MOORABBIN AIRPORT

FINAL MASTER PLAN2004



prepared by:

MOORABBIN AIRPORT CORPORATION



9 AUGUST 2004

FOREWORD

FINAL MASTER PLAN AUGUST 2004

Moorabbin Airport Corporation (MAC) has purchased a long-term lease over Moorabbin Airport in Melbourne from the Australian Federal Government. MAC is 66.6% owned by Goodman Holdings Pty. Ltd. with Airport Investments holding 33.3%. MAC views the Airport as a strategic long-term investment in Melbourne.

The purchase was completed in June 1998. It was a requirement of the purchase that the owners of privatised Airports prepare a Master Plan for the development of the Airport over the first 20 years of the lease. The first Master Plan was approved by the Minister of Transport and Regional Development in May 1999. This Final Master Plan (2004) is an update of our first Master Plan. The changes that have been made are minor and largely reflect events that were predicted in the first Master Plan and have since occurred, as well as reflecting a number of events that have taken place within the aviation industry since 1998.

Goodman Holdings is a private investment company with interests in a number of public and private companies in Australia and New Zealand covering a diverse range of sectors including aviation, food, equities and property. Two of their senior executives serve on the board of MAC - Mr. Patrick Goodman, who is Managing Director of Goodman Holdings and Mr Gregory Goodman, who is CEO of Macquarie Goodman. The third director is Mr Brian Rule of Brico Pty Limited, a Victorian based property developer.

MAC has entered into the ownership of the Airport with the strategy to create a high quality investment over the term of the lease. Mr Phil McConnell, an aviation executive with over 25 years international experience in aviation management is General Manager Aviation and has served in that capacity since 1998. Specialist property development skills are represented by Mr Charles Dipetta, General Manager Property and Development, who has over 20 years experience in asset management and development.

Our Vision remains the same as in 1998; to develop an efficient and fully functioning Airport of Regional and State significance, enhanced by quality development, which will significantly contribute to and improve the economic and social base of south-eastern metropolitan Melbourne, particularly its local community.

Our challenge is to accomplish this in the context of a highly urbanised location and with full regard to the environmental consideration of our neighbouring commercial and residential areas.

We believe that Moorabbin Airport has an exciting future as a centre of aviation excellence, it will be maintained as Victoria's premier location for pilot training, servicing of General Aviation aircraft and a base for recreational pilots. In addition it has the ability to offer more convenient and user-friendly transportation options to both business and leisure travellers. The development of both aviation and other commercial businesses will significantly contribute to the future employment and economic success of both south-east Melbourne and the State of Victoria.

stor.

Patrick Goodman Chairman Moorabbin Airport Corporation Pty Limited

MOORABBIN AIRPORT FINAL MASTER PLAN (2004)

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NOTE:

This Final Master Plan as been prepared to supersede the original Master Plan, approved on 21st May 1999, prepared by:

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Glossary

Act:	Airports Act 1996 and accompanying Regulations
AEO:	Airport Environmental Officer
AEO1:	Airport Environs Overlay
ALC.	Airport Lessee Company
ANEC	Australian Noise Exposure Contour
	Australian Noise Exposure Forecast
	Australian Noise Exposure Index
	Australian Noise Exposure index Air Operator's Certificate
AUC.	An Operator's Certificate
All sel vices Australia	monogramment of air traffic over Australia
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A52021.	AS 2021-1994. Accustics – Aircrait hoise intrusion – Building sitting
AIC:	Air Traffic Control
BAe:	British Aerospace
BICE:	Bureau of Transport and Communications Economics
CASA:	Civil Aviation Safety Authority
DME:	Distance Measuring Equipment
DOTARS:	Department of Transport and Regional Services
EMS:	Environmental Management System
EPA:	Environment Protection Authority
FAC:	Federal Airports Corporation
feet:	Feet above ground level
GA:	General Aviation
GAAP:	General Aviation Airport Procedures
GAIT:	General Aviation Infrastructure Tariff
GFA:	Gross Floor Area
GPS ¹	Global Positioning System
ha [.]	Hectares
IMC	Instrument Meteorological Conditions
	International Air Transport Association
L_{r}	Leit Sauara matroa
	Square metres Mearshhip Airport Corporation
Maatar Dian:	Moorabbin Airport Corporation
Master Plan.	Moorabbin Airport Master Plan
MSS:	Municipal Strategic Statement
NDB:	Non Directional Radio Beacon
OLS:	Obstacle Limitation Surface
PANS-OPS:	Procedures for Air Navigation Services – Aircraft Operations
PAPI:	Precision Approach Path Indicator
R:	Right
RPA:	Rules and Practices for Aerodromes
RPT:	Regular Public Transport
SUZ:	Special Use Zone
VMC:	Visual Meteorological Conditions
VOR:	VHF Omni-directional Radio Range (OMNI)
VPP:	Victoria Planning Provisions

CORPORATE VISION

Moorabbin Airport Corporation has a vision to develop a high quality aviation and commercial environment at Moorabbin Airport. MAC recognises the need to enhance the regional role of Moorabbin Airport, whilst respecting the needs of nearby industrial and residential land uses.

MAC is committed to strengthening the current Airport operations by improving Airport management, attracting new aviation business and increasing revenues by selective development of land not required for aviation purposes. The company provides a management structure to attract quality commercial tenants and will implement a comprehensive land use framework to ensure the creation of a quality business environment, quality landscaping, prominent entry statements, broad boulevards and a management structure to ensure that these high standards are maintained.

The vision for the Moorabbin Airport is to ensure an efficient and fully functioning Airport of regional and state significance which contributes to and improves the regional economic and social base of south-eastern metropolitan Melbourne.

We intend to build the Airport into a centre of aviation excellence in Australia. The primary purpose of the Final Master Plan (2004) is to articulate a clear vision for the ultimate development of the Airport so that the potential of the Airport site is optimised to satisfy long-term aviation needs and provide for complimentary commercial developments. MAC is confident that the Final Master Plan (2004) provides a sound and strategically oriented framework, whilst retaining flexibility to respond to market demand for new uses that could potentially be appropriately located on the site, and to guide the ongoing development of the Airport in the 21st century.



EXPLANATORY REPORT

The Moorabbin Airport Final Master Plan (2004) has been prepared by the Moorabbin Airport Corporation Pty Ltd as part of the requirements of the Airports Act 1996, which guides the continued operations of aviation at Moorabbin Airport in the deregulated market environment.

The Final Draft Master Plan (May 2004) was approved by the Federal Minister for Transport and Regional Services under Section 81 of the Airports Act 1996, on 9th August 2004 (herein referred to as the Final Master Plan (2004)). This review has been undertaken in accordance with the provisions of Part 5 of the Airports Act 1996 and Regulations made under that Act. A Final Master Plan is defined in the Act as a Draft Master Plan that has been approved by the Minister. This MASTER PLAN is now a Final Master Plan as defined by the Act.

The Act provides a system of separating the Airport Lessee Company (ALC), being the Airport operator, and the Airport regulator roles. In the case of Moorabbin Airport, the regulator role will continue to be provided by the Department of Transport and Regional Services (DOTARS) and the Civil Aviation and Safety Authority (CASA). Moorabbin Airport Corporation will conduct the Airport operator-lessee role.

This Final Master Plan (2004) is a review of the approved Master Plan (1999). A number of modifications have been made to this Final Draft Master Plan in direct response to the operation of the airport and the implementation of the approved Master Plan (1999) over the past five years.

This Final Master Plan (2004) relates to a total planning period of 20 years. The Airport Master Plan remains in force for five years or until a fresh Master Plan is approved by the Minister. For convenience, where the term "Final Master Plan (2004)" is used, this refers to the "Moorabbin Airport Final Master Plan" approved by DOTAR – 9 August 2004.

Please note that the aviation strategies and development scenarios in this Final Master Plan (2004) are based on assumptions and forecasts which have been prepared by the Moorabbin Airport Corporation to the best of their knowledge at the time of revision, to assist in the strategic planning processes. As such, the aviation strategies and developments scenarios are indicative only.



1.0 INTRODUCTION

1.1 Airports Act 1996

The Airports Act 1996 establishes the framework for the regulation of leased Federal Airports. The Act provides a system of separating the Airport Lessee Company (ALC), being the Airport operator, and Airport regulator roles. In the case of Moorabbin Airport, the regulator role will continue to be provided by the Department of Transport and Regional Services (DOTARS) and the Civil Aviation and Safety Authority (CASA). Moorabbin Airport Corporation, being the ALC, will conduct the Airport operator role.

Moorabbin Airport Corporation, as Airport operator, is primarily responsible for activities that take place on the ground and within Airport confines. The responsibility for aircraft operations and aircraft safety is held by Airservices Australia and CASA respectively.

This Final Master Plan (2004) is a review of the current Master Plan approved by the Federal Minister for Transport and Regional Services under Section 81 of the Airports Act 1996, on 21st May 1999 (herein referred to as the approved Master Plan (1999)). A number of modifications have been made to this Final Master Plan (2004) in direct response to the operation of the airport and the implementation of the approved Master Plan (1999) over the past five years.

This Final Master Plan (2004) is a refinement of the Preliminary Draft Master Plan which was publicly exhibited from Monday 16th February 2004 to Saturday 15th May 2004, over a period of 3 months. A total of 11 submissions were received in response to the exhibition of the Preliminary Draft Master Plan, covering a wide range of issues, associated with the development and implementation of the Master Plan. A number of modifications to the Preliminary Draft Master Plan have now been incorporated into this **FINAL MASTER PLAN** in direct response to matters raised in the submissions and the letter received from the Department dated 28 June 2004.

Under the Airports Act 1996, an Airport Master Plan must specify the following matters:

- 'The Airport lessee company's development objectives for the Airport.
- The Airport lessee company's assessment of the future needs of civil aviation users of the Airport, and other users of the Airport, for services and facilities relating to the Airport.
- The Airport lessee company's proposals for land use and related development of the Airport site, where the proposals embrace airside, landside, surface access and land planning/ zoning aspects.
- Forecasts relating to noise exposure levels.
- The Airport lessee company's plans, developed following consultations with the airlines that use the Airport and local government bodies in the vicinity of the Airport, for managing aircraft noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels.
- The Airport lessee company's assessment of environmental issues that might reasonably be expected to be associated with the implementation of the plan.
- The Airport lessee company's plans for dealing with the environmental issues mentioned above.
- If a Draft Environmental Strategy has been approved the date of that approval and such matters (if any) as are specified in the regulations (Commonwealth Government, 1996)'.

The Moorabbin Airport Final Draft Master Plan has been assessed is some detail by the Department of Transport and Regional Services and has been deemed to **fully satisfy the requirements above**.

The Final Draft Master Plan (2004) was approved by the Federal Minister for Transport and Regional Services on 9 August 2004 with the Minister's endorsement that it "meets all aspects of the statutory requirements set out in the *Airports Act 1996*" The Final Master Plan (2004) relates to a planning period of 20 years. The Final Master Plan (2004), will remain in force for five years or until a fresh Master Plan is approved by the Minister.

If buildings or works are proposed for which the cost of construction exceeds \$10 million or such other amount as is prescribed by the regulations, the relevant requirements of Sections 92, 93 and 94 of the Airports Act 1996 apply.

1.2 Moorabbin Airport Final Master Plan

The Final Master Plan (2004) has been prepared as part of the requirements of the Airports Act 1996, which guides the continued operations of aviation at Moorabbin Airport in the deregulated market environment.

A range of planning criteria have been assessed to determine the objectives for development of the Airport land, including the strategic policy context of the Airport and its environs, and the long term role of the Airport in contributing to metropolitan growth and development objectives. The opportunities and strengths of the region have also been examined and integrated into the strategic directions of the Final Master Plan (2004).

The vision for the Moorabbin Airport is to ensure an efficient and fully functioning Airport of regional and state significance which contributes to and improves the regional economic and social base of south-eastern metropolitan Melbourne.

The development objectives for Moorabbin Airport include:

- Establish a long term plan for the development of the Airport to enhance the economic role of the Airport to the south-east region and the State of Victoria.
- Establish a positive perception of the Airport within the local community.
- Consolidating and expanding the specialist aviation role of the Airport and improving facilities for passengers and operators in accordance with the Port Phillip Strategy.
- Maintenance of land required for airside and landside areas.
- Compliance with prescribed airspace requirements.
- Support of aviation activities through development of non airside land for commercial, industrial, office and retailing uses, including aviation related industries seeking to optimise synergies with airside activities.
- Progressive development of non airside land surplus to aviation needs into high quality commercial, industrial, office and retail uses.
- Improved traffic, infrastructure and surface access arrangements for the Airport.

1.3 Consultation

1.3.1 Master Plan Consultation

An open process of community consultation has underpinned the exhibition of the first five year review of the Moorabbin Airport Master Plan under the Airports Act 1996. This consultation has been undertaken in association with the exhibition period for the Preliminary Draft Master Plan.

The public consultation process has been a continued component in the development of the Master Plan. Consultations have occurred with the local community through:

- Public notice in local and statewide newspapers.
- Formal meetings and informal discussions with various representatives from the community and stakeholders.

Consultation (through meetings and informal discussions) during exhibition of the Preliminary Draft Master Plan has occurred directly with the local municipal authority (City of Kingston) and

the Moorabbin Airport Consultative Committee. Consultation has also occurred informally with the Federal Department of Transport and Regional Services, Airport Environment Officer, Airport Building Controller, State Government Departments including the Department of Sustainability and Environment, Airport tenants, other stakeholders and representatives of community and residents associations.

1.3.2 Submissions to the Preliminary Draft Master Plan

Under the Airports Act 1996 the Preliminary Draft Master Plan is required to be placed on public exhibition for a period of 90 days with an open invitation for public comment. Any submission arising from the exhibition of the Master Plan are required to be reviewed by the MAC and forwarded to the Federation Minister for Transport and Regional Services with the Final Draft Master Plan. An explanation of how submissions have been addressed must also accompany the Master Plan.

The Moorabbin Airport Preliminary Draft Master Plan was exhibited from Monday, 16 February 2004 to Saturday, 15 May 2004. In conjunction with the exhibition of the Master Plan the Moorabbin Airport Corporation promoted discussion of the Master Plan through its open dialogue with the Moorabbin Airport Consultative Committee, meeting with Kingston City Council and informal discussions with the State authorities.

• Eleven (11) submissions were received during the specified period in response to the exhibition of the Master Plan. An additional two (2) submissions were received after the Saturday, 15 May 2004 date of closure of the exhibition period. All submissions were considered by the Minister as part of the review of the Preliminary Draft Master Plan and approval of the Final Master Plan (2004).



2.0 BACKGROUND

2.1 Site Context

Moorabbin Airport is located approximately 21 kilometres south-east of the Melbourne Central Activities District in Melbourne's 'bayside suburbs'. It is bounded by Centre Dandenong Road to the north, Boundary Road to the east, Lower Dandenong Road to the south and Grange Road and Bundora Parade to the west.

The Airport comprises 294 hectares of relatively flat, open land used for a variety of aviation and related uses and also a range of non aviation uses. Moorabbin Airport has a significant role in the Australian aviation industry, being one of the busiest light aircraft Airports in Australia. Several roads traverse the site, incorporating Grange Road, Southern Road and Bundora Parade. No through access is provided through the Airport land between Centre Dandenong and Lower Dandenong Roads.

The locality plan of the Airport is provided in **Figure 1**.

The Airport land includes the following uses:

- A dedicated aviation movement area in the centre of the site, extending from Centre Dandenong Road to Lower Dandenong Road.
- A helicopter operations and parking area to the east of Bundora Parade.
- A control tower, Airport terminal and Airport management office located near the corner of Bundora Parade and Second Avenue.
- Offices, hangars, apron areas and parking areas north of Second Avenue and west of Bundora Parade, and on the northern and southern sides of Northern Avenue.
- An Airport museum south of Second Avenue.
- An existing retail activity node, with associated landscaping and car parking, located in the north-west of the Airport site.
- Chifley Industry Park situated in the north-east of the site.
- A restaurant, landscape garden suppliers and timber sales, Kingston Golf Course (operating via a ten (10) year lease) and a service station are located on the eastern and south periphery of the Airport land.

Adjoining uses include:

- Land immediately to the east of the site is generally dominated by the Redwood Gardens Industrial Estate which is characterised by low density industry, warehouse and commercial development within a high amenity, generously landscaped setting. The estate is well established as a local employment base and has been developed at a higher quality than older industrial estates further to the south in Braeside.
- The proposed Dingley Freeway extends to the east of the Redwood Gardens Estate, forming a break between industrial development on Boundary Road and residential areas located further to the east in Dingley.
- A McDonalds Restaurant and service station are located directly across Boundary Road to the east.



- Smaller scale industrial, manufacturing and warehousing premises are clustered directly to the south of the airport across Lower Dandenong Road, and also to the west in the vicinity of Grange Road. Some of the development to the west of the airport includes businesses with direct and indirect relationships to airport operations. These precincts generally cater for small to medium sized industries and do not offer the landscape/amenity environment of the Redwood Gardens Estate.
- A local strip centre is located towards the south-west of the airport on Lower Dandenong Road. The centre offers convenience retail facilities for the surrounding residential population.
- Established residential areas are located directly adjacent to the south and south-west of the airport. These areas also extend further to the west and north-west of the airport, although they are generally separated by intervening industrial or open space uses. A separate residential area is located further to the east beyond the Redwood Gardens Estate in Dingley.
- Across the site to the north land is developed with a range of public and private open space facilities, with limited agricultural/market garden areas further to the north-east. The Cheltenham RSL, Kingston Heath Municipal Reserve and Heatherton Recreational Reserve comprise the main public open space facilities in this area. The Capital Golf Course is a privately owned golf course, including a golf driving range containing public facilities with a café, which has been developed with extensive screening and mounding, along its boundary to Centre Dandenong Road. This treatment has limited the site's visual integration with surrounding land uses, and as a result, its interface with the Airport is relatively stark.

2.2 Sub Regional and Strategic Context

Moorabbin Airport is located in a predominantly urban area in south-east Melbourne. This region is one of the most important industrial and manufacturing areas in Melbourne, closely linked to neighbouring industrial land to the east, south, west and north-west. The Airport has a direct relationship to established industrial precincts across three of its key site frontages. These three precincts form part of a major industrial and manufacturing node in south-east Melbourne

The area surrounding the Moorabbin Airport is characterised by a variety of urban uses, with a clustering of commercial and industrial uses to the south, east, and west of the site, and established residential areas towards the north-west and south-west of the site, and beyond.

The Airport land provides a variety of strategic employment, retail activities and regional transport hub as part of the south-east urban area of Melbourne.

The airport is proximate to major transport arterials and there is potential to build upon the strategic linkages to the existing major industrial/employment node to the south and east of the site formed by Redwood Gardens, Braeside, Mordialloc and the Woodlands Industrial Estate.

Extensive transport infrastructure, both existing and planned, surrounds the Airport. Reservations for the proposed Mornington Peninsula and Dingley Freeways are located within 500 metres of the Airport. Centre Dandenong, Boundary and Lower Dandenong Roads provide arterial connections to the Nepean Highway, Warrigal Road and the South Eastern Freeway. Rail infrastructure is provided nearby from the Frankston and Dandenong railways.

Much of the land surrounding Moorabbin Airport was developed through a pattern of metropolitan growth which followed the existing rail and road infrastructure until the 1940s. The post World War Two housing boom accelerated this pattern of urban growth. With greater emphasis upon expansion of Melbourne's metropolitan boundaries in the south-east by the 1950s and 60s, former townships such as Mordialloc, Moorabbin, Frankston and Dandenong were included in the Melbourne metropolitan area.

Although once dominated by market gardens, the areas surrounding the Airport have been progressively developed for a range of residential, industrial and commercial uses, with only limited areas to the north of the site still in use for agricultural purposes.

The site is located in a regionally significant and well established industrial and commercial area, with strong demand for a greater supply of land providing for expanded industrial, commercial, office and retailing developments. Moorabbin Airport's location at the inner end of the vast South Eastern Growth Area makes the Airport one of the most well located sites in Melbourne for further commercial and industrial development. Opportunities for such development may build upon the existing aviation functions of the airport and contribute to the economic development of the region as a major industrial/commercial node.

Residential development is generally located beyond the airport's immediate interface, except to the south-west of the site where residential development is established adjacent to the airport's boundary. Significant residential areas extend along the bayside area, with industrial development located generally inland from the Nepean Highway. Existing strip shopping and neighbourhood retail centres are located throughout the region with a major freestanding retail centre located in Cheltenham. The sub regional locality of Moorabbin Airport is illustrated in **Figure 2** and an aerial photograph of the site is shown in **Figure 3**.

2.2.1 Port Phillip Strategy (Aviation Capacity)

Whilst Moorabbin Airport, as a federal leased airport, does not fall within the jurisdiction of the State of Victoria some considerable work has been done in the past in regard to aviation capacity in the Port Phillip Bay area.

The Port Phillip Strategy was prepared in 1991 to guide the future direction of aviation in the Port Phillip catchment of Victoria, relating primarily to metropolitan Melbourne. The strategy's aims were to examine the Airport and airspace needs of the Port Phillip region by analysing the historical context of existing Airports and the findings of previous aviation/Airport studies. In relation to Moorabbin Airport, the strategy noted that the Airport fulfilled an aviation and economic role of regional and state importance.

In 1989, aircraft movements totalled 402,000, which included 34,000 helicopter movements. At this time, approximately 600 people were employed at the Airport with provision for further expansion. Commercial development was mooted as a significant development option for the non movement (landside) area of the Airport.

In regard to Airport movement capacity, the Strategy stated that:

'No detailed assessment of capacity has been carried out but it is generally accepted that the unconstrained capacity is in the order of 450,000 to 500,000 aircraft movements. Current forecasts, unconstrained by environmental considerations, show levels of demand at Moorabbin Airport exceeding the capacity of the Airport within the study period'.

It has been estimated that 523,000 aircraft movements are the practical limit of the Airport although a theoretical limit of 686,000 GA movements and 11,000 commuter aircraft movements was indicated. A distinguishing feature of Moorabbin Airport is that 80% of its movements are related to pilot training. This results in concentrated aircraft activity in the near vicinity of the Airport (Port Phillip Region Airport and Airspace Study, 1991, pp. 5, 12, 16, 18).





The approved ANEF of 1998, and the approved Master Plan (1999) took as a 20 year forecast a total of 452,000 movements based on a 1.5% per annum increase as a movement capacity cap. MAC continues to retain this total but notes that actual growth in the preceding five year period has been well under forecast and a likely 20 year figure would be 348,000 movements. (refer to **Section 3.2.6**). Whilst there is little change in the ANEF contours up to 523,000 aviation movements, a likely ceiling of 452,500 movements has also been adopted as a practical balance between environmental and commercial considerations.

2.2.2 Melbourne 2030 – Planning for Sustainable Growth

Melbourne 2030, released in October 2002, sets out major policy guidelines for the future development of Melbourne. The Melbourne 2030 document and associated Implementation Plans contain nine key directions that aim to ensure that land use and transport planning and investment always contribute to economic, social and environmental goals.

Advice was received from the Department of Sustainability and Environment, dated 19th November 2003, advising that the "submission has been carefully assessed and it is considered that the land occupied by the airport should not be included in the Urban Growth Boundary (UGB) as the land is owned by the Commonwealth Government and is not subject to strategic planning controls. The UGB has therefore been modified to reflect the airport boundary". A copy of this letter has been included in **Appendix A**.

Moorabbin Airport performs a major role in the provision of metropolitan and regional air transport, commercial and industrial employment development. The approved development of Moorabbin Airport is assisting with the provision of important business, commercial and employment activities in the middle ring suburbs of Melbourne. The strategic planning for this site is therefore guided by a Master Plan approved under the Airports Act 1996 by the Federal Minister.

2.2.3 Victoria Planning Provisions – State Planning Policy Framework (SPPF)

The Airports Act 1996 (Part 5) specifies that "an airport master plan must, in relation to the landside part of the airport, where possible, describe proposals for land use and related planning, zoning or development in an amount of detail equivalent to that required by, and using terminology (including definitions) consistent with that applying in, land use planning, zoning and development legislation in force in the State or Territory in which the airport is located". As such, relevant parts of the Victoria Planning Provisions have been utilised in the Moorabbin Airport Final Master Plan (2004) in a form consistent with Victorian planning schemes. The detail of this planning framework is set out in **Appendix B**.

A range of aviation related and other commercial developments are encouraged at Moorabbin Airport to support business, transport and economic policy.

The Business Policy (clause 17.02 of the State Planning Policy Framework (SPPF)) encourages the concentration of developments which will meet the community's retail, entertainment, office and other commercial services, providing accessibility, aggregation, efficient infrastructure use and sustainability.

Significant industry uses exist on land surrounding the Moorabbin Airport. This role is being complimented with industrial uses encouraged in various precincts on the land, which support aviation activities and other appropriate manufacturing and industrial uses. MAC will have regard to *Recommended Buffer Distances for Industrial Residual Air Emissions (EPA 1990)* and clause 52.10 – Uses with Adverse Amenity Potential of the Land Use Plan. MAC development compliments and enhances the regional business and commercial activities and supports the aviation function of the Airport.

Planning for the Moorabbin Airport has considered the airfields policy (clause 18.04 of the SPPF) through the preparation of the Moorabbin Airport Final Master Plan (2004). This has

created a clear distinction between the airside and landside areas and comprehensive development objectives and proposals for the use and development of the land "to recognise and strengthen the role of airfields as focal points within the State's economic transport infrastructure".

2.2.4 Kingston Planning Scheme

The Kingston Planning Scheme was prepared as part of the planning reform process adopted by the Victorian Government.

The Kingston Municipal Strategic Statement (MSS) provides a vision for the strategic land use planning for the municipality. The Kingston Planning Scheme acknowledges that the Airport as Commonwealth land (CA) and outside the scheme.

Moorabbin Airport is identified in the MSS as an important regional and state asset, and as the third busiest Airport in Australia. Whilst the MSS states that the Airport is located centrally and is bound on three sides by developed industrial and residential urban areas. The Airport has a direct relationship to regional urban land use activities and regional economic development imperatives.

A variety of the planning controls and policies in the Final Master Plan (2004) are supported by planning provisions in the Kingston Planning Scheme, as reflected in this strategic report.



3.0 AVIATION STRATEGY

The key element of the Moorabbin Airport Aviation Strategy will continue to be the maintenance of a fully functioning and suitably licensed airport of major significance both to the Melbourne metropolitan area and to the State of Victoria as a whole. The primary function will continue to be that of General Aviation of all forms, with special emphasis on the vital training role this airport performs. MAC will continue to seek opportunities to expand this role.

MAC will further seek to expand the capabilities of Moorabbin Airport, and its attraction as a part of the vital transport infrastructure of Victoria, by the development of Regular Passenger Transport (RPT) services from Moorabbin to regional destinations in Victoria and Tasmania, as well as services to main state capitals.

MAC will work closely with existing Airport users and the broader aviation industry to identify the best companies in the industry and entice them to locate their businesses at Moorabbin

MAC intends to fully meet the various statutory requirements of Airport ownership contained within the Airports Act 1996, the Civil Aviation Safety Regulations and the new Transport Security Act and Regulations, as well as normal statutory requirements for any business body within the State of Victoria.

MAC's strategy for the future long term growth of aviation operations at Moorabbin builds upon the existing **Approved Australian Noise Exposure Forecast (ANEF)** for the Airport, which represents the current accepted level of forecast aviation growth. The existing ANEF has been endorsed by Air Services Australia and accepted by State Government and Council as a basis for the long term planning of the Airport. This Aviation strategy allows for development to occur taking account of the approved ANEF and the nominated level of aviation growth it envisages. Further options for development of the Airport identified through this Final Master Plan (2004) may require the existing ANEF to be revised, however approval and endorsement of any new ANEF will be sought at the appropriate time.

3.1 Aviation Strategy- A Five Year Review

The Aviation Strategy contained within the approved Master Plan (1999) contained two key elements:

- The retention of Moorabbin's role as Australia's premier flying training airport and development of business associated with this and other general aviation functions.
- The gradual change in the mix of aircraft operations with a greater emphasis on the growth of Regular Public Transport (RPT services.

As with all plans, the approved Master Plan (1999) was a forecast based upon the best possible information available at the time. Not even the most pessimistic forecaster could have foreseen the events that have shaken the aviation industry since the approved Master Plan (1999) and have had major repercussions on the operation of companies at Moorabbin airport.

3.1.1 Key Events During The Five Year Period

When MAC took over the operation of Moorabbin Airport the general aviation industry as a whole was basically stable, and a small growth in both business activity and aircraft movements could be confidently forecast. The challenges the industry faced were largely those of an old established business, aviation training, moving to compete with new diversions for youngsters wishing to fly – the attraction of new devices such as jet-ski's, the rise of the television culture, the (then) small impact of the internet, and other diversions which compete for the discretionary income of those who might wish to fly.

The based training fleet was relatively old, notwithstanding the initiative of one major operator in acquiring new Cessna 172 aircraft. RPT traffic was generally growing and the airport supported two RPT operators, one of whom was linked to a major carrier CRS reservations system.

In order to stimulate interest amongst the general public in Aviation, and to celebrate 50 years of Moorabbin as an airport, an air show was planned for December 5th 1999 to showcase what Moorabbin could offer as a vibrant base for aviation. The air show was a great success. What followed immediately after this has turned the entire general aviation industry into turmoil.

The Avgas Crisis of 1999/2000

On December 21st 1999 an aircraft operated by Royal Victorian Aero Club had an engine failure immediately after takeoff. The pilot was able to safely return to the airport and the aircraft engine was checked for damage. A gooey black substance similar to Vegemite was found in the carburettor of the aircraft. By chance one of the maintenance engineers talked with a colleague at another company and found that a very similar event had occurred. CASA was informed and an investigation team sent to view the aircraft.

The cause of this failure was identified as the fuel supplied by Exxon Mobil Aviation from their Altona plant. A substance called EDA had managed to get through the quality approval process and was rapidly damaging carburettors of all aircraft using this fuel. On 23rd December CASA issued an immediate grounding order to all aircraft using this fuel which was subsequently extended in early January 2000 to all aircraft on the eastern seaboard of Australia that had used this fuel – which was the majority of aircraft based at Moorabbin.

Within days movements at Moorabbin had slowed to a mere trickle as operators and maintenance engineers struggled to devise ways to both identify this agent and clear the aircraft fuel systems. Flying schools lost huge amounts of business, charter and RPT companies were forced to cancel flights, and owners found their aircraft potentially unsaleable if they had been contaminated with this fuel.

By March 2000 aircraft began to return to service, but the general aviation industry had suffered a grievous blow- both financially and more important a blow to confidence.

Exxon Mobil Aviation made various offers to operators for financial compensation. However public confidence in aviation was severely shaken and this was seen in the reduction of "walk-in" business from people wanting to fly, and in general the reduction in flying hours achieved.

Whilst the Avgas contamination crisis affected the whole industry on the East Coast it affected Moorabbin probably the most- as more aircraft were fuelled by Exxon Mobil and it became the media centre of the story as it unfolded.

The Effect of GST and the Low Australian Dollar

The costs of aviation training, and aviation in general, were further increased by the introduction of the GST in 2000 and the fall of the Australian Dollar. This latter issue was important because most if not all aviation components are key-priced in US Dollars, so a weak Australian Dollar had the effect of forcing up local parts and component pricing.

Against this Australia became a more attractive place for overseas students to train, and several flying schools picked up on these factors by offering Commercial pilot courses to the overseas market.

The Collapse of Ansett

A key part of the approved Master Plan (1999) was the potential for Moorabbin to develop into a niche-market RPT base for passenger flights to other Australian state capitals. Market research conducted in 2000 (see 3.2.8) clearly stated that a huge market existed for such services.

In 1999 and 2000 MAC was in contact with all the major carriers, and a number of "start-up" operators, in regards to the provision of such services. The major carriers were not especially supportive of such a concept as they viewed the operation of a service aimed at business markets as cannibalising on their existing premium traffic from Melbourne airport. However there was a level of interest as a niche operation could provide them with greater market share.

In 1999 and 2000 Impulse and later Virgin Blue commenced revenue operations. The environment was one of exploiting traffic potential and MAC was encouraged by the number of start-up carriers we were able to talk to.

However the Ansett crisis changed this. Combined with the Sept 11th attacks confidence collapsed almost overnight and has not returned. The RPT passenger market between major cities has now, after considerable turmoil, returned again to an effective duopoly of Qantas and Virgin Blue and new entrants face an increasingly difficult task in getting started.

The September 11 Attacks

The word "Aviation" began to attract fear in the minds of many people following the tragic S11 attacks in the USA. Following these attacks MAC fielded many phone calls from members of the public who were physically frightened by the mere passage of a light aircraft over their homes. There were many calls for draconian solutions to aviation security and MAC commenced a number of initiatives to improve security that continue to this day and will continue into the future with the Aviation Transport security Bill expected to come into effect in 2004.

The impact on general aviation was again the collapse of confidence. Faced with threatening images on a TV screen, many parents suggested that perhaps their children should look to another career than flying, and all aspects of aviation suffered in a similar way.

The Continuing Battle Against Alternative Activities

For many people who learned to fly in the "halcyon" days of the 1960's and 1970's the choice for them was in many ways very easy- to fly or to take up some other sporting activity such as Golf. And as a career flying had a distinct cachet.

In the 21st century the environment is considerably different and much more hostile to aviation. The internet, multiple choices of cable TV, more affordable travel options, new activities expanding almost every week, all combine to force general aviation even more into a niche. The chase to find the revenue dollar of discretionary income from the public, or to elicit a career idea in a youngster's head, is even harder.

3.1.2 Business Gains and Losses

Moorabbin Airport is a complex mixture of different businesses- many dependant on each other for support and survival. Amongst the various activities the airports supports. Inevitably there are successes and failures in business and during the five year period we have had:

The failures.

- Aus Air, a major RPT operator, specializing in flights to Tasmania, failed and the business was wound up.
- Two maintenance organizations failed. Both were wound up.
- One flying school merged with a competitor.
- One flying school and charter operator failed and is in the process of being wound up.

The successes:

- A new RPT service, Airlines of Tasmania, has commenced serving Flinders Island; this is likely to extend to Tasmania during 2004.
- Two small flying schools have commenced operation.
- EADS Eurocopter, a helicopter distributor, has commenced operations in a hangar that was previously used for non aviation purposes.
- Another helicopter charter company has started operations and a fixed wing operator has developed its services.
- Two hangars are devoted to aircraft storage- one for a "war bird" group and one for a commercial storage operation.
- Some maintenance operations have changed hands and consequently grown.
- Aviation Welding Services, a specialist overhaul company of turbine engines, has relocated to Moorabbin from Western Australia.
- Royal Victorian Aero Club has undertaken an extensive refurbishment of its facilities resulting in a new and highly attractive clubroom and restaurant complex which is also open to the general public.
- MAC has constructed a new regional office for the Civil Aviation Safety Authority.
- Two fuelling companies, Exxon Mobil Aviation and Shell, have constructed brand new facilities at Moorabbin, both of which comply with state of the art environmental standards. In doing so Exxon Mobil has closed and cleared an old site on Grange Rd.

3.1.3 Building Growth

During the five year period one new hangar has been constructed, one has been converted to aviation use, and MAC has built a new regional office for CASA. As stated above, two new fuel facilities have been constructed.

3.1.4 Based Aircraft Numbers

At the start of the planning period between 280-310 aircraft and helicopters were based at Moorabbin. This number has stayed basically stable but within this there has been a marked shift in aircraft type and operation.

The most striking has been in the growth of helicopter operations. A number of new helicopters such as the EADS EC120 Colibri and EC130 have been deployed at Moorabbin. In addition the number of small helicopters used for training has increased.

In addition a number of new fixed wing aircraft have been imported. This includes large numbers of Cessna 172 and 182 aircraft imported by our major based flying school for training purposes. In addition several new generation Cirrus SR20 aircraft are now in use. These are ultra-modern touring aircraft and a number have a unique ballistic parachute emergency recovery system.

In general however the change has been skewed towards modern training aircraft. Older aircraft, or those used primarily for occasional leisure pursuits have dropped in number with several moving to smaller airstrips such as Tyabb.

The charter operators have remained constant with the workhorse aircraft, the Piper Navajo, remaining in almost identical strength at the end of 2003 compared to 1999.

3.2 Aviation Planning Criteria

A range of studies and forecasts have been examined in the preparation of the aviation strategy for the Moorabbin Airport as detailed below.

3.2.1 Existing Aviation Operations

Moorabbin Airport was opened in 1949 following a decision to develop a secondary Airport for Melbourne. The Airport began as a grass field and asphalt runways were constructed during the 1960s to establish all weather runways. During 1983-87, the runway layout was modified to its current layout to accommodate General Aviation Airport Procedures.

Moorabbin Airport is used for a variety of aviation uses including commercial aviation, training and recreational flights. Five runways service the Airport as shown in **Figure 4**. Existing runways and associated lengths are as follows:

-	17L/35R:	1335 metres
-	17R/35L:	1240 metres
-	13L/31R:	1150 metres
-	13R/31L:	1060 metres
	04/00	E71 motros

- 04/22: 571 metres

The Airport has a substantial network of taxiways and aprons serving several hangar and building areas. Around 300 aircraft are based at the Airport. These range from light single engine aircraft and sophisticated twin engine aircraft through to smaller executive jets. The airport is a base for RPT operations to King Island and to Flinders Island.

70 tenants are located at the Airport, with 50 aviation related tenants and 12 flying training organisations, amongst others. Major tenants include:

- General Flying Services. One of the largest flying schools in Australia and indeed worldwide.
- Royal Victorian Aero Club. One of the oldest aviation organisations in the world and a leading aero club in Australia.
- King Island Airlines. A successful operator of scheduled RPT services to king Island utilising Bandeirante and Navajo aircraft.
- Tysons Fuelling Services. Refueller supplying Exxon Mobil and Air BP product.
- The National Aviation Museum.
- Civil Aviation Safety Authority. Regional office for Victoria and Tasmania.

Aviation buildings and annexes comprise 37 hangars and 75 general purpose buildings and hangars. The leased area of these buildings and annexes is approximately 225,000 m².

3.2.2 Objectives and Constraints

The primary purpose of the Final Master Plan (2004) mirrors that of the approved Master Plan (1999) and continues to be to articulate a clear vision for the ultimate development of the Airport so that the potential of the Airport site is optimised to satisfy long term aviation needs and provide for complimentary commercial developments.

Airport capacity is arguably constrained by environmental considerations, particularly the need to preserve the existing compatibility and balance between Airport noise impacts and nearby residential areas. The Final Master Plan (2004) continues to adopt a practical ceiling of **452,500 annual aircraft movements** to respect the amenity of the area. This ceiling represents about 80% of the practical capacity of the existing runway system.

It has been estimated that 523,000 aircraft movements is the practical limit of the Airport, although a theoretical limit of 686,000 GA movements and 11,000 commuter aircraft movements was indicated by the Port Phillip Airport and Airspace Study in 1991.



Moorabbin Airport is strategically well located to attract the corporate aviation sector, and to expand its regular public transport (RPT) and freight services. Despite considerable canvassing of potential airline operators this vision remains unrealized. At this time it is difficult to do more than speculate about the potential scope of these activities however **Figure 5** provides an indication of the airport's potential long term requirements for hangars and aircraft parking in association with these activities. This policy requirement can be achieved by:

- Making provision for future runway extensions to suit modern regional jet aircraft commonly engaged in Regular Public Transport (RPT) operations.
- Designating a future passenger terminal precinct. The Final Master Plan (2004) designates the most likely location for a terminal, which is the site of the current management offices. However, an airline operator may require an alternate site and this must be allowed for in future planning.
- Providing for corporate aviation and aerospace industry hangars and facilities, and ancillary development.
- Continuing to accommodate a mix of general aviation aircraft and activities.

The dimensions, shape and layout of basic Airport facilities (runways, taxiways and aprons) and the surrounding airspace which must be kept free of obstacles, are determined by the performance capability and size of the aircraft for which they are provided. The planning of Airport facilities therefore begins by identifying the most demanding or "critical" design aircraft intended to use them.

Australian requirements are determined by the Civil Aviation Safety Authority (CASA) and are now published primarily in their *Civil Aviation Safety Regulations (CASR) Part 139* and the related *Manual of Standards (MOS) Part 139*. Each aircraft or Airport facility has a reference code which comprises a number and a letter, hence a Code 3C aircraft, a code 3 runway or a code C taxiway. A code 3C aircraft is permitted to operate only if the appropriate code 3 and code C facilities are provided.

3.2.3 Design Aircraft

The Final Master Plan (2004) continues to adopt a Code 3C aircraft for the facilities initially planned for regular public transport (RPT) operations. Facilities which would need to be developed for RPT activity include runway 13R/31L, its parallel taxiway, and a taxiway link to the passenger terminal apron.

Moorabbin can serve as an origin/destination port for both the business and leisure traveller providing a viable and attractive alternative to Melbourne Airport, offering high frequency and equivalent service levels with typical regional turbojet aircraft. The largest of these is currently a code 3C aircraft. This class is typified by the BAe 146/AI(R) Avro RJ series of turbo jet aircraft with seating capacity for between 70 and 100 passengers. These state of the art aircraft use the most modern large fan jet engines which are particularly quiet. Future generation aircraft in this class will include quiet operating technology and will be of very similar size and performance capability because of runway limitations of regional Airports to which they are typically designed to operate worldwide.

The airport can in certain circumstances accommodate limited jet operations without extension or modification to the runways. However in practical terms a turboprop operation of De Havilland Canada Dash 8-300 aircraft, a 40-50 seat turboprop, would appear to be at the limits of current technical capacity.



Since the approved Master Plan (1999) was approved a class of aircraft has arisen that straddles the boundary between current airport capability and capability with an extended runway. This class consists of modern light jet passenger aircraft typified by the Fairchild-Dornier 328JET, a 32-34 passenger aircraft, or the Embraer EMB135, a 37 passenger jet. They all embody the virtues of ultra-quiet operations with good operating economics on short sectors. To date none have been deployed in Australia.

It is not proposed to accommodate larger aircraft on a regular basis. For both operational and economic reasons it is not expected that this Airport will be suitable to older generation aircraft such as the Fokker F28, DC9 or early B737 series aircraft.

Facilities intended for corporate aircraft are planned to accommodate a Code 2B or 2C aircraft, for example: a Learjet. Runways and associated taxiways intended for use by larger general aviation aircraft are also planned to accommodate Code 2 aircraft. Generally speaking runway 13L/31R, the parallel 17/35 runways, and their associated taxiways are planned to this standard.

Helicopter facilities will allow unrestricted use by aircraft with a maximum rotor diameter of 15 metres, although detailed planning will ensure sufficient flexibility to accommodate the occasional larger helicopter. Examples of the type of helicopters to be accommodated at the Airport include those used by the media and emergency services.

These provisions recognise the inherent development limitations of the Moorabbin Airport site and the difficulties in providing infrastructure for larger aircraft types.

3.2.4 Terminal Facilities

The International Air Transport Association (IATA) publishes *Guidelines for Airport Capacity/ Demand Management* to address the problem of peak hour demands and congestion within the terminal precinct. Future planning of the passenger terminal facility will be based on the appropriate IATA "level of service" criteria which provide good levels of service and comfort at reasonable cost.

This methodology cannot be used until the characteristics of peak hour demand and passenger behaviour have been established. As an interim measure, short term planning for the passenger terminal facilities will be based on a provision of 12 square metres per expected peak hour passenger, or such other ratio as agreed with the relevant authorities. The Australian experience has shown this makes reasonable allowance for the normal range of functions associated with passenger processing.

The terminal will take a relatively simple form but make normal provision for passenger and baggage flow, and provide a limited range of retail services.

3.2.5 Aircraft Movements: Past Activity

Traffic levels at Moorabbin reached a peak of 402,000 aircraft movements in 1989. In earlier and subsequent years activity has been relatively stable at around 340,000 aircraft movements. Even so, in the 20 years to 1998 aircraft movements had grown at a rate equivalent to annual average of 2.1%.

Growth since 1998 has been largely negative. **Figure 6** provides a comparison of Moorabbin with other GAAP Airports throughout Australia for the period from Mid 1998 to the end of 2003. It can be seen from this chart that Moorabbin is tracking in a very similar manner to other GAAPs, with the exception that there are greater monthly differentials in aircraft movements compared to other GAAPs. This is probably due largely to the weather patterns of Melbourne affecting flying operations.



3.2.6 Forecasts

The General Aviation Industry is currently experiencing a major decline in activity as discussed in the five year review. Whether any of these factors will become a trend can only be a matter for conjecture. In 1998 MAC must took the view that a "normal" baseline for calculations of growth in aircraft movements would be a figure of 335,000 in the 1998/99 calendar year. In actuality this has been considerable less and **Figure 7** provides a comparison of actual growth during this first five years compared to an annualised forecast based upon the approved Master Plan (1999).

Total aircraft movements are shown in **Table 1** below. Within this figure is a gradual change in the mix of aircraft is anticipated as alternatives to recreational flying and other forms of non commercial GA evolve at the site.

With this figure in mind MAC has re-cast the forecast for the next 20 years at the same modest growth level of 1.5% pa that was used in the approved Master Plan (1999). This provides a target movement figure of 348,000 movements after twenty years, still well below the ANEF forecast of 452,500 movements.

Year	MAC Forecast Approved Master Plan (1999)	Actual Recorded (1)	MAC Forecast Final Master Plan
1998/99 1999 2000 2001 2002 2003	335,000	296,000 259,000 257,000 254,000 253,000 236,000	
2003/04	361,000		258,000 (2)
2008/09	389,000		279,000
2013/14	419,000		300,000
2018/19	452,500		323,000
2023/24	Not used		348,000

Table 1: Total Aircraft Movements

(1) Traffic figures are obtained from Airservices Australia published data (<u>www.airservices.gov.au</u>). This includes figures ONLY during hours of operation of the Control Tower, which in 2003 was 10 hours per day, 7 days per week. A number of movements are not recorded and thus do not appear in the figures. MAC conducted tests during 2003 and ascertained that on a typical night approximately 60 movements went un-recorded, largely from based aircraft doing circuit training immediately after tower closure. This equates to a figure of between 5 and 8% of total movements.

(2) A "high" estimate of 8% has thus been included in forward forecasts.

3.2.7 Regular Passenger Transport (RPT) Past Activity

Regular passenger services have operated since the late 1970s, serving the Bass Strait Islands, Northern Tasmania and Victorian regional centres.



RPT activity was officially recorded for the first time in 1996/97, and amounted to 6,903 aircraft movements, a little over 2% of the annual total.

Passenger movements have remained relatively stable since they were first recorded in 1991/92, although declining slightly at about 1.25% per annum to 32,980 passengers in 1996/97. In 1999 the main operator, Aus Air, ceased operations and services declined to around 15-20,000 passengers per year until quite late in 2003 when a new RPT operation commenced serving Flinders Islands. Thus two AOC holders currently provide RPT services utilising light aircraft such as the 19 seat Bandeirante and the 9 seat Piper Navajo. The potential for RPT services to mainland interstate capitals utilising larger aircraft has remained untapped.

3.2.8 RPT Market Potential

A market demand analysis (Urban Enterprise Pty Ltd, 1998) commissioned by the Airport's previous owner estimated a potential demand for business travel within the primary catchment area for Moorabbin Airport of around 250,000 passenger movements a year for a Moorabbin-Bankstown (Sydney) service. The primary catchment area was identified as the municipalities of Kingston, Monash and Greater Dandenong, and the primary target market within this area was identified as the small to medium sized manufacturing companies with a national/international market focus.

In 2000 MAC, together with Canberra International Airport and Bankstown Airport, commissioned a Market Survey conducted by Market Attitude Research Services (MARS) into traffic potential for a niche market business-orientated service on the main Australian capital city corridors, with a main focus on traffic to and from Moorabbin, Bankstown and Canberra.

In setting the terms of reference it was decided to exclude where possible traffic to and from the CBD areas of Sydney and Melbourne, arguing that this market place was already well served by Melbourne/Tullamarine and Sydney/Kingsford Smith. Instead the research concentrated on traffic from to the western suburbs of Sydney and the south and south-eastern sectors of Melbourne- ranging out to the Mornington Peninsular and into Latrobe Valley.

The study results showed: that 79% of SE Melbourne travellers would use Moorabbin- giving 332,000 journeys/year. 30% of western Sydney travellers would use Moorabbin – giving 225,000 journeys per year. This results is a market potential of over 279,000 Round trips per year. In addition the survey found a potential market of:

- Canberra: 102,000 Round trips per year.
- Adelaide: 125,000 Round trips per year.
- Brisbane: 155,000 Round trips per year.

This market study confirmed the earlier findings and reinforces the belief that a potential market exists for RPT services at a level of up to 12,500 movements (6,250 round trip flights) per year within the 20 year time span of the Final Master Plan (2004). Both potential passenger movements and the adopted ANEF forecast have been retained using this data.

This level of operations would support two airlines operating low frequency services to the stated destinations or 1.5 airlines operating medium frequency business-orientated services to the major capital cities and lesser frequencies to other destinations.

However, it is possible that two or more airlines will be attracted to service these markets and the figure of 12,500 movements is seen as a likely, but not certain target.

MAC reserves the right to apply for an increase in frequencies if market demand warrants this and will provide for public exhibition and government approval new ANEF profiles and revised passenger movement forecasts if demand so warrants.

The approved ANEF in (See 4.3.2.) relates to a forecast figure based upon 12,500 movements at the end of 20 years.

Estimating passenger movements based upon no past history is always an inexact science. However the approved Master Plan (1999) data using a "Low" and "High" forecast has been retained. The low forecast is based upon a 70 seat aircraft at 70% load factor. The High forecast is based upon a 100 seat aircraft at 70% load factor.

Growth forecast is at a conservative annual level of 1.1%.

The 100 seat aircraft is based upon a Bae146-300 or similar. For information, the current "new generation" regional jets such as the Embraer ERJ145, Bombardier CRJ and Dornier 528JET all have seating capacities around the 50 seat level

Forecast passenger movements are shown in Table 2.

Table 2: Total Passenger Movements

Year*	Low Forecast	High Forecast	_
Year 1	491,000	701,000	* Year 1 refers to the first year of
Year 5	519,000	741,000	the operations of the RPT
			services
Year 10	548,000	783,000	
Year 15	579,000	828,000	
Year 20	612,500	875,000	_

3.2.9 Freight Movements

Figures recorded between 1992/93 and 1995/96 suggest that around 1,100 tonnes of airfreight is consigned annually on the low capacity RPT services. A small number of dedicated freight services are provided by light aircraft with typical payload of 2-3 tonnes. Perhaps 4,000 tonnes of air freight are trans-shipped annually.

Air freight typically comprises high value lightweight articles or time-sensitive items such as perishables or business services which require maximum security. As a by product of high capacity RPT services such freight can normally be accommodated in the hold of the operating aircraft.

Because of its urban location Moorabbin Airport is a possible location for the development of night freight traffic and already supports a limited number of flights largely from and to King Island, transporting seafood, mail and newspapers. The potential, however, for the development of express parcels traffic does exist.

MAC will not encourage the operation of any airfreight flights operating between the hours of 2300 and 0600 local because it believes that this is an inappropriate use for Moorabbin Airport in the context of increased aircraft noise at night. MAC recognises that this policy will preclude an economic gain to the Airport but cannot accept that this gain outweighs considerations regarding neighbouring residential areas.

However it should be noted that MAC, as an Airport Lessee Company, has an obligation under the Airports Act 1996 to provide access to the airport for aircraft, in particular interstate aircraft and this meaning extends to freight aircraft. Thus MAC can only "discourage" but not prohibit such services. There are moreover existing based freight operations using small aircraft that have been in existence since some time before MAC commenced operations.

MAC will encourage the development of freight traffic on RPT flights, dedicated freight flights during daylight hours, and will encourage companies operating Logistics supply "Parts Banks" operating on the "Just-in-Time" principal provided they comply with the above requirements.

3.3 Aviation Safety

The primary responsibility of MAC as an Airport Lessee Company (ALC) is to provide aviation infrastructure to allow safe operation of Moorabbin as an airport. Moorabbin is an airport Licensed by CASA (Licence V003-1 issued 19th June 1998) and as such is subject to inspection and audit.

As part of this process MAC maintains a formal Airport Emergency Plan (AEP) and convenes an Airport Emergency Planning Committee comprising members of MAC management, rescue services, Kingston council and the regulatory agencies.

There is no based Rescue and Firefighting Service (RFFS), nor is one required by CASA or ICAO regulations. The based RFFS was withdrawn in 1990, some eight years prior to MAC purchase of the airport lease.

The AEP is a "living" plan in that it is regularly tested both in practical terms by actual call out and by planned exercise. In a typical year there will be between three and six full call-outs of the Emergency services. Most relate to minor problems such as an unsafe gear indication of an aircraft – which may be a faulty light bulb. However, the AEP must be ready to tackle any contingency with regard to airfield operations.

In the five year operation of the approved Master Plan (1999) there has been one serious accident on airport and one incident off-airport within the control zone. These were:

18 March 2000 (ATSB 200000932) Cessna 210 engine rough running on take off and ditched in a water filled quarry 2 km north of the airport. One fatality due to drowning.

29 August 2002 (ATSB 200203449) Two Cessna 172 collided over the threshold of runway 17L during night circuit training. Explosion and fire. One fatality.

A separate register is maintained by MAC regarding birdstrike incidents, and a bird management programme is in place at Moorabbin airport. Being a coastal airport, birds are a defined hazard and this fact is noted in the ERSA entry for Moorabbin Airport.

3.4 Aviation Security

From date of purchase by MAC until 2004, Moorabbin Airport has not been a security categorized airport and has not been required to maintain a formal airport security programme.

The situation upon purchase of the lease was that man-proof fencing or natural barriers existed to the north, east and south boundaries. The main populated area in the western sector of the airport had a mixture of man-proof, midlevel and low level fencing and a large number of access points, in line with the airports' role as a public access airport.

MAC has extended the use of manproof fencing to a large part of the airport and continues to upgrade such barriers. In addition further security measures such as night time patrolling, identity cards and other discrete measures have been introduced.

In December 2003 the Federal government announced an extension of the proposed Transport Security Bill to regulate an additional 180 airports across Australia. Moorabbin airport, together with Essendon and Avalon, will become regulated airports in the Port Phillip Bay area.

MAC will be cooperating with the Office of Transport security in whatever requirements are imposed to ensure adequate security for the airport.

3.5 Noise Abatement and Neighbourhood Consultation

3.5.1 Ongoing Consultation

MAC has a strong commitment to ongoing consultation and has implemented a consultative committee as an information forum and monitor of the aviation activities, which complies with DOTARS guidelines for consultative processes. This committee has met quarterly since November 1998. This committee will process and attempt to resolve issues or concerns in a pro-active manner. A wide cross section of representatives participate in the committee, including a representative from each of the Moorabbin Airport Corporation, Airservices Australia, Moorabbin Airport Residents Association (MARA), Dingley Village Community Association (DVCA), Department of Infrastructure, Kingston City Council, Local, State and Federal members of Parliament and the Moorabbin Airport Tenants Association.

3.5.2 Specific Noise Mitigation by Overlay

The primary planning tool for Moorabbin Airport is the use of the ANEF system to generate an Airport Environs Overlay (AEO1) overlays and policies which is describes areas of land close in the Moorabbin Airport which are subject to aircraft noise. This is further discussed in **Section 4.3**.

3.5.3. New Residential Developments Surrounding Moorabbin Airport

Moorabbin airport is now essentially an urban airport with the majority of land surrounding it built out. To the south and east there is predominately industrial development and to the southwest and west there is considerable residential development. Dingley Village to the east is under the circuit pattern for the eastern circuit. The majority of these developments were completed in the 1960's and 1970's despite concerns expressed at the time by airport management in regard to noise intrusion.

MAC had adopted a policy of opposing new large scale residential development within and close to the boundaries of the AEO1 overlays and policies. Whilst being unable to prevent such developments MAC has been successful in ensuring that all new large scale developments have suitable noise insulation installed (to AS2021 standard) at builder or developer cost and that Notice is attached to Title of Property that the buyer is aware that they are purchasing a property under an airport flight path. Further information is supplied to such purchasers upon request to MAC. The following developments have applied these procedures:

- Urban Land Corporation: Epsom Racecourse development. Applied on a voluntary basis after a Panel hearing and consultation and incorporated into planning permit by Kingston Council.
- Mirvac Corporation: Kingston Heath Development. Applied after a ruling in favour of MAC by the Victorian Civil Appeals Tribunal (VCAT).
- Australand: Baryn Court development. Applied on a voluntary basis and incorporated into planning permit issued by Kingston Council.

3.5.4 "Fly Friendly" Programme

A number of noise abatement measures are included in the operational procedures of Moorabbin Airport and incorporated into both the ERSA entry for the airport and a separate entry in ERSA regarding the designated "training area" which is to the south-east of Moorabbin. These measures include:

• Restrictions on aircraft using runway 17R for departure, including jet aircraft, warbirds and "noisier" aircraft using fixed pitch propellers. The reason: Minimising traffic over residential areas.
- Requesting aircraft departing from 17R and 31L to delay turns until over designated points to avoid noise over residential areas.
- Restrictions of the hours of operation of circuit training at night and at weekend.
- Publication of suggested procedures within the designated training area.

These and other noise abatement procedures are published in a number of aeronautical publications including the En Route Supplement Australia (ERSA) published by Airservice and the Melbourne Visual Pilot Guide (VPG) published by CASA. MAC publishes this information on its website and distributes printed material to all flying schools and owners of aircraft based at Moorabbin. It should be noted that these are noise abatement procedures which are voluntary and are not legally binding on pilots.

In addition signage has been erected on airport to provide a visual cue to pilots about to depart from runway 17R. MAC has also constructed a noise attenuating engine test cell at Moorabbin Airport to channel noise from continuous ground running of engines away from residential areas.



4.0 AIRPORT DEVELOPMENT

4.1 Methodology

The methodology adopted by MAC mirrors the previous approved Master Plan (1999) but makes reference to events that have occurred during the first five year planning period. In preparing this Final Master Plan (2004), MAC has reviewed previous planning and reassessed the location and space allocation of developments needed to cater for the forecast growth in Airport activity levels during the next 20 years.

The planning approach has involved assessment of demands for space on the Airport and the determination of an integrated layout for various aviation, aviation support, and commercial requirements.

Airside requirements have been established largely by reference to previous studies of land area and land use requirements (Meldrum Burrows & Partners, 1990 and Tract Consultants, 1998), development plans prepared by the Airport's previous owner (Federal Airports Corporation, 1996), Aviation operation areas are shown in **Figure 8**. A potential aviation development plan is also provided in **Figure 5**, which represents a longer term projection of future aviation needs and areas required for infrastructure development.

4.2 Specific Developments

4.2.1 Runways

Runways are referred to by a designator which is derived by truncating their magnetic bearing. A runway aligned 130° Magnetic becomes runway 13. The reverse direction, or opposite runway end, is designated as runway 31. Each runway comprises two directions and, in this case, would be known as runway 13/31.

Parallel runways are distinguished by designating them left (L) or right (R), as viewed by the pilot on take-off or landing. Moorabbin has two sets of parallel runways designated 13L/31R, 13R/31L, and 17L/35R, 17R/35L.

When landing and taking off, pilots are able to manoeuvre their aircraft on a runway as long as the wind component at right angles to the direction of travel (defined as cross-wind) is not excessive. CASA follows international practice in recommending that the number and orientation of runways should be such that aircraft may be landed, as a target, at least 95% of the time within their allowable cross-wind limits. The MOS states that "where runways are provided essentially for light aeroplane operations, the maximum permissible cross-wind component to be used for determining runway useability is to be 10 knots where 'ab initio' flying training is carried out."

Analysis of wind data from the Moorabbin Airport weather observation station, indicates that the primary and secondary runway directions (the 17/35 and 13/31 parallel runways) provide a combined useability of 92.7% for aircraft subject to a 10 knot cross-wind limitation. A third runway direction is therefore used. The existing 04/22 runway (aligned 035° Magnetic) provides the additional useability suggested by CASA (actually 97.8%).

MOS's clearly state that the decision on the provision and location of runways is the responsibility of the operator, who must make an economic judgement, balancing the cost of provision of runways against the economic cost of building them.

All plans for the main runways mirror the previous approved Master Plan (1999) in Strategy and content.



4.2.1.1 Runway 13R/31L – The Secondary North-West/South-East Runway

The existing runway 13R/31L is 1,060 metres long and 18 metres wide. The Final Master Plan (2004) provides for widening to 30 metres (for Code 3C aircraft). The Plan also protects a possible 394 metre runway extension of the northern end and an initial 181 metre extension of the southern end to provide a length of 1,635 metres. A further extension of 235 metres to the south is possible to provide an ultimate length of 1,870 metres. This is the only runway which can be extended sufficiently within the existing Airport site to provide for RPT regional jet operations. Limitations imposed by existing obstacles in the approach and take-off areas dictate that reduced lengths will be available for landing operations. The runway pavement will require strengthening to cater for aircraft weighing up to 50 tonnes. The Final Master Plan (2004) provides for runway lighting and a precision approach path indicator (PAPI) installation for landings in either direction.

Planning is based on providing a code 3C non precision instrument runway, the intention being to provide an instrument approach to both runway ends utilising Global Positioning Satellite (GPS). This implies a 150 metre overall runway strip requirement with the central 90 metres being graded.

The runway strip will be marked at the extremity of the 90 metre graded portion to allow the use of parallel taxiway Bravo in Visual Meteorological Conditions (VMC). Aircraft utilising runway 13R/31L would need to use taxiway Echo in Instrument Meteorological Conditions (IMC), when the runway strip requirement increases to 150 metres. This is not a significant operational or ground access penalty given many light aircraft engaged in flying training are grounded in these conditions.

The future development of GPS technology is likely to include a precision approach capability. Present standards require a 300 metre wide runway strip for this type of approach procedure but this is physically difficult to achieve. The standard allows the strip width to be reduced to 150 metres subject to an increase in decision height for the approach procedure. The decision height is the height above the landing threshold at which the pilot must execute a missed approach if the runway is not visible. Given the relatively favourable weather conditions experienced in Australia the likely increase in decision height of 11 metres (35 feet) is unlikely to affect aircraft operations.

The runway extension will displace the run-up bay for which additional provision needs to be made south of its existing location.

This runway is currently the least used of the four major runways. It is largely used by aircraft arriving or departing from Moorabbin in wind conditions where the runway is required.

4.2.1.2 Runway 13L/31R – The Primary North West/South East Runway

The existing 13L/31R runway is 1,150 metres long and 30 metres wide. It is equipped with low intensity runway lighting. The Final Master Plan (2004) protects a possible 350 metre extension of the southern end to provide an ultimate length of 1,500 metres. This reflects the previous planning policies of the Federal Airport Corporation and shows a potential extension only. It should be noted that the need for this runway extension will require further examination/justification. The proposed runway extensions are shown in **Figure 9**.

This runway is used primarily for circuit training when wind conditions indicate that the runway is required.

Bureau of Meteorology data and Airservices Australia figures indicate the 13/31 runways are in use for 20% of the year.



4.2.1.3 Runway 17L/35R – The Primary North/South Runway and The Main Airport Runway Currently

The existing runway 17L/35R is 1,335 metres long and 30 metres wide. It is equipped with low intensity runway lighting. Both approach paths have been certified for GPS Non precision approaches (GPS-NPA) by Airservices Australia.

A runway end stopway could be considered to provide additional stopping distances on runway 17L if required by a commercial operator. Otherwise, no change in use is planned for this runway. It will continue to bear the majority of airport operations and a partial resurfacing project will commence in 2004.

This runway accommodates the majority of circuit training at the airport and is also used for all jet movements when the runway is in use, and all movements of noisier aircraft such as those with fixed pitch propellers and warbirds, as it faces onto industrial/commercial developments and not residential housing. It is the preferred runway for Moorabbin Airport.

4.2.1.4 Runway 17R/35L – The Secondary North/South Runway

The existing runway 17R/35L is 1,240 metres long and 18 metres wide. It is largely used for aircraft arriving and departing from Moorabbin Airport. To the south is the residential community of Parkdale and a number of "Fly friendly" procedures are in place to minimize noise intrusion by aircraft operations. Noisier aircraft and jet aircraft are not permitted to use the runway (except for reasons of safety or separation) and aircraft departing to the south are requested to maintain their departure heading until south of the Woodlands Golf Club to avoid noise intrusion in Parkdale. (ERSA Moorabbin special procedures 3)

No change in use is planned for this runway. Bureau of Meteorology and Airservices Australia data indicates that the 17/35 runways are in use for 80% of the year with the predominance of use for runway 17L/35R.

4.2.2 Runway Protection

The runways will be protected to the following standards:

- Runway 17R/35L: Code 2 non instrument.
- Runway 17L/35R: Code 3 non precision instrument.
- Runway 13R/31L: Code 3 non precision instrument.
- Runway 13L/31R: Code 2 or 3 non instrument (depending on whether extended).
- Runway 04/22: Code 1 non instrument.

The Final Master Plan (2004) provides for the approach and take-off area immediately beyond each runway end to be kept free of incompatible objects or activities, particularly places of public assembly or workplaces. This follows international practices in recognition that an aircraft accident is more likely to occur in close proximity to an Airport during the final approach, take-off and initial take-off climb phases of a flight. A minimum distance of 300 metres is preserved as a "runway end safety zone" in each instance. This is shown in the Runway Protection Plan, **Figure 10**.

4.2.3 The 04/22 Runway

The approved Master Plan (1999) made reference to the existing 04/22 runway as having a severe impact on the usability and value of land in the north-eastern sector of the airport. Two options for continuing use of the runway were considered and proposed ANEC data was illustrated. These were:

- 1. Relocation to the south.
- 2. Reduction in length to provide a safe landing area in extreme crosswinds.



In late 1998, during the approved Master Plan (1999) Consultation period, MAC issued a Major Development Plan for Option 1, which was the relocation of the existing runway. However it became apparent that circumstances existed where Option 2 could viably be considered and the Major Development Plan was not proceeded with, and a Consultation Plan established to consider the shortening of the runway.

This option proposed reducing the length of the existing runway 04/22 to 571 metres. This provides a safe landing capability to all current light training aircraft but restricts the take-off ability of some aircraft on occasional days with direct crosswinds to the other runways.

This option maintained the safety levels for Moorabbin Airport, removed expensive re-location costs, reduced levels on some residential areas, and provided more efficient land-use in the NE corner of the Airport.

The disadvantage of the option was that some commercial flying schools may have restricted operations on occasional days (estimated at under 2 per year) when an excessive direct crosswind component exists.

In the consultation phase MAC contacted CASA, Airservices and the major schools regarding this option. CASA and Airservices confirmed in writing that the resulting landing strip meets all possible safety criteria. The major flying schools (representing approx 60% of all movements) had no objections to this approach as it did not have a direct economic impact on their operations.

The runway was therefore shortened in the Autumn/Winter of 1999 utilising option 2 following formal approval from CASA and Air services Australia. There are no implications for the ANEF. Section 3.2.1 and figure number 4 detail the current 04/22 length as 571 metres.

Circuit training is NOT allowed from runway 04/22. (ERSA Moorabbin Section 9- preferred runways)

4.2.4 Taxiways

The existing taxiway system provides sufficient runway and apron access entries/exits to deal with the forecast volumes of air traffic. The Final Master Plan (2004) retains this network of taxiways and, subject to final placement of the terminal building, the following additional taxiways are expected.

Taxiway Echo will be extended to provide a full length parallel taxiway to both ends of runway 13R/31L. It will primarily be used to access this runway in IMC when the runway strip width requirement increases to 150 metres. This may not be ideal since aircraft will be required to cross the runway to gain access to the taxiway, but aircraft movements are likely to be reduced in number during such periods. This would be operationally acceptable from ATC view point. In VMC taxiway Bravo is available to give direct access between the runways and the apron/building areas. Further taxiways may be constructed to meet individual needs of tenants and Airport areas.

4.2.5 General Aviation Aprons

The Airport's previous owner commissioned a study of land area requirements (Meldrum Burrows & Partners, 1990) which, among other things, identified the number of aircraft normally housed at the Airport during the period 1979-1989. This number was compared with total aircraft movements to derive a relationship which could be used to forecast future apron requirements. MAC continues to use the relationships derived from this study as the basis for its capacity planning.

Aircraft numbers ranged from a low of 320 to a high of 430, with the average being around 400. Moorabbin Airport noted that 15-20% of these aircraft were undergoing maintenance and repairs (and presumably housed in hangars) at any time, leaving 320-340 aircraft parked on

site. It was noted that the average number of movements per parked aircraft increased markedly from 846 to 1,000 following the first year of FAC ownership and the introduction of the user pays principle (GAIT). This implied that general aviation aircraft parking demand is highly price sensitive. The Final Master Plan (2004) assumes a continuing relationship of one aircraft based at Moorabbin Airport for each 1,000 annual aircraft movements.

There are approximately 300 aircraft currently based at the Airport. Assuming a continuing mix of single and twin-engined aircraft and helicopters, an additional 1.5 hectares of apron area is required for aircraft parking at the forecast capacity cap level of 452,500 annual movements. The Final Master Plan (2004) allows for a range of parking options to be provided including grassed and paved areas. Potential areas for future aircraft parking on the site are shown in **Figure 5**.

This estimate does not include apron frontage to hangar developments, which is licensed for dedicated use by the hangar occupant.

The Final Master Plan (2004) provides a further 2.9 hectares for aircraft circulation, i.e. taxilanes providing access to hangars and aircraft parking areas.

4.2.6 Helicopter Aprons and Hangarage

The Final Master Plan (2004) allows a further 0.6 hectares for additional helicopter parking and 1.2 hectares for circulation within the southern area which is designated for helicopter operations. The Plan provides for relocation of existing helicopter facilities and this additional area for expansion, subject to lease negotiations with existing tenants. It should be noted however that this area is currently unserviced by mains power, water or drainage and development will be dependent on commercial (non aviation) developments. In addition many of the current helicopter operators own their own premises on land leased from MAC (a common airport situation) and thus would need a positive incentive in order to move facilities. Thus this relocation of facilities is seen as a long term goal of the Final Master Plan (2004).

The approved Master Plan (1999) contained provision for two additional operators. This has already been met and new operators are active on Northern Avenue and Bundora Parade. However the Final Master Plan (2004) contains further provisions for expansion should the circumstances require it.

It should be noted that this does not refer to helicopter training areas.

4.2.7 RPT Apron

The start-up level of services on RPT feasibility study would require parking for up to six jet aircraft during the forecast busy hour. Should additional services to Brisbane and Adelaide prove feasible in the medium to long-term, two additional parking positions are likely to be required.

4.2.8 General Aviation Hangars

The relationship established by Meldrum Burrows suggests a demand for 42 hangars at the forecast maximum capacity of the Airport. There are currently 35 hangars. The Final Master Plan (2004) allows space for at least an additional eight hangars at an average of 2,200 square metres for each site – a total of 1.8 hectares. These are located in four hangar sites to the north of Northern Avenue, several potential sites to the east of Grange Road and a number of sites in the south-western sector of the airport. A number of blocks located in the industrial/commercial precinct in the north-eastern corner could also be utilized for aviation use. Even if only 20% of the potential sites are taken up for aviation use there would still remain a sizeable surplus of available land capacity for aviation use during the life of the Final Master Plan (2004) planning period of 20 years.

4.2.9 Corporate Aviation Hangars

The Final Master Plan (2004) allows for up to five hangars each of 2,800 square metres (approximately 1,200 square metres of building, 800 square metres of car parking and 800 square metres of apron) – a total of 1.4 hectares. **Figure 5** shows the potential location for corporate aviation hangars and facilities in the south-west corner of the site.

4.2.10 RPT Hangar

The Final Master Plan (2004) allows for a large maintenance hangar complex of 6,600 square metres (approximately 3,800 square metres of building, 1,000 square metres of car parking and 1,800 square metres of apron) – or 0.66 hectares. A potential location for an RPT hangar complex is shown towards the southern boundary of the airport in **Figure 5**.

4.2.11 RPT Terminal and Car Park

Peak hour activity is estimated as either two BAe146 type aircraft outbound and one inbound during the morning peak, or the reverse of two inbound and one outbound aircraft during the early evening peak. Since discrete facilities are generally provided for inbound and outbound passenger processing the functional design of the terminal should be based on two aircraft in each direction. Assuming a load factor of 70% and 200 available passenger seats, the terminal would need to cater for an equivalent of 280 passengers. On the basis of a relatively simple and functional terminal design this suggests a total area requirement of around 3,000 square metres as the first stage of the terminal development.

Long-term requirements would be more accurately determined once patronage and patterns of use have been established for the RPT service. At this stage it seems probable that the terminal would need to cater for up to 400 busy hour passengers and provide space allocation of around 5,000 square metres.

Car parking requirements are purely speculative at this stage, but assuming a significant proportion of passengers would drive the initial requirement is likely to be at least 250 parking spaces. This would increase to 350 spaces in the longer term.

The Final Master Plan (2004) provides for an RPT terminal and contiguous car park development on and adjacent to the site presently occupied by the MAC Administrative Office (see **Figure 5**). However, an airline operator may require an alternative site and this must be allowed for in future planning.

4.3 Noise Impact Assessment and External Land Use

4.3.1 Use of the ANEF System

Government policy requires adoption of the Australian Noise Exposure Forecast (ANEF) system for predicting likely noise exposure around Australian Airports. The system is described in Australian Standard AS2021-1994, which also advises the acceptability of building sites for various uses based on ANEF zones. Noise exposure contours of 20, 25, 30, 35 and 40 are normally shown on these charts, the higher numbers representing an increasing level of aircraft noise nuisance. Noise from other sources is likely to dominate outside the 20 ANEF contour.

Three different types of charts are produced using the ANEF system:

- The ANEC (Australian Noise Exposure Concept) which comprises a set of contours based on hypothetical operations at an Airport in the future, and primarily used to examine planning options.
- The ANEF (Australian Noise Exposure Forecast) which comprises the Australian Standard set of contours used for land use planning, and is derived from firm forecasts of aircraft operations in a particular year.

• The ANEI (Australian Noise Exposure Index) which comprises a set of contours calculated using actual aircraft movement details from a particular year.

4.3.2 Moorabbin Airport Approved and Endorsed ANEF

The Airport's previous owner (FAC) produced an Australian Noise Exposure Forecast (ANEF) in 1998. This ANEF has been endorsed by Airservices Australia and adopted by the City of Kingston as the basis of land use planning controls in the Airport environs. The approved ANEF is shown in **Figure 11** and relates to a traffic pattern in year 2010/11.

MAC will continue to use this Approved and Endorsed ANEF as a planning tool and as a basis for the Final Master Plan (2004).

It is based on a forecast scenario of 452,500 annual aircraft movements of which 12,500 movements were expected to be by regional jet aircraft. The mathematical data uses the Bae146 as such an aircraft.

Computer modelling which generated the ANEF was based on the existing runway directions with both 13/31 parallels extended. 13R/31L is the only runway which can be extended sufficiently to cater for RPT regional jet operations and runway 13L/31R was thought likely to be required as a noise abatement alternative for smaller corporate jet aircraft.

The existing ANEF reflects the standard arrival, departure and circuit training procedures and flight paths applicable for operations in the Moorabbin General Aviation Aerodrome Procedures (GAAP) control zone. This mode of operation is assumed to continue into the foreseeable future.

Nearly seventy percent (70%) of all fixed and rotary wing general aviation operations were forecast to be involved in flying training.

When the adopted ANEF was prepared, it was based on a forecast growth rate of 1.7% per annum (Tourism Futures, 1996) and was therefore thought to be representative of operations in year 2010/11. Under current negative growth levels the ANEF may never be achieved.

4.3.3 Moorabbin General Aviation Airport Procedures (GAAP)

The standard parallel runway operation at a GAAP Airport permits simultaneous opposite direction or contra-circuits by day and in visual conditions utilising separate Control Tower frequencies. ATC regulates operations independently in each circuit. If weather conditions dictate or low traffic density permits operations to be confined to a single runway, ATC will specify the circuit direction. All circuits are conducted to the east and north-east of the Airport if the control tower is not staffed. Circuit training is generally not permitted between 9 pm (10 pm daylight saving) and 7 am. No circuit training is permitted after dark on weekends. The standard circuit altitude is 1,000 feet above sea level.



Proposed RPT operations by regional jet RPT aircraft such as the BAe146 will be required to make a 15° right turn when taking off to the north on runway 31L. These aircraft will make a "straight in" approach to the runway when landing. These measures are designed to minimise overflight and reduce noise exposure in residential areas.

Aircraft inbound for Moorabbin enter the GAAP control zone at 1,000 feet from one of six designated approach points located at a distance of about 6 nautical miles (10 kilometres) to the east, north-east, north-west, west, south-west and south of the Airport. Once inside the GAAP control zone (3 nautical miles or 5km) ATC may authorise pilots to make a straight-in approach to land or to do so after joining an appropriate leg of the circuit.

Helicopters operate in visual conditions by day at an altitude of 700 feet above sea level. Special procedures apply to avoid helicopters arriving or departing Moorabbin from flying over Airport buildings, public viewing areas or adjoining residential areas. Helicopter circuit training is largely conducted to the east of the duty runway from the area known locally as the "eastern grass" with use of the western circuit restricted to times when the 13/31 runway system is in operation and there is significant fixed wing traffic. Wherever possible helicopter training is conducted within the airport boundary.

4.3.4 External Land Use Planning Controls

The City of Kingston new format Planning Scheme recognises the importance of Moorabbin Airport and acknowledges its potential to expand. Moorabbin Airport is recognised as a core use and the Municipal Strategic Statement (MSS) identifies the interface between residential development and the Airport as the key issue for Kingston.

The MSS states that:

"Residential encroachment around Moorabbin Airport and changes in nearby land use have also brought about conflict at the Airport interface. It is considered that the Airport, due to its major impact on the regional economy, needs to be adequately protected to ensure that it can develop to reach its full potential without adversely affecting current activities, and as such any opportunities for further residential development in this area are necessarily limited."

This policy objective has been implemented by incorporating into the Kingston Planning Scheme:

- An Airport Environs Overlay (AEO1) control over areas above the 25 ANEF contour.
- An Airport Environs Policy covering those areas between the 20 and 25 ANEF contours.

In AEO1, regardless of the zone provisions, land must not be used for noise sensitive uses such as a childcare centre, school or hospital. A permit is required for a number of nominated uses including a dwelling, hotel, office and residential hotel. All applications to use land within this overlay must be referred to the Airport owner and would only be approved if the building design incorporates appropriate noise attenuation measures.

The Moorabbin Airport Environs Policy lists a range of sensitive uses and provides for new developments to meet AS2021 standards. The policy requires Council to consider the present and future operations of Moorabbin Airport taking into account the views of the Department of Transport and Regional Services. Rate notices are used to advise property owners if they are subject to the policy.

The existing approved ANEF will continue to represent the model for growth upon which the planning overlays are based. Indeed, the City of Kingston has indicated that it would not be willing to modify the planning overlays until any new revised ANEF is formally endorsed by the Federal Department of Transport and Regional Services and the necessary runway alterations are commenced.

4.4 Prescribed Airspace

Prescribed Airspace is defined under the Airports Act 1996 as airspace where, in the interests of the safety, efficiency or regularity of current or future operations of the airport the airspace is protected. Prescribed Airspace is made up of the Obstacle Limitation Surfaces (OLS) and the Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) surfaces,

The OLS is a number of reference surfaces in airspace which determine when an object may become an obstacle to aircraft manoeuvring in the vicinity of an Airport or during landing or take-off. In some circumstances it can be infringed. The PANS-OPS are a second set of surfaces determined by aircraft flight operations under instrument conditions that form an envelope over the existing obstacle environment. These surfaces are established by the instrument procedure designer to ensure that an aircraft will have a specified minimum clearance above any accountable obstacle in situations where the pilot is relying entirely on the information derived from cockpit instruments and may have no external visual reference to the ground, to obstacles or to other aircraft. As a result, PANS-OPS surfaces cannot be infringed in any circumstances.

Prescribed airspace may also include reference to specific airspace, designated in a written declaration by the Secretary of the Department of Transport and Regional Services, being protected in the interests of safety, efficiency or regularity of future transport operations into and out of an Airport.

The objective of the prescribed airspace is to ensure that the Airport is not adversely affected by the building of structures or other activities in the area used by aircraft arriving or departing Moorabbin Airport. New structures should be designed or other activities controlled to ensure they fit under the prescribed surfaces.

The OLS for Moorabbin Airport is depicted in Figure 12.

The existing PANS-OPS surfaces for Moorabbin Airport provide airspace protection for the following instrument departure and approach procedures published by Airservices Australia:

- 5 GPS arrival procedures.
- An approach procedure to a circling minima using the Moorabbin Non Directional Radio Beacon (NDB) as a sole aid or in conjunction with the Melbourne, Avalon or Cowes VHF Omni-directional Radio Range (VOR), and/or the Melbourne or Avalon Distance Measuring Equipment (DME).
- A runway 35R Global Positioning System (GPS) approach procedure.

Instrument approach procedures based on the US military satellite based Global Positioning System (GPS) are gradually being introduced throughout Australia. The prescribed airspace for Moorabbin Airport should make provision for the protection of non precision GPS approaches to runway 13R/31L for RPT operations. This additional requirement is depicted in the Approved PANS-OPS plan in **Figure 13**.





5.0 MOORABBIN AIRPORT LAND USE PLANNING

5.1 Commercial Development Strategy

MAC will continue to seek to develop land not required for aviation into income producing investment properties. MAC will attract tenants of the highest quality by providing an exceptional business environment and the security of long-term ownership to preserve the integrity and quality of the developed estate. The built environment will continue to be established and maintained by the provision and adherence to the planning principles set out in this Final Master Plan (2004), including generous building setbacks, view corridors between buildings - to preserve the feeling of open space, and extensive landscaping.

Due to the long-term nature of the Airport lease and MAC's investment it is important that the Final Master Plan (2004) provides flexibility within the land use zonings to allow for changes in potential uses over the investment period. Flexibility is required in response to the unique opportunities presented by the Airport site for direct integration between landside and airside activities. It is therefore important that the land use and zoning framework builds in sufficient flexibility to accommodate a wide mix of aviation support industries, commercial development and other compatible uses which may play an important role in supporting long term aviation growth at the Airport.

Moorabbin Airport Corporation will be responsible for exercising discretion under the land use framework and ensuring that all proposed developments meet the requirements of the zoning and policy framework and are consistent with the approved Master Plan.

Moorabbin Airport Corporation will be responsible for the approval of all development activities on the Airport site. MAC believes that one of the key ingredients to successful commercial developments is to ensure the provision of quality landscaping, prominent entry statements, broad boulevards and a mechanism to ensure that this high standard is maintained. The integrity of the business park will not be compromised by the selection of inappropriate tenants associated with traditionally "unclean" or unattractive business.

By controlling the entire process, from concept to completion of income producing investments, MAC will ensure that the business estates created by our development activities will be of the highest quality in terms of design and presentation. We believe this unique association will attract the best companies as tenants and enhance the value of our investment over the term of the Airport Lease.

5.2 Airport Planning Criteria

Planning for the Moorabbin Airport has adopted a strategic, multi-disciplinary approach. This has been guided by the principle of maintenance of the Airport activities on the land, fulfilling a regional and state-wide aviation transport role. This is governed primarily by the Airports Act 1996, which determines the regulatory framework for Australian aviation in a competitive, demand driven economic environment.

The criteria that has determined planning for the Airport has considered the following issues/aspects:

- Opportunities for the Airport.
- Constraints on the Airport.
- Airport strengths.
- Airport weaknesses.
- Maintenance of aviation role.
- Assessment of regulations affecting the Airport.
- Regional context of the Airport.

- Infrastructure and services.
- Future beneficial uses of the Airport land.
- Economic issues.
- Preferred land uses, land use plan and planning framework.

These points have been considered in the preparation of the Final Master Plan (2004).

5.3 Moorabbin Airport Land Use Plan

Protocols between the State and Federal Governments establish the overall planning framework for Commonwealth land. This approach applies the Commonwealth land zoning leased by the Department of Transport and Regional Services to the Moorabbin Airport Corporation. Land and premises are then sub leased to individual businesses and aircraft operators on the land.

The Victoria Planning Provisions establish the overall strategic and statutory framework for land within the State of Victoria. Given that the Moorabbin Airport is Commonwealth land and not subject to the control of State planning legislation or the Kingston Planning Scheme, a Moorabbin Airport Land Use Plan, has been created to guide implementation of the Moorabbin Airport Final Master Plan (2004).

The Land Use Plan comprises a framework of zones, policies, overlays, an Airport Strategic Statement and a range of general planning provisions. The Land Use Plan format is broadly based on the land use planning, policy and development legislation in force in the State of Victoria. Its structure is therefore quite similar to a municipal planning scheme, except that it is not governed by State legislation. It provides MAC with an implementation guide to assist with decision making under the approved Final Master Plan (2004). It includes a User Guide which outlines how development applications will be assessed and the circumstances in which authorities will be advised of land use proposals.

The components of the Land Use Plan are as follows:

> AIRPORT STRATEGIC STATEMENT

- > ZONES
 - > OVERLAYS
 - > PARTICULAR PROVISIONS
 - > GENERAL PROVISIONS
 - > DEFINITIONS

> APPENDICES (INCORPORATING THE SPPF)

It is important to note that whilst the Land Use Plan includes references to State Planning Policies and legislation, they are not completely appropriate or applicable to the Moorabbin Airport. The Land Use Plan is not recognised as a planning scheme under the Planning and Environment Act 1987, and is therefore not subject to the provisions of this Act. However, this does not preclude MAC from considering the overall objectives and requirements of State planning policy in the assessment of land use proposals, as discussed further in **Section 7.5**.

5.4 Land Use Plan

The preparation of the Land Use Plan recognises zones for 'airside' land to provide for current and future aviation use and development.

MAC has undertaken detailed investigations into the Airport's expected future aviation needs and requirements as part of its business planning for aviation management. This work has been used as a basis for determining the land which is surplus to airside activities. The Land Use Plan recognises zones for airside land and nominates a range of desired land use outcomes to be pursued in different areas across the site.

Moorabbin Airport has an extremely important role in aviation both in regional and state contexts which must be maintained. The flight training, regular public transport, recreational, emergency vehicle and freight roles of the Airport are extremely important to the economic viability of the surrounding area. This results in local employment generation for aviation related activities and also for support industries which depend on the Airport for their livelihood.

The site is also located in a regionally significant and well-established industrial and commercial area, with strong demand for a greater supply of land providing for expanded industrial, commercial, office and retail developments.

The strategic planning approach reflects the strategic issues affecting aviation in the Melbourne metropolitan region and Victoria, over a 20 year planning period. This responds to the regional physical and economic context of the Airport, recommending that the existing industrial and commercial strengths of the region provide the basis for an expansion of such uses at Moorabbin Airport and urban consolidation and transport oriented development principles in south-east metropolitan Melbourne. This expansion serves a regional economic and social need and supports and enhances the continuation of aviation activities at the Airport.

The Land Use Plan provides an implementation framework within which the development objectives and opportunities identified above can be realised. These are given expression through the Airport Strategic Statement (clause 21), which enshrines the key goals and objectives of the MAC in planning for the growth and development of the Airport. The Airport Strategic Statement is intended to provide a sound policy basis from which to assess all future land use proposals. The Land Use Plan responds to current and future business and commercial requirements in south-east Melbourne.

Development areas relating to the Land Use Plan are represented in the Precinct Development Plan, which evolved from the master planning process. The Precinct Development Plan provides a spatial representation of the Airport's future strategic directions as detailed in the Airport Strategic Statement. The purpose is to identify locations where specific land use outcomes will be supported and promoted. The implementation of the Precinct Development Plan in conjunction with the Land Use Plan will ensure that future land use development occurs in a coordinated and strategically sound manner.

The Precinct Development Plan is illustrated and discussed in more detail in Section 6.

The strategic planning analysis concludes that all non airside land should be utilised for industrial, commercial, retailing or office uses to compliment the strengths of the existing area.

5.5 Development Over The First Five Years of the Approved Master Plan (1999)

MAC has progressed a number of developments and infrastructure projects on the airport over the life of the first approved Master Plan (1999).

Chifley Industry Park – Precinct D:

Chifley Industry Park, situated in Precinct D on Centre Dandenong Road was launched in 1999 as a 28 hectare Corporate and Industrial Park for both larger and smaller users. Since 1999, significant road, services, front entry and landscaping infrastructure has been constructed.

Chifley has attracted large Corporates such as Coca-Cola Amatil, Storepak and Visy Industries. A total of approximately 52,000 square metres of office/warehouse have been constructed with

approximately 22,000 square metres currently under construction for smaller users in the range of 1,500 to 3,500 square metres fronting Centre Dandenong Road.

In accordance with MAC's first approved Master Plan (1999) and vision for developments on the airport site, the estate has been developed with generous set backs, landscaping, wide boulevard entry and access roads, signalised and prominent entry features and a high level of services in order to allow for current and future servicing needs of the users on the site. It is expected that Chifley will continue to attract high calibre tenants and it is expected that the industry park will be completed over the next two years. Opportunities for expansion of the Park are currently being reviewed.

Kingston Central – Precinct C:

Development within Precinct C has proceeded over the past five years with expansion of the Direct Factory Outlets and related retail activities.

As a part of the planning requirements for this development, a minor variation to the approved Master Plan (1999) was approved by the Minister in 2003.

Other Precincts:

MAC constructed new corporate headquarters for the Civil Aviation Safety Authority (CASA), which opened in 2000 on Second Avenue in Precinct F consisting of approximately 1,000 square metres of offices with associated on site car parking and landscaping. A number of refurbishments have also been undertaken to existing buildings for new aviation users.

As a part of the ongoing plans for aviation facilities, infrastructure services have also been upgraded to both airside and landside areas on the airport including underground services, car parks, airport lighting to ICAO standards runways and fencing.

As a part of the process, all developments have been planned in order to comply with Airport (Protection of Airspace) Regulations.

Over the life of this Final Master Plan (2004) MAC will continue to develop areas of the site for a range of commercial, industrial and retail uses in accordance with the Final Master Plan (2004) intentions for individual precincts and build on the developments already being undertaken at the airport. It is proposed that upgrading works to existing building and infrastructure will also continue.

6.0 LANDSCAPE VISION AND AIRPORT PRECINCTS

6.1 Landscape Vision

The landscape principles applying to Moorabbin Airport include:

- Respect and build upon the historical and current landscape character and be visually complimentary to the surrounding landscape and uses.
- Ensure quality landscaping throughout the Airport area and maintain a high standard of landscaping.
- Adhere to obstacle height limitations with the location and height of landscape features.
- Provide broad boulevards at appropriate locations, such as the business park, in key Airport precincts.
- Encourage low growing or large, open canopy trees to maintain the "open feel" of the Airport. Tree and shrub species will be selected to avoid attracting birds.
- Provide definitive and exciting entry statements at appropriate locations in the Airport.
- Site and design to minimise disruption to the natural landscape systems (i.e. soil stability, drainage, vegetation protection, etc.).
- Respect and respond to the form, line, colour and texture of the landscape with any new development.

6.2 Airport Precincts

Moorabbin Airport has been divided into a range of aviation, commercial, industrial, business park and retailing precincts. This is shown in Figure 14.

6.2.1 Precinct Development Plan - Implementation

The Precinct Development Plan is sufficiently broad to enable development flexibility in response to market conditions. Flexibility is also required in response to the unique opportunities presented by the Airport site for direct integration between landside and airside activities. Where possible clear direction has been provided in respect to the desired mix and combination of land uses to be contemplated in each precinct. The precinct statements also attempt to differentiate between preferred, discretionary and ancillary uses to provide guidance to stakeholders in relation to the types of land use outcomes which may be supported.

With this flexibility, the Precinct Development Plan provides a strategic direction for the Airport over the next twenty years. It will be reviewed every five years as a part of the overall Master Plan review process. The zoning provisions in Section 7 and Appendix B provide for detailed planning and implementation at Moorabbin Airport.

6.2.2 Precinct A

Overview

Precinct A encompasses all land directly required for airside activities. The protection of this precinct for development strictly in association with aviation activities is essential to the long-term sustainability of airport operations.



Key Issues

- Flexibility in infrastructure provision is required to accommodate future changes in the mix of aviation operations.
- Timing of infrastructure development is not known as a result of the uncertainties which exist in relation to the demand for Corporate and RPT services.

Objective

To provide for the growth and development of the airport's core aviation support infrastructure, including the development and operation of runways, helicopters, taxiways, training areas, aircraft parking areas, apron areas, hangars, fuel depots, runway clearance areas and transport terminals.

Strategies to achieve this objective

- Protect areas directly required for airside activities together with appropriate buffers to meet safety requirements.
- Reserve appropriate areas for runways, taxiways, hangars and aircraft parking to enable forecast growth levels to be realised.
- Ensure that new development takes account of issues related to aviation business development as shown in the Framework Plan for potential aviation growth, shown in **Figure 5** of the Final Master Plan (2004).

Zoning and Implementation

This precinct is zoned Special Use Zone No. 1. The purpose of this zone is to provide exclusively for airside activities. The implementation of this zone will facilitate the continued protection of land required for airside activities as required by the airport lease and the Federal Airports Act, and will allow for the adopted forecast aviation growth levels to occur.

6.2.3 Precinct B

Overview

This precinct encompasses land to the west of existing runways and taxiways as well as a small area of land towards the south of the site. The existing primary role of this precinct is to provide for the accommodation of aviation industry and facilities, including aviation hangars, aviation related industry, offices and aircraft parking.

Key Issues

- Need to set aside areas for hangars and aircraft parking to accommodate appropriate facilities for long-term aviation growth and development.
- Opportunities exist to develop and diversify activities towards non aviation related businesses.
- Recognise the importance of the National Air Museum to the Moorabbin Airport and the State of Victoria.

Objective

To provide for an integrated mix of aviation and non aviation businesses and facilities, which support the long-term aviation needs of the airport and build upon the opportunities in surrounding precincts for complimentary industrial and commercial development.

Strategies to achieve this objective

- Encourage the primary use of the precinct for the development of transport terminals, hangars, aircraft parking areas, apron areas, fuel depots, and runway clearance areas.
- Support opportunities for a range of complimentary non aviation industries, offices, convenience retail facilities which support the core aviation function of the precinct.
- Encourage the up-grading of existing buildings and facilities on the site which enhance the function, amenity and overall integration of development within the precinct.
- Encourage the agglomeration of industry which contributes to the development and application of aviation technology.

Zoning and implementation

This precinct is zoned Special Use Zone No.2. The purpose of this zone is to encourage the development of aviation related and other commercial, retail industrial and office uses in a planned and landscaped setting. The application of this zone will enable the continued use of this precinct for transport terminal, aviation related uses and commercial/industrial development.

6.2.4 Precinct C

Overview

Precinct C comprises land in the north-west corner of the site which is occupied by the Direct Factory Outlets Centre and other retail activities, a service station complex and associated car parking areas. The strategic focus for this precinct is to encourage the consolidation of clearance retailing outlets and complimentary retailing and larger scale showroom uses. Mainstream retailing, including activities based upon full line, full price retailing are not expected to dominate this precinct. Discount department stores are directly prohibited within this precinct.

Key Issues

- Opportunities exist to strengthen the function of this precinct as a regional destination for seconds retailing and disposal of end of line merchandise.
- Need to ensure that the form of retailing is structured to compliment the retail hierarchy of the region and the business and commercial function of airport land.
- Consolidation of this precinct as a clearance retail outlet generates opportunities for related retail take-away food and restaurant uses which support the tourism and leisure function of the precinct.

Objective

To promote the consolidation of non traditional retailing activity and complimentary retail activity and uses.

Strategies to achieve this objective

- Ensure that retailing within this precinct is focussed on clearance retailing and disposal of seconds, samples and end of line merchandise. The development of other retailing will be considered where it compliments the non traditional retail function of this precinct. Other forms of retailing activity which exhibit 'mainstream' retail characteristics will be considered in an ancillary function.
- Prevent the development of this precinct as a mainstream retail activity node by excluding department stores from this precinct.
- Promote opportunities for the development of a range of take-away food, restaurant and convenience food and drink premises which contribute to the role of the precinct.

Zones and Implementation

This precinct is zoned Special Use Zone No.3. The purpose of this zone is to provide for a range of commercial development and non traditional and ancillary retailing. Importantly the zoning framework for this precinct directly prohibits department store uses.

6.2.5 Precinct D

Overview

This precinct encompasses substantial areas of land to the east of the existing runways, which enjoy expansive frontages to Centre Dandenong and Boundary Roads. A small area of land in the south-east corner of the site is also included in this precinct.

The City of Kingston Golf Course currently occupies a substantial part of this precinct adjacent to Boundary Road, and a service station is located in south-east corner of the site. Opportunities exist within this precinct for the development of an integrated high quality office, business and commercial area within an exceptional landscaped setting. Primary uses being promoted will include, business and corporate related facilities and restricted retail and showrooms. The development of synergies between new commercial development and airside activities will also be strongly promoted throughout this precinct, with support for high tech aviation industries, aviation terminal buildings, and commercial/retailing activities in association with industrial activities.

Key Issues

- Given the prominent street frontages to this site is it important to provide high quality business and corporate related activities and restricted retail and showrooms.
- Need to preserve flexibility for incorporation of aviation related uses within the precinct, including terminal buildings, RPT and corporate aviation facilities, and terminal car parking areas, subject to future demand for corporate and RPT services.

Objective

To promote opportunities for local employment, industrial and business activity development which contribute to the creation of a high profile, high quality landscaped environment on the site.

Strategies to achieve this objective

- Promote opportunities for the development of a high quality business and commercial environment which is identifiable by its integrated urban design form, exceptional landscape entry treatments, generous boulevards, sensitive treatment of key site frontages, and balanced site coverage.
- Encourage the development of the northern part of the precinct primarily for warehouse and office uses, with opportunities for commercial and restricted retailing activities supported in an ancillary function.
- Promote the development of the eastern section of the precinct for restricted retail, business and corporate related facilities. Appropriate Retailing activities which support the core function of the precinct may be supported where positive planning outcomes can be demonstrated.
- Promote the creation of a strong landscape character which is responsive to the Landscape Vision for the airport described in **Section 6.1** above.

Zoning and Implementation

This precinct is zoned SUZ2 and allows for a wide range of commercial and corporate uses. The implementation of this zone will allow for a unique integration of commercial, industrial and aviation related development.

6.2.6 Precinct E

Overview

This precinct includes land in the north-east corner of the site which offers a high degree of exposure to both Centre Dandenong and Boundary Roads. The vision for this precinct is to create a more intensive and vibrant cluster of corporate offices, conference and hotel facilities, retail and commercial development which supports the core business/tourism function of the precinct. A higher density of uses with a stronger commercial focus is envisaged for this precinct than in the adjoining Precinct D.

Key Issues

- Access to this precinct must be carefully designed to minimise impact on Boundary Road/Centre Dandenong Road intersection.
- Scale of new development should be responsive to development in adjoining Precinct D.
- Need for quality urban design treatment of key gateway corner.

Objectives

To develop an intensive mixed use activity precinct.

Strategies to achieve this objective

- Promote the development of corporate offices, hotel, serviced apartments and conference facilities. Uses which compliment the key function of this precinct to the Airport population and surrounding growing locality, including restaurants, cafes and retailing will also be supported.
- Provide integrated pedestrian and movement systems which create a high degree of permeability to the adjoining industry/office parks.

• Recognise and enhance the site's gateway function through strong landscaping and well designed urban form particularly along the site's major frontages.

Zoning and Implementation

This precinct is zoned Special Use Zone No.2. The implementation of the objectives of this zone will ensure that development within this precinct is consistent with the vision and overview.

6.2.7 Precinct F

Overview

This precinct includes land towards the south of the site with frontage to Lower Dandenong Road, as well as existing industrial land to the west of the site in the vicinity of Grange Road. The vision for this precinct is to provide for a range of small to medium scale industrial, office and warehouse uses which are compatible with existing industrial development within the precinct and with development to the south of Lower Dandenong Road. Traditional industrial uses provide the dominant focus for this precinct, although trade supplies and ancillary commercial uses may also be supported where positive planning outcomes can be demonstrated.

Attention to landscape design will be required particularly along the Lower Dandenong Road frontage to ensure that the existing open vistas available across this part of the site are addressed in the siting and layout of new development.

Key Issues

- Access to this precinct must be carefully designed to minimise impact on traffic movement on Lower Dandenong Road.
- Scale of new development should be a high quality response to the main road frontage to Lower Dandenong Road.
- There is an opportunity to create an access into Second Avenue from the northern end of Southern Road, subject to the approval of the transfer of land and satisfaction of conditions and financial contributions. This would enable the subsequent road closure and elimination of the industrial traffic from the residential areas of Southern Road. A second entry into the Moorabbin Airport from Lower Dandenong Road, to lessen traffic impacts on the main entry point off Centre Dandenong Road, will need to be created.

Objective

To provide for a wide range of industrial and business development which builds upon the strategic linkages to existing industrial precincts to the west of the site.

Strategies to achieve this objective

- Promote the development of high amenity industrial and business development within a well landscaped setting.
- Promote a high standard of subdivision layout, road access and design, car parking and building design.
- Any proposal will be subject to reaching satisfactory outcomes in relation to traffic management and conditions satisfactory to the Commonwealth and MAC.

Zoning and Implementation

This precinct is zoned Special Use Zone No. 2. The implementation of this zone should ensure that development within this precinct is generally in line with the vision and objectives described above.

6.2.8 Precinct G

Overview

This precinct includes land in the extreme south-west corner of the site. The vision for this part of the site is for a mix of integrated land uses, including small scale commercial, convenience retailing and aviation related industry. It is likely that parts of this precinct will be required for aviation related and corporate aviation facilities, subject to market demand.

Key Issues

- Uncertainties exist in relation to the long term requirements for corporate and RPT aviation facilities in this precinct.
- Road link with Grange Road is a potential option which is still being considered.
- Any new development within this precinct must be sensitive to existing residential development.

Objective

To provide for a mix of integrated light industrial, commercial and convenience retailing uses which compliment and enhance existing commercial development to the south of the airport, while preserving the ability to expand into this area with aviation activities to meet market demand.

Strategies to achieve this objective

- Protect the ability to expand airport hangars, aviation related industry and facilities.
- Promote the development of a mix of integrated uses including light industry, commercial and convenience retailing.
- Promote a high standard of subdivision layout, road access and design, car parking and building design.

Zoning and Implementation

This precinct is zoned Special Use Zone No. 2. The implementation of this zone should ensure that development within this precinct is generally in line with the vision and objectives described above.

7.0 AIRPORT ZONING

The strategic planning for the Airport is reflected in the statutory planning framework providing for the comprehensive development of the Airport. The recommended zoning approach has utilised the Special Use Zone and three schedules to that zone (Refer **Appendix B**). The Zoning Plan is shown as **Figure 15**.

The Special Use Zone allows for a unique mix of uses and developments which are specifically applicable to Moorabbin Airport. Unlike other standard zones from the Victoria Planning Provisions (VPP), the special use zone is specifically tailored to provide for different land use outcomes. The need to retain flexibility to grow the aviation business on all parts of the site also reinforces the need for a flexible and unique zoning framework for the Airport. This is clearly reflected in **Figure 5**, which shows the airport's potential long term aviation needs and the substantial areas which may be needed to accommodate these requirements.

7.1 Special Use Zone

The Special Use Zone provides the zoning framework for the Moorabbin Airport. The purpose of this zone is 'to provide for the use and development of land for specific purposes as identified in the schedule to the zone.'

A schedule to the zone specifies a range of as-of-right, discretionary and prohibited uses. Further requirements are stated with respect to use of land, subdivision, buildings and works and advertising signs.

The implementation of the Special Use zone will be guided by the policy directions outlined in the Final Master Plan (2004).



7.2 Airport Environs Overlay (AEO1)

The Kingston Planning Scheme applies the Airport Environs Overlay Control to parts of the municipality effected by the 25 ANEF contour or greater.

In AEO1, regardless of the zone provisions, land must not be used for noise sensitive uses such as a childcare centre, school or hospital. A permit is required for a number of nominated uses including a dwelling, office and residential hotel. All applications to use land within this overlay must be referred to the Airport owner and would only be approved if the building design incorporates appropriate noise attenuation measures complying with Australian Standard AS 2021-1994, Acoustics – Aircraft Noise Intrusion – Building Siting and Construction.

7.3 Airside

Airside land is defined by the Airports Act 1996 as the part of the Airport grounds, and the part of the Airport buildings, to which the non travelling public does not have free access.

This land primarily refers to runway and taxiways, helipads, the control tower, lighting and navigation areas, apron areas and fuel refilling operations. Access to airside areas is restricted to those with specific permission. Airside areas are zoned as schedule 1 to the Special Use Zone, SUZ1.

7.4 Landside

Landside land is defined by the Airports Act 1996 as the part of the Airport grounds, and the part of the Airport buildings, to which the non travelling public has free access.

This land primarily refers to passenger terminals, aircraft hangars, maintenance depots, fuel depots, airline and aviation related businesses and other commercial operations. Access to landside areas is not restricted. Landside areas are zoned as schedule 2 to the Special Use Zone, SUZ2.

7.5 The Process for Land Use Decision Making

7.5.1 Implementation of the Zoning Framework and Land Use Plan.

As discussed in **Section 5.3**, a comprehensive Land Use Plan has been prepared to support the implementation of the Moorabbin Airport Final Master Plan (2004). The Land Use Plan embodies the overall policy objectives for each precinct on the Airport (as outlined in the Airport Strategic Statement), which are intended to be implemented through the zoning framework described above. The implementation of the zoning framework will ensure that there is a sound and strategic approach to the use and development of land in the Airport.

7.5.2 The Role of the Moorabbin Airport Corporation as Responsible Authority

The Moorabbin Airport is Commonwealth land and ownership of the land will remain with the Federal Government, specifically the Department of Transport and Regional Services. Accordingly the Moorabbin Airport Corporation is the Airport Lessee Company as defined by the *Airports Act 1996*. As the land is not formally subject to State planning controls the responsible authority role rests with the Moorabbin Airport Corporation.

In its Planning Authority role the MAC is required to provide sound, strategic and coordinated planning of the use and development of the Airport, in keeping with the objectives of the Land Use Plan. This involves the assessment of use and development proposals against the provisions of the Land Use Plan to determine whether a proposal is consistent with the overall zoning and policy framework and with the approved Moorabbin Airport Final Master Plan (2004).

The Moorabbin Airport Corporation is committed to establishing a clear and transparent process for land use decision making. The User Guide and Sections 6.1 to 6.7 of the Land Use Plan (May 2004) have been updated to specifically relate to the approval guidelines and assessment processes under the Moorabbin Airport planning controls. The updated components of the Land Use Plan clearly establishes an overall process for land use decision making by MAC which is generally consistent with established Victorian town planning principles and procedures.

7.5.3 The Role of the Planning Review Committee

The role of the Planning Review Committee is to oversee the requirements of the Final Master Plan (2004) and to provide advice to the Moorabbin Airport Corporation on individual use and development proposals. The Committee will comprise representation from the Moorabbin Airport Corporation as well as specialist planning, architectural and engineering advice.

The primary responsibility of the Planning Review Committee is to assess all future land use and development proposals on the Airport site against the requirements of the Final Master Plan (2004) and the objectives of the Airport Strategic Statement. The Committee will also be responsible for advising Council and relevant public authorities of land use and development proposals, where appropriate.

7.5.4 The Role of the Airport Building Controller

The Airport Building Controller is responsible for the technical approval of all buildings and works on the Airport. The Airport Building Controller must make an assessment of all proposed buildings and works against the requirements of the Building Code of Australia and issue approvals/certifications for new buildings and structures. The Airports Act 1996 prevents the Airport Building Controller from approving any building activity which is not consistent with the approved Final Master Plan (2004).

7.5.5 The Airport Environment Officer

The Airport Environment Officer (AEO) fulfils the role of Environmental Regulator on the airport site. The AEO is responsible for investigating incidents which have, or may have caused pollution or issues of soil contamination. Where necessary, the AEO can issue an infringements notice to any operator on the Moorabbin Airport site, if the operator has committed an offence against the Regulations.

7.5.6 Council and State Government roles

The Final Master Plan (2004) recognises the need for ongoing consultation with the City of Kingston, the State Government and relevant public authorities in the future management and development of the Airport. The City of Kingston will be formally advised, where appropriate, of use and development proposals on the Airport by the Planning Review Committee. Where necessary proposals will also be referred to relevant public authorities. The Moorabbin Airport Corporation will consider any comments received prior to an application being determined.

The Planning Review Committee will coordinate any comments received from Council or the State Government and, while not required to do so, may undertake further discussion where clarification is required.

7.5.7 The Airport Consultative Committee

The Moorabbin Airport Consultative Committee will continue to play an important role in monitoring aviation operations and reviewing issues associated with the Airport's future growth and development. The MAC recognises that this forum provides an excellent vehicle for regular consultation with key stakeholders, and will therefore ensure that regular reports are made to the committee on the progress of land use development at the Airport.

7.5.8 Referral Authorities

MAC envisages that various precincts on the site may be divided into 'lots' for the purposes of subleasing, which will be represented on an overall subleasing plan for the precinct. This plan will be required to address a wide range of access, infrastructure and servicing issues similar to a subdivision proposal. On this basis, MAC will consult with relevant public authorities, where appropriate, in regards to all proposals for the creation of major 'subleasing' areas. This consultation will be coordinated and addressed by the Planning Review Committee.

7.5.9 Assessment of Section 1 Uses

Where a proposed use is deemed to be as-of-right under the relevant zoning provisions, an assessment of the proposal will still be undertaken by the Planning Review Committee to ensure compliance with the requirements of the Final Master Plan (2004). Amongst other things, this may include assessment against:

- The objectives of the Final Master Plan (2004).
- The objectives of the Airport Strategic Statement
- Any relevant state planning policies.
- The buildings and works, car parking and landscaping requirements of the zone.

Development proposals must be accompanied by detailed site plans and a written assessment of how the proposal responds to the relevant precinct objectives outlined in the Land Use Plan.

Upon receipt of the development proposal the Planning Review Committee will advise Council and any other relevant public authority of the application, where appropriate. The purpose of this notification is for authorities to advise MAC of any issues which should be given consideration prior to approving the proposal. MAC will allow five business days for authorities to make comment prior to granting an approval.

The Planning Review Committee will provide an assessment and recommendation on the proposal to assist the MAC's determination. This assessment will summarise any comments received from authorities and explain how they have been addressed in the proposal. Where the proposal raises specific landscape, urban design, environmental or engineering issues the Planning Review Committee may include a more detailed analysis in the assessment report.

The assessment report will be considered by the MAC and authorities will be advised of the MAC'S decision on the proposal.

7.5.10 Assessment of Section 2 Uses

Where a proposal is a section 2 use a planning permit is required to be issued by the MAC. Similar to the consideration of Section 1 uses development proposals will be assessed against:

- the objectives of the Final Master Plan (2004).
- the objectives of the Airport Strategic Statement.
- any relevant state planning policies.
- the buildings and works, car parking and landscaping requirements of the zone.

The Planning Review Committee will refer applications to Council and to relevant state authorities, where appropriate. Authorities will be invited to make comment on the proposal within 10 business days of receiving the application.

The Planning Review Committee will be responsible for making a detailed assessment of the proposal and submitting a comprehensive report and recommendation to the MAC.

7.5.11 Signage

Category 2, office and industrial signage requirements apply to the Moorabbin Airport land (clause 52.05-8).

7.5.12 Car Parking

Car parking provisions at clause 52.06 of the Land Use Plan are applicable to the land except where specifically stated in a schedule to the Special Use Zone.



8.0 ENVIRONMENTAL MANAGEMENT

8.1 Overview

Environmental management has been an integral component of the overall management at Moorabbin Airport for many years. In 1999, environmental management activities previously occurring independently were integrated into the *1999 Moorabbin Airport Environmental Strategy*. This Environment Strategy required Moorabbin Airport Corporation Pty Ltd (MAC) to consider the following:

- Overall environmental management objectives;
- Whether there were areas of environmental significance;
- Sources of potential environmental impact;
- An assessment of the potential environmental impacts; and
- Measures to prevent and/or mitigate potential environmental impacts.

8.2 Environmental Management Commitment

There has been a strong commitment to environmental management at Moorabbin Airport over the years, and this has been further strengthened by the development and implementation of the original Environment Strategy, which includes MAC's Environment Policy.

The Environment Policy, which has been subject to periodic reviews, incorporates the principal guidelines and overall objectives that MAC is seeking to achieve, as well as demonstrating MAC's commitment to environmental management.

8.2.1 MAC Environment Policy

MAC recognises the importance of maintaining and where practicable, enhancing the quality of the environment on Moorabbin Airport and its surrounding areas.

MAC is therefore committed to:

- Establishing and maintaining practices that seek to comply with all applicable environmental laws
- Continually improve environmental performance of all its operations on the Airport.
- Conducting regular reviews of operations at the Airport to:
 - i. identify areas which are or may have the potential to breach regulatory requirements or which require improvement;
 - ii. develop management plans which address issues identified by environmental reviews and/or other investigations, to achieve ongoing improvements in the environmental performance of all its operations at the Airport; and
 - iii. encourage all operations at the Airport including those not under the direct control of MAC to assess potential environmental impacts and develop measures to prevent and/or mitigate potential environmental impacts.
- Implementing and continually improving environmental management and operating procedures that seek to ensure the development of the Airport is carried out in a manner that, where practicable, complies with all regulatory requirements and follows best practice environmental guidelines.
- Reviewing proposed tenant facilities to identify any potential breaches of relevant regulatory requirements, or to identify areas of proposed operations that could be improved in relation to best practice environmental management, where practicable.

- Ensuring that MAC's Environment Policy and Management Plan requirements are communicated to all relevant staff, contractors, tenants and other relevant Airport users.
- Consulting with government agencies and the community to ensure that the views of external stakeholders are considered when making decisions relating to environmental management at the Airport.

The overall objective of this Policy is to minimise potential environmental impacts, comply with regulatory requirements, and continually improve environmental management at Moorabbin Airport.

8.3 1999 Moorabbin Airport Environment Strategy Initiatives

Based on the strong commitment to environmental management in the 1999 Moorabbin Airport Environment Strategy a number of significant initiatives were undertaken:

- i. In consultation with the Government appointed Airport Environment Officer (AEO), a formalised stormwater monitoring program assessing the quality of water entering and leaving the Airport was implemented.
- ii. Annual environmental reviews of environmentally significant tenants and/or facilities (including MAC) were conducted.
- iii. Through ongoing direct consultations, MAC provided guidance and encouragement for tenants to comply with the Airport (Environment Protection) Regulations 1997. Where required, the assistance of the AEO was sought.
- iv. Ensuring that any areas of the Airport where pollution has been identified and confirmed by the AEO, a remedial program was developed and implemented to the satisfaction of the AEO.
- v. MAC developed an information package Requirements for Construction, Building and Operations at Moorabbin Airport for developers wishing to carry out construction works and operate at the Airport. This information package included requirements to provide environmental management information and MAC subsequently requested that a formalised Environmental Management Plan (EMP) be prepared and submitted prior to the commencement of environmentally significant works. These EMPs were continually reviewed by both MAC and the AEO to determine their suitability for the construction works to be undertaken as well as to assess compliance with the EMPs during site audits carried out by MAC and/or the AEO.
- vi. An integrity assessment of MAC underground storage tanks at the Airport which was conducted by an external independent contractor. It indicated that all three underground storage tank systems passed the integrity tests.
- vii. Carrying out of a formal consultation process with the AEO where meetings were held approximately once per month and where the environmental management and performance of MAC and the Airport in general were discussed.
- viii. Undertaking an ongoing formal consultation process with relevant stakeholders, other than the AEO, through the Moorabbin Airport Consultative Committee. Apart from MAC, this committee includes representatives from DOTARS, Airservices Australia, CASA, state and federal MPs, the state Department of Infrastructure, the City of Kingston, Airport tenants and the Dingley Village Community Association and the Moorabbin Airport Residents Association.
- ix. Annual reviews of the MAC Environmental Management System (EMS), which has been based on the AS/NZS ISO 14001 Environmental Management Systems Specifications with Guidance for Use Standard. This has included updating and
improving environmental management and operating procedures as well as reporting environmental management and performance outcomes.

- x. The appointment of an Environmental Officer trained in environment, health and safety management.
- xi. Construction of an engine test cell to minimize noise from ground running of engines

Other initiatives have also been undertaken by MAC, however the above have been included to highlight the more significant ones carried out which best illustrate the strong commitment MAC places on environmental management and performance.

8.4 Development of the Moorabbin Airport Environment Strategy 2004

The Moorabbin Airport Environment Strategy 2004 will build on the initiatives of the 1999 Strategy by seeking to further improve the environmental management and performance at the Airport.

Similar to the 1999 Environment Strategy the key aspects of the 2004 Strategy are as follows:

- Because of the initiatives carried out under the 1999 Environment Strategy a new broad set of environmental management objectives are outlined. These include policies and programs addressing the following:
 - i. continuous improvement in environmental outcomes of Airport activities;
 - ii. continued implementation and review of the MAC EMS;
 - iii. the identification and management of environmental risks and identified existing pollution;
 - iv. involvement of other stake holders such as local community groups, Airport users and relevant government agencies in the ongoing environmental management and performance at the Airport; and
 - v. the communication of the Environment Strategy and its performance to other stakeholders.
- The findings of previous risk assessments addressing potential environmentally significant areas will be incorporated, including any recommendations made regarding land management. Where required, adjustments to relevant Environmental Management Procedures, Environmental Operating Procedures and/or Environmental Management Plans Guidance Notes will be carried out.
- Potential sources of environmental impacts associated with activities at the Airport shall continue to be included in the strategy. These may include those that may impact upon air quality, water quality including groundwater and soil quality, as well as those that generate waste and noise emissions.
- Environmental Reviews of airport users (including MAC) shall continue to be carried out on an annual basis. Sources of potential environmental impact will continue to be assessed for their impact on air, water and soil quality, as well as the management of waste and generation of noise emissions.
- In addition to the Annual Environmental Reviews, investigations shall continue to be carried out where a potential environmental impact requires assessment or ongoing monitoring. Examples of such investigations include site-specific land contamination assessments due to activities carried out at a particular site, or stormwater quality investigations, which periodically monitor the Airport's impact on the local surface waters.
- Measures designed to prevent or mitigate potential environmental impacts shall continue to be included, reviewed and updated where improvement is available and feasible. Such measures shall include the various assessment processes already outlined, as well as the ongoing implementation and maintenance of the MAC EMS, its Management and Operating

Procedures, and the involvement of relevant stakeholders through formal and informal consultation processes.

- Implementing and maintaining the Environment Strategy. This will include distributing copies of the Environment Strategy to environmentally significant airport users, advising other airport users of its availability, and ensuring all relevant MAC staff and contractors are aware their responsibilities. With regard to MAC employees, contractors, and those tenants who may be interested, MAC shall carry out periodic internal briefing and/or training sessions that will include legislative requirements, general and best-practice environmental management and performance, and implementation and maintenance of the Environment Strategy.
- Continual improvement in co-operation with airport users. This should occur through the following:
 - i. Annual Environmental Reviews,
 - ii. Implementing Environmental Management Plans for environmentally significant operations at the Airport,
 - iii. MAC providing assistance through its Environmental Officer,
 - iv. Supporting the Moorabbin Airport Consultative Committee, and
 - v. In lease conditions.

In addition, the AEO may provide assistance to ensure Airport users are aware of their environmental responsibilities.

- Annually reviewing and updating Environmental Management Plans that give effect to the Moorabbin Airport Environment Strategy. These shall include:
 - i. An assessment of the level of compliance with regard to regulatory requirements,
 - ii. Time frames and Environment Strategy requirements, and
 - iii. Assessing the level of compliance of all Airport users.

It is anticipated that there would be some level of ongoing/periodic improvement to the Environmental Management Plans during the life of the Moorabbin Airport Environment Strategy 2004.

The 1999 Environment Strategy addressed (amongst others) the issues of Fauna and Flora and Aboriginal and Heritage values. It established that there was:

- i. no listed fauna and flora species found, and
- ii. no evidence of aboriginal and heritage historic sites

There is no evidence of any change in the status of these issues.

8.5 Review of Master Plan Implementation Issues

As indicated in this section of the Final Master Plan (2004) there are no areas of environmental significance at Moorabbin Airport. Furthermore, for the future developments considered, it is not anticipated that there would be any environmentally significant issues that need to be addressed.

All developments that are considered by MAC (in consultation with the AEO) to have potential environmental impacts have been subject to an environmental assessment process. This process includes the preparation and implementation of Environmental Management Plans. Such Environmental Management Plans have been developed for construction works and ongoing operations. This environmental assessment process shall continue into the future for such developments.

Proposed developments such as runway extensions and other major infrastructure and building works may have environmental issues that might reasonably be expected to be associated with their implementation. The specific environmental or ecological impacts associated with these proposed developments are not addressed in the Environment Strategy. However, such potential environmental or ecological impacts are addressed as part of the ongoing environmental management at the Airport through the implementation of Environmental

Management Plans, which may be project specific or Airport-wide, and through the MAC Environmental Management System. These environmental management tools allow MAC to identify potential environmental impacts such air, soil and water quality, noise emissions, waste and hazardous materials management, and community expectations. In addition, they also provide for a system of ongoing monitoring and measurement to assess environmental performance and compliance with the Moorabbin Airport Environment Strategy and more importantly, the *Airports Act 1996* and *Airports (Environment Protection) Regulations 1997*.

In identifying specific potential environmental impacts associated with proposed runway extensions and other major infrastructure and building works, the assessment process shall involve the AEO, State regulatory authorities such as Melbourne Water Authority, Kingston City Council and the Victorian EPA, as well as other stakeholders through the Moorabbin Airport Consultative Committee.

Based on experience associated with developments carried out at the Airport during the previous 5 year period under the approved Master Plan (1999), and in consultation with the AEO, the environmental aspect that requires the most attention is water quality, and in particular, the management of stormwater. Stormwater quality and discharge characteristics have been identified as the environmental issue that will require the greatest level of management should the proposed runway extensions or other major infrastructure and building works be carried out. However, all the other environmental issues including soil quality and landform management, air emissions and waste management will all be addressed in the assessment process.

The following provides an overview of the level of management that may be required for the different environmental aspects when considering potential runway extensions or major infrastructure building works. In concert with MAC's normal operating practices, it proposes to continue to develop project specific Environmental Management Plans which will involve consultation with the AEO and other potential stakeholders such as water authorities and the Victorian EPA.

Water quality

With respect to stormwater management, a stormwater drainage and quality management plan will be further developed once the runway extensions or other major infrastructure and building works proposals have been approved for construction. As part of MAC's normal operating practices, in further developing this management plan(s), the AEO and other potential stakeholders (eg, Melbourne Water Authority) will be consulted, and strategies developed to mitigate any potential environmental impacts. For example, the runway extensions previously mentioned in this plan may result in one or more of the following possibilities:

- i. The extension resulting in no change to the current drainage system;
- ii. The extension bridging over the current drain; or
- iii. Relocating the drainage system to the Melbourne Water Authority designated easement or another suitable location, preliminary plans for which have already been developed.

Some of the proposed major developments contained in the approved Master Plan (1999) have occurred during the current 5-year period. As developments have proceeded, consultation with local authorities such as Melbourne Water Authority have taken place to ensure stormwater drainage issues (eg, the management of stormwater flow) are addressed and strategies implemented (eg, drain diversions, chanelling and potential installation of retardation basins).

As a result of proposed runway extensions or other major building works, there should be no impact on the quality of groundwater resulting from the potential works to be carried out. During such projects, there may be storages of minor quantities of chemicals such as concrete admixtures and paints, particularly towards the end of the project. To minimise the potential for pollution, appropriate spill containment provisions and procedures will be included in the project specific Environmental Management Plans (EMPs). This shall be carried out in consultation with the AEO.

Soil quality

Based on current practices at the Airport, the contamination status of the soil is assessed by soil sampling and analysis and/or historical landuse information for different areas of the Airport. Previous detailed assessments of various Airport precincts has shown no soil contamination issues exist. As part of MAC's normal operating practices, prior to any proposed runway extensions or other major building works commencing, the contamination status of the soil will be determined. In addition, to ensure there is no contamination of the soil during the construction phase, the EMP developed in consultation with the AEO will address aspects of the project that could inadvertently cause soil contamination such as the storages of minor quantities of chemicals. As indicated in the previous section, appropriate spill containment provisions and procedures will be included in the EMP.

Air Quality

When carrying out construction works associated with the proposed runway extensions or other major building works, the potential impact to the air environment is principally associated with the potential creation of dust, and to a lesser extent fumes from plant and machinery. As part of MAC's normal operating practices, such issues will be managed through the project specific EMP that will assess the level of risk and outline appropriate mitigation measures which will be adopted. For example, all plant and machinery operators will need to provide servicing and maintenance records that meet the manufacturers' requirements and fumes will be visually monitored. To minimise the generation of dust, strategies such as minimising exposed earth, soil stockpile seeding, spreading of soil stockpiles and the use of appropriate quantities of water may be used.

Waste Management

Construction projects such as runway extensions or other major building works inevitably create waste streams. To minimise the environmental impact from the creation of waste, a range of recycling and waste disposal options will be encouraged. As part of MAC's normal operating practices, these include minimising the potential for waste creation, the potential for recycling discarded building products such as metal and wood, re-using clean soil at other locations within the Airport for landscaping purposes and ensuring that waste requiring off-site disposal is disposed of in accordance with local EPA requirements. Details assessing waste management issues, the level of environmental risk and control measures such as waste segregation will continue to be included in the project specific EMPs.

Noise Emissions

The management of noise at an Airport can be a potentially sensitive issue for the neighbouring community. Moorabbin Airport Corporation acknowledges this and seeks to ensure that any noise generated from the ground-based activities for which it is responsible does not impact upon the local community. Therefore, the management of noise is required for construction projects such as runway extensions or other major building works. Strategies such as ensuring that all plant and machinery are muffled in accordance with manufacturer specifications, and restricting the hours of construction to minimise the potential for an adverse impact upon the local community. As part of MAC's normal operating practices, the project specific EMPs will address noise issues in detail and periodic auditing by MAC, in conjunction with the AEO, shall ensure that the necessary noise control measures adopted for the project are implemented.

Other Environmental Aspects

In addition to the environmental aspects discussed above, there may be others that need to be addressed when carrying out construction projects such as runway extensions or other major building works. These may include the use of energy and resources, and the potential for ecological impacts and heritage values (eg, those of potential historic and/or indigenous significance). It should be acknowledged that MAC has already undertaken various studies with respect to these issues and the following reports prepared by external consultants:

- Moorabbin Airport, Survey for Significant Flora and Fauna (1998, Ecology Australia); and,

- Archaeological Survey of Moorabbin Airport (1998, Biosis Research Pty Ltd).

These reports concluded that there are no environmentally significant ecological and heritage values at the Airport.

As is the case with managing the previously mentioned environmental impacts and in line with MAC's normal operating practices, the project specific EMPs will include a further assessment of each aspect, potential risks and mitigation measures to prevent any adverse environmental impact associated with construction activities. As has been the case in the past in addressing such issues, additional external resources may be employed to adequately address these issues. This process has proved successful in assessing and monitoring environmental management procedures for current proposals detailed above. It ensures an environmentally sensitive system of work is implemented.

In addition to the environmental management of proposals detailed above, the *Airports Act 1996*, Part 5, Division 4 (Major Development Plans) details requirements where MAC are required to prepare a Major Development Plan. In such cases, MAC shall prepare a Major Development Plan. Examples of such proposed developments include the extension of an existing runway or a development of a kind that may have more significant environmental or ecological impacts.

In preparing a Major Development Plan as defined in the *Airports Act 1996*, MAC shall carry out the following:

- i. Prepare a Major Development Plan with contents that meet the criteria outlined in Section 91. Sections 91 (h) and (j) stipulate an assessment of environmental impacts that might be reasonably expected and the plans for addressing them;
- ii. Undertake a public consultation process involving regulators, Airport users and tenants, and the general community; and
- iii. Review and address all comments received prior to submitting the draft Major Development Plan for approval by the Minister.

8.6 Assisting Tenants to Achieve Best Practice Environmental Management

As previously indicated, to facilitate best practice environmental management, particularly amongst new tenants, MAC has developed the *Requirements for Construction, Building and Operations at Moorabbin Airport* for developers wishing to carry out construction works and operations at the Airport. This information package includes a requirement to provide an Environmental Management Plan prior to the construction phase. The plan should address potential environmental impacts and control measures in place to prevent a significant environmental impact occurring. In addition, prior to occupancy, the building owner and/or tenant will need to provide another Environmental Management Plan addressing the environmental aspects associated with the occupation of the new building.

The Environmental Management Plans submitted are forwarded to the AEO to determine the adequacy of each plan in relation to construction activities, which are to take place, or in relation to the activities that will occur during operations. These plans will be subsequently audited by MAC and/or the AEO.

It is anticipated that further improvements will be incorporated into these plans over time which will be assessed during periodic audits.

Based on MAC's experience and advice received from the AEO, the areas where much of the focus is placed in the Environmental Management Plan is as follows:

- Preventing stormwater pollution as a result of exposed earth or from the poor storage of chemicals.
- Preventing soil pollution from the poor storage of chemicals.

- Preventing the generation of dust as a result of exposed earth.
- Minimising the potential for noise nuisance.
- Having Emergency Management Plans and equipment in place to deal with potential environmental incidents.
- Following an internal audit schedule which addresses all of the above items and others which are identified in the plans.

8.7 Communication and Consultation

The Moorabbin Airport Environment Strategy 2004 requires MAC to have formal communication and consultation procedures in place.

Included in these procedures are the following:

- Formal monthly meetings with the AEO to discuss the progress in achieving and maintaining compliance with Part 6 of the Airports Act 1996 and the associated Airport (Environment Protection) Regulations 1997, the Moorabbin Airport Environment Strategy 2004, and any other environmental issues at the Airport.
- Quarterly meetings of the Moorabbin Airport Consultative Committee which includes DOTARS, Airservices Australia, CASA, state and federal MPs, the state Department of Infrastructure, the City of Kingston, Airport tenants, the Dingley Village Community Association, and the Moorabbin Airport Residents Association.
- Consultation with new property developers and tenants to outline the requirements contained in the Requirements for Construction, Building and Operations at Moorabbin Airport. These include the development of Environmental Management Plans, compliance with Part 6 of the Airports Act 1996, the associated Airport (Environment Protection) Regulations 1997, and the Moorabbin Airport Environment Strategy 2004. In addition, the AEO and the Airport Building Controller shall be advised to ensure that appropriate statutory planning and building requirements are met as well as statutory environmental requirements.
- Provide an Annual Environment Report to DOTARS as required by the Airport (Environment Protection) Regulations 1997. This report provides an update of the Environmental Register, indicates how MAC has performed in meeting its Environment Strategy requirements, and lists any pollution incidents and/or contraventions of regulations.
- Reviewing relevant procedures that deal with responding to pollution incidents to ensure that all relevant emergency and other agencies are contacted as required by Airport (Environment Protection) Regulations 1997 and the Moorabbin Airport Environment Strategy 2004.
- Reviewing relevant procedures which deal with incident reporting, public enquiries and complaints.

9.0 PERIODIC REVIEWS

The planning period for this Final Master Plan (2004) is twenty years. However, this Final Master Plan (2004) will be reviewed every five year period as required by the Airports Act 1996, so as to update the assumptions integral to the Final Master Plan (2004) and ensure current strategic directions are followed for the use of aviation and non aviation Airport land.



10.0 CONCLUSION

The Moorabbin Airport Final Master Plan (2004) has established a set of strategic directions for the development of aviation and non aviation land.

The strategic directions build upon the existing aviation strengths of the Airport, regional economic factors, and compliment the industrial and commercial role of surrounding land.

This Final Master Plan (2004) complies with the Airports Act 1996 by specifying:

- The Airport Lessee Company's development objectives for the Airport.
- The Airport Lessee Company's assessment of the future needs of civil aviation users of the Airport, and other users of the Airport, for services and facilities relating to the Airport.
- The Airport Lessee Company's proposals for land use and related development of the Airport site, where the proposals embrace airside, landside, surface access and land planning/zoning aspects.
- Forecasts relating to noise exposure levels.
- The Airport Lessee Company's plans, developed following consultations with all relevant users of the Airport and local government bodies in the vicinity of the Airport, for managing aircraft noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels.
- The Airport Lessee Company's Environmental Strategy which deals with all relevant environmental issues which affect the Airport.

This approved Final Master Plan (2004) now forms the basis of an integrated aviation and industrial - commercial development strategy for Moorabbin Airport in the 21st century.



11.0 REFERENCES

Aerodrome Operation Support (1998) **Moorabbin Airport Australian Noise Exposure** Forecast (ANEF 2010) .

Commonwealth Government (1996) Airports Act 1996.

Commonwealth of Australia (1991) Port Philip Region Airport and Airspace Study Appendices, Canberra: AGPS.

Kingston City Council (1999) Kingston Planning Scheme.

Market Attitude Research Services (2000) Moorabbin Bankstown Corridor Survey

Moorabbin Airport Corporation (1998) Moorabbin Airport Environmental Strategy.

Moorabbin Airport Corporation (2004) Moorabbin Airport Land Use Plan.

City of Kingston (1994) Moorabbin Airport: A Pictorial History.

Urban Enterprise (1998) Market Demand Analysis for a Proposed Air Service between Moorabbin and Bankstown Airports.

Victorian Government (1998) Victoria Planning Provisions, V5.

Victorian Government (2002) Melbourne 2030.



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APPENDIX A: CORRESPONDENCE FROM DEPARTMENT OF SUSTAINABILITY AND ENVIRONMENT



Our ref: LA/36/0046/1456

Wednesday, 19 November 2003

Mr Nevan Wadeson Tract Consultants Pty Ltd PO BOX 181 Richmond VIC 3121

Dear Mr Wadeson,

REQUEST TO MODIFY THE URBAN GROWTH BOUNDARY LAND: Moorabbin Airport - Centre Dandenong Road Moorabbin

I am writing to advise you of the outcome of the Government's consideration of your request to modify the urban growth boundary (UGB). As you know the UGB was applied to planning schemes as part of the implementation of *Melbourne 2030*.

Implementation Plan No 1 – Urban Growth Boundary, released with Melbourne 2030, made clear the circumstances where changes to the UGB would be considered. The three main circumstances described in this Implementation Plan are:

- 1. Anomalies / Transitional cases
- Designated growth areas changes that may follow a review of growth area plans,
- 3. Green wedge townships application of a UGB to small towns in green wedges.

In each instance a submission would need to demonstrate:

- 1. Consistency with Melbourne 2030
- 2. Consistency with the State Planning Policy Framework, and
- 3. Maintain the integrity of any non-urban area affected by a proposed change.

Your submission has been carefully assessed and it is considered that the land occupied by the airport should not be included in the UGB as the land is owned by the Commonwealth Government and is not subject to strategic planning controls. The UGB has therefore been modified to reflect the airport boundary.

Amendment C38 to the Kingston Planning Scheme will modify the UGB and the Minister for Planning has introduced the changes into the Parliament for ratification.

Please see the attached leaflet or visit the web site <u>www.melbourne2030.vic.gov.au</u> for further information or contact the Department on 1800 191 012 if you need to clarify any issues.

Yours sincerely

em

John Collins Deputy Secretary Strategic Planning and Sustainability Policy



Find out more about the Department by calling our Customer Service Centre on 136 186 or visit our website at www.dse.vic.gov.au

APPENDIX B: ZONE CONTROLS



This section sets out the zones which apply in this Master Plan.

31 OPERATION OF ZONES

In each zone and schedule to a zone which contains a table of uses, the controls over the use of land are divided into three sections.

31.01 Section 1 uses

A use in Section 1 does not require specific Planning Permit for the use, but Operators' Consent is still required to lease, develop and/or commence operations on Airport land for that activity. A condition opposite the use must be met. If the condition is not met, the use is included in Section 2 (planning permit required) as a use that does not meet the Section 1 condition, unless specifically included as a Section 3 use.

For details regarding the planning permit/Operators consent processes refer to the User Guide in this Land Use Plan or contact the Airport Operator.

31.02 Section 2 uses

A use in Section 2 requires a Planning Permit for the use and a condition opposite the use must be met. If the condition is not met, the use of prohibited.

An application for planning permit will include an assessment of the development (buildings and works) associated with the proposal. Therefore, the development component of the application will not require a separate Operators' consent.

Making decisions about Section 2 uses

Because a use is listed in Section 2 it does not imply that a Planning Permit should or will be granted. The Airport Operator may decide whether the proposal will produce acceptable outcomes in terms of the Moorabbin Airport Strategic Statement, the State Planning Policy Framework, where appropriate and the purpose and decision guidelines of the zone.

31.03 Section 3 uses

A use in Section 3 is prohibited.

37.01 SPECIAL USE ZONE

Shown on the planning scheme map as **SUZ** with a number.

Purpose

To implement the Moorabbin Airport Strategic Statement, the Moorabbin Airport Master Plan and the Moorabbin Airport Environment Strategy, and, where appropriate, the State Planning Policy Framework.

To recognise or provide for the use and development of land for specific purposes as identified in a schedule in this zone.

37.01-1 Table of uses

Section 1 – Planning Permit not required (Operators' consent is still required to lease, develop and/or commence operations.)

USE	CONDITION
Any use in Section 1 of the schedule to this zone	Must comply with any condition in Section 1 of the schedule to this zone

Section 2 – Planning Permit required (Operators' consent to development included in planning permit assessment)

USE	CONDITION
Any use in Section 2 of the schedule to this zone	Must comply with any condition in Section 2 of the schedule to this zone.
Any other use not in Section 1 or 3 of the	

Any other use not in Section 1 or 3 of the schedule to this zone

Section 3 - Prohibited

USE

Any use in Section 3 of the schedule to this zone

37.01-2 Use of land

Any requirement in the schedule to this zone must be met.

Application requirements

An application to use land must be accompanied by any information specified in the schedule to this zone.

Decision guidelines

Before deciding on an application, the Airport Operator must consider, as appropriate:

- The Moorabbin Airport Strategic Statement, the Moorabbin Airport Master Plan, the Moorabbin Airport Environment Strategy and, where appropriate, the State Planning Policy Framework.
- Any guidelines in the schedule to this zone.

37.01-3 Leasing

Operators' consent requirement

As all Airport land is owned by the Commonwealth of Australia and leased to the Airport Operator, use and development of land is subject to either a lease, sub-lease, licence or other occupancy agreement.

Any requirement in the schedule to this zone must be met.

37.01-4 Buildings and works

Operators' Consent Requirement

Operators' consent is required to develop, including to construct a building or construct or carry out works, unless the schedule to this zone specifies otherwise.

Any requirement of the Airport Operator and/or in the schedule to this zone must be met.

Application requirements

An application to construct a building or construct or carry out works must be accompanied by any information specified by the Airport Operator and/or in the schedule to this zone.

Decision guidelines

Before deciding on an application, the Airport Operator must consider, as appropriate:

- The Moorabbin Airport Strategic Statement, the Moorabbin Airport Master Plan, the Moorabbin Airport Environment Strategy and, where appropriate, the State Planning Policy Framework.
- Any guidelines in the schedule to this zone.

37.01-5 Advertising signs

Advertising sign considerations will be based on the criteria set out in an adopted Land Use Plan.

Notes: Refer to the Moorabbin Airport Strategic Statement, including the Moorabbin Airport Master Plan, the Moorabbin Airport Environment Strategy and, where appropriate the State Planning Policy Framework, for strategies and policies which may affect the use and development of land

Check whether an overlay also applies to the land.

Other requirements may also apply..

SCHEDULE 1 TO THE SPECIAL USE ZONE

Shown on the planning scheme map as SUZ1.

MOORABBIN AIRPORT AIRSIDE

Purpose

To provide for the integrated use and development of the land generally in accordance with the Moorabbin Airport Master Plan.

To encourage the development of airside uses.

1.0 Table of uses

Section 1 – Planning Permit not required (Operators' consent is still required to lease, develop and/or commence operations.)

USE	CONDITION
Aircraft Operations	
Apiculture	Must meet the requirements of the Apiary Code of Practice, May 1997.
ATC Associated Facilities	
Mineral Exploration	
Mining	Must be in accordance with the Airports Act 1996 and Regulations and the Airport lease provisions.
Search for stone	Must not be costeaning or bulk sampling.

Section 2 – Planning Permit required (Operators' consent to development included in planning permit assessment)

USE	CONDITION
Apiculture – if the Section 1 condition is not met	
Aviation Maintenance Facility	
Aviation Support Facilities	
Mining - If the Section 1 condition is not met	
Search for stone - If the Section 1 condition is not met	
Transport Terminal	





2.0 Use of land

The use of land must cater for the future growth, development, essential services and operations of Moorabbin Airport aircraft terminal areas and aircraft support facilities.

Application requirements

An application to change the use of land or any part thereof must be accompanied by, amongst other information, the following, as appropriate:

- A site plan drawn to scale.
- Scaled elevation drawings to identify the colour and materials of all buildings and works.
- Construction details of all drainage works, driveways, vehicle parking and loading areas.
- A landscape layout which includes the description of vegetation to be planted, its source, the surfaces to be constructed, site works specification and method of preparing, draining, watering, maintaining and monitoring the landscape area.
- Details relating to access, building materials and colour, vehicle parking, noise amenity, visual amenity and height limitations.
- Pre- and post-construction environmental and works plan.

Decision Guidelines

Before deciding on an application, the Airport Operator must consider, as appropriate:

- The Moorabbin Airport Strategic Statement, the Moorabbin Airport Master Plan, the Moorabbin Airport Environment Strategy and, where appropriate, the State Planning Policy Framework.
- The Airports Act 1996 and Regulations and the Airport lease provisions.

3.0 Leasing

An application to lease land must be accompanied by the following information, as appropriate:

• A site plan drawn to scale, showing the area to be leased, including adjoining lease/property boundaries and roadways.

Decision guidelines

Before deciding on an application, the Airport Operator must consider, as appropriate:

- The Moorabbin Airport Strategic Statement, the Moorabbin Airport Master Plan, the Moorabbin Airport Environment Strategy and, where appropriate, the State Planning Policy Framework.
- The effect the lease will have on the potential of the area to accommodate the uses which will maintain or enhance its competitive strengths.
- Any natural or cultural values on or near the land.
- Streetscape character.
- Landscape treatment.
- The interface with adjoining zones, especially the relationship with nearby residential areas.

• The Airports Act 1996 and Regulations and the Airport lease provisions.

4.0 Buildings and works

Operators' Consent Requirement

Operators' consent is required to develop, including to construct a building or construct or carry out works, unless the schedule to this zone specifies otherwise.

Application requirements

An application must be accompanied by the following, amongst other information, the following, as appropriate:

- A site plan drawn to scale.
- Scaled elevation drawings to identify the colour and materials of all buildings and works.
- Construction details of all drainage works, driveways, vehicle parking and loading areas.
- A landscape layout which includes the description of vegetation to be planted, its source, the surfaces to be constructed, site works specification and method of preparing, draining, watering, maintaining and monitoring the landscape area.
- Details relating to access, building materials and colour, vehicle parking, noise amenity, visual amenity and height limitations.
- Pre- and post-construction environmental and works plan.

If buildings or works are proposed for which the cost of construction exceeds \$10 million or such other amount as is prescribed or is of a nature otherwise specified in Section 89 of the Airports Act 1996, then the relevant requirements of sections 92, 93 and 94 of the Airports Act 1996 apply.

5.0 Advertising signs

Advertising sign considerations will be based on the criteria set out in an adopted Land Use Plan.

SCHEDULE 2 TO THE SPECIAL USE ZONE

Shown on the planning scheme map as SUZ2.

MOORABBIN AIRPORT LANDSIDE AND COMMERICAL DEVELOPMENT AREA

Purpose

To provide for the integrated use and development of the land generally in accordance with the Moorabbin Airport Master Plan.

To encourage the mixed use development of aviation related and other commercial, industrial, business, tourism, retail and office uses in a planned and landscaped setting.

1.0 Table of uses

Section 1 – Planning Permit not required (Operators' consent is still required to lease, develop and/or commence operations.)

USE	CONDITION
Apiculture	Must meet the requirements of the Apiary Code of Practice, May 1997.
Aviation maintenance facility	
Aviation support facility	
ATC associated facilities	
Caretaker's house	
Convenience Shop	
Industry	Must be appropriately designed and located so as not to cause offence or unacceptable risk to the neighbourhood.
	The land must be at least 30 metres from land which is in a Residential zone (not including a road).
Leisure and Recreation (other than Major Sports and Recreation Facility, and Motor Racing Track)	
Mineral exploration	
Mining	Must be in accordance with the Airports Act 1996 and Regulations and the Airport lease provisions.
Minor utility installation	
Natural systems	
Office	
Place of Assembly (other than Cinema)	
Railway	
Research centre	

Residential building

Section 1 – Planning Permit not required (Operators' consent is still required to lease, develop and/or commence operations.) (continued)

USE	CONDITION
Restricted retail premises	Must be in one occupation with a leasable floor area of at least 1,000m ²
Retail premises (other than Gambling premises, Restricted retail premises and Shop)	
Road	
Search for stone	Must not be costeaning or bulk sampling.
Service Station	
Shop (other than Department Store, Restricted retail premises and Supermarket)	The combined leasable floor area for all shops must not exceed 10,000m ² .
Supermarket	Only one supermarket tenancy.
Warehouse	Must be appropriately designed and located so as not to cause offence or unacceptable risk to the neighbourhood.
	The land must be at least 30 metres from land which is in a Residential zone (not including a road).

Section 2 – Planning Permit required (Operators' consent to development included in planning permit assessment)

USE	CONDITION
Apiculture – if the Section 1 condition is not met	
Mineral, stone or soil extraction (other than Extractive industry, Mineral exploration, Mining, and Search for stone)	
Mining – if the Section 1 condition is not met	
Search for stone – if the Section 1 condition is not met	
Transport Terminal	
Utility installation (other than Minor utility installation)	
A Section 1 use if the condition is not met	
Any other use not in Section 3	

Section 3 - Prohibited

USE

Accommodation (other than Caretaker's house, and Residential building) Corrective institution Department store Dwelling Extractive industry Gambling premises Intensive animal husbandry Major sports and recreation facility Supermarket (more than one Supermarket tenancy)

2.0 Use of land

The use of land must cater for the future growth, development, essential services and operations of Moorabbin Airport aircraft terminal areas and aircraft support facilities.

Application requirements

An application to change the use of land or any part thereof must be accompanied by, amongst other information, the following, as appropriate:

- A site plan drawn to scale.
- Scaled elevation drawings to identify the colour and materials of all buildings and works.
- Construction details of all drainage works, driveways, vehicle parking and loading areas.
- A landscape layout which includes the description of vegetation to be planted, its source, the surfaces to be constructed, site works specification and method of preparing, draining, watering, maintaining and monitoring the landscape area.
- Details relating to access, building materials and colour, vehicle parking, noise amenity, visual amenity and height limitations.
- Pre- and post-construction environmental and works plan.

Decision Guidelines

Before deciding on an application, the Airport Operator must consider, as appropriate:

- The Moorabbin Airport Strategic Statement, the Moorabbin Airport Master Plan, the Moorabbin Airport Environment Strategy and, where appropriate, the State Planning Policy Framework.
- The Airports Act 1996 and Regulations and the Airport lease provisions.

3.0 Leasing

Subleases for residential development are prohibited under the Airports Act 1996.

An application to lease land must be accompanied by the following information, as appropriate:

• A site plan drawn to scale, showing the area to be leased, including adjoining lease/property boundaries and roadways.

Decision guidelines

Before deciding on an application, the Airport Operator must consider, as appropriate:

- The Moorabbin Airport Strategic Statement, the Moorabbin Airport Master Plan, the Moorabbin Airport Environment Strategy and, where appropriate, the State Planning Policy Framework.
- The effect the lease will have on the potential of the area to accommodate the uses which will maintain or enhance its competitive strengths.
- Any natural or cultural values on or near the land.
- Streetscape character.
- Landscape treatment.
- The interface with adjoining zones, especially the relationship with nearby residential areas.
- The Airports Act 1996 and Regulations and the Airport lease provisions.

4.0 Buildings and works

Operators' Consent Requirement

Operators' consent is required to develop, including to construct a building or construct or carry out works, unless the schedule to this zone specifies otherwise.

Application requirements

An application must be accompanied by, amongst other information, the following, as appropriate:

- A site plan drawn to scale.
- Scaled elevation drawings to identify the colour and materials of all buildings and works.
- Construction details of all drainage works, driveways, vehicle parking and loading areas.
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- Details relating to access, building materials and colour, vehicle parking, noise amenity, visual amenity and height limitations.
- Pre- and post-construction environmental and works plan.

If buildings or works are proposed for which the cost of construction exceeds \$10 million or such other amount as is prescribed or is of a nature otherwise specified in Section 89 of the Airports Act 1996, then the relevant requirements of sections 92, 93 and 94 of the Airports Act 1996 apply.

Maximum height of buildings or works must not exceed the relevant Obstacle Limitations Surface standards.

5.0 Advertising signs

Advertising sign considerations will be based on the criteria set out in an adopted Land Use Plan.

SCHEDULE 3 TO THE SPECIAL USE ZONE

Shown on the planning scheme map as **SUZ3.**

MOORABBIN AIRPORT RETAIL AND COMMERCIAL ACTIVITY NODE

Purpose:

To provide for the integrated use and development of the land generally in accordance with the Moorabbin Airport Master Plan.

To encourage a range of commercial developments and non-traditional and associated retailing.

1.0 Table of uses

Section 1 – Planning Permit not required (Operators' consent is still required to lease, develop and/or commence operations.)

USE	CONDITION
Apiculture	Must meet the requirements of the Apiary Code of Practice, May 1997.
Cinema based entertainment facility	
Industry	Must be appropriately designed and located so as not to cause offence or unacceptable risk to the neighbourhood. The land must be at least 30 metres from land which is in a Residential zone (not including a road).
Leisure and Recreation (other than Major Sports and Recreation Facility, and Motor Racing Track)	
Mineral exploration	
Mining	Must be in accordance with the Airports Act 1996 and Regulations and the Airport lease provisions.
Minor utility installation Natural systems	
Office	
Place of Assembly	
Railway Residential Hotel Road	
Retail premises (other than Department store, Gambling premises and Supermarket)	
Search for stone	Must not be costeaning or bulk sampling.
Service Industry	
Service Station	
Supermarket	Only one Supermarket tenancy.
Warehouse	Must be appropriately designed and located so as not to cause offence or unacceptable risk to the neighbourhood. The land must be at least 30 metres from land which is in a Residential zone (not including a road).

Section 2 – Planning Permit required (Operators' consent to development included in planning permit assessment)

USE	CONDITION
Apiculture – if the Section 1 condition is not met	
Accommodation (other than Corrective institution, Dwelling and Residential hotel)	
Electoral office	May be used for only 4 months before an election and 2 weeks after an election.
Gambling premises	
Mineral, stone, or soil extraction (other	
than Extractive industry, Mineral	
exploration, Mining, and Search for	
stone)	
Utility installation (other than Minor utility installation)	
Any other use not in Section 3	
A Section 1 use if the condition is not met	

Section 3 – Prohibited

USE

Corrective institution Department store Dwelling Extractive industry Intensive animal husbandry Major sports and recreation facility Motor racing track Supermarket (more than one Supermarket tenancy)

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Decision guidelines

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- The effect the lease will have on the potential of the area to accommodate the uses which will maintain or enhance its competitive strengths.
- Any natural or cultural values on or near the land.
- Streetscape character.
- Landscape treatment.
- The interface with adjoining zones, especially the relationship with nearby residential areas.
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4.0 Buildings and works

Operators' Consent Requirement

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Application requirements

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