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Clerk of the Senate

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

R E P O R T

relating to the proposed modernisation and expansion

of the

DARWIN HOSPITAL, NORTHERN TERRITORY.

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

(EIGHTEENTH COMMITTEE)

(Senators appointed 28th February, 1962, Members of the House of Representatives appointed 27th February, 1962.)

ROGER LEVINGE DEAN, ESQUIRE, M.P. (Chairman).

WILLIAM PAUL O'CONNOR, ESQUIRE, M.P. (Vice-Chairman).

Senate.

Senator KENNETH McCOLL ANDERSON.

Senator THOMAS CHARLES DRAKE-BROCKMAN. (1)

Senator JAMES PATRICK ORMONDE.

Senator EDGAR WYLIE PROWSE. (2)

House of Representatives.

WILFRED JOHN BRIMBLECOMBE, ESQUIRE, M.P.

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(1) Resigned 9th August, 1962.

(2) Appointed 9th August, 1962.

EXTRACT FROM THE MINUTES OF THE EXECUTIVE COUNCIL - NO.34, DATED 5TH JULY, 1962.

Departmental No. 16

Department of Works,
Melbourne, Victoria.

Executive Council No. 34

MINUTE PAPER FOR THE EXECUTIVE COUNCIL.

Public Works Committee Act 1913-1960

Recommended to His Excellency, the Administrator of the Commonwealth in Council that the proposal - Modernisation and Expansion of the Darwin Hospital, N.T. (Particulars of which are set out in the attached statement) be referred to the Parliamentary Standing Committee on Public Works for enquiry and report to the House of Representatives.

GORDON FREETH,
Minister of State for Works.

Approved in Council.

(Sgd.) DALLAS BROOKS
Administrator
5 July 1962.

Filed in the Records of the
Council.

(Sgd.) K. W. PEARSON
Secretary to the Executive Council.

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THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

MODERNISATION AND EXPANSION OF DARWIN HOSPITAL, DARWIN, N.T.

R E P O R T

On 5th July, 1962, His Excellency the Administrator of the Commonwealth in Council, referred to the Parliamentary Standing Committee on Public Works for inquiry and report to the House of Representatives, the proposal to modernise and expand the Darwin Hospital. The Committee have the honour to report as follows:-

GENERAL

1. The Committee visited Darwin where we inspected the existing hospital facilities, including those to be altered or added to, and saw the proposed location of new buildings. Evidence was taken from representatives of organisations in Darwin, private citizens, officers of the Departments of Health and Works and of the Northern Territory Administration. Some hearings were also held in Canberra.

HISTORICAL

2. The Darwin Hospital, which was opened for civilian use in January 1942 with a bed strength of 98, was designed on the open pavilion principle. It was intended to cater for an estimated 3643 Europeans, half-castes and aborigines in the Darwin area, plus an unknown number of aborigines in the surrounding area and in addition beds were to be available for members of the armed forces. Because of the threat of war, planning was on a liberal scale.

3. Following the Japanese air raids and the evacuation of civilian patients, the hospital was taken over by the Army in March 1942 and it remained under military control until handed back to the Department of Health in May 1946.

EXISTING ACCOMMODATION

4. The liberal scale on which the hospital was planned in 1939 has enabled the authorities to cope with the expansion of Darwin with some improvisation and only limited additions.

5. The Wards.- Including a 30-bed unit at the Bagot native welfare settlement, there are at present 284 beds in the Darwin Hospital. This has been made possible by additions to the female aborigines' and female European wards, by the use of sub-standard accommodation for aboriginal patients under investigation or treatment for tuberculosis and by intensive use of space in the wards built in 1942.

6. A recent survey of the permanent ward space revealed that the proper capacity of the hospital, including the Bagot annexe, is 240 beds, which, at the moment, is reduced to 225 because of ward space occupied by other activities. The converted sheds bring the capacity to 255.

7. In relation to the survey, therefore, the 284 beds now in the hospital represent an overcrowding of proper ward accommodation to the extent of 29 beds.

8. There are 6 ward blocks of the open pavilion type. They are regarded as reasonably comfortable for patients with non-acute illnesses but they lack comfort for those who are acutely ill from both medical and surgical causes. The children's ward lacks amenities for acutely ill babies and children. With the exception of the nursery, none of the accommodation is air-conditioned.

9. As already mentioned, two sheds formerly used as stores have had to be converted for ward use to provide accommodation for aboriginal patients under investigation or treatment for tuberculosis.

10. Generally, shortage of space is not acute at present although there is an urgent need for relief in the children's ward and the obstetric ward and for alternative accommodation to the converted sheds occupied by aboriginal patients.

11. Sisters' and Nurses' Accommodation.- Living accommodation is provided for a staff of 108. There is a nurses' home in two sections for 42 nurses and a sisters' home, built ten years ago, for 52. Some staff are at present housed in the professional officers' quarters and in a separate house near the nurses' home, while a few nurses are in the sisters' home, sharing rooms not really large enough for two people. The balance of the staff live out.

12. The accommodation in the sisters' home is of good standard but the two units of the nurses' home and the rooms in other buildings are inferior by modern standards and certainly do not provide the comfort which the trying Darwin climate demands.

13. Casualty, Out-patients and Administration.- Casualty and out-patients activity takes place in one of the original hospital buildings, the upper floor of which is used by the administration staff of the hospital.

14. The building is inadequate for the present demand and there is serious overcrowding. The "open" nature of the building, with partitions not extending to the ceiling, results in a lack of privacy which is embarrassing during doctor/patient discussions of a personal nature, both to them and to people in adjoining rooms.

15. The physiotherapy department is located in former domestic staff accommodation and the occupational therapy department occupies space in one of the wards.

16. Ancillary and Engineering Services.- The hospital kitchen, the boiler house and the electrical installations are adequate for present demands but could not carry the increased load which would arise from expansion of the hospital.

17. The laundry and the nursing staff dining room and kitchen are inadequate and there is a need to replace the medical officers'

quarters. Work on them is to proceed independently of the proposal before the Committee.

THE NEED FOR ADDITIONAL ACCOMMODATION

18. Population Trends.- The European population served by the Darwin Hospital is approximately 16,700, based on the 1961 census figure for Greater Darwin of 14,904 and an estimated 1,800 living in outlying areas. The aboriginal population of the area served is estimated to be 11,000.

19. Based on the average increase between the 1954 and 1961 censuses, by 1965 the European population has been estimated as 20,300, while the estimated aboriginal population is 12,000. The estimates for 1970 are 27,500 Europeans and 14,000 aborigines.

20. Number of Beds.- There are at present 151 beds available for Europeans and 133 for aborigines. Applying the present population to these figures, there are 9.04 beds per thousand Europeans and 12.1 per thousand aborigines.

21. The daily average bed occupancy for the year ended June 1962 was 76.6 per cent, the highest actual occupancy being 96.8 per cent for Europeans and 96.19 per cent for aborigines.

22. The beds available per thousand of population in the Australian States and Territories ranged between 4.6 in the Australian Capital Territory and 9.9 in Queensland in 1960. The Darwin figures are high by comparison but there are a number of reasons why this should be so.

23. The reasons are that

- one hospital has to cater for a population scattered over a large portion of the Northern Territory and there is no other hospital to which an excess of patients could be transferred;
- many patients who live great distances away have to be admitted to the hospital for minor conditions and held until completely cured;

- there is a high birth rate of approximately 39 per thousand;
- due to the small number of private practitioners, a high proportion of patients attend hospital;
- there is a high proportion of psychiatric cases;
- surgical patients are frequently transferred from the Katherine Hospital and occasionally from the Alice Springs and Tennant Creek Hospitals;
- the hospital must admit all geriatric patients, because there is no old folks' home in Darwin.

24. These factors apply particularly to Europeans. Additional considerations influencing the higher ratio of beds to the aboriginal population are

- outbreaks of gastro-enteritis in remote areas frequently requiring a number of admissions to hospital but which under ordinary conditions would not impose a demand on hospital beds;
- the need to admit and detain in hospital for long periods under observation, patients admitted from settlements and missions for investigation and treatment of such illnesses as anaemia, intestinal parasites and deficiency diseases.

25. In support of the claim that hospital planning for European patients should be based on 9.5 beds per thousand of population, it was pointed out that there is a need more adequately to cater for psychiatric and an increasing proportion of geriatric patients. There were no new factors to suggest a need to increase the ratio of beds required for the aboriginal population.

26. The Committee agree that, because of special conditions applying in the Northern Territory, hospital requirements should be planned on the basis of 9.5 beds per thousand for European patients and 12.1 per thousand for aboriginal patients.

27. On this ratio of beds to population, 346 beds, comprising 200 for European patients and 146 for aboriginal patients, will be required by 1965. By 1970 these figures will rise to 432 beds, comprising 262 for European patients and 170 for aboriginal patients. The proposal before the Committee is based on these figures.

28. Nursing Staff.- At present the ratio of the daily average number of patients to nurses is 1.47 to 1. When the bed requirement reaches 346 in 1965, an average occupancy of 80 per cent is expected and to maintain the existing ratio a nursing staff of 188 will be required.

29. The further expansion of the hospital to 432 beds by 1970 will not involve an increase in the administrative and teaching activities of the nursing staff and for this reason it is considered that the ratio can be increased to 1.5 patients to each nurse. On this basis, a nursing staff of 231 will be required.

30. Casualty, Out-patients and Administration.- Out-patient attendances were 30,528 in 1951/52, 51,633 in 1960/61 and 59,665 for the eleven months to the 31st May, 1962. Although additions were made in 1957, the building, which also contains the casualty department and hospital office accommodation, is now grossly inadequate. It is not possible to separate casualty and out-patient activities and there is a minimum of privacy.

31. The demand for hospital space has increased due to the increase in population, the increased scope of the work of the aerial medical service in relation to aboriginal settlements and missions, the results of a tuberculosis survey and improved medical staffing and service at the hospital.

32. The necessity to expand the Darwin Hospital arises primarily from the need to meet the requirements of an increasing population. Unsatisfactory conditions in certain sections of the hospital contribute to the need.

PLANNING FOR THE FUTURE

33. The hospital is erected on the pavilion principle, with buildings radiating from a central point and we directed our attention to the method of integrating the proposed multi-storey ward block with the existing pattern in a way which will permit the hospital to continue to function efficiently and economically.

34. The drawings and model available to us showed that the new ward block will be located further from the service areas than any existing ward block and we sought the views of witnesses about progressive replacement of existing buildings. We thought the proposed location of the new building would be acceptable if it fitted in with a pattern of development which ultimately would result in a hospital area on modern lines.

35. We do not suggest that pavilion type hospitals will not meet modern needs but we do know from the evidence that they are favoured for small hospitals rather than those of 500 to 600 beds and a hospital in Darwin of this size is foreseen.

36. Master Planning.- We were surprised to find that no master plan for the development of the hospital exists although expansion of the hospital has been under consideration for three to four years.

37. The location of future buildings was indicated to us with reference to the model and although the placement of the ward blocks proposed in the first and second stages of development is firm, we could not escape the feeling that there is a degree of vagueness about development after 1970 when the estimated need is for 432 beds, of which approximately 180 only will be in modern buildings. This vagueness seemed to us to arise in part from the lack of a firm decision whether or not the present Darwin Hospital is to be the future base hospital supplemented by suburban units, although the trend of the evidence suggested that it will be.

38. We do not suggest that existing ward buildings should be demolished for we realise that they have an estimated life of 15 to 20 years and that the value of the assets held on the site is in excess

of £1,400,000. To rebuild the whole hospital would cost some £4,000,000. We also recognise that buildings cannot be demolished unless there is alternative accommodation for the inmates.

39. It is the scattered nature of the hospital in relation to ancillary services which concerns us and which we believe emphasises the need for a firm decision whether the Darwin Hospital will ultimately assume the role of a base hospital and for the master planning of the hospital area on modern lines.

40. In view of the firm belief of witnesses that efficient and economic operation of the hospital will be possible after the developments as proposed to 1965 and 1970 are complete, and because we were shown how further development could be achieved satisfactorily, we were able to reach the conclusions and make the recommendations which follow in support of the work proposed.

41. We recommend, however, that a decision be made quickly about the future role of the Darwin Hospital and that a master plan to form the basis of progressive development to a modern hospital complex be prepared.

THE SITE

42. The scattered nature of the buildings on the hospital site drew unfavourable comment from the representative of the Northern Territory Administration who made reference to the acute shortage of land in the Inner Darwin Area and explained that the Administration had not had put before it a case demonstrating that Lots 1217 and 1073, totalling approximately 15½ acres, are inadequate in area for erection of a new hospital.

43. It seemed to us that if the Northern Territory Administration had sought or been given all the information which was made available to the Committee, this view might have been modified.

44. While we realise that the conclusions of the Administration may arise in part from the absence of a firm decision about the future role of the hospital, we are left with the impression that there has been

a lack of liaison and absence of consultation between the Department of Health and the Northern Territory Administration to the extent necessary for both parties to understand one another's future plans and aims.

45. Lot 1217 of approximately $1\frac{1}{4}$ acres on the south-western side of Mitchell Street, contains all hospital activities and the sites for future ward blocks. Adjoining it on the north-eastern boundary is Lot 1073 of approximately $1\frac{1}{2}$ acres, which is occupied by the medical officers' quarters, to be replaced as a matter of urgency by a new building, the site of which is also on Lot 1073. These two areas have been proclaimed as hospital reserves.

46. On the north-eastern side of Mitchell Street is an area bounded by Mitchell Street, Lambell Terrace, Kahlin Avenue and Temira Crescent. Lot 1090 of $1\frac{3}{4}$ acres at the south-eastern end of this area is occupied by the sisters' home, professional staff quarters and health laboratory. The balance of the land to the north-west of Lot 1090 comprises ten residential blocks, one of which is privately owned. Lot 1090 has been set aside for hospital purposes but not yet proclaimed and the other nine lots (1085-1089 and 1093-1096), comprising $3\frac{3}{4}$ acres, have been tentatively set aside for hospital staff accommodation. It is proposed to erect the new nurses' home in this area. The area either proclaimed or set aside for hospital purposes is approximately $21\frac{1}{2}$ acres.

47. Medical Officers' Quarters.- The existing medical officers' quarters on Lot 1073 are reaching the end of their economic life and are to be replaced as a matter of urgency by new quarters on the same lot. There appears to be ample space on Lot 1217, south-west of the medical superintendent's residence, for this building and we therefore recommend that consideration be given to altering the location of the new building to a position on Lot 1217 south-east of the proposed location. Such action would permit the release of Lot 1073 for other purposes and confine the hospital grounds to a line running south-west from Temira Crescent across Mitchell Street to the foreshore.

48. Mitchell Street.- The land proclaimed or set aside for hospital purposes is divided by Mitchell Street. Access to about 20 houses beyond the hospital at Myilly Point is via Mitchell Street

but an alternative and, in our view, not inconvenient access is available via Kahlin Avenue and Temira Crescent.

49. Although the main hospital development is on the south-western side of Mitchell Street, the sisters' home and the site for the new nurses' home are on the north-eastern side.

50. We do not agree with the suggestion that the hospital be confined to the $15\frac{1}{2}$ acres in Lots 1217 and 1073 on the south-western side of Mitchell Street. We were advised that it would be regarded as wrong in southern areas to set aside less than 20 acres for a hospital of the size in mind for Darwin.

51. The Committee gave their attention to the question whether Mitchell Street shall remain as a public thoroughfare through the hospital. We have concluded that the advantages to be gained by the closure of that portion of Mitchell Street are three-fold. It would reduce noise by the elimination of traffic passing through the hospital grounds.

52. We were told that in the wet season staff often arrive on duty wet through because of the absence of a covered way between the sisters' home and the hospital. Closure of Mitchell Street would permit such a covered way to be erected.

53. In order to keep solar thermal loads to a minimum, it is desirable to orientate buildings with their long axis in an east-west direction. To the extent possible, the new buildings are so planned but the existence of Mitchell Street prevents this being achieved for the additions to the casualty, out-patients and administration building. If the streets were closed, it would be possible to orientate the additions correctly. It would also result in the casualty entrance being further away from the nearby male general ward.

54. There is a sound case for the closing of Mitchell Street between Lambell Terrace and Temira Crescent and, as no real disadvantage would result, we recommend accordingly.

55. The addition of the area of Mitchell Street (approximately $\frac{3}{4}$ acre) and the exclusion of Lot 1073 (approximately $1\frac{1}{2}$ acres) would leave the hospital with an area of about $20\frac{3}{4}$ acres.

56. We recommend that the hospital area comprise Lots 1217, 1090, 1085-1089, 1093-1096 and the area of Mitchell Street between Lambell Terrace and Temira Crescent.

57. Town Plan.- The continued absence of an adopted town plan for the whole of Darwin must add to the problems of those concerned with the development of the city including the planning of hospital requirements. As long ago as 1955, the Committee made reference to the need for a town plan and subsequent inquiries exposed the difficulties which its absence creates. It is hoped that there will be early establishment of a firm town plan.

ACCOMMODATION AND SERVICES TO BE PROVIDED BY 1965

58. To provide the hospital facilities needed to serve an estimated population of 20,800 Europeans and 12,000 aborigines in Darwin and the outlying areas by 1965, the new ward block and new nurses' home are proposed, one existing ward is to be extended, the casualty, out-patients and administration block is to be enlarged and modernised and supporting facilities are to be increased.

59. Ward Accommodation.- The proper capacity of the hospital according to a survey is 240 beds. This includes the Bagot annexe which is to be retained but not the converted sheds which are to be abandoned as wards. To increase the capacity of the hospital, it is proposed to erect a new 90-bed ward block and to extend the native general and surgical ward to obtain 18 more beds. This will give a bed strength of 348.

60. The new ward block will accommodate the more seriously ill European patients and the children. This will relieve congestion in the other parts of the hospital, permit expansion of the obstetric ward and allow the existing children's ward to be turned over for aboriginal patients.

61. The four-storey building will accommodate 30 patients on each of three floors and the top floor will be occupied by mechanical plant, lift machinery and water tanks.

62. The floors have been designed on the perimeter ward system in which the wards are located on both sides of a central core comprising nursing station, pantry, clean and dirty utility rooms, pan room, male and female toilets and bathrooms, stores and cleaners' room.

63. It is proposed to use the ground and first floors for medical and surgical cases and the second floor for pediatric cases.

64. The building will be adjacent to the new operating theatre and connected to it on the ground floor by a recovery ward.

65. There are no intermediate or private wards at the Darwin Hospital. Two single-bed wards are to be provided on each floor for special cases including isolation and the critically ill. Day rooms with adjacent sun balconies are planned for each floor and a relatives' room is to be provided in the children's ward.

66. Two conventional bed/passenger lifts will provide vertical transportation.

67. The building is to be fully air-conditioned.

68. Additional beds will be made available by additions to the native general and surgical ward. When alterations and additions are completed, the ward will accommodate 30 beds and will include nursing station, pantry, toilets and bathrooms, store and sterilising rooms for crockery, etc.

69. Aborigines are well adjusted to existing temperatures and it is believed that it would be unwise to provide air-conditioning for them.

70. Erection of the new ward block and additions to the aboriginal ward, as designed, and to increase the hospital capacity to 348 beds, are recommended.

71. Nurses' Home.- A nursing staff of 188 will be required for the enlarged hospital. A new nurses' home to accommodate 106, including 5 flats for the matron and senior sisters, is proposed. The existing sisters' home accommodates 52. There will be room for 12 in the professional officers' quarters.

72. Assuming 25 would be living out or on leave, there would be a possible nursing staff of 195.

73. The units of the existing nurses' home will be evacuated by the student nurses and portion of the space will be utilised for professional officers' quarters. Development beyond 1965 will involve demolition of one of these buildings.

74. Teaching facilities for trainee nurses are to be included in the new building.

75. The building has been planned in two sections. The smaller one of two floors will contain teaching facilities including demonstration rooms, tutor sister's office and a library, together with a recreation hall on the ground floor.

76. On the floor above will be accommodation for 20 in flats for the matron, sub-matron and two senior sisters, a bed-sitting room for the night superintendent, single rooms for seven senior sisters and four double rooms for night duty staff.

77. The link between the two sections of the building will contain the main lecture room and an air-conditioning plant room.

78. The larger section is to be of four floors. The ground floor will accommodate 22 night nursing staff in ten double and two single rooms, a home sister's flat and a nurses' sick bay.

79. The three upper floors will each accommodate 31 nurses, in single and double rooms.

80. The provision of double rooms is mainly for incoming trainees and results from a canvass of opinion from trainee nurses, a surprisingly large number of whom expressed a preference for sharing a room.

81. One passenger lift is proposed for the nurses' home.

82. Laundries will be provided at ground floor level. Provision has been made for sitting rooms, box, ironing and drying rooms, toilets and bathrooms throughout the building.

83. The accommodation for night duty staff is additional to the provision for 106 in the building. This will permit them to sleep

in quiet and undisturbed surroundings and at the same time retain the room which they come to regard as their home. The provision of quiet and comfortable conditions for sleeping in the daytime in the trying conditions in Darwin, particularly in the wet season, is, in our opinion, well justified.

84. Subject to the comments which follow about air-conditioning, erection of the nurses' home to the design and size proposed is recommended. This will permit a nursing staff of 188 to be engaged.

85. Air-conditioning.- As submitted to the Committee, the proposal is to air-condition the ground floor of the four-storey section and the whole of the two-storey section, with the exception of the recreation hall.

86. This will give air-conditioning to the accommodation for the matron, sub-matron and senior sisters on the hospital establishment and to the rooms which will be occupied by the nursing staff while on night duty.

87. In justification of air-conditioned accommodation for the senior staff, it was pointed out that it would be an aid to recruitment and an inducement to remain at the hospital for longer periods. The view was expressed that the senior staff, who are usually in an older age group than trainees and senior sisters, should have added comfort in their living quarters. Air-conditioning will aid the night duty staff in having proper rest.

88. We directed our attention to the possibility of air-conditioning the whole building and the evidence presented to us revealed that while witnesses felt that this would be desirable, there was no strong pressure for it because of the fear that the additional cost involved might result in delaying the start of the work.

89. If the whole of the building were air-conditioned, the hospital authorities would be faced with the problem of possible resentment by sisters of the fact that their accommodation would not have the same comfort as the trainees. While we recognise that this problem can arise, we do not think that it has sufficient force to influence consideration of the possibility of a fully air-conditioned nurses' home.

90. The estimated additional cost of air-conditioning the whole of the new nurses' home instead of what has been proposed, is £95,000. To air-condition the sisters' home, which is not designed for the introduction of such a facility, would require architectural alterations and the cost would be of the order of £100,000.

91. Having been told that if the whole of the new nurses' home were air-conditioned, the need to provide separate rooms for night staff would be eliminated, we sought an estimate of the cost of the building reduced by the amount of space proposed for night duty staff and fully air-conditioned. The figure was £530,000, compared with £500,000 for the scheme as referred to the Committee.

92. We expected the saving in cost resulting from the elimination of accommodation for 30 night duty staff to achieve a more favourable comparison in cost between the proposed building and our suggested modification of it.

93. Witnesses from the Department of Health urged the retention of the rooms proposed for night duty staff, even if the building were to be fully air-conditioned, for they were anxious to retain a reserve of accommodation to meet an emergency or a sudden upsurge of population. They believe they would be able, by improvisation, to find hospital accommodation to meet such situations but they stated that there would be difficulty in providing additional nursing staff without spare living quarters for nurses. We agree that the accommodation in the proposed nurses' home should not be reduced.

94. The mean maximum and minimum temperatures in Darwin taken over a 30-year period are 91.0 and 73.9 in September, rising to 92.0 and 78.1 in December, and falling to 91.9 and 75.9 in April. The mean maximum and minimum humidity taken over a period of 57 or 58 years are 73 per cent and 54 per cent in September, 83 per cent and 65 per cent in December and 80 per cent and 60 per cent in April. Mean minimum humidity in the three months from January to March is 69 per cent, 71 per cent and 69 per cent. These figures are extracted from the Year Book of the Commonwealth of Australia No. 47, 1961.

95. We believe that with climatic conditions such as those existing in Darwin for eight months of the year, there is a need for air-conditioned accommodation. There is an increasing recognition of this and we have noted that the trend is developing to provide the facility in buildings erected for commercial purposes. The arguments in favour of air-conditioning gain strength when applied to buildings accommodating those whose duty it is to care for the sick.

96. Although we hold these views strongly, we do not feel justified in recommending the expenditure of £100,000 to air-condition the 10-year old sisters' home. However, we do feel justified, in dealing with this major step of modernising and expanding the Darwin Hospital, in urging the recognition of a trend towards more extensive use of air-conditioning in the trying climate of Darwin.

97. In order to provide the degree of comfort which we think nurses should have in their living quarters and as an aid to the recruitment and retention of staff, we recommend that the proposed nurses' home be fully air-conditioned at an additional cost of \$95,000.

98. Casualty, Out-patients and Administration.- In order to meet the increasing load on the casualty and out-patients department and to centralize the physiotherapy and occupational therapy units with them, extensions are planned to the existing building. A new casualty wing is to be added to the front of the building, an area is to be added for the physiotherapy and occupational therapy units and the out-patients department and the administrative offices above it are to be extended. The work will involve extensive alterations and additions. It is proposed to air-condition the whole of the building.

99. Assuming the closing of portion of Mitchell Street and reorientation of the building, the completion of alterations and additions as proposed to the building containing the outpatients, casualty and administration departments, is recommended.

100. Hospital Kitchen.- It is proposed to enlarge the kitchen and to add to or replace cooking equipment to enable it to cater for the enlarged hospital. The building will be large enough to permit the future installation of additional equipment needed to provide meals

for 500 patients.

101. Boiler House and Electrical Supply.- Expansion of the boiler house to increase the boiler capacity by the addition of a boiler and calorifiers, is planned. Various electrical engineering work is proposed to meet the demands which will be imposed by the enlarged hospital.

102. Work proposed to increase the capacity of the kitchen and boiler installation and the electrical engineering work required to meet increased demand on the electrical supply is recommended.

103. Other Work.- Plans are in the course of preparation for a new laundry, new medical officers' quarters and extensions to the nursing staff kitchen and dining room in the sisters' quarters. We were informed that these items are required urgently. These will be carried out as separate works under local works programme provisions and are not included in the proposal referred to the Committee. The estimated cost is £186,000.

FUTURE DEVELOPMENT

104. The work proposed in the reference before the Committee is intended to cater for the hospital requirements of Darwin by 1965.

105. Wards.- To meet requirements by 1970, it will be necessary, on the basis of population estimates, to erect another ward block of 90 beds. This block will be located near the building to be erected in the first stage. It is intended to link the buildings at each floor level.

106. Nurses' Accommodation.- To accommodate the additional nurses who will be needed to staff the hospital in 1970, it is proposed to erect another building adjacent to the planned nurses' home.

PARKING

107. Provision has been made for car parking in the hospital grounds. During the hearing of evidence, it was suggested that because of the extreme climatic conditions in Darwin, covered car parking should be provided particularly for medical officers.

108. The Committee agree that such a provision would be desirable and we recommend that consideration be given to the provision of sun shelter for cars belonging to the resident staff.

SWIMMING POOL

109. Suitable beaches for swimming and the Darwin Swimming Pool are not conveniently located in relation to the Darwin Hospital. Because it is not possible to swim in the sea for some months of the year, the opportunity to obtain relief from the trying conditions referred to earlier is further limited.

110. The amenities available in Darwin to nurses in their leisure time are limited and we believe that a swimming pool in the hospital grounds would be a great attraction to staff and make them more contented.

111. We recommend the early provision, in the hospital grounds, of a swimming pool of 20 to 25 metres at an estimated cost of approximately £20,000.

ESTIMATES OF COST

112. The estimated cost of the work proposed up to 1965, in the reference to the Committee, is £1,537,800, made up as follows:-

	£	£
Building works -		
Boiler house	7,500	
Main kitchen	26,000	
Extension to aboriginal ward	27,000	
Ward block	320,000	
Nurses' home	414,000	
Out-patients, casualty and administration block	<u>151,000</u>	
		945,500
Electrical installations within buildings		76,000
Electricity supply		36,000
Thermal fire alarms		13,000
Lifts		32,000
Nurses' call system		3,000
Radio to beds		1,300
Road work		5,000
Water reticulation, sewerage and stormwater		42,000

Mechanical equipment -

Air-conditioning	252,000	
Mechanical ventilation	22,000	
Boiler house plant	25,000	
Steam reticulation	6,000	
Domestic hot water supply	25,000	
Oxygen, compressed air and suction services	11,000	
Sterilizing equipment	11,000	
Kitchen equipment	19,000	
Miscellaneous equipment	11,000	
Fire extinguishers	2,000	
		<u>384,000</u>
		<u>£1,537,800</u>

113. Other work, not included in the reference before the Committee, is estimated to cost £186,000.

114. The estimated cost of the additions proposed for 1970 is £555,000, consisting of £430,000 for a ward block and £125,000 for additions to the nurses' home.

115. The cost of the proposal to 1965, as recommended by the Committee, is £1,632,800.

CONSTRUCTION TIME

116. When instructions to proceed are given, an estimated 50 weeks will be required to complete contract documents.

Construction would take approximately 100 weeks.

SUMMARY OF CONCLUSIONS

117. In the study of the proposal, the Committee have reached a number of conclusions. They are summarised below and the number quoted alongside each refers to the paragraph in the report in which the conclusions are set out in more detail.

	<u>Paragraph in report</u>
(1) There is no general shortage of bed space in the European section of the Darwin Hospital at present although relief is urgently needed in the children's ward and obstetric ward	10
(2) Alternative accommodation is needed for aboriginal patients occupying converted sheds	10
(3) Accommodation for sisters is of good standard but nurses are living in buildings which are of inferior standard	12
(4) Out-patients and casualty departments are seriously overcrowded and lacking in privacy	14
(5) In Darwin there is justification for a high ratio of beds to population	26
(6) Based on estimated population trends, 346 hospital beds will be required by 1965 and 432 by 1970	27
(7) To staff an enlarged hospital, 188 nurses will be needed by 1965 and 231 by 1970	29
(8) The need to expand and modernise the Darwin Hospital arises from an increasing population and unsatisfactory conditions in certain sections of the hospital	32
(9) There has been insufficient liaison and consultation between the authorities concerned in the development of the hospital	44
(10) The continued absence of an adopted town plan for the whole of Darwin adds to the problem of developing hospital requirements in relation to the city	57

	<u>Paragraph in report</u>
(11) The cost of the work proposed up to 1965, as referred to the Committee, is £1,537,800	112
(12) The estimated cost of further work required by 1970, is £555,000	114
(13) The estimated cost of the proposal to 1965, as recommended by the Committee, is £1,632,800	115

SUMMARY OF RECOMMENDATIONS

118. The Committee's recommendations, arrived at after studying the evidence and material submitted, are set out below. The number quoted alongside each recommendation refers to the relevant portion of the report.

	<u>Paragraph in report</u>
(1) A firm decision should be made quickly about the future role of the Darwin Hospital	37,39,41
(2) Consideration should be given to altering the site of the proposed medical officers' quarters and the release of Lot 1073 for other than hospital purposes	47
(3) Mitchell Street, between Lambell Terrace and Temira Crescent, should be closed as a public thoroughfare	54
(4) The hospital area should comprise Lots 1217,1090, 1085-1089, 1093-1096 and the area of Mitchell Street referred to above	56
(5) Erection of the proposed ward block and additions to the aboriginal ward to increase the capacity of the hospital to 348 beds, are recommended	70
(6) Erection of the proposed nurses' home to the size and design proposed and to permit a staff of 188 to be engaged, is recommended	84

	<u>Paragraph in report</u>
(7) Air-conditioning of the whole, rather than only part of the proposed nurses' home, at an estimated additional cost of £95,000, is recommended	97
(8) The carrying out of alterations and additions to the building occupied by the out-patients, casualty and administration departments, is recommended	99
(9) Work proposed to increase the capacity of the kitchen, boiler house and electrical installations, is recommended	102
(10) Consideration should be given to the provision of sun shelter for cars belonging to resident staff	108
(11) Early provision of a swimming pool for the nursing staff at an estimated cost of £20,000, is recommended.	111

(R. L. Dean)
Chairman

Office of the Parliamentary Standing
Committee on Public Works,
Parliament House,
Canberra, A.C.T.

4th October, 1962.

The Committee have recommended the erection of a new ward block, a new nurses' home, alterations and additions to the building containing the casualty, out-patients and administration departments and work to increase the capacity of the boiler house, kitchen and electrical installations.

Upon completion of the work proposed, the hospital will be equipped to provide the 348 beds needed by 1965 and to permit a nursing staff of 188 to be engaged.

The attention of Honourable Senators is directed to paragraphs 85 to 97 of the report where the Committee have expressed their views about the need for air-conditioning in the trying Darwin climate - a topic on which we have laid stress in reporting on earlier proposals in Darwin.

We believe the trends towards more extensive use of air-conditioning in Darwin should be recognised and we have recommended that the whole, rather than only part, of the new nurses' home be air-conditioned.

This would add approximately £95,000 to the estimated cost of £1,537,800 for the work as referred to the Committee.

The Committee have made some suggestions about the area of the hospital grounds and we have noted the continued absence of an adopted town plan for the whole of Darwin. We believe this absence adds to the problem of developing hospital requirements in relation to the city.

To meet the expected population of Darwin by 1970, another ward block and additions to the nurses' home will be needed to increase the capacity of the hospital beds. This second stage was not included in the reference to the Committee and no plans have been developed for it.