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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

Parliamentary Standing Committee on Public Works

REPORT

relating to the proposed construction of

TIWI AND WANGURI SCHOOLS

at

Darwin, Northern Territory

(TWELFTH REPORT OF 1972)

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

TIWI AND WANGURI SCHOOLS
DARWIN, NORTHERN TERRITORY

R E P O R T

On 23 June 1972 His Excellency the Governor-General in Council referred to the Parliamentary Standing Committee on Public Works for investigation and report to the Parliament the proposal for the construction of two primary and pre-schools, one each in the Darwin suburbs of Tiwi and Wanguri.

The Committee have the honour to report as follows:

THE REFERENCE

1. The proposal referred to the Committee is for the construction of two primary and pre-schools, one each at Tiwi and Wanguri, suburbs in the Dripstone District of Darwin. Tiwi school is planned to accommodate 585 primary and infant pupils and 50 pre-school pupils. Wanguri school will accommodate 550 and 50 pupils respectively.

2. At the time the proposal was referred to the Committee each school was estimated to cost \$1.0 million. By the time the hearing was held six days later these figures had risen to \$1.06 million in the case of Tiwi and \$1.02 million in the case of Wanguri.

THE COMMITTEE'S INVESTIGATION

3. The Committee received written submissions and drawings from the Departments of Education and Science and Works and took evidence from their representatives at a public hearing in Darwin. We inspected the sites of the proposed schools.

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4. The Committee's proceedings and minutes of evidence of the public hearing will be printed as soon as practicable.

THE NEED

5. Darwin urban planning is currently based on a series of districts, each comprising four suburbs. Generally the suburbs are sub-divided to provide about 600 residential blocks which have as their focal point a primary school centre. Each district has a high school, fed by students from the four primary schools.

6. Tiwi and Wanguri are suburbs of the district of Dripstone which is located about seven miles north-east of Darwin's city area. The suburbs of Brinkin and Nakara complete the district. The Committee reported to the Parliament on the provision of sub-divisional services to all four neighbourhoods in 1970 and on the primary school needs of Brinkin and Nakara on 28 October 1971.

7. Under a contract for the servicing of Wanguri let in June 1971, 190 blocks are to be ready for commencement of residential units by May 1972, a further 178 by August 1972 and the final 280 by November 1972. A contract for the servicing of Tiwi was let in December 1971 and the expected turnoff of serviced residential blocks is 200 by November 1972, a further 200 by March 1973 and the balance of 235 by June 1973.

8. Based on the experience of other new suburbs, the period between completion of servicing and occupancy of the greater proportion of houses is from 12 to 18 months and the rate of housing occupancy for both suburbs and the resulting primary and infants enrolments have been estimated as follows:

OCCUPANCY OF HOUSES

	May 1973	August 1973	Feb 1974	August 1974	Feb 1975
Wanguri	100	200	460	570	576 (peak)
Tiwi	-	-	210	510	635 (peak)

PRIMARY AND INFANT ENROLMENTS.

Wanguri	70	140	320	400	440 rising to a peak of 576
Tiwi	-	-	145	355	445 rising to a peak of 635

9. Accommodation for 50 pre-school children is proposed for each school, based on the experience of other new suburbs.

10. The planned ultimate capacities are 585 for Tiwi and 550 for Wanguri (excluding pre-schools) which are just short of expected peak enrolments. Experience in recent years has shown that enrolments rise quickly to a peak and then stabilise at a lower figure. On this basis, the most effective building plan is one which is built in a single stage to its final capacity. Enrolments above final capacity have been found to be of short term duration only and can be satisfactorily accommodated in transportable classrooms.

11. Committee's Conclusion The Committee concluded that there is a need for facilities to meet the primary, infant and pre-school needs of the Tiwi and Wanguri suburbs of Darwin. The planned sizes of the proposed schools are considered to be appropriate for these needs.

THE PROPOSED SCHOOLS

12. Community education at all levels in the Northern Territory and the provision of buildings for such purposes

are Commonwealth responsibilities. In the past, the South Australian Government has provided teachers, and its curriculum has been followed, but since 1970 the South Australian Government has been withdrawing its services. The Commonwealth has since been progressively increasing its recruitment of teachers and is investigating teaching practices elsewhere for guidelines in determining teaching methods and school organisation in the future.

13. Planning Outline The schools in this proposal are designed for the education of primary, infant and pre-school pupils in the one building complex. The provision of all three groups on the same site is a relatively recent policy decision which takes advantage of economic and some administrative benefits. The school buildings will provide for functional separation of each department, yet maintaining easy access to common areas.

14. Planning and proposed accommodation will be similar to that being provided in primary schools now under construction in Darwin, and represent a further development of the open learning area concept.

15. The open learning area concept has been adopted in Australia over the last three or four years. It was first used in the Northern Territory on a partial basis in the Wagaman primary school which is to open in 1973 and was extended to the whole school in the case of the Nakara and Bradshaw schools now under construction. The significant characteristic of open learning areas is the emphasis placed on individual and group work, on teaching aids and on teachers in a role of "resource persons" who deliver lessons in a conventional way and assist individuals or small groups as required. Teaching space is not sub-divided

into separate classrooms, but instead a number of learning areas of various sizes are provided to allow a variety of approaches to teaching procedures.

16. Each of the areas will be acoustically treated and have access to a practical work area which will be provided with a bench and water and gas services to facilitate its use for art, craft, science and other practical activities. There will also be carpeted special activities areas which will be acoustically separated from the open areas, to be used for very quiet or very noisy activities. Learning areas will open directly on to a central library which will be the equivalent of a conventional primary school library but goes further particularly in the way of additional audio and visual teaching aids. A further characteristic of open learning areas is the incorporation of outdoor learning areas in the form of courtyards partly covered and sun-screened. The open learning areas will allow the use of mobile furniture and screens which can be used to create temporary psychological separation of groups and be combined into various shapes and sizes to meet specific needs.

17. Separate but linked covered assembly areas will be provided for primary and infant children, with a canteen located for easy access from both areas. These facilities and associated toilets are located so that community use is practicable without encroaching on other parts of the school.

18. Other accommodation to be provided will be similar to recently constructed and planned Northern Territory primary schools and will include individual offices for senior staff, a medical clinic and pupils' sick rooms, staff rooms, store rooms and sporting facilities.

THE SITES

19. Each site is centrally situated in the suburb and adjoins a community oval which will be available for school use. The Tiwi site covers 15½ acres and is bounded by Tiwi Gardens Road on the north and south, and Creswell Street to the east. The Wanguri site covers 11½ acres and is bounded by Wanguri Terrace on the east, Gsell Street on the west and Perez Street to the south. The sites are within walking distance of the urban developments they will serve and will not require pupils to cross busy streets.

20. The Committee agreed that the sites selected are suitable.

THE BUILDING PROPOSALS

21. Design Because of the similarities of the sites, and the requirements of each school, the one design is to be used for both schools, with resulting economies of design time, effort and costs. To meet the requirements of open space teaching principles, a design feature is the flexibility of usage of learning areas. This has been achieved by omitting permanent walls between the individual teaching stations and providing for the use of mobile screens and furniture. Nevertheless, the architectural result is to provide an environment in which advanced education techniques can be effectively used, and still provide a domestic character related to the needs of the pupils. It will be possible to transform the schools to a conventional classroom arrangement by partitioning the open areas should this ever be required.

22. The accommodation requirements of these schools fall into clearly defined elements of administration, library/resource centre, infant department, primary department, assembly areas and pre-school. These elements have been arranged according to their functional relationships and are grouped around the library and resource centre which is the hub of the school.

23. Acoustic Treatment Acoustic treatment will be provided to reduce the general noise level but also to satisfactorily maintain speech intelligibility in each open space learning area. Treatment will include carpeting and acoustic ceilings where necessary.

24. Construction and Materials The general structure of the buildings will be load bearing concrete masonry walls and reinforced concrete floor slabs. Materials and finishes have been selected for suitability for the locality, economic life and low maintenance costs and appropriateness to the character and function of the buildings.

25. Furniture and Fittings Built-in fittings including shelving, cupboards and benches are included in the work but movable fittings and furniture will be provided separately in accordance with normal practice.

26. Engineering Services In accordance with standard practice in recent years air conditioning will be provided in occupied areas except the pre-schools which will be naturally ventilated and provided with ceiling fans. Other services and equipment will include exhaust ventilation to toilets and food preparation areas, domestic hot water supply, low pressure gas outlets, chilled drinking water units and an incinerator, a public address

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system, electric clocks, ceiling fans, provision for installation of television and external security and carpark lighting.

27. Site Services Water, sewerage and storm water services will be connected to the nearby sub-divisional reticulation. A lawn watering system will be installed. Internal service roads, parking areas and paths will be bitumen sealed.

28. Fire Protection The buildings will be provided with a thermal fire alarm system and hose reels and portable fire extinguishers will be installed inside the buildings. Fire hydrants and reticulation will be installed on the site.

29. The Committee's Conclusion The Committee recommend the construction of the work in this reference.

ESTIMATE OF COST

30. The most recent estimate of cost of the Tiwi school was \$1.06 million and of the Wanguri school \$1.02 million as follows:

	<u>Tiwi school</u>	<u>Wanguri school</u>
Buildings	652,000	640,000
Building services	297,000	288,000
External services	<u>111,000</u>	<u>92,000</u>
	\$1.06M	\$1.02M

PROGRAMME

31. After an approval to proceed is given, preparation of contract documents, calling of tenders and letting contracts are expected to take until May 1973. Construction of each school is expected to be completed eighteen months after contracts are let so that both should be completed by December 1974 in time to open for the 1975 school year.