission recognised the increasing tourism, holiday and retirement focus in the wider Geelong Region by encouraging further growth adjacent to three designated coastal towns – Torquay, Ocean Grove and Drysdale.

The current activity centres policy for Geelong is outlined in the Municipal Strategic Statement incorporated into the new Greater Geelong Planing Scheme, which was approved on 17 August 2000.

The MSS acknowledges that the future of activity centres in Greater Geelong is influenced by the several major urban growth directions. To deal with these influences, the MSS has policies and strategies on environmental management, energy efficiency, housing, economic development, industry and integrated transport which affect the mixture of uses in, and performance of, centres.

The most specific clauses in the MSS and new Planning Scheme dealing with activity centres are outlined in Section 21.20 and 21.21 of the scheme. These clauses do not provide policy directions for the broad range of activity centres being considered in this project, but relate to retail and commercial centres only. They also revolve around the concept of a hierarchy of centres. The key strategies indicated in Section 21.20 of the scheme are:

- support the existing hierarchy of retail centres in Greater Geelong;
- encourage and promote the important regional commercial and community function of the Geelong Central Activities Area.
- utilise the provisions of the Retail Strategy as the tools to guide the planning for a successful and sustainable hierarchy of retail centres;
- integrate retail facilities and services as appropriate with other community, personal, professional and business facilities and services and with the local environment;
- implement high standards of urban design in retail centres and developments;
- recognise and facilitate the emerging pattern of peripheral retailing; and
- assess new retailing proposals using the concept of net community benefit and population influences.

Local policies have been developed in the MSS to:

- encourage compact and identifiable retail cores along specified pedestrian routes;
- ensure that peripheral sales retailing is planned and developed at appropriate locations and integrated into the retail hierarchy;
- support the establishment of free-standing retail facilities on sites where there is a net community benefit and where the impact on the viability of established shopping centres is acceptable;
- support use and development applications that are in keeping with the established hierarchy of centres and emerging retail trends, and can be shown to generate a net community benefit;
- use the retail hierarchy as a useful planning tool to guide the location and volume of new or expanded retail development;
- consider the need to maintain the primacy of the Geelong CAA when all retail and related proposals are being considered;
- take into account the role of existing centres when proposals are being considered for the introduction of new or expanded retail provision in a catchment;
- consider residential and seasonal population influences when reviewing proposals for retail shopping centres or free-standing sites.

Other actions outlined in the MSS and Planning Scheme to enhance the policy directions for retail and commercial centres are:

- identifying and planning for physical improvements to urban design, streetscape, amenity and pedestrian access in shopping centres;

- identifying traffic management and safety issues in shopping centres and implementing appropriate measures;
- promoting to retail and traders associations the benefits of self-help strategies in the upgrade, revitalisation and marketing of their shopping centres;
- encouraging new or expanding activities (most likely focusing on non-retail activities) to locate in vacant shop space in existing centres, where appropriate.

Section 21.21 has a series of policies and implementation measures to revitalise the Geelong Central Activities Area, maintain and strengthen its primacy within Greater Geelong, and maximise its competitive advantages as a multi-purpose centre. Key strategies are to:

- establish an independent management body for the City Centre with representation from key stakeholders;
- promote an identifiable retail core along significant pedestrian routes;
- work with the private sector to implement the revitalisation actions;
- pursue opportunities to locate entertainment and associated attractions and supporting facilities in appropriate parts of the CAA;
- encourage a CAA location for service industries;
- facilitate the development of more CAA attractions associated with the waterfront;
- encourage and assist expansion and upgrading of educational and medical institutions;
- enhance the physical appearance and functional operation of the CAA;
- improve the image and readability of Geelong's streets for motorists, including developing a clear sense of entry into the CAA;
- maintain and strengthen the CAA's position in the regional retail hierarchy by making it a vibrant and viable location for retail activity;
- strengthen the office-based role of the CAA in the regional economy;
- provide greater opportunities for housing in and around the CAA, in under-utilised buildings and on under-utilised sites.

This policy framework does not provide a comprehensive approach to meeting ESD objectives. There are some provisions that will facilitate the economic and social development of centres within a hierarchical framework. However, the policies are largely deficient in working towards the achievement of environmental sustainability.

3.8 Local Government Policies and Programs

In recent years, local governments throughout Melbourne and Geelong have put together policy packages and action strategies to develop and revitalise activity centres in their municipality.

As outlined for Geelong, local policies have been specified particularly in Municipal Strategic Statements. These policies have focused particularly on retail centres, and often have been based on a hierarchy of centres in the municipality. Policies and strategies also have been developed to provide a framework for commercial development, physical streetscape, traffic and pedestrian, public transport, marketing and centre management improvements in centres.

More detailed structure plans, urban design frameworks and transport studies have been prepared. These have been followed up by local physical improvement programs; traffic, car parking and pedestrian improvement works; marketing and promotional schemes organised through special levies; as well as business retention, expansion and attraction programs. Implementation of some projects have been assisted by State Government funding provided under programs such as Vic Roads Blackspot Funding, StreetLife, and the Powerline Relocation Program. A few major State Government programs such as the public transport interchange enhancement efforts at Ringwood have augmented local government and private sector initiatives.

Several local governments have taken a very pro-active role in encouraging new private sector investment in their centres. This applies to the development of new retail floorspace and its improved integration with existing retail and other uses in a centre. In a few instances, it also applies to the facilitation of new housing such as shoptop housing or medium density developments within or immediately adjacent to centres.

Through these policy and implementation mechanisms, local government in Melbourne and Geelong have played an important role in advancing centres. However, the policy and implementation frameworks often are not concerned with, or do not give a high priority to, meeting ESD objectives. As outlined with respect to Geelong, there are some provisions in local government policies that will facilitate the economic and social development of centres. However, the policies are largely deficient in working towards the achievement of environmental sustainability.

3.9 Synthesis of Activity Centre Policy Orientation and Outcomes

3.9.1 Recognised Need for Activity Centres Policies

Over the last 50 years, there have been many policy statements supporting the concept and benefits of clustering uses and activities in centres, rather than permitting or promoting their dispersal. Government policy has widely acknowledged that business and community uses and associated activities should be in centres.

Similarly, there has been widespread acceptance of the need for centres policies based on the central role that centres are considered to play in a wider metropolitan area, including Geelong, in providing:

- retail, commercial, industrial, education, health and entertainment goods and services;
- community infrastructure and services;
- employment;
- housing;
- identity and focus for communities;
- meeting places;
- business synergies.

The need for a centres policy also is based on the conflicts that arise among stakeholders and potential stakeholders not only within these clusters of activity, but outside where new proposals could potentially have adverse impacts on established centres. A centres policy can provide mechanisms to weigh up the interests of the various parties – developers, current operators, and the community – so as to arrive at judgments on future land uses and developments.

3.9.2 Sustainability Not a Driving Force

None of these concerns, however, necessarily has any connection with sustainability. Sustainability has not been a driving force of centres policy, except for a brief period in the late 1970s and early 1980s. There have been greater concerns about achieving self-containment in regions, or an orderly or hierarchical framework of centres, or an abstract and operationally meaningless notion of "transport / land-use integration".

Our review of national and international 'best practice' in Chapter 2 highlighted successful policies that worked to cluster more metropolitan activity into a limited number of transit-oriented centres to achieve a shift of transport mode away from cars towards public transport, walking or cycling. Apart from the years when the District Centre Policy was actively being pursued in Melbourne in the 1980's, there has not been this kind of emphasis on transport sustainability. And, even in that period, the emphasis was weak. Within the metropolitan policy framework at that time, there were few supportive transport policies in place of the kind considered essential in Chapter 2 to achieve long-term environmental sustainability.

At best, there has been, for many years, a common set of underlying themes to which lip-service is paid. Quite a few of these are based on ESD-type principles, for example:

- reducing dependence on motor vehicles;
- improving the viability and use of public transport;
- creating opportunities for business growth within clusters;
- developing further business synergies as a result of the clustering;
- providing equitable access to employment, facilities and services; and
- providing robust community focal points.

One notable omission – highlighted in the reference in Chapter 2 to the UK Royal Commission Report in 1994 on Environmental Pollution – is facilitating more non-motorised travel (walking and cycling) by encouraging strong neighbourhood centres where journeys to them can be made on foot or bicycle. There have been virtually no policy directions for smaller, neighbourhood scale centres.

There has been a further problem. Although the rhetoric of centre policy objectives is related to ESD principles, the policy objectives have not generally been translated into active strategies or implementation measures to achieve ESD outcomes on the ground.

3.9.3 Focus on Retail and Commercial Centres

Centres policies in Melbourne and Geelong have been concerned primarily with centres having a significant retail and/or commercial base, although a number of these also perform important administrative, civic, health, education and entertainment roles.

They have not been concerned with the other types of activity centres being considered in this project – industrial estates, airports, ports, and campuses of tertiary education. These types of clusters have largely been dealt with in separate policies.

This focus on retail and commercial centres in activity centre policy is based on:

- the central role of the retail and commercial goods and services function in the majority of activity centres in Melbourne and Geelong;
- the dominance of goods and services retailing in the expenditure patterns of households;
- the links between the shopping function and the establishment of a local community focus in centres;
- the number of individual businesses and the extent of business investment in commercial and/or retail centres, compared with other concentrations of activity;
- the number of trips generated to these kinds of centres, compared with other concentrations of activity;
- the ongoing pressures for change in and outside these centres, and the conflicts generated between developer, business and community interests in dealing with those pressures; and
- uncertainty, lack of action, or conflicts associated with the integration of land use and transport at these centres.

The high number of trips generated by these kinds of centres compared with others, the considerable opportunities to integrate land use and transport planning at these clusters, and the level of debate generated about major retail and office development proposals outside of centres, suggest that these kinds of centres should remain an important, but not exclusive, focus of activity centre policy.

3.9.4 Emphasis on Larger Centres

Over the last 50 years, activity centre policy in Melbourne has been concerned primarily with the larger retail and commercial centres. Policy documents such as *Shaping Melbourne's Future* provide illustrations of "existing activity centres", but refer only to 45 large or medium-sized centres - all with a predominantly retail focus and many with a mixed use character and provided with good public transport facilities. The reason for Government emphasis on larger centres was likely based on the assumption that these centres provided the key opportunity for new private sector investment, as well as the satisfaction of consumer demands for higher order goods and services.

Medium or large centres may still be important in future activity centre policy, not because of their size or position in the retail hierarchy, but because of their potential to achieve ESD outcomes in terms of a greater shift in mode share to non-motorised transport or their significance as lively community focal points with increased opportunities for social and business interaction.

In contrast to the focus on larger centres, there have been virtually no policy directions for smaller, neighbourhood scale centres. However, overseas reports on 'best practice', such as the Report of the UK Royal Commission on Environmental Pollution (1994) referred to in Chapter 2, highlight the importance of these smaller centres in providing a wide range of facilities at local level which can be reached on foot or bicycle. This issue needs to be addressed in this review. The key issue is that being "small" or "local" does not downplay the vital importance of these types of centres to the achievement of overall ESD outcomes.

3.9.5 Special Role for the Melbourne Central City

Activity centre polices for the last 50 years have recognised the special role of the central city area of Melbourne including the CBD, Southbank, Docklands, the St Kilda Road precinct, and other areas in close proximity. Policies have consistently aimed to retain and strengthen the central city as the prime metropolitan focus for a range of activities.

In terms of environmental sustainability as discussed in Chapter 2, activity centre policies have revolved around the fact that the Melbourne central city is the hub of Melbourne's public transport system. The ability to enhance rail train, tram and bus systems in the metropolitan area radiates from that hub.

In terms of social sustainability, activity centre policies have recognised that the CAD and the rest of the central city provides an important community focus for the whole Victorian community. It is the seat of the State Government. The CAD is the place where decision-making and co-ordination of key services for metropolitan Melbourne and Victoria occurs. It is the centre in Victoria for many cultural and sporting activities as well as specialist educational and medical services.

In terms of economic sustainability, various policies have recognised that the Melbourne central city is the key wealth-generating centre of the State. A major proportion of Melbourne's workforce commutes from the suburbs to the CAD and contributes to considerable business activity in the centre. Employment growth in the 'new economy' has a particularly strong base in the CAD. Many specialist services such as legal and financial services used by industry in metropolitan, regional and rural Victoria are provided in the CAD.

There are strong synergies between the central city and other parts of Victoria. It is the State's international gateway and showcase for much tourist and business activity.

The Capital City role of the Melbourne CAD and the rest of the central city, together with its interrelations with all regions in the metropolitan area, suggests that the Melbourne central city should continue be given special attention in activity centre policies. This emphasis should highlight the importance of the Melbourne central city to the metropolitan network of activity centres in achieving ESD and Capital City outcomes.

3.9.6 Emphasis on Framework and Classification Systems

For many years, a central tenet of metropolitan policy in Melbourne and Geelong has been to reinforce the established pattern of centres. This was a key clause in the metropolitan planning provisions prior to the introduction of the State Planning Policy Framework. In Geelong, it is still a key strategy in its recently approved planning scheme.

In one sense, this emphasis provides a sense of certainty and security to developers and investors in centres in that it is geared to sustaining their investments and assets. It also gives preference to the status quo, and thereby requires proponents of new developments to go through an extensive and prolonged review process. It is argued that this has prevented much speculative development in Melbourne and Geelong, and resulted in a system of fairly robust centres.

However, in terms of an ESD framework, this is a static policy approach. It implies maintaining a fairly rigid framework of centres in the face of changing economic, social and environmental forces. It does not indicate any aspirations for a better pattern of centres nor improved conditions in centres to meet wider community goals.

As indicated above in Section 3.6.4, a classification or hierarchical system, particularly in relation to retail centres, can be a useful tool in describing the elements of the system, and maintaining a balance among the commercial interests within it. It also can be helpful in focusing major private development or Government programs to a select number of centres. However, a classification or hierarchical system has its downfalls when it does not deliver the desired outcomes or makes decision-making more difficult.

3.9.7 Regulatory Orientation

From 1980 until the early 1990's in Melbourne, the emphasis in Government centres policy has been on fairly prescriptive statutory provisions governing major new retail and office development as well as overall centre development. Since the mid-1990's, there has been a more laissez-faire approach with encouragement given to business growth in a wide range of centres.

However, there are circumstances where regulatory controls are very important. For example, there are not sufficient controls within the existing planning framework to regulate development outside of centres. In the SPPF, policy and regulatory measures seem to encourage, rather than control, the proliferation of major stand-alone big box retailing outlets, or strings of convenience or peripheral sales retailing along major roads. This issue needs to be addressed.

3.9.8 Limited Facilitation Policies and Implementation Measures

The reduced emphasis on a regulatory approach has been accompanied by limited facilitation policies of any real substance. Most of the State policies of this kind have been scarce and expressed in very general terms. In the State Planning Policy Framework, for example, activity centres are encouraged to be planned to:

- provide a range of shopping facilities in readily accessible locations;
- incorporate and integrate a variety of land uses;
- provide good accessibility by all available modes of transport (particularly public transport) and encourage multi-purpose trip-making to such centres;
- facilitate ease of pedestrian movement between components of centres, public transport interchanges and parking areas;
- maximise opportunities for the co-location, multiple use and sharing of facilities;
- provide child care facilities to a level consistent with the role of the centres;
- minimise the effects of commercial development on the amenity of residential and parkland areas, for example as a result of traffic congestion, noise or overshadowing; and
- provide attractive environments for community activities.

The policies in the Greater Geelong MSS and planning scheme operate at a different scale, and, as a result, provide more detail and substance. They refer to urban design and streetscape improvement approaches, traffic management, pedestrian improvement, centre management and marketing, and active approaches to fill vacant premises with new or expanding activities likely of a non-retail orientation.

The generalised policies outlined in the SPPF to facilitate activity centres have been further weakened by the lack of a range of specific implementation measures. Over the years, there has been a very limited range of supportive Government programs with respect to:

- transport management;
- land consolidation to facilitate new developments;
- provision of major new infrastructure (hospitals, tertiary education campuses, public transport interchanges) and services;
- streetscape improvement programs;
- mainstreet initiatives, except for the StreetLife Program operating since 1996;
- urban village projects;
- structure or business planning in centres;
- development incentives; and
- medium density Government housing within or adjacent to centres.

Similarly, Government has not identified a range of pro-active programs that could be undertaken in centres in partnership with private sector or community interests. This is a key problem that needs to be addressed in this review.

Chapter 4 Ecologically Sustainable Development Analysis of Melbourne and Geelong Activity Centres

4.1 Introduction

This chapter provides an analysis of the performance of a wide range of Melbourne and Geelong activity centres, as defined in this project, against ecologically sustainable development (ESD) objectives. We begin with a description of the current network of centres using different variables, and an outline of the implications of major trends and influences on the network as a whole and particular types of centres. This is followed by an evaluation of a sample of different centres in Melbourne and Geelong, as well as of the overall network of centres, using a sustainability evaluation framework developed for testing by the Department of Infrastructure and the consultant team.

A wide variety of information sources have been used in this evaluation:

- a pro-forma information sheet on the size, role, type of uses in, employment, form, ownership, transport infrastructure, planning and design, and changes over the last 10 years for 367 different activity centres in Melbourne and Geelong developed from local government and specialist reports, (Working Paper 1a);
- statistical data obtained from government and specialist reports such as the Australian Bureau of Statistics Retail Census Reports from 1979 to 1992 and Property Council of Australia reports on shopping centres , (Working Paper 1b);
- business and consumer surveys undertaken specifically for this project by Roy Morgan Research in relation to four different activity centres – Dandenong, Glenferrie Hawthorn, Footscray and Geelong Central Activity Area, (Working Paper 2);
- a special compilation and analysis for this project by Arup Transportation Planning of the 1994-1997 Victorian Activity Trip Survey (VATS) data pertaining to over 70 activity centres in Melbourne, (Working Paper 3);
- information obtained from 11 focus groups conducted in Melbourne and Geelong with representatives from government, environmental, transport, planning, property, and business interests, (Working Paper 4);
- submissions to this project on retailing trends and retail policy approaches from the Coles Myer Group and Jebb Holland Dimasi on behalf of the Gandel Group, (Working Paper 5).
- a listing of 201 centres in Melbourne which attract the highest number of trips, based on the Department of Infrastructure's analysis of the 1994-1998 VATS data, (Working Paper 8);

4.2 The Network of Melbourne and Geelong Centres

In Melbourne and Geelong there is a network of about 1000 activity centres of various types and sizes, of which over 75% are of a neighbourhood scale with less than 10,000 square metres of retail floorspace and oriented primarily to providing local retail and commercial services.

Of this total, we have examined 367 different centres of activity in this project. Figure 1 (p 4) illustrates the distribution of these centres across the Melbourne metropolitan area and Geelong region. The 367 centres consist of:

- 130 major shopping and commercial centres (with retail floorspace greater than 10,000 square metres) in Melbourne and Geelong;
- A sample of 139 neighbourhood shopping and commercial centres;
- 58 tertiary educational institutions;
- 29 hospitals;
- other centres including a sample of industrial estates in each region of Melbourne and in Geelong, and all airports in Melbourne and Geelong.

The total group of centres includes the 201 centres attracting the highest number of non-home based trips, using the 1994-1998 Victorian Activity Trip Survey (VATS) data.

Data on the 367 centres are collated in Working Paper 1a. This Paper includes profiles of the centres in each of the inner, middle and outer sections of five Melbourne regions (west, north, east, south and central) as well as the Geelong region.

4.2.1 General Description of the Network

In general, the metropolitan area has developed around growth corridors radiating out from the Melbourne CAD. The CAD continues to perform a critical capital city role as well as being the predominant retail, commercial, cultural, administrative, and civic centre in the metropolitan area. Melbourne has a few very large activity centres, but there is no centre of comparable size or depth of commercial or civic infrastructure to the CAD.

The inner and middle suburbs of Melbourne – except in the western suburbs - have many elongated strip or compact nodal centres based around the train and tram network, as well as a dense configuration of neighbourhood centres. In these areas, many of the larger and neighbourhood centres have a high degree of permeability in terms of ease of access by pedestrians from multiple entry points into the centres. In the western suburbs, as well as outer and newer growth areas throughout metropolitan Melbourne, activity centres are more dispersed without a high degree of permeability. There also are fewer neighbourhood centres in these areas.

The Geelong region is dominated by the Geelong Central Activity Area with a few other traditional centres close to the centre of town. Further out, there are several newer stand-alone shopping complexes such as Corio Village and, in the wider region, a few key traditional country towns such as Ocean Grove and Queenscliff.

The urban design of centres across the Melbourne and Geelong networks varies immensely, both in terms of their aesthetic qualities, and their accessibility by motor vehicles and pedestrians. Some centres such as Camberwell Junction and Templestowe Village have developed a distinctive sense of place, and are attractive, comfortable and safe, whilst others such as Bayswater and Sunshine are less conducive to walking or social interaction. Centres experiencing growth in both established and newer areas have tended generally to spread outwards in a low density form, rather than intensify their uses within a compact area.

The density of housing within or close to activity centres also varies greatly. T here has been some development of higher density housing within or close to activity centres in the Melbourne central city and inner suburbs within the last decade. However, there has been a very low level of medium and high density housing within or close to activity centres in the middle and outer suburbs of Melbourne and in Geelong.

In recent years, there has been a proliferation of major stand-alone "superstore" retailing outlets, or strings of convenience or peripheral sales retailing along major roads. These developments constitute a new form of activity centre, as characterised by the "homemaker mile" precinct along Whitehorse Road in Nunawading. They are outside of established centres or planned new activity centres.

In an overall sense, the network configuration of activity centres is related to the urban form of different parts of Melbourne and Geelong and the transport systems operating in those areas**.**

4.2.2 Regional Description of the Network

A brief outline of the network of different types of activity centres in each region across Melbourne, as well as the Geelong region, is presented below.

Central Region

The central region, illustrated in Figure 2 and comprising the municipalities of Melbourne, Yarra and Port Phillip, is dominated by the Melbourne Central City. Not only does it have the largest retail area of all centres in the metropolitan area, but the Central City also contains over 80% of all metropolitan office floorspace. Six tertiary education campuses including the University of Melbourne and RMIT, as well as nine major medical or dental hospitals are situated in this activity centre.

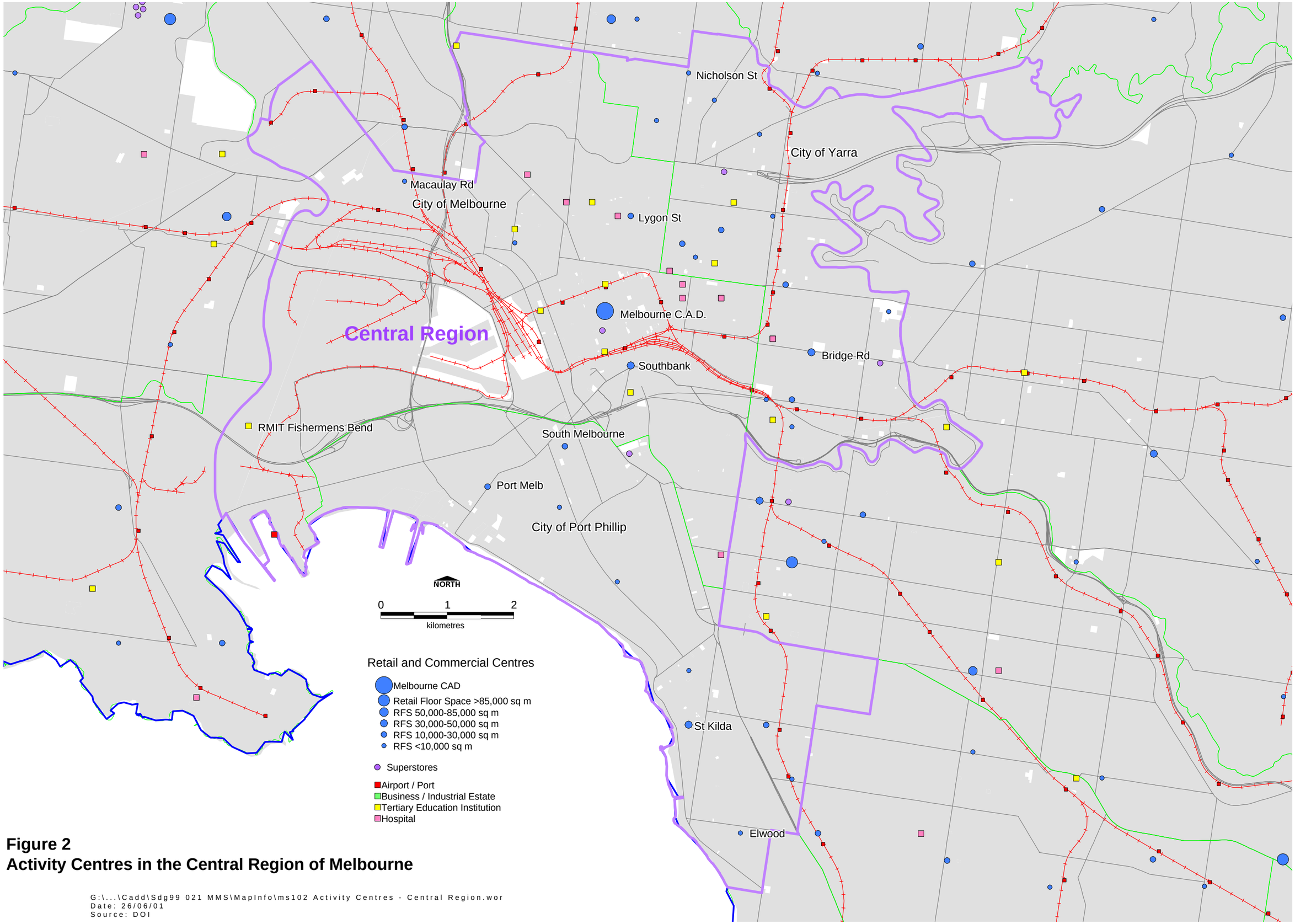

Figure 2
Activity Centres in the Central Region of Melbourne

G:\...\Cadd\Sdg99 021 MMS\MapInfo\ms102 Activity Centres - Central Region.wor
Date: 26/06/01
Source: DOI

The surrounding inner suburbs have a dense network of retail and commercial activity centres of traditional strip or nodal form. Examples of such centres are Bridge Road and Swan Street in Richmond; Smith Street and Brunswick Street in Fitzroy; Bay Street in Port Melbourne; Acland Street in St Kilda; and Lygon Street in Carlton. Although predominantly retail-oriented, these centres have traditional shopfront offices providing business and professional services, and occupying up to 30% of businesses in each centre. The Richmond Business Park off Church Street provides one of the few examples of a mini "office park" form of development in this region.

All centres in the region's inner suburban areas have very good tram or fixed rail services, as well as a strong neighbourhood, walking scale character. The density of the grid form of the neighbourhoods surrounding these centres contributes to their permeability.

Three hospitals and four tertiary educational institutions are located on the edge of or just outside the City of Melbourne. These facilities are generally part of larger mixed use centres in Fitzroy or Richmond, although the Alfred Hospital is a stand-alone centre on a tram line, but removed from a mixed use activity centre.

With this intense concentration of retail, commercial, educational and medical uses in this region, it is not surprising that 80% of the top work-oriented trip destinations, as indicated in the 1994-1998 Victorian Activity Trip Survey (VATS) data, are activity centres in the central region.

Inner Western Region

The inner western regional area of Hobson's Bay, Maribyrnong and Moonee Valley, illustrated as part of Figure 3, has a more scattered array of activity centres.

Essendon Airport is a large specialist transport-oriented centre in the north-eastern corner of the region.

Compared with the central region, there is a less dense mixture of traditional mixed use centres located around public transport nodes. The two large centres of Footscray and Moonee Ponds, combined with about 10 smaller centres such as Niddrie, Essendon, Williamstown, Union Road (Ascot Vale) and Racecourse Road (Flemington) cover the range. The highest concentration of mixed use centres is in the City of Moonee Valley where there is a more dense and varied network of tram, fixed rail and bus services.

The region also contains Highpoint Shopping Centre, one of the largest stand-alone enclosed shopping centres located adjacent to the Highpoint Homemaker Centre and cluster of other superstores. Airport West and Altona Gate are the only two medium-sized enclosed shopping complexes in this region. These stand-alone centres have much more limited public transport services.

In relation to comparable areas in other parts of Melbourne, the inner west has a limited number of neighbourhood shopping centres. These comprise centres such as Macaulay Road in Kensington, Yarraville, and Borrack Square in Altona North.

Office development in the inner western area is limited and contained primarily to the larger mixed use centres of Footscray and Sunshine. There are no distinct office parks in the region.

The region has two major medical centres – the Western Hospital at Footscray and the Williamstown Hospital. Both are removed from the Footscray and Williamstown mixed use centres, and public transport nodes.

There are five tertiary education campuses in the region. These consist of the two VUT campuses at Footscray and the one at Newport, as well as the Kangan Batman Institute of TAFE campuses at Essendon and Brimbank (Avondale Heights). The Newport and Brimbank campuses particularly are well removed from nearby mixed use centres as well as public transport nodes.

Outer Western Region

The outer western region of Brimbank, Melton and Wyndham, illustrated as part of Figure 3, is poorly served by fixed rail public transport, with a sparse arrangement of train lines connecting to Werribee, Melton and St Albans. With no trams and limited bus services in the region, there are only three significant public transport nodes and they are focused around the mixed use centres of Sunshine, St Albans, and the Werribee CBD. Most activity centres in the area, therefore, are not located at or near fixed rail public transport, and are generally car-based.

The region has a relatively high proportion of major enclosed shopping complexes compared with both small and larger traditional retail centres. Examples of these stand-alone complexes include Brimbank Central, Deer Park Central, Keilor Downs Plaza, Watergardens, Woodgrove, and Werribee Plaza.

The dominance of these complexes, the limited public transport network and the design of residential subdivisions have created an environment where there are very few neighbourhood shopping centres.

The largest activity centre in the region – Sunshine - is a mixed use retail and commercial centre with two enclosed shopping complexes within it, a cluster of homemaker businesses and a VUT campus on Ballarat Road, and traditional strip shops at the southern end of the centre. Although an important public transport node in this region, the Sunshine activity centre has expanded in recent years further away from the station towards Ballarat Road, making it less transit-oriented.

In the outer municipalities of Wyndham and Melton, the traditional mixed use centres of the Werribee CBD and Melton SBD are relatively less significant retail centres than the

Melton
Melton Industrial Park
Watergardens
Shire of Melton
Airport West
Niddrie
City of Moonee Valley
Outer Western Region
Deer Park
Highpoint
Sunshine
City of Brimbank
City of Maribyrnong
Footscray
Altona Gate
City of Hobsons Bay
City of Wyndham
Inner Western Region
Williamstown
Laverton
VUT, Werribee
Werribee
Werribee Agriculture and
Food Technology Precinct

Retail and Commercial Centres

- Melbourne CAD
- Retail Floor Space >85,000 sq m
- RFS 50,000-85,000 sq m
- RFS 30,000-50,000 sq m
- RFS 10,000-30,000 sq m
- RFS <10,000 sq m
- Superstores
- Airport / Port
- Business / Industrial Estate
- Tertiary Education Institution
- Hospital

NORTH

0 2 4
kilometres

Figure 3
Activity Centres in the Western Region of Melbourne

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Date: 26/06/01
Source: DOI

nearby enclosed shopping centres of Werribee Plaza and Woodgrove/Coburns Road respectively.

There is a very limited amount of office development in the outer western area. It is primarily in the form of small offices located in the larger mixed use centres of Sunshine, Werribee CBD, St Albans, and Melton SBD. There are no distinct office parks in the region.

Five tertiary education campuses comprising VUT campuses at St Albans, Sunshine, Melton, and Werribee, and the University of Melbourne's Institute of Land and Food Resources at Werribee are located in the region. Apart from Sunshine, all are well removed from major mixed use centres as well as public transport nodes.

The Sunshine Hospital and Mercy Hospital at Werribee are the only two hospitals in the region. They are similarly removed from major mixed use centres as well as public transport nodes.

In an overall sense, therefore, the region has a very dispersed pattern of fairly large activity centres with many stand-alone tertiary education and hospital centres as well as extensive enclosed shopping complexes. A major deficiency in the network is the paucity of neighbourhood shopping centres.

Inner Northern Region

The inner northern region of Banyule, Darebin and Moreland, illustrated as part of Figure 4, has a more dense network of activity centres than the inner western region primarily because of the increased number of train and tram lines, and more compressed settlement pattern.

The region has one large stand-alone enclosed shopping complex at Northland with the adjacent Northland Homemaker Centre. There also is a Coles/Target centre - Summerhill Village - on a stand-alone site along Plenty Road in Reservoir. Apart from these two centres, the major retail-based activity centres in the region are medium-sized, traditional mixed use centres at or near train stations on the region's three rail lines, and/or along the six tram routes. The largest of these are strip centres such as Sydney Road in Brunswick and Coburg, and High Street in Northcote/Thornbury and Preston, as well as the nodal centre at Greensborough. Other centres include Reservoir, Heidelberg Central and Glenroy. Although predominantly retail-oriented, all of these centres have traditional shopfront offices providing business and professional services, and representing up to 30% of all businesses in the centres.

Each of the three municipalities in the region has a good range of neighbourhood shopping centres. Examples include Westgarth in Darebin, Lygon Street Brunswick in Moreland, and East Ivanhoe in Banyule.

Office development in the inner northern area is in the form of small shopfront offices in the larger mixed use centres of Brunswick, Coburg, Northcote, Thornbury, Preston, and Greensborough. The only distinct office park in the region is the LaTrobe Research and Development Park adjacent to the university.

Five tertiary education campuses comprising LaTrobe University at Bundoora, the Northern Melbourne Institute of TAFE campuses at Preston and West Heidelberg, the RMIT campus at Brunswick, and the Kangan Batman Institute of TAFE campus at Coburg are located in the region. LaTrobe University and the Kangan Batman campus at Coburg are very removed from major mixed use centres and public transport nodes; the NMIT campuses less so. However, the RMIT campus at Brunswick is considered part of the Sydney Road activity centre with its very good train and tram connections.

With the closure of the Preston and Northern Community Hospital (PANCH), the Austin and Repatriation Hospital is the major public hospital in the region. It is close to the Heidelberg railway station and the Heidelberg Central mixed use centre. The John Fawkner Hospital at Moreland is the other hospital in the region, and it is situated close to a railway station and tram line midway between the Brunswick and Coburg ends of the Sydney Road activity centre.

Outer Northern Region

The outer northern region of Hume, Nillumbik and Whittlesea, illustrated as part of Figure 4, has a dispersed pattern of centres, but not as dispersed as the outer western area. The public transport and road networks as well as settlement patterns account for this difference.

Melbourne Airport is the key specialist transport-oriented centre in the area, servicing the wider metropolitan area and the State.

Broadmeadows, Epping Plaza, and Sunbury are the largest retail centres in the region. Epping Plaza is a stand-alone enclosed shopping complex removed from the traditional Epping retail centre and railway station. In contrast, Broadmeadows and Sunbury are more mixed use centres with stronger public transport connections particularly because of their proximity to railway stations.

Several medium sized, traditional mixed use centres operate at strategic points along the fixed rail or tram network. These include Eltham, Thomastown, Lalor and Bundoora. An equal number of predominantly retail centres are less transit-oriented. They include the enclosed shopping complexes of Gladstone Park, Mill Park, Craigieburn in addition to Epping Plaza.

Because of the transport and settlement patterns in Melbourne's outer north, there are more neighbourhood centres here than in the outer west. These include both traditional centres such as Dallas and Diamond Creek, and newer enclosed shopping complexes such as St Helena Marketplace and Eltham Ridge.

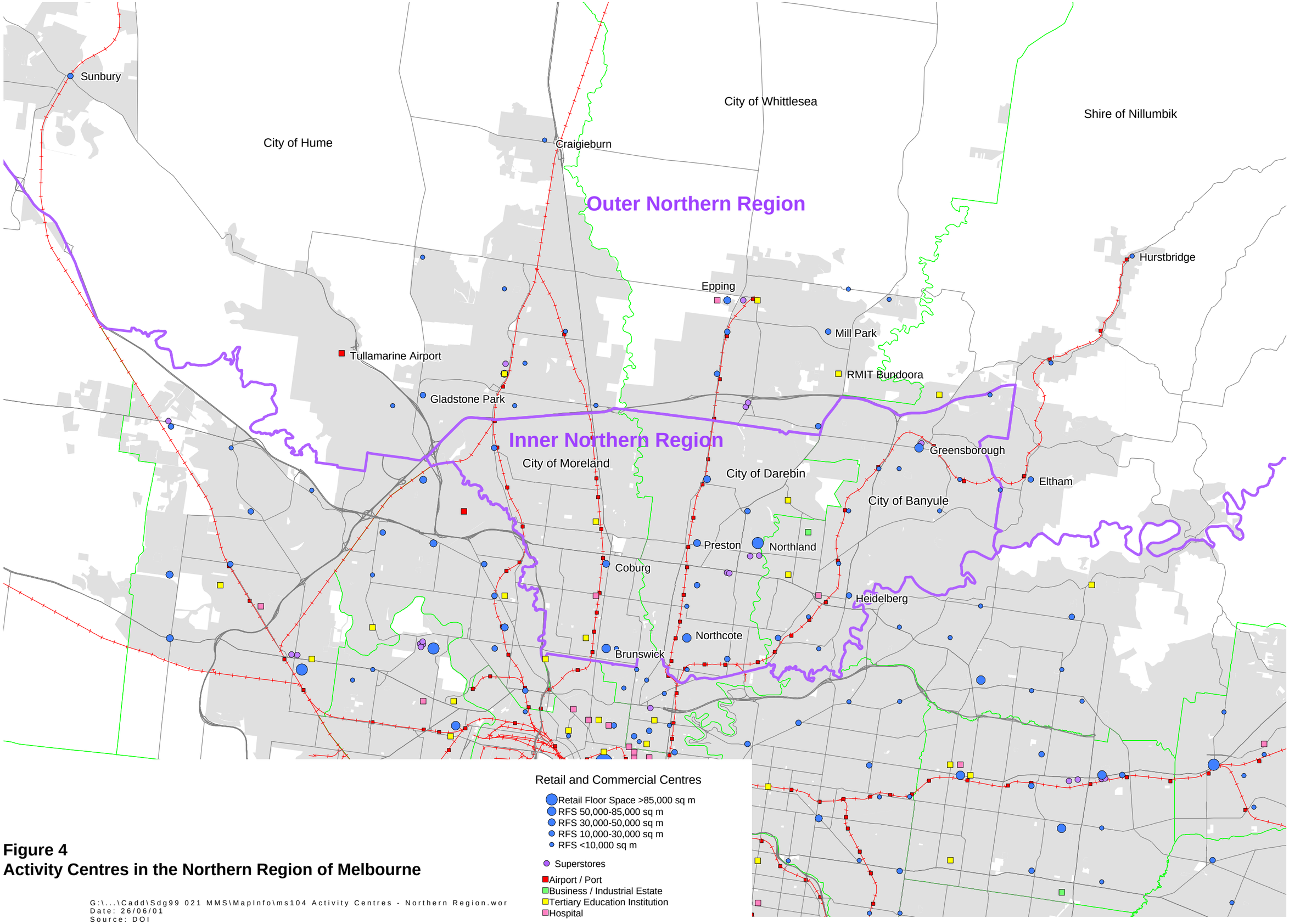

Figure 4
Activity Centres in the Northern Region of Melbourne

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There is a very limited amount of office development in the outer northern area. It is primarily in the form of small offices located in the larger mixed use centres of Broadmeadows, Glenroy, Sunbury, Eltham, Thomastown, and Bundoora. There are no distinct office parks in the region.

Four tertiary education campuses comprising the RMIT campus at Bundoora, Northern Metropolitan Institute of TAFE campuses at Greensborough and Epping, and VUT campus at Sunbury are located in the region. Although close to public transport, the RMIT Bundoora campus and the NMIT Epping campus are not well integrated with nearby shopping centres. The NMIT Greensborough campus and VUT Sunbury campus are totally isolated.

The new Northern Hospital adjacent to Epping Plaza is the only public hospital in the region. It is a car-oriented activity centre, not being easily accessible from the Epping railway station.

Inner Eastern Region

The inner eastern region of Boroondara and Stonnington, illustrated as part of Figure 5, is particularly well serviced by train, tram and bus facilities, and consequently there is a dense network of transit-oriented centres.

Chadstone, the most significant stand-alone enclosed shopping centre in the metropolitan area, is located in this region. However, apart from this complex, the major activity centres in the region are traditional mixed use centres at or near train stations on the region's four rail lines, and/or along the six tram routes. The largest of these are centres such as Chapel Street and Toorak Road in Prahran/South Yarra; Camberwell Junction; the Glenferrie Road centres in Malvern and Hawthorn; and Kew Junction.

There is a wide range of medium sized and neighbourhood centres located across the two municipalities. Most such as Hawskburn, Toorak Village, Ashburton, Harp Village and Maling Road are traditional mixed use, transit-oriented centres. Tooronga Village is one of the very few stand-alone centres not well connected with public transport.

Office development in the inner eastern area is in the form of large and small offices in the larger mixed use centres of Prahran/South.Yarra/Windsor, Armadale/Malvern, Camberwell Junction and Kew Junction. Clustering of offices also is evident along a few main roads such as Burwood Road in Hawthorn. There are no office parks in the region.

Four tertiary education institutions are located in the region. They comprise campuses of Swinburne University at Glenferrie/Hawthorn and Windsor, Holmesglen TAFE and the Deakin University campus at Toorak. Although on a tram line, the Deakin campus is removed from a mixed use centre. All of the other campuses are situated within or next to mixed use, transit-oriented centres.

Cabrini Hospital is the main hospital in the region, although the Alfred Hospital is just outside the western boundary of the City of Stonnington. Both are stand alone facilities on tram lines, but not integrated with mixed use activity centres.

Middle Eastern Region

The middle eastern region comprises the municipalities of Manningham, Monash and Whitehorse, and is illustrated as part of Figure 5. It has an equal mixture of transit-oriented and non transit-oriented centres. There are seven major mixed use centres which are well served by public transport - Box Hill, Ringwood, Glen Waverley, Oakleigh, Clayton, Mt Waverley and Croydon. However, other major centres such as Doncaster, Forest Hill, Waverley Gardens, Brandon Park, The Pines and Wheelers Hill are predominantly enclosed shopping complexes with much more limited public transport facilities.

The largest centre in this region is Box Hill because of the large number of office, tertiary education and medical uses beyond its retailing role. In the middle and outer suburban area, Box Hill is the most significant centre in terms of the extent of these non-retailing uses.

Another very large centre is the Whitehorse Road Precinct at Nunawading with over 120,000 square metres of development. This precinct, stretching for over two kilometres, encompasses the string of homemaker superstores both east and west of Springvale Road, the retail and commercial development around the railway station, and the Whitehorse Civic Centre.

Glen Waverley and Doncaster are the other large retail centres in the region. They have very different urban forms. Glen Waverley has a hybrid arrangement of enclosed complexes (The Glen and Century City walk) and a traditional open air strip. It has a good mixture of uses beyond retailing, and a public transport interchange involving rail and bus. In contrast, Doncaster is predominantly an enclosed shopping complex with a string of commercial uses along Doncaster Road. There are much more limited public transport facilities connecting with this centre.

Apart from the Whitehorse Road Precinct at Nunawading, there are other clusters of superstores located outside of established centres. Examples include along Springvale Road in Brandon Park, and on the east side of Warrigal Road north of Waverley Road.

Office development in the middle eastern area occurs within larger mixed use centres and planned office parks, as well as along a few major roads. There is a mixture of large and small offices in the larger mixed use centres of Box Hill, Glen Waverley, Oakleigh, Clayton, Mt Waverley, Croydon and Pinewood.

Clustering of offices also is evident along a few main roads such as Doncaster Road in Doncaster, Burwood Highway at the corner of Springvale Road, and Springvale Road at Brandon Park. This type of clustering is most dramatic in several free-standing office

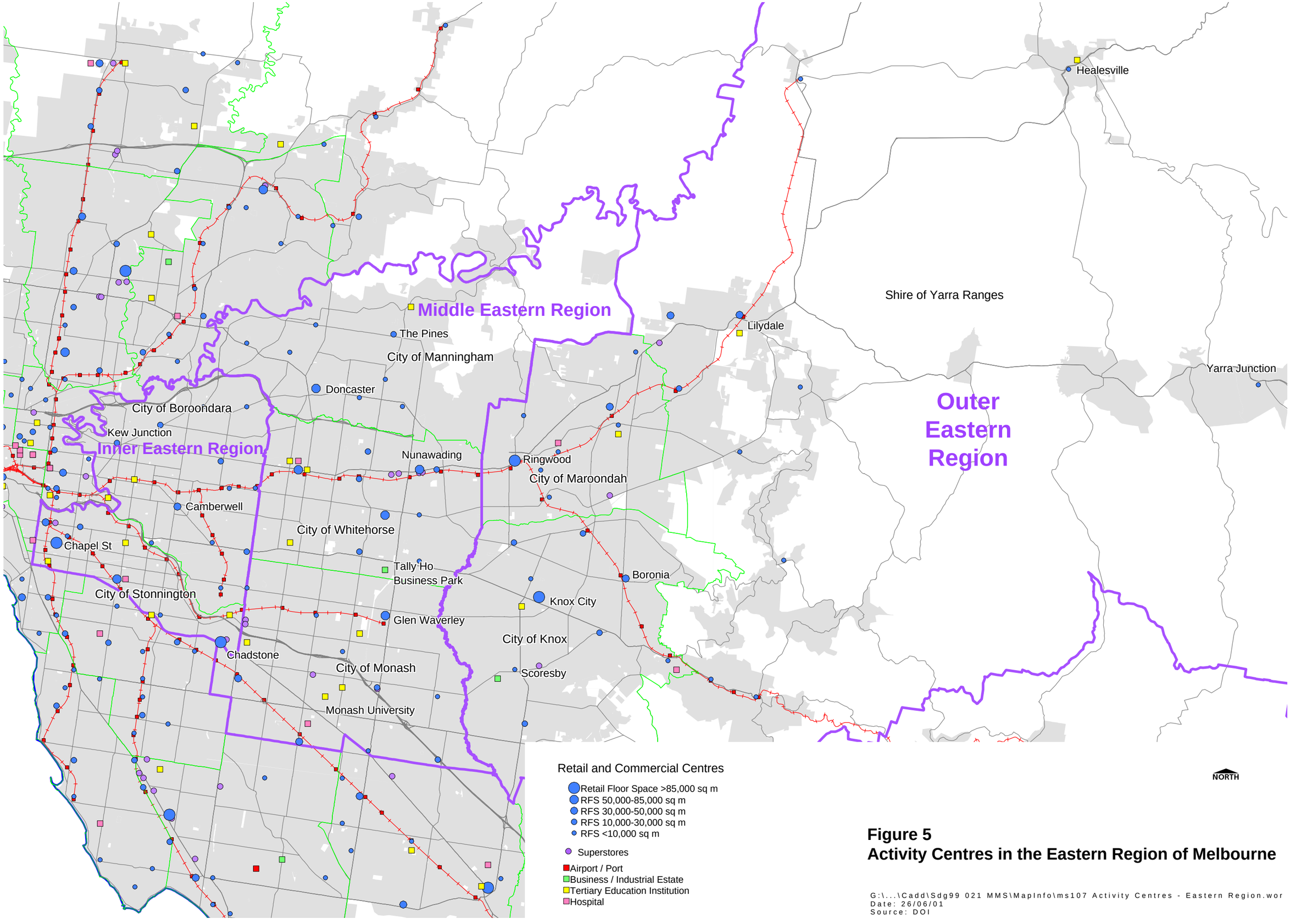

Figure 5
Activity Centres in the Eastern Region of Melbourne

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Date: 26/06/01
Source: DOI

parks in the City of Monash part of the region – Tally Ho, Brandon Office Park, Monash Technology Precinct and Wellington Business Park. This form of activity centre - consisting of high quality offices with amenities spread out in a managed and landscaped environment on large sites generally greater than one hectare - is unique to the middle and outer eastern and south-eastern suburbs.

Seven tertiary education institutions are located in the region. Monash University at Clayton is the most significant. Box Hill TAFE has two campuses within the larger Box Hill mixed use centre, and a campus on a large isolated site in Doncaster East. Deakin University has a large stand-alone campus at Burwood, and a similar style of campus (Rusden Campus) at Clayton. The Holmesglen TAFE campus off Waverley Road in Glen Waverley is a free-standing facility on a large site. Unlike the inner eastern region, all of the tertiary education centres in this region except the TAFE campuses at Box Hill are removed from mixed use, transit-oriented centres.

Box Hill Hospital and Monash Medical Centre are the two main public hospitals in the region. The Monash facility is quite removed physically from the Clayton mixed use centre, whereas the Box Hill facility is more integrated with the larger Box Hill activity centre.

Outer Eastern Region

The outer eastern area of Knox, Maroondah and Yarra Ranges, illustrated as part of Figure 5, has a dispersed pattern of centres particularly approaching and within the Dandenong Ranges and Yarra Valley.

The two main centres in the region - Ringwood and Knox – are elongated and predominantly retail-oriented. Ringwood is hybrid arrangement of a strip retail and commercial centre based around the Maroondah Highway and Ringwood railway station, as well as three enclosed shopping complexes – Eastland, Ringwood Market, and Ringwood Square. The centre is an important public transport interchange for rail and bus. In contrast, the Knox activity centre is a more car-oriented centre based around the Burwood Highway. On the north side of the highway, there is the enclosed Knox City shopping complex, the Towerpoint complex of superstores and cinemas, and the Knox City Council offices. On the south side of the highway, there is a string of commercial developments.

Several medium sized, traditional mixed use centres operate at strategic points along the Lilydale and Upper Ferntree Gully railway lines. These include Croydon, Mooroolbark, Lilydale, Bayswater, and Boronia. A similar number of medium sized shopping centres in the region are less transit-oriented. Located on main roads, they include the enclosed shopping complexes of Chirnside Park and Stud Park, as well as more open air centres such as Mountain Gate and Wantirna Mall.

The region has about 20 neighbourhood centres, a large proportion of which are townships in the Dandenong Ranges and Yarra Valley. There are several small centres

around Ringwood and Croydon in the City of Maroondah, but very few such centres in the City of Knox primarily because of the residential subdivision pattern, dominance of the larger shopping centres and extent of industrial areas.

The region has significant industrial activity centres at Bayswater, Scoresby, Rowville, and Lilydale. There has been a blurring of industrial and office activity in all of these areas, with many sites developing more as an office park.

Swinburne University and TAFE campuses dominate the region, being located at Lilydale, Wantirna, Croydon and Healesville. Apart from Healesville, the campuses are not well integrated with nearby shopping centres nor close to public transport.

There are three main hospitals in the region – Maroondah and Angliss public hospitals and Knox Private Hospital. Like the tertiary educational institutions, these hospitals are situated on stand-alone sites removed more mixed use activity centres and public transport facilities.

Inner Southern Region

The inner southern region of Bayside and Glen Eira, illustrated as part of Figure 6, is characterised by a reasonably dense pattern of medium sized and neighbourhood centres. There are no enclosed shopping complexes in the region, although Southland is just outside the boundary.

All of the larger centres – Bentleigh, Elsternwick, Hampton, Carnegie and Church Street Brighton - are traditional mixed use, transit-oriented centres, being located on the Sandringham or Frankston rail lines. There is a large number of neighbourhood centres scattered throughout the region. Of the 13 examined in our sample, only four have direct access by either train or tram.

Office development in the inner southern area is predominantly in the form of large and small offices in the larger mixed use centres. There are no office parks in the region.

The one tertiary education institution in the region – the Monash University campus at Caulfield – is well integrated with the larger Caulfield activity centre and very close to the railway station.

The Caulfield General Medical Centre and the Sandringham and District Hospital are the main hospitals in the region. Both are stand alone facilities not integrated with mixed use activity centres, nor close to train or tram facilities.

Mid Southern Region

The mid southern region of Greater Dandenong and Kingston, illustrated as part of Figure 6, has a mixture of transit-oriented and non-transit-oriented centres. The larger traditional mixed use centres of Dandenong, Springvale, Mentone, Chelsea, Moorabbin,

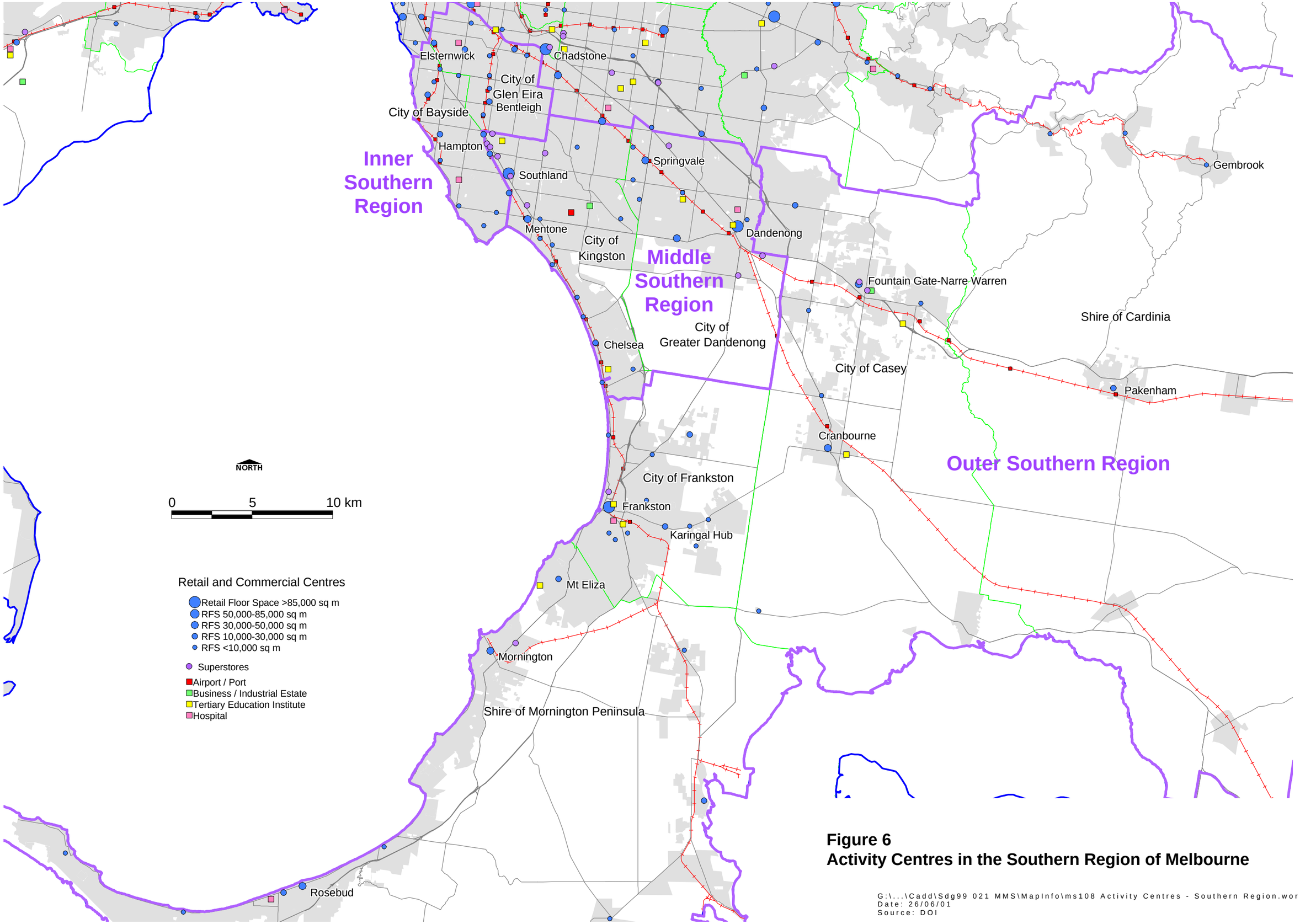

Figure 6
Activity Centres in the Southern Region of Melbourne

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Date: 26/06/01
Source: DOI

Cheltenham and Highett are situated at key points along the Dandenong and Frankston rail lines which dissect the region. Dandenong is the region's dominant centre because of its extensive commercial as well as retail base.

The region has two large enclosed shopping complexes that are less transit-oriented – Southland and Parkmore Keysborough. There also are about 10 clusters of "big box" retailing outlets with the largest number of stand-alone superstores of any region in Melbourne. These stand alone outlets or strings of superstores are located along the Princes Highway in Springvale and Dandenong; Warrigal and South Roads in Moorabbin; and the Nepean Highway at Highett, Mentone, Moorabbin and in Southland. An enclosed factory retail outlet centre also is located on the periphery of the Moorabbin Airport.

There is a reasonably large number of neighbourhood centres in the region. This is due to the subdivision pattern as well as the evolution of small shopping centres next to railway stations. About half of the neighbourhood centres in the region are located adjacent to stations.

Office development in the mid southern area is predominantly in the form of large and small offices in the larger mixed use centres. This is particularly evident in the Dandenong activity centre, where there is over 55,000 squares metres of such development. Springvale, Mentone, Moorabbin and Cheltenham also have offices providing business and professional services, which occupy up to 30% of businesses in each centre.

Moorabbin Airport is a large specialist transport-oriented centre in the middle of the region. Industrial estates are situated at Moorabbin, Braeside, and Dandenong.

Chisholm Institute of TAFE has four campuses in the region at Moorabbin, Dandenong, Noble Park and Bonbeach. Apart from the Noble Park campus, these tertiary education centres are removed from mixed use, transit-oriented centres.

The Dandenong and District Hospital is the main public hospital in the region. Like the Chisholm TAFE campus, the hospital is isolated from the Dandenong mixed use centre.

Outer Southern Region

The very large outer southern region of Cardinia, Casey, Frankston and Mornington Peninsula, illustrated as part of Figure 6, is dominated by activity centres not well served by public transport. The exception to this pattern is the Frankston mixed use centre which is an important public transport interchange for rail and bus. To a much lesser extent, Pakenham is the only other transit-oriented centre in the region.

Frankston is the region's most significant centre because of its extensive commercial, administrative, entertainment and retail base. The emerging Casey CBD, including Fountain Gate, Narre Warren, Casey Business Park, and the Civic Centre is the region's

second most significant centre and is almost exclusively car-oriented. Cranbourne, Mornington and Rosebud are the three other large mixed use centres in the region, and they are all poorly served by public transport. Retailing in these centres is provided by shops in a traditional "main street" supplemented by enclosed complexes of varying sizes.

Several medium sized shopping centres operate in the region and all are not transit oriented. Those in the Cities of Frankston and Casey are the enclosed shopping complexes of Karingal Hub, Carrum Downs, and Endeavour Hills. In contrast, those on the Mornington Peninsula are the traditional centres of Hastings and Mt Eliza.

There are relatively few neighbourhood centres in this very large region. Those that exist are largely traditional centres around Frankston and on the Mornington Peninsula. In growth areas within Casey, there is a great paucity of neighbourhood centres. The few that exist are situated a considerable distance apart in locations such as Hampton Park, Thompson Parkway and Pearcedale. The limited extent of these centres is caused primarily because of the residential subdivision pattern, local planning policies, and ongoing expansion of larger shopping centres in the region. Of the 21 neighbourhood centres examined in the region, only six are served by the rail network.

Office development in the outer southern area is predominantly in the form of large and small offices in the larger mixed use centres of Frankston, Casey CBD, Cranbourne, Mornington and Rosebud. The business park in the Casey CBD is one of a very few 'office park' style developments in the region, which contrasts with the more traditional streetfront offices in the other centres.

Seven tertiary education institutions are located in the region. Monash University has campuses at Frankston and Berwick, as well as the Business School at Mt Eliza. Chisholm Institute of TAFE has four campuses at Frankston, Cranbourne, Casey (Berwick) and Rosebud. The Chisholm TAFE campus at Frankston is a part of the wider mixed use centre and close to the public transport interchange. The Monash University and Chisholm TAFE campuses at Berwick are close to the railway station, but very isolated from the Berwick Shopping Centre. The remaining five tertiary education campuses are removed from mixed use, transit-oriented centres.

Frankston Hospital and the Mornington Peninsula Hospital at Rosebud West are the two main public hospitals in the region. Both are isolated from mixed use activity centres and major public transport facilities.

Geelong Region

The Geelong region, illustrated in Figure 7, is dominated by the Geelong Central Activity Area (Geelong Central). The centre performs the major retail, commercial, cultural, administrative, and civic centre in the region. However, the centre is not transit-oriented with poorly developed public transport facilities and services.

Retail and Commercial Centres

Retail and Commercial Centres >85,000 sq m
RFS 50,000-85,000 sq m
RFS 30,000-50,000 sq m
RFS 10,000-30,000 sq m
RFS <10,000 sq m

Airport / Port
Business / Industrial Estate
Tertiary Education Institution

NORTH

0 2.5 5 km

Lara
Avalon Airfield
Heales Rd Industrial Area
Corio Village
Shire of Golden Plains
Geelong
Belmont
Drysdale
Deakin University
City of Greater Geelong
Ocean Grove
Queenscliff
Borough of Queenscliffe
Surf Coast Shire
Torquay

Figure 7
Activity Centres in the Geelong Region

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Date: 26/06/01
Source: DOI

Close to Geelong Central, there are a few large traditional mixed use centres such as High Street in Belmont and the two Pakington Street centres in Geelong West and Newtown. Further out in the middle suburban and newer residential areas, the larger activity centres such as Corio Village and Town and Country Shopping World at Grovedale are stand alone enclosed shopping complexes. In the outlying parts of the region, traditional mixed use centres such as at Lara and townships such as Ocean Grove, Torquay, Drysdale, and Queenscliff constitute the main type of activity centre. All of these centres are car dominated.

There are two main clusters of "big box" retailing outlets in the region – at the northern entrance to Geelong along the Princes Highway at Corio, and at the south-eastern entrance to Geelong along the Bellarine Highway at Moolap.

The neighbourhood centres in the inner and middle suburbs of Geelong are a mixture of small traditional centres primarily at key points along main roads and small enclosed shopping complexes such as Bellarine Village, Grovedale Square, and Newcomb Community Shopping Centre.

Office development in the Geelong region consists primarily of large and small offices in Geelong Central and, to a much lesser extent, the larger mixed use centres of Belmont and Pakington Street, and the outlying townships. The are no office parks in the region.

Avalon Airport is a large specialist transport-oriented centre in the northern part of the region.

There are two main tertiary education institutions in the region – Deakin University and the Gordon Institute of TAFE. Deakin University has its main campus on an isolated site at Waurn Ponds, as well as a newer waterfront campus forming part of the larger Geelong Central mixed use centre. The main Fenwick Street campus of the Gordon Institute is next to the Geelong railway station on the western edge of Geelong Central. The Moorabool Street campus is south of the main Geelong CAA, and the small Geelong West campus is on an isolated site.

Geelong Hospital is the main public hospital in Geelong Central, and St John of God is the main private hospital. Both are located on the southern edge of the mixed use activity centre.

4.2.3 Hierarchy of Retail Centres

Centres containing some form of retailing represent the vast majority of activity centres in Melbourne and Geelong. As such, it is important to analyse the distribution of different types and scales of retail-based centres, and how the network of these types of centres and their internal characteristics have changed over the last 20 years or so.

A conceptual hierarchy of retail centres has been used for many years to describe the system. The hierarchy has been presented in several different ways, but a fairly simple categorisation is as follows:

- central activity areas;
- major suburban centres differentiated between regional centres (greater than 50,000 square metres of retail floorspace) and sub-regional centres (between 10,000 and 50,000 square metres of retail floorspace);
- neighbourhood centres (less than 10,000 square metres of retail floorspace).

The hierarchy of retail centres examined in this project is illustrated in Figure 8.

Central Activity Areas

The Melbourne Central Activities District is at the top of the retail hierarchy. With over 430,000 square metres of retail floorspace, three full-line department stores, and an extensive range of speciality shops including most major chain stores, the Melbourne CAD occupies an unparalleled position in the metropolitan and State hierarchy.

The Geelong Central Activity Area, with over 115,000 square metres of retail floorspace, a department store, discount department stores, and a range of speciality shops is at the top of the hierarchy in the Geelong region. However, in terms of this wider metropolitan analysis, the Geelong CAA fits into the hierarchy more as a regional shopping centre.

Regional Centres

In terms of size, there are 21 regional shopping centres (apart from the Geelong CAA) in metropolitan Melbourne, each having total retail floorspace in excess of 50,000 square metres. Seven of these centres - Cheltenham/Southland, Chadstone, Dandenong, Frankston, Ringwood, Greensborough and Highpoint, the majority located in the eastern and south-eastern parts of Melbourne - are “super regional” centres with over 85,000 square metres of retail floorspace.

About half of the remaining 13 regional shopping centres are in Melbourne’s eastern and south-eastern regions. They comprise Prahran/South Yarra in the inner area; Doncaster, Box Hill, Forest Hill, Glen Waverley and the Whitehorse Road Precinct (Nunawading) in the middle suburban belt; and Knox City/Towerpoint, the Casey CBD (Fountain Gate/Narre Warren) and Cranbourne in the outer area. The two adjoining retail strips in Armadale/Malvern make them similar to a regional centre.

The northern metropolitan area has only three regional centres apart from Greensborough – Northland; High Street Northcote/Thornbury; and the cluster of strip centres in Fitzroy/Collingwood. Preston and Broadmeadows are almost regional shopping centres with close to 50,000 square metres of retail floorspace.

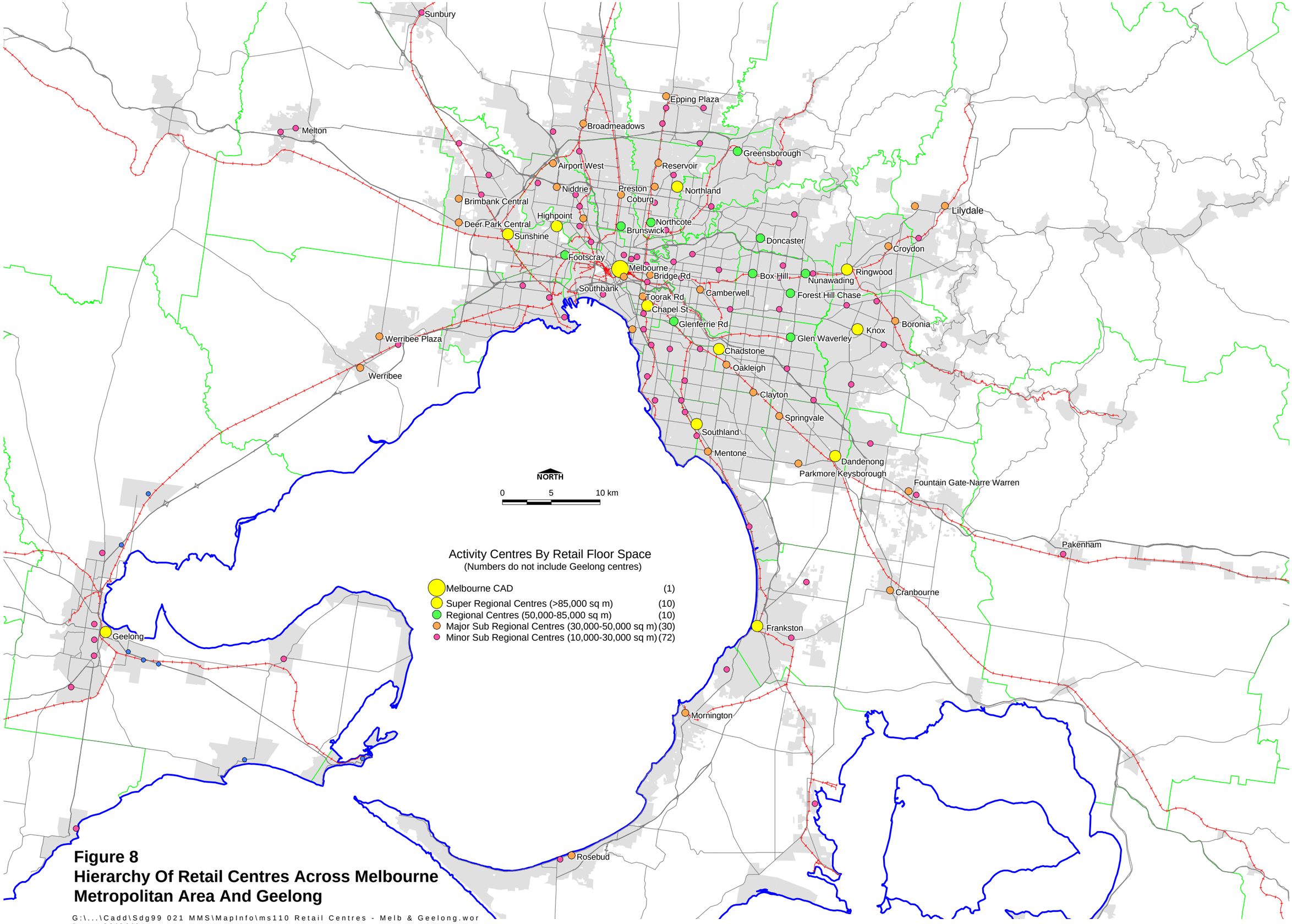

Figure 8
Hierarchy Of Retail Centres Across Melbourne Metropolitan Area And Geelong

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Date: 29/06/01
Source: DOI

The western metropolitan region has the smallest representation of regional shopping centres with only two – Footscray and Sunshine, apart from the "super regional" centre at Highpoint.

Regional shopping centres are often considered by the retail development industry more in terms of retail mix than size. To this industry, a regional shopping centre is a centre providing "higher order retailing" with one or more department stores, one or more discount department stores, one or two supermarkets, and a considerable number of speciality chain shops. This definition would reduce the number of regional centres included on the basis of size by half. The inclusion of a department store would be the critical differential factor. It would limit the regional centres in the metropolitan area to 11 centres - Highpoint, Footscray, Northland, Doncaster, Ringwood/Eastland, Knox City/Towerpoint, Glen Waverley, Chadstone, Southland, Dandenong, and Frankston. Six of these centres are stand-alone enclosed complexes; four have an enclosed retail complex as an important part of a mixed use activity centre.

Regional shopping centres also are more likely than other retail-based centres to have cinemas within them. Fifteen (or 68%) of the 22 centres with cinema based entertainment in suburban Melbourne are regional centres. With the exception of Footscray, all of the 11 regional centres with a department store have multiple cinemas, and these cinemas are situated within an enclosed shopping complex in the activity centre. Of the remaining nine regional shopping centres, determined on the base of floorspace, five have cinemas – Sunshine, Greensborough, Prahran, Forest Hill and Cranbourne. All of these cinemas are part of an enclosed shopping complex in the activity centre. With the exception of the Casey CBD in the outer south-east, all of the regional centres without cinemas are more traditional mixed use centres in the inner and middle eastern suburbs - Fitzroy/Collingwood, High Street Northcote, and Box Hill.

The physical form of Melbourne's regional centres varies considerably. Inner area centres within seven kilometres of the CBD – Fitzroy, Prahran/South Yarra, Northcote/Thornbury, and Footscray - are largely open air traditional strip centres or nodes with a significant mixture of uses beyond retailing, an important public realm, and major public transport interchanges involving tram and/or rail. The settlement pattern in these areas and the public transport connections have had a major influence on the form of these centres.

By contrast, eight of the regional centres – Highpoint, Northland, Doncaster, Forest Hill, Chadstone, Southland, Knox City/Towerpoint, and Fountain Gate are large privately owned enclosed complexes with predominantly shopping and entertainment activities, and extensive car parking areas within and around them. They rely solely on bus services for public transport. The design of these complexes by major retail developers, rather than the surrounding urban form or transport arrangements, have been the major influence on the physical form of these centres.

Eight other regional centres – Sunshine, Greensborough, Box Hill, Glen Waverley, Ringwood, Dandenong, Frankston and Cranbourne are hybrid arrangements of a

traditional open air centre and an enclosed complex. Almost all of these centres have a very good mixture of uses beyond retailing, an important public realm, and major public transport interchanges involving rail and bus. A mixture of the retail and commercial form developing around the railway stations at these centres, State and local government policies and implementation measures, and major developments by private retail developers has influenced the physical form of these centres.

The last regional centre – the Whitehorse Road Precinct in Nunawading – is a mixture of an elongated strip of superstores and a traditional shopping centre based around the Nunawading railway station and Whitehorse Road- Springvale Road intersection.

Sub Regional Centres

In terms of size, there are about 115 sub regional shopping centres in metropolitan Melbourne and Geelong, each having total retail floorspace between 10,000 and 50,000 square metres.

The eastern and south-eastern parts of Melbourne are well represented by this scale of centre, with almost 40 in the eastern suburbs and about 25 in the southern suburbs. The northern and western areas are less well represented in the same way that there are fewer regional centres in these areas. The west has about 20 sub regional centres and the north only 17. The inner central municipalities of Melbourne, Yarra and Port Phillip have about 10 sub regional centres based around major roads in Carlton, Fitzroy, Richmond, St Kilda, South Melbourne and Port Melbourne.

In the western region, the majority of sub regional centres are concentrated in the Cities of Moonee Valley and Brimbank. There is no centre of such scale in the City of Maribyrnong, primarily because of the dominance of Footscray and Highpoint. There are only two or three sub regional centres in each of the municipalities of Melton and Wyndham because of the comparatively limited settlement pattern and low population density in these areas.

In the northern region, there are two or three sub regional centres in each of the municipalities of Moreland, Darebin, and Banyule. For the inner parts of this region, this type of centre consists of a large strip centres along a major road (eg, Sydney Road and High Street). In the City of Hume, there are three sub regional centres which are very spread out across the municipality. Each centre has an enclosed shopping complex as a key part of the retailing activities undertaken in the centre. In contrast, in the City of Whittlesea, there is a mixture of three traditional strip centres and two enclosed complexes. In Nillumbik, the complete lack of sub regional centres is caused by the dominance of the nearby Greensborough centre, the limited settlement pattern and constrained catchment area.

As with regional centres, the retail industry considers sub regional shopping centres more in terms of retail mix than size. To the industry, a sub regional shopping centre is a centre based around one or more discount department stores such as a Target, K Mart,

Big W or Harris Scarfe store. In the late 1960's, this type of centre was usually about 10,000 square metres in size based around stand-alone K Mart and Coles stores but without specialty shops. Kmart Plaza in its early days at Burwood East was a key example of this type of centre. Most DDS based centres constructed in the 1970's and 1980's were slightly larger enclosed complexes of up to 15,000 square metres and included specialty shops. Most recently, these types of centres are enclosed complexes anchored by two DDS's and are generally between 30,000 and 40,000 square metres.

The industry definition of a sub regional centre as a centre with a DDS reduces the number of sub regional centres in Melbourne and Geelong included in our analysis on the basis of size from about 115 to about 30. The vast majority of the 30 centres are privately owned enclosed shopping complexes comprising the totality of the activity centre and located on major roads in the middle and outer suburban parts of Melbourne, as well as in a couple of suburban areas of Geelong. Melbourne's western region has the largest network of these complexes with eight, half of which are located in the City of Brimbank. The eastern and southern regions each has a network of six such sub regional complexes, all of which are spread across more outer suburban areas at least 13 kilometres from the Melbourne CBD. Melbourne's northern region has only two such complexes at Broadmeadows Town Centre and Epping Plaza, while the central area does not have any.

The other three DDS based centres are mixed enclosed/open air shopping centres in more inner suburban locations in Melbourne - Glenferrie Road, Malvern; Camberwell Junction and Northcote, as well as similar locations in Geelong such as at High Street Belmont.

Neighbourhood Centres

We have examined a sample of about 140 neighbourhood centres with less than 10,000 square metres of retail floorspace spread across the Melbourne metropolitan area and in Geelong. The most dense concentration of these centres occurs in the inner areas of Melbourne, with the numbers decreasing as one moves further outwards. In outer municipalities such as Casey, Wyndham and Melton there are very few neighbourhood centres.

Most neighbourhood centres are open air strip or nodal centres located at key points along public transport networks (predominantly train and tram lines), and/or designed in a central location as part of a residential subdivision. A few are small privately owned enclosed complexes containing a supermarket and speciality shops – examples are Milleara and Coburns Road (Melton) in the west; St Helena Market Square in the north; Tooronga Village, Ferntree Plaza and Wheelers Hill in the east; Parkdale Plaza and Thompson Parkway in the south; and Bellarine Village and Grovedale Square in Geelong.

In recent years, the established hierarchy of retail centres has broken down with the emergence of major new forms of both shopping and retail activity centres. The new developments consist of purpose-built homemaker centres or clusters of "big box"

homemaker shops, other freestanding "category killers" or superstores, factory outlet stores and centres, and clusters of 24 hour convenience outlets along major roads. A brief description of these types of retailing and associated new activity centres follows.

Homemaker Centres or Clusters of Big Box Homemaker Shops

Big box homemaker shops and purpose-built homemaker centres have evolved to cater for the bulky goods retailing market. These types of goods are characterised by their size, weight or shape requiring a large area for display, handling or storage. Bulky goods retailers prefer to locate outside shopping centres in the traditional retail hierarchy in order to obtain lower rents.

In Melbourne, the major purpose-built homemaker centres are located next to the large enclosed shopping complexes at Northland, Highpoint, and on a stand alone site at Cranbourne. These centres range between 20,000 and 35,000 square metres in size. As distinct from purpose-built centres, big box homemaker shops are similar to other large superstores or "category killers".

Category Killers and Superstores

"Category killer" chains and superstores – also known as "big box retail outlets" - represent a small but increasingly visible component of the retail development market. These stores specialise in a niche market and provide a comprehensive range of products in that market. Examples are Bunnings, BBC Hardwarehouse, Harvey Norman, Myer Megamart, Officeworks, Kmart Garden Supercentre, Rebel, Toys R Us, and Borders. Superstores typically range in size from 4,000 to 18,000 square metres, depending on the product category. For example, a Bunnings hardware superstore is typically over 10,000 square metres which is quite significant in scale when compared with a large supermarket of 3,000 to 5,000 square metres.

Some category killers such as Toys R Us, Rebel and Borders have located within enclosed or strip shopping centres within the retail hierarchy. Some superstores are located on the edge of, or adjacent to, established centres within the hierarchy.

However, about 20 of the over 50 superstores in Melbourne and Geelong are located outside the established hierarchy of retail centres. They operate as freestanding stores or part of clusters or strings of category killers along major roads such as the Princes Highway, Maroondah Highway, Nepean Highway, Bellarine Highway, Warrigal Road, and Ballarat Road.

Factory Outlet Stores and Centres

Factory outlet stores are a small but growing part of the Australian retail landscape. These stores allow a range of brand name fashion and homeware manufacturers, wholesalers and vertically integrated retailers to sell their surplus merchandise directly to

the public at discount prices. Outlet stores also have been the means of disposal of second quality, surplus and slow moving stock, as well as the testing of pilot products.

There is a wide range of factory outlet stores in Melbourne's inner area strip centres such as Bridge Road Richmond and Smith Street Collingwood. However, purpose-built factory outlet centres are a more unusual phenomenon. There are only two existing centres in Melbourne – the Direct Factory Outlet Centre which opened in 1997 next to Moorabbin Airport and the Brand Smart centre which opened in 1999 as part of the cluster of homemaker superstores along the Maroondah Highway in Nunawading. There have been development applications to establish other free-standing factory outlet centres at Melton and Thomastown, although these centres have not been approved.

24 Hour Convenience Retailing Along Major Roads

The most common forms of such developments are 24 hour convenience stores or small main road based retail clusters. Many of these retail clusters began with a service station and expanded with take-away food outlets and video shops. This form of retail centre is becoming increasingly visible along the major highways in the outer areas of Melbourne and Geelong.

The established retail hierarchy has broken down not only because of the emergence of new forms of retailing, but also because the dynamics of the retail components which have underpinned the hierarchy also are changing. For example, "higher order retailing" associated with department stores at the top end of the hierarchy is diminishing with the increasing segregation of key department store sections (fashion, cosmetics, toys, whitegoods, electrical goods, computers) into separate retail formats (eg, Megamart) and a variety of stores in different types of locations (eg, large and small strip centres, enclosed shopping complexes, clusters of superstores, or homemaker centres).

The growth of both upmarket and discount specialty brand shops (eg, Country Road, Calvin Klein, Nike, The Body Shop, The Reject Shop) has undermined the significance of department stores, and altered the perceptions of what constitutes a regional shopping centre. These speciality shops can be found in centres of different size and retail mix, and, because of their pulling power, can give local centres as much of a regional orientation as centres at the top end of the retail hierarchy.

Similarly, the growth of lifestyle-oriented shopping and leisure activities has witnessed the increasing importance of cafes, restaurants and specialist food outlets across the full spectrum of centres. This phenomenon has made some neighbourhood centres as important as larger centres in terms of catchment areas, further diffusing the concept of hierarchy.

4.2.4 Office Development and Activity Centres

Over 75% of office development in the Melbourne metropolitan area is contained within mixed use activity centres in the Central Region municipalities of Melbourne, Yarra and Port Phillip. Melbourne Central City is, and will continue to be, the dominant location with major clusters of corporate offices in the CBD, St Kilda Road, and Southbank.

With Melbourne's inner area rejuvenation, other strip or nodal centres in the region have experienced an increasing number of shopfront or warehouse offices providing business and professional services. The Richmond Business Park off Church Street provides one of the few examples of a mini "office park" form of development in the area.

Suburban office development also is expanding particularly in the eastern and southern metropolitan regions. Increased population in these areas coupled with the desire by companies to be close to the markets they serve and the people they employ have stimulated new offices. The rapid growth of service industries related to property, business, culture, recreation, and personal services that do not require central city locations has prompted businesses to seek suburban alternatives. Changes in information technology as part of the growth of the "new economy" have prompted company restructures or the emergence of new companies with preferences for regional operations in the suburbs, or new smaller and more flexible suburban start-up businesses. Suburban locations are considered by some employers to provide social and environmental amenity attributes, as well as better car parking facilities.

Suburban office development is increasingly being provided in several different forms – home-based businesses; small business incubators; shopfront offices in traditional strip or nodal centres or enclosed shopping complexes; stand-alone offices along major roads; office parks including research and technology precincts; and office and industrial parks. This pattern indicates the increasing dispersal of office development throughout the metropolitan area.

The growth of the office park is the most significant new development in the last 15 years. This form of activity centre - consisting of high quality offices with amenities spread out in a managed and landscaped environment on large sites generally greater than one hectare - is unique to the middle and outer eastern and south-eastern suburbs. There are several examples particularly in the City of Monash – Tally Ho, Brandon Office Park, Monash Technology Precinct and Wellington Business Park. The Casey Business Park as part of the emerging Casey CBD is one of the few examples in the outer southern region.

In many industrial areas of Melbourne, there has been a blurring of traditional distinctions between 'office' and 'industry' with buildings accommodating advanced industrial operations becoming indistinguishable from office buildings. New forms of office and industrial parks have emerged at locations such as Laverton, Broadmeadows, Bayswater, Scoresby-Rowville, and Dandenong.

The high concentration of office activity in the Melbourne Central City and the dispersal of suburban office development has resulted in very few traditional mixed use activity centres having a significant office component. Most such centres have small shopfront offices constituting no more than 30% of the total floorspace of the centre. Box Hill is the only suburban centre with office floorspace greater than 100,000 square metres. The only other traditional centres outside the inner region with office floorspace greater than 30,000 square metres are Prahran/South Yarra, Kew Junction, Camberwell Junction, Dandenong, Frankston, Cheltenham, and Moonee Ponds.

The very limited number of significant suburban office-oriented centres in Melbourne close to public transport contrasts with the cities highlighted in Chapter 2 in our international survey.

4.2.5 Tertiary Educational Institutions and Hospitals

Tertiary educational institutions and hospitals are considered important "activity centres" in this project. In our regional overview in Melbourne and Geelong, we have examined the location of 58 educational institutions and 29 hospitals as to the coverage of educational and health services in different regions, and whether the campuses or hospitals are stand-alone facilities or integrated with other uses in larger activity centres.

In the central area of Melbourne and to a much lesser extent in Geelong, there is a dense concentration of tertiary education institutions and hospitals. Almost all of these facilities are integrated with larger mixed use activity centres and are close to public transport facilities. Six tertiary education campuses including the University of Melbourne and RMIT, as well as nine major medical or dental hospitals are situated in the Melbourne Central City. Three hospitals and four tertiary educational institutions are located within or close to mixed use centres on the edge of or just outside the City of Melbourne in Fitzroy and Richmond. The Alfred Hospital is the only major exception to this pattern. It is a stand-alone centre on a tram line, but removed from a mixed use activity centre. In Geelong Central, Geelong Hospital and St John of God Hospital are both located on the southern edge of the mixed use activity centre.

In the inner and middle suburban areas of Melbourne, there is a more limited as well as dispersed arrangement among the major medical facilities. The hospitals in the west at Footscray and Williamstown are quite removed from mixed use centres and public transport nodes, whereas the main hospital in the north (Austin and Repatriation) is close to the Heidelberg railway station and mixed use centre. In the east, Box Hill Hospital is integrated with the larger Box Hill activity centre, although Cabrini Hospital and the Monash Medical Centre are stand-alone facilities quite removed physically from nearby mixed use centres. In the south, Caulfield General Medical Centre, Sandringham and District Hospital, and Dandenong and District Hospital are stand alone facilities not integrated with mixed use centres, nor close to train or tram facilities.

The location of the tertiary educational institutions in these areas display a similar pattern. In the west, the main VUT and Kangan TAFE campuses are on the edge of mixed use centres, although smaller campuses at Newport and Avondale Heights are not. In the north, LaTrobe University and the Kangan Batman campus at Coburg are very removed from major mixed use centres and public transport nodes; the NMIT campuses at Preston and West Heidelberg less so. Only the RMIT campus at Brunswick is part of a major activity centre (Sydney Road) with very good train and tram connections.

In the inner east, three major tertiary education institutions - Swinburne University at Glenferrie/Hawthorn and Windsor, and Holmesglen TAFE - are situated within or next to mixed use, transit-oriented centres. Further out, the two TAFE campuses at Box Hill conform to this pattern. However, Monash University at Clayton, as well as the Deakin University campuses at Burwood and Clayton are removed from mixed use, transit-oriented centres. In the inner south, the Monash University campus at Caulfield is well integrated with the larger Caulfield activity centre and very close to the railway station. Further out, three of Chisholm Institute of TAFE's four campuses in the region (at Moorabbin, Dandenong, and Bonbeach) are removed from mixed use, transit-oriented centres.

In the outer areas of Melbourne, there is not only a more limited provision of tertiary education and hospital facilities commensurate with the population base, but an increased dispersal of these facilities away from mixed use transit oriented centres. All the major hospitals – Sunshine, Mercy (Werribee), Northern (Epping), Maroondah, Angliss, Knox, Frankston, Mornington Peninsula (Rosebud West) - are situated on stand-alone sites which are car-oriented.

Eighty-five per cent of the tertiary education campuses in Melbourne's outer regions are isolated from major mixed use centres as well as public transport nodes. These include VUT campuses at St Albans, Melton, Werribee and Sunbury; the RMIT Campus at Bundoora; the NMIT campus at Greensborough; Swinburne University campuses at Lilydale, Wantirna and Croydon; Monash University campus at Berwick and Business School at Mt Eliza; and Chisholm TAFE campuses at Cranbourne, Berwick and Rosebud. The only campuses that are integrated to any extent with mixed use transit oriented centres are the Chisholm TAFE campus at Frankston, the Swinburne campus at Healesville, and the VUT campus at Sunshine.

4.2.6 Network of Metropolitan Melbourne Centres with Highest Number of Trips

Trip generation has been an important criterion in the definition of activity centres used in this project. Consequently, it is important to examine the location and types of centres that generate the highest number of trips, to draw some conclusions about the characteristics of those centres in contributing to the performance of the overall network.

Data have been organised on 201 activity centres in the Melbourne metropolitan area attracting the highest number of non home based destination trips, based on the 1994-

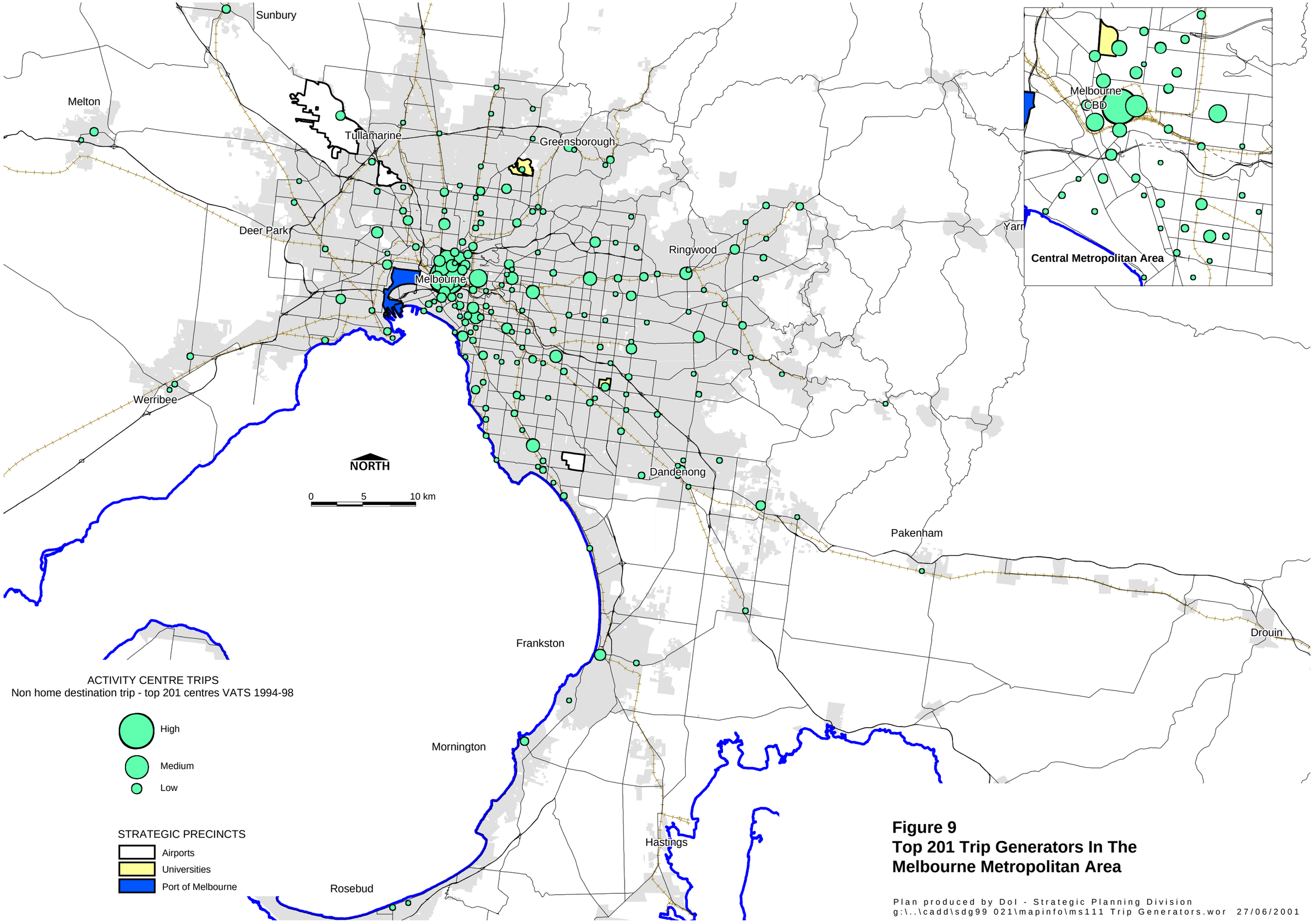

Figure 9
Top 201 Trip Generators In The Melbourne Metropolitan Area

Plan produced by DoI - Strategic Planning Division
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1998 VATS data. Summary information on those centres is contained in Working Paper 8. Figure 9 illustrates the location of these centres.

The trips generated to these centres represent 37% of all trips recorded in the VATS data. A few of the centres for which data have been collected and analysed are components of larger activity centres. For example, the VATS data relating to the Central Melbourne activity centre have recorded separate listings for the Melbourne CBD, Parliament area, King Street strip, Queen Victoria Market, Southbank-Princes Bridge, North Melbourne, and West Melbourne. In the suburbs, separate data have been recorded for parts of centres such as Dandenong, Werribee, Williamstown, Kew Junction and Prahran/South Yarra.

From the data, there is a strong correlation between the centres generating the highest number of trips and those centres having a significant shopping centre base in terms of retail floorspace. Over 80% of the 201 centres are major shopping centres (or parts of those centres) with retail floorspace greater than 10,000 square metres.

Over 90% of all major shopping centres in the Melbourne metropolitan area are included on the list of the 201 highest trip generating centres. The major centres missing from the list are primarily shopping centres in outer areas (eg, Hastings, Healesville, Belgrave, Hampton Park, Carrum Downs), and newer centres in the western suburbs (Brimbank Central, Deer Park Central, Watergardens) where it could be expected that trips would be low for the period of analysis. Five other major retail-oriented centres - Bulleen Plaza and Templestowe Village in the east; Thomastown and Glenroy in the north; and Union Road, Ascot Vale in the inner west are not included on the list. It is difficult to ascertain what particular characteristics of these centres prevented them from generating a similar level of trips as other comparable and nearby centres which are included on the list.

A few neighbourhood centres with retail floorspace less than 10,000 square metres generated enough trips for them to be included in the list of 201. These comprised Tooronga Village, North Balwyn, North Croydon, North Ringwood, and Vermont South in the east; Caulfield and Glenhuntly, Murrumbeena, East Bentleigh, and Parkdale in the south; and Eaglemont and Eltham Ridge in the north.

The generation of relatively high trip numbers in these centres is likely related to a combination of factors such as the characteristics of the immediate catchment area, business mix in the centre, transport connections and centre management and marketing. In addition, for Caulfield, the presence of major non-retail facilities such as the Monash campus and VATC racecourse explains the high number of trips generated for that centre.

Apart from the major suburban and neighbourhood centres, the remaining 14% of high trip generating centres comprises:

- educational campuses (Melbourne University at Carlton, Monash University at Clayton, Latrobe University at Bundoora, Xavier College at Kew, Deakin University at Burwood, VUT at Footscray);
- Melbourne Airport;
- major medical precincts such as the Monash Medical Centre at Clayton and the Dandenong Hospital (listed highly because it is located next to Dandenong TAFE);
- inner city non-retail areas such as St Kilda Road, the Melbourne sports precinct, East Melbourne, West Melbourne, the Carlton Exhibition Buildings and gardens area, the beach area at Port Melbourne, and the Royal Botanic Gardens.

The highest trip generating centres are in the Cities of Melbourne, Yarra and Port Phillip. This represents 37 of the 201 centres analysed. Of the remaining 164, 113 (69%) are in the eastern and southern suburbs, compared with 51 (31%) in the northern and western suburbs.

Many of the top 210 trip generating centres are traditional strip or nodal centres with a mixture of uses beyond retailing and with good transit orientation. This applies not only in the inner areas, but throughout the middle and outer suburbs. Over 110 centres on the list are mixed use centres located next to a railway station or along a tram line. In contrast, only 29 (14%) of the top trip-generating centres are stand-alone enclosed shopping centres.

The location of the top 30 trip-generating centres is illustrated in Figure 10. These centres represent 17.5% of all trips recorded in the VATS data. Figure 10 also compares the location of these top 30 trip-generating centres with the largest retail centres, measured in terms of floorspace.

Thirteen of the top 30 trip-generating centres, including all of the top seven, are activity centres in Melbourne's inner central municipalities of Melbourne, Yarra and Port Phillip. Most but not all perform a major retailing role. The major exception to this is Melbourne University which is ranked fifth on the list. However, in analysing the business mix, it is evident that it is not just retailing that has contributed to the high level of trip generation. Each of these centres performs important commercial, entertainment, community service and housing roles, the mixture of which has been more important that retailing alone in attracting very high numbers of trips.

Outside the inner central area, all of the seven "super regional" shopping centres – Cheltenham/Southland, Ringwood, Chadstone, Frankston, Highpoint, Dandenong and Greensborough are included in the list of top 30 trip-generating centres, but not necessarily corresponding in order to the retail size of the centre. For example, Ringwood generates more trips than Chadstone, although it is a less significant retail centre. The less dense network of major shopping centres around Ringwood, the centre's

role as a major public transport interchange involving two rail lines, and its mixture of other uses are likely to be contributing factors in Ringwood's higher standing in trip generation.

Six other major shopping centres – Box Hill, Prahran, Knox City, Sydney Road Brunswick, Doncaster and Glen Waverley also are included in the list of top 30 trip-generating centres, but again not necessarily corresponding in order to the retail size of the centre. Box Hill, for example, generates more trips than any of the "super regional" shopping centres, although it has only about 55% of the retail floorspace of Southland - the largest retail centre. Box Hill's role as a major public transport interchange on the Ringwood and Belgrave rail lines, its relatively high proportion of commercial office space, the presence of a major tertiary educational institution and hospital on the edge of the centre, and other non-retail uses are likely to be contributing factors to its higher standing.

Outside Central Melbourne and immediately adjacent areas, the other activity centres on the list of top 30 trip-generating centres are Camberwell Junction, Glenferrie Road, Hawthorn; Toorak Road South Yarra; Brunswick Street, Fitzroy; Sydney Road, Brunswick; North Melbourne; St Kilda; and Glenferrie Road, Malvern. All are important strip centres, have a diverse mix of uses beyond an important base in retailing, and are very well served by tram or rail public transport. The high ranking of Camberwell Junction and Glenfererie Road Hawthorn are a result of the non-retail mix in the centres (particularly Swinburne University in the case of Glenferrie Road), and their position as major public transport interchanges.

The strong correlation between centres generating the highest number of trips and those centres having a significant retail base suggests that shopping centres should remain an important focus of activity centre policy. However, as the mixture of uses beyond retailing as well as public transport services appear to be critical factors in higher trip generation, the focus in developing a sustainable centres policy should be more on mixed use transit-oriented centres than just shopping centres.

4.2.7 Mode Share of Trips to A Selection of Activity Centres

In addition to trip generation, it is important to analyse the different modes of transport used to get to various activity centres, particularly in terms of their transit sustainability

The mode share (proportion of people using a particular method of transport) of people travelling to particular activity centres was investigated by Arup Transportation Planning for this project. The full report is presented in Working Paper 3. Using the VATS data from the 1994 -1998 surveys, Arup examined the mode share for a sample of 71 activity centres across Melbourne. It was considered that this sample was adequate to cover a range of major and neighbourhood centres in different parts of Melbourne.

The average figure for public transport usage in Melbourne is 5%. From the sample, only 10 activity centres had a proportion of trips made by public transport that was 9% or higher. The data on these centres are presented in the following table.

Activity Centres with Higher Than Average Proportion of Public Transport Trips

Activity Centre	% Public Transport Trips
Melbourne CAD	47%
Footscray	17%
Box Hill	16%
Sunshine	15%
Chapel St, Prahran	12%
Bentleigh	12%
Brunswick St, Fitzroy	11%
Fitzroy St, St Kilda	11%
Camberwell Junction	10%
Sydney Rd, Coburg	9%

There is not a strong correlation between the largest retail centres generating a high number of trips, and those centres with the highest proportion of public transport trips. Very few of the "regional" centres and none of the enclosed retail centres are included in the table. This suggests that the large retail centres are predominantly car-oriented.

The centres with the highest proportion of public transport trips are generally large retail and commercial centres that are within about 10 kilometres of the Melbourne CAD. For Box Hill, which is outside this radius, the high proportion of public transport trips also can be explained by the high level of office activity in its business mix.

In addition to being large mixed use centres, the top three centres outside the CAD have significant modal interchanges. The remaining centres have not only a mixture of uses with an important retailing base, but also transit facilities which are at a focal point within the centre – either a tram line along the length of the centre or a rail with tram and/or bus interchange in the middle of the centre.

Car travel accounts for, on average, about 75% of all trips to Melbourne activity centres. The following table provides data on those activity centres within the Arup sample with proportion of car trips lower than this average.

Activity Centres with Lower Than Average Proportion of Car Trips

Activity centre	**% car use**
Fitzroy St, St Kilda	48%
Melbourne CAD	49%
Acland St, St Kilda	57%
Lygon St, Brunswick	58%
Sydney Rd, Brunswick	61%
Sydney Rd, Coburg	62%
Brunswick St, Fitzroy	62%
Lygon St, Carlton	64%
Smith St, Collingwood	64%
Chelsea	66%
Swan St, Richmond	68%
Bridge Rd, Richmond	68%
Oakleigh	68%
Chapel St, Prahran	70%
Box Hill	71%
Sunshine	72%
Elsternwick	73%

Most of these centres, particularly those with the lowest proportion of car usage, are strip centres in the inner areas of Melbourne where residential densities are higher, car ownership is lower than average, and the centres are physically integrated with the surrounding areas. Not all of these have a correspondingly high proportion of public transport use, indicating a high proportion of walking and sometimes cycling. Other centres in this table such as Oakleigh, Box Hill and Sunshine are larger middle suburban centres with a good mixture of uses and significant public transport interchanges.

The final table identifies the activity centres within the Arup sample with the proportion of walking trips above the Melbourne average of 16%.

Activity Centres with Higher Than Average Proportion of Walking Trips

Activity centre	**% Walking**
Fitzroy St, St Kilda	41%
Acland St, St Kilda	34%
Chelsea	30%
Lygon St, Brunswick	30%
Sydney Rd, Brunswick	28%
Smith St, Collingwood	27%
Sydney Rd, Coburg	26%
Brunswick St, Fitzroy	25%
Oakleigh	23%
Bridge Rd, Richmond	23%
Swan St, Richmond	22%
Elsternwick	22%
Lygon St, Carlton	19%

These figures again show a higher proportion of walking to a few larger strip centres in the inner suburbs. The density of urban form and degree of permeability with respect to these centres are significant factors contributing to this result.

The only centres in the table outside the inner areas are the traditional mixed use centres of Elsternwick, Oakleigh, and Chelsea in Melbourne's south-east. It is difficult to ascertain what particular characteristics of these centres and their surrounding areas, compared with other similar types of centres, caused this result.

4.2.8 Business and Resident Perceptions of Centres

To further our understanding of the dynamics of activity centres, surveys of businesses within four centres, and of individuals who live near to those centres, were undertaken by Roy Morgan Research for this project. The full results of the surveys are presented in Working Paper 2.

The aim of the business survey was to investigate issues relating to perceptions about centre prosperity, business synergies within centres, benefits to businesses of clustering activities in centres, perceptions of access, public transport provision, centre competition and sense of community. The purpose of the resident survey was to gain insights into issues of centre usage, perceptions and preferences of centre users, mode of travel to centres, and sense of community.

The four centres investigated were Dandenong, Footscray, Glenferrie Hawthorn and Geelong Central Activity Area. From the telephone surveys of both businesses and residents in the four centres, some key conclusions can be drawn.

Firstly, clustering of businesses in an activity centre is perceived by business to create beneficial synergies. According to the majority of respondents in all centres, it provides ease of access to goods and services; attracts greater numbers of people; reduces transport costs; and provides the opportunity for joint marketing exercises.

Secondly, the physical environment is considered to be very important to perceptions (both business and resident) of a centre's prosperity and sense of community. The Melbourne centres in the Roy Morgan research perceived to have a better physical environment were Glenferrie Hawthorn and Footscray. It is interesting to note that these centres have higher shares of people visiting the centre by walking, compared with Dandenong.

Thirdly, the proportion of trips made by public transport to the three Melbourne centres reported in the Roy Morgan research was fairly similar to the proportion indicated in the VATS analysis. Dandenong in particular had a very low rate of public transport usage - 12% in this Roy Morgan work compared with 9% in the VATS analysis. This is indicative of the poor location of the Dandenong railway station on the periphery of the centre and/or the lack of bus services connecting with the centre.

For all Melbourne centres, while public transport did not feature as a very important factor in the business respondents' original decision to locate in a particular centre, it is now perceived to be a very important factor for many businesses.

Finally, a relatively low level of both business and resident respondents in three centres (Glenferrie Hawthorn being the exception) considered that their centre was prospering. For all centres surveyed, an average of only 49% of all business respondents, and 50% of residents held this view. This varied across the centres from Glenferrie Hawthorn (69% of business and 73% of individuals) to Footscray (28% for both business and individuals), with Geelong and Dandenong in between. The main explanations given for the perceived lack of prosperity were local economic conditions, withdrawal or closure of significant businesses, lack of financial investment by significant businesses, general economic conditions and competition with other centres. Resident respondents had similar reactions.

Similarly, just over half of all respondents thought that their centre had a good sense of community with Glenferrie Hawthorn again showing the highest favourable rating particularly amongst business respondents, and Geelong showing the least favourable rating among residents. Interestingly for Geelong, there was a considerable disparity of opinion between the business and residential communities. While 56% of businesses considered that Geelong Central had a strong sense of community, only 27% of residents felt that way. Across the four centres, the main contributors to the sense of community were considered, by the business community, to be an active, friendly business community, while for residents, it was the range of leisure facilities such as eating or meeting places.

From this research, the fact that large centres such as Dandenong, Footscray and Geelong Central with an extensive mixture of uses are not perceived, in many quarters, to have a strong sense of prosperity or community provides some important signals about key aspects of their sustainability. The survey responses suggest that, beyond size and business mix, centres need to have an attractive and safe physical environment with a strong sense of place where it is easy and comfortable to meet people.

The contrast between public transport usage of Dandenong (very poor) and Footscray (well above average) shows having public transport infrastructure with various transit services does not necessarily mean that businesses or residents use these facilities, or perceive that they are valuable. From this research, the location, extent and integration of public transport services within a centre, and convenience of their use, seem to be more critical factors.

4.3 Urban Dynamics in the Melbourne Metropolitan Area Affecting The Network of Centres

The following discussion outlines some key dynamics affecting the development of metropolitan activity patterns, and their implications for activity centres.

4.3.1 Demographic and Social Changes

Changes to the demographic profile of the city's population inevitably affects patterns of activities in and usage of centres. Localised changes occur in particular areas as a result of immigration, gentrification or generational change.

The single largest demographic trend projected to affect Melbourne in the decades to come will be the aging of the population. The average proportion of Melbourne's population over the age of 60 is expected to increase from 16% in 1996 to 23% by 2021. This will occur as a result of the effects of the baby boom in the post-war period, the general improvements in health causing people to live longer, and declining birth rates with couples having fewer children or choosing not to have children. Other important trends are real growth in household disposal incomes and increased workforce participation rates, particularly by women.

The rate of population growth in the metropolitan area is in decline as a result of low levels of natural increase. The average household size is projected to decline to 2.34 by 2021 (down from 2.68 in 1996) due to factors such as couples having less children, increased rates of marriage break-ups, increased longevity and spouse survival rate.

There is a trend towards people moving back into the inner areas of Melbourne. The City of Melbourne's population is projected to grow from 39,716 in 1996 to 63,447 in 2021 with an average annual growth rate of 1% more than the metropolitan average. The DOI's report, *Victoria in Future*, suggests that "many of the new residents are young, affluent and heavy consumers of urban services" (p.24).

While the detached house is still by far the most common form of housing constructed, the percentage of other types of housing, including medium density, dual occupancy and cluster housing, is on the increase from just 12% of new constructions in 1992 to 28% in 1999, (DOI, 2000). Multi-unit dwelling approvals constituted 35% of all new dwelling units approved in 1996-7, up from just 10% in 1992-93 (Buxton and Tieman, 1999: 2).

Construction of medium density housing increased steadily throughout the 1990s following the introduction of VicCode 2 in 1993 and then the Good Design Guide in 1995.

Medium density housing has been occurring unevenly across the metropolitan area, however, with much higher levels in the inner and middle ring of suburbs. Attached

housing is being constructed almost entirely in the inner and middle ring of suburbs. In the City of Melbourne 96% of new housing was some form of attached housing in 1999, in the City of Glen Eira the proportion was 36%, and by way of contrast, the City of Casey only had 5% of new constructions in this category, (DOI, 2000). In a recent study of medium density housing in Melbourne, Buxton and Tieman found that the four municipalities of Boroondara, Port Phillip, Stonnington and Yarra together accounted for 30 per cent, 23 per cent and 32 per cent of the total number of medium density housing approvals in Melbourne in 1995-6, 1996-7 and 1997-8 respectively (Buxton and Tieman, 1999:14).

4.3.2 Industry and Employment Forces

The most significant and obvious change in industrial employment which has occurred in metropolitan Melbourne and Geelong over the last few decades has been the decline of the manufacturing industry and the rise of white collar and service industries. There has been a widespread switch to off shore manufacturing in many industries such as textile, clothing and footwear which traditionally were large employers of labour. These firms now take advantage of cheaper labour, mostly in Asia, and the lowering of protective tariffs which occurred in the 1980s.

The effects of these changes in employment and industry are not evenly felt across the metropolitan area. The decline of manufacturing has left many redundant industrial sites in the inner, northern and western suburbs available for redevelopment. Increasingly it is only the warehouse and distribution functions which Melbourne retains, and whilst the growth of these functions has been steady, predominantly in the north-west and south-eastern suburbs, this growth has not matched the decline in manufacturing.

The areas of employment which are growing are those associated with the information age brought about by technological and telecommunications advances. These expanding areas of employment are in the services sector including both white and blue collar jobs.

Metropolitan Employment 1971-2011

	1971	**1991**	**2011 Projected**
Manufacturing	35%	19%	11%
Wholesale and retail trade	21%	21%	22%
Community, recreation and personal services	16%	25%	28%
Diversified commercial and professional services	9%	14%	18%
All other(incl.	20%	20%	18%

Utilities, transport and construction)			

Source: Jeff Wolinski 1997 ' The Future Distribution of Jobs in Metropolitan Melbourne', UPR Vol 15, No 2.

Along with a change in the strength of the different sectors of employment, has been a change in the nature of work itself. There has been a strong trend towards part-time, casual and temporary employment in a number of sectors, particularly in the retail and services sector. This has occurred concurrently with a steady increase in the number of women in the workforce and a growing number of self-employed and short term contract workers. The proportion of people who work from home also has increased.

Historically in Melbourne the CAD has been the main centre for office employment. However a recent study has found that suburban office stock is increasing at a rate of 75,000 m^2 per annum. Suburban areas increased their market share of metropolitan office stock from 11% to 20% between 1984 and 1999 (Ratio, Metropolitan Melbourne Employment Forecasting Study – Final Report, July 2000: 28). While office stock increased in the CAD by 50% during that time, its proportional share of the metropolitan market declined from 61% to 52%. Future office developments are predicted to be in the inner city areas such as Port Melbourne, Richmond, Abbotsford and Hawthorn, with some new suburban offices in industrial parks in the outer eastern and south eastern suburbs. The key sector driving these latter developments is the commercial services sector, particularly telecommunications and information technology. (Ratio, Metropolitan Melbourne Employment Forecasting Study – Final Report, July 2000)

4.3.3 Retailing Forces

Retailing is a growth industry that has an important impact on the majority of activity centres in Melbourne and Geelong.

Between 1980 and 1992, there was a significant expansion of retail floorspace across the metropolitan area. This growth in floorspace was not matched by growth in sales figures which increased much more slowly over the period, in line with population growth. The result in 1992 was a decline of 23% in real sales per square metre of retail floorspace (*ABS, Retail Census 1991/92*). Lack of comprehensive data since 1992 has not enabled us to indicate whether this trend has continued.

In recent years, there has been increased flexibility in retailing formats and trading patterns. Trading hours were deregulated in 1997 permitting shops to open 24 hours a day, seven days a week.

New forms of department stores, discount department stores and superstores have emerged, as well as "concept stores" geared to consumer lifestyle aspirations. There

continues to be a stronger emphasis among stores in developing a particular niche. There has been the diversification and expansion of major supermarkets in areas such as fresh food, pre-prepared food, and personal and household goods. Convenience remains a critical factor in supermarket and everyday shopping requirements.

With increased leisure time and higher standards of living, people are spending more on recreational goods including sporting goods and equipment, sportswear, music-related goods, compact discs, and books. There also is a continuing trend for people to dine out more frequently in cafes and restaurants and to obtain take-away food. The merging of retail and leisure/entertainment activities reflects broader lifestyle changes.

The major technological changes affecting consumers and retail suppliers have been the development of home shopping via television and telephone, and the development of on-line shopping via the Internet. These technological developments have increased the choices available to consumers to obtain a wide range of goods and services without actually having to visit a retail outlet.

4.3.4 Public and Private Health Changes

The aging of the population , changing government resourcing of the public health sector, and government policy to encourage private health insurance continue to be important drivers behind the provision of health services. The emphasis will be on more flexible health delivery systems with an increased emphasis on the prevention of illness, self-management and more individual responsibility for health and fitness, and greater focus on the use of technology.

Over the last decade or more, there have been a number of locational changes in the public hospital sector which have generally followed closure, amalgamation, and decentralisation trends moving away from the Melbourne CAD out into the suburbs. Prominent amongst these moves were the relocation of the Queen Victoria Medical Centre to become the Monash Medical Centre at Clayton; the closure of Prince Henry's Hospital in St Kilda Road; the relocation of the Preston and Northcote Community Hospital from Preston to the Northern Hospital at Epping; and the closure of the Fairfield Infectious Diseases Hospital. There are currently some 26 public hospitals in the metropolitan area of Melbourne.

Whilst there have been a number of closures of public hospitals in recent years, the number of private hospitals is increasing with 11 new private free-standing day hospital facilities opening in Victoria between 1997-98 and 1998-99 (ABS, 4390.0 Private Hospitals, Australia, 1998-99). There are presently about 70 private hospitals operating across metropolitan Melbourne and Geelong, many of which are quite small and generate less activity than the larger public hospitals.

4.3.5 Tertiary Education Changes

Since 1993, there has been an upward trend in spending on tertiary education. In 1996, Melbourne accounted for 20% of the nation's expenditure. It is suggested that the high levels of expenditure were part of a 'catch up' phase and therefore may not be sustainable in the long term.

The Melbourne CAD and inner suburbs have accounted for over 25% of the metropolitan area's expenditure on new educational facilities particularly in the tertiary sector. There has also been considerable growth during the 1990s in universities and TAFE institutions in the outer metropolitan regions and Geelong.

In addition, there has been an increasing trend to congregate related research and development activities near to some of the larger campuses.

4.3.6 Environment and Transport Pressures

A key environmental pressure is the continued emission of greenhouse gases at a high rate. In 1998 total greenhouse gas (GHG) emissions in Australia was 455.9 million tonnes compared with 433.2 million tonnes in 1997 and 389.8 million tonnes in 1990. This represents a 16.9% increase between 1990 and 1998. Victoria contributes 20% of Australia's total GHG emissions.

The transport sector is responsible for a total of 17% of GHG emissions which have grown steadily in recent years. Road transport accounts for 88% of emissions in the transport sector. Between 1990 and 1997, GHG emissions from road transport grew at an average annual rate of 2%. Approximately half of the emissions from the transport sector are attributable to the use of passenger vehicles in the urban area.

There has been a continuing increase in the use of the private car as a means of travel to work, study or shop in Melbourne over the last few decades, with an accompanying decline in public transport usage.

Public transport is more popular for journeys to work than for shopping trips, and walking is more commonly used for shopping rather than work trips. Although walking is most popular amongst those undertaking a journey to school or other educational institution, it has undergone a dramatic proportional decline in usage. For these types of trips, there has been an even larger proportional increase in car usage, perhaps reflecting parental concerns for safety.

The ABS data show that, in 1996, 12.3% of people in the Melbourne Statistical Division used public transport as their main method of travel to work - the lowest figure on record. For the first time ever, Melbourne has now fallen behind Brisbane in this area. Some 80% of the Melbourne workforce travel by car.

Mode Split: Journey to Work (%) – Melbourne

	1961	**1971**	**1981**	**1991**	**1996**
Public transport	36.8	30.9	20.6	15.9	12.3
Private transport	53.4	58.7	73.7	79.4	77.9
Walking, cycling	9.8	10.4	5.7	4.7	n/a*

*Sources: Kenworthy et al (1999) p.224 and ABS (1995) Travel to Work, School and Shops , and ABS (1996) Melbourne: A Social Atlas. (*Note – no figure available)*

The figures for people travelling to attend an educational institution in the Melbourne Statistical Division show a higher usage of public transport than for those travelling to work, as might be expected given that many are children. However, car usage has increased its mode share far more at the expense of walking than public transport.

Mode Split: Journey to Educational Institution (%) – Melbourne

	1984	1994
Train	4.8	7
Bus	11.1	9
Tram/light rail	4.6	2.6
Total pub.trans	*20.5*	*18.6*
Car	34.4	55.2
Walk	39.5	22.2
Other	5.6	4

Source: ABS (1995) Travel to Work, School and Shops and ABS (1985) Travel to Work, School and Shops.

The trends for people undertaking their main shopping trip show an increasing level of car usage. The proportion of people using public transport for shopping is considerably lower than journey to work, whilst those who walk to the shops is higher.

Mode Split: Journey to Shops (%) – Melbourne

	1984	1994
Public transport	6.2	3.3
Car	78.5	85.5
Walk	14.8	9.7
Other	0.5	1.6

Source: ABS (1995) Travel to Work, School and Shops and ABS (1985) Travel to Work, School and Shops.

These trends can be seen as both a cause and a consequence of transport policies that have reduced the relative attractiveness of non-automobile forms of travel.

There has been significant public investment in Melbourne's freeway and main road network over the last decade with the completion of the Western Ring Road, the extension of the Eastern freeway and the opening of City Link. The current State Government is continuing to invest in road construction in Melbourne with its recent announcement that it will support the building of the Scoresby Freeway in the outer eastern suburbs. Meanwhile, public transport remains of very low quality across most of Melbourne.

The public transport service delivery network was franchised to several private operators by the Kennett Government over the last decade. Co-ordination between the train and bus networks has not been made easier with each network being operated by different private companies.

4.3.7 Implications for Activity Centres

This section highlights some of the implications of these broader economic, social and environmental forces for the form and function of activity centres in Melbourne and Geelong. The concluding section emphasises particular areas of ongoing concern that need to be considered as part of the policy issues for activity centres developed in Chapter 5.

Commercial Land Use and Business Mix

The demographic, social and economic forces discussed above will create significant and ongoing changes in the form and mix of uses in centres. The aging of the population and the increasing sophistication of consumers will place increasing demands on retail and commercial centres to be safer and more attractive with a stronger sense of place. Accessibility to centres and movement within them will need to be geared more to the elderly with much better provision of secure walking routes and public transport services. There will need to be a shift in the goods and services provided to meet the needs particularly of older people.

The merging of retail and entertainment has caused the development of new or refurbished cinema complexes. Many larger shopping complexes have incorporated multi-screen cinemas and entertainment retailing into their centres. It is expected that this linkage between retailing and entertainment will develop further, with new forms of entertainment emerging as part of the shopping experience in many activity centres.

In contrast to these integrated developments, the experience in 1995-96 of the Reading proposal in East Burwood to establish a large cinema and retail complex outside of a significant activity centre indicates the possibility of an ongoing pressure for these type of facilities at stand-alone locations.

The restructuring of the economy and its effects on industry have resulted in fewer traditional manufacturing areas in Melbourne and Geelong. Older industrial estates have

been transformed into activity centres with a stronger emphasis on warehousing and distribution of goods rather than manufacturing. There also has been the emergence of new types of business parks with a blurring of distinction between the industry and office functions within individual operations, as greater emphasis is placed on head office and showroom functions rather than production**.**

The increased emphasis on research and development has resulted in the establishment of research facilities in precincts linked to large tertiary campuses. The ongoing expansion of the Monash Technology Precinct, the research and development park at LaTrobe University and the establishment of the Parkville Biotechnology Precinct adjacent to the University of Melbourne are key examples of the further evolution of these kinds of activity centres.

Increased Community Focus in Retail and Commercial Centres

Social changes have caused retail and commercial centres to become a much more important community focus. This is becoming more relevant for people working longer hours with limited opportunities for social contact in other ways, and for older people experiencing isolation.

From the broader economic, social and environmental changes we have examined, this sense of community has not developed in other forms of activity centres such as business parks, industrial estates, airports, or ports. This can be explained partly by the urban form of these centres which does not provide extensive opportunities for business-to-business or personal interaction. It also is explained by the more limited number of person-trips generated by different segments of the community to these kinds of centres.

Car-Oriented Transport Patterns and Lack of Modal Shift in Centres

The continuing increase in private car usage as a means of travel to work, study or shop in Melbourne centres over the last few decades, with an accompanying decline in walking and public transport trips, has had important effects on activity centres. There are increasing pressures for extensive car parking in centres, more traffic congestion, continuing conflicts between motorists and pedestrians, not to mention the environmental problems associated with greenhouse gas emissions.

The privatisation of public transport services into separate entities has made the co-ordinated delivery of services to and within centres more difficult. There are ongoing problems with the frequency and reliability of services in many centres. Operating hours also are an issue. There continues to be problem with accessing leisure and entertainment activities in many centres at night and over the weekend. Public transport services have not necessarily operated during those off-peak periods, making such activities less accessible to those without cars.

The most significant implication of the broader urban dynamics is that there has been an increasing shift to motorised forms of transport (and away from non-motorised forms) as the primary means of access to, and movement within, most types of activity centres.

Stand Alone Tertiary Education Campuses in Outlying Areas

The decentralisation of tertiary education facilities to outlying areas of Melbourne has created new single purpose activity centres on large stand-alone sites removed from established mixed use centres and the infrastructure supporting them.

For example, Monash University established its campus in the south-east on an isolated site at Berwick rather than on the edge of the Dandenong commercial centre. Swinburne University established its campus at Lilydale over one kilometre east of its town centre. Victoria University of Technology established its campus in Melton on Coburns Road south of the railway station, but over three kilometres from the Melton Shopping and Business District.

Large Retailing Activities Outside of Centres

The emergence of new retailing formats for the sale of large recreational goods, home wares and home improvements has resulted in the development of large stand-alone superstores or strings of 'peripheral sales' outlets along main roads and highways.

Similarly, new formats for convenience retailing have resulted in larger take-way food outlets with drive-in facilities, petrol stations with an expanded range of services, and larger video shops. These have developed as stand-alone outlets or small, often unrelated clusters, along main roads particularly in outlying areas of Melbourne and Geelong. Both of these types of activities are outside established activity centres and are generators of single purpose, car-oriented trips.

Between 1992 and 1999, these concentrations of activity generated a growing proportion of retail sales in metropolitan Melbourne. They are an increasing proportion of the sales generated in the 'Other' category in the following table:

Retail Turnover within Metropolitan Melbourne 1992 – 1999

Type of Centre of Activity	**1992**	**1999**
CAD	8.2%	7.1%
Shopping Malls with DS	11.2%	12.5%
Shopping Malls with DDS	14.0%	13.6%
Other	66.6%	66.8%

NB. DS- Department stores, DDS-Discount department stores, Other: predominantly strip centres but also includes supermarket based centres, freestanding stores, bulky good stores and other retail centres.
Source: Jebb Holland Dimasi , October 2000

The major implication of these trends is the further dispersal of a growing segment of the retail market away from established centres, and an increase in car-dominated travel that is necessary to sustain them. What is being created are more stand-alone operations or non-integrated strings of development along major roads. There is no sense of place or community in these developments.

Areas of Ongoing Concern and Issues for Further Consideration

The key issues for further consideration arising from this discussion are:

- the policies required to achieve a modal shift from motorised to non-motorised forms of transport to and within activity centres;
- the manner in which new superstore or highway retailing proposals are to be controlled and encouraged to locate in established centres;
- the policies required to ensure that major public institutions such as tertiary educational campuses or hospitals are located in mixed use centres;
- the measures required to improve the attractiveness, safety, liveability and mixture of uses in activity centres so that they provide a stronger sense of place and community, and encourage single destination multi-purpose trips.

4.4 Evaluation of Melbourne and Geelong Centres of Activity

4.4.1 Evaluation Approach

This section provides a more rigorous analysis of the relationship between centres of activity and ESD. The analysis was undertaken using an evaluation framework developed for testing by the Department of Infrastructure and the consultant team. The analysis covered a sample of 26 centres with varied characteristics in Melbourne and Geelong, and then an evaluation of the whole network of centres.

It was important to commence this evaluation at the individual centre level. In contrast to looking generally at the impact of activity centre policy on the sustainability of a broad network of centres, this approach provided a more in-depth appreciation of how different types of centres actually performed according to ESD criteria.

We were interested in carrying out this evaluation for a broad range of centres of activity, in keeping with our expanded definition of this concept. To do this, we looked at shopping and business centres of different sizes, ownership, location in different regions, and with different public transport and non-motorised transport infrastructure and services. We examined a major stand-alone superstore which was part of a string of homemaker shops near a major enclosed shopping centre. We looked at a stand-alone tertiary education campus, a business park, an industrial estate and an airport.

With this approach, we were able to explore the best and worst performance levels in particular centres to highlight improvements that could be made in terms of their particular economic, social and environmental characteristics. In this process, attributes of centres such as the type, role, size, location, mix of uses and activities, and public transport services were assessed for their importance in achieving ESD outcomes.

We then looked at the network as a whole. We were not convinced that the kind of improvements identified from our analysis of the individual centres would necessarily improve all aspects of the network as a whole. A set of additional factors needed to be considered - for example, the overall degree of clustering at centres versus dispersal elsewhere in the system, the pattern of and linkages amongst centres in different regional areas, accessibility arrangements particularly for non-motorised transport throughout the whole network. The questions required a different type of analysis from the one undertaken for the individual centres.

The evaluation approach was derived from the following core objectives in the National Strategy for Ecologically Sustainable Development:

- to enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations
- to provide for equity within and between generations
- to protect biological diversity and maintain essential process and life-support systems.

In order to evaluate individual centres of activity, the Department developed a set of criteria and the consultant team worked up a set of indicators based on these core objectives. The criteria are outcome-oriented and relate to the extent to which a particular centre:

- has a high level of liveability (safety, convenience, comfort, aesthetics);
- increases opportunities for social interaction and provide a community focus;
- contributes to the community's natural, cultural and historical heritage;
- contributes to the economic competitiveness of the urban system;
- promotes urban forms which minimise overall transport requirements;
- improves the efficiency of land supply and infrastructure provision;
- improves freight and business logistics;
- improves accessibility to a wide range of services and facilities;
- improves the economic opportunities for people, business and industry;
- is compatible with adjacent land uses and landscape values;
- improves the diversity of choice available to users and businesses;
- encourages urban transport that limits the depletion of fossil fuels;
- meets the needs of all segments of the population;
- maintains or improve transport choice for all segments of the population;
- promotes energy efficient building design and layout;

- retains and improves natural ecosystems within urban areas and protects the integrity of the natural environment;
- maintains or improves public health;
- limits the waste generated for disposal off-site;
- reduces greenhouse gas emissions.

The criteria and indicators are not a definitive and exhaustive list. It was acknowledged that there were would be debate about the way in which particular measures were expressed, the number of measures (and hence weighting) for each objective, and the inclusion of both quantitative and qualitative measures.

Despite these limitations, the criteria and indicators are considered to be useful examples of the type of things that could be used to measure the degree to which centres are moving towards achieving sustainability outcomes. They provided a concrete and understandable basis for our evaluation. They were a helpful tool, rather than a precise measuring stick, to advance the discussion about the key factors that influence optimal ESD performance in individual centres.

In addition to the list of criteria and indicators, the process of evaluating individual centres using these measures was difficult and challenging. There were concerns about the weighting to be given to the various indicators, and the overall aggregation of results for a particular objective.

Nevertheless, the evaluation of individual centres was undertaken in terms of each performance criteria and indicator, and given a very good, good, fair or poor rating for the three key aspects of ESD – environmental, social and economic sustainability. The assessment was based on the reports, surveys, discussions and focus group meetings undertaken for this project. It was recognised that the information available to draw conclusions for the individual indicators varied considerably, and that in a few cases, there was little information. In the end, we made judgments about the overall environmental, social and economic sustainability of the various centres of activity, based on the information at hand and in consultation with representatives from local government. Priority attention was paid to the issue of environmental sustainability – particularly in relation to reduction in car usage, given its significance within the concept of ESD.

4.4.2 The Evaluation of Individual Centres

The following section presents the evaluation for the 26 different centres of activity in Melbourne and Geelong. The centres selected for assessment are of different size, type (role and mixture of uses), form, location, and ownership with different levels of public and non-motorised transport infrastructure.

The centres fall within five categories:

- Central Activity Areas
- Large Retail and Commercial Centres
- Medium Size Retail and Commercial Centres
- Small Retail and Commercial Centres
- Stand Alone and/or Specialist Centres such as a superstore, tertiary education campus office park, industrial estate, and airport

Table 4.4.2 presents a summary of the key conclusions reached for each centre, with an overall rating provided in terms of its environmental, social and economic sustainability and recommended opportunities for improvement. The detailed evaluation charts for the 26 centres are presented in a separate Working Paper.

Table 4.4.2 Evaluation Results of Individual Centres of Activity

Type of Centre	Example	Key Conclusions	ESD Ratings	Opportunities for Improvement
Central Activity District	Melbourne Central Activities District	• Reasonably strong sustainable economic performance in terms of range and depth of activity mix (retail, commercial, administrative, civic, cultural, housing) and business turnover, although vulnerable to Sydney • liveable urban environment – a distinctive sense of place and extensive opportunities for social interaction, although some social problems such as drugs • good environmental performance in terms of high usage of public transport • weaknesses in energy efficiency and waste reduction practices, although desire by City of Melbourne to improve	Env: good Soc: good Eco: good	• strengthen Capital City role • further prioritise pedestrian movement • redevelopment of the blighted areas (eg. Southern Cross Hotel site, Flinders St. overpass) • further coordinate business activities included extended trading hours • continue program of increasing residential developments which cater for different socio-economic groups • concurrent provision of associated services for residents • pro-active programs to address city drug issues

	Geelong Central Activity Area	• fair economic performance due to reasonable range of goods and services, but of poor quality – its future economic performance is uncertain – 60% of business community in Roy Morgan surveys considered it to be prospering, but only 18% of residents felt that way • a limited economic and social focus - does not perform a major CAD role for Greater Geelong due to competition from suburban centres and lack of a resident population within the Central Activities Area • a very liveable urban environment – a distinctive sense of place, extensive opportunities for social interaction, and an urban character fits in with its surrounding natural and built environment • poor environmental performance particularly because the centre is car-dominated, does not have a coordinated public transport program, and pedestrian and cycling tracks through the centre are limited	Env: poor Soc: good Eco: fair	• develop coordinated public transport program • improve walking and cycling tracks • stronger business mix and changed business attitudes to improve economic competitiveness • higher density housing within the CAA

Large retail, commercial, civic, and entertainment centre in the outer metro area	Dandenong	• mediocre economic performance in terms of range and depth of activity mix (retail, commercial, administrative, civic, cultural, housing) and business turnover • an average urban environment in terms of liveability and a sense of place - dysfunctional urban character in some areas • fair environmental performance in terms of public transport usage because of the location of the railway station interchange on the outer edge of the centre	Env: fair Soc: fair-poor Eco: fair-poor	• strengthening of business mix • better integration of several parts of the centre, particularly the connections from the railway station to the heart of the centre • further streetscape improvements to enhance sense of place • improvements in train and bus services and connections.
Large retail, commercial, civic, educational and entertainment centre in the inner metro area	Footscray	• reasonable range and depth of activity mix (retail, commercial, educational, administrative, civic, cultural, housing activities) • poor economic performance in terms of business turnover - only 28% of business and consumer respondents to Roy Morgan Research indicated that the centre was prospering • fair urban environment in terms of liveability and sense of place – only 45-50% of business and consumer respondents to Roy Morgan Research indicated that	Env: fair-good Soc: fair-poor Eco: poor	• strengthening of business mix and performance • better integration of several parts of the centre, particularly the connections from the railway station to the heart of the centre • further streetscape improvements to enhance sense of place

		centre had a sense of community - social conditions mitigate against extensive interaction, a dysfunctional urban character, social problems such as drugs • fair to good environmental performance in terms public transport usage, although the location of the railway station interchange on the outer edge of the centre and relatively high car usage (78%) mitigates against this		
Large retail, commercial, civic, educational and entertainment centre in the middle metro area	Box Hill	• reasonable range and depth of activity mix (retail, commercial, educational, health, administrative, and cultural activities) • high level of office employment for a suburban centre resulting in greater public transport usage • fair to good business turnover • an average urban environment in terms of livebility and sense of place - dysfunctional urban character in some areas • very good performance in terms of equitable access for the community to public transport and range of services • good environmental performance	Env: good Soc: good Eco: fair-good	• further streetscape improvements to enhance sense of place • better integration of several parts of the centre, particularly the connections from the railway station to both the retail and office precincts • strengthening of retail business mix and performance

		in terms of public transport usage and walking and cycling, although reasonably high car usage		
Large enclosed shopping and entertainment centre in the middle metro area	Chadstone	• strong sustainable economic performance in terms of high trading levels and low vacancy rate • a liveable urban environment – a distinctive sense of place, and extensive opportunities for social interaction – although it does not fit in with its surrounding natural and built environment • car dominance, but 7% of trips by public transport (compared with 16% at Box Hill and 9% at Dandenong) • reasonable environmental performance in terms of energy efficiency and waste disposal, • high level of car fume pollution because of the extent of car usage to the centre • poor pedestrian access into centre	Env: fair-poor Soc: good Eco: v.good	• strengthening of bus services particularly outside main trading periods • higher density housing on edge of centre

Medium-size retail, commercial, civic, and entertainment centre in the inner metro area	Sydney Road Brunswick	• very liveable urban environment – distinctive sense of place, good sense of community, pedestrian-friendly • good economic sustainability in terms of trading performance and mixture of businesses • good environmental sustainability - 33% of trips by walking or cycling, and 7% of trips by public transport	Env: v.good Soc: v.good Eco: good	• strengthening of business mix and performance of some individual businesses, • further streetscape improvements to enhance sense of place, • improvements in train and tram services and connections.
Medium-size retail, commercial, civic, and entertainment centre in the middle metro area	Glenferrie Hawthorn	• good economic performance for size of centre • very liveable urban environment – distinctive sense of place, good sense of community, pedestrian-friendly • good pedestrian access to and within centre	Env: good Soc: v.good Eco: v.good	• strengthening of business mix and performance of some individual businesses, • further streetscape improvements to enhance sense of place, • improvements in train and tram services and connections.
Medium size retail and commercial centre close to public transport in the outer metro area	Bayswater	• fair economic performance – average retail turnover; high vacancy rate • not a significant community focal point • offers a reasonable range of goods and services to all segments of the population • car-dominated centre despite	Env: poor Soc: poor Eco: fair	• containment of the centre to stop the sprawl – more defined edge and new higher density housing developments on the edge, • more intense development within the centre - major redevelopment of underutilised sites including Bayswater Village, improvements to business mix and performance of individual

		railway station being situated on eastern edge of centre • poor in terms of environmental sustainability		businesses, • major streetscape improvements to address issues of amenity, safety, pedestrian connections, and social interactions, • designation of new open space areas and facilitation of more outdoor eating areas, • improvements in train and bus services, and more information and marketing of these services to users of the centre.
Medium size retail and commercial centre not close to public transport in the outer metro area	Melton Shopping and Business District	• reasonable mixture of goods and services, but with limited depth • average retail turnover, but above average vacancy rate • fits in with its surrounding natural and built environment, but does not have a real sense of place Limited opportunities for social interaction – not an intensely liveable urban environment • very limited access to the centre except by car • poor environmental performance in terms of energy efficiency, waste disposal, pollution minimisation	Env: poor Soc: fair Eco: fair	• containment of the centre to stop the sprawl – more defined edge and new higher density housing developments on the edge • more intense development within the centre - redevelopment of underutilised sites, improvements to business mix and performance of individual businesses • major streetscape improvements in High Street and cross streets to address issues of amenity, safety, pedestrian connections, and social interactions • further enhancement of Courthouse Square to create stronger community focal point • improvements to bus services including connections with railway station, and more information and marketing of these services to users of the centre.

Medium size enclosed shopping centre in the middle/outer metro area	Parkmore Keysborough	• reasonable economic performance in terms of trading level and low vacancy rate • comfortable urban environment – with a sense of community focus and safety, and opportunities for social interaction – although it does not fit in with its surrounding natural and built environment • low environmental sustainability because of car dominance, with only 2% of trips by public transport (compared with 16% at Box Hill and 9% at Dandenong), but 14% of trips to the centre by walking	Env: poor Soc: fair-good Eco: fair-good	• improvements to business mix and performance of individual businesses, • improvements to food courts and other meeting areas, • major external landscaping to address issues of amenity, and pedestrian connections – stronger integration with surrounding community, • improvements in bus services particularly connections with railway stations, and more information and marketing of these services to users of the centre.
Medium size retail and commercial centre in Geelong	High Street Belmont	• reasonably good trading position with good number and range of jobs • not an intensely liveable environment – no real sense of place, although some good community facilities • poor environmental sustainability – car dominance	Env: poor Soc: fair Eco: fair-good	• containment of the centre to stop the sprawl – more defined edge and new higher density housing developments on the edge • more intense development within the centre - development of underutilised sites, improvements to business mix and performance of individual businesses • major streetscape improvements in High Street to connect the north and south ends of the centre, and address issues of amenity, safety, pedestrian connections,

				and social interactions • creation of a strong stronger community focal point in centre • improvements to public transport services, and more information and marketing of these services to users of the centre
Small retail and commercial centre in the inner metro area	Union Road Ascot Vale	• not a distinctive sense of place • not a strong sense of community, • not pedestrian-friendly • fair economic sustainability in terms of trading performance and mixture of businesses for size of centre • good environmental sustainability - 33% of trips by walking or cycling, and 7% of trips by public transport	Env: good Soc: poor Eco: fair	• strengthening of business mix and performance of some individual businesses • further streetscape improvements to enhance sense of place and pedestrian-friendliness • more outdoor eating areas to create interest and activity in the street • improvements in tram services and connections with railway station, and more information and marketing of these services to users of the centre

	Hawksburn	• distinctive sense of place • strong sense of community • pedestrian-friendly • good economic sustainability in terms of trading performance and mixture of businesses for size of centre • uncertain environmental sustainability	Env: fair Soc: good Eco: good	• strengthening of performance of some individual businesses • further streetscape improvements to enhance sense of place and pedestrian-friendliness • improvements in tram services and connections with railway station, and more information and marketing of these services to users of the centre
Small retail and commercial centre served by public transport in the middle metro area	Maling Road Canterbury	• distinctive sense of place • strong sense of community • pedestrian-friendly • good economic sustainability in terms of trading performance and mixture of businesses for size of centre • uncertain environmental sustainability	Env: fair-good Soc: good Eco: good	• strengthening of performance of some individual businesses and improved marketing of whole centre • more information and marketing of public transport services to the centre
Small retail and commercial centre not well served by public transport in the middle	Bell Street Mall, West Heidelberg	• fair economic performance – average retail turnover; high vacancy rate • good community focal point • offers a reasonable range of goods and services to all segments of the population • poor in terms of environmental	Env: poor Soc: good Eco: fair	• more intense development within the centre – filling of vacant premises, improvements to business mix and performance of individual businesses • improvements in bus services, and more information and marketing of these services

metro area		sustainability - car-dominated centre		
Small retail and commercial centre served by public transport in the outer metro area	Chelsea	• fair economic sustainability in terms of trading performance and business mix for size of centre • average sense of place and sense of community • fair environmental sustainability – high level of walking to centre; low level of public transport usage; below average car usage.	Env: fair Soc: fair Eco: fair	• strengthening of business mix and performance of some individual businesses • further streetscape improvements to enhance sense of place and pedestrian-friendliness • more outdoor eating areas to create interest and activity in the street • improvements in train and bus services, and more information and marketing of these services
Small retail and commercial centre not well served by public transport in the outer metro area	Tunstall Square	• good economic sustainability in terms of trading performance and business mix for size of centre • good sense of place and sense of community • very poor environmental sustainability – car dominance	Env: v.poor Soc: good Eco: good	• improved bus services and more information and marketing of those services
	Tooradin	• fair economic sustainability in terms of trading performance and business mix for size of centre • very limited sense of place and sense of community • poor environmental sustainability – high level of car usage	Env: poor Soc: fair Eco: fair	• more intense development within the centre - development of underutilised sites, improvements to business mix and performance of individual businesses • streetscape improvements to address issues of amenity, safety, pedestrian connections, and social interactions

				• designation of new open space areas and facilitation of more outdoor eating area • improvements in public transport services, and more information and marketing of these services to users of the centre
Small enclosed shopping centre in the middle/outer metro area or Geelong	Waurn Ponds	• high level of amenity and sense of place in this enclosed centre • strong trading performance – no vacancies in the centre • reasonable number and range of jobs • poor environmental sustainability – high level of car usage	Env: poor Soc: good Eco: good	• improvements in public transport services, and more information and marketing of these services to users of the centre
	Ocean Grove	• good economic sustainability in terms of trading performance and business mix for size of centre • very limited level of amenity and attractiveness • poor sense of place and sense of community • poor environmental sustainability – high level of car usage	Env: poor Soc: poor Eco: good	• improvements to business mix and performance of individual businesses • significant streetscape improvements to address issues of amenity, safety, pedestrian connections, and social interactions • facilitation of more outdoor eating area • major improvements in public transport services, and more information and marketing of these services to users of the centre
Stand alone large retailing outlet	Hardwarehouse Highpoint	• good economic performance in terms of trading level • very poor level of liveability – no	Env: v.poor Soc: v.poor Eco: good	• limited because of the type and form of use

		sense of place or community focus – the outlet does not fit in with its surrounding natural and built environment • very low environmental sustainability because of car dominance		
Stand alone educational institution	Monash University Clayton	• a sense of place with a community focus, although limited to students and faculty • fair environmental sustainability – reasonably high public transport usage, but reasonably high car usage as well	Env: fair Soc: good Eco: good	• more intense development on campus - redevelopment of underutilised sites, • improvements in bus services particularly connections with railway stations, and more information and marketing of these services.
Office Park	Tally Ho, East Burwood	• reasonable economic performance in terms of activity levels from the office facilities in the park • a limited sense of place with no community focus • poor environmental sustainability – high car usage, low energy efficiency	Env: poor Soc: poor Eco: fair	• limited given format of business park • more intense development within the park- major redevelopment of underutilised sites, improvements to business mix and performance of individual businesses • major streetscape improvements to address issues of amenity, pedestrian connections, and social interactions • designation of new open space areas and facilitation of more active outdoor eating and meeting areas • improvements in bus services and connections with railway stations, and

				more information and marketing of these services
Industrial Estate	West Heidelberg Industrial Estate	• fair economic performance in terms of activity levels from the factories and other industrial outlets, although above average vacancy rate • limited range of jobs and facilities • no sense of place • no community focus • very poor environmental sustainability – high truck and car usage, low energy efficiency	Env: v poor Soc: poor Eco: fair	• limited given format of industrial estate • more intense development within the park- major redevelopment of underutilised sites, improvements to business mix and performance of individual businesses • streetscape improvements to address issues of amenity, pedestrian connections, and business interactions • improvements in bus services, and more information and marketing of these services
Airport	Melbourne Airport	• high level of business activity at centre • limited range of jobs and facilities • reasonable sense of place that is attractive and safe for high number of visitors • very poor environmental sustainability – high car usage, limited public transport facilities	Env: v.poor Soc: fair Eco: good	• limited given format of airport complex • more intense business development within the terminal • major improvements in public transport services, particularly a railway connection • more information about and marketing of these services

4.4.3 Comments on Different Types of Centres

Airports

Our examination of Melbourne Airport highlights that it exhibits good economic sustainability because of the movement of passengers, goods and services that it generates. However, its social sustainability, as measured in terms of providing a sense of place and its ability to interact physically with the community, is limited. It is a transient and somewhat alien centre of activity which does not provide an ongoing focus for most of the population on a regular basis. Its environmental sustainability, as measured by its encouragement of non-motorised forms of transport, is very poor because of its high dependence on car and truck usage.

The major opportunities for improvement within this approach are to establish a significant public transport connection in the form of a rail link. A further consideration is to continue to reduce any conflicts between Melbourne Airport and surrounding land uses. Its opportunities to develop as an important community focal point with a lasting sense of place are extremely limited.

From this analysis, it is virtually impossible for airports, compared with other centres of activity, to move towards achieving the full range of ESD outcomes, as envisaged by this framework. This suggests that, in an ESD-oriented centres strategy, airports – as single purpose but economically important activity centres - should be given support to adopt strategies that make them closer to achieving ESD outcomes but without compromising their essential economic purpose.

Industrial Estates

Our analysis of the West Heidelberg Industrial Estate raises similar issues. The Estate has characteristics which are typical of many older style industrial parks in Melbourne and Geelong. Its very high car and truck dependence and low energy efficiency contribute to its low rating in terms of environmental sustainability.

The Estate is a series of largely unintegrated private manufacturing or warehouse operations with no real public domain or community focus. It generates very few person-trips. Its economic sustainability is uncertain with some businesses looking to expand or relocate to other more modern or better situated estates.

The major opportunities for improvement of existing industrial estates in an ESD approach are to:

- encourage further clustering of appropriate new industries to enhance the business mix;
- achieve higher development standards;
- promote more energy-efficient building designs; and

- achieve greater use of modes of transport other than the car through better bus connections.

However, similar to airports, it is very difficult for industrial estates to move towards achieving the full range of sustainability outcomes, as envisaged by this framework. This suggests that industrial estates should be supported by strategies that move them closer to ESD outcomes (as listed above) without compromising their essential economic functions.

New industrial estates that mirror the traditional form exemplified by the West Heidelberg example should be severely discouraged, not only because of ESD considerations but also because of the shift among occupants of these estates to more office and showroom based uses that could locate in other mixed use centres. The location and design of all future estates should be approved only if they meet performance criteria leading to achievement of wider sustainability outcomes.

A possible approach to industrial estates, ports, and airports is the development of the Dutch 'C' location concept outlined in Chapter 2. 'C' locations were designated by the Dutch for warehousing, heavy industry and other freight-intensive activities because they were poorly served by public transport, but well served for freight transport. This concept could be taken further in this centres strategy by outlining development and infrastructure guidelines that result in greater clustering and more public focus within these industrial and transport hubs to enable better sustainability outcomes.

Office Parks

Our examination of the Tally Ho Office Park in East Burwood concludes that it provides only a fair level of economic sustainability because of the type of operations as well as the limited density of development and employment. Its social sustainability as measured in terms of providing a sense of place and public focus is limited. Its environmental sustainability, as measured by its encouragement of non-motorised forms of transport, is poor because of its high dependence on car usage.

The major opportunities for improvement at Tally Ho are to:

- facilitate much more intensive commercial development;
- encourage a greater mixture of uses within the park through major redevelopment of under-utilised sites;
- establish a strong public community focus;
- organise better bus services and pedestrian connections within the centre.

This will be a long term process which will be very resource-intensive. This raises the issue as to whether, from a sustainability point of view, it is better to allow this arrangement of commercial uses in a stand-alone centre of activity, or integrate these activities as part of an established or newly planned business/shopping centre

The overall poor sustainability of the business park in its current form suggests that this type of activity centre should not be allowed to expand unless strategies and actions to move the centre close to ESD outcomes can be demonstrated. Similarly, new business parks should be permitted only if they meet performance criteria leading to achievement of wider sustainability outcomes**.**

Stand Alone Tertiary Education Campuses

Our evaluation included Monash University, Clayton as an example of a stand alone tertiary facility. It concluded that it has a fair overall level of sustainability due to its critical mass of facilities and services and its research and development links with the adjoining Monash Technology Precinct. However, although there is better than average public transport usage to the Monash campus compared to other activity centres, when compared to the other major universities, such as the University of Melbourne, or Latrobe, it has the highest rate of car usage. Tertiary institutions will normally exhibit higher rates of public transport usage than shopping and business centres as many of the people who use them do not drive cars, (for reasons of youth or low income). Their location in relation to public transport services is therefore critical. Even though poorly placed in relation to existing train and tram services, Monash University could still improve its ESD rating in the short term by upgrading bus services, particularly those connecting to railway stations. In the longer term, a direct rail connection serving the campus and surrounding business area would be highly desirable.

Stand alone tertiary institutions are by definition poorly integrated with their surrounding areas. Whilst the larger ones, such as Monash in time generate their own concentration of related activities, smaller campuses such as the VUT campus at Melton, the RMIT campus at Bundoora, the Swinburne campus at Lilydale, and the Monash campus at Berwick remain isolated. Students (and staff) can have a positive economic impact on surrounding retail and commercial areas if they are easily accessible. However these stand alone campuses are poorly integrated and have low environmental sustainability because of their high dependence on cars. It is considered that future campuses of this type should be directed to locate within or adjacent to established or approved mixed use shopping and business centres.

Large Stand Alone Retailing Outlets

Our examination of the Hardwarehouse outlet next to the Highpoint Homemaker Centre. results in a very poor environmental and social sustainability rating. This superstore and its associated string of large homemaker shops does not have any sense of place or community focus. The outlet does not fit in with its surrounding natural and built environment. Access to the superstore is car dominated.

The opportunities for improvement of this situation within this sustainability approach are very limited. There would need to be a major redesign of the wider precinct to achieve a more intense clustering of uses and better integration of facilities to encourage more pedestrian movements and other non-car usage. The prospects for this are limited.

This form of development is similar to the string of often unrelated and unintegrated convenience retailing outlets on main roads and highways. These types of developments also receive a very poor sustainability rating for similar reasons.

The very poor rating and the very limited prospects for improvement indicate that these types of stand-alone facilities or strings of unintegrated developments are the antithesis of the kinds of "activity centres" to which a sustainable centres policy should be oriented. There should be rigorous controls on this form of development. Existing clusters or strings outlets should not be allowed to expand unless strategies and actions to move them closer to ESD outcomes can be demonstrated. Similarly, new development proposals for stand alone facilities or unintegrated strings of peripheral sales development should be not be permitted unless they are redesigned as part of an integrated framework so as to achieve ESD outcomes.

Central Activity Districts

The two different central activity districts in this review – the one for Melbourne and the other for Geelong – received very different ratings in terms of the evaluation framework. This challenges previous assumptions that all centres at the top of the hierarchy in their metropolitan or regional catchment should automatically perform very well in all aspects of sustainability.

The Melbourne CAD did receive a high sustainability rating in terms of the three main indicators. That assessment was based on a combination of factors - a strong sustainable economic performance in terms of the range and depth of activity mix; recognising the extent of competition with Sydney; a very liveable urban environment with a distinctive sense of place, and extensive opportunities for social interaction; and good environmental performance in terms of high usage of public transport. The strengthening 'capital city' role of the Melbourne CAD was built into the framework as an important factor in the evaluation of the centre's economic sustainability.

In contrast, the Geelong CAA, although the most prominent centre in the Geelong region, received a fair rating on most indicators. It has not developed its CAD role to any degree approaching that of Melbourne. Its future economic performance was perceived to be uncertain, although the Geelong Central Activity Area was considered to have a sense of community and a sense of place. And most critically, the linkages between land use and public transport have been poorly developed (despite a new bus port facility) to the point that its environmental sustainability is at a very low level.

The major opportunities for improvement of the Geelong CAA are to:

- facilitate much more intensive retail and commercial development to strengthen its role with respect to suburban and outlying shopping centres;
- implement a comprehensive public transport strategy within the centre.

Other Retail and Commercial Centres

The 19 other retail and commercial centres analysed were of different size, type (role and mixture of uses), form, location, and ownership with different levels of public and non-motorised transport infrastructure. Examples included Dandenong, Parkmore Keysborough, Footscray, Melton, Box Hill, Chadstone, Bayswater, Union Road Ascot Vale, Bell Street Mall West Heidelberg, Maling Road, Waurn Ponds and High Street Belmont.

Most of these centres received only a fair rating on most indicators. Environmental sustainability factors were most critical in this judgment - car usage to the centre was usually high and public transport usage or walking/cycling was usually low. In addition, for several centres, there was not an attractive sense of place nor a buoyant sense of economic sustainability.

Sydney Road Brunswick in Melbourne's inner north received a very good rating. Glenferrie Hawthorn in the inner eastern suburbs followed behind, as did Box Hill.

Box Hill received a good environmental performance in terms of public transport usage and walking and cycling, although it exhibited relatively high car usage. The high proportion of public transport trips is caused in part by the high level of office employment and associated high level of office space in its business mix. However, the centre was considered to have only an average urban environment in terms of liveability and sense of place with somewhat of a dysfunctional urban character in some areas. And, although it had a very good range and depth of activity mix (retail, commercial, educational, health, administrative, and cultural, activities), it was not perceived to have a first class economic performance.

Chadstone performed well in terms of economic and social sustainability indicators, but was fair to poor in environmental sustainability because of its car dominance.

Dandenong was given a lower than expected rating on its environmental sustainability because it has generated lower levels of walking and public transport usage. This is most probably explained by the location of the railway station on the periphery of the centre, and conditions in the centre which do not make it pedestrian-friendly.

In contrast, the much smaller centre of Glenferrie Hawthorn received a good to very good rating on all counts because it not only has a good economic performance for its size of centre, but importantly a distinctive sense of place, a good sense of community, and pedestrian-friendly environment which has encouraged walking to and within centre, as well as relatively high public transport usage.

4.4.4 Summary Evaluation of Individual Centres

From our evaluation, the key variables emerging that influence sustainability performance at the individual centre level question some of the assumptions behind previous centres policies. They do not relate exclusively to the role (ie, regional, sub-regional or neighbourhood centre) or size of the centre, or its perceived position in a 'hierarchy' of centres.

The critical determinants have much more to do with whether the centre and its surrounding area had a particular urban form, mix of uses and transit arrangement that encouraged low car use, high levels of walking, cycling and public transport usage, and encouraged high levels of social interaction.

Centres with all forms of public transport, but particularly a centrally located railway station, and frequent services, performed better. Centres in higher density urban areas, which are well integrated with their surroundings, performed better. Centres with a strong mixture of uses and activities generating a high level of business activity, as well as multi-purpose trips, performed better. Centres with a compact form which are easy to walk around, and which provide safe, pleasant and inviting public spaces allowing opportunities for social interaction, performed better.

The desirable form arising from our evaluation is a mixed-use, pedestrian friendly, transit-oriented centre that has a distinctive sense of place and community and is integrated with surrounding areas.

Specialist centres we have examined such as airports, industrial estates, and, to a lesser extent, business parks, and stand alone tertiary education campuses have difficulty fitting entirely into this desirable form. Whilst they did not achieve a high sustainability rating, these centres are necessary and could achieve better sustainability outcomes with appropriate strategies in place. Measures should be developed to enhance the concentration of activity in these centres and to encourage urban forms that facilitate a reduction in motorised trips to and within them.

Other clusters of activity, such as stand alone superstores and strings of highway retailing, should be curtailed. Future such developments should be subject to a process, similar to the UK PPG6 approach outlined in Chapter 2, where they are directed in the first instance to locate within or on the edge of existing mixed use transit-oriented centres. Only if a suitable site cannot be found here to the satisfaction of the responsible authority, can the developer of such superstores, either individually or in clusters, be allowed to establish in an out-of-centre site. Even in this circumstance, though, the developer must demonstrate a commitment to enhance the sustainability of the development area and associated transit arrangements in this location before development approval is given.

4.5 Evaluation of the Overall Network of Centres

4.5.1 Network Evaluation

This section of the report evaluates the overall network of activity centres in Melbourne and Geelong, drawing on the core objectives of the National Strategy for Ecologically Sustainable Development.

Within this framework, the key underlying principle for the network is the increased clustering of uses at established or planned centres rather than dispersal of activity to new stand-alone locations. The desired metropolitan pattern is:

- a dense network of both major transit oriented centres and neighbourhood centres;
- a strong Melbourne CAD.

Desired characteristics of the network are:

- diversity in the type and scale of centres;
- a range of viable and vibrant retail and commercial centres that enhance the economic competitiveness of the network;
- a multitude of compact, attractive and pedestrian-friendly centres with a real sense of place;
- a range of centres capable of creating a better mode split in favour of public transport;
- a myriad of centres in the various regions generating local trips by walking or cycling rather than by car, and reduced car trips overall.

Our evaluation of the network required a level of analysis that was different from the analysis undertaken for the individual centres. The issues of the overall metropolitan urban form (settlement pattern and activity centres) and transport connections, as well as regional variations were more critical at this level.

4.5.2 Conclusions From The Evaluation – Desired Metropolitan Pattern

The results of the evaluation in terms of the desired metropolitan pattern are as follows:

Dense Network of Both Major Mixed Use Transit Oriented Centres and Neighbourhood Centres

The performance of the network of centres in Melbourne and Geelong in providing a dense configuration of both major mixed use transit oriented centres and neighbourhood centres is only fair.

With respect to major mixed use centres, an extensive pattern of existing or potential transit-oriented centres has been set across the metropolitan area. However, most of

these centres are predominantly shopping centres with a limited mixture of other uses. The transit orientation of many of these centres is weak. For example, major centres in middle and outer areas such as Bayswater, Dandenong, Greensborough and Sunshine have rail stations or bus facilities that are located on the periphery of the centre. Many other centres have extensive car parking areas within and around the main shopping centre. This has reduced the transit orientation of these centres as well as the performance of particular parts of the metropolitan transit network.

Many major non-retail centres such as stand alone office parks, tertiary education campuses and hospitals are neither mixed use, nor transit oriented.

In addition to their single use orientation, the density of major transit-oriented centres in the network varies considerably between different parts of Melbourne. The inner areas have a very dense network of mixed use transit-oriented centres. The compactness of urban form and the extent of fixed rail and tram facilities have created a mass of overlapping and diverse centres in these areas. The density of the network decreases as one moves out from the inner areas. This is most pronounced in the western suburbs, and the outer eastern and south-eastern regions of Melbourne.

In the western suburbs, the settlement pattern, lack of tram lines, limited number of rail lines, and extent of industrial areas have created a sparse configuration of major mixed use transit-oriented centres. The growth of Highpoint, the more recent development of enclosed shopping complexes in Brimbank, Melton and Wyndham, and the establishment of stand-alone tertiary educational institutions and hospitals have weakened the network here.

In the outer eastern and south-eastern suburbs, the low density subdivision patterns, the location of more centres along major roads rather than next to rail stations, and limited connecting bus services have created a scattered network of mixed use transit-oriented centres. The strength of the network in these areas has been further undermined by the proliferation of stand alone superstores, clusters of big box retailing along major highways, tertiary education campuses and major hospitals at locations removed from mixed use or transit-oriented centres.

What is needed to improve the density of major mixed use transit oriented centres is not only stronger controls over these private and public stand alone uses so that they are channelled into transit oriented centres, but also facilitation of a greater mixture of uses – particularly office development – in established retail centres to encourage multi-purpose, single destination trips and reduction of trips overall. There also is a need for limits on, and redesign of, car parking areas in shopping centres combined with improved public transport interchanges to enhance the transit orientation of major centres.

With respect to neighbourhood centres, there is dense network of these centres in Melbourne's inner areas and, in the northern, eastern and southern regions as far out as about 15 kilometres from the CAD. The density of the network decreases considerably beyond that point. In inner and middle areas, there is a strong correlation between the

density of the network and type and extent of public transport facilities. The network is more dense where there is a more intense configuration of railway lines and tram routes.

The network is weakest in the outer metropolitan areas of Casey, Wyndham and Melton as well as the outer suburbs of Geelong. The removal of, or low priority given to, neighbourhood centres in municipal plans, increased emphasis on larger retail centres, and changes in the business mix of some neighbourhood centres including the closure of 'anchor' businesses such as supermarkets and banks have contributed to a weakening of the network in these areas.

What is needed to improve the network of neighbourhood centres in middle and outer areas of Melbourne and Geelong is a stronger commitment by developers, property owners and local government to incorporate this scale of centre in the municipal structure plans and new subdivision designs.

Strong Melbourne CAD

The performance of the network in providing a strong Melbourne CAD is very good.

The CAD has continued to be the main focus for higher order business, entertainment, cultural and tourism facilities. It still has the largest retail area of all centres in the metropolitan area. Its office-based activities are increasingly focused on national and international markets rather than just the greater Melbourne region or Victoria. Employment growth in the 'new economy' has a particularly strong base in the CAD. Its capital city role has been strengthened, enhancing its competitiveness. No other centre in the metropolitan area has the size, or provides the range and depth of infrastructure and services, or is as accessible by public transport.

The CAD has maintained this predominant focus within the metropolitan network because of its quality physical environment; extensive public transport, sports and cultural infrastructure; critical mass of higher order shopping facilities; concentration of national companies and relatively inexpensive office rentals; and availability of land and associated infrastructure at the nearby Southbank and Docklands areas for major new development. The growing importance of the broader central city region also has strengthened the position of the CAD.

There continue to be strong synergies between the CAD and other parts of the metropolitan area. The radial tram networks in the inner areas and the train networks extending to outlying and growth areas have developed those linkages and enhanced the transit sustainability of the metropolitan system. Maintaining the unique and predominant role of the CAD has been critical to the overall network.

Despite its established strengths, there continue to be pressures on the CAD. The growth in suburban retail floorspace, particularly at major "regional" shopping centres, has challenged its retail role and reduced its share of metropolitan retail turnover. The suburbanisation of back-office functions; the establishment of new corporate head offices

in traditional centres, along major suburban roads or in suburban office parks; and the development of suburban technology-oriented precincts near suburban university campuses has had some impact on the strength of office activity in the CAD.

To a large extent, the CAD has met these challenges. The continuous development of new retail and entertainment niches has sustained a reasonably strong retailing role in the CAD. The enhancement of Melbourne's capital city role has had positive spin-off effects for the maintenance of the CAD as the major employment focus in the metropolitan area. Associated with that, the CAD has maintained its position as the predominant location for national and international companies.

The Melbourne CAD, therefore, plays a critical role in shaping the form and scale of activity centres in the metropolitan network. For these reasons, the Melbourne CAD needs to continue to be targeted for special attention, particularly to sustain its competitiveness within the national economy.

4.5.3 Conclusions From The Evaluation – Desired Characteristics of the Network

The results of the evaluation in terms of the desired characteristics of the network are as follows:

Diversity in the Type and Scale of Centres Throughout the Network

The performance of the network in providing diversity in the type and scale of activity centres throughout Melbourne and Geelong is good, although there are weaknesses.

In a general sense, there is a good spread of retail, commercial, and industrial centres as well as tertiary education institutions and hospitals across the metropolitan area.

Most centres in the network are retail-oriented, so it is important to assess the distribution of different forms and types of shopping centres across the network. The very large "regional" shopping centres (with floorspace greater than 50,000 square metres) in Melbourne and Geelong are spread throughout the network in a manner consistent with population levels in the different regional areas. There are 14 in Melbourne's eastern and south-eastern suburbs; four in the northern suburbs; and three in the western suburbs. Each part of Melbourne and Geelong has reasonably good access to "regional" centres with different types of shops (department stores, discount department stores, speciality shops, superstores, small convenience shops) as well as centres having different physical forms (eg, traditional strip or nodal centres, enclosed shopping complexes).

Similarly, there is a reasonably good spread of the 150 or so "sub regional" shopping centres (with floorspace greater than 10,000 square metres) across Melbourne and Geelong. There are variations in the form of these larger centres among the different regional areas. In the central and inner east and southern regions, they are largely

traditional open air centres organised in a strip or nodal format. By comparison, in the western region and outer suburban areas of Geelong, the balance favours enclosed shopping complexes. Melbourne's middle and outer eastern and southern areas have a balanced mixture of traditional centres, enclosed complexes, and hybrid arrangements of both. In parts of the network where there is not a good distribution of particular types of centres - particularly traditional centres, greater efforts need to be taken to enhance the retail business mix, business performance and centre management of the relatively few traditional centres that do exist.

With respect to neighbourhood shopping centres consisting generally of a supermarket and/or a small group of convenience-oriented shops, there is a dense configuration of these centres in the northern, eastern and southern areas of Melbourne within about 15 kilometres of the CAD. By comparison, the inner western area has a much sparser arrangement. Further out, there are major gaps in the availability of neighbourhood shopping centres particularly in newer residential suburbs in municipalities such as Casey, Wyndham and Melton, and in areas dominated by larger enclosed shopping complexes. To overcome this deficiency in the network, there is a need for a stronger pro-active approach by retail developers, property owners and local government to provide and strengthen neighbourhood retail centres as an integral part of the development pattern of middle and outer areas of Melbourne and Geelong.

In contrast to shopping centres, the overall metropolitan network has a limited number of office-oriented activity centres. This is primarily because of the very high concentration of office activity in the Melbourne Central City. Most suburban office development is in the form of small shopfront offices in traditional retail-oriented centres where the office component constitutes no more than 30% of the total floorspace of the centre. There are few medium sized or large corporate offices in traditional centres. There are very few offices uses within or adjacent to enclosed shopping complexes.

Box Hill, Prahran/South Yarra, Kew Junction, Camberwell Junction, Dandenong, Cheltenham, Frankston and Moonee Ponds are the only traditional centres outside the Melbourne's central region which provide a relatively high proportion of office floorspace. All of these centres except Moonee Ponds are in Melbourne's east and south east. Of all the centres, Box Hill is the only traditional suburban centre in the metropolitan area with a higher office to retail floorspace ratio.

In the last 15 years, the growth of office parks such as Tally Ho and the Monash Technology Precinct has been a new development in the metropolitan network. These parks are predominantly single purpose activity centres, although some have a few leisure amenities. Furthermore, they are concentrated in only a few parts of suburban Melbourne – particularly the middle and outer eastern and south-eastern suburbs.

There is a lack, therefore, of a significant level of office activity compared to retailing throughout most of the network of Melbourne's suburban centres. This has reduced the range of jobs and services provided in these centres. It also has diminished the sustainability benefits that would accrue from having more mixed use business-oriented

centres.To deal with this problem, there is a need for tighter controls on new stand-alone office parks as well as on the conversion of industrial estates into office parks. Many of the offices in these parks could be located effectively within traditional centres. A further action is take a more strategic and targeted approach, through centre structure plans and development facilitation, to attract new types and higher densities of office development in traditional centres.

There is a reasonably good distribution of industrial estates in the western, northern, outer eastern and south-eastern parts of Melbourne and in outer areas of Geelong. However, as discussed earlier, most estates do not achieve high sustainability outcomes. To improve the network requires improvements in the performance of individual estates. This involves encouraging further clustering of appropriate new industries to enhance the business mix; achieving higher development standards; promoting more energy-efficient building designs; and providing better bus connections to achieve greater use of modes of transport other than the car.

There is a reasonably good spread of tertiary education institutions and hospitals across Melbourne and Geelong. However, there are significant differences in the way these facilities are integrated with other activity centres.

In the central area of Melbourne and to a much lesser extent in Geelong, there is a dense concentration of tertiary education institutions and hospitals. Almost all of these facilities are integrated with larger retail and commercial activity centres and are close to public transport facilities.

In the inner and middle suburban areas of Melbourne, there is a more limited and dispersed arrangement, as well as an even split between those facilities that are integrated with or on the edge of other centres, and those that are quite removed. Box Hill Hospital, the Austin and Repatriation Hospital at Heidelberg, the VUT campus at Footscray, Swinburne University at Glenferrie/Hawthorn and Windsor, and Holmesglen TAFE are examples of facilities that are reasonably integrated with retail and commercial centres. Footscray Williamstown, Caulfield General, Sandringham, and Dandenong Hospitals, as well as LaTrobe University, Kangan Batman campus at Coburg, Monash University at Clayton, Deakin University campuses at Burwood and Clayton, and Chisholm Institute of TAFE's campuses at Moorabbin, Dandenong, and Bonbeach are examples of single purpose, stand-alone activity centres.

In the outer areas of Melbourne, there is not only a more limited provision of tertiary education and hospital facilities commensurate with the population base, but an increased dispersal of these facilities away from transit-oriented retail and commercial centres. All the major hospitals – Sunshine, Mercy (Werribee), Northern (Epping), Maroondah, Angliss, Knox, Frankston, Mornington Peninsula (Rosebud West) - are situated on stand-alone sites which are car-oriented. Eighty-five per cent of the tertiary education campuses in Melbourne's outer regions are isolated from major retail and commercial centres as well as public transport nodes. The only campuses that are integrated to any

extent with mixed use transit oriented centres are the Chisholm TAFE campus at Frankston, the Swinburne campus at Healesville, and the VUT campus at Sunshine.

Improvements in the network of tertiary education campuses, hospitals and other major community facilities require that this type of activity centre be directed to locate within or adjacent to established or approved mixed use transit oriented centres.

Range of Viable and Vibrant Retail and Commercial Centres Throughout the Network

The performance of the network in providing a range of viable and vibrant retail and commercial centres is good, although there are pressure points.

The extent of viable retail and commercial centres in metropolitan Melbourne and Geelong is affected by both characteristics within individual centres, as well as conditions within the overall network of centres.

With respect to the characteristics within individual centres, the viability of the network is determined to some extent by the business mix, vacancy rate, centre management, marketing, and overall business performance of centres. Individual centres throughout the network go through cycles of expansion and decline. Most centres in Melbourne and Geelong have re-positioned themselves over time in the face of changing socio-economic circumstances within their catchment areas. Some have undergone considerable extensions; others have developed a more specialist retailing niche; others have moved towards a lifestyle and entertainment focus; while others still have changed from a traditional retail focus to more of an office centre providing business services. The results of this evolution generally have been that individual centres have become more competitive and able to survive.

In the process, very few centres have died. Unlike in other parts of the world where individual centres are abandoned when they are in decline, this has not happened in Melbourne. Rather, there has been a determination among key players – owners, business operators and local government - to keep working on the business mix, management and marketing of centres so that they change and improve. The past track record of these players in facilitating a continuous evolution in the form and role of individual centres provides a strong indication that this will continue in future. These forces within individual centres have had, and will continue to have, a positive effect on the viability of the whole network.

There are considerable variations in the viability and vibrancy of different parts of the network in Melbourne and Geelong. We have not undertaken a thorough analysis of these differences, and how they affect the network as a whole. Rather, we offer some general observations about the overall network. Firstly, Melbourne has a very large number of established retail and commercial centres for its population base. Over the years, there has been considerable improvement in the range of goods and services provided in centres throughout the network. New forms of retailing – concept stores,

factory outlet stores, entertainment-based shopping - have been established at many centres throughout the network.

The viability and vibrancy of the network are affected by the degree of competitiveness and complementarity among retail centres in different areas. Where there is a stronger balance between, for example, enclosed shopping complexes and traditional strip centres, people are provided with a better range of shopping experiences. In the western suburbs, the growth of enclosed shopping centres within a sparse network of both large and small traditional strip centres has had a greater adverse effect on the viability of traditional centres in the network than in other regions of Melbourne where there is a more equal balance.

The main pressure point on the viability of the network of centres is the extent of retail and commercial development outside of centres – particularly in the form of large stand alone developments (eg, corporate offices), strings of superstores along main roads, and clusters of highway convenience retailing. These developments are continuing to occur particularly in the middle and outer areas of Melbourne and Geelong, and are affecting the performance of established centres in the network.

What is needed to improve the network is to discourage these forms of development completely. Corporate offices, superstores, and other forms of "big box" retailing encouraged to locate within or adjacent to major suburban centres.

Multitude of Compact, Attractive, Safe and Pedestrian-Friendly Centres with a Real Sense of Place

The performance of the network in providing a wide range of centres which have a high degree of attractiveness and liveability in terms of safety, convenience, comfort and aesthetics is fair.

Generally speaking, many of the larger centres do not have a distinctive sense of place. The built form is poorly presented. New development has occurred in an ad hoc manner and is not integrated fully with the rest of the centre. Rather than achieve a compact and legible urban form, these centres have grown in a haphazard and elongated manner with few community focal points and few pedestrian connections between different parts of the centre. The internal spaces of some of the larger shopping complexes have dealt more effectively with these issues, although there is a concern about the "sameness" of many of these centres. Most of the larger centres are car-dominated. A few of the larger centres having a high degree of liveability include Sydney Road Brunswick, Brunswick Street Fitzroy, Niddrie, Chapel Street, High Street Armadale, Church Street Brighton, Bentleigh, Camberwell Junction, Chadstone, Glen Waverley, Mornington, and Frankston.

Medium sized and neighbourhood centres in the network often perform better because their size enables them to create more of an attractive and workable "urban village". A few examples of well performing centres on this scale include Acland Street Fitzroy,

Templestowe Village, Montmorency, Mt Waverley, Tunstall Square East Doncaster, and Maling Road Canterbury.

Improvements in the network depend on improvements in individual centres. In each centre, there is a need for an overall urban design framework. Attention must be paid to pedestrian connectivity and improvements in the pedestrian environment. Proper streetscape design is needed with emphasis on footpath treatments, lighting, pedestrian crossings, street tree planting, weather protection features, and special features such as public art and gateway treatments. Treatment of the public realm is a priority including integration of street systems, access to as well as availability, definition and safety of open space areas. Car parking needs to be attended to including reduced parking requirements, sharing of facilities, access arrangements, the design of parking structures, and relationships with transit operations. Compatibility between existing and new uses, transitions in scale between new development and the existing fabric, impacts on the existing physical character of the surrounding area also need to be considered.

Range of Centres Capable of Creating a Better Mode Split In Favour of Public Transport

The performance of the Melbourne and Geelong network in providing a range of activity centres capable of creating a better mode split in favour of public transport is poor.

Only a small handful of activity centres in Melbourne has a proportion of public transport trips made to them that is higher than the Melbourne average of 5%. These centres are generally large retail and commercial centres such as Footscray, Chapel Street Prahran, Brunswick Street Fitzroy, Fitzroy Street St Kilda, Camberwell Junction and Sydney Road Brunswick that are within about 10 kilometres of the Melbourne CAD. For Box Hill, which is outside this radius, the high proportion of public transport trips also can be explained by the high level of office activity in its business mix and the tertiary education facilities.

In addition to being large mixed use centres, the top three centres outside the CAD - Footscray, Box Hill and Sunshine - have significant modal interchanges. The remaining centres have not only a mixture of uses, but also dense settlement patterns and transit facilities which are at a focal point within the centre – either a tram line along the length of the centre or a rail with tram and/or bus interchange in the middle of the centre.

Many mixed use centres within the inner areas of the metropolitan network of centres are capable of creating a better mode split in favour of public transport. The situation is not as optimistic for middle and outer areas. What is needed to create a better modal split in favour of public transport in these areas is an increased mixture and density of uses – particularly a much higher proportion of office activity; significant modal interchanges or at least connection of major centres on a metropolitan public transport network with improved range and frequency of services; and increased housing densities within and around centres.

Myriad of Centres in the Various Regions Generating More Local Trips by Walking or Cycling Rather Than By Car and Reduced Car Trips Overall

The performance of the network in providing a range of activity centres in the various regions of Melbourne and Geelong generating more local trips by walking or cycling rather than by car, and reduced car trips overall is poor.

Only a small handful of activity centres in Melbourne has a proportion of walking trips made to them that is higher than the Melbourne average of 16%. Most of these centres are larger strip centres in the inner suburbs such as Fitzroy Street St Kilda, Acland Street St Kilda, Lygon Street Brunswick, and Sydney Road Brunswick where the density of urban form and degree of permeability contribute to this result.

Many within the dense network of large and small centres in Melbourne's inner areas have the potential of generating more local trips by walking or cycling and thereby reduce car trips overall. The situation is not as optimistic in middle and outer areas. What is needed to change this situation so as to create more walking and cycling trips is a redesign of subdivisions around retail and commercial centres, embracing the principles embodied in " new urbanism", to encourage less car usage to centres, more higher density housing within and adjacent to centres, and better pedestrian and cycling connections to and within centres.

4.5.4 Opportunities for Improvement

The performance of the overall network of activity centres can obviously be improved by improving its individual components. The achievements of the high performing centres can be used as a benchmark for the lower performing centres to work towards. Thus, if it is possible for Box Hill to achieve 16% public transport usage, then it should be possible for other centres in the metropolitan area to do likewise. The task is then to identify the key elements which contribute to a centre's higher level of sustainability and replicate them elsewhere.

The key factors are based around the concept of a mixed use transit-oriented centre and include:

- a mixture of jobs and services in order to enable and encourage multi-purpose trips and thus cut down on time and energy used in travel;
- availability of public transport services, and for largest centres with the highest trip generation, integrated transit services with intermodal interchange facilities;
- a compact and integrated urban form within a centre;
- higher density housing within walking distance of a centre;
- an attractive and functional physical design contributing to a sense of vitality and a sense of place;
- pleasant and safe walkways and public spaces encouraging pedestrian movement and social interaction;
- appropriate/not excessive car parking arrangements.

4.5.5 Improvements in Overall Metropolitan Pattern of Centres

However, it is equally important to make strategic improvements to the overall network. The key factors from our network analysis with respect to the desired overall urban form are:

- creating a dense network of both major transit oriented centres and neighbourhood centres;
- maintaining a strong Melbourne CAD.

Creation of A Dense Network of Major Transit Oriented Centres

With respect to developing a dense network of major transit oriented centres, a key opportunity for improvement would be stronger control of travel-intensive development throughout the metropolitan area so that it does not occur outside of these types of centres. This applies particularly to office complexes generating significant new employment, new retail developments such as clusters of superstores along major roads, and major stand-alone education, health and entertainment complexes.

Another opportunity consists of more stringent regulations to severely limit the number of new office parks or industrial estates. The larger number of smaller firms that are likely to emerge in the "new economy" could be accommodated just as well in established centres rather than in stand-alone office settings.

In addition to these controls, more positive programs or incentives could be provided to achieve greater concentration of activity in existing centres throughout the network. At regional levels, strategies could be developed by the public and private sectors to optimise the role and mix of centres in a particular region to enhance the competitive strengths of each centre while reducing overall trips by car. A series of sub centres in each region could be identified to which particular commercial development and community infrastructure would be encouraged or directed. An appropriate public transport system could be developed to focus on and connect these centres to one another.

A targeted focus also could be applied at a critical centre(s) along Melbourne's radial fixed rail networks so as to enhance the sustainability of outlying and growth areas as well as the Melbourne CAD. This could be done through priority to a second CAD or a small number of major mixed use transit oriented centres in Melbourne's middle or outer areas.

The first option is not preferred. Melbourne, unlike other cities with twin CBD's, has evolved around a very large and dominant CAD with a plurality of middle-order centres at key points along its radial rail lines and at key points along major roads. This has been integral to the strength of the metropolitan network. In this context, it would be very difficult to establish one of the existing suburban centres, or create a new centre, as the second CAD.

The preferable alternative would be to target a small number of existing or potential transit oriented centres to act as suburban demonstration projects, creating the conditions for a major mode shift to non-motorised travel. This approach could have important spin-off benefits to other nearby centres in the network.

Supportive transport policies are essential to create this dense network of transit oriented centres. These policies must focus on provision of high-quality, integrated public transport services connecting the centres to their regions and the central areas of Melbourne and Geelong. There also is a need for limits on, and redesign of, car parking areas in throughout the whole network of shopping centres to enhance the transit orientation of major centres.

Creation of A Dense Network of Neighbourhood Centres

The network could be improved with an increased range of viable neighbourhood centres particularly in outer areas, so as to encourage shorter motorised trips or more trips on foot or bicycle.

The opportunities to achieve this relate partly to the redesign of existing and new subdivisions. They also could involve revitalisation of existing neighbourhood centres in decline through structure plans or business plans, so that they are able to effectively provide local goods and services in the face of competition from expanding major shopping centres that serve a wider catchment.

Maintenance of a Strong CAD

The Melbourne CAD needs to continue to be targeted for special attention, particularly to sustain its competitiveness within the national economy.

4.5.6 Improvements in Key Characteristics of the Network

From our network analysis, key characteristics of the network also need to be improved. These relate to:

- establishing greater diversity in the type and scale of centres throughout the network;
- creating a range of viable and vibrant retail and commercial centres that enhance the economic competitiveness of the network;
- developing a multitude of compact, attractive and pedestrian-friendly centres with a real sense of place;
- providing a range of centres capable of creating a better mode split in favour of public transport;
- establishing a myriad of centres in the various regions generating local trips by walking or cycling rather than by car, and reduced car trips overall.

The key opportunities for improvement to these characteristics are:

- tighter controls on new stand-alone office parks as well as on the conversion of industrial estates into office parks;
- a more strategic and targeted approach, through centre structure plans and development facilitation, to attract new types and higher densities of office development in traditional centres;
- location of tertiary education campuses, hospitals and other major community facilities within or adjacent to established or approved mixed use transit oriented centres;
- significant modal interchanges, or at least connection of, major centres on a metropolitan public transport network with improved range and frequency of services;
- a redesign of settlements or new subdivisions around retail and commercial centres, embracing the principles embodied in " new urbanism", to encourage less car usage to centres, more higher density housing within and adjacent to centres, and better pedestrian and cycling connections to and within centres.

4.6 Conclusions

Our evaluation of the 26 different types of centres in Melbourne and Geelong, as well as the overall metropolitan network, has provided new insights into the key variables influencing sustainability. Our conclusions are that these variables do not relate as much as previously thought on maintaining a hierarchy based on the role or size of centres. The critical determinants have much more to do with whether the centre and its surrounding area have a particular urban form, mix of uses and transit arrangement that encourages low car use, high levels of walking, cycling and public transport usage, and encourages high levels of social interaction.

The optimum centre for achieving sustainability outcomes is a mixed-use transit-oriented centre whether it operates at a large or small scale. How to develop and sustain this type of centre in different parts of the metropolitan area is the key issue, especially given market and consumer trends.

Specialist centres such as airports, industrial estates, and, to a lesser extent, business parks, and stand alone tertiary education campuses have difficulty fitting entirely into this desirable form. However, these centres could achieve better sustainability outcomes with appropriate strategies in place. Measures should be developed to enhance the concentration of activity in these centres and to encourage urban forms that facilitate a reduction in motorised trips to and within them.

Other centres of activity, such as stand alone superstores and strings of highway retailing, should be curtailed. Future such developments should be subject to a process, similar to the UK PPG6 approach outlined in Chapter 2, where they are directed in the first instance

to locate within or on the edge of existing mixed use transit-oriented centres. Only if a suitable site cannot be found here to the satisfaction of the responsible authority, can the developer of such "centres of activity" be allowed to establish in an out-of-centre site. Even in this circumstance, though, the developer must demonstrate a commitment to enhance the sustainability of the development area and associated transit arrangements in this location before development approval is given

This evaluation of the overall network of centres highlights the direction for future policies. The overall aim of such policies should be to develop a vibrant network of mixed use transit-oriented centres with an integrated sense of place and community throughout the metropolitan area.

Strategies to achieve that objective arising from our network evaluation include:

- using a standardised ESD evaluation framework for all proposed changes in existing centres as well as new development proposals, to control the dispersal of major uses outside of centres throughout the metropolitan area as well as improve the condition of existing centres throughout the network so that they move towards achieving better ESD outcomes;
- developing a number of significant mixed use, transit-oriented centres at strategic points in the outer areas of metropolitan Melbourne (including Geelong) along the radial rail network to achieve a significant shift in transport mode, as has already occurred at Box Hill, towards non-motorised transport;
- developing a network of strong neighbourhood centres particularly in middle and outer areas to achieve a stronger sense of community for an aging society;
- maintaining the predominance of the Melbourne CAD within the network;
- facilitating an appropriate level and scale of higher density housing within or adjacent to all activity centres.

These issues are taken up in the next chapter.

Chapter 5 Activity Centre Policy Directions and Implementation Mechanisms

5.1 Introduction

The previous chapters have considered centres policies in Melbourne and other cities, and the current distribution of activity centres in Melbourne and Geelong, from the standpoint of Ecologically Sustainable Development. This chapter examines the policy issues arising from that evaluation, suggests a preferred policy approach and outlines possible implementation measures.

5.2 Policy Issues

The preceding analysis has raised the following key policy questions:

- Should the Government's Metropolitan Strategy focus on clusters of activity? What is special about clusters? What kind of clusters should be the subject of policy?
- Should encouragement be given to further clustering? Should clustering apply to all or specific activities? Should diversity and mixed use be a goal for all clusters?
- Should the clustering policy be expressed in terms of a classification or hierarchical framework of centres?
- If not, what are the key areas of a centres policy that are essential to achieve better sustainability outcomes?
- What kinds of clusters, if any, should receive special attention or targeted effort?
- In what way should Government policy contain activities outside of centres so as to curtail dispersal?
- Should policy facilitate the clustering of particular uses such as higher density housing within or adjacent to centres?
- In what way can policy help to sustain the robust and evolving pattern of centres throughout the metropolitan area?
- How should policy deal with critical performance gaps in the metropolitan network of centres?
- Does policy need to ensure that the Melbourne CAD continues to be the predominant focus in the network of centres?

This section provides a response to those issues.

5.2.1 Approach to Clustering – Centres Policy Versus No Centres Policy

Our analysis concludes that the clustering of activity at points throughout the metropolitan area is essential for the sustainability of Melbourne's urban structure. Clustering provides a stronger basis for economic growth. It creates opportunities for the more efficient distribution of goods and services. It increases the potential for the exchange of ideas and other synergies among businesses with spin-offs for business development. This increases the likelihood of new products and services being developed. It also increases the potential for new job creation. Clustering adds to the competitiveness of the metropolitan and Victorian economy.

Clustering also provides an important focus for communities. It creates increased opportunities for social interaction. It enhances the prospects for creating a 'sense of place' within communities. There is more potential within clusters to co-ordinate public and private development for the wider benefit of the whole public realm.

Clustering also provides greater opportunities for integrating land use and transport with important environmental benefits. The prospects for single destination, multi-purpose trips increase. The opportunities to reduce trips by motorised private transport increase if the clustering of activities occurs at key public transport nodes. This increases the prospects of improved air quality and reduction in greenhouse gas emissions.

With clustering, the potential for those without a car to access jobs and services increases. Access to goods and services becomes more equitable among all sections of the community.

Clustering results in a more efficient use of land for individual activities. There are greater prospects for the shared used of facilities and spaces. Not as much overall car parking is required and less energy is consumed with a clustered urban form.

From our analysis, further clustering should apply to most forms of activity. The key exception highlighted in this review is where there are little prospects of access other than by car. This applies to the increasing number of isolated locations with one or two large stand-alone retail or office developments, or with the strings of unintegrated superstores or highway retailing outlets. This promotes unsustainable travel patterns, marginalises people without cars and demands ongoing investment in road infrastructure and maintenance. Further clustering of activity in these types of dispersed and disconnected situations should be discouraged.

Our analysis suggests that clustering should be encouraged in an intensive way in areas well served by existing transit or with the potential for greatly improved transit. The increased concentration of uses and activities in these situations has been shown to result in enhanced social, economic and environmental benefits, not only in the individual clusters themselves but also for the metropolitan network as a whole.

Some clustering of activity occurs naturally around public transport nodes as a result of new private development, or extension to, or spin-offs from, existing development. However, more significant sustainability outcomes have been shown to occur when increased clustering of a mix of uses is actively encouraged and facilitated. Conversely, the clustering process can be undermined by policies and decision-making processes allowing further dispersal of activity throughout the metropolitan area. These circumstances highlight the need for a centres policy to achieve several ESD objectives relating to the more effective functioning of a metropolitan area.

5.2.2 A Hierarchical or Classification Framework for Centres

In past years, a central tenet of metropolitan policy has been a classification system of centres with a prescribed hierarchy of both activity centres and shopping centres. This has applied particularly to shopping centres where 'regional' shopping centres were the preferred locations for major comparison shopping facilities, including department stores and discount department stores, and sub-regional centres were the preferred locations for a more limited range of comparison shopping facilities. This hierarchical system has provided a sense of certainty and security for retail developers and investors in centres, and a framework on which they could monitor and build on their investments and assets.

From our analysis, this hierarchical system has given preference to the status quo by protecting existing private investment. It has required proponents of new developments to go through an extensive and prolonged review process. It has been argued that this has prevented much speculative development in Melbourne and Geelong, and resulted in a system of fairly robust centres.

However, in terms of the sustainability outcomes required from this review, this is a static policy approach. It implies maintaining a fairly rigid framework of centres in the face of changing economic, social and environmental forces. It does not indicate any aspirations for a better pattern of centres nor improved conditions in centres to meet economic, social and environmental sustainability objectives.

It also has become increasingly difficult to organise the different types of activity centres we have been examining in this review, within one overall classification system without causing a lot of confusion.

We recognise that a classification or hierarchical system can be a useful tool in describing some elements of the system, and maintaining a balance among the commercial interests within it. It also can be helpful in focusing major private development or Government programs to a select number of centres.

However, a classification or hierarchical system has its downfalls when it does not deliver the outcomes expected from the classifications. Our evaluation suggests that this has been the case. As a result, we need to move away from a static centres policy which

concentrates on the labelling of centres to an approach that facilitates performance outcomes in terms of sustainability.

5.2.3 Key Focus of Centres Policy

Working towards ecologically sustainable development (ESD) outcomes has been the driving force behind this review. For activity centres in a metropolitan context, our evaluation suggests that the key ESD concerns are: conserving land; encouraging use of travel modes other than the automobile; making it easier for all people to gain access to employment, goods and services; creating and maintaining attractive, safe and functional community focal points; and providing robust clusters of jobs and services throughout the metropolitan area.

Our analysis indicates that activity centres with a high level of sustainability are those with a critical mixture of uses and transit arrangements that generates a high level of business and other activity, but results in low car use as well as multi-purpose trips. Integration of uses within a compact and attractive urban form so as to facilitate high levels of social interaction, as well as more walking and cycling is also important.

Specialist centres such as airports, industrial estates, and, to a lesser extent, business parks, and stand alone tertiary education campuses have difficulty fitting entirely into this desirable form. However, these centres could achieve better sustainability outcomes with appropriate strategies in place. Measures should be developed to enhance the concentration of activity in these centres and to encourage urban forms that facilitate a reduction in motorised trips to and within them.

Other centres of activity, such as stand alone superstores and strings of highway retailing, should be curtailed.

From our review of international and national 'best practice' and our evaluation of Melbourne and Geelong centres, the primary focus of a centres policy should be on mixed-use transit-oriented centres with an integrated sense of place and community. Transit-oriented centres are considered to be those centres that are well connected to their catchment and to the CAD by public transport, or have the potential to be so connected. This is to permit access by local residents, and travel by centre workers to centre locations, without the need to use a car. This means those centres on a fixed rail line or on a tram line within the inner suburbs (about eight kilometres radius from the Melbourne CAD). The emphasis of the policy should be on making these centres better, and creating new transit-oriented centres in outlying and growth areas.

A complementary focus of centres policy should be on maintaining a robust network of neighbourhood centres throughout the metropolitan area. These centres provide important job opportunities, goods and services for local residents reducing the need to travel longer distances elsewhere. They also increase opportunities for non-motorised trips with the potential to enhance access arrangements to and within these centres on foot or by bicycle.

5.2.4 Facilitation of Particular Uses in Centres

Our analysis indicates that there is no set formula to determine the perfect mix of uses in a sustainable centre. Some centres have a broad range of retailing and entertainment facilities that is critical to their sustainability; others rely on a mix of retailing and educational facilities, while others still have a strong commercial and health orientation.

The key is not having a predominantly single purpose centre. Another critical factor is not the particular mix of retail, commercial and other industry sectors (health, education, community services), but having a combination of ingredients. From our analysis, these ingredients are jobs, commercial and community services, higher density housing, accessible transit infrastructure and good service levels, and well-designed public spaces.

The strategic emphasis, at State Government policy level, should not be on the size or make-up of the retailing or office component within centres. These matters should be dealt with within regional strategies or local structure plans. This suggests that the Government's centres policy should not be focused predominantly on directing the form of retailing or commercial development. A more important consideration is making centres better by strengthening the combination of jobs, services, housing, transit arrangements, and public spaces.

If centres with low levels of sustainability are looking to change or expand, a key consideration should be in what ways they are going to modify the mix of uses to achieve higher levels of economic, social and environmental sustainability. Performance standards should be considered to address this. Guidelines to assist centres achieve those standards should be developed.

5.2.5 Targeting Certain Centres for Special Attention

National and international best practice suggests that, for a metropolitan network of centres to move towards better ESD outcomes, it is necessary, but not sufficient by itself, to create and sustain a few significant suburban mixed use transit-oriented centres to work in conjunction with the Melbourne CAD.

In Melbourne's case, our analysis indicates these centres need to be targeted to service the outer areas. The inner and middle areas of metropolitan Melbourne are developing a range of robust transit-oriented activity centres. There still is a lot of work to be done in these centres, but many have a reasonable structural basis on which to build. The major weakness in the metropolitan system is in the outer areas. With the increasing population growth expected in many of these areas, the development of vibrant and efficient transit-oriented centres to service these outer areas and interact with other parts of Melbourne is vital to the achievement of a more sustainable metropolis.

It is necessary to specify these centres. The earlier sections of this report made it clear that a reactive policy based on assessing applications for development approval (as was

advocated in the *Report of the Retail Development Policy Review Panel* in 1996) is insufficient to bring about the desired pattern of transit-oriented centres. Successful centres in best practice cities have only evolved through strong, co-ordinated spatially specific policies.

However, designation need not mean the establishment of an elaborate and inflexible hierarchy of centres derived from central place theory or some other abstract ordering principle. It is necessary to move away from past preoccupations with formulating an orderly land use framework that recognises the status quo in activity centres, to a more active focus on achieving ESD outcomes in future.

Past policies in Melbourne have designated district centres in a fairly 'top-down' fashion, which involved the MMBW making an 'expert' assessment of appropriate locations for development. This approach is unsuited to 21st century Melbourne for a number of reasons. The Bracks Government is committed to planning as a partnership between State government, local government and the community, and the selection of major nodes of development needs to reflect this. There are practical reasons as well - centres policies are more likely to succeed if they have the support of local government and the community. For this reason, we do not propose to nominate preferred centres in this report. The UK PPG6 says the selection of centres should be carried out 'following consultation with business interests and the local community' (1.5), a principle that is equally important in Melbourne.

The process of selection of the designated centres should be driven by selection criteria established from ESD principles. Again, this would need to be finalised through a participatory process, but the broad principles should be clear enough. Appropriate locations are those that are, or have the potential to become, transit-oriented centres. They must not be too close together, lest they run the risk of 'splitting' the demand. Land availability within the centre for future development is very important, as is strong local support from the relevant municipal authority and local community. A strategic reason for designating the centre must be present. For example, each major growth corridor should have such a centre. A centre could be designated if it was the appropriate focus to build up tertiary employment in a region where there was a significant deficiency. Finally, there needs to be a measurable, long-term commitment from stakeholders to centre development and management.

It is considered that a small number of actual or potential transit-oriented centres in Melbourne's outer areas, including Geelong, would be designated through this process for special Government attention and support.

These centres do not need to be alternative or mini CADs. In Melbourne, suburban centres have always had a different range of functions to the CAD, and our analysis suggests that they should continue to do so. In this sense, Melbourne is similar to cities such as Copenhagen, Munich and most British cities. The subsidiary role of suburban centres in Melbourne can be attributed partly to the strength of the CAD, but also Melbourne's corridor-and-wedge growth approach.

Melbourne's major centres in outer areas are intended to serve residents of the radial corridor in which they are located, thus maximising the efficiency of the existing radial public transport system and minimising cross-corridor trips. If these centres grow too large and begin to attract significant amounts of cross-corridor travel, this would compromise environmental sustainability, firstly because most of these trips would likely be by car (unless a very expensive cross-suburban rail system was built) and secondly, because they would add to pressure for development of the green wedges between the corridors.

Unless the fundamental principles behind Melbourne's urban structure are to be abandoned, and sustainability with them, it appears that the 'multiple CADs' model of transit-oriented centres is unlikely to be a suitable choice for Melbourne.

The Melbourne CAD, therefore, plays a critical role in shaping the form and scale of activity centres in the metropolitan network. It has a unique role as an established centre of international significance and as the primary focus for culture, entertainment and tourism, for commercial and corporate activities, for specialised retailing and public administration. This role is important not only within Victoria but Australia as a whole.

The Melbourne CAD is the key transit hub for the metropolitan area. The CAD also has the highest concentration of other physical and social infrastructure in the State and provides the most diverse range of employment opportunities. The vast amounts of public and private wealth invested in the city and its relative accessibility from every part of Melbourne as well as other parts of Australia and the world are key competitive advantages. The capital city role of the Melbourne CAD is very important.

For these reasons, the Melbourne CAD needs to continue to be targeted for special attention, particularly to sustain its competitiveness within the national economy. However, in the case of the CAD, the basis for a sustainable future is well established. A similar basis does not exist in Melbourne's outer suburban areas. To achieve ESD outcomes for the wider metropolitan area, a greater effort needs to be put into centres that are transit-oriented, or have the potential to become much more transit-oriented, in these outer suburban locations.

5.2.6 Sustaining A Robust Network of Centres throughout the Metropolitan Area

The overseas and interstate experience outlined in Chapter 2 highlighted that a robust network of activity centres in a metropolitan area contained a vibrant range of major mixed use transit-oriented centres integrated with smaller neighbourhood centres for convenience shopping and other local activities, based around walking and cycling as important access modes.

A distinctive feature of Melbourne is its enormous number and variety of neighbourhood as well as larger scale centres. In the sample of activity centres examined in Chapter 4,

for example, over 65% were neighbourhood centres. There are, in addition, further such centres that were not included in the sample owing to their very small size.

Many of the neighbourhood activity centres are located in the inner and middle suburban areas. About 50% of these are in transit-oriented locations, but this is less important for small centres, because walking or cycling is anticipated to be the primary sustainable access mode. Proportionally, there are much fewer neighbourhood centres in outer areas, and, as indicated in Chapter 4, there has been much less of a tendency in recent years to establish centres of this scale in outlying growth areas.

Past activity centre policies in Melbourne have tended to ignore neighbourhood centres. They have concentrated on the largest centres - Central Melbourne, district centres, 'regional' and 'sub-regional' shopping centres, and large strip centres, as illustrated in Figure 7 in *Shaping Melbourne's Future* (p 19). However, from a sustainability point of view, active neighbourhood centres are very important in that they provide increased opportunities for journeys to be made to them on foot or bicycle, rather than by car, and for local community focal points to be established. To encourage as many local walking or cycling trips as possible, it is important for as many of these neighbourhood centres as possible to retain a local convenience retailing niche oriented to the sale of basic goods and services such as groceries, fresh meat, fruit and vegetables, newspapers, chemist supplies, banking and postal services.

Sustaining a robust network of centres throughout the metropolitan area clearly relies on strengthening the number and type of neighbourhood centres, particularly in outer areas. The role and relationship of these centres with the larger centres need to be addressed at municipal if not regional levels so that distinctive but complementary niches can be fostered within different centres. This requires a partnership approach among the government, business and community interests involved in centres in various areas.

The sustainability of the metropolitan network also depends on very good transit connections between the various centres, and particularly between the centres and their catchments. This requires a careful examination of bus services to ensure that the route and frequency of services are contributing in the most effective way to centre development.

5.2.7 Control of Activities Outside of Transit-Oriented Centres

Chapter 4 highlighted the pressures from different industry sectors over the last decade to locate various forms of travel-intensive development outside of transit-oriented centres. New office complexes generating significant new employment and new retail developments such as superstores have established in stand-alone sites, as part of strings of unintegrated development along major roads, or in business parks.

Melbourne has many uses that cannot be transformed into transit-oriented centres. Some of these are industry and warehousing that are inherently unsuited to location in these

types of centres ('C-location' uses in the Dutch parlance). There are policy measures to increase the possibility that people working in and visiting such places have increased choices of travel mode covering walking, cycling or using public transport. These primary measures are keeping industrial estates compact and designing pedestrian- and bus- friendly internal layouts (e.g. contiguous street networks; footpaths; lighting).

With respect to business parks, the object of centres policy should be to prevent, as far as possible, such patterns of development arising in future, and to prevent the existing problems being exacerbated.

The policy approach to control ad hoc retail and commercial developments (eg, superstores, strings of peripheral sales outlets, stand-alone office complexes) could build on the sequential approach outlined in the UK Government's Planning Policy Guidance 6 (PPG6).

These guidelines start with the policy position that all new development proposals are to be directed to centres. Local government must take a positive approach, in partnership with the private sector, in identifying suitable sites in centres for major new retail or office proposals in these centres. In the first instance, councils look for a site within a centre, and, then, as a second preference, on the edge of a centre. To achieve the desired outcome, local government takes a pro-active role in assisting with organising the new development site through measures such as land assembly.

Developers wishing to locate in out-of-centre sites must bear the onus of proving that a suitable site within an existing centre cannot be found, after the extensive efforts undertaken by the council. Only if the case is established to the satisfaction of the relevant authority can developments be permitted on freestanding sites.

This approach is a very fair and effective process to steer these particular types of retail and commercial development towards transit-oriented centres. We consider that it should form the basis of a new set of development guidelines for the Melbourne metropolitan area.

5.3 Preferred Policy Approach

At the beginning of this review, we indicated that we would focus more on the desired outcomes of activity centre policy in terms of achieving ESD. Our preferred policy approach therefore relates to sustainability outcomes derived from our evaluation of international and national centres policies**,** previous State policies, and the characteristics of a wide range of Melbourne and Geelong centres.

From the critical environmental sustainability point of view, the desired outcome is a network of centres which minimise overall transport requirements by achieving more multi-purpose trips to a single destination. They are centres that make maximum use of non-motorised transport so as to limit the depletion of fossil fuels and thereby reduce

greenhouse gas emissions. They are centres that are efficient in terms of land use and infrastructure provision. They are centres that achieve energy efficient building design and layout, and protect the integrity of the natural environment.

From a social sustainability point of view, the desired outcome is a network of centres which have a high degree of attractiveness and liveability in terms of safety, convenience, comfort and aesthetics. They provide a lively community focus with increased opportunities for social interaction. There are increased opportunities to work and obtain services nearer to where people live. There is equality of access for users of centres to a wide range of facilities and services. There is equitable access to meet the needs of those groups such as the young, elderly, disabled and low income earners normally disadvantaged by the lack of access to private transport.

From an economic sustainability point of view, the desired outcome is a network of centres which have an ongoing viability in terms of the goods and services provided. There are enhanced opportunities for business growth and increased employment, as well as business synergies. The centres contribute to the economic competitiveness of the urban system.

With these outcomes in mind, we put forward an action-oriented approach to a centres policy that is designed not just to control future private and public development (as has been a primary emphasis of past policies), but also to facilitate improvements in the entire network of metropolitan centres (rather than just in a few major centres). The following directions are designed to achieve this new policy approach:

- Outline an overall performance evaluation process to assess and recommend improvements to new development applications both within and outside activity centres, in line with desired ESD outcomes;
- Facilitate the further clustering of uses in mixed use transit-oriented as well as neighbourhood centres, so as to create a robust network of these centres having an integrated sense of place and community throughout the metropolitan area;
- Give special attention to a limited number of major transit-oriented centres at strategic points in the outer areas of Melbourne along the radial rail network**,** to achieve a significant shift in transport mode away from non-motorised transport;
- Develop a network of strong neighbourhood centres in middle and outer areas;
- Maintain the predominance of the Melbourne CAD within the network;
- Outline a development approvals process for all private and public development proposals (particularly major retail and commercial development proposals) so as to curtail the dispersal of uses outside of transit-oriented and neighbourhood centres;
- Develop upgraded transit arrangements geared to activity centres throughout the metropolitan area.

This policy approach provides a sound basis to answering the key questions posed by the Government for this review: what kind of clear framework is necessary to guide decision-making on future private development? What policies and programs are necessary for public and private organisations to improve individual centres, or the network of centres,

to make them more sustainable? What are the priorities for State Government action and investment?

The answers to these questions are outlined in the following discussion of implementation mechanisms necessary for an effective centres policy.

5.4 Implementation Mechanisms

We suggest a comprehensive package of measures to implement our preferred centres policy. This package consists of:

- A specific policy statement for activity centres within the Metropolitan Strategy highlighting the importance of this policy;
- Designation of a small number of mixed use transit-oriented centres in Melbourne's outer areas for special attention;
- Measures to strengthen neighbourhood centres particularly in middle and outer areas;
- Measures to maintain the predominant role of the Melbourne CAD within the metropolitan network;
- Revisions to the State Planning Policy Framework (SPPF);
- Revisions to the Retail and Office Development Guidelines;
- Guidelines for the revitalisation of activity centres;
- Supportive transport policies;
- A new Government Program geared to improving mixed use transit-oriented centres (TOC Program);
- Measures to enhance corporate government commitment and partnerships;
- Regular monitoring and evaluation.

Details are outlined in the following sections.

5.4.1 Specific Policy Statement for Activity Centres as Part of the Metropolitan Strategy

We recommend, in the Metropolitan Strategy, a specific section that summarises some of the key parts of this report dealing with the need for a centres policy, the desired form of centres to achieve sustainability outcomes, and the critical directions to be taken by Government.

It is recommended that this policy statement not be couched in rhetoric or be viewed primarily as a public relations exercise. This has been a problem with previous Government policy documents such as *Living Suburbs*.

Similarly, the emphasis should not be on trying to describe or categorise all the different types of activities centres, or to spell out retail, office, research and development precinct,

and community service development policies as was the case in the Government's *Metropolitan Activity Centres Policy Statement* of April 1989. This diffuses and confuses the focus. It tends to provide a very flexible policy position on which to justify various approaches to development both in centres and in out-of-centre locations. This flexibility reduces the intensity of effort to achieve sustainability outcomes in critical areas such as public transport delivery.

The centres policy statement should provide a clear indication of the outcomes the Government is aiming to achieve in its activity centres policy. There then should be an outline of the policy directions to be taken by the Government to achieve those outcomes. The expression of our preferred policy approach in 5.3 could form the basis of this kind of statement.

This should be accompanied by an outline of specific Government programs and processes to advance the policy further. These are discussed in subsequent sections of this report.

5.4.2 Designation of A Small Number of Mixed Use Transit-Oriented Centres in Melbourne's Outer Areas for Special Attention

Based on our analysis of measures to improve the metropolitan network of centres, we recommend the targeting and designation of a small number of actual or potential transit-oriented centres in Melbourne's outer areas for special Government attention and support. The aim of this approach is to achieve a significant shift in transport mode towards non-motorised modes of transport at key points in these areas that could have spin-off transit-oriented benefits for other nearby centres in the network.

Box Hill, as a key interchange point on the Ringwood and Belgrave rail lines, already is performing this role in the middle suburbs in Melbourne's east. The centres to be targeted in outer areas should similarly be at existing or future key interchange points on the radial rail network to provide the best change for a transport mode shift.

We do not propose to select these centres as part of this project. This is too difficult and important a task to be completed in the short time frame of this project and with the limited consultation that has been undertaken. It would be more appropriate for this to be done as part of a proper and serious process involving all key stakeholders.

We suggest the following ESD-oriented criteria (as they relate to a particular centre) could be used in determining which centres are selected:

- good provision and high usage of public transport services, and potential for further improvements;
- a significant mass of activities which generate high usage of the centre;

- an ability to meet the retail, commercial, and community needs of a catchment covering several local government areas including the growth corridor in which the centre is situated;
- provision of a significant amount of higher density housing within or immediately adjacent to the centre, and a commitment to provide more;
- a vibrant, attractive and pedestrian-friendly centre with a distinctive sense of place that serves as a wider community focal point;
- a demonstrated capacity to provide for additional and future needs, a measurable, long-term commitment to centre development and management.

The process of selecting the centres should be part of the discussion and consultation program leading up to the finalisation of the Metropolitan Strategy. The designation of the key centres in Melbourne's outer areas should occur at the time of the Government's adoption of the Strategy.

5.4.3 Strengthening of Neighbourhood Centres Particularly in Middle and Outer Areas

Our recommended policy approach has highlighted the importance of neighbourhood centres throughout the metropolitan area for convenience shopping and other local activities, and for encouraging trips on foot and by bicycle. Fewer of these types of centres exist or are planned in the middle and outer areas of Melbourne compared with the very dense network of such places in the inner suburbs. To enhance the sustainability of the whole network, we recommend that this situation be addressed by strengthening existing neighbourhood centres in outer areas, and planning new ones as part of the design or redesign of new communities.

The Government should indicate that this a priority. It should demonstrate its commitment to encouraging the improvement of the wide range and number of these important centres with a funded Neighbourhood Centres Improvement Program (requiring matching funding from local government or centre business associations), building on the Government's experience with Mainstreet and StreetLife programs. This type of implementation measure is developed further in 5.4.6.

As a basis for the implementation program, a structure plan or business plan should be prepared for each reasonably-sized existing or proposed neighbourhood centre in a municipality. Matters to be covered in the plan are addressed in 5.4.5 (Guidelines for the Revitalisation of Centres). Projects to enhance the sustainability of a particular centre would flow from the plan.

An important aspect of the implementation process should be the establishment, in each centre, of appropriate centre management arrangements involving businesses in the centre, the local Council and relevant community interests. This is critical to properly organise and execute the neighbourhood centre plan, direct the implementation of key priorities, and monitor and evaluate progress. An active centre management organisation

is the most effective way to ensure that a centre moves towards achieving the kind of ESD outcomes identified in this project for these types of centres. The importance of good organisational arrangements to the successful implementation of the centres policy is discussed further in 5.4.8.

5.4.4 Maintenance of the Predominant Role of the Melbourne CAD within the Metropolitan Network

A package of measures should be developed and implemented to facilitate the CAD maintaining its unique and predominant role in the network of activity centres in metropolitan Melbourne. As part of this, the measures also should aim to sustain the competitiveness of the CAD within the national and international economy.

The Capital City Policy should be developed further. Measures to continue to foster the CAD's role as a national and international hub for cultural, entertainment, recreational, tourism and business activities should be developed, in line with the policy direction in Clause 17.01-3 of the State Planning Policy Framework. The importance of the CAD in the 'new economy' should be strengthened.

In terms of the transit sustainability of the metropolitan area, the CAD's role at the centre of that network must continue to be improved so as to provide benefits to all parts of the radial train, tram and bus systems.

As indicated earlier in this report, the basis of a sustainable future for the CAD within the network of metropolitan activity centres is well established. A similar basis does not exist in Melbourne's outer suburban areas. The emphasis on the implementation measures suggested for the CAD, therefore, should not undermine the even more critical measures that need to be put into transit-oriented centres or centres that have the potential to become much more transit-oriented, in outer suburban areas.

5.4.5 Revisions to the State Planning Policy Framework (SPPF)

Revisions to provisions of the State Planning Policy Framework are necessary, as these provide an important statutory context for spatial planning and decision making by planning and responsible authorities. The current policy clauses place strong emphasis on business growth and the general planning of activity centres, rather than the achievement of ESD outcomes.

Clause 17.01-1 currently deals with the objectives of activity centres policy. The emphasis of that clause, which merely encourages concentration of various major uses into activity centres, should be substantially changed. The clause should outline the key objectives or directions of our preferred policy approach:

- further clustering of uses in mixed use transit-oriented as well as neighbourhood centres;

- creation of a robust network of these centres having an integrated sense of place and community throughout the metropolitan area;
- special attention to a limited number of major transit-oriented centres at strategic points in the outer areas of Melbourne along the radial rail network;
- strong neighbourhood centres in middle and outer areas;
- maintenance of the predominant role of the Melbourne CAD within the network;
- a development approvals process for private retail and commercial development proposals so as to curtail the dispersal of major uses outside of transit-oriented and neighbourhood centres;
- upgraded transit arrangements geared to activity centres throughout the metropolitan area.

Clause 17.01-2 currently outlines a scenario for individual centres which encourages a general mix of land uses, good accessibility by all modes of transport (particularly public transport), ease of pedestrian movement, co-location and sharing of facilities, appropriate child care facilities, minimisation of impacts on surrounding areas, and attractive environments.

This clause should be revised to focus more on the desired outcomes for individual centres we have highlighted in this report to achieve greater sustainability:

- an optimum mixture of uses to achieve maximum use of non-motorised transport and more multi-purpose trips to a single destination;
- greater efficiency in land use and infrastructure provision;
- energy efficient building design and layout;
- better access for walking and cycling, as well as to meet the needs of those groups such as the young, elderly, disabled and low income earners;
- a high degree of attractiveness and liveability in terms of safety, convenience, comfort and aesthetics;
- a lively community focus with increased opportunities for social interaction;
- increased opportunities to work and obtain services nearer to where people live;
- equality of access for users of centres to a wide range of facilities and services;
- ongoing viability in terms of the goods and services provided;
- enhanced opportunities for business growth and increased employment, as well as business synergies;
- more higher density housing within or adjacent to the centre.

Reference needs to be made to the value of structure plans and urban design frameworks for centres to guide development and redevelopment over time.

Clause 17.01-3, which provides "geographic strategies" for activity centres, currently focuses on building up the capital city role of the City of Melbourne, and requires that the location of new activity centres in the metropolitan area should be consistent with the objectives of *Transporting Melbourne* produced in 1996. This latter emphasis needs to be totally changed.

Transporting Melbourne encourages the concept of the "metropolitan orbital corridor", where transport terminals, hotel and recreational developments, residential development, office park development, and high-technology industry were encouraged in American-style 'edge city' activity centres. This concept encourages car travel, and discourages walking, cycling and public transport use. This is the opposite of the kind of outcome we want to achieve from our preferred policy approach.

Section 17.02 of the SPPF deals with the encouragement of business development, but has some clauses relating to the location of commercial facilities within or on the periphery of existing or planned activity centres. There are clauses in 17.02-2 stating that certain uses (eg, outlets of trade-related goods or services; new convenience shopping facilities; new freestanding commercial developments in new residential areas) can be located outside of centres. These should be deleted and replaced by clauses that reflect our recommended new approach to evaluating all major development applications in terms of their ability to achieve ESD outcomes. That new approach is outlined in 5.4.6 (Revisions to the Retail and Office Development Guidelines).

New policy statements should be added to the sections in the State Planning Policy Framework dealing with housing, transport, education and other community services. These sections should have references to, and be integrated with, the policy directions recommended for activity centres.

5.4.6 A New Set of Development Guidelines in the State Planning Policy Framework

A new set of Development Guidelines should be inserted in the State Planning Policy Framework, as these provide an important statutory basis on which new development proposals are assessed.

The previous guidelines in Clause 17.02-2 related only to retail and office development and were based on a set of principles around the concept of 'net community benefit'. This approach placed an emphasis on achieving a balance between new, innovative and competitive developments on the one hand, and certainty and consistency for industry, the wider community and activity centre patterns on the other. What the guidelines established was a conservative 'checks and balances' mechanism that necessitated rigorous and careful investigation of all new proposals.

It is argued that these guidelines, which basically involved trading environmental sustainability off against other objectives, were the antithesis of ecologically sustainable development.

A new set of guidelines needs to be prepared which deals with all private and public development proposals, both within and outside of centres. These guidelines should

revolve around a performance evaluation process linked to our ESD outcome-oriented policy approach.

The sequential approach to site selection for new development proposals, outlined in the UK Government's Planning Policy Guidance 6 (PPG6), provides a very useful decision-making model. The policy document is outlined in Working Paper 7.

The guideline combines a pro-active approach by local government with a regulatory framework. This PPG6 approach should be modified to ensure that not only more development is directed to transit-oriented centres, but also that the form of development and associated transport arrangements within the centres work towards achieving better ESD outcomes.

The guidelines should apply to all private and public development, not just retail and commercial development. The basis of the guidelines could be expressed as follows:

8. All new development proposals are to be directed to existing or planned mixed use transit-oriented and neighbourhood centres, and the form of development and associated transport arrangements within the centres must be designed towards achieving better ESD outcomes. The emphasis that should be taken in different types of centres is outlined in further detail in Section 5.5.
9. Local government is encouraged to take a positive approach, in partnership with the private sector, in identifying and organising suitable sites for major new development in these centres.
10. In the first instance, the preferred site for the new development is within the centre. If a suitable site is not available here, then a second preference on the edge of the centre can be exercised.
11. When a suitable site is located within or on the edge of the centre, the developer must put forward a development application demonstrating how the proposal will enhance the sustainability of the whole centre, in line with ESD-oriented criteria incorporated into the State Planning Policy Framework.
12. Developers wishing to locate in sites outside of mixed use transit oriented and neighbourhood centres must bear the onus of proving that a suitable site within an existing centre cannot be found.
13. Only if the case is established to the satisfaction of the responsible authority can developments be permitted on these sites.
14. Developers of an out-of-centre site must bear the costs of enhancing the sustainability of the development area and associated transit arrangements in this location.

The practical outcomes of these guidelines could be:

- most peripheral sales (big box retailing) and factory outlets would be located in or on the periphery of transit-oriented centres;
- strings of unintegrated retail or office development along major roads and highways removed from centres would be curtailed;

- no retailing proposals would be permitted outside of centres, simply because they were 'innovative uses';
- office development would be located in transit-oriented centres.

This would substantially improve the sustainability of the pattern of metropolitan development.

5.4.7 Preparation of Guidelines for the Revitalisation of Activity Centres

We recommend that the Government produce a comprehensive set of guidelines to assist local government, the development industry and community interests with the revitalisation of different types of centres towards more mixed use transit-oriented centres with a better sense of place and community. The guidelines would be structured so that they could be applied to existing and planned mixed use centres, shopping complexes, business parks, and neighbourhood centres. All local governments should be required to use the guidelines.

The guidelines could be considered as a checklist of issues that need to be worked through to make particular centres more livable, accessible, energy-efficient, vibrant, pedestrian-friendly, and transit-oriented. The emphasis would not be on bureaucratic regulations, but more on advisory notes to assist the redevelopment of centres. They could be similar to the matters covered in a structure plan or urban village plan, but with a stronger emphasis on sustainability.

From the analysis undertaken for this review, the critical issues that should be addressed in the guidelines for individual centres are:

- the desired mix and location of activities;
- the density and form of development;
- the balance between employment-related uses and residential uses;
- the mix of housing types;
- existing and future transit arrangements;
- the overall urban design framework including the pedestrian and vehicular circulation system, open space system, distribution of uses over the centre, overall height and massing of buildings, the relationship between buildings and streets, relationships between existing and proposed buildings, integration of existing and proposed development with transit service, standards for micro-climate;
- pedestrian connectivity and improvements in the pedestrian environment
- streetscape design including footpath treatments, lighting, pedestrian crossings, street tree planting, weather protection features, and special features such as public art and gateway treatments;
- treatment of the public realm including integration of street systems, access to as well as availability, definition and safety of open space areas;

- car parking including reduced parking requirements for centres, sharing of facilities, access arrangements, the design of parking structures, and relationships with transit operations;
- compatibility between existing and new uses, transitions in scale between new development and the existing fabric, impacts on the existing physical character of the surrounding area.

Performance standards should be spelled out in the guidelines.

Practical examples also should be provided of how the guidelines could be applied to different types of centres. Examples of centres that are well advanced in achieving the desired outcomes should be highlighted.

A key area in the guidelines would relate to the recommended approach towards higher density housing within or on the edge of centres. This would build on the Government's revised approach to ResCode. Matters that could be addressed include:

- the selection and designation of particular areas within/near centres for higher density housing (particularly next to railway stations), recognising neighbourhood character and heritage constraints in some areas;
- target housing densities in the designated higher density precincts (encouraging densities many times greater than the densities prevailing in other parts of the municipality);
- target housing/employment ratios in the activity centre and immediately adjacent residential area;
- housing form in the higher density precincts– encouragement of a range of types and prices; prohibition of certain housing types – single detached dwellings; dual occupancy;
- minimum site areas;
- improvements to the physical environment of the designated areas;
- waiving of normal open space requirements;
- development incentives.

5.4.8 Supportive Transport Policies

A package of supportive transport policies and actions should be implemented to achieve the desired ESD outcomes for the network of activity centres across the metropolitan area.

Provision of integrated, frequent public transport connections between centres and their regions is a key priority. The outcomes of the Bus Improvement Strategy currently underway in the Department of Infrastructure will be critical in this area. Ensuring that these connections occur over the full range of hours that centres are open – particularly at night to serve users of leisure and entertainment facilities such as cafes, restaurants,

cinemas, and sporting activities – is very important. Immediate improvements could be achieved by adjusting timetables to the real needs of centre users with special emphasis on children, people with disabilities and older people.

Transit access to centres should not only be efficient, but legible and pleasant. Users should have adequate information on a centre's transit facilities.

Centres should be designed to provide easy access and attractive approaches to transit interchanges to promote the use of public transport by all groups in the community. Major benefits would accrue from improving connections between the existing transit services provided to a particular centre.

Demand management policies for car parking in activity centres should be required across the board in metropolitan centres, with car parking requirement ceilings lowered over time as the activity level in the centre increases

Major new transport infrastructure proposals need to be assessed for their capacity to enhance transit-oriented centres along the main radial rail corridors. Facilities that generate long distance, cross-corridor travel should be avoided.

Transport programs geared to centres should be integrated with measures to encourage high-intensity land use, a concentration of different activities, and additional employment around transit nodes.

5.4.9 New Government Program Geared to Improving Mixed Use Transit Oriented Centres (TOC Program)

A major transit-oriented centre development and improvement program (TOC Program) should be organised by the Department of Infrastructure to pull together various existing Government programs and projects in activity centres, and to establish some new initiatives within a co-ordinated effort to create greater impact. The program would provide practical examples of the kind of outcomes the Government wants to achieve in different types of centres through an ESD-oriented centres approach. A dedicated TOC Program would highlight the importance of the Government's approach to activity centres within the Metropolitan Strategy.

A key focus of this Program would be to enhance the attractiveness and liveability of centres in terms of their safety, convenience, comfort and aesthetics. It would foster projects that provide a stronger sense of place in centres which would lead to a more lively community focus with increased opportunities for social interaction.

Another focus would be to improve transit interchanges and the access arrangements to them in key centres. Organisation of demonstration projects for higher density housing in selected parts of centres would be a further emphasis.

The TOC Program should pull together elements of existing Government programs in centres. For example, it should capitalise on the Pride of Place Program to develop urban design frameworks and exciting capital works projects in transit-oriented centres. It should draw from elements of the earlier Urban Villages concept to develop successful examples of centres with more intense concentrations of both commercial development and higher density housing. It should target aspects of the Principal Stations and Transport Interchange Capital Programs, currently under the Minister for Transport.

The TOC Program should be designed to enable the Government to take a more pro-active approach to centre development. By clearly indicating the outcomes expected from the program, monitoring results, and encouraging high levels of performance, the Government could provide a direct catalyst for private sector action in key activity centres.

A key element of the Program, therefore, would be to facilitate projects. Part of the Program funds could be considered for land assembly, particularly consolidation to create larger sites, as a catalyst for major new development or redevelopment. The Government through the Program could work in partnership with the private sector and local government to more effectively develop its land holdings in centres. Some Government land could be used as equity in joint venture arrangements.

The TOC Program also should provide a seeding fund for local government initiatives that support the overall thrust of the Government's centres approach. This seeding fund could be used for preparation of structure plans and urban design frameworks for individual centres, new or rejuvenated infrastructure (eg, cultural and entertainment facilities), streetscape improvements, demonstration projects (eg, higher density housing in selected areas), and facilitation of centre management and marketing programs.

This emphasis of the Program would likely encourage local government to develop and implement its own incentives (density bonuses, reduction of fees and charges, rate holidays, special rate schemes) to create wider sustainability outcomes in centres.

5.4.10 Corporate Government Commitment and Partnerships

Successful implementation of our preferred centres policy approach requires active and ongoing support from all arms of Government. Major changes to urban form cannot be expected unless there is consistent application of policy over a lengthy period of time from all the players. Commitment from different Government agencies embraces everything from the provision of transport infrastructure and services, the location of Government offices and services, environmental and social programs, procurement of Commonwealth Government funds, direction and advice to local government, assessment of major development applications to ongoing monitoring and evaluation of changes in activity centres.

For example, the location of Government offices and major community facilities such as the campuses of tertiary education and hospitals is critical to the success of a centres policy. The State Government needs to take a corporate approach to decision-making in this area, and ensure that all new facilities of this kind are established only in transit-oriented centres. The scale and form of each office or education/health facility should complement the role and scale of the centre in which it is to be located.

A major focus on activity centres should be established in the Department of Infrastructure. Interdepartmental committees and working groups also need to be in place to ensure co-ordination in the planning and delivery of programs affecting centre development.

Partnerships and alliances also should be established between the State Government, local government and the private sector. Close co-operation between these players is essential if the challenges associated with creating more sustainable activity centres are to be realised. A recent example at the Ringwood Activity Centre of an alliance between the development industry, local Council, State Government bodies, and community interests gives an indication of the wider range of outcomes possible through these kind of partnerships.

A partnership approach also is critical at the individual activity centre level. Centre managements arrangements have been shown to be a key factor in the success of many centres. An active centre management group with representatives of all interests relating to a centre – businesses, landlords, Council, and the adjacent community - is essential.

5.4.11 Regular Monitoring and Evaluation

Much of the uncertainty and controversy surrounding centres policy could be eliminated with better monitoring and data collection. Information and monitoring also are very important tools for co-ordinating and facilitating public and private development in these centres.

We recommend that the Department of Infrastructure develop a monitoring system for activity centres building on the extensive data collected for this project on a very wide range of centres, and the evaluation framework used to assess the performance of centres in achieving ESD outcomes.

At the individual centre level, a standard format of the key criteria and indicators for more sustainable centres should be refined further and provided to local government for updating every year. With this information, the Department should produce an annual audit of the state of metropolitan activity centres in moving towards achieving better ESD outcomes.

A similar monitoring and evaluation process should occur with respect to the overall network of centres in the metropolitan area, building on the assessment criteria used for this project.

5.5 Focus for Different Types of Activity Centres and Other Uses

The emphasis in our recommended policy directions and implementation measures is to achieve all key sustainability outcomes, as indicated in previous sections of this report. However, the reality of the situation is that there will be greater capacity to achieve certain outcomes rather than others in different types of centres because of their particular urban form and transport arrangements. In neighbourhood centres, for example, there may be limited opportunities to alter the transit arrangements. The focus, therefore, should be more on the land use configuration (including housing), business mix, marketing and centre management, or physical form and pedestrian interactions.

This section of the report highlights the focus or priority that should be placed on the following types of centres or other uses:

- major suburban centres (retail or commercial centres with at least 10,000 square metres of retail floorspace);
- neighbourhood retail and commercial centres;
- office parks;
- industrial estates;
- strings of peripheral sales retailing outlets and office complexes on major roads;
- stand alone superstores;
- major institutions and public facilities.

5.5.1 Major Suburban Centres

While striving to achieve all key sustainability outcomes, the emphasis for major suburban centres should be towards becoming more mixed use public transport oriented centres. The focus for improvement should be on:

- high quality public transport access from throughout the main geographic 'catchment' of the centre;
- high quality access by non-motorised forms of transport including pedestrian connectivity and improvements in the pedestrian environment;
- suitable public facilities and amenities for the general community served by the centre;
- reduced car parking requirements and/or restricting the provision of "free" parking, safe and convenient access arrangements, the design of parking structures, and relationships with public transport operations;

- compatibility between existing and new uses, transitions in scale between new development and the existing fabric, impacts on the existing physical character of the surrounding area;
- a scale of economic activity that contributes to and does not prejudice the viability and vitality of the network of centres in the catchment served by the centre;
- maintaining or increasing diversity in the range and mix of uses in the centre and its associated network of centres;
- maintaining or increasing diversity in the type and scale of centres in the network of centres.

Existing major suburban centres that are not on significant interchanges on the regional transport network will be required to improve their performance against the required sustainability outcomes as part of any major changes that may be proposed. Particular emphasis should be given to improving public transport access to and from the centre

New major suburban centres, proposed as new centres or as a result of the planned expansion of a smaller centre) will need to be or be able to be located at nodes on the regional transport network and have suitable transport interchange facilities integrated into the overall development.

5.5.2 Neighbourhood Retail and Commercial Centres

While striving to achieve all key sustainability outcomes, the focus for Neighbourhood Retail and Commercial Centres should be on:

- providing suitable public facilities and amenities for the general community served by the centre;
- compatibility between existing and new uses, transitions in scale between new development and the existing fabric, reducing the impacts on the existing physical character of the surrounding area (including housing);
- a diverse business mix;
- active marketing and centre management;
- high quality access by non-motorised forms of transport including pedestrian; connectivity and improvements in the pedestrian environment;
- increasing housing densities within or on the edge of these centres.

5.5.3 Office Parks

Office Parks traditionally have been designed as single use type developments (predominantly corporate offices with some amenities) with little or no retailing. The emphasis here should be on improving the public transport connections (depending on the scale of the park), diversifying the business mix and creating meaningful public spaces.

Emphasis should be on restricting the approval of future business parks that would perform poorly against the key sustainability outcomes. Many of the uses in these types of parks are suitable for and should be encouraged in existing or future mixed use public transport-oriented centres.

5.5.4 Industrial Estates

Industry and warehousing are uses that are inherently unsuited to location in mixed use activity centres. Sustainability outcomes here must be focused on increasing the possibility that people working in and visiting such places have increased choices of travel mode covering walking, cycling or using public transport. Keeping industrial estates compact and designing pedestrian- and bus- friendly internal layouts (e.g. contiguous street networks; footpaths; lighting) will also be important outcomes.

5.5.5 Strings of Peripheral Sales Outlets and Stand Alone Office Complexes

The policy focus is to discourage this form of development completely. The activities should be encouraged to locate within or adjacent to major suburban centres.

5.5.6 Stand Alone Superstores

The policy focus is to discourage this form of development completely. The activities should be encouraged to locate within or adjacent to major suburban centres.

5.5.7 Major Institutions and Public Facilities

Large scale new hospitals, universities, cultural centres, major sporting facilities and other similar uses will all be required to locate in or adjacent to existing major suburban centres. These uses generate substantial trips and the number undertaken by public transport or walking can be maximised by locating at these types of suburban centres. This location will then serve to strengthen that centre and create possible business synergies.

Smaller scale facilities should be encouraged to locate in or adjacent to neighbourhood centres**.**

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