

*Parliamentary Standing Committee on Public Works*

## REPORT

relating to the

# CONSTRUCTION OF A NEW PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES AT EAST BURWOOD, VIC.

(Second Report of 1992)

The Parliament of the Commonwealth of Australia  
Parliamentary Standing Committee on Public Works



Report Relating

to the

Construction of a New Permanent  
Repository for Australian Archives at  
East Burwood, Vic.

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**MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE  
ON PUBLIC WORKS**

(Thirtieth Committee)

Mr Colin Hollis MP (Chairman)  
Mr William Leonard Taylor MP (Vice-Chairman)

**Senate**

Senator Bryant Robert Burns  
Senator Paul Henry Calvert\*  
Senator John Robert Devereux

**House of Representatives**

Mr Ewen Colin Cameron MP  
Mr Lloyd Reginald O'Neil MP  
Mr Russell Neville Gorman MP  
Mr Bruce Craig Scott MP

\*Appointed on 24.8.90 following the retirement of Senator  
Dr Glenister Sheil

Committee Secretary: Peter Roberts  
Inquiry Secretary: Michael Fetter  
Secretarial Support: Jackie McConnell

EXTRACT FROM THE  
VOTES AND PROCEEDINGS OF  
THE HOUSE OF REPRESENTATIVES

No. 105 dated Thursday, 19 December 1991

- 40 PUBLIC WORKS - PARLIAMENTARY STANDING COMMITTEE  
REFERENCE OF WORK - CONSTRUCTION OF NEW  
PERMANENT REPOSITORY FOR AUSTRALIAN  
ARCHIVES AT EAST BURWOOD, VIC.: Mr Staples  
(Minister for Aged, Family and Health Services), by leave,  
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: Construction of a new  
permanent repository for Australian Archives at East Burwood,  
Vic.

Mr Staples presented plans in connection with the proposed work.  
Debate ensued.

Question - put and passed.

## PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

### CONSTRUCTION OF A NEW PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES AT EAST BURWOOD, VIC.

By resolution on 19 December 1991 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposed construction of a new repository for Australian Archives at East Burwood, Vic.

#### THE REFERENCE

1. The reference is for the construction of a new permanent repository at East Burwood, Vic., for the Australian Archives (Archives). The works will provide up-to-date, climate-controlled secure storage facilities for permanent value Commonwealth records. The proposed building will have three main elements for the following functions:

- . record storage
- . office accommodation
- . conservation.

2. The office accommodation and conservation areas will be located on two levels at the front of the building. The storage area for records will be behind the administration and conservation areas and will be on three levels.

3. When referred to the Committee, the estimated cost of the proposed works was \$6.5m at October 1991 prices.

#### THE COMMITTEE'S INVESTIGATION

4. The Committee received a submission and drawings from Archives and took evidence at a public hearing held in the Council Chamber, City of Nunawading, on 20 February from representatives of:

- . Archives
- . Australian Construction Services (ACS) - consultants to Archives

- . Melbourne Metropolitan Fire Brigade (MMFB).
5. Written submissions and letters about the proposed works were also received from the following:
- . Council of the City of Nunawading
  - . Commonwealth Fire Board (CFB)
  - . the then Commonwealth Department of the Arts, Sport, the Environment, Tourism and Territories (DASETT).
6. Prior to the public hearing the Committee inspected Archives' repository at Brighton and the site for the proposed new repository at East Burwood. A list of witnesses who gave evidence at the public hearing is at Appendix A.
7. The Committee's proceedings will be printed as Minutes of Evidence.

## BACKGROUND

### History

8. Archives was initially established by Prime Minister Curtin in 1944 to ensure the safety of those Commonwealth records which would be required to compile the official history of the Second World War. In 1952 the Commonwealth National Library assumed responsibilities as the sole archival authority. An Archives Division was established within its structure. When the National Library of Australia was established in 1961, the Archives Division was transferred to an independent Commonwealth Archives Office. Regional offices were established in the ACT, NSW, Victoria. A report, commissioned by the Government in 1973, recommended archives legislation be introduced and the establishment of a national archives authority and building in Canberra. In 1974 the Archives Office was renamed the Australian Archives and was expanded. In 1983 Parliament passed the *Archives Act 1983* which came into effect in mid-1984.

9. The Act provides the Archives with a statutory basis for its operations. It also provides for the Advisory Council on Australian Archives, a part-time body which advises the Minister and the Director-General on matters to which the functions of the Archives relate.



## Functions

10. In broad terms Archives is responsible for the management of Commonwealth Government records. Its functions include the efficient management of Commonwealth records, including appropriate arrangements for their survey, custody, storage, retention or destruction, retrieval and accessibility. Archives also provides information on the existence, nature and location of Commonwealth records and on the agencies responsible for them. It provides advice and guidance to Commonwealth officers and the public on records-related issues.

## Regional Network

11. In the late-1960s Archives' operations were decentralised to regional offices and it now operates through a regional network. There are eight regional offices; they are located in Canberra, each State capital and Darwin. A subregional office is also maintained in Townsville. Activities are coordinated and policies and standards are determined by the central office located in Canberra.

12. Each regional office maintains a reference and guide room which contains reference aids and information about Commonwealth agencies and their records. Public and official search rooms are provided where records can be consulted. Staff are available to advise on search methods, the availability of records and the requirements of public access arrangements. Regional staff also liaise with Commonwealth agencies, providing advice and assistance relating to the transfer and custody of records.

## Holdings

13. Total holdings of records under the management of Archives in 1991 were 479 725 shelf metres of which 153 635 shelf metres were permanent value records. Most records relate to Commonwealth activities since 1901, although there are significant holdings of 19th century records which relate to functions transferred to the Commonwealth at or after Federation.

14. Commonwealth records in the custody of Archives fall within two categories - that is, permanent and temporary value. Permanent Commonwealth records are those which have been assessed to be of long-term value either to the Commonwealth or the public. They are therefore held in perpetuity.

15. These records are used by Commonwealth agencies as well as academics and other members of the public. In 1990-91 Archives received more than 20 000 reference inquiries from the general public; there were almost 9000 visits to Archives' search rooms by members of the public. Between 60%-70% of inquiries from the general public are from people researching family records or personal records. The bulk of the remaining 30%-40% of public users involve academics and other historical researchers. As custodians of much of Australia's official written heritage, Archives is justifiably proud of having been associated with many authors and producers of publications, documentaries and telemovies. During the inspection of the repository at Brighton, the Committee was able to see many books written with the assistance of Archives' material.

16. The Committee questioned Archives about the comparative standards in facilities between Australia's national archives and those of other countries. Archives advised that its facilities are comparable with those of other countries. There is, however, nationally a shortage of conservators. The major centre for training conservators is the University of Canberra which offers a general course with no strong concentration on the more specialised requirements for the conservation of archival material. The University of New South Wales will be commencing a new program in 1993 covering the conservation of cultural records and Archives has made a significant contribution towards the establishment of this program. Archives is also concentrating resources in other areas, one of which is the construction of purpose-built repositories to house records to ensure that they will not deteriorate any further.

17. The Committee also questioned Archives about plans to publicise its activities more. Archives advised that some regional offices publish newsletters. Leading up to the centenary of Federation, Archives will be looking to increasing publicity about its activities and holdings of material relevant to Federation in its custody.

## **THE NEED**

### **Archives' Present and Planned Operations in Victoria**

18. Archives has two repositories serving the Victorian region, one at Brighton, which is owned by the Commonwealth, and the other at Dandenong, which is leased.

19. The Brighton repository is located in a residential area, 13 km south-east of the Melbourne Central Business District. The site, of about 4700m<sup>2</sup>, has a records storage capacity of 26 000 shelf metres. It is used for the storage of permanent value records. It is also the regional centre for administration and provides search facilities for public and official users. Between 100 to 200 people visit the search room at Brighton each month.

20. The Dandenong repository comprises leased premises located 30 km southeast of the Melbourne CBD. The premises comprise three buildings, two of which are basic warehouses and were leased in 1981. These are considered by Archives to be adequate for the storage of temporary value records, although substantial quantities of permanent value records have been stored in them.

21. The third building was leased in 1988. The building is partly air-conditioned and for this reason contains temporary value records which have been assessed as requiring longer retention periods, for example, Defence Force medical records. Permanent value records cannot be stored in the building because the air-conditioning system does not meet Archives' temperature and humidity requirements.

22. For the Victorian region, the reference and guide room functions have been performed from the Brighton repository for a number of years. In July 1992 Archives expects that the staff involved in reference, control and information retrieval will be relocated to the recently completed Commonwealth offices, Casselden Place, in the Melbourne CBD. Archives intends that Casselden Place will become the focal point for dealing with the public and Commonwealth agencies. Relocation of the reference, control and information retrieval function to the CBD will result in Archives staff being located closer to the agencies they serve.

23. Drawing B1, Appendix B, shows the location of the Brighton, Dandenong and Casselden Place facilities.

#### **Brighton Repository**

24. The buildings comprising the Brighton repository were constructed in 1927 for a dry cleaning company. The site and buildings were acquired by the Commonwealth in late-1953 and have been used by Archives since then. The repository is used for storing permanent value records. Examples of permanent value records held include:

- . architectural drawings and plans depicting early Victorian defence emplacements, fortress installations, post offices, customs houses and banks
- . Boer War holdings including historical material and personal particulars
- . Commonwealth Investigation Service records on internment and subversive activities
- . records from the First and Second World War, including unit histories, naval signals and Prisoner of War records
- . immigration records
- . Weather Bureau charts
- . aerial survey records used in assessing salination, deforestation and land degradation
- . Aboriginal Affairs records dating back to 1850 pertaining to land rights claims
- . records of royal commissions
- . personal records of former Prime Ministers, Ministers and Members of Parliament.

### **Deficiencies at Brighton**

25. During the site inspection it became obvious to the Committee that the buildings at Brighton are in a state of decay despite the repairs and maintenance carried out on them over the years. The buildings suffer from rising or falling damp, salt and water penetration. The floors are breaking up. One building can no longer be used for storing records, a factor which has placed a strain on the usage of other areas.

26. The Committee was able to see examples of records which, due to the poor storage conditions, have been damaged. Archives advised the Committee that the general deterioration of paper records at Brighton is the result of inadequate environmental controls such as temperatures, humidity and air quality. The quality of environmental conditions required for the

physical storage of records is critical to their longevity. Conditions necessary for the long-term preservation of paper records include:

- . stringent control of temperature and humidity
- . minimal atmospheric pollution by gases, fungal spores and dust particles
- . minimal exposure to sun and ultraviolet light
- . measures to prevent access by insects, rodents and birds
- . security
- . fire detection and suppression systems.

27. Most of these environmental conditions are lacking in the Brighton repository. If paper records are stored in an environment in which temperatures and humidity are kept within established limits, it is possible to slow down chemical reactions in acidic papers. Conversely, variations from optimal environmental conditions have the effect of increasing the rate of chemical reactions in paper and therefore the rate of deterioration.

28. In the case of the Brighton repository, a survey of the condition of paper records conducted in 1987 indicated that:

- . 51% of records were discoloured, indicating chemical changes were under way in the paper
- . 42% showed damage from dust and dirt
- . 3% showed signs of infection by micro-organisms
- . 37.5% showed signs of physical embrittlement.

29. Archives acknowledged that not necessarily all of this damage occurred after the transfer of the records to it. The state of the records is nevertheless an indicator that the processes of chemical deterioration are reaching a critical stage which could have immediate physical effect on the useful life of the records involved.

30. It is possible to restore records which have deteriorated. The cost of restoration depends on the degree of deterioration and on the treatment used to repair or restore them. During the inspection the Committee was shown a plan of late 19th century fortifications which it was estimated would cost about \$1500 to restore. Some other records with advanced chemical deterioration may not be capable of restoration. In these cases the cost is the loss of the information on the record. Prevention of deterioration is therefore always cheaper than attempts to reverse deterioration.

31. Various attempts have been made by Archives to quantify the cost of conserving records stored in the Brighton repository to extend their useful lives. A potential cost of \$4.3 billion has been calculated. Archives submitted that this potential cost can only increase unless the records are stored in an environment which will slow the rate at which deterioration of their paper base is occurring.

#### Attempts to Improve Facilities in Victoria

32. Archives has acknowledged the unsatisfactory facilities at Brighton and has attempted a number of times to either redevelop the site or to replace it since the late-1960s. Between 1969 and 1972 a proposal to redevelop the site was developed but lapsed because of local protests and lack of funding. In 1985 Archives attempted to obtain accommodation in the former Australian Security Intelligence Organisation (ASIO) building in St Kilda Road. The building was demolished. An attempt to lease premises in South Melbourne was made during 1987-88. Archives intended to use the leased premises to store permanent value records and therefore the premises required a fire sprinkler system. The building did not have a sprinkler system, the owner would not install one and Archives abandoned this attempt at overcoming its storage problem.

33. The Committee raised with Archives the possibility of the Public Records Office of Victoria and the Commonwealth occupying joint facilities. Archives advised that the possibility of joint facilities had been discussed in the past and during the development of the project under consideration by the Committee. However, the Victorian Public Records Office is being consolidated in a major storage facility at Laverton.

#### Relocation to Canberra

34. The Committee also questioned Archives about the need for permanent value Commonwealth records to be stored in Victoria rather

than in Canberra. Archives advised that it has a policy of storing records in the area in which they were generated. Assessments about the access requirements of government agencies are made. Many of the government records generated when the Seat of Government was in Melbourne are housed in Canberra. Archives tries to ensure that records substantially remain in the order and in the context in which they were created.

#### **Committee's Conclusions**

35. If the permanent value Commonwealth records housed in Archives' Brighton repository remain stored in inadequate facilities which lack proper environmental controls, many irreplaceable records could be lost forever or, at best, severely damaged.

36. There is an urgent need for Archives to be provided with modern facilities with proper environmental controls and adequate storage capacity for now and for the future in which to store and maintain the permanent value Commonwealth records in its custody in Victoria.

#### **SITE SELECTION**

##### **Basic Requirements**

37. Against the broad background of a definite need for modern facilities, Archives and its consultants proceeded in 1991 with an assessment of various project delivery options and assessed them in terms of the following factors:

- . functionality in terms of satisfying Archives' requirements
- . cost effectiveness, recurrent expenditure and capitalisation
- . flexibility for future expansion
- . disruption to Archives' operations.

##### **Options Examined**

38. Archives and its consultants examined the feasibility of achieving the requirement using seven delivery options which were:

- Option 1 outright Commonwealth acquisition and ownership of a new site and the construction of a purpose-built and Commonwealth-owned facility
- Option 2 instalment purchase, which would involve the Commonwealth contracting with a developer who would supply a site and construct a purpose-built facility on a buy-back basis with ultimate Commonwealth ownership after four or five years
- Option 3 arranging a precommitment lease with a developer supplying the site and constructing a purpose-built facility which would be leased to the Commonwealth; at the end of a specified period - 20 to 25 years - the Commonwealth would have the option to buy the facility
- Option 4 demolition of existing facilities at Brighton and the construction of a purpose-built facility on the site
- Option 5 lease an existing building and refit it to Archives' requirements
- Option 6 completely refurbish existing facilities at Brighton
- Option 7 centralise all holdings into existing or modified leased facilities at Dandenong.

39. Archives assessed these options and rejected all of them, with the exception of Options 1 and 2, from further consideration for the following reasons:

- the precommitment lease option would require excessive financial outlays and would not automatically result in the Commonwealth acquiring an asset at the end of the lease period
- the refurbishment or rebuilding of the facility at Brighton was not considered suitable because of the inadequacy of the site, the lack of any advantage in terms of capitalisation and the residential nature of the surrounding area



- . the leasing of an existing building would present difficulties and costs; Archives believes it would not be cost-effective in view of long-term cost implications and the risk that the building would not achieve the desired storage conditions
  - . relocation of all of Archives' storage operations to Dandenong would not be cost-effective in view of long term cost implications and the risk that the building would not achieve desired storage conditions. It would also involve a major disruption to operations.
40. Options 1 and 2 were considered further with Option 1 being the preferred option because:
- . it is the most cost-effective and capable of meeting Archives' requirements
  - . a new site would allow flexibility for future expansion
  - . there would be minimum disruption to Archives' operations when moving to new premises
  - . Archives (the Commonwealth) would be the owners of an appreciating asset.

41. Archives advised that Option 2 would entail higher capitalised interest charges over Option 1.

#### **Site Selection Process**

42. Archives advised the Committee that the site selection process involved an assessment of a number of sites in the southeast growth region of Melbourne against the following criteria:

- . 1.0 - 1.5 ha in size
- . minimal risk of flooding
- . clear of heavy industry
- . clear of airport flight paths

- . close proximity to Commonwealth agencies
- . good access to public transport and to highways or freeways to the Melbourne CBD.

43. About 20 sites were considered but were assessed unsuitable because they did not meet the selection criteria. Another five sites were short-listed and examined in more detail and from these a site at East Burwood was selected because it most closely satisfied operational, budget and planning criteria.

#### **Site Description**

44. The site comprises Lot 2, Vision Drive, East Burwood, is 1.186 ha in area, is almost rectangular in shape and offers an elevated position. It is located on the western side of Springvale Road and on the northern side of Highbury Road, approximately 17 km southeast of the Melbourne CBD. The site is owned by the Australian Broadcasting Corporation and the Committee was advised that an agreement has been reached for purchase of the site for use by Archives.

45. The Committee noted that the size of the site may place some restrictions on its potential for development and questioned Archives about the possibility of acquiring a larger site, further east of Burwood, for the same price. Archives acknowledged that larger sites could be acquired and that the selection of the East Burwood site was based on judgments about how much land was required. Representatives of Archives assured the Committee of their belief that the site represents the best balance between the achievement of a number of objectives including cost, size, location and access.

46. Drawing B2, Appendix B, is a plan of the site.

#### **Subsurface Conditions**

47. The Committee was advised that detailed geotechnical surveys of the site have been carried out to determine soil conditions. The soil profile consists of silty surface soil, and high plasticity subsoil on weathered mudstone.

## Committee's Conclusions

48. Construction of a new repository offers cost and operational advantages over the other options examined for the provision of a permanent repository building.

49. The site at East Burwood meets Archives' operational requirements in terms of size and location.

## THE PROPOSAL

50. It is proposed to construct a new repository building on the site at East Burwood. The proposed building will have three main functional elements:

- . office accommodation comprising a foyer and reception area, offices, the lending section, processing section, the search room, a conference room and staff amenities
- . an area for conservation comprising a laboratory, microfilming and reproduction room, a box store and airing room
- . a records storage area comprising standard and special storage, a class B security vault, low-temperature storage area and an agency self-help area.

## Design

51. The Committee was advised that the design is intended to reflect Archives' requirement for a secure and efficient storage facility. The office and conservation areas will be located on two levels at the front of the proposed building. The records storage area will be on three levels, immediately behind the office area. The ground floor of the records storage area will be cut into the site to minimise the visual impact and scale of the building. The class B security vault will be located on the ground floor within the records storage area and adjacent to the office accommodation.

52. Drawings B3 to B5, Appendix B, show elevations and cross-sections of the proposed facility.

53. Archives believes that the appearance of the building, together with appropriately landscaped grounds, will complement the Tally Ho Technology Park which is adjacent to the site.

54. Some members of the Committee remarked that the appearance of the proposed building may be considered to be too austere. The Committee was advised that Archives' architectural brief, as well as being predicated by a tight budget, was for a functional building that has presence. The three levels comply with building height limitations and the roof of the records storage area is curved to allow for good drainage.

55. The building will be clad in precast concrete panels. The entry portico and stairwells will have face bricks.

#### Committee's Conclusion

56. The design, whilst austere, reflects a need for functionality and a need for the building to be constructed of materials reflecting some cost consciousness.

#### Capacity for Expansion

57. The Committee notes that although Archives required a site of between 1 and 1.5 ha, the size of the site at East Burwood falls slightly short of the optimal requirement. The building itself will provide space for the following functional areas:

- . records storage including standard storage, class B security vault, low-temperature storage and an agency self-service area
- . office accommodation, including a foyer/reception area, manager's office, regional manager's office, project office, lending section, processing section, search room, conference room and staff amenities
- . conservation area including the laboratory, microfilming and reproduction room, box store and airing room.

58. The Committee sought to satisfy itself that the proposed building will meet the stated needs and purposes required by Archives well into the foreseeable future. It therefore questioned Archives about the capacity of the building and the ability of the site to allow for future expansion.

59. Archives advised that considerable thought had been given to its requirements and the building has been planned accordingly. In all other States Archives has purpose-built facilities and can claim, with some justification, to have some experience in the design of archive repositories. From its point of view the proposed design achieves the important criteria of functionality and value for money.

60. In relation to the capacity of the building, Archives advised that it is proposed to relocate all permanent value material from the Brighton and Dandenong sites into the new building. Once this is done, the building will have sufficient capacity for another 10 to 12 years. If by then there is a need to expand, the site is large enough to allow expansion to provide additional storage capacity for another 10 to 12 years. Archives indicated that the number of records still in use by departments and agencies which may be handed over for custody is not absolutely certain. Archives is, nevertheless, in a good position to make judgments about the volume of records and to plan accordingly for their custody. A further factor which may affect the capacity of the building is the impact of the movement by all departments and agencies into electronic media - that is, computer tapes and discs. Archives believe that many of these records to be of a transactional nature and storage requirements could be reduced. Archives added that a larger building could be constructed but, if this were to happen, it would not be able to justify the provision of unused space in it.

61. Drawing B2, Appendix B, shows the extent of expansion possible.

#### **Committee's Conclusion**

62. In Archives' estimation the proposed repository will have sufficient storage capacity for 10 to 12 years and there is scope to construct extensions later to cater for another 10 to 12 years.

#### **Car Parking**

63. It is proposed to provide 20 car parking spaces on the site. As the records are transferred to the new repository, staff numbers at East Burwood will increase to 15 while the numbers at Dandenong will decrease proportionately. The five remaining spaces will be available for the staff of other agencies or members of the public.

64. The main search rooms will not be at the East Burwood site, but rather in Commonwealth offices at Casselden Place in the Melbourne CBD. Most of the staff of the Victorian region will therefore be located in the Melbourne CBD. There is provision for a public search room in the proposed building but Archives assured the Committee that it would be used in extraordinary cases in which a member of the public required access to a large volume of records which Archives deemed inappropriate to move to the CBD.

#### Space allocation for staff

65. The staffing of the repository and the sizes of rooms will be as follows:

- . full time manager - 18 m<sup>2</sup> - to be occupied by the repository manager
- . lending office - 21 m<sup>2</sup> - to be staffed with a minimum of two
- . reception foyer - 15.5 m<sup>2</sup> - this area will be monitored and operated by staff located in the lending and process areas. The foyer area will also be used for small static displays featuring archival material
- . process office - 21 m<sup>2</sup> - to be staffed with a minimum of two
- . laboratory - 138 m<sup>2</sup> - to be staffed by a conservator and additional staff as necessary to undertake specific preservation projects
- . agency/agency office - 80 m<sup>2</sup> (storage), 18 m<sup>2</sup> (office) - the office will allow two agency staff to self-service agency records held in the agency's storage area
- . loading bay - 100 m<sup>2</sup> (including 30 m<sup>2</sup> for the dock leveller) - this area will be used for the delivery and movement of records and equipment and will not be staffed
- . project office - 45 m<sup>2</sup> - space for up to five Archives staff from Casselden Place or Dandenong engaged in special projects such as arrangement and description, appraisal, access examination and other research on records

regional director - 24 m<sup>2</sup> - used by the regional director and visiting staff on an ad hoc basis. The office will also be used by agency staff involved in the process of examination of records to review their retention or disposal status.

66. Drawings B6 to B8, Appendix B, are plans of the three levels of the proposed building showing the location and extent of the space allocated to the various functional elements.

#### Committee's Conclusion

67. The number of car parking spaces to be provided is based on assumptions of staffing levels and operations to be carried out from the East Burwood site. If in future there are increases in staffing levels at East Burwood, there may be insufficient car parking spaces.

#### Landscaping

68. The site will be graded, grassed and provided with low maintenance perimeter area planting. Planting beds will be established in the area adjacent to the main entry.

69. The Council of the City of Nunawading requested that a detailed landscape plan and associated management program for the control and maintenance of landscaped areas be submitted to the council for approval. Archives advised the Committee that ACS had provided indicative landscaping sketches to the council and an assurance that detailed documentation would also be provided.

#### Energy Conservation

70. The design uses passive solar principles of orientation and sun shading. Archives stated the building has been designed with a thermally efficient fabric and mechanical equipment will be selected to operate at peak efficiencies. A building management system will be installed to optimise usage of plant and equipment. Lighting in the storage areas will be zoned and isolated on time switches.

71. Energy will be required for cooling and heating the building. Cooling will be provided from electrically driven refrigeration chillers. Energy for heating will be provided from a natural-gas-fired boiler.

72. An 'Energy Report', prepared for the project by ACS, was made available to the Committee. The report specifies energy targets and estimated energy consumption levels as follows:

- . energy target - 706 megajoules p.a./m<sup>2</sup>
- . estimated energy consumption - 625 megajoules p.a./m<sup>2</sup>

73. The energy target was calculated using a computer software package in accordance with ACS technical instructions; the estimated energy consumption was calculated using a computer building energy investigation software package. The database used was derived from information gathered by ACS on other building types and locations around Australia including libraries, storage warehouses and purpose-built archival facilities. Once the building is operational, an energy audit can be undertaken.

74. Following the public hearing Archives advised the Committee that the curved roof will have R2.5 mineral wool insulation (R2.5 representing the thermal resistance quality), reflective sisalation and colourbond corrugated iron sheeting. A 530mm exposed universal beam will be used to support the purlins. Walls will consist of 75mm mineral wool insulation with a single-sided foil backing to restrict moisture, a 200mm square hollow section, and 100mm encased concrete. The interior wall will be plasterboard lined with 75mm metal 'C shape' studs.

75. The Committee questioned Archives if energy audits had been carried out at any of the purpose-built facilities. Archives advised that during 1987/88 energy audits of most buildings were carried out as part of the Commonwealth Energy Management Program. All aspects of energy usage were addressed by the audits. Retrofit work has been carried out in most buildings in accordance with the findings of the audits.

76. Archives also advised the Committee that all air-conditioning systems in existing repositories are in excess of ten years old. Their energy efficiency cannot be compared with that of modern air-conditioning systems. Archives is now in the process of developing a major overhaul program in each of its existing repositories aimed at improving their energy efficiency.

77. Archives did not propose to provide solar domestic hot water heaters for the building. The Committee was advised that experience in Melbourne is that solar domestic hot water has the best economic potential, but a life cycle costing analysis showed that solar hot water heating cannot be justified



for this project. The Committee believes life cycle costing should not be the sole basis for decisions involving the installation of solar hot water heaters.

#### Committee's Recommendations

78. Archives should proceed with the upgrading of all air-conditioning systems in existing purpose-built repositories to improve their energy efficiency as a matter of urgency.

79. Domestic hot water required at the proposed East Burwood facility should be provided from solar hot water heaters.

#### Building Management System (BMS)

80. The Building Management System will monitor environmental conditions in the storage areas and control the operation and sequence of the air-conditioning systems to provide the environmental conditions required.

#### SPECIAL DESIGN FEATURES

##### Structure

81. The structure of the building will reflect Archives' special requirements. A steel frame system will be used. Steel frame columns will be located on isolated pad footings; all pad footings will sit on mudstone.

82. Upper floor levels will consist of reinforced concrete on steel beams. The design load in the records area will be 12 kPa and in office areas 5 kPa. The design load of 12 kPa represents a floor loading of 1.2 tonnes/m<sup>2</sup> and will withstand the load of mobile shelving units taking into account their size, weight and mobility. The office areas will not be required to support the heavy loads. The slab designed for the office area will be suitable for general office furniture and support of the main stairwell linking floors.

##### Tolerance to Earthquakes

83. The Committee questioned the ability of the proposed structure to withstand the effects of an earthquake similar in magnitude to that which devastated Newcastle in 1990. The Committee was advised that the site is in earthquake seismic zone '0' and there is no requirement for the design to

meet earthquake forces. The structural form of the building will take into account technical instructions relevant to the design of earthquake resistant buildings as follows:

- . the structure is near symmetrical in both major axes to ensure that a direct and readily followed load path exists to the foundation; this will also provide a reduction in torsional stresses which can be critical in corner columns and end walls
- . the building is compact shaped in plan and elevation which will reduce the chance of ground motions being applied to each end at any instant
- . the structural system is uniform and maintains a continuous distribution of strength.

84. Archives also advised that a review of seismic zones will be undertaken in the near future bearing in mind the earthquake forces met by Newcastle. Should the East Burwood zone be categorised to a higher level, further consideration will be given to meet the standards set down.

#### **Air-Conditioning**

85. The air-conditioning system to be provided will meet stringent environmental parameters for the preservation of stored materials. The requirements include the following:

- . removal of sulphur dioxide
- . air filtration to be 95% efficient for particle sizes of 2 microns or greater
- . the general storage area to be maintained at  $18^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ,  $50\% \pm 5\%$  relative humidity
- . the low temperature storage area to be maintained at  $10^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ,  $35\% \pm 5\%$  relative humidity
- . removal of various contaminating gases from the low temperature storage area.

86. A description of the proposed air-conditioning system is at Appendix C.

### Fire Protection System

87. The subject of the fire protection systems to be installed in the building generated considerable debate at the public hearing. The Committee was advised by Archives and its consultants, ACS, that it is proposed to install a Grade III automatic fire sprinkler system and smoke detectors throughout the building. A Grade III system is provided with water direct from a single town main.

88. A Very Early Smoke Detection Alarm (VESDA) system is proposed to be installed in the low-temperature storage room and class B security vault. Both systems would be connected to the MMFB. The Committee was also advised that the proposed water supply system will be adequate in quantity and pressure to meet firefighting requirements. Hydrants will be provided around the site. Portable fire extinguishers and fire hose reels will be installed throughout the building in accordance with the relevant building regulations and the recommendation of the CFB.

89. In a written submission to the Committee the CFB expressed general satisfaction with the proposed fire protection measures. The CFB questioned if it is proposed to include special provisions for exhausting smoke from fires. Archives advised that a smoke exhaust system will be provided.

90. The CFB also suggested that the provision of controlled flow fire sprinkler heads in the document storage areas may be warranted. These heads only release water while the heat of a fire is present. The CFB indicated that while controlled flow sprinkler heads are more expensive, they are particularly suitable for use in libraries and archives. Archives advised the Committee that as a result of this suggestion from the CFB, ACS has been asked to indicate the advantages and costs involved in providing controlled flow sprinkler heads.

91. At the public hearing, a representative of the MMFB submitted that consideration should be given to the following:

- inclusion of a Grade II automatic sprinkler system would ensure that an alternative water supply to fire sprinklers is available at all times; a Grade II system is a dual pipe system tapping into

two sources - either the same or separate mains

areas fitted with the VESDA system should also be provided with sprinklers. This suggestion was made following written advice from ACS to the MMFB that Archives had requested that sprinklers not be provided in the low-temperature room and security vault because the material to be stored in these areas is highly susceptible to water damage. Archives subsequently advised the Committee that the security vault will have a sprinkler system as well as a VESDA system.

92. The submission from the MMFB also raised the wider issue of the need for Commonwealth authorities to consult with and to obtain approvals of State organisations for Commonwealth public works. The MMFB claimed it had not been consulted about the fire protective measures to be provided for the building, although this was subsequently found to have not been the case. The MMFB suggested that the consultative process should be formalised by ACS providing the MMFB with a formal submission and paying fees. This issue has been raised recently in a number of inquiries and the Committee will be reporting on it shortly.

93. ACS stated that its professional fire officers follow all relevant codes, including the Building Code of Australia (BCA), as the *minimum*. In some instances ACS fire officers recommend standards exceeding the BCA. ACS stated that there are no government directives or policies requiring departments to seek approvals from local fire brigades. On behalf of the Commonwealth, ACS believes it does consult widely to ensure that, for example, local fire brigades are kept aware of projects. In this particular instance the MMFB will be kept informed of the level and degree of fire protection proposed, comments will be sought and, where possible, ACS will endeavour to meet requirements.

94. Following the public hearing ACS advised the Committee of a meeting with representatives of the MMFB. ACS informed the Committee of proposed fire protection measures and that these would satisfy the requirements of the MMFB.

### Physical Security

95. A perimeter fence will surround the site. Vehicle access to the site will be from Vision Drive. The building itself will have a Grade 1 security system installed. The provision of this system is in accordance with the

National Protective Security Manual. Archives explained that the building will have three levels of security: first, the perimeter fence secondly, the perimeter of the building which will have all access and exit points monitored; and thirdly the internal security detection system which will be monitored from a centralised panel.

96. The Committee asked Archives if security personnel will be on duty during nighttime. Archives advised the Committee that given the alarm system will monitor the physical security of the building it is not considered necessary to have security personnel on duty at nighttime. If, during the night, the security alarm were activated, security personnel would inspect the site and if the building had been penetrated, Archives staff would be notified.

97. Other facets of the building services and external works and services to be provided are at Appendix C.

#### *Committee's Conclusions*

98. In view of the nature of the records to be stored in the proposed repository, the building structure should be designed to withstand the effects of an earthquake similar in magnitude to the 1990 Newcastle earthquake.

99. The inclusion and extent of other special design features in the proposed building appear to be adequate and are justified in view of the irreplaceable records in the custody of Archives.

#### **ENVIRONMENTAL AND HERITAGE CONSIDERATIONS**

100. Archives advised that the environmental impact of the project was assessed in accordance with the *Environment Protection (Impact of Proposals) Act 1974*. The impact of the building was determined as minimal.

101. The then Department of the Arts, Sport, the Environment, Tourism and Territories (DASETT) confirmed that the environmental impact of the proposal was correctly reported. It was assessed by the proponent as not having impacts which would affect the environment to a significant extent and was therefore not referred to DASETT.

102. The Australian Heritage Commission advised the Committee that the proposed development will not affect any place entered on the Register of the National Estate.

## CONSULTATION

103. The proposed development has been discussed with the following local, State and Commonwealth authorities and their requirements have been taken into consideration in its development:

- . Council of the City of Nunawading
- . City of Box Hill Electricity Supply Department
- . Melbourne Metropolitan Fire Brigade
- . Gas and Fuel Corporation of Victoria
- . Melbourne Water
- . Victorian Department of Conservation and Environment
- . Telecom Australia
- . Australian Property Group
- . Australian Council for Rehabilitation of the Disabled.

### Involvement of Staff

104. Staff at Archives' Victorian regional office and Canberra central office were involved in the definition and development of the proposal. The Committee was advised that the Victorian Branch of the Public Sector Union has endorsed the proposal.

## PROGRAMMING AND COST

105. The expected construction period is 12 months. The limit of cost estimate for the proposed works is \$6.5m divided as follows:

- |                               |        |
|-------------------------------|--------|
| . building works and services | \$6.0m |
| . external works and services | \$0.5m |

106. Following the transfer of permanent value records from Brighton, the Brighton site will be sold. Therefore the real cost of the proposed work to

the Commonwealth will be somewhat less than \$6.5m.

**Committee's Recommendation**

107. The Committee recommends the construction of a new permanent repository for the Australian Archives at East Burwood, Vic., at an estimated cost of \$6.5m at October 1991 prices.


## CONCLUSIONS AND RECOMMENDATIONS

108. The Committee's conclusions and recommendations, and the page in the report to which each refers, are set out below:

	Page
1. If the permanent value Commonwealth records housed in Archives' Brighton repository remain stored in inadequate facilities which lack proper environmental controls, many irreplaceable records could be lost forever or, at best, severely damaged.	9
2. There is an urgent need for Archives to be provided with modern facilities with proper environmental controls and adequate storage capacity for now and for the future in which to store and maintain the permanent value Commonwealth records in its custody in Victoria.	9
3. Construction of a new repository offers cost and operational advantages over the other options examined for the provision of a permanent repository building.	13
4. The site at East Burwood meets Archives' operational requirements in terms of size and location.	13
5. The design, whilst austere, reflects a need for functionality and a need for the building to be constructed of materials reflecting some cost consciousness.	14
6. In Archives' estimation the proposed repository will have sufficient storage capacity for 10 to 12 years and there is scope to construct extensions later to cater for another 10 to 12 years.	15
7. The number of car parking spaces to be provided is based on assumptions of staffing levels and operations to be carried out from the East Burwood site. If in future there are increases in staffing levels at East Burwood, there may be insufficient car parking spaces.	17



	Page
8. Archives should proceed with the upgrading of all air-conditioning systems in existing purpose-built repositories to improve their energy efficiency as a matter of urgency.	19
9. Domestic hot water required at the proposed East Burwood facility should be provided from solar hot water heaters.	19
10. In view of the nature of the records to be stored in the proposed repository, the building structure should be designed to withstand the effects of an earthquake similar in magnitude to the 1990 Newcastle earthquake.	23
11. The inclusion and extent of other special design features in the proposed building appear to be adequate and are justified in view of the irreplaceable records in the custody of Archives.	23
12. The Committee recommends the construction of a new permanent repository for the Australian Archives at East Burwood, Vic., at an estimated cost of \$6.5m at October 1991 prices.	25

  
Colin Hollis  
Chairman

26 March 1992

WITNESSES

ARCHIBALD, Mr Joseph Ronald, Principal Mechanical Engineer,  
Australian Construction Services, 239-241 Bourke Street,  
Melbourne, Victoria

BURKE, Mr Michael John, Principal Quantity Surveyor, Australian  
Construction Services, 239-241 Bourke Street, Melbourne,  
Victoria

CLAMPETT, Mr John, Senior Station Officer, Metropolitan Fire  
Brigade, 103 Hoddle Street, Collingwood, Victoria

ELLIS, Dr Stephen Charles, Director, Storage and Preservation,  
Australian Archives, Dickson, Australian Capital Territory

FRAWLEY, Mr Peter Francis, Regional Director, Victoria,  
Australian Archives, Brighton, Victoria

GAUDION, Mr Ronald, Principal Civil/Structural Engineer,  
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JORDAN, Mr Ian Peter, Principal Architect/Project Manager,  
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Melbourne, Victoria

NICHOLS, Mr George, Director General, Australian Archives,  
Dickson, Australian Capital Territory

NORTHWOOD, Mr Michael Anton, Principal Electrical Engineer,  
Australian Construction Services, 239-241 Bourke Street,  
Melbourne, Victoria

PETHERBRIDGE, Professor Guy Tyrer, Preservation Policy  
Adviser, Australian Archives, Clarence Street, Sydney,  
New South Wales

SNODGRASS, Mr Barry Buchanan, Director of Facilities,  
Australian Archives, Dickson, Australian Capital Territory

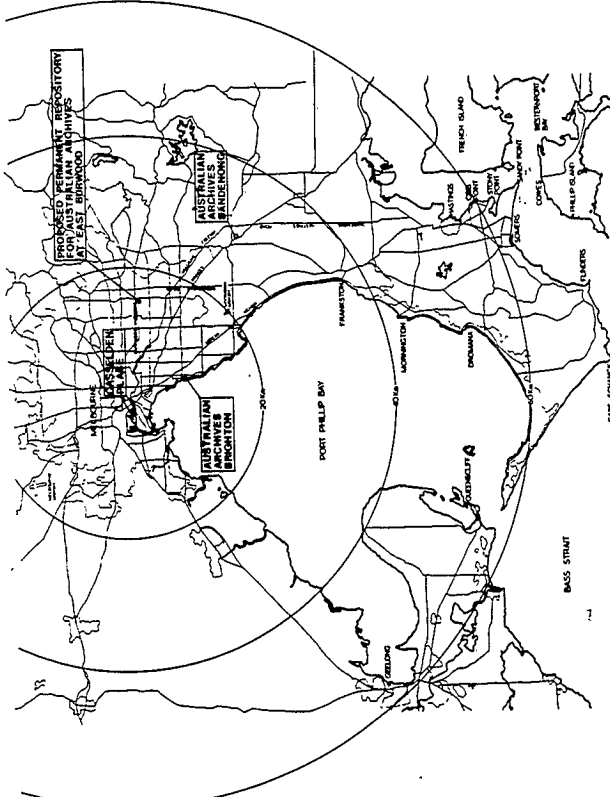
## APPENDIX B

### PROJECT PLANS

	Page
Location Plan	B1
Site Plan	B2
East Elevation and South Elevation	B3
West Elevation and North Elevation	B4
Sections	B5
Ground Floor Plan	B6
First Floor Plan	B7
Second Floor Plan	B8



AUSTRALIAN CONSTRUCTION SERVICES

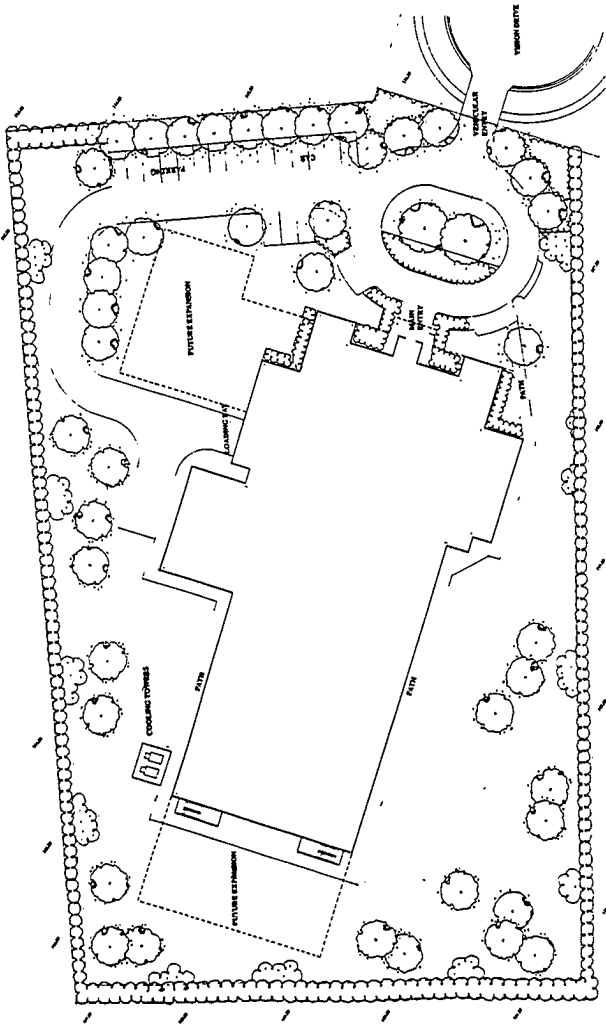


**PROPOSED PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES  
AT EAST BURWOOD, VICTORIA**

1. LOCALITY PLAN



**Australian Archives**



**PROPOSED PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES  
AT EAST BURWOOD, VICTORIA**



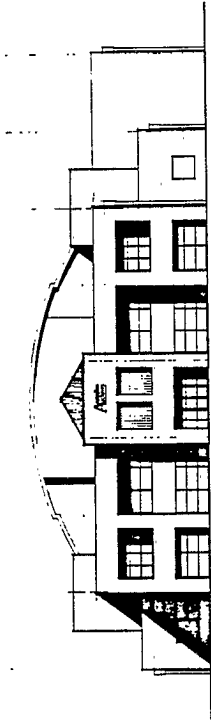
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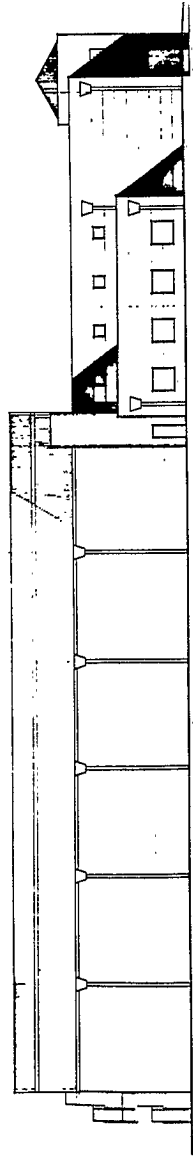
1. SITE PLAN



**Australian  
Archives**



EAST ELEVATION



SOUTH ELEVATION

PROPOSED PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES  
 AT EAST BURWOOD, VICTORIA

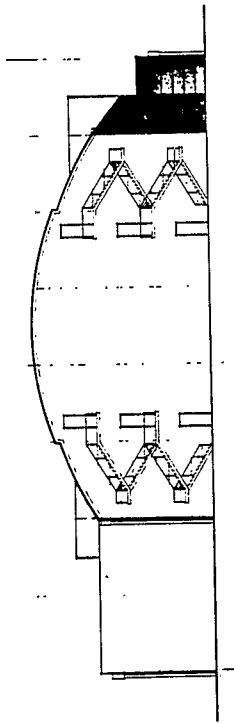
Australian  
 Archives



AUSTRALIAN CONSTRUCTION  
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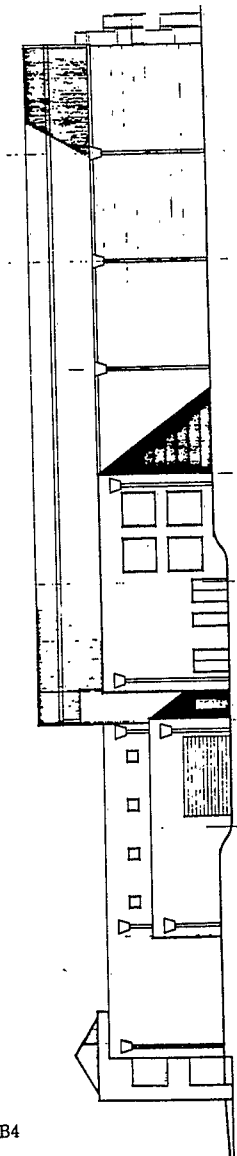
4 EAST ELEVATION  
 SOUTH ELEVATION 0 1 2 3 4 5 10m





WEST ELEVATION

B4



NORTH ELEVATION

PROPOSED PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES  
AT EAST BURWOOD, VICTORIA

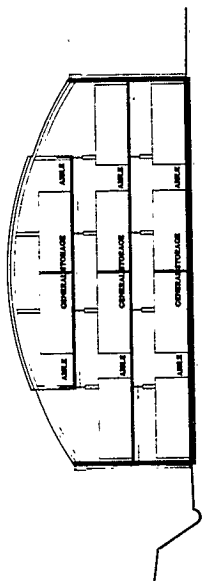
**Australian Archives**



AUSTRALIAN CONSTRUCTION SERVICES

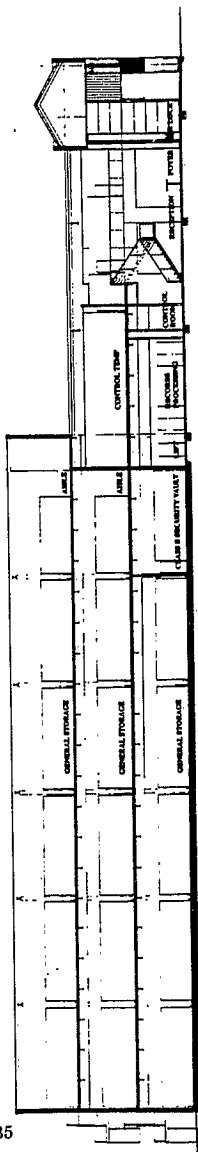
7. WEST ELEVATION  
NORTH ELEVATION 0 1 3 4 5 10m





SECTION A - A

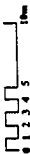
B5



SECTION B-B

PROPOSED PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES  
AT EAST BURWOOD, VICTORIA

1. SECTION A-A  
2. SECTION B-B



10m

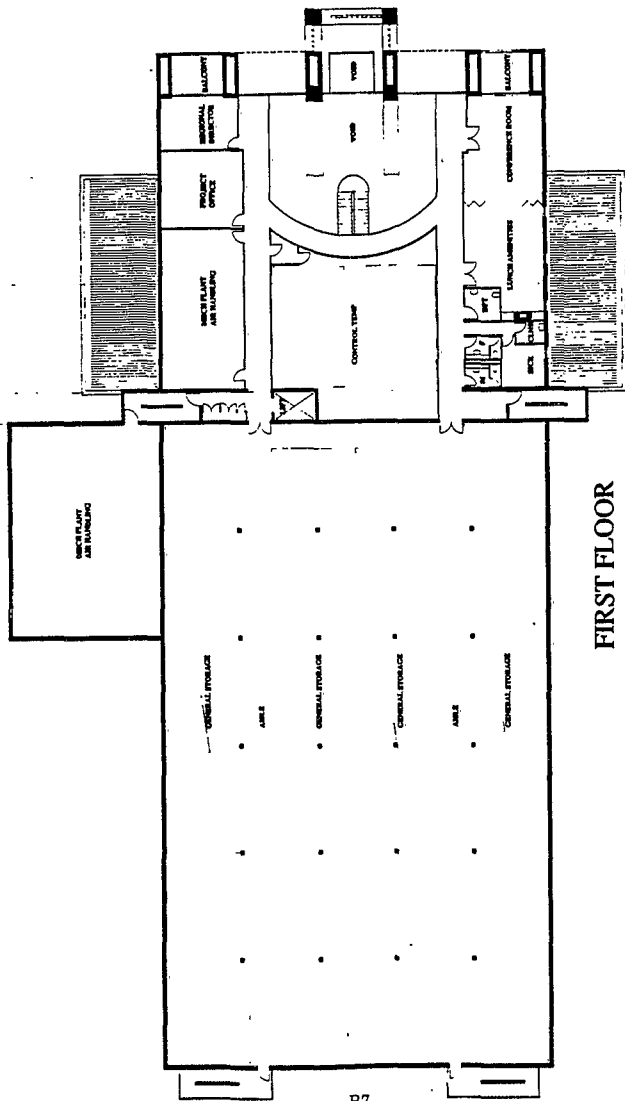
Australian Archives



AUSTRALIAN CONSTRUCTION SERVICES







**FIRST FLOOR**

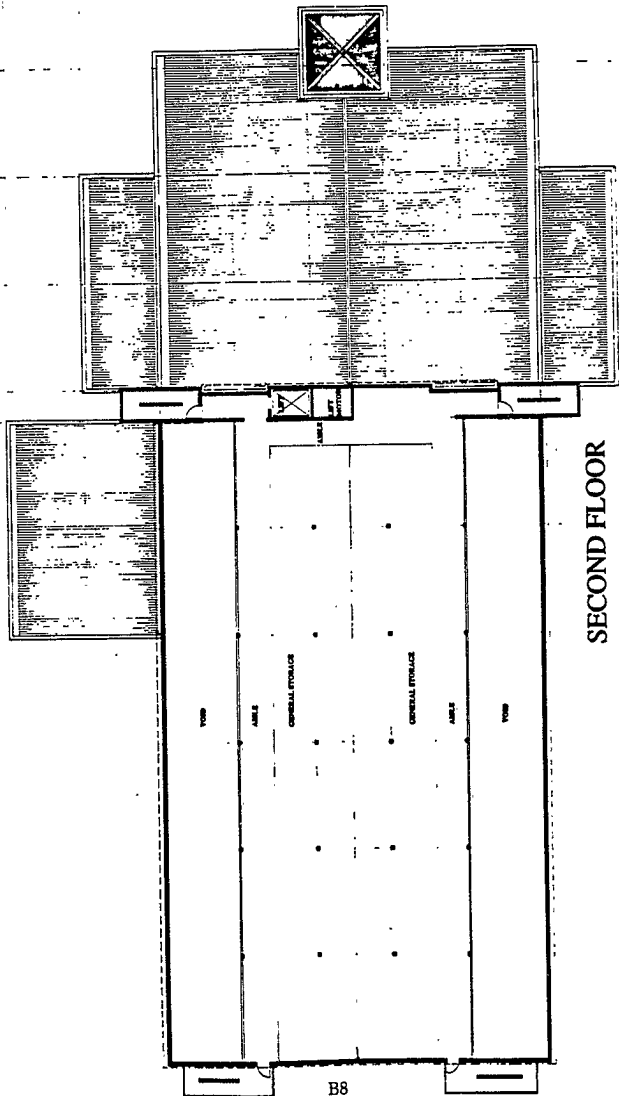
**PROPOSED PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES  
AT EAST BURWOOD, VICTORIA**

4. FIRST FLOOR PLAN 0 1 2 3 4 5 10m

AUSTRALIAN CONSTRUCTION SERVICES



**Australian Archives**

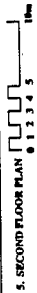


B8

SECOND FLOOR

PROPOSED PERMANENT REPOSITORY FOR AUSTRALIAN ARCHIVES  
AT EAST BURWOOD, VICTORIA

AUSTRALIAN CONSTRUCTION SERVICES



Australian Archives

## CONSTRUCTION DETAILS

### Materials

1. The building will be clad in precast concrete panels, with face bricks to the entry portico and stairwells. Roofing will be corrugated and metal tray steel deck. Windows will be aluminium framed. Internally, walls will be clad in plasterboard, flooring will be carpet and sheet vinyl, and ceilings will be plasterboard and acoustic tiles.

### Ventilation and Exhaust

2. Mechanical ventilation and exhaust systems in accordance with applicable standards will be provided for toilets, tea room, cleaner's room and the laboratory.

### Air Conditioning

3. Chilled water will be generated from two reciprocating chillers housed in the ground floor plant room and circulated to the various air handling plants and fan coil units.

4. A gas fired boiler will generate heated water for circulation to the various air handling plants and fan coil units.

5. Dedicated air handling units complete with cooling and heating coils will serve the general storage area, Class B security vault, Laboratory, airing room, low temperature storage area, and offices and the amenities area.

6. Supply to the general storage area and low temperature storage area will be filtered using deep bed type filters.

7. The outdoor air system will incorporate activated carbon absorbers for removal of sulphur dioxide and other contaminant gases.

8. Humidification will be provided by steam injection humidifiers.

## **Lift**

9. An hydraulic lift with a capacity of 1428kg will serve the three levels of the facility. The lift will provide vertical access for goods and people, and will be sized to accommodate wheeled pallets.

## **Mechanical Dock Leveller**

10. A mechanical dock leveller will be provided to the loading bay.

## **Light and Power**

11. Internal light and power will be provided in accordance with the relevant codes and standards.

12. Multi-channel cable skirting duct for the reticulation of power, telephone and computer cables will be provided in the administrative areas.

13. Emergency lighting will be provided from light fittings with independent battery supplies.

14. A 750kVA substation will be located adjacent to the ground floor plant room.

## **Essential Power**

15. In addition to emergency lighting, independent battery supplies will provide emergency power to the security system and fire panel. A connection cabinet will be provided to allow connection to a mobile diesel alternator of up to 500kVA which will meet the requirements of the mechanical plant should an extended power outage be experienced.

## **Communications**

16. A PABX, conventional telephone block wiring as well as direct lines to other facilities will be provided.

17. An Emergency Warning Intercommunications System (EWIS) will be provided in conjunction with the fire detector system.

### **Security**

18. The facility will be provided with a security system monitoring all perimeter openings and movement within key areas.
19. Access control equipment will be installed at key entry points.
20. A closed circuit television system will monitor important areas within the facility to record events as required.

### **Vehicular Movement Areas**

21. The road network will be asphaltic pavement, with a concrete crossing access to the property from Vision Drive. The pavement adjoining the plant room and loading bay on the northern side of the building will be concrete.

### **Water Supply**

22. The water supply by Melbourne Water will be located in Vision Drive. There will be sufficient capacity and pressure to provide water for domestic and fire purposes to the facility.

### **Stormwater Collection**

23. Stormwater from the building and surrounding surfaces will be drained to the City of Nunawading stormwater drain to be located at the north eastern corner of the site.
24. The drain system will have enough capacity for the proposed facility.

### **Sewerage System**

25. Sewage from the building will be discharged into the Melbourne Water sewer with connections to be located in the north eastern corner of the site.
26. Waste from the laboratory will be treated in a standard neutraliser tank before release into the sewer.

### **Power Supply**

27. Power will be supplied by the City of Box Hill Electricity Supply Department to the proposed sub-station from the high voltage underground line to be located in Vision Drive.

### **External Lighting**

28. External security lighting will be provided to the external surface of the building.

29. Illumination of roads and pathways will be provided commensurate with normal safety requirements.

### **Natural Gas**

30. Gas supplied by the Gas and Fuel Corporation of Victoria will be provided from the main to be located in Vision Drive.

### **Telephones**

31. Telephone supply by Telecom Australia will be provided from the main to be located in Vision Drive.