Parliamentary Standing Committee on Public Works

REPORT

relating to the

EXPANSION OF INTERNATIONAL TERMINAL FACILITIES, MELBOURNE AIRPORT

(Fifteenth Report of 1989)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
1989

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(Twenty-ninth Committee)

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Mr Percival Clarence Millar MP (Vice-Chairman)

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EXTRACT FROM VOTES AND PROCEEDINGS OF
THE HOUSE OF REPRESENTATIVES

NO. 121 DATED WEDNESDAY 23 MAY 1989

10 **PUBLIC WORKS COMMITTEE - REFERENCE OF WORK - EXPANSION OF INTERNATIONAL TERMINAL FACILITIES, MELBOURNE AIRPORT:** Mr West (Minister for Administrative Services), pursuant to notice, moved - That, in accordance with the provisions of the Public Works Committee Act 1969, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for consideration and report: Expansion of International Terminal Facilities, Melbourne Airport.

Mr West presented plans in connection with the proposed work.

Debate ensued.

Question - put and passed.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

EXPANSION OF INTERNATIONAL TERMINAL FACILITIES,
MELBOURNE AIRPORT

1. By resolution on 23 May 1989 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposal for the Expansion of the International Terminal Facilities, Melbourne Airport.

THE RREFERENCE

2. The work proposed under this reference comprises terminal expansion, concourse extension, a new satellite terminal, a new apron pavement and upgraded water, power, sewerage and drainage services.

3. The estimated cost of the proposed work is $170m at December 1988 prices.

The Committee's Investigation

4. The Committee received a submission and project drawings from the Federal Airports Corporation (FAC) and took evidence from its representatives at a public hearing held in Melbourne on 14 July 1989.

5. The Committee also received submissions and took evidence from:

- Australian Customs Service (ACS)
- Premier's Department, Victorian Government
- City of Keilor

- QANTAS
- International Air Transport Association
- Ansett Airlines

6. Letters were also received from the Australian Heritage Commission, the State Chamber of Commerce and Industry of Victoria, the Federated Clerks' Union (FCU) and Australian Airlines and are incorporated in the Minutes of Evidence.

7. Prior to the public hearing the Committee inspected the existing international terminal at Melbourne Airport.

8. A list of witnesses who gave evidence at the hearing is at Appendix A. The Committee's proceedings will be published as Minutes of Evidence.

BACKGROUND

The Federal Airports Corporation And Its Charter

9. The FAC is a government business enterprise established by, and incorporated under, the Federal Airports Corporation Act 1986. On 1 January 1988, the FAC assumed responsibility for the ownership, management and development of Australia's 17 federal airports. The aim of the FAC is to operate on private enterprise lines and use business management and systems to make the airports profitable and commercially self-supporting in a safe, efficient and environmentally acceptable manner.

Melbourne Airport

10. Melbourne Airport was commissioned in 1970, replacing Essendon Airport as Victoria's major international airport and a year later as its domestic airport. Melbourne Airport is currently used by 19 international airlines, two major domestic airlines and a number of commuter services. Its primary function

is to cater for both international and domestic regular public transport, air freight and aircraft maintenance. Other categories of aviation defined broadly as "general aviation" operate from Essendon, Moorabbin and other airports in the region.

11. Melbourne Airport serves as the international gateway for 3.5 million people in Victoria. The airport processed 7.9 million passenger movements and 191,000 tonnes of air freight in 1988 via 114,000 aircraft movements. This throughput is the second highest in Australasia. The airport provides a world standard facility in respect of its terminal facilities, 24 hour operation, available runway capacity and ready access to the City of Melbourne and is of great economic importance to Victoria.

12. The Victorian Government advised the Committee that Melbourne and Essendon Airports jointly provide 11,490 jobs directly, 5,745 jobs indirectly and another 17,235 jobs as a result of flow-on effects. The combined economic output of the airports is $1.5 billion per annum which is 2 percent of the gross domestic product of Victoria.

The Existing International Terminal

13. When Melbourne Airport's international terminal opened for service in 1970 the apron was designed for eight B707-320 aircraft. These planes had a fuselage length of about 44 metres, wingspan of about 44 metres and approximately 140 seats in a mixed class international configuration. The terminal's passenger and processing areas and facilities were thus designed for 500 departing or arriving passengers in any hour (pax hr.). The departures concourse provided dedicated gate lounges for these B707 aircraft which are small by current B747 standards.

14. In 1973 the terminal was modified to handle six B747 aircraft. Since that time there has been limited development including:

- minor expansion of the departures hall into the garden area in 1981;
- minor expansion of the baggage area in 1983;
- the addition of two additional aircraft parking positions in 1985 (total eight); and
- the addition of two additional aerobridge positions in 1985 (total six).

15. The ability to respond to operational problems associated with the design limitations of the international terminal has been restricted in the past due to uncertainty as to the terminal's future ownership. However, since FAC ownership further developments have been carried out - namely -

- construction of new apron facilities commenced in 1988 to allow parking of two additional aircraft of the latest B747-400 series. These works were completed in 1989 at a total cost of $3.5 million and will be incorporated into the expanded international terminal;
- limited refurbishment of the arrivals and departures concourses commenced in January 1989. This work includes improvements to toilet facilities, painting and carpeting and was completed at a cost of $1.2 million; and
- the expansion of the outwards baggage system was completed in March 1989 at a cost of $2.5 million.

Melbourne Airport Strategy

16. The Melbourne Airport Strategy (MAS), released on 18 August 1989, was prepared jointly by the FAC and the Victorian State Government and aims to provide a framework for infrastructure planning for the Melbourne Airport.

17. The purpose of the strategy is to determine and advise all interested parties where the future runways, terminals, freight, maintenance and other facilities will be developed. With this knowledge, the airlines and businesses involved can then develop marketing and business plans to take full advantage of the areas identified for future development both on and off the airport.

18. The strategy enables private, public and industry organisations to properly focus investment and action at Melbourne Airport. The strategy provides a firm basis for the preparation of a master plan, a marketing plan, a business plan and a program of works which will be the foundation and catalyst for accelerated commercial growth at Melbourne Airport.

19. The strategy will enhance the competitive advantages of Melbourne Airport and embodies:

- a runway layout which will provide aircraft movement capacity to meet demands to the middle of the next century by protecting locations for two additional runways;
- a landside development strategy which provides for domestic and international passenger facilities to be developed in an integrated manner;
- scope for domestic and international airline freight facilities to be located in the south eastern section close to their respective passenger operations as part of a 'freight city' complex;

- scope for significant expansion of maintenance facilities adjacent to the existing domestic maintenance bases;

- plans for a rail reservation to provide flexibility for a future public transport link between Melbourne Airport and the City;

- plans for the upgrading of existing arterial roads and establishment of new reservations to match the forecast traffic demand generated by the airport;

- a land use strategy which protects the approaches to four runways and recommends amendments to the planning scheme to provide complementary commercial areas off-airport adjacent to similar on-airport areas;

- a basis for understanding and enhancement of the competitive advantages of the airport and the value of the airport to the Melbourne/Victorian economy;

- a requirement to acquire land strategically important to secure the long term development of the airport; and

- the assumption that Essendon Airport continues to operate but that a proportion of performance compatible traffic will transfer to Melbourne on operational or commercial grounds.

20. The strategy, along with an Environment Impact Statement has been released for a period of public and industry comment.

21. The FAC will conduct a public information programme when displays and summary information sheets will be provided to all areas around the airport. All stages in the publication and display of information will be advertised widely in the local press.

22. Following analysis, debate and acceptance of this strategy, the industry and Local and State Governments will have clear guidelines for future investment on and around Melbourne Airport.

THE NEED

Current Problems at the Terminal

23. The FAC advised that there are numerous problems presently being experienced at the international terminal.

24. Only four out of 10 aircraft positions provide separation of departing and arriving passengers through aerobridge links, a condition necessary to meet security objectives. Two other positions have aerobridge connections to an elevated covered walkway. These also serve a non-aerobridge position.

25. While the number of aircraft positions has increased to cater for current demand, passenger processing rates urgently require upgrading, with current hourly throughput (961 arriving and 807 departing passengers) nearly twice the terminal's design capacity of 600 pax/hr both ways.

26. Large peaks accompany these 'average' busy periods, with 1,900 arriving and 1,500 departing passengers recorded in a one hour period in 1988. Transit passenger levels frequently exceed 600 pax/hr in addition to the above figures. On more than 30 occasions in 1988 there were more than 1,220 departing in a one hour period. These passenger throughput levels are accompanied by a high level of confusion and complaint from both passengers and other airport users. Major congestion occurs at check-in areas during peaks as a result of inadequate queuing and circulation space.

27. The demand for the terminal facility is continuing to increase, with departing and arriving passenger volumes increasing by more than 10% in 1988. Passenger growth of 4% has been experienced in the first six months of 1989 based on the same period in 1988.

28. Passenger growth forecasts have been prepared by a number of organisations in recent years and these range from Qantas estimates of 7.5%-10% p.a. through to 2010 to estimates prepared in relation to the development of the Melbourne Airport Strategy which is in the range of 3-5%. More recent projections by Kinhill have produced a 6.5% growth rate over the next 20 years and the British Airport Service, a growth rate of 6.3% to 1992 reducing to 3.5% through to 2007.

29. It is this latter estimate that has been adopted by the FAC Board as a basis for planning of the international terminal at Melbourne and has confirmed the previous view of Kinhill that a concept plan incorporating fourteen aircraft parking positions and a processing rate of approximately 1,800 passengers per hour is appropriate.

30. The public perception of the existing facility is poor, with criticism consistently directed at the poor level of service available at key areas and the resulting low regard held by overseas visitors for what is, for many, the first and last impression of Australia.

Committee's Conclusion

31. The Committee agrees that a need exists to improve the standard of amenity and service available to users of the international terminal at the Melbourne Airport.

OPTIONS CONSIDERED

32. With the aim of overcoming these problems the FAC considered 3 options:

- the imposition of more extreme restrictive Schedule Control Rules (SCRs) to force further spreading of peak operations and/or to reduce demand;
- the development of a new terminal complex; and
- expansion of the existing international terminal.

Imposition of More Restrictive Schedule Control Rules

33. SCRs limit the use of the terminal by aircraft and passengers by restricting processing of passengers to 800 per hour for on-schedule aircraft operations. However, their effectiveness is reduced due to off-schedule arrivals. Qantas advised the Committee that 64% of all arrivals and 66% of all departures were within $\pm$ 20 minutes of schedule. FAC confirmed that almost 70% of aircraft were more than 10 minutes off schedule while approximately 40% were almost half an hour off schedule. This is often caused by delays in Europe and the U.S.A. Problems also occur on foggy days when flights are redirected to Brisbane thus throwing the whole schedule into chaos. In the 12 months to December 1988, departing and arriving passenger volumes increased by more than 10%. The FAC believes that with delays and high passenger growth rates the SCRs cannot be considered a practical management tool. To make them more restrictive would result in a further deterioration of service to passengers. A copy of the SCRs may be found at Appendix D.

Development of A New Terminal Complex

34. A new terminal complex could be constructed in the area of current airport freight operations. Although providing the capacity required there would be several disadvantages namely:

- the cost would be significantly higher than the $170m estimated for expansion of the existing terminal. For a new terminal, apart from construction of the new building, there would be a need to undertake substantial modification to the existing taxi-way system, provide new apron areas, re-establish facilities for major airport tenants providing freight handling services, change and further develop road transport and central building services infrastructure;

- because of the higher cost this would achieve a lower financial return to the FAC than the proposal to expand the existing terminal and would not satisfy the FAC's criteria for committing investment to new facilities;

- the opportunity to lease expanded retail and concession areas in the existing terminal would be delayed for the time it would take to develop a completely new international terminal, thus foregoing significant revenue to the FAC;

- the current low levels of service would deteriorate further during the period of designing and constructing the new facility, a period which is unlikely to be less than five years. In these circumstances the continued operation of the international terminal would become extremely difficult and would be accompanied by a high level of airline and passenger dissatisfaction;

- it would not afford the same highly desirable level of convenience to passengers tranferring to or from the domestic airline terminals; and

- because the same service level standards would be adopted for both a new international terminal and the proposal for expansion and upgrading of the existing international terminal, a new terminal would not offer a higher level of amenity to passengers to balance the cost premium.

35. FAC advised the Committee that the cost of building elsewhere would result in an expenditure of over $400m. An additional $85m would need to be outlayed on the existing terminal over the 5 - 8 year construction period of a new terminal. The FAC estimated that approximately $320m in additional capital funds would be involved. Additional interest costs would be approximately $57m per annum while total revenue of the Melbourne Airport is just over $60m per year.

Expansion of International Terminal

36. A major expansion of the international terminal could be undertaken.

37. The fabric of the building is generally in good condition and there is scope to quickly and substantially increase the area of the building both landside and airside with limited interference to the existing operations. The existing airside (runways and taxiways) and landside (roads and car parks) infrastructure have residual capacity or can be increased easily. This development of the international terminal could be integrated with the domestic terminals thus maintaining the convenience for passengers transferring between domestic and international airlines, a feature distinguishing the Melbourne Airport terminal from all other Australian international terminals.

38. The FAC believes these factors collectively support the upgrading of the existing international terminal over the options of a new terminal or restricting airline access. The programme of upgrading and expansion of the existing terminal can be varied to accommodate unpredictable variations in actual passenger growth patterns, thereby allowing funds to be committed to construction expenditure only when necessary.

39. The FAC believes that the immediate and future needs of international passengers can be met by undertaking a major expansion of the existing international terminal. The FAC has assessed that the revenue available is sufficient to generate a commercial return satisfying its investment criteria.

Committee's Conclusion

40. The Committee is satisfied that expansion of the existing international terminal is the best option available to the FAC.

THE PROPOSAL

41. The proposed work involves:

- provision of an additional six B747-400 aerobridge connected aircraft gates and a further two aircraft stands;
- construction of 28,100m^2 of new building work;
- the complete refurbishment of 35,100m^2 of existing building; and
- builders work associated with the connection of new services to be provided to the expanded terminal.

42. The expansion will be fully integrated in processing, servicing, spatial and form characteristics with the existing terminal complex.

43. Provision has been made for 12 aerobridge gates and for a further two non aerobridge positions accessible by bus. There is also the ability to construct an additional six aircraft parking positions in close proximity to the terminal. These aircraft parking positions would enable aircraft to be moved off or onto the aerobridge gates when not scheduled for immediate departure, thus increasing the efficiency of the terminal.

44. Qantas however, believes that based on their medium forecast for Melbourne to the year 2010, the proposed number of 12 gates plus two standoffs will be exceeded by 1991. Therefore, unless the proposed apron works are carried out during the initial construction phases together with additional standoff positions, access into Melbourne will continue to be constrained.

45. The FCU noted that the proposal only meets the gate requirement predicted by the low MAS growth forecast and insisted that predictions on growth of tourism have been understated. In addition, a number of airlines have expressed interest in increasing the number of flights to and from Melbourne and the FCU believes that this tendency is likely to accelerate with the recent decision of Qantas to establish a line maintenance facility in Melbourne.

46. The FCU therefore argued that 12 aerobridge gates will prove inadequate and that heavy reliance will be placed upon the non-aerobridge positions and upon the shuffling of aircraft between the gates and the additional aircraft parking positions. Additional equipment would therefore be needed in the form of aircraft tugs and manpower (one driver and four licensed engineers per aircraft movement).

47. However, the FAC believes that 14 aircraft positions will be sufficient until the year 2007 and that passenger processing facilities will be adequate until beyond that year. Should the necessity arise, FAC advised that a further six aircraft parking positions are able to be provided in close proximity to the satellite.

TERMINAL BUILDING

48. The terminal building is of three levels, (ground floor/ arrivals, first floor/departures and the second floor), and interfaces with the airside concourse, the landside transport facilities and with the Ansett and Australian Airline domestic terminals.

49. The terminal proper will be increased in area by approximately 10,500m^2 to 38,200m^2. The additional area will be provided by infilling courtyards between the international terminal and adjoining domestic terminals, extending the arrivals hall under the existing elevated service roadway and developing the observation decks.

50. The building will include all FAC, airline and government facilities required for the efficient processing of originating and terminating passengers and their baggage, together with associated revenue generating concession and airline office/VIP lounge space.

51. All fire protection systems in the existing terminal and concourse will be upgraded to meet the requirements of the Victorian Building Regulations.

Arrivals Level

52. The scope of works proposed includes the following:

- relocation of the landside wall of the arrivals hall to the outer edge of the elevated road above;
- infill of the garden courtyards between the international terminal and the domestic terminals;
- relocation of the ACS secondary inspection area to the infilled courtyard adjoining the Australian Airlines terminal;
- relocation of the primary immigration and customs line to the arrivals concourse;
- lowering of the north-western section of the baggage claim hall floor to permit installation of new baggage claim carousels; and
- relocation of the ACS administration from the south side to the north side of the baggage claim hall.

53. These works will provide the areas necessary to achieve the required level of service (reflecting processing time and waiting space and queue length objectives) for arriving passengers in the key baggage claim hall and secondary customs inspection areas as well as achieving appropriate facilities for the customs inspection function and staff accommodation. The amenity for passengers and friends using the arrivals hall will be increased substantially and will allow appropriate accommodation for rent yielding retail and other concessions tenancies.

54. The expanded baggage claim hall will have approximate overall dimensions of 50m X 65m and be capable of accommodating four sloping bed carousels each with a presentation length of up to 70m and suitable for holding all baggage from a B747 aircraft. The FCU agreed that the expansion of the carousels to accommodate a full load of baggage from a B747 aircraft is necessary. However, the FCU stressed that the more usual cause of delay in processing passengers through the baggage claim area to Customs is due to the limited number of carousels. The FCU therefore believes that consideration should be given to an increase in the number of carousels. FAC, however, believe that the greater capacity of the sloping bed carousels will result in a reduction of waiting time in the baggage claim area.

55. Space will be provided for passenger waiting, circulation and trolley storage. The expansion will be achieved by the relocation of the primary line and subsequent lowering of the floor in the western end of the baggage hall, relocation of the customs administration offices on both the north and south walls, and the eastern relocation of the east wall.

56. In the secondary customs inspection area, the numbers, size and spacing of inspection tables (10 of 6m length and 20 of 3m length) have been agreed with ACS to facilitate the achievement of planned productivity standards. Most of the secondary inspection area will be located in the courtyard infill area adjacent to the existing northern administration area. Consistent with the operational requirements of ACS, the secondary inspection area and its associated facilities will be located out of view of the baggage hall.

57. Office accommodation for ACS staff will be consolidated on the northern side of the baggage hall. This incorporates a mezzanine level, enabling the provision of surveillance facilities over the baggage hall and also over the secondary inspection area.

58. The arrivals hall will be increased to 100m X 22m by relocating the eastern wall six metres landside from its existing location. This will be associated with realignment of the arrivals level road and parking system.

Departure Level

59. The scope of works proposed includes:

- building over the existing observation decks;
- infilling the courtyards adjoining the domestic terminals;
- infilling the existing departures level garden courtyard;
- relocation of stairs and escalators interconnecting arrivals, departures and second floor levels;
- increasing the numbers and re-arranging the layout of check-in counters and associated baggage handling systems.

60. The proposed departures hall will provide for 80 check-in counter positions generally operating on common use principles, of which 54 will be in three wide spaced islands and a total of 26 in two banks parallel to the departures level road. The retail area of about 1,600m^2 will be highly visible and accessible in the departures hall.

61. The FCU expressed concern over check-in counter positions operating on the "common user" principle, suggesting that multi-airline check-in at counters would significantly lessen the ability of individual airlines to adopt flexible check-in counters.

62. FAC, however, stressed that there is presently common use of check-in facilities to the extent that handling agents currently process passengers departing on more than one airline. FAC has confirmed that any problems arising will be resolved through consultation with the airlines and their staff.

Second Floor Level

63. At the second floor level additional areas will be provided through the courtyard infill and above the retail areas constructed at the departures level. These spaces will be used for offices by tenants and the FAC, beverage concessions and for building services as required. Airside at this level, a balcony about 100m long will be accessible to the public as an observation deck.

Concourse

64. The area of the existing two level concourse will be increased by infilling approximately 2,600m^2 to approximately 10,000m^2. This concourse, which connects the terminal to a proposed new satellite, will provide access to two aerobridge gates. Within the concourse, lounges and amenities will be provided for departing and arriving passengers travelling on aircraft using these two gates. Outwards and inwards immigration and primary customs control will be located within the concourse.

65. The primary immigration and customs line is relocated out of the baggage hall into the arrival concourse. This is necessary in order to provide the required additional space in the baggage claim hall. It also has the benefit of providing deeper and wider queuing space for the primary line, on a flat floor and not on a ramp as presently exists.

66. Provision has been made for 20 primary line inspection modules. This will reflect the passenger processing capability that the ACS hopes to be achieving by the time of commissioning this phase of the project.

67. At the departures level, 16 passport control stations will be located in the throat of the departure concourse. They will be located airside of their existing position in order to allow appropriate retailing development circulation areas in the departures hall. In order to achieve this relocation it is necessary to undertake some 'in-fill' work to the existing concourse, to remove and relocate the transit passenger escalators, and to remove and relocate some existing stairs.

68. Provision has also been made in the concourse for locating five security x-ray stations for processing up to 1,800 departing passengers per hour.

69. With the infill work and the removal of existing walls where practicable, the concourse will become an open departures lounge associated with the two inner gate positions.

70. Duty free and other concessions will generally be relocated from the concourse to the new satellite facility to improve their exposure to passengers and thus increase sales volumes.

SATELLITE

71. A new two level satellite of nearly 15,000m^2 will connect to the existing concourse. This satellite will provide facilities for departing, arriving and transiting passengers using aircraft at ten aerobridge gate positions. Areas will be provided for retail, food and beverage and VIP lounge space within the satellite.

Arrivals Level

72. In the arrivals level a network of corridors will connect the aerobridges to the concourse and escalators will be provided for transiting passengers to connect to the departures concourse. The main building services plant room will also be located at this level of the concourse.

73. At the arrivals level a large area will also be provided for VIP departure lounges which will be connected by dedicated lifts to the departures level.

Departure Level

74. The departure level will accommodate a major duty free retail, food and beverage concessions area in addition to open configuration departures lounges for passengers travelling on aircraft serviced by aerobridge gates connected to the satellite.

75. Lifts and stairs will connect the departures level to the arrivals and apron levels. Transiting passengers will arrive at the departures level by escalator and pass through a security x-ray facility before gaining access to the range of amenities available.

Aircraft Apron

76. Some further construction of apron will be necessary adjacent to the satellite to enable the efficient manoeuvring and parking of aircraft up to B747-400 size. Additional apron to service two B747-400 aircraft stand-off positions will have a total area of approximately 35,000m^2.

77. The new apron works will incorporate hydrant refuelling facilities (provided by others), apron flood lighting and will

have geometric flexibility to accommodate apron and taxiway changes made necessary at a later date because of increased aircraft wing span or fuselage length.

Baggage Handling

78. The make-up and breakdown of outward and inward baggage will be undertaken at ground level in the terminal with no major expansion being required, apart from delivery conveyers connecting this activity to check-in counters in the departures hall and the carousels in the baggage claims hall within the terminal. FAC advised that should future changes in operational methods require a semi or fully automatic outward baggage system, then this could be accommodated beneath the satellite.

Works By Others

79. The scope and range of work in this development necessarily involves contributory works by others. These works include:

- a hydrant refuelling system by user oil companies;
- any non common-use counters and associated systems by airlines or other tenant users;
- fit-out of lounges, offices and other user-dedicated spaces by those users;
- fit-out of commercial leased spaces by successful concessionaires;
- facilities for customs, health, immigration and police functions by relevant departments.

Other Associated Works

80. In conjunction with the further development of the domestic terminals as well as of the international terminal it is necessary to upgrade the various services provided to the building complex.

81. This work includes provision for:

- water supply upgrading to meet building and apron fire protection and domestic consumption demands;
- mains power and emergency power upgrading;
- sewerage reticulation extensions/modifications and pump station upgrade; and
- drainage relocation and lining and the provision of new or improved structures.

PHASES OF WORK

82. It is proposed to undertake the expansion in a series of phases. These phases will help achieve the orderly completion of the expansion.

Phase I

83. The location of the phase I works and the scope of the work are shown in Appendices D & E. Additional phases will result in orderly completion and will be finally determined subject to financial factors and terminal operation considerations.

84. Phase I of the project is briefly described below. It has the objective of improving the service standards available in the departures hall and of providing increased retail facilities which will be important to funding the expansion project.

85. The Phase 1 project embraces:

- infill of 450m^2 of garden courtyard at the departures level and its incorporation into the departure hall;
- enclosure of some 2,000m^2 of the existing observation deck on the departure level, and the provision of shop fronts for leasing for retail and other tenant purposes;
- relocation of stairs and escalators connecting ground floor arrivals hall, first floor departure hall and the second floor to provide more efficient circulation at the departures level in particular; and
- infill of the concourse at arrivals and departure levels to allow relocation of outwards immigration and customs services and of transit escalators to allow development of an efficient retail area in the departures hall.

Garden Courtyard Infill

86. The garden courtyard was included in the original terminal design to allow for expansion of the departures hall to provide for increased queuing and circulation space when traffic demanded. The area is at present non-functional. With such close proximity to a congested, inefficient area of operations it is an ideal area to adapt for a functional purpose.

87. It is now proposed to enclose the garden courtyard area for use as an extension of the existing departures hall. The project will complete the infill of the garden courtyard, approximately two thirds of which was undertaken and completed in 1983.

88. The project requires the demolition of two glazed screens, a new glazed screen, roof and services. There will be minimal disruption to existing operations while construction work in this area proceeds.

89. The level of service presently provided at the check-in counter area is inadequate. The area currently available for circulation is sufficient for 600 passengers per hour including farewelling friends and relatives. The current 30th busiest hour is 960 passengers per hour. The infill of the courtyard will improve the level of service and provide area required later for construction of new check-in desks.

90. Completion of this work will release space in the north end of the departures hall, which will improve service levels through relieving the existing congestion, particularly that created by the recent increased level of security checks imposed by some airlines in response to terrorist threats.

91. The space will also make it possible to meet the request by Qantas for space for a sales desk which is not possible currently.

92. FAC believe that this proposal is a cost efficient approach to obtaining greatly improved public area service standards. While this proposal is not financially self supporting, it is vital to the overall increase in the level of service standards required and being demanded by the airlines and passengers.

RETAIL AND ASSOCIATED DEVELOPMENT OF DEPARTURES HALL AND CONCOURSE ENTRANCE

93. The project provides for:

- enclosing the observation deck to provide 1,600m^2 of retail space plus associated public circulation areas;

- widening the departures concourse to relocate outwards immigration and customs and provide for expansion of the number of counters from 10 to 16;

- removal of stairs and escalators from the public circulating area within the departures hall and reinstatement of escalators to a new location within the new retail area; and

- distributed seating in the public areas.

94. Expansion of the departures hall across the observation deck and relocation of outwards immigration and customs will provide an additional retail area of 1,250m^2 allowing for the relocation of the four retailing concessions presently occupying 350m^2 of space within the departures hall.

95. The proposal will allow the following activities which require a minimum of 1,530m^2 to be located in the proposed retailing area:

- buffet/coffee lounge;

- fast food outlet;

- landside duty free;

- souvenir/gifts;

- photography;

- confectionery/ice cream;

- newsagent;

- Australiana (including Australian produce); and

- jeweller.

96. Relocation and upgrading of the outwards immigration and customs facility will provide a capacity of 900 passengers per hour which will be adequate to meet the current demand. The potential exists for a further increase in capacity with improved customs procedures to reduce passenger processing times.

97. Removal of the stairs and relocation of the escalators is required to avoid disruption to the proposed retailing area. It will also provide improved access to the second floor beverage outlet.

98. Enclosure of the observation deck will provide an upper floor to support a second story development at a later date. This will enable the expansion of the second floor level for additional commercial space.

Asbestos

99. A comprehensive programme to remove asbestos from the building commenced in the mid 1980s and was completed during 1987. FAC advised that over $3m was spent in asbestos removal during this period. Should there be some asbestos remaining then procedures will be put in place to protect the health of workers and the public. As construction will take place mainly in new areas such as the in-fill areas, on observation decks and the satellite, it is not anticipated that there will be a major problem. Should there be a need to remove asbestos then the costs would be accommodated within the cost provisions nominated in the preliminary cost estimate.

Noise

100. FAC advised the Committee that noise impacts from international aircraft had been considered as part of the strategy plan. However, noise is reducing because of the replacement of older, noisier aircraft with new aircraft designed with quieter noise levels.

101. The City of Keilor advised that aircraft-generated noise is a major concern to council and residents, and stressed the importance of upgrading landside facilities as the numbers of international flights increase. Concern was expressed that increased traffic should not result in aircraft noise intruding into the night hours.

102. FAC assured the Committee that it is intended that any additional aircraft movements will generally be accommodated within daylight hours.

103. However, if the proposed facilities were not provided, and if the demand for international air traffic to use Melbourne airport was sustained, it would be necessary to impose SCRs which would force the use of the terminal over a longer period each day.

104. The Committee noted that the FAC has never received written complaints about noise of aircraft on the approaches to the airport.

Traffic

105. Expansion of the international terminal will increase passenger movements and hence increase traffic at the terminal. However, peak arrival and departure times for international flights generally occur in the middle of the day, while domestic

flights peak periods occur in the morning and the evening. Although overall volumes will increase, they are not considered significant in the context of overall developments planned for the entire airport.

Storm Water Run-Off

106. Construction of new apron facilities will marginally increase the run-off of stormwater, but the existing drainage infrastructure has sufficient capacity to accommodate this change. The quality of the run-off is expected to only differ marginally from that at present, reflecting the increase in use of the airport and over time the reduction in gaseous emissions from new more efficient aircraft.

Access For People With Disabilities

107. FAC advised the Committee that lifts will be provided on th satellite to connect the departures level with the aerobridges connected to the satellite at the arrivals level, thus facilitating access for the disabled. However, the FCU expressed concern that there was no provision for access of wheelchairs and stretchers to the satellite. FAC acknowledged the desirability of ramps from the satellite to the aircraft and assured the Committee that this suggestion would be investigated.

Integrated Terminal Development

108. Appendix F illustrates the possible longer term development of the Melbourne Airport terminal complex.

109. Developments provided in the integrated terminal developmen plan include:

- longer term development of the existing open car park area for an integrated complex of multi-level car park, hotel, retail and commercial facilities. The whole of this development will be linked to, but buffered from, the terminal buildings by a wide landscaped zone;

- expansion of the road system involving dupication of the systems serving arriving and departing passenger levels, appropriately linked to all airline terminals, together with the necessary facilities for private, public and commercial vehicles including coaches and taxis;

- provision for a future public tranport link;

- provision of additional aircraft apron positions between the existing taxiways, which could be served by the expanded international terminal by bus;

- construction of an additional domestic airline (Ansett) concourse to the south of the existing Ansett concourse; and

- construction of an additional domestic airline concourse to the east of the existing Australian Airline concourse.

110. Beyond the life of the expanded international terminal, new international terminal facilities would be provided in the locality of the existing air freight terminal and linked to the existing integrated international and domestic terminals.

CONSULTATIONS

111. Consultations, meetings and briefings have taken place with the following organizations during the preparation of the Development Concept for the project.

- Australian Customs Service
- Civil Aviation Authority

- Department of the Arts, Sport, the Environment, Tourism and Territories
- Department of Transport and Communications
- Municipal Councils of Melbourne, Broadmeadows, Keilor, Bulla
- Premier's Department, Victoria
- Ministry for Transport, Victoria
- Ministry for Tourism, Victoria
- Ministry for Planning, Victoria
- Committee for Melbourne
- Airport Operators Committee
- Ansett Airlines
- Australian Airlines
- Qantas Airways Limited

112. All international airlines at Melbourne Airport (or their agents) have been surveyed as to their requirements both within the terminal building and on the apron and these have been accommodated in the proposed development. At several stages technical reviews have been conducted with representatives of the airlines and with the Airline Operators Committee at Melbourne Airport. Specific aspects have been reviewed with Qantas on several occasions. These reviews have been most beneficial in ensuring that the development is appropriate to the key requirements of major users.

113. While the airlines' requirements have been met in total in this phase of the project, the details of space allocations to particular airlines will be finalised at a later date. The FAC will be seeking commercial agreements with airlines with specific requirements (e.g. VIP lounges, dedicated check-in desks).

THE ENVIRONMENT

114. The assessment of environmental effects and their significance has been undertaken with reference to the Guidelines

for Identification of Environmental Significance prepared by the Department of the Arts, Sport, the Environment, Tourism and Territories.

115. The proposal will be constructed within the limits of the already intensely developed terminal complex and will not directly affect any previously undisturbed aspect of the environment.

CONSTRUCTION PERIOD

116. Most witnesses expressed concern over the six year construction period, believing that the project could be completed in a shorter time frame. The Victorian Government stressed that a successful 1996 Olympic Games bid would require the expansion program to be completed earlier than the planned September 1995 date. However, FAC advised that the financial viability of the terminal is dependent on cash flows and cannot justify development in less than six years. ACS expressed concern that considerable disruption could occur if careful implementation planning is not undertaken. FAC assured the Committee that it recognises the need to implement the project in a carefully resolved way so as to minimise disruption and inconvenience to all terminal users.

REFERRAL TO COMMITTEE

117. The proposal has been referred by FAC to the Committee at the Development Concept Stage to enable the most expedient possible works program to be undertaken. The FAC expansion project program may be found at Appendix G.

118. This program permits the commissioning target date for Phase 1 of not later than December 1990 to be met, while the retail facilities component would be completed earlier than this. The whole expansion would be completed in September 1995, provided major decision milestones are met.

FINANCING THE PROPOSAL

119. Based upon planning, engineering and financial advice it is proposed that the expansion and related expenditure be spread over six years, such that there is a capacity to process 1,800 departing or arriving passengers per hour by the end of 1995. However, the actual construction and expenditure will depend on passenger growth rates. The planned development has the flexibility to be constructed in a shorter or longer time frame.

120. The anticipated expenditure pattern envisaged is as follows

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
$10M	$40M	$60M	$30M	$20M	$10M

121. This schedule of expenditure would be supported by a passenger growth rate of about 6.1%. Should an average growth rate of only 4.5% p.a. be realised, similar to that forecast by British Airports Services, the construction expenditure would be phased over eight years, rather than six, so that the project satisfied the FAC's investment criteria.

122. In view of the extensive programme of development and expansion works to be undertaken by the FAC, including works to be undertaken on domestic terminals over the same period, insufficient funds will be generated internally to fully fund the international terminal expansion and a component of external funding will be required. This will be arranged within the overall FAC funding framework.

CONSTRUCTION DETAILS

123. Construction details may be found at Appendix H.

LIMIT OF COST

124. The limit of cost of the proposal is $170m at December 1988 prices.

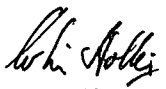
Committee's Recommendation

125. The Committee recommends expansion as proposed of the international terminal at the Melbourne airport at an estimated cost of $170m at December 1988 prices.

Conclusions and Recommendation

126. The conclusions and recommendation of the Committee and the paragraph in the report to which each refers are set out below:

		Paragraph
1.	The Committee agrees that a need exists to improve the standard of amenity and service available to users of the international terminal at the Melbourne Airport.	31
2.	The Committee is satisfied that expansion of the existing international terminal is the best option available to the FAC.	40
3.	The Committee recommends expansion as proposed of the international terminal at the Melbourne airport at an estimated cost of $170m at December 1988 prices.	125



Colin Hollis
Chairman

2 November 1989

APPENDIX A

List of Witnesses

ALLEN, Mr Ian Bell, Deputy Chief Executive, Office of Investment, Department of Industry, Technology and Resources, 228 Victoria Parade, East Melbourne, Victoria.

BAIN, Ms Lynn, Senior Environmental Scientist, Fortect, Consultant to the Federal Airports Corporation, 53 Bowman Street, Macquarie, Australian Capital Territory.

BEESLEY, Mr Bruce Lindsay, International Airport Manager, International Ground Services Division, Ansett Airlines of Australia, Sydney International Terminal, Mascot Airport, New South Wales.

COX, Mr Michael John Arthur, Property Director, Qantas Airways Limited, GPO Box 489, Sydney, New South Wales.

FULLER, Mr Trevor Grantley, Project Manager, Kinhill Engineers Pty Ltd, c/- Federal Airports Corporation, PO Box 116, Melbourne, Victoria.

GRIFFITHS, Mr Denzil John, National Manager, Passenger Processing, Australian Customs Service, Canberra, Australian Capital Territory.

KROLKE, Mr Ernst Jurgen, Manager, Fleet Planning and Scheduling, Qantas Airways Limited, GPO Box 489, Sydney, New South Wales.

LANGMAID, Mr Michael Douglas, Manager, Air Traffic Control, Civil Aviation Authority, Melbourne Airport, PO Box 93, Tullamarine, Victoria.

MUIR, Mr Graham Leslie, Manager, Finance and Administration, Federal Airports Corporation, PO Box 116, Melbourne Airport, Tullamarine, Victoria.

NICOL, Mr William Edward, Manager of Engineering Operations and City Engineer, City of Keilor, Macedon Street, Keilor, Victoria.

SHANNON, Mr Timothy, Director, Hassell Pty Ltd, 13 Fairview Grove, Glen Iris, Victoria.

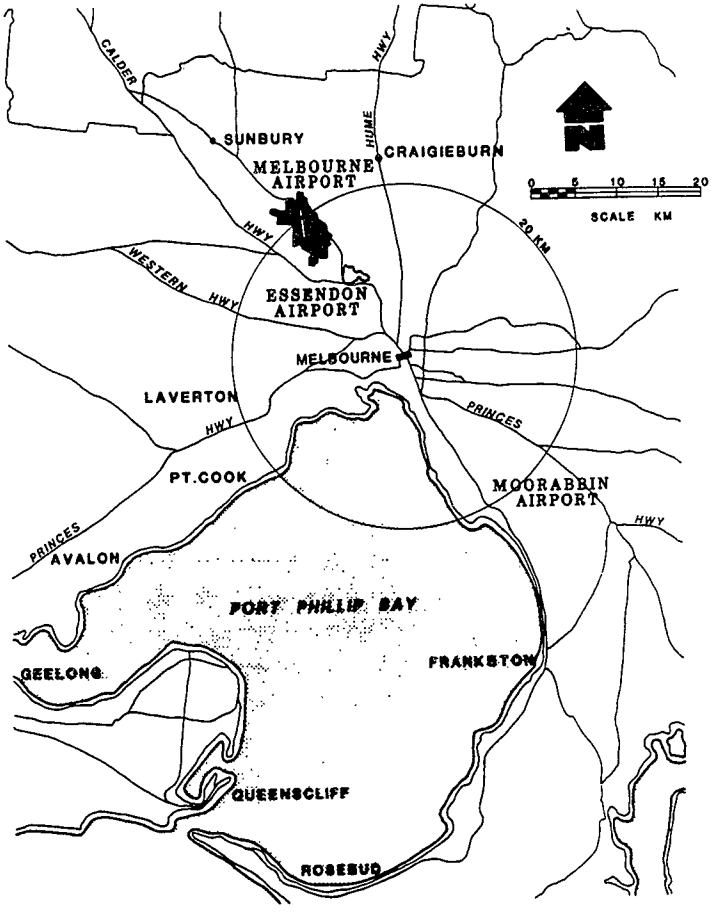
TAYLOR, Mr John Stanley, General Manager, Melbourne Airport, Federal Airports Corporation, PO Box 116, Melbourne, Victoria.

UNSWORTH, Mr Ian Houghton, Airport Development Manager, Ansett Airlines of Australia, 501 Swanston Street, Melbourne, Victoria.

WALLACE, Mr Damian Francis, Business Planning Consultant, Qantas Airways Limited, GPO Box 489, Sydney, New South Wales.

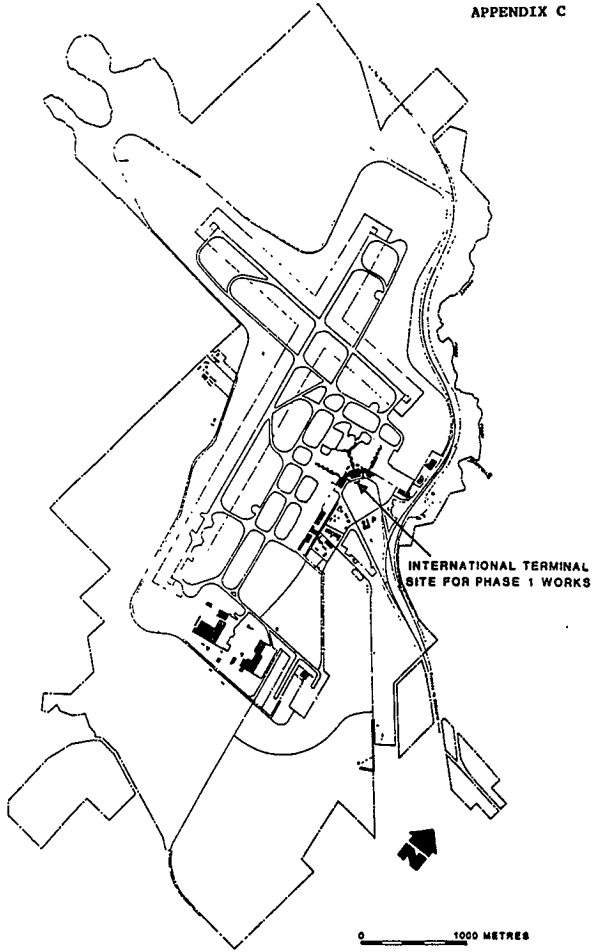
WIDDOWSON, Mr David Charles, Regional Manager, Passenger Processing, Australian Customs Service, PO Box 5, Customs House, Melbourne Airport, Victoria.

APPENDIX B



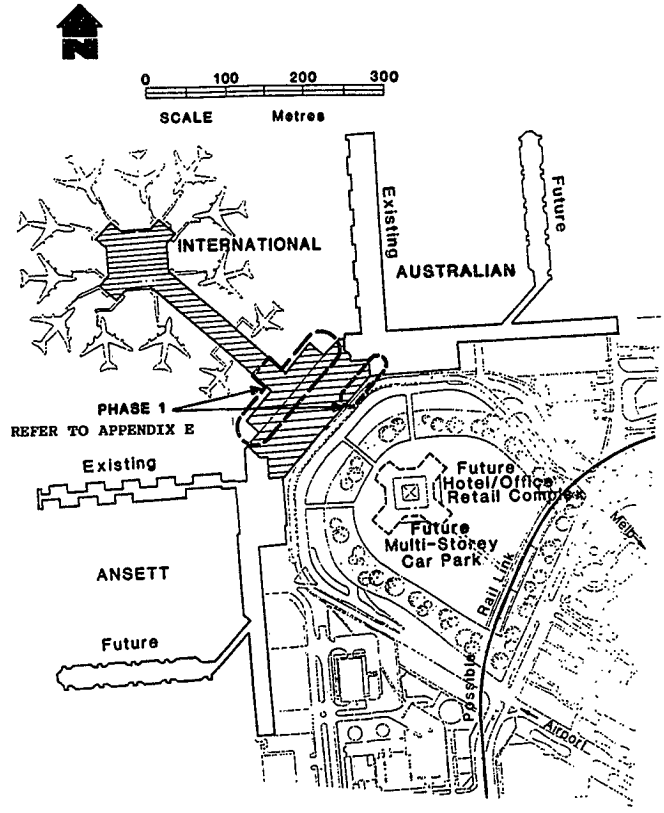
LOCATION PLAN

APPENDIX C



SITE PLAN

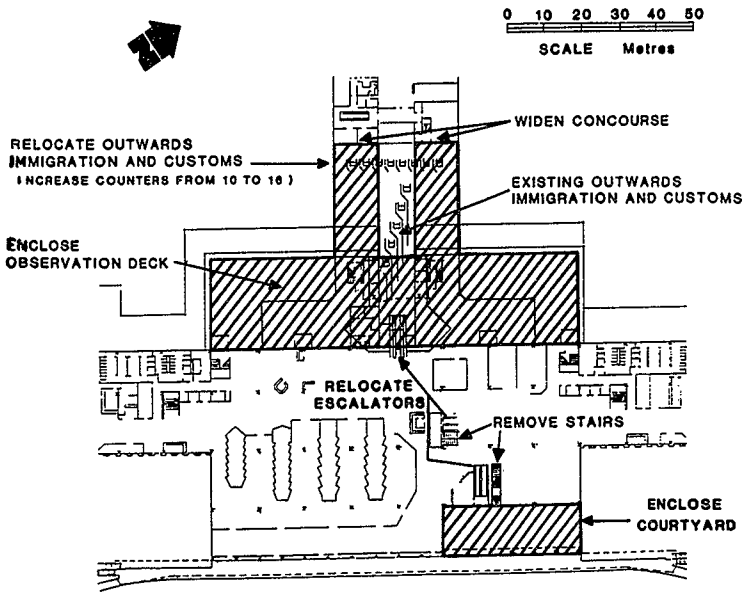
APPENDIX D



INTERNATIONAL TERMINAL DEVELOPMENT

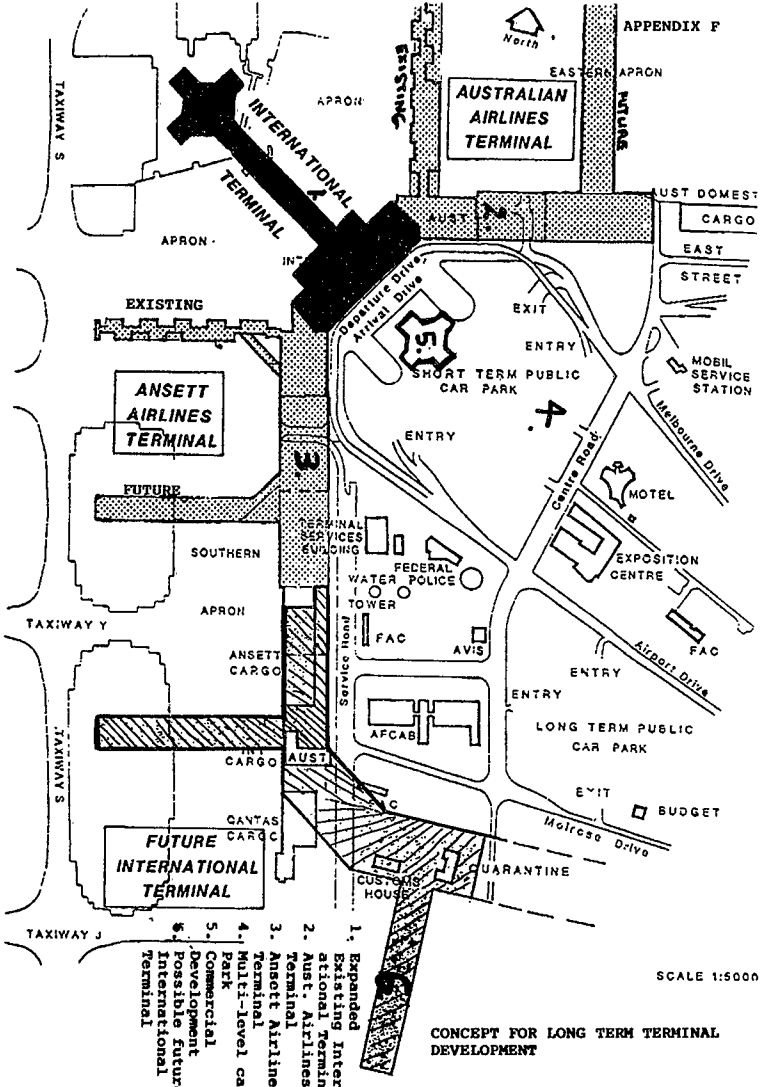
LOCATION OF PHASE 1 WORKS

APPENDIX E



PLAN OF PHASE 1 WORKS

APPENDIX F



CONCEPT FOR LONG TERM TERMINAL DEVELOPMENT

APPENDIX G

EXPANSION PROJECT PROGRAMME

APPENDIX G

APPENDIX H

CONSTRUCTION DETAILS

Architecture

Consistent with providing for possible further development, the design is such that the architecture of the existing building is respected. The objective is to integrate the new work on the terminal building such that it is seen as a continuation of the existing architecture. This involves the consistent use of colour, texture, fenestration and architectural detail. The satellite and concourse extensions are designed with a facade system which is modular to allow flexibility for future expansion and change. The building structure will generally be steel or concrete framed, founded on pad footings. Floors and where necessary roofs will be of suspended reinforced concrete construction.

The external finish to the concourse and satellite is to be prefinished metal cladding with provision for observation windows and natural lighting as required. The roof will be precoloured ribbed metal deck. The terminal building proper will be fitted with precast sections to ensure compatibility with the existing terminal and with maximum provision for natural lighting wherever possible and practical.

Internal finishes will generally be carpet or terazzo floor tiles, suspended plasterboard and expanded metal ceilings and durable low maintenance laminate with stainless steel trim wall finishes. In commercial areas no wall/floor finishes or fitout will be provided on the basis that these will be provided by the relevant concessionaire. Toilets, rest rooms and other wet areas will be tiled.

[1] In summary, internal and external finishes will be attractive and durable but economical.