THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

FINAL REPORT

relating to

CONSTRUCTION OF NEW COMMUNICATIONS AND RECRUIT SCHOOLS, HMAS CERBERUS, CRIB POINT, VICTORIA

(Second Report of 1989)

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MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

(Twenty-ninth Committee)

Mr Colin Hollis MP (Chairman)
Mr Percival Clarence Millar MP (Vice-Chairman)

Senate	House of Representatives
Senator Bryant Robert Burns	Mr George Gear MP
Senator John Robert Devereux	Mr Robert George Halverson OBE MP
Senator Dr Glenister Sheil	Mr John Graham Mountford MP
	Mr William Leonard Taylor MP *

* Appointed on 29.9.88 following resignation of Mr Maxwell Arthur Burr MP

EXTRACT FROM THE VOTES AND PROCEEDINGS OF
THE HOUSE OF REPRESENTATIVES

NO. 77 DATED THURSDAY 29 SEPTEMBER 1988

22 PUBLIC WORKS COMMITTEE - REFERENCE OF WORK - NEW COMMUNICATIONS AND RECRUIT SCHOOLS, HMAS CERBERUS, CRIB POINT, VIC: Mr West (Minister for Administrative Services), pursuant to notice, moved - That, in accordance with the provisions of the Public Works Committee Act 1969, the following proposed work be referred to the Parliamentary Standing Committee on Public Works, for consideration and report: Construction of New Communications and Recruit Schools, HMAS Cerberus, Crib Point, Victoria.

Mr West presented plans in connection with the proposed work.

Debate ensued.

Question - put and passed.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

CONSTRUCTION OF NEW COMMUNICATIONS AND RECRUIT SCHOOLS, HMAS CERBERUS, CRIB POINT, VICTORIA

By resolution on 29 September 1988 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposal for the Construction of New Communications and Recruit Schools, HMAS Cerberus, Crib Point, Victoria.

THE REFERENCE

1. The proposal provides for new communications and recruit schools at HMAS Cerberus and is the second phase of the redevelopment of substandard facilities on the base.

2. The proposed redevelopment comprises:

- demolition of existing substandard and inadequate buildings and temporary structures

- provision of temporary facilities for the operation of both the communications and recruit schools

- construction of the new communications and recruit schools and associated site works and engineering services.

3. The estimated cost of the proposed works when referred to the Committee in September 1988 was $15.95m comprising $9.8m for the Communications School and $6.15m for the Recruit School, all at April 1988 prices.

THE COMMITTEE'S INVESTIGATION

4. The Committee received written submissions and plans from the Department of Defence (Defence) and Australian Construction Services (ACS) and took evidence from representatives of those organisations at a public hearing on the base on 15 November 1988. The Committee also received a submission and took evidence from the Australian Heritage Commission (AHC). A list of the witnesses who appeared at the public hearing is at Appendix A.

5. Documentation also was received from the Shire of Hastings and the National Trust, Victoria and has been incorporated in the Minutes of Evidence.

6. Prior to the public hearing the Committee inspected the progress with facilities currently being redeveloped on the base, existing facilities on the base and the sites for the proposed works.

7. The Committee's proceedings will be printed as Minutes of Evidence.

8. Due to the heavy workload of the Committee in late 1988 it was recognised that the Committee would be unable to table its final report on this reference until early in the 1989 autumn sitting. As a result, on 30 November 1988 the Committee tabled a brief interim report informing Parliament that it would recommend in its final report the construction of works in the reference.

BACKGROUND

HMAS Cerberus - Roles and Functions

9. HMAS Cerberus is located at Crib Point, Victoria, 75 km southeast of Melbourne. The base occupies an area of some 1500 hectares and consists of natural cleared and developed (or urban) areas and includes Sandy Point peninsula, part of Stony

Point peninsula and Hanns Inlet. There is also an additional 15 hectares of land at West Head for a gunnery and guided weapons range.

10. HMAS Cerberus is one of the principal Royal Australian Navy (RAN) training establishments providing basic training for all recruits and technical, advanced and specialist training for Navy personnel. Twelve training schools are located on the base with courses ranging from the most basic for initial recruit training to major fleet unit Commanding Officer/Executive Officer designate courses. The advanced technical and specialist training includes gunnery, guided weapons, weapons and electronic engineering, marine engineering, damage control, communications, seamanship, survival, secretarial, training technology, management and physical training. Training assistance also is provided to the Melbourne Port Division of the Royal Australian Navy Reserve (RANR), and berthing and overside services are provided for assigned and visiting minor war vessels and a number of seamanship training craft.

11. HMAS Cerberus was commissioned as a training establishment in 1921. Training buildings were added progressively in the 1920s and 1930s with many temporary buildings being constructed during World War II. Minor redevelopment of the base occurred from 1957 through the 1960s and 1970s. The overall result has been the development of a base with some 400 buildings of varying style and structure. The current asset value of HMAS Cerberus is of the order of $300m.

12. A total of 1800 service personnel representing some 12% of the RAN's manpower is located at HMAS Cerberus. In addition, 150 civilians are employed on the base. The annual throughput of the twelve training schools is over 5000 trainees.

Progress with Current Base Redevelopment

13. In November 1986 the Public Works Committee recommended the construction of the first phase of the redevelopment facilities at HMAS Cerberus, including a new wharf, new seamanship school, a marina and a boat ramp, at an estimated cost of $14m at October 1986 prices.

14. During the site inspection at HMAS Cerberus the Committee reviewed the progress of those works. Defence told the Committee that despite some unexpected delays with the dredging component of the project and some industrial disputation, the project has proceeded faster than expected, and that Defence is pleased with the facilities and work to date. At the public hearing, the Committee informed Defence that it is very impressed with the progress of the phase 1 project, particularly the architectural design of the works.

THE NEED

Options for the Location of Naval Training Functions

15. Prior to examining the need for particular facilities at HMAS Cerberus the Committee heard evidence on recent government decisions on the role of HMAS Cerberus in the future location of naval training functions throughout Australia.

16. Defence informed the Committee that in mid to late 1988 consideration was given to whether it would be appropriate to rationalise some of the RAN's training facilities throughout Australia. Three major options have been considered, namely, the moving of some functions from HMAS Nirimba, Quakers Hill NSW to HMAS Cerberus, and vice versa, and the feasibility of moving both of those bases to establish a new greenfield training site at Jervis Bay consistent with the two-ocean Navy policy announced by the Minister for Defence.

17. In late 1988 the Chief of Naval Staff and his advisory committee accepted in principle the decision to move some of the technical training facilities from HMAS Nirimba to HMAS Cerberus. The detailed requirements of such a move are being examined now with the aim of effecting a change in the first half of the 1990s. Defence assured the Committee however that the functions to be transferred from HMAS Nirimba will not affect the current proposal. HMAS Cerberus will continue to play a critical role in the RAN's training activities.

18. As a training establishment, HMAS Cerberus has many advantages, the most notable being:

- distance from Melbourne - the base is approximately one hour's drive from Melbourne and therefore accessible on weekends yet not too close to serve as a distraction for students during the week nights

- ready access to Westernport Bay which enables trainees the opportunity to go to sea on training vessels or visiting warships

- good relationships with local tertiary education organisations and the local councils and community

- availability of space on the base for expansion and to act as buffer zone between base activities and the surrounding community

- absence of the day-to-day operational and maintenance activities of a major operational base.

19. Despite those advantages, to enhance the training functions at HMAS Cerberus new communications and recruit school facilities are required to augment facilities provided in the phase 1 development and to replace existing unsatisfactory structures.

Communications School

20. Since its inception in the early 1920s the functions of the Communications School have expanded to provide over 50 separate courses from one to six months duration for up to 200 sailors and officers at a time. The Communications School is now located in some 15 separate buildings most of which are made of timber, corrugated iron and asbestos sheeting. Those buildings are inadequate in that they are cold and draughty in winter, hot in summer, and noisy and too small for the type of training and number of students.

Recruit School

21. HMAS Cerberus provides 11 recruit training courses each year of 12 weeks duration with 140 students on each course. Three of these courses overlap resulting in a maximum of approximately 420 students. In addition, up to six RANR recruit courses of two weeks duration with 20 students per course are conducted each year.

22. The recruit training facilities are in five separate buildings dating from 1936 to 1962. Like the Communications School these buildings are of old timber, galvanised iron and asbestos. They are inadequate in size, heating, ventilation and acoustics and there is insufficient space for display and demonstration areas for ship models and training aids. There is no room large enough for proper mustering of a complete recruit intake. The parade ground is only able to accommodate two-thirds of the school at parades which are disrupted during wet weather especially in winter.

23. ACS informed the Committee that the existing buildings for both the Communications and Recruit Schools cannot be economically upgraded and that those buildings are a drain on the limited repairs and maintenance funds available for the base (some $3.93m in 1988-89).

24. In summary, for some time the Navy has carried out many of its training functions at HMAS Cerberus in substandard facilities. The communications and recruit training activities currently are conducted in buildings which largely date from the 1930s and which do not provide an environment consistent with modern training methods and equipment. These facilities create a very poor impression on personnel joining the RAN and RANR and to their friends and relatives who visit the base during passing-out parades.

Committee's Conclusion

25. There is a need to construct new facilities for the Communications and Recruit Schools at HMAS Cerberus to replace the existing unsatisfactory and interim buildings currently in use on the base.

THE PROPOSAL

26. To fulfil the current accommodation requirements at HMAS Cerberus new facilities are to be constructed to replace existing substandard inadequate buildings and temporary structures.

27. The site for the proposed redevelopment is within the existing boundaries of HMAS Cerberus at Crib Point.

28. The proposed base redevelopment comprises:

- demolition of some existing structures and buildings
- provision of minimum temporary accommodation for both the Communications School and Recruit School
- construction of a new two-storey building and adjacent outdoor visual training area for the Communications School

- construction of two new buildings for the Recruit School - an administrative instructional building with an adjacent, partially covered parade ground and a recruit amenities and functions building

- provision of associated site works and engineering services.

29. In evidence to the Committee ACS stated that the design of the proposed facilities has been guided by the master plan and zone requirements of the base, efficient operation of the two schools and their continued operation during construction. The proposed design is compatible with the existing architectural character of the base and emphasises economy of construction, low energy consumption and minimal maintenance characteristics. Defence told the Committee that the dimension of the proposal is adequate to cater for variations the Navy is likely to experience in its retention and recruiting rates.

30. The proposed works are a high priority for Defence and form part of the Government-approved Five-year Defence Plan and will provide facilities complying with all relevant codes and regulations. Particular attention has been given to the provision of facilities for those who will use the premises.

31. Details of the location of the buildings on the base are provided by Figure 2 at Appendix C. Further details on the construction of the buildings are provided at Appendix B and project drawings showing the design of the structures are at Appendix C.

Committee's Conclusion

32. The Committee is satisfied that the design of the proposed works will fulfil the training needs as outlined for HMAS Cerberus.

MASTER PLAN

33. In evidence to the Committee Defence and ACS stated that the proposed development is in accordance with the master plan for the base which was prepared in 1985 and provides for HMAS Cerberus' medium term (15-20 years) development. The master plan currently is being updated to take account of the proposed works and some future works. In developing and updating the master plan particular attention has been given to ensuring that decisions taken in satisfying present and future user requirements also adequately consider the need to retain and enhance the particular characteristics of the base. To this end, interpretation and implementation of the master plan is being undertaken in association with the results of the following documents:

- Master Plan Report
- Heritage Study
- Zone Plan (HP83/11)
- Heritage Building Utilisation Study.

34. Defence also advised the Committee that further phases of the development of HMAS Cerberus are envisaged. Possible major works currently identified in the Five-year Defence Plan are:

- upgrading of accommodation blocks for all ranks
- provision of new central food processing junior sailors galley and cafeteria, upgrading of satellite galleys and provision of a new cookery school
- apprentice training facilities
- new gatehouse and fire station.

35. Since the public hearing for the current project has been held, the first of those possible future works - the upgrading of accommodation blocks for all ranks - has been referred to the Public Works Committee for consideration.

DEMOLITION ACTIVITIES

36. As part of the current proposal eleven buildings will be demolished on the Communications School site (that is, Buildings 85, 86, 92 - 100 inclusive) and four buildings will have to be demolished on the Recruit School site (that is, Buildings 137, 238, 239, and 240). Those buildings will be inspected to ascertain if there are any materials of salvage value and if there are, a tender will be let for purchase and removal of the structures from the site. If the buildings have no salvage value, they will be put out for tender for actual payment for demolition. Funds have been set aside in the limit of cost for demolition work.

TEMPORARY ACCOMMODATION DURING THE CONSTRUCTION PERIOD

37. During the construction of the proposed works it is planned to relocate some functions of the Communications and Recruit Schools. In both cases minimal temporary facilities will be provided.

38. Temporary facilities for the Communications School will be developed by adapting the existing Building 188 to provide classrooms, offices, instructors study and amentities. Buildings 85, 102, 159 and the radio section and secure area in Buildings 83 and 84 currently occupied by the Communications School will remain in use until the proposed new works are available.

39. Temporary facilities for the Recruit School will be provided by adapting the existing Building 189 to provide classrooms, offices, instructors study, armoury, tailors shop and amenities and function facilities.

40. The overall cost of providing the temporary facilities is $0.8m for the Communications School and $0.76m for the Recruit School. When the two schools have been relocated Defence has identified a range of administrative functions which will be permanently relocated to the refurbished premises.

AMENITIES AND FACILITIES

Energy Source - Natural Gas

41. In 1981 the Department of Housing and Construction (DHC) commissioned a study to investigate energy usage in association with steam, heating and domestic hot water services to buildings at HMAS Cerberus. Following an evaluation of alternative fuel sources, the study recommended that HMAS Cerberus use natural gas as an energy source. This recommendation has been accepted and gas will be provided by the Gas and Fuel Corporation of Victoria through the existing reticulation systems for heating and domestic hot water in the buildings including the two new schools.

Access Roads and Parking

42. In 1981 the DHC also commissioned a traffic study to analyse existing and future traffic flow patterns of the HMAS Cerberus road system. The survey showed that the existing road network is adequate to handle anticipated traffic flows. It is proposed that Phillip Road and Cook Road will be utilised as ring roads for general circulation with access to new car parks off those roads. Minor extension of the existing road system will provide access to all new buildings and associated outdoor training areas.

43. Forty car spaces will be provided for the Communications School and eight car spaces will be provided for the administrative/instructional building and the tailors shop associated with the Recruit School. In evidence to the Committee, Defence stated that the proposed car parking for the two schools is adequate. Parking for recruits and other students is provided in association with living-in accommodation.

Cooling Systems

44. Air-conditioning will be provided to offices and classrooms generally, to workshop areas in the Communications School and to the tailors shop in the Recruit School. Particular attention has been given to the air-conditioning requirements of the radio functions, VDU's and other communication functions of the Communications School. In addition, the lounge, TV rooms and games rooms in the amenities/functions building of the Recruit School will be heated and evaporatively cooled.

Asbestos

45. Some of the buildings currently occupied by the Communications and Recruit Schools contain asbestos particularly in the form of fibro sheeting. In 1984-86 a survey was undertaken to ascertain the extent of asbestos in buildings owned and occupied by the Commonwealth including HMAS Cerberus. The main area of concern at HMAS Cerberus was asbestos in lagging on pipe work. The asbestos largely has been removed now and asbestos sheeting is being replaced as buildings require repairs etc. This procedure will be followed with the buildings involved in the current proposal.

HERITAGE ISSUES

46. The property occupied by HMAS Cerberus is extremely diverse in character. It includes tracts of natural coastal land of ecological importance as well as cleared and built-up areas of the base proper with its formal arrangement of buildings and exotic landscape.

47. A survey by the DHC on the heritage significance of the base recommended that by virtue of its historical role as the first training establishment created specifically for the new RAN, the whole of HMAS Cerberus is considered to be of heritage significance. This is largely the result of a large number of traditional buildings on the base which support each other and

collectively become significant. The study also identified two major conservation areas - the Parade Ground Conservation Area and the Residential Conservation Area - and eight individual buildings which are significant enough for identification as heritage properties.

48. The AHC has included in the Register of the National Estate the Parade Ground Conservation Area. This area is not directly affected by the new works proposals but some of the heritage buildings - Building 189, Block C and Building 188, Block B - will be used for temporary accommodation for the Communications and Recruit Schools. ACS told the Committee that all works for the temporary accommodation will be carried out so as to maintain the heritage character of the buildings and external works already have been referred to the AHC with positive response. AHC confirmed this view.

49. AHC and the National Trust, Victoria however expressed concern about the future of two other heritage buildings currently occupied by the Communications School, namely, Buildings 83 and 84. Those buildings are among the first to be constructed on the base and though not currently listed on the Register of the National Estate they have been classified by the National Trust, Victoria. Although AHC has not considered those buildings formally for the Register, its preliminary view is that the buildings are of sufficient heritage significance to warrant consideration for registration.

50. In its evidence to the Committee ACS stated that Buildings 83 and 84 are not located on the new Communications School site and therefore will not be demolished to make way for the new Communications School. At Defence's request ACS evaluated four planning options for Buildings 83 and 84, namely, incorporation of the buildings in the new school, retention on site for future use, relocation within HMAS Cerberus for a museum-type use and demolition. On the basis of the evidence presented to the Committee by both Defence and ACS it seems that a final decision on the future of Buildings 83 and 84 has yet to be made.

51. Although supporting Defence and ACS's efforts to design buildings which will be in sympathy with the historic character of the base the AHC also expressed concern to the Committee about the timing of consultations regarding heritage buildings. AHC believe discussion of those issues would have been more meaningful at an earlier phase.

Committee's Conclusion

52. The Committee concludes that the Department of Defence and Australian Construction Service have made earnest efforts to assess the heritage value of HMAS Cerberus, to design the proposed new buildings in harmony with the heritage character of the existing structures and to sympathetically maintain and restore a number of heritage elements. The Committee considers however, that there is merit in involving heritage organisations, particularly the Australian Heritage Commission, in consultations on heritage issues at an early phase in the planning process.

ENVIRONMENTAL ISSUES

53. Defence advised the Committee that the proposed development will have no significant impact on the environment. The proposal has been assessed by the Department of Defence in accordance with the administrative procedures under the Environmental Protection (Impact of Proposals) Act 1974 and its impact has been determined as minimal.

Landscaping

54. HMAS Cerberus is notable for its size and the large scale of its central parade area, its formal gardens, the strength of planting themes, the degree of originality and naval history manifest in landscape elements. Particularly important are the presence of a limited number of tree themes and the presence of stands of mature specimens; consistency of detailing of built elements; the organisation of the site into several precincts; and detailed planting and garden elements. To ensure these

landscape elements are retained a landscape master plan for the base has been developed. Some trees on the proposed Communications and Recruit Schools sites will be removed as part of the works to allow construction of the new buildings. Two trees will be removed from the Communications School site as well as a small row of pine trees and, about five trees will be removed from the Recruit School site. Those removals have been allowed for in the landscape master plan and the current works proposal generally is in accordance with the base's landscape plan.

Buffer Zone

55. HMAS Cerberus is a self-contained base with sufficient land to provide its own buffer zone separating base activities from the occupance and activities of the wider community nearby the base.

CONSULTATION

56. Defence and ACS informed the Committee that the following authorities and organisations have been consulted and their requirements have been taken into consideration in the development of the proposal:

- Shire of Hastings
- Gas and Fuel Corporation of Victoria
- State Electricity Commission of Victoria
- Environment Protection Authority, Victoria
- Telecom Australia.

57. During the public hearing Defence told the Committee that there also has been regular communication between Defence and ACS with base personnel associated with the schools on the major aspects of the proposal.

CONSTRUCTION PROGRAM

58. It is proposed that initial tenders for the project will be called in early 1989 with progressive completion of the works and occupation of both schools in late 1991.

LIMIT OF COST

59. The limit of cost for the proposal is $15.95m at April 1988 prices including $9.8m for the Communications School and $6.5m for the Recruit School. Those estimates include building works, engineering services, external works and services and for built-in furniture and equipment. There is an additional estimated cost of $262 000 for consultancies associated with the project.

Committee's Recommendation

60. The Committee recommends the construction of the proposed works for the new Communications and Recruit Schools at HMAS Cerberus, Crib Point, Victoria at an estimated cost of $15.95m at April 1988 prices comprising $9.8m for the Communications School and $6.15m for the Recruit School.

COMMITTEE'S CONCLUSIONS AND RECOMMENDATION

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

		Paragraph
1.	There is a need to construct new facilities for the Communications and Recruit Schools at HMAS Cerberus to replace the existing unsatisfactory and interim buildings currently in use on the base.	25
2.	The Committee is satisfied that the design of the proposed works will fulfil the training needs as outlined for HMAS Cerberus.	32
3.	The Committee concludes that the Department of Defence and Australian Construction Service have made earnest efforts to assess the heritage value of HMAS Cerberus, to design the proposed new buildings in harmony with the heritage character of the existing structures and to sympathetically maintain and restore a number of heritage elements. The Committee considers however, that there is merit in involving heritage organisations, particularly the Australian Heritage Commission, in consultations on heritage issues at an early phase in the planning process.	52
4.	The Committee recommends the construction of the proposed works for the new Communications and Recruit Schools at HMAS Cerberus, Crib Point, Victoria at an estimated cost of $15.95m at April 1988 prices comprising $9.8m for the Communications School and $6.15m for the Recruit School.	60

Colin Hollis
Chairman
2 March 1989

APPENDIX A

LIST OF WITNESSES

DEVLIN, Mr Robert John, Project Manager, Air-Navy, Victoria-Tasmania Region, Australian Construction Services, Department of Administrative Services, 239-241 Bourke Street, Melbourne, Vic 3000

DICKSON, Commodore James Stewart, Naval Officer Commanding Victoria Area and Commanding Officer HMAS Cerberus, Department of Defence - Navy, Cerberus House, Western Port, Vic 3920

HOGAN, Mr Warren Robert, Acting Associate Director, Projects, Victoria-Tasmania Region, Australian Construction Services, Department of Administrative Services, 239-241 Bourke Street, Melbourne, Vic 3000

MARSHALL, Mr Duncan Anthony, Senior Conservation Officer, Australian Heritage Commission, PO Box 1567, Canberra, ACT 2601

THOMSON, Commodore David Henry, Director-General Facilities, Navy, Department of Defence, Russell Offices, Canberra, ACT 2600

CONSTRUCTION DETAILS

Building Descriptions

The **Communications School** will consist of a new two-storey building and outdoor visual training area. The main elements will comprise:

- ground floor - administration section and secure area centrally located for convenient access by all sections
- upper floor - radio section above the secure area to minimise length of cabling between the two sections
- two two-storey instructional wings - containing typing, morse, fleetwork training, automatic telegraphy, and officers training sections which consist of general purpose theory classrooms and special purpose technical rooms
- instructors' offices are dispersed throughout the school.

The **Recruit School** will consist of two main buildings:

- a new single-storey U-shaped administrative/instructional building containing the administration section and an adjacent partially covered parade ground
- a new amenities/facilities building comprising lounge, canteen, TV rooms and games room.

Building Structure

The **Communications School** will consist of a steel-framed roof and concrete first floor slab supported on brick walls and concrete frames, which in turn will be supported by concrete strip and pad footings.

The **Recruit School** administrative/instructional building will consist of a timber truss roof supported on brick loadbearing walls, supported in turn on a concrete raft slab. The parade ground roof is of steel truss construction supported on steel columns and concrete pad footings. The amenities/functions building construction consists of a steel-braced frame and brick non-loadbearing walls supported on a concrete raft slab.

Design and Materials

The new buildings have been designed to reflect the architectural character, form and materials of the existing buildings at HMAS Cerberus. They are formal and axial in composition and have

hipped and gabled roofs. Construction materials are face brick, concrete floors, corrugated metal roofing, plasterboard, acoustic tile ceiling and aluminium window frames.

Electrical Services

The State Electricity Commission of Victoria will supply power to the new facilities via underground cables from the 22kV overhead supply on the base. For the Communications School a new power transformer will be provided together with a system of floor ducts and computer floors for selected areas to allow wiring access for electrical and cabling equipment. Emergency lighting will be throughout all buildings from light fittings with an independent battery supply. External security lighting will be supplied at the entrances of the new buildings and to the covered parade ground area.

An electonic intruder system will be installed in the secure area of the Communications School and in the armoury of the Recruit School.

Fire Protection

An automatic fire detection system of thermal detectors and manual break-glass alarm points will be installed throughout the proposed buildings and connected to the existing base alarm system. The Communications School will be fitted with an Emergency Warning and Intercommunication System. Portable extinguishers and hose reels also will be provided.

Civil Works and Hydraulics

The existing water reticulation system, stormwater drainage and sewerage network will adequately cope with the proposed new facilities.

APPENDIX C

PROJECT DRAWINGS

Figure

1 HMAS Cerberus - Location Plan

2 HMAS Cerberus - Site Plan

Communications School

3 Site Plan

4 Ground Floor Plan

5 First Floor Plan

6 Artist's Sketch

Recruit School - Administrative/Instructional Building

7 Site Plan

8 Floor Plan

9 Artist's Sketch

Recruit School - Amenities/Functions Buildings

10 Site Plan and Elevations

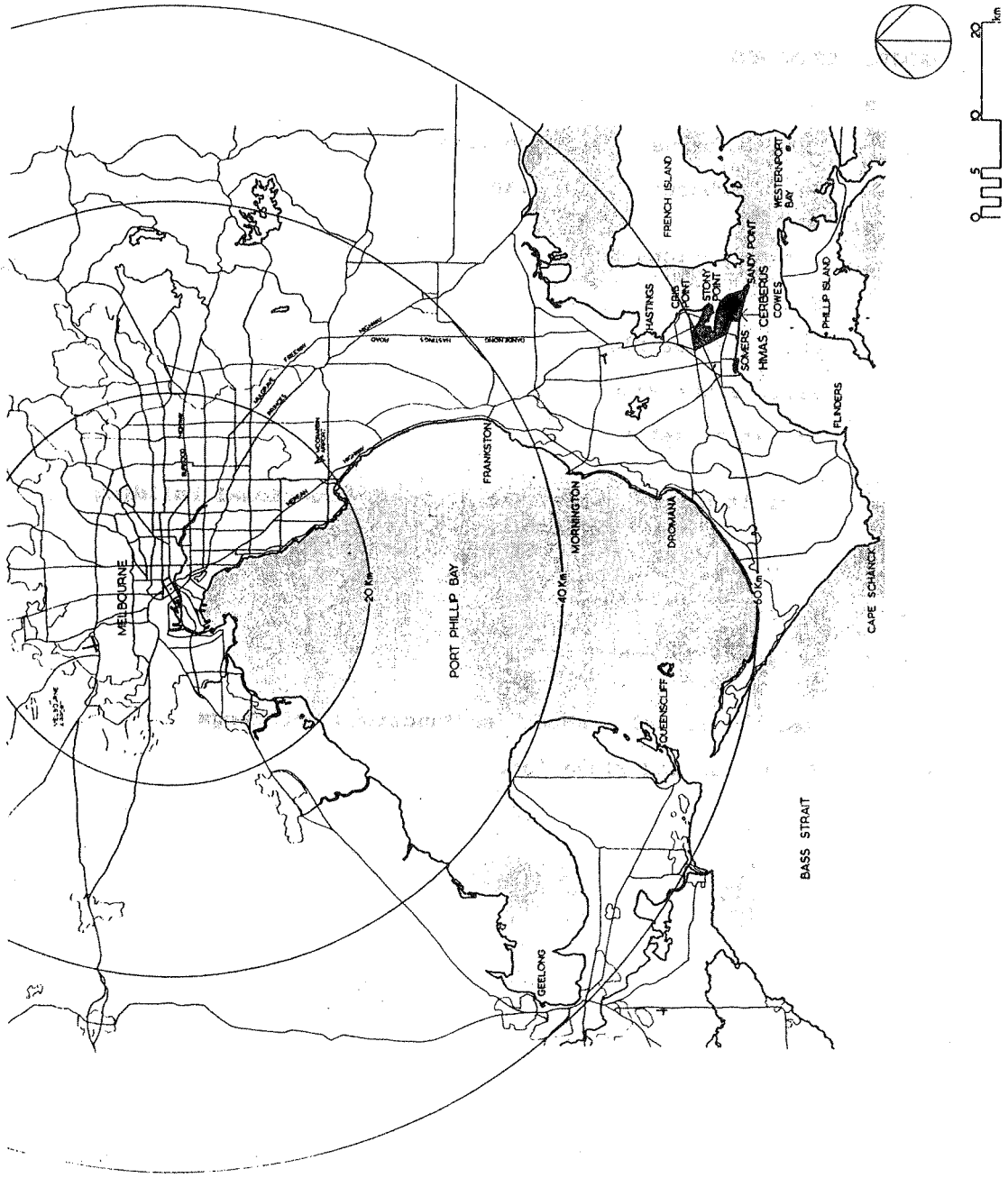


FIGURE 1 HMAS CERBERUS - LOCATION PLAN

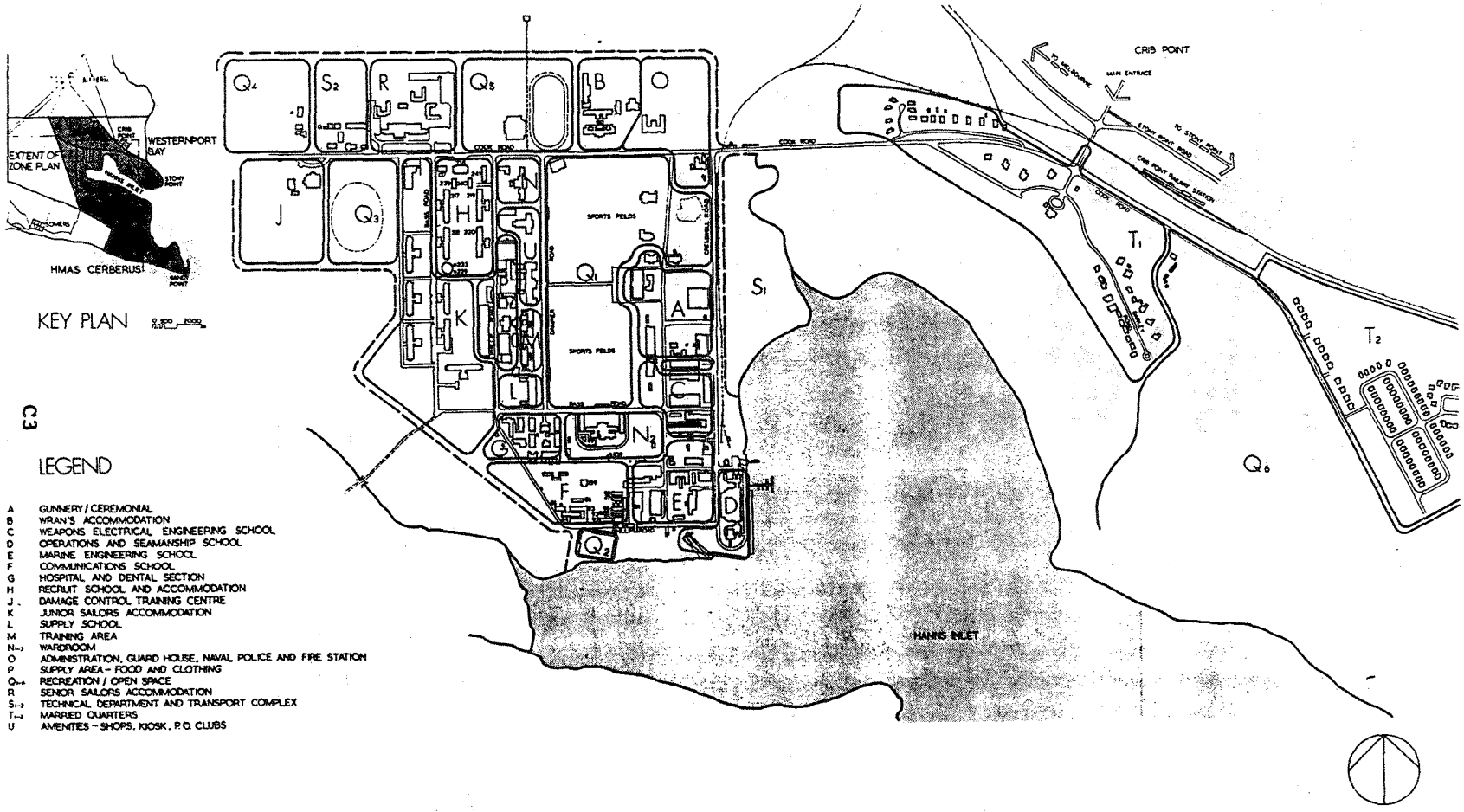


FIGURE 2 HMAS CERBERUS - SITE PLAN

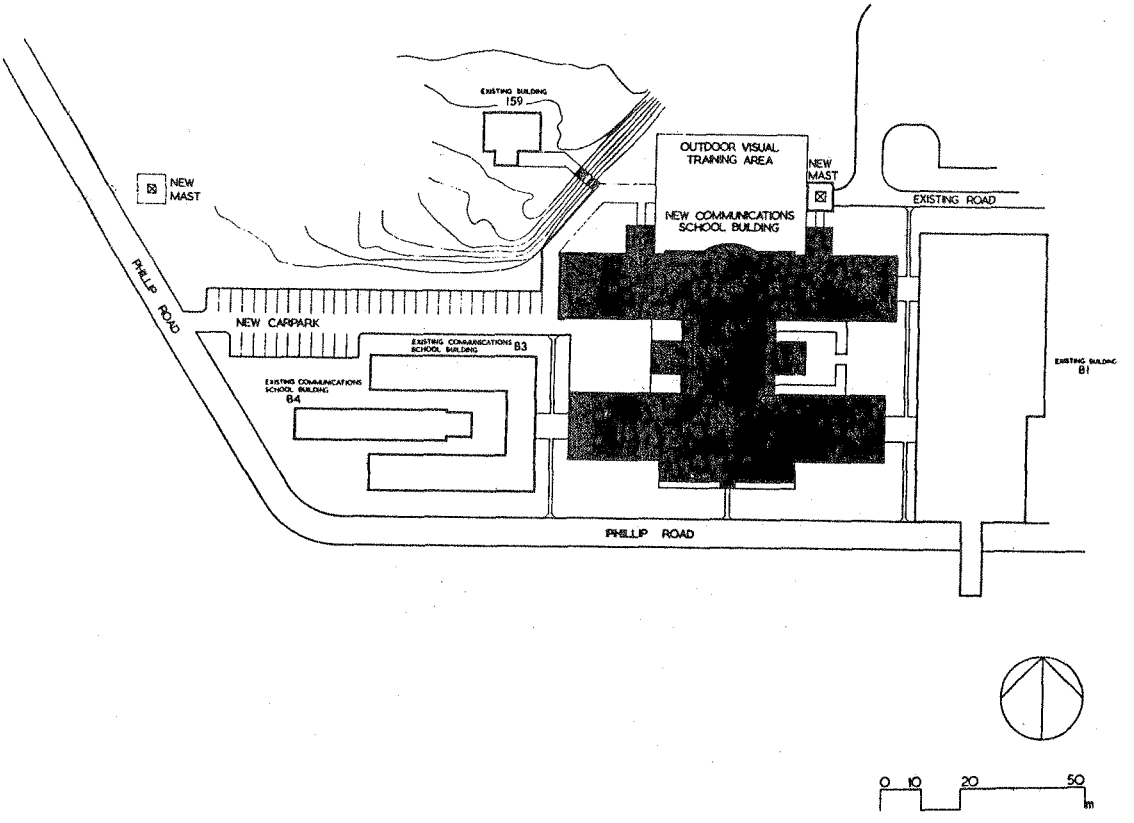


FIGURE 3 COMMUNICATIONS SCHOOL - SITE PLAN

LEGEND

1 FOYER
2 REGULATING OFFICE
3 COMMERCIAL PROCEDURES CLASSROOM
4 SUBSTATION
5 INSTRUCTOR'S STUDY
6 BULK PAPER AND STATIONERY STORE
7 PRACTICAL TELETYPE
8 ASO OFFICE
9 VAULT
10 CONFIDENTIAL BOOKS OFFICE
11 STUDENT BREW ROOM
12 OFF-LINE CRYPTO EQUIPMENT ROOM
13 TELEPHONES
14 MORSE TRAINING CLASSROOM
15 CATEGORIZATION CLASSROOM
16 STUDENT MALE TOILET
17 CLEANER'S ROOM
18 STAFF BREW ROOM
19 STAFF FEMALE CHANGE / TOILETS
20 STAFF FEMALE TOILET
21 ADMINISTRATION BREW ROOM
22 OIC OFFICE
23 TYPISTS OFFICE
24 CIO OFFICE
25 CIA AND CLASS MANAGER'S OFFICE
26 OCO / TDO / TDA OFFICE
27 STAFF MALE TOILET
28 STAFF MALE CHANGE / TOILET
29 STUDENT FEMALE TOILET
30 MORSE PRACTICAL CLASSROOM
31 GENERAL PURPOSE CLASSROOM
32 ON-LINE CRYPTO EQUIPMENT ROOM
33 FFC COMMCEN
34 CIVILIAN STAFF ROOM
35 HEAD OF KEYBOARD SECTION
36 SECURE EQUIPMENT MAINTENANCE ROOM
37 OFF-LINE CRYPTO INSTRUCTION CLASSROOM
38 COMMUNICATIONS TYPEWRITER TRAINING CLASSROOM
39 GENERAL STORE
40 WORD PROCESSING CLASSROOM
41 SOUND CLASSROOM
42 BOILER ROOM
43 SIGHT CLASSROOM

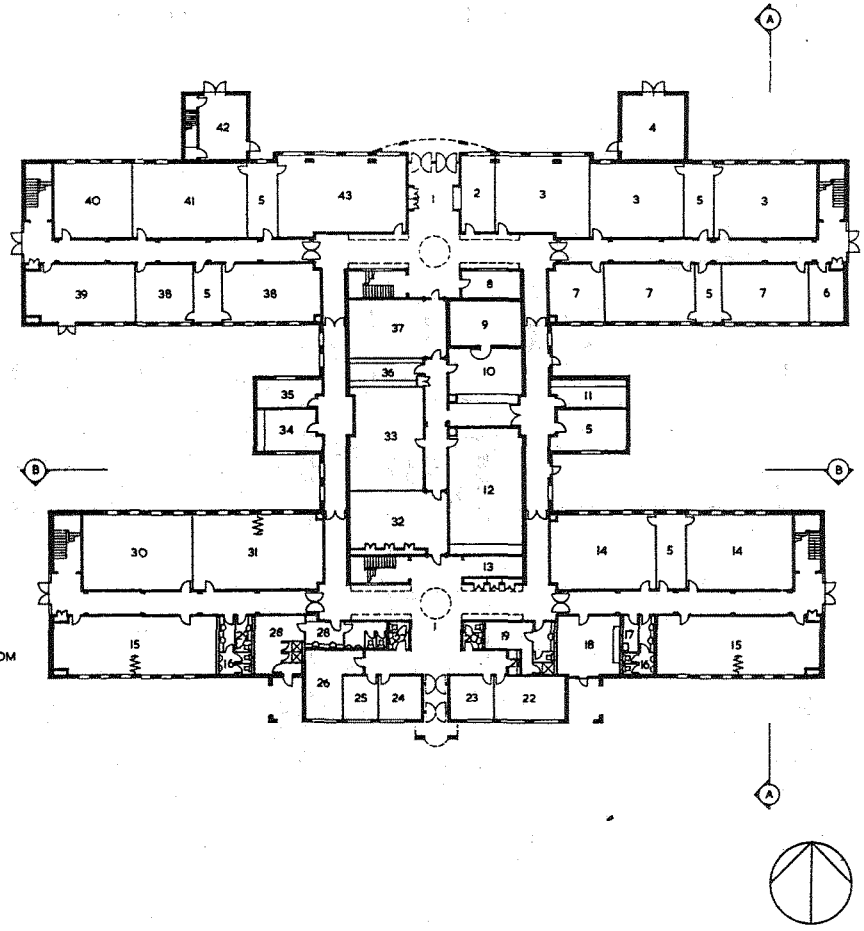


FIGURE 4 COMMUNICATIONS SCHOOL - GROUND FLOOR PLAN

0 5 10 20 m

LEGEND

1 FOYER
2 LECTURE THEATRE
3 INSTRUCTORS' OFFICE
4 TRIBUTORY STATION CLASSROOM
5 SWITCH ROOM
6 INSTRUCTIONAL MAIN SIGNAL OFFICE
7 GENERAL STORE
8 GENERAL PURPOSE CLASSROOM
9 MESSAGE PREPARATION CLASSROOM
10 PORTABLE RADIO STORE
11 PRACTICAL TELETYPE MAINTENANCE WORKSHOP
12 PRACTICAL TELETYPE MAINTENANCE CLASSROOM
13 RADIO MAINTENANCE ROOM
14 RADIO SPARES STORE
15 ELECTRONICS LABORATORY
16 OFFICERS MALE TOILET
17 OFFICERS FEMALE TOILET
18 OFFICERS BREW ROOM
19 TECHNICAL LIBRARY / READING ROOM
20 FLEETWORK TRAINING UNIT
21 VISUAL SIGNAL PRACTICAL TRAINER
22 RADIO TRANSMITTER CLASSROOM
23 FUTURE EQUIPMENT STORE
24 RADIO RECEIVER CLASSROOM
25 STUDENT FEMALE TOILET
26 STUDENT MALE TOILET
27 CLEANER'S ROOM
28 VOICE TRAINING CLASSROOM
29 PLANT

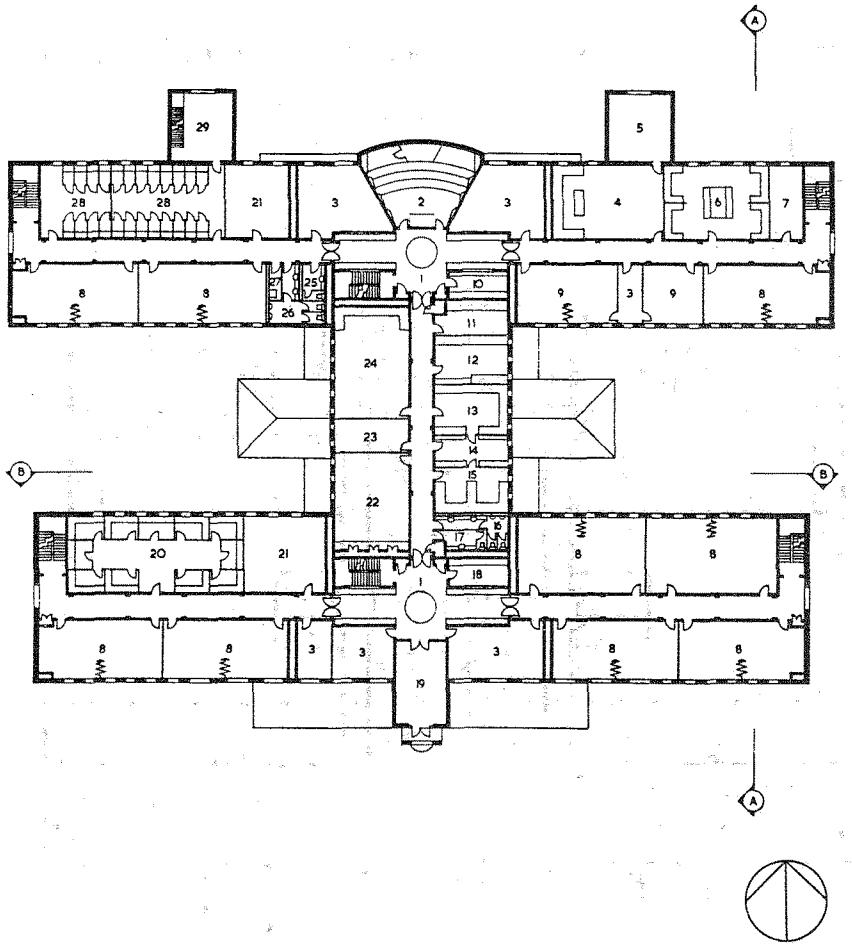


FIGURE 5 COMMUNICATIONS SCHOOL - FIRST FLOOR PLAN

0 5 10 20 m

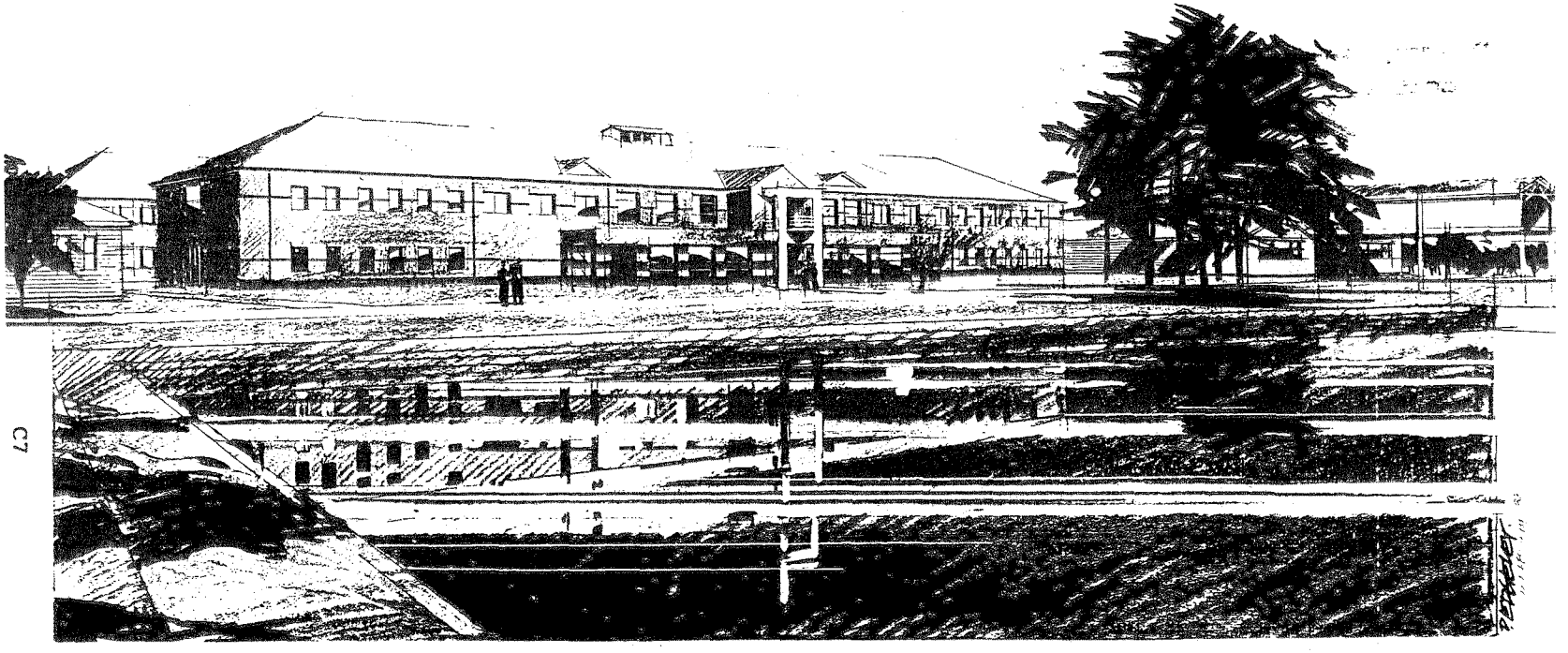


FIGURE 6 COMMUNICATIONS SCHOOL - ARTISTS SKETCH

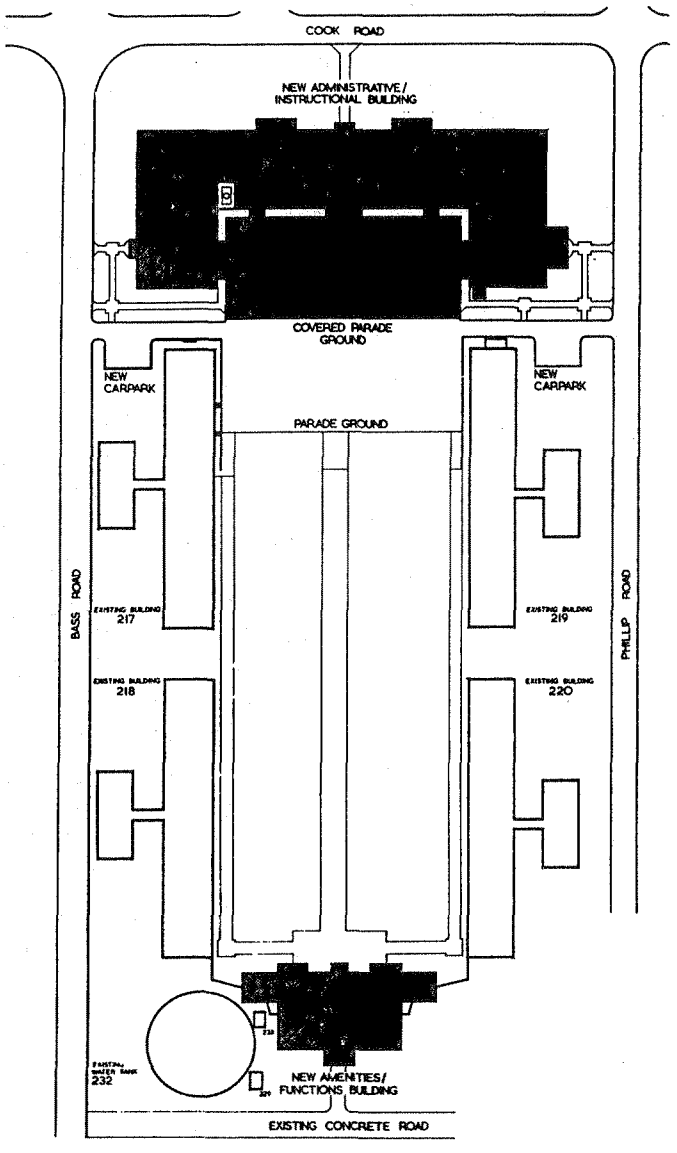
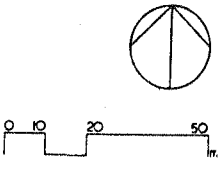


FIGURE 7 RECRUIT SCHOOL - ADMINISTRATIVE/INSTRUCTIONAL BUILDING - SITE PLAN



LEGEND

1 DISPLAY FOYER
2 CIO OFFICE
3 S1 AND CIOA OFFICE
4 INSTRUCTORS' STUDY / BREW
5 REPRODUCTION CENTRE
6 CLASSROOM
7 TAILOR SHOP LUNCH ROOM
8 ISSUE, FITTING AND CHANGE
9 CLEANER'S ROOM
10 TAILOR SHOP TOILET
11 CUTTING ROOM
12 SEWING ROOM
13 GANGWAY OFFICE
14 DUTY INSTRUCTOR'S CABIN
15 KIT MARKING ROOM
16 RECRUIT MALE TOILET
17 ROOF SPACE ACCESS LADDER
18 RECRUIT FEMALE TOILET
19 DUMMY SHIP MESS DECK
20 BLOCKS OFFICE / STORE
21 INSTRUCTORS' STUDY
22 COXSWAIN'S OFFICE
23 COVERED PARADE GROUND
24 SPORTS OFFICE / STORE
25 STAFF MALE CHANGE / TOILET
26 ARMOURY
27 ARMOURY OFFICE
28 PLANT
29 MODEL DISPLAY ROOM
30 VIDEO EQUIPMENT STORE
31 STAFF FEMALE CHANGE / TOILETS
32 ASO AND ABWTR OFFICE
33 OIC OFFICE

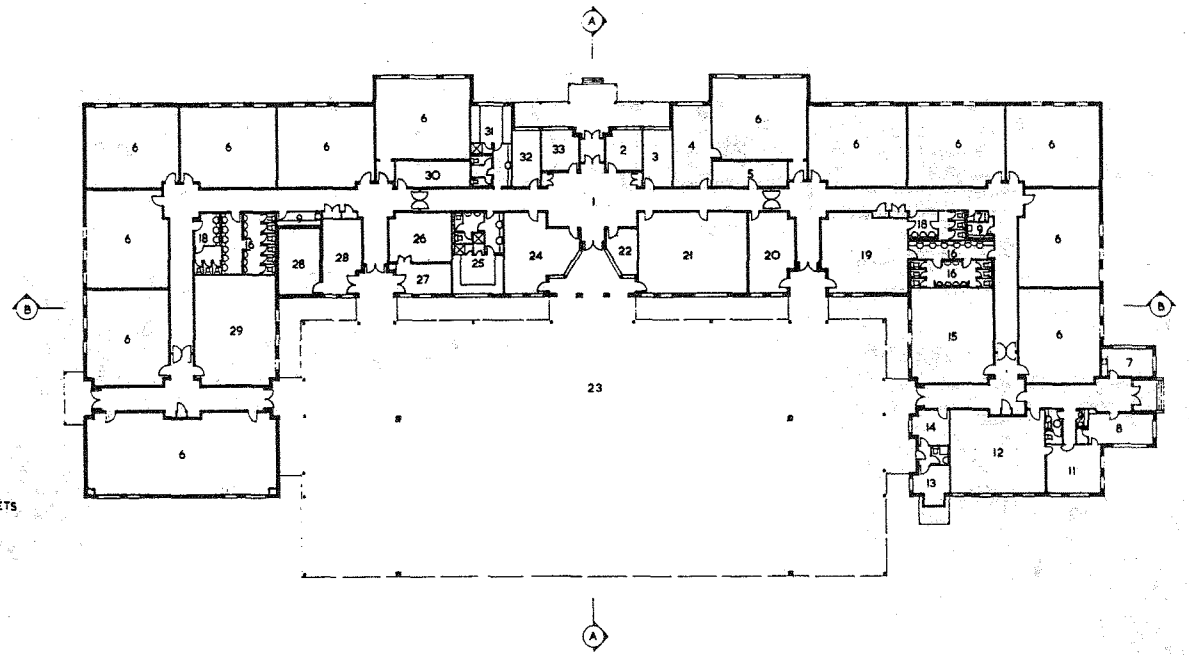


FIGURE 8 RECRUIT SCHOOL - ADMINISTRATIVE/INSTRUCTIONAL BUILDING - FLOOR PLAN

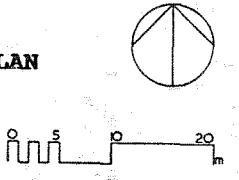
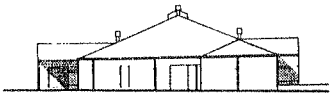
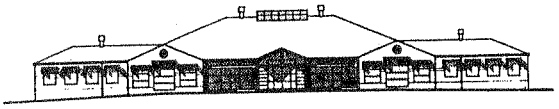


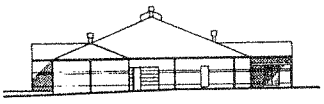
FIGURE 9 RECRUIT SCHOOL - ADMINISTRATIVE/INSTRUCTIONAL BUILDING - ARTIST'S SKETCH



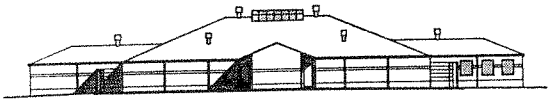
EAST ELEVATION



NORTH ELEVATION



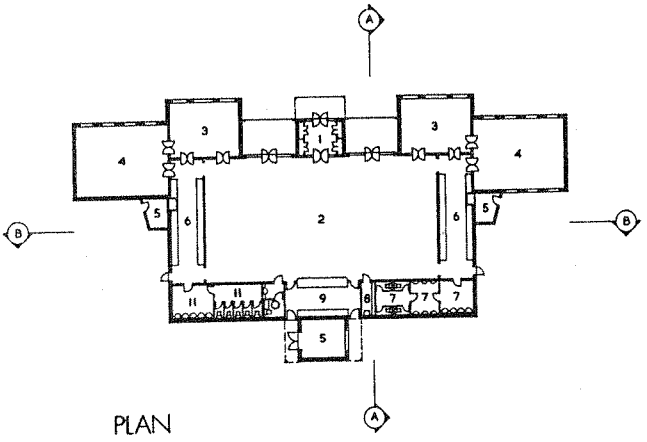
WEST ELEVATION



SOUTH ELEVATION

LEGEND

1 FOYER
2 LOUNGE
3 TELEVISION ROOM
4 GAMES ROOM
5 PLANT
6 CLOAKS
7 MALE TOILET
8 CLEANER'S ROOM
9 CANTEEN
10 DISABLED TOILET
11 FEMALE TOILET



PLAN

FIGURE 10 RECRUIT SCHOOL - AMENITIES/FUNCTIONS BUILDING - SITE PLAN AND ELEVATIONS