

DEPARTMENT OF THE SENATE
PAPER No. 2888
DATE
PRESENTED
13 APR 1989
Mary Evans

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

REPORT

relating to the

DEVELOPMENT OF RAAF BASE, WAGGA, NEW SOUTH WALES

(Ninth Report of 1989)





THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

REPORT

relating to the

DEVELOPMENT OF RAAF BASE, WAGGA, NEW SOUTH WALES

(Ninth Report of 1989)

DEPARTMENT OF THE SENATE
PAPER NO. 2888
DATE
PRESENTED
13 APR 1989
Mary Evans

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

REPORT

relating to the

DEVELOPMENT OF RAAF BASE, WAGGA, NEW SOUTH WALES

(Ninth Report of 1989)



© Commonwealth of Australia 1989

TABLE OF CONTENTS

	Page
Members of the Parliamentary Standing Committee on Public Works	iii
Executive Council referral of Reference	iv
	Paragraph
The Reference	1
The Committee's Investigation	5
Background	9
The Need	11
. Committee's Conclusion	16
The Proposal	17
. Committee's Conclusion	20
Wagga-Tumbarumba Railway Line	21
. Committee's Recommendation	23
Civil Air Operations	24
. Committee's Recommendation	28

	Paragraph
Fire Station	29
. Committee's Recommendation	31
Flammable Goods Bulk Store, Equipment Survey	
Accounts Store	32
. Committee's Recommendation	36
Consultation	37
Scheduling of the Proposed Works	38
Limit of Cost	40
. Committee's Recommendation	41
Conclusions and Recommendations	42

	Page
Appendices	
. Appendix A - List of Witnesses	14
. Appendix B - Construction Details	15
. Appendix C - Project Drawings	21

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

Senator Bryant Robert Burns
Senator John Robert Devereux
Senator Dr Glenister Sheil

House of Representatives

Mr George Gear MP
Mr Robert George Halverson OBE MP
Mr John Graham Mountford MP
Mr William Leonard Taylor MP *

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

PUBLIC WORKS COMMITTEE ACT 1969

ORDER UNDER SUBSECTION 18(4)

I, Sir Ninian Martin Stephen, the Governor-General of the Commonwealth of Australia, acting with the advice of the Federal Executive Council, in pursuance of subsection 18(4) of the Public Works Committee Act 1969 hereby, by this Order, declare that the public work described in the schedule be referred to the Parliamentary Standing Committee on Public Works for consideration and report.

SCHEDULE

Development of RAAF Base Wagga, New South Wales

Given under my Hand and
the Great Seal of
Australia on 25 January 1989

Governor-General

By His Excellency's Command
(Signed) Stewart West
Minister of State for Administrative
Services

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

DEVELOPMENT OF RAAF BASE, WAGGA, NEW SOUTH WALES

On 25 January 1989, His Excellency the Governor-General in Council referred to the Parliamentary Standing Committee on Public Works for consideration and report to Parliament the proposal for the development of RAAF Base, Wagga, New South Wales.

THE REFERENCE

1. The RAAF Base at Wagga is the RAAF's main base for technical training. Many of the training activities occur in buildings used for purposes other than originally intended, or in temporary buildings erected to meet past needs.
2. The proposal for the development of the Base allows for the construction of a number of new buildings, the refurbishment of a number of existing buildings and the upgrading of Base engineering services to improve the standard of accommodation and to provide facilities better suited to current training needs.
3. The works as referred to the Committee comprise:
 - New buildings for the:
 - School of Clerical and Supply Training
 - School of Management and Training Technology
 - physical fitness centre
 - library and study centre
 - police services

- fire station
- flammable goods bulk store
- Motor Transport Training Flight

Refurbishment of existing buildings for the:

- Motor Transport Flight
- Motor Transport Maintenance Flight
- central store
- Apprentices Club
- other ranks sleeping accommodation

Upgrading of the Base sewerage treatment plant and Base electrical services.

4. The estimated cost of the proposed works when referred to the Committee in January 1989 was \$23.6m at April 1988 prices. Subject to the necessary approvals, the first building contracts will be let in mid-1989 and the development is expected to be completed by mid-1994.

THE COMMITTEE'S INVESTIGATION

5. The Committee received written submissions and plans from the Department of Defence (Air Force) and Australian Construction Services (ACS). The Committee also received written submissions from the Wagga Wagga City Council and the Wagga Wagga Chamber of Commerce and Industry. Representatives of these organisations presented evidence to the Committee at a public hearing held at RAAF Base Wagga on 21 February 1989. Documentation was also provided by the Australian Heritage Commission and is incorporated in the minutes of evidence.

6. Prior to the public hearing the Committee inspected present facilities at RAAF Base Wagga and the sites for new facilities.

7. A list of witnesses who appeared at the public hearing is at Appendix A.

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

BACKGROUND

9. RAAF Base Wagga is situated in a rural setting just off the Sturt Highway and is located about 10 km east of the City of Wagga Wagga and about 12 km from the Riverina Murray Institute of Higher Education (RMIHE).

10. The Base occupies an area of 351 ha comprising an airfield and a built-up area; the airfield covers about 260 ha and the built-up area covers about 90 ha. The airfield contains a 1767 m sealed runway oriented in the 50 degrees/230 degrees direction and associated taxiway, a grassed cross strip, a general purpose apron for civil and military aircraft, hangars, an air traffic control tower and a passenger terminal. The built-up area contains the majority of the buildings and other facilities for the functioning of the Base. The Wagga-Tumbarumba railway line bisects the Base. Under the provisions of the Permissive Occupancy Agreement between the Department of Defence and the (then) Department of Civil Aviation (CAA), the cost of airfield and related facilities is borne by the organisation initiating the requirement. The CAA now operates the Wagga Wagga Airport.

THE NEED

11. RAAF Base Wagga is the main base for trade training in the RAAF; approximately 70% of all RAAF ground training is conducted there. It provides mostly basic and some post-graduate courses.

The units located at the Base are:

- Headquarters RAAF Wagga (HQWAG)
- Base Squadron Wagga (BSWAG)
- RAAF School of Technical Training (RAAFSTT)
- RAAF School of Clerical and Supply Training (RAAFSCST)
- RAAF School of Management and Training Technology (RAAFSMTT)
- 28 Squadron Detachment 'A' (Reserve).

12. The current staff establishment of RAAF Base Wagga is 789, including civilians. Student populations of trainees, apprentices and other personnel have varied between totals of 834 and 1036 during 1988.

13. The proposal deals essentially with replacement facilities. No significant change in the current training numbers at Wagga, between 800 to 1000 trainees, is expected in the foreseeable future and this has reduced the pressures for new developments.

14. There are many huts dating from World War II that are still in use and are in need of replacement. Some buildings in use, including huts, neither reflect current community standards nor do they adequately serve the functional purposes to which the buildings are put.

15. There is also a need to rationalise and collocate training activities in order to improve staff effectiveness and training efficiency. Furthermore, the RAAF is required to vacate leased premises from the RMIHE by October 1991.

Committee's Conclusion

16. There is a need to upgrade facilities at RAAF Base, Wagga to replace the existing unsatisfactory facilities in order to improve staff effectiveness and training efficiency.

THE PROPOSAL

17. The works encompassed by the proposed development include:

- upgrade of other ranks accommodation
- construction of a new School of Clerical and Supply Training
- construction of a new School of Management and Training Technology
- construction of a new library and study centre
- relocation into refurbished premises of the printing and photographic section
- construction of a new physical fitness centre
- refurbishment of the central store
- extension and refurbishment of the Apprentices Club
- construction of a new fire station
- construction of a new police services building
- construction of new Motor Transport Training Flight annexes
- construction of a new flammable goods bulk store and equipment survey accounts store
- relocation and refurbishment of premises for Motor Transport Flight and Motor Transport Maintenance Flight
- upgrading of various electrical and engineering services.

18. The facilities are to be located in accordance with the Development Strategy Plan which, in turn, is based on the 1979 Master Plan for RAAF Base Wagga.

19. Further details on the construction of the works are provided at Appendix B with project drawings at Appendix C.

Committee's Conclusion

20. The Committee is satisfied that the proposal will fulfil the Department of Defence's objective of upgrading facilities at RAAF Base, Wagga.

WAGGA-TUMBARUMBA RAILWAY LINE

21. The Base is bisected by the Wagga-Tumbarumba railway line. This line is no longer used by the State Rail Authority (SRA) and is fenced at one end. During the site inspection the Committee was advised that the SRA had been approached to seek permission for the crossing of the former line in Newton Street to be flattened. This would improve safety of heavy vehicles at the crossing as they would no longer 'bottom' on the raised area. The SRA had granted the approval subject to the Commonwealth restoring the crossing should the line be reopened.

22. The RAAF advised the Committee that the presence of the line through the Base could pose a security risk as the line has not been uplifted and the Base is not secured across the rail easement, though security patrols pay attention to these points of access.

Committee's Recommendation

23. The Department of Defence should commence negotiations with the State Rail Authority with the aim of resuming the rail easement through the Base and incorporating the land into the Base Master Plan and the Base Security Plan.

CIVIL AIR OPERATIONS

24. The CAA (and its predecessors the Department of Civil Aviation, Department of Transport and Communications) has occupied the building known as Hangar 205 and its immediate

precinct under a Permissive Occupancy Agreement since the 1940s. During 1988, civilian heavy air traffic (above 5700 kilograms in weight) was 3287 aircraft movements and military heavy air traffic was 834 aircraft movements. During the same period, civilian light air traffic (below 5700 kilograms in weight) was 20 196 aircraft movements and military light air traffic was 2271 aircraft movements. The total of helicopter movements was 9325 of which approximately 80% were military movements. While civil aviation movements are allowed, the airfield is primarily for use by RAAF aircraft, as the excellent meteorological conditions in the district provide ideal conditions for RAAF air training.

25. Hangar 205 has been used to provide office and workshop accommodation for technical and trade staff maintaining airways equipment at Wagga Wagga and the surrounding district. The building also houses the CAA's emergency generating equipment, providing standby mains power to essential airways facilities, including the control tower and flight service unit, and the airport runway lighting systems.

26. The requirement for the CAA to relinquish occupancy of Hangar 205 necessitates the provision of alternative accommodation. It is proposed to construct new workshop premises on the airport. This proposal includes the relocation of the CAA's standby generating equipment and associated switchgear. A project has been included in the CAA's capital program for 1989-90 to implement the required relocation. Budgetary cost of this proposal is \$980 000 and is subject to approval by the Board of the CAA.

27. The timing for the CAA to vacate Hangar 205 has been nominated as July 1990 by the development plan. This timing allows little margin for unforeseen circumstances which could delay implementation, but the CAA indicated that it is confident that the timing can be achieved. However, the Committee believes

that the construction scheduling should allow some leeway to the CAA to allow for it to complete replacement facilities.

Committee's Recommendation

28. Australian Construction Services should ensure that the scheduling of the development proposal allows leeway for the Civil Aviation Authority to construct replacement facilities.

FIRE STATION

29. The CAA in its submission to the Committee suggested that the proposed fire station might be more prudently located so that it is provided with a more direct and ready access to the airside (the aircraft movements area including runways and taxiways) of the airport. The CAA believe that this would ensure an adequate fire and emergency service.

30. The RAAF advised the Committee that the primary role of the fire protection service is to provide protection to Base buildings and a secondary role is to provide backup to local fire-fighting capacity in Wagga Wagga. A tertiary role, as defined by the RAAF, is to provide an airside fire protection service, despite the use of the Base by military aircraft. In consequence the location of the proposed station is for the most effective access to Base facilities. The Committee was advised that the proposed location still provides for quick access to the airside of the Base should fire emergency services be needed. However, the Committee remains concerned at the apparent lack of an adequate airside fire and emergency service.

Committee's Recommendation

31. The Department of Defence should, in association with the Civil Aviation Authority, hold an exercise to simulate the

crash of a civil or military aircraft, to examine the effectiveness of the location of the proposed fire station.

FLAMMABLE GOODS BULK STORE, EQUIPMENT SURVEY ACCOUNTS STORE

32. The existing flammable goods bulk store, equipment survey accounts store and their compounds are located within the technical training zone of the Base adjacent to the central store, printing room and tailor's store. The location is incompatible with the land use zoning in this area. Further, the facilities need to be demolished to make the land available for the new School of Clerical and Supply Training and the new School of Management and Training Technology.

33. The new facility is proposed to be located in an area off McCudden Street East adjacent to the rail easement. It is proposed to comprise a flammable goods store, various secure and open stores, two linked compounds - one for the storage of bulk flammable goods and the other for equipment stores - and a small office overlooking both compounds.

34. The Committee was concerned to note that the location of the store places it relatively close to living accommodation, just over the rail easement. ACS advised that the accommodation is approximately 70 m from the proposed flammable goods store and that advice from the Department of Defence was that only 10 m³ of fuel will be stored resulting in a safety zone beyond 30 m.

35. The Committee remains concerned at the location of flammable goods close to accommodation blocks, especially if more fuel than indicated is stored.

Committee's Recommendation

36. The Committee recommends that either the flammable goods bulk store and equipment survey accounts store be relocated

Further away from accommodation blocks, or fire/blast abatement mounds and landscaping be positioned between the store and the accommodation blocks.

CONSULTATION

37. The planning for this proposal has involved consultation at Commonwealth and Local Government levels. The following organisations were consulted:

- Department of Finance
- Department of the Arts, Sport, the Environment, Tourism and Territories
- Civil Aviation Authority
- Wagga Wagga City Council
- Riverina Murray Institute of Higher Education.

SCHEDULING OF THE PROPOSED WORKS

38. The RAAF currently leases facilities at the Riverina Murray Institute of Higher Education (RMIHE). The RAAF is required to vacate these premises by October 1991. The proposed work is scheduled to take account of this deadline subject to commencement as planned in mid-1989 with completion expected in mid-1994. Delays in commencement may have some impact on the ability of the RAAF to meet this deadline. As a contingency the RAAF will continue to negotiate with RMIHE.

39. The Wagga Wagga Chamber of Commerce and Industry and the Wagga Wagga City Council in supporting the proposal called for the development to be staged to allow the maximum opportunity for the involvement of local contractors. ACS advised the Committee that the work was of such a nature that local businesses would be able to compete for various project parcels and would, as a matter of course, be used as local subcontractors. The Committee also sought the assurance of ACS that the development proposal

would not be split unnecessarily into small parcels to reduce overall cost-efficiency despite possibly increasing local participation. The Committee was assured that local participation would be balanced with cost-efficiency considerations.

LIMIT OF COST

40. The limit of cost for the proposal is \$23.6m at April 1988 prices.

COMMITTEE'S RECOMMENDATION

41. The Committee recommends the development of RAAF Base, Wagga at an estimated cost of \$23.6m at April 1988 prices.

CONCLUSIONS AND RECOMMENDATIONS

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

	Paragraph
1. There is a need to upgrade facilities at RAAF Base, Wagga to replace the existing unsatisfactory facilities in order to improve staff effectiveness and training efficiency.	16
2. The Committee is satisfied that the proposal will fulfil the Department of Defence's objective of upgrading facilities at RAAF Base, Wagga.	20
3. The Department of Defence should commence negotiations with the State Rail Authority with the aim of resuming the rail easement through the Base and incorporating the land into the Base Master Plan and the Base Security Plan.	23
4. Australian Construction Services should ensure that the scheduling of the development proposal allows leeway for the Civil Aviation Authority to construct replacement facilities.	28
5. The Department of Defence should, in association with the Civil Aviation Authority, hold an exercise to simulate the crash of a civil or military aircraft, to examine the effectiveness of the location of the proposed fire station.	31

Paragraph

6.	The Committee recommends that either the flammable goods bulk store and equipment survey accounts store be relocated further away from accommodation blocks, or fire/blast abatement mounds and landscaping be positioned between the store and the accommodation blocks.	36
7.	The Committee recommends the development of RAAF Base, Wagga at an estimated cost of \$23.6m at April 1988 prices.	41



Colin Hollis

Chairman

6 April 1989

APPENDIX A

LIST OF WITNESSES

BROOKS, Dr Edwin, President, Wagga Wagga Chamber of Commerce and Industry, 1st Floor, 33A Thompson Street, Wagga Wagga, NSW 2650

CICIKOYA, Mr Zenon, Section Head, Works Plan B & C, Facilities Directorate (Air Force), Department of Defence, Russell Offices, Russell, ACT 2600

GRIFFIN, Group Captain Ken, Officer in Charge, RAAF Base Wagga, Forest Hill, Wagga Wagga, NSW 2650

GUREVITCH, Air Commodore Richard, Director-General of Facilities (Air Force), Department of Defence, Russell Offices, Russell, ACT 2600

HARRIS, Mr Ronald, Mayor, Wagga Wagga City Council, City Council Chambers, Wagga Wagga, NSW 2650

MOODY, Mr Trevor, Project Manager, ACT Office, Australian Construction Services, 470 Northbourne Avenue, Dickson, ACT 2602

NEWTON, Mr Berry, Acting Deputy State Manager, ACT Office, Australian Construction Services, 470 Northbourne Avenue, Dickson, ACT 2602

UREN, Mr Terence, Architect Class 4, ACT Office, Australian Construction Services, 470 Northbourne Avenue, Dickson, ACT 2602

CONSTRUCTION DETAILS

**School of Clerical and Supply Training (SCST)
School of Management and Training Technology (SMTT)**

A new two-storey building for the two schools will be located on a site at the corner of Mannock and McCudden Streets.

The building will contain classrooms, syndicate rooms, specialist training rooms, offices and support facilities. The building will be planned so that the two schools can operate independently of each other and allow each school to have its own distinct character and identity.

A central core will house the administrative and instructional staff with the SMTT located to the east of the core and the SCST to the south and west.

The plan form of the building will allow for the development of landscaped courtyards between the new building and adjacent existing buildings for the use of staff and students.

The building will be of steel frame construction, mounted on a raft slab with integral stiffening footings. The building will be articulated to allow for controlled movement.

Physical Fitness Centre

The building will be sited on the eastern section of the Base on the edge of an existing group of playing fields to the east of Lord Street. The building will be centred around a major circulation spine, off which the various major functional areas are accommodated. The facility is split on two levels with the main entrance foyer, the administration/ancillary area and most of the major circulation spine overlooking the various activity rooms and the squash courts. These activity areas, with their required 'volumes' have been organised so that the whole building form expands up away from Lord Street.

The building footing system will consist of a set of discrete reinforced concrete stiffened raft slabs at or above natural ground level on replaced subgrade.

A steel frame will support light-gauge steel purlins and girts to roof and wall areas and will stabilise brickwork panels.

Library and Study Centre

The existing library building will be demolished and a new building constructed on the cleared site. The services provided by the existing building will be temporarily relocated during the construction of the new building.

The building will consist of three distinct sections:

- a central section which responds to and reinforces the parade ground axis and contains lobby and reception areas on the lower level and lecture/examination rooms on the upper level
- a library wing which contains the library book stacks, reading area and study area
- a Base services wing which houses the Defence publications and audio visual studio functions.

The building will consist of three independent structural volumes of lightweight construction set on a platform of compacted fill. The concrete slabs of each of the structural volumes will be articulated to minimise effects associated with foundation movements.

The structure of the building will generally be lightweight steel wall framing with external brick veneer and trussed roof. In the two-storey section, steel column and beam framing will be provided for the first-floor slab.

Police Services Building

The new building will be sited adjacent to the boom gates and guard box at the Base entry on Newton Road.

The planning of the building is based on strict functional criteria relating to the oversight of the Base entry, prisoners and the exercise yard; the separation of police and guard functions; and the need for secure circulation within parts of the building.

The building will consist of three linked structural systems of lightweight construction set on a platform of compacted engineered fill.

The structure of the building will be lightweight steel framing with brick veneer skin and trussed roof supported on stiffened raft floor slabs. The armoury, cells and exhibit room will be constructed of load-bearing masonry walls and concrete slab ceilings.

Fire Station

The new building will be sited to the south of Barker Street adjacent to Building 84.

The building will consist of three distinct sections:

- a central vehicle bay section which has a higher roof form to accommodate clearances required for the fire-fighting vehicles
- office, sleeping, lecture and staff amenities areas
- a workshop and store adjacent to the vehicle bay.

The building will be constructed on three linked and stiffened reinforced concrete raft slabs. It will be raised on compacted engineered fill material to provide a relatively stable foundation environment and to assist site drainage. The structure will be a steel frame with lightweight steel infill wall framing.

Flammable Goods Bulk Store/Equipment Survey Accounts Store

The construction of new stores buildings on a site on the eastern edge of the Base immediately to the north of existing Building 209 will remove the constraints to development imposed by the present buildings and create a site of sufficient size for the new SMTT/SCST building.

The new buildings will provide bulk storage for supplies of hazardous and flammable goods and for surplus furniture and equipment awaiting disposal and office accommodation for support staff.

The buildings and compound areas will be sited on an elevated platform of compacted engineered fill to protect the complex from overland stormwater flow.

Slabs and footings will be integrated into stiffened rafts. The slab for the flammable goods store will be bunded.

The flammable goods store will be of full masonry construction. Other stores are lightweight steel framed structures and the office building is of brick veneer construction.

Motor Transport Training Flight, Practical and Demonstration Classrooms

The buildings will be constructed as Annexes to Hangars 198 and 199. They will provide laboratory areas requiring plant, equipment and vehicle access at ground-floor level and classrooms on an upper level. Staff offices and amenities and student change rooms will also be provided.

The design of the buildings will be compatible with similar annexes previously constructed at Hangars 200 and 202.

Motor Transport Flight/Motor Transport Maintenance Flight

The facilities are currently located in Building 83 and need to be relocated to allow for the proposed expansion of the central stores and to remove the hazards associated with fuel handling from the technical training zone.

It is proposed to relocate the garaging and cleaning functions of the Motor Transport Flight to existing Bellman Hangar 205 (following the Civil Aviation Authority's vacation of the building) and to relocate the vehicle repair and maintenance functions of the Motor Transport Maintenance Flight to the existing temporary gymnasium.

A new amenities building will be sited between the two hangars, allowing for convenient access from both flights, avoiding the need to disturb the existing floor slabs to lay hydraulic services. The walls of the existing hangars will be reclad and the steel structure of the hangars upgraded to meet current wind loading standards.

The new amenities building will be of lightweight steel construction.

Central Store

Part of the existing central store (Building 83) is currently occupied by the Motor Transport Flight and the Motor Transport Maintenance Flight.

It is proposed to relocate these functions and to refurbish the area vacated to provide accommodation for the base printing and photographic section and a clothing store and tailor shop. New accommodation for the stores accounting group will be provided within the existing warehouse adjacent to the existing stock control group.

The refurbished areas will include offices, work rooms, a photographic studio and darkrooms, storage areas and staff facilities.

The existing floor slab will be topped with a levelling slab, reinforced and jointed to reflect the underlying structure. Light steel framing built on this slab will form walls to offices and other rooms. Ceilings supported off joists bearing on this studwork will complete room structures.

Existing purlins, roofing and wall sheeting will be replaced. Secondary steel framing, stabilised by existing roof trusses and

base slab, will be provided to support new glazing inside the existing building line.

Apprentices Club

The Apprentices Club is housed with the Airmen's Recreation Centre (Building 408). It is proposed to upgrade the building to allow for discrete facilities for the apprentices and airmen and to provide a level of games facilities for airmen in accordance with current Services Scales and Standards.

A new entry foyer with associated toilets and cloakrooms will be built on the southern side of the existing building. A new wet bar and milk/snack bar with adjacent storerooms will be provided within the existing Apprentices Club.

A new multi-purpose function room will be built within the existing internal courtyard. The function room is principally intended for use by the airmen but is capable of being used by the apprentices or other groups as needed.

The new courtyard building will be of steel frame construction supported on a stiffened raft slab. The new ablution blocks will be of full masonry construction with built-in steel framing, supported on individual stiffened raft slabs separated by a foyer slab of lower stiffness. New steel beams and columns will replace some load-bearing elements which will be removed from the existing building.

Other Ranks Sleeping Accommodation

Seven existing two-storey accommodation blocks with multiple occupancy rooms will be converted to single occupancy rooms as close to the Services Scales and Standards of Accommodation as the existing building envelopes will permit. Two hundred and fifty-two single-person bedroom units will be provided. The detailed scope of work varies from building to building according to the condition of the building but typically the upgrading provides:

- conversion of existing four-person bedroom units to two single-person bedroom units
- refurbishment of ablution facilities
- upgrading of internal building services
- general repairs and refurbishment to the building fabric
- fire protection measures in accordance with current Department of Defence policy
- upgrading of external paving, drainage and landscaping as necessary to stabilise foundation movements.

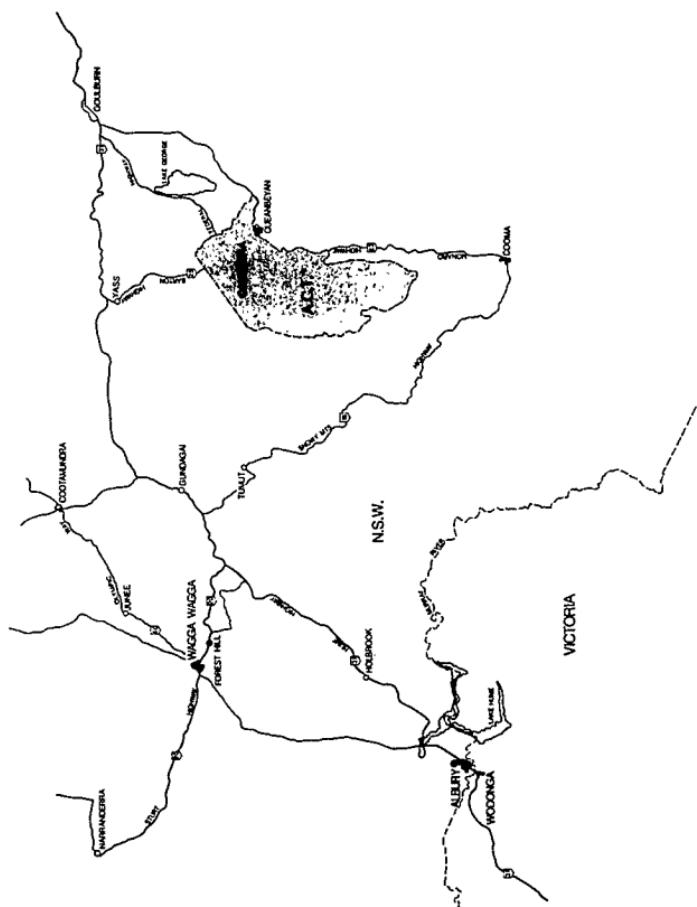
Engineering Services

The existing Base infrastructure will be upgraded as follows:

- the Base fire indicator panel will be replaced
- an additional transformer will be provided to the central emergency power station
- split base mode for the central emergency power station will be provided
- the existing sewage treatment plant will be upgraded to meet the current standards of the NSW State Pollution Control Commission.

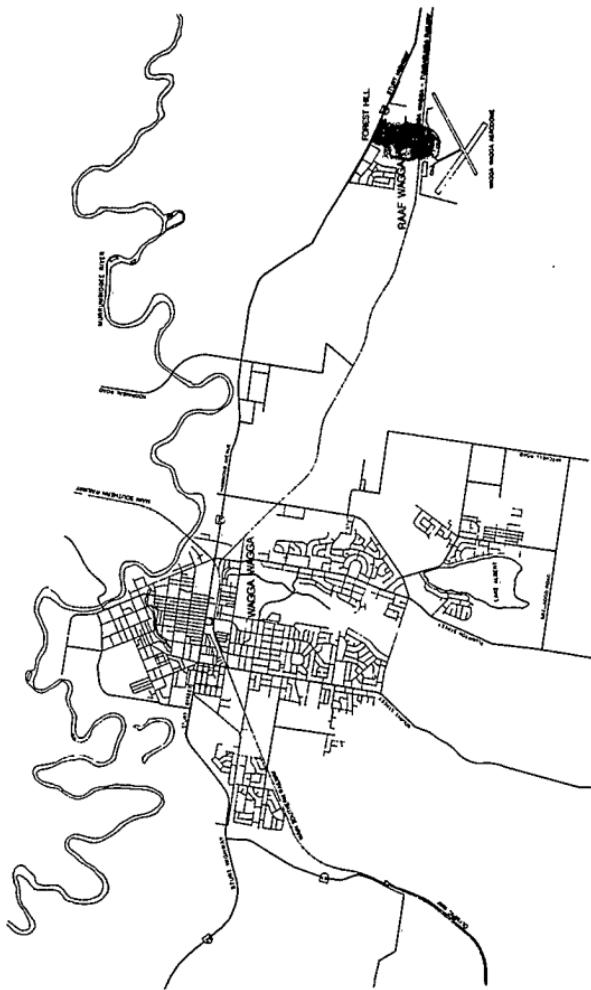
APPENDIX C

PROJECT DRAWINGS	Page
Regional Plan	22
Location Plan	23
Base Plan - Zone Plan	24
Base Plan - Development Strategy	25
SCST-SMTT - Floor Plan, Ground Floor	26
SCST-SMTT - Floor Plan, First Floor	27
SCST-SMTT - Perspective	28
Physical Fitness Centre - Floor Plan	29
Physical Fitness Centre - Perspective	30
Library and Study Centre - Floor Plan	31
Library and Study Centre - Perspective	32
Police Services Building - Floor Plan and Site Plan	33
Fire Station - Floor Plan and Site Plan	34
FG-ESA Stores - Floor Plan	35
MTTF - Building 198, Floor Plan	36
MTTF - Building 199, Floor Plan	37
MTF-MTMF - Floor Plan	38
Central Store - Floor Plan	39
Apprentices Club - Floor Plan	40
Other Ranks Accommodation - Floor Plans and Elevations	41
Demolition Work - Base Plan	42

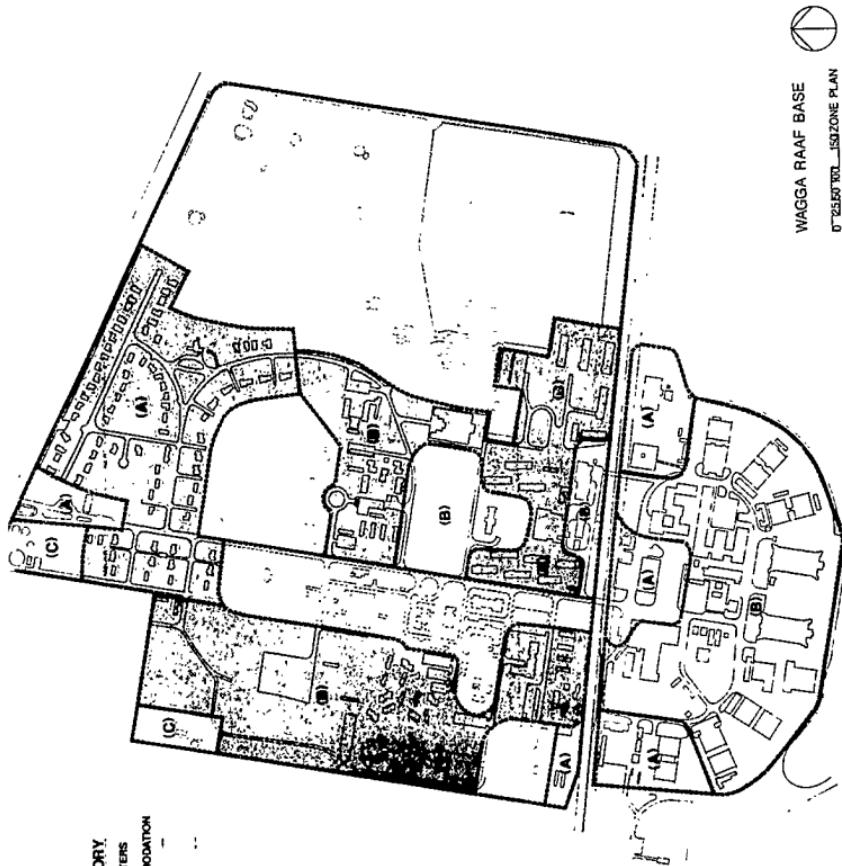


WAGGA RAAF BASE

07.06.10 20-40km REGIONAL PLAN



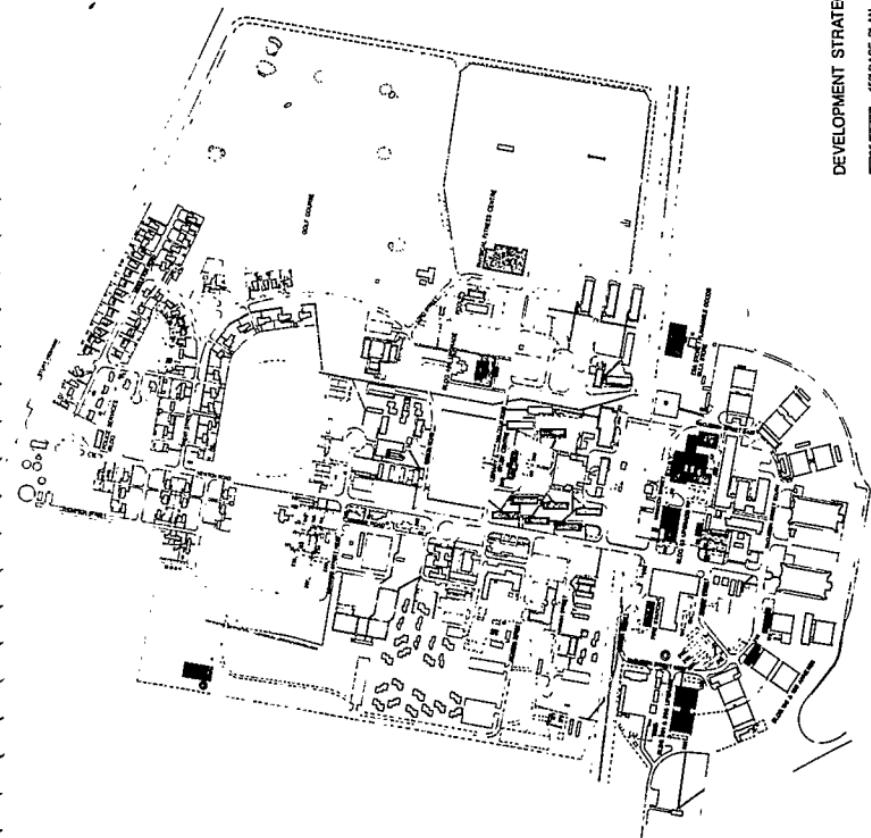
WAGGA RAAF BASE
15 KM
250' LOCATION PLAN

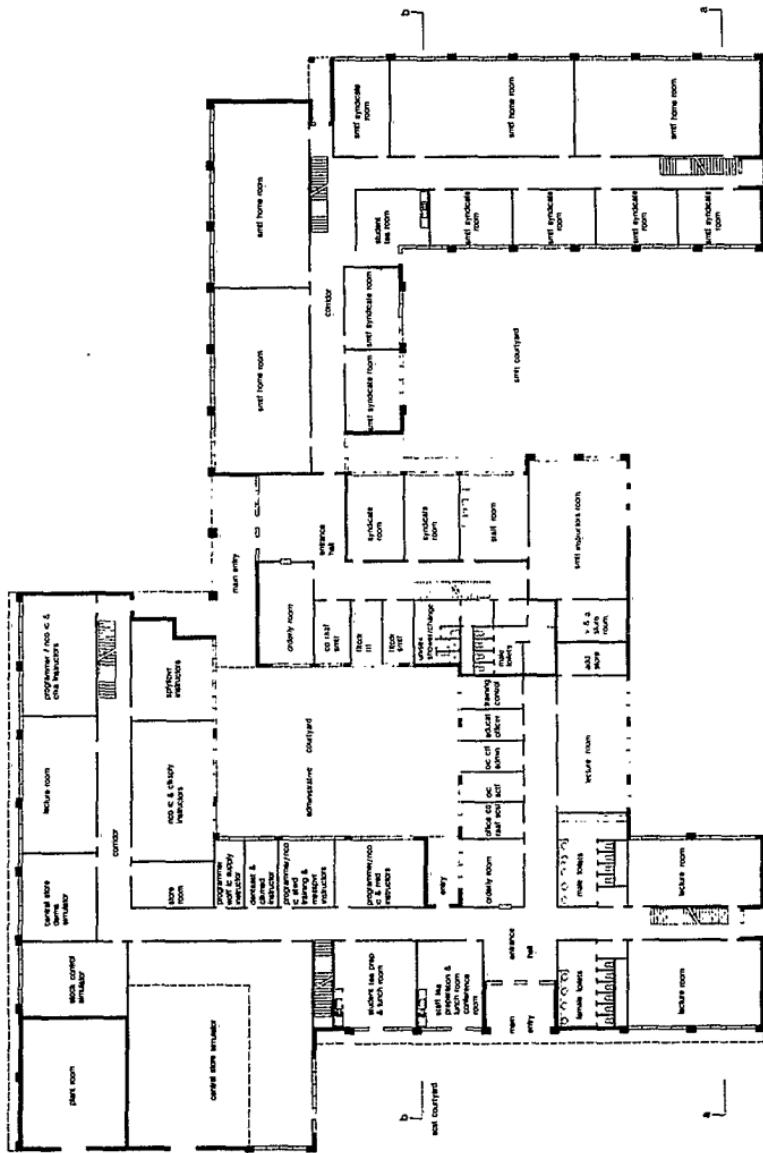




DEVELOPMENT STRATEGY

105 ST 114 159 BASE PLAN

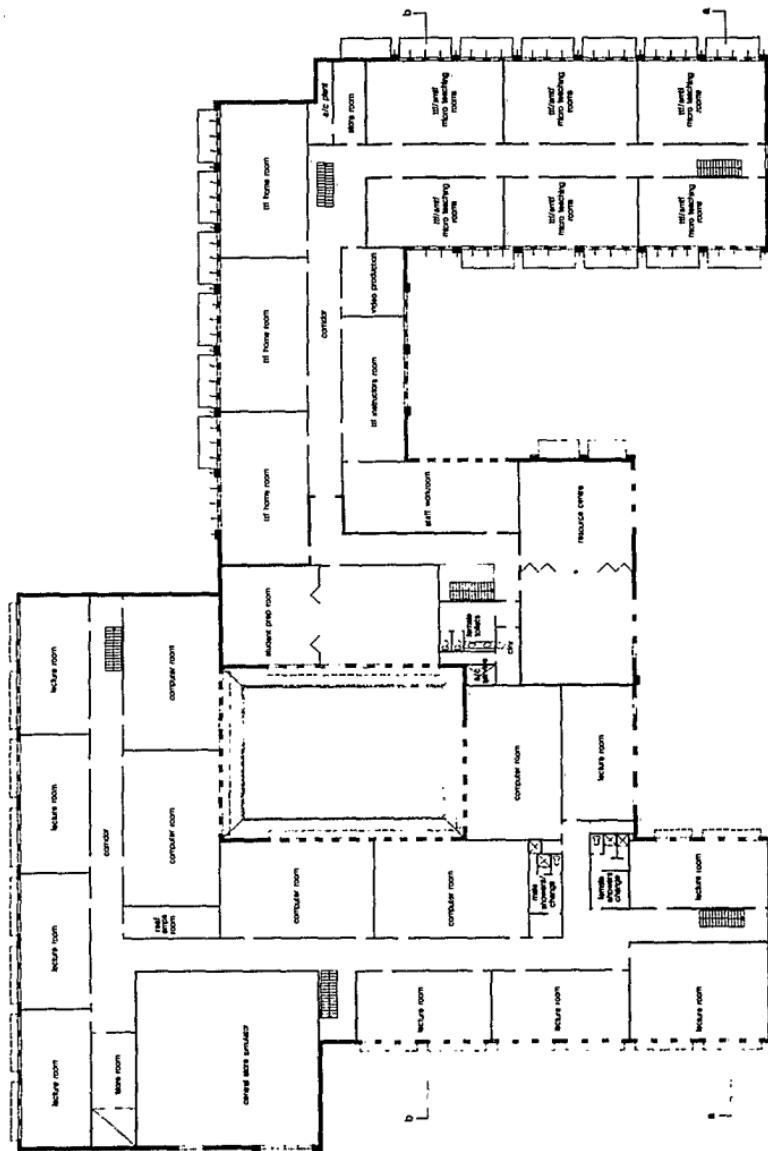


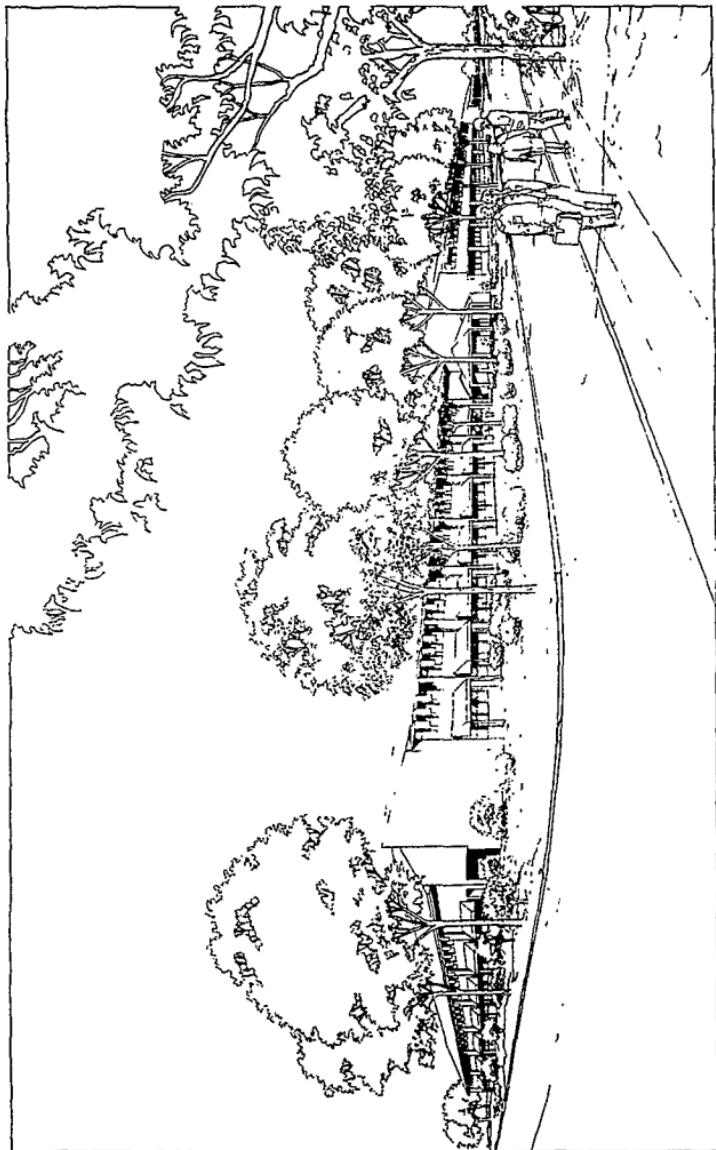


**SCHOOL OF CLERICAL AND SUPPLY TRAINING
SCHOOL OF MANAGEMENT AND TRAINING TECHNOLOGY
D.T.T.B. - D.F.P. - G.F.P.**



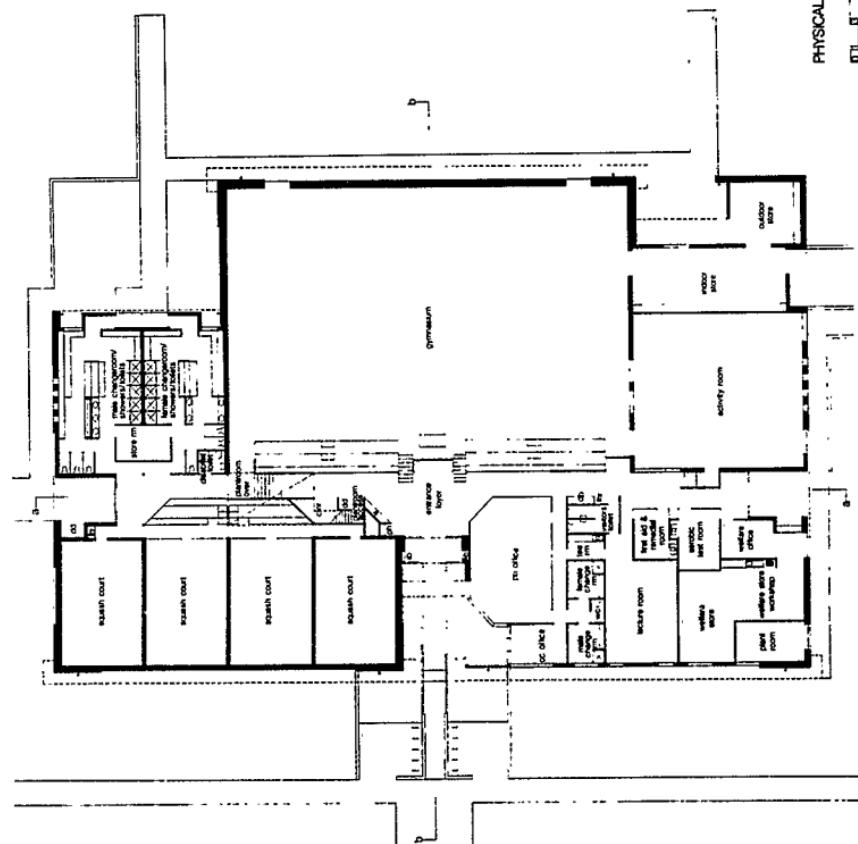
SCHOOL OF CLERICAL AND SUPPLY TRAINING
SCHOOL OF MANAGEMENT AND TRAINING TECHNOLOGY
G.T.L.S. - B.L. - FLOOR PLAN - FIRST FLOOR



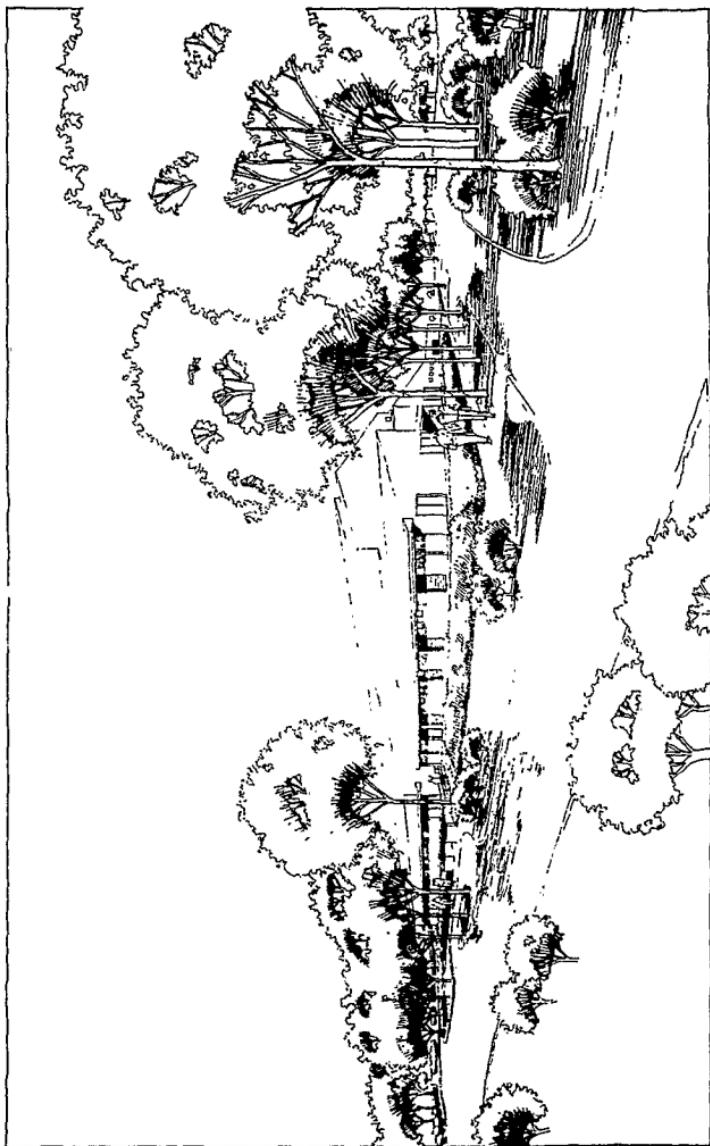


SCHOOL OF CLERICAL AND SUPPLY TRAINING
SCHOOL OF MANAGEMENT AND TRAINING TECHNOLOGY
PERSPECTIVE

PHYSICAL FITNESS CENTRE  FLOOR PLAN

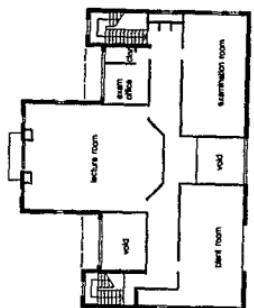


PHYSICAL FITNESS CENTRE
PERSPECTIVE

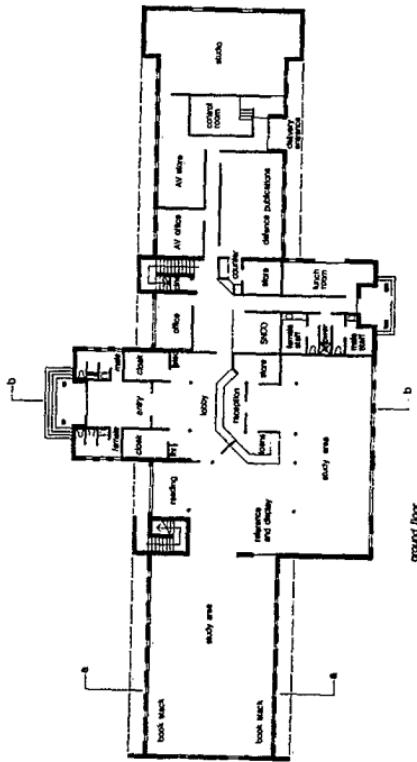




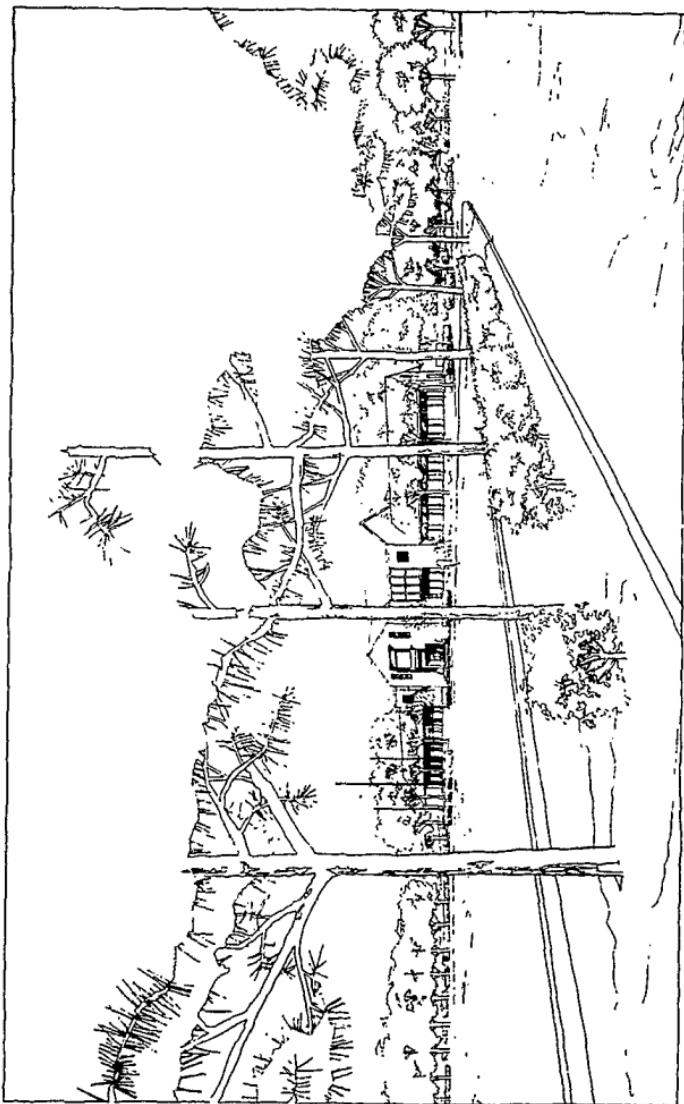
LIBRARY AND STUDY CENTRE
DTL-3 2nd FLOOR PLAN



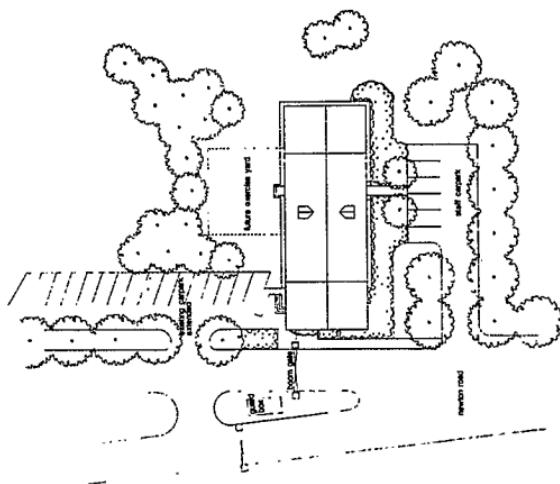
first floor



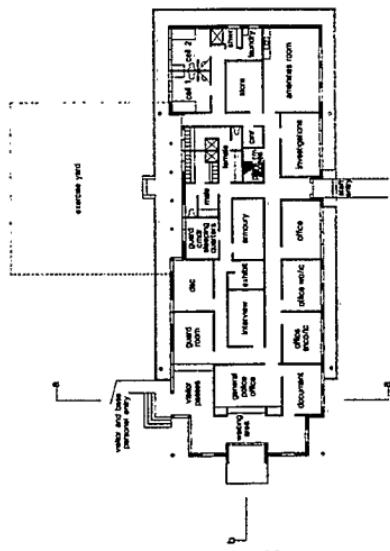
ground floor

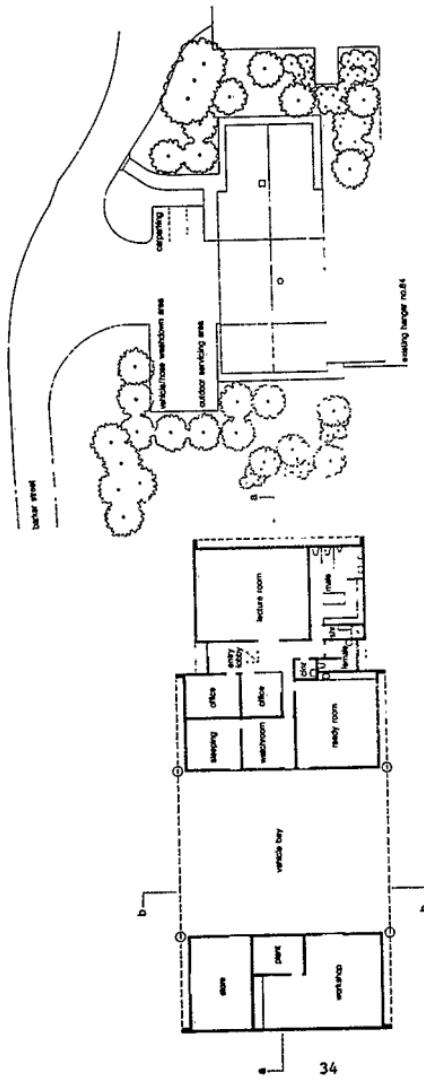


LIBRARY AND STUDY CENTRE
PERSPECTIVE



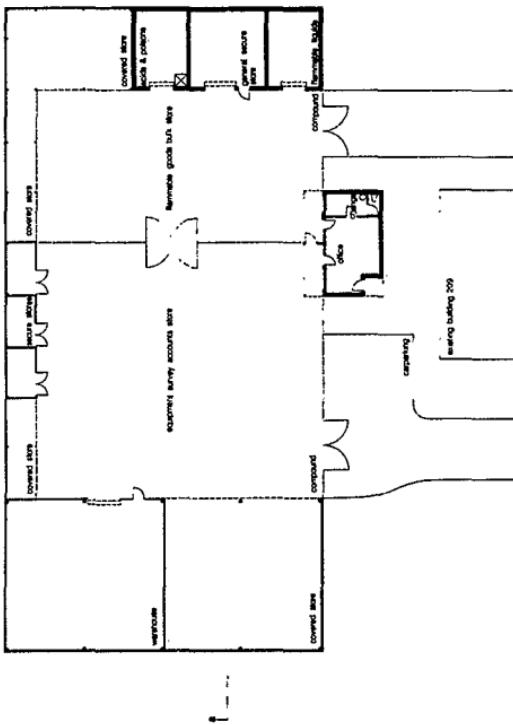
POLICE SERVICES BUILDING
6TH FLOOR PLAN 072-572 SITE PLAN



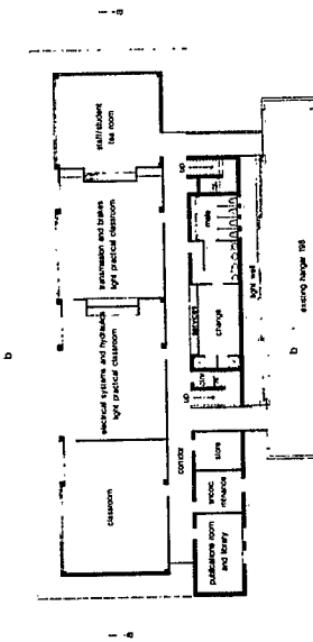
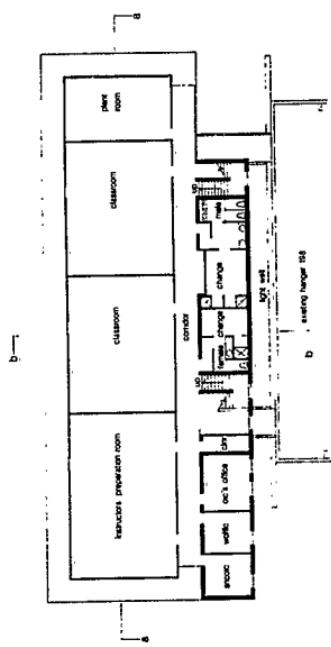


FIRE STATION

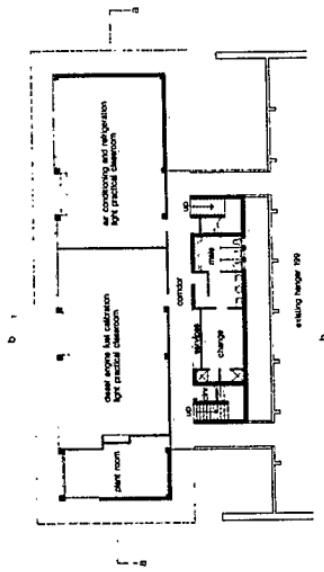
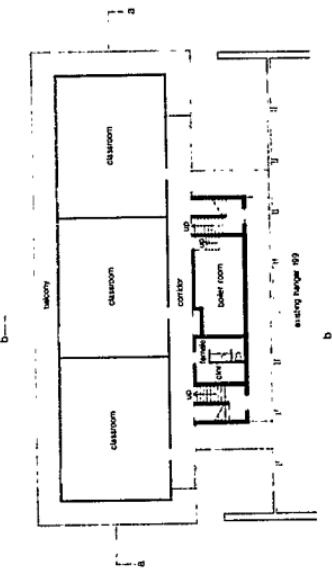
071-57-78-38 FLOOR PLAN 072-57 SITE PLAN



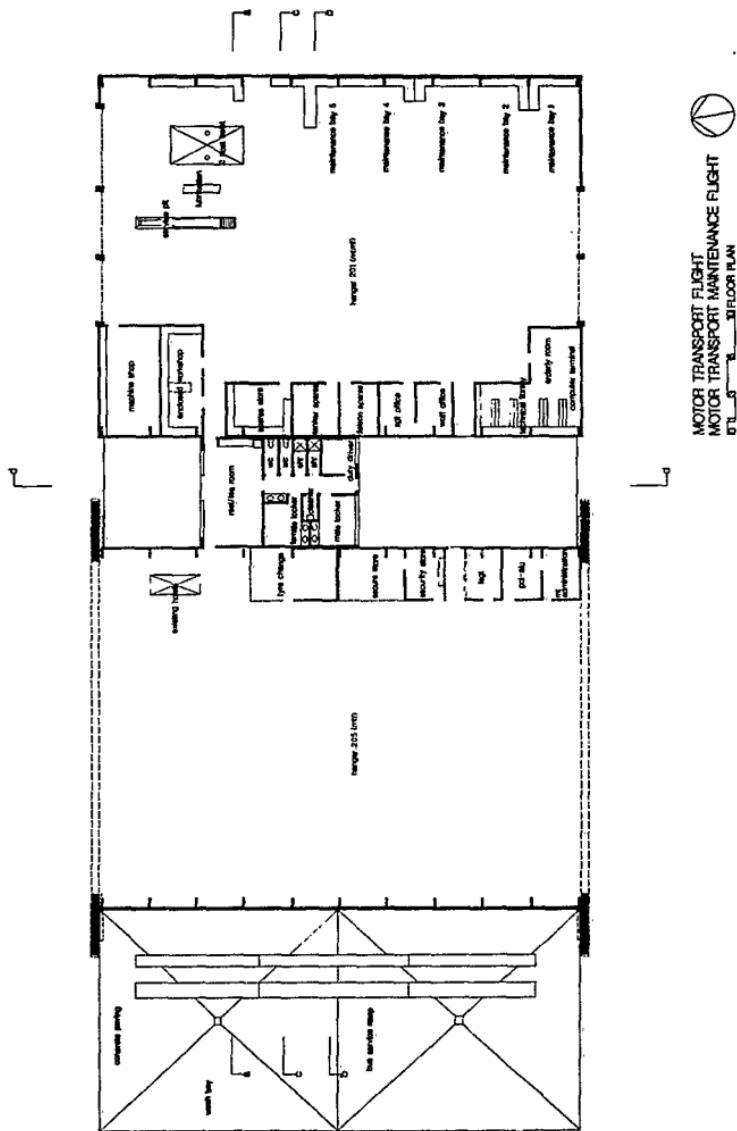
FLAMMABLE GOODS BULK STORE
EQUIPMENT SURVEY ACCOUNTS STORE
REFUGEE PLAN

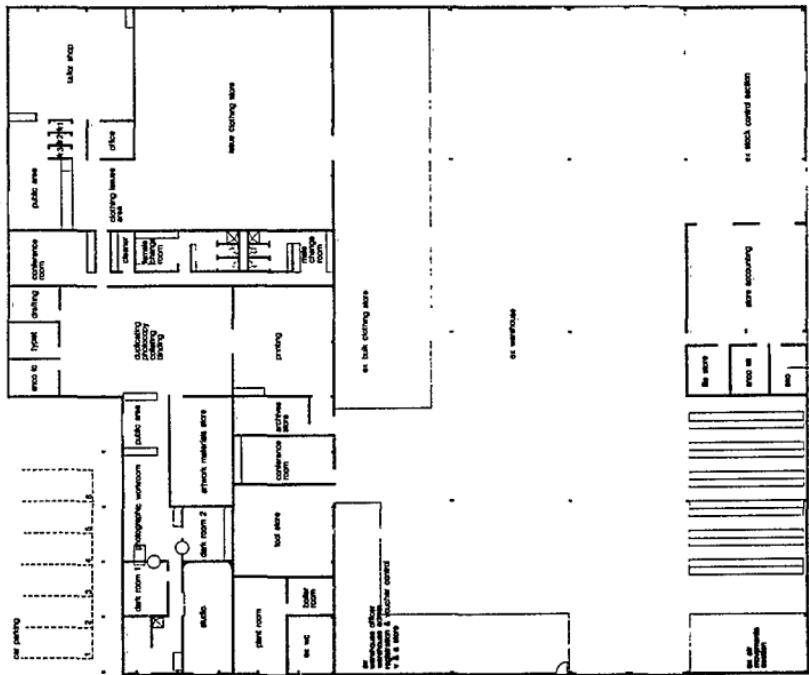


MOTOR TRANSPORT TRAINING FLIGHT
ANNEXES TO BUILDINGS 198 AND 199
DTL 57-18-1000-1000
10 BLDG 198 FLOOR PLAN



MOTOR TRANSPORT TRAINING FLIGHT ANNEXES TO BUILDINGS 198 AND 199





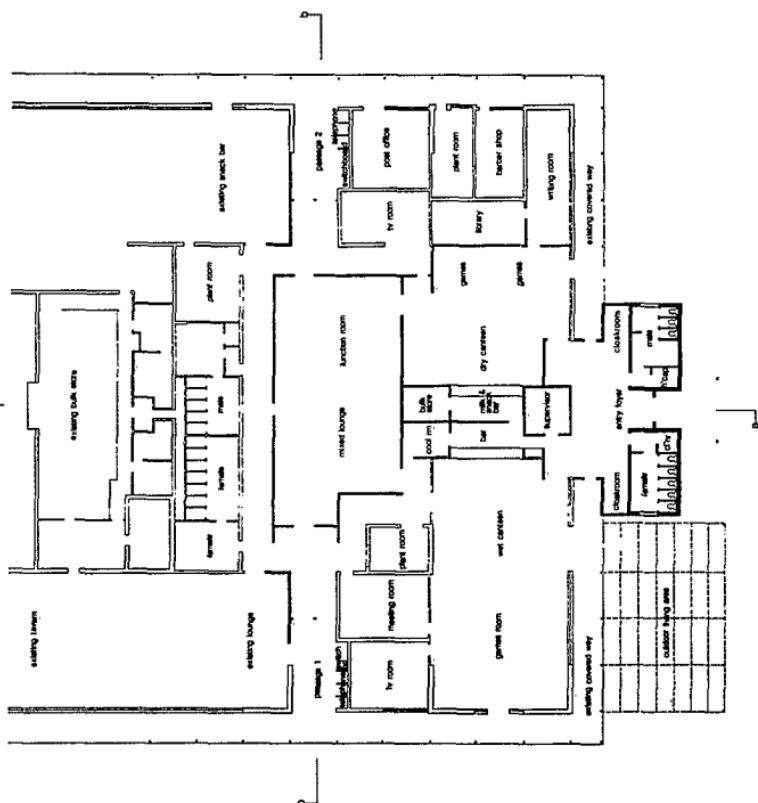
CENTRAL STORE

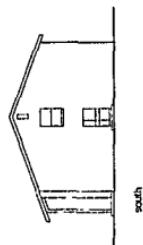
GUNN FLOOR PLAN



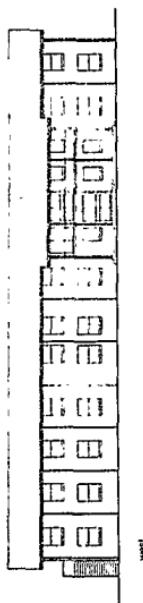
APPRENTICES CLUB

1st FLOOR PLAN

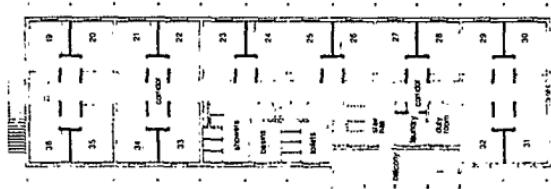




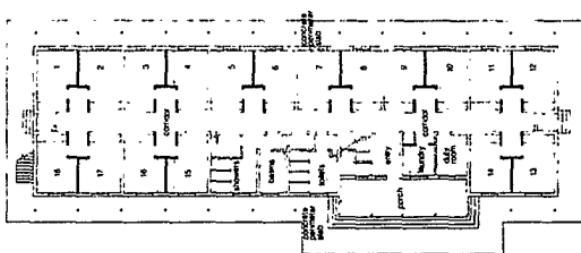
504



1



200



ground floor



OTHER RANKS ACCOMMODATION

1871 - 3 - 18 FLOOR PLANS AND ELEVATIONS



DEMOLITION WORK
02550 VOL_150 BASE PLAN

