



Parliamentary Standing Committee on Public Works

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REPORT

relating to the proposed

DEVELOPMENT OF FACILITIES FOR THE ARTILLERY CENTRE, PUCKAPUNYAL, VIC.

(Twenty-sixth Report of 1995)

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

Report relating

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**Development of facilities for the Artillery
Centre, Puckapunyal, Vic.**

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CONTENTS

	Page
Members of the 31st Parliamentary Standing Committee on Public Works	vii
Extract from the Votes and Proceedings of the House of Representatives, No 160, 31 August 1995	viii
	Paragraph
THE REFERENCE	1
THE COMMITTEE'S INVESTIGATION	4
Inspections and public hearings	4
Other submissions	8
BACKGROUND	10
School of Artillery	10
North Head barracks	14
Artillery centre	15
Courses	17
THE NEED	19
Field firing range	20
Improving training efficiency	24
Relocation studies	26
Force structure review	28
Initial planning study	30
Description of Puckapunyal	32
Committee's Conclusions	36
Reactions to the need to relocate to Puckapunyal	42
Future of the land at North Head	43
Committee's Conclusion	54
<i>Army 21</i> and artillery battery	55

Committee's Conclusion	58
Impact on communities and Army personnel	59
Impact on Mitchell Shire	65
Committee's Conclusion	71
Housing at Puckapunyal	72
THE PROPOSAL	73
Development of preferred option	73
NEW CONSTRUCTION	76
Headquarters building	76
Design and structure	77
Central instruction facility	78
Design and structure	79
New officers' and senior NCO accommodation	80
REFURBISHMENT	81
Training equipment hangar	81
Proposed refurbishment	82
Technical support troop	83
Proposed refurbishment	84
Support wing transport section	85
Support wing Q stores	86
Regimental Aid Post (RAP)	87
Canteen	88
Other ranks mess	89
Other ranks accommodation	90
Officers' mess	91
NCO mess	92
BUILDINGS TO BE RETAINED	93
BUILDINGS NOT REQUIRED	94
PLANNING AND DESIGN	95
Priorities of works	95
Accommodation for artillery battery	97
Heating of instructional facilities	98

Codes and standards	99
Master planning and future development	100
Provisions for people with disabilities	105
Noise control	106
Landscaping	107
Committee's Conclusions	110
SERVICES	111
Electrical	111
Mechanical	114
Communications	117
Watermains	120
Sewer	121
Stormwater	122
Civil works	123
HERITAGE AND ENVIRONMENTAL IMPACT	124
Heritage	124
Flora and fauna	125
Range noise	126
Site contamination	127
FIRE PROTECTION AND SECURITY	130
Design standards and approval procedures	130
Security	136
ENERGY CONSERVATION MEASURES	138
CONSULTATIONS AND LOCAL IMPACT	143
Authorities and organisations	143
Local impact	145
Community consultation	147
PROJECT DELIVERY SYSTEM	149
Managing contractor	149
Protection of subcontractors	150

CONSTRUCTION PROGRAM	151
PROJECT COST	152
Committee's Recommendation	153
CONCLUSIONS AND RECOMMENDATIONS	154
APPENDIXES	
Appendix A - List of Witnesses	A-1 to A-2
Appendix B - Plans	B-1 to B-14

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

(Thirty-First Committee)

Mr Colin Hollis MP (Chair)
Senator Paul Henry Calvert (Vice-Chair)

Senate

House of Representatives

Senator Bryant Robert Burns	Mr John Neil Andrew MP
Senator Shayne Michael Murphy*	Mr Raymond Allen Braithwaite MP
	Mr Russell Neville Gorman MP
	Mr Robert George Halverson OBE MP
	Hon. Benjamin Charles Humphreys MP

*Replaced Senator John Devereux on 10 February 1995

Committee Secretary:	Peter Roberts
Inquiry Secretary:	Michael Fetter
Secretarial Support:	Suzanne Stanfield

EXTRACT FROM THE
VOTES AND PROCEEDINGS OF
THE HOUSE OF REPRESENTATIVES

No. 160 dated Thursday, 31 August 1995

3 PUBLIC WORKS – PARLIAMENTARY STANDING COMMITTEE –
REFERENCE OF WORK – DEVELOPMENT OF FACILITIES FOR
THE ARTILLERY CENTRE, PUCKAPUNYAL, VIC.

Mr Lee (Minister for Communications and the Arts), for Mr Walker (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: Development of facilities for the Artillery Centre, Puckapunyal, Vic.

Question – put and passed.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS
DEVELOPMENT OF FACILITIES FOR THE ARTILLERY CENTRE,
PUCKAPUNYAL, VIC.

On 31 August 1995 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report to Parliament the proposed development of facilities for the Artillery Centre, Puckapunyal, Vic.

THE REFERENCE

1. The Department of Defence proposes to relocate the Artillery Centre from North Head in Sydney to Puckapunyal to meet training requirements and to make best use of existing facilities at Puckapunyal. This proposal will provide the Artillery Centre with ready access to a suitable field firing range. It will ensure utilisation of existing facilities at Puckapunyal after the departure of the 1st Armoured Regiment for Darwin and will allow the vacation of the property at North Head. North Head is an unsuitable location for the artillery centre because it is remote from a field firing range.
2. The proposal examined by the Committee involves the provision of office accommodation, instructional and storage facilities and living accommodation.
3. When referred to the Committee the estimated outturn cost of the project was \$34.8 million.

THE COMMITTEE'S INVESTIGATION

Inspections and public hearings

4. The Committee received a submission and drawings from the Department of Defence (Defence) and initially took evidence from representatives of the Defence at a public hearing held at the School of Artillery, on Wednesday 1 November 1995.
5. At the public hearing at North Head the Committee received written submissions and took evidence from the following individuals and organisations:

- Mr Tony Abbott MP (Federal Member for Warringah)
- Dr Peter MacDonald MP (State Member for Manly)
- Manly Council
- Manly Chamber of Commerce
- Mr Ian MacDonald - representing Manly Hospital and Manly Rugby Football Club.

6. Public hearings continued at Puckapunyal on Thursday 2 November at which the Committee received written submissions and took evidence from the following individuals and organisations:

- Mr Peter Cleeland MP (Federal Member for McEwen)
- Defence
- Shire of Mitchell
- Lt Col Douglas Bryan (Rtd)
- Ms Fran Bailey.

7. Prior to the public hearing at North Head, the Committee inspected the School of Artillery. The Committee also inspected the field firing range at Puckapunyal on the same day. On Thursday 2 November the Committee inspected Robertson Barracks at Puckapunyal and the sites proposed for new works, which will form part of the proposed development.

Other submissions

8. The Committee also received submissions from the following:

- Families at Work
- Victorian Minister for Planning
- Commonwealth Environment Protection Agency (EPA)

- Commonwealth Fire Board
- Australian Heritage Commission.

9. A list of witnesses who appeared before the Committee at the public hearings is at Appendix A. The Committee's proceedings will be printed as Minutes of Evidence.

BACKGROUND

School of Artillery

10. The School of Artillery is situated at North Head, the northern arm of the entrance to Port Jackson and can trace its origin to the NSW School of Gunnery which was established at Middle Head in September 1885. That school conducted a variety of courses in coast and field artillery from 1885 to 1895 when it was moved to Victoria Barracks, Paddington. This relocation was temporary, pending the completion of new school buildings and facilities at South Head.

11. In anticipation of Federation, the various state regiments of artillery were reorganised to become the Royal Australian Regiment in 1899. A school of gunnery, situated at South Head, was included in the artillery establishment.

12. The school remained at South Head until the outbreak of the Second World War. The establishment of the school was increased with the outbreak of war to meet the needs of the enlarged military forces. A Field Branch was established at Holsworthy and an Anti-aircraft Wing was established at Randwick.

13. The School of Artillery was formally opened at North Head in 1945 and in 1946 the Wings were combined and re-established there.

North Head barracks

14. The barracks at North Head were constructed during 1933-38. They provided facilities for the headquarters and sub-units of the 1st Heavy Brigade. The original military area of North Head included the barracks and a battery of 9.2 inch guns. The guns and associated control and power supply systems were dismantled in 1960. The emplacements, magazines and

connecting tunnels are still in good condition and form part of the Royal Australian Artillery museum at North Head.

Artillery centre

15. The Artillery Centre, which comprises the School of Artillery and the Directorate of Artillery, has a staff complement of 178 military personnel and 32 civilians. The School of Artillery currently has a requirement to train in the order of 600 personnel each year. The maximum number of trainees undergoing training at any one time is about 170.

16. Additional buildings of a temporary nature were provided after 1945 to meet evolving training needs. The School of Artillery conducts Royal Australian Artillery Corps individual training, and training in air defence techniques for regular and reserve personnel. The school also undertakes the following activities:

- development of doctrine
- development of training packages
- provision of mobile training and demonstration teams
- production of training publications
- conduct of user trials and equipment evaluations
- provision of assistance in exercises.

Courses

17. The School of Artillery conducts up to 55 courses each year with a maximum student attendance of 618. The average course runs for approximately 30 days. The number and ranks of trainees passing through the School of Artillery each year is reasonably constant, and it is expected that this general pattern will continue. The number of trainees at any one time is generally dependent upon the time of year and the level of Army recruiting. Maximum training demand is usually in July and the maximum requirement is in the order of 170 trainees, being mostly other ranks. The peak for officers and senior NCOs is usually October and November.

18. The centre conducts most indoor training at North Head, but uses field training ranges at Holsworthy (south west of Sydney), Singleton and Townsville for deployment and live firing training.

THE NEED

19. Defence believes there is a need to relocate the Artillery Centre for two principal reasons.

- a requirement for the centre to be adjacent to a suitable field firing range
- a requirement to improve the training efficiency of the Centre by provision of modern purpose-designed facilities.

Field firing range

20. Defence advised the Committee that it is highly desirable that the centre has ready access to a field firing range, so that training tasks can be undertaken efficiently and that training time and money is not wasted in travel to and from a distant firing range.

21. Present live firing training for field artillery is conducted at Holsworthy and Singleton and, for air defence, at RAAF Williamtown and Beecroft Range (Nowra). Three field artillery courses conduct live firing training at Townsville, because support from Townsville based artillery assets is required to achieve training objectives on those three courses. To use the range at Holsworthy involves lengthy travel; Holsworthy, is at least two hours travelling time across Sydney.

22. The Holsworthy range itself is under pressures associated with urbanisation which extends to the range boundary. Defence receives many complaints about noise generated by field firing on the range. Urbanisation has also made it increasingly difficult to use large calibre weapons on the range. The Holsworthy range is also under the flightpath to Sydney airport and is subject restrictions which require field firing activities to cease when aircraft movements are taking place.

23. The school identified requirements for training areas that will enable training objectives to be met. Holsworthy and Singleton ranges do not meet the requirements. These requirements are:

- a close training area of 9km² which is used to practise techniques and procedures for the deployment and manoeuvre of artillery equipment. The close training area is also used for the operation of outdoor artillery simulators
- a Field Firing Range (FFR) of 324km² which is used for non-firing deployment training and live firing training. The size of the area involves consideration of terrain, vegetation, accessibility, infrastructure and safety. This size of FFR meets the needs for both field artillery and air defence artillery weapon systems. Air defence weapons also require that the area be 18km by 12km
- a field artillery target area of 36km² which allows for a variety of target locations to meet training scenarios.

Improving training efficiency

24. Buildings on the North Head site date from the 1930s; the earliest structures are the administration, messing and accommodation buildings which are of brick and masonry construction. Later buildings which are used for training, technical storage, repairs and maintenance activities, are transportable or temporary type structures. With the exception of the administration and mess buildings, most buildings on the site do not meet current Scales and Standards. Further, the relative locations and functional relationships of the training elements of the centre do little to contribute to the efficiency of training activities. The Committee confirmed this during the inspection of the site.

25. The present buildings and associated facilities, their relative positioning, functional capacities and standards of construction indicate that a major upgrade program or relocation is necessary. Specifically, a number of facilities deficiencies have been identified, namely:

- lack of ready access to a suitable close training area and field firing range
- temporary and sub-standard training facilities
- training, instructional and technical storage elements are poorly located with respect to functional relationships

- unsatisfactory location of technical support and workshop facilities
- other ranks accommodation not to present Scales and Standards.

Relocation studies

26. The need to relocate the school has been recognised by Defence for many years and a number of studies were undertaken to identify the most suitable site for the school. There were studies in the 1970s and 1980s which examined the practicalities of relocating both the School of Artillery and the Infantry Centre to western New South Wales.

27. During 1987 the Army conducted further studies and developed a proposal to base the school in Townsville. The proposal was agreed by the Minister for Defence Science and Personnel in December 1989 and announced by the Minister for Defence (The Hon Kim Beazley MP) on 2 March 1990.

Force structure review

28. Proposals in the 1991 Force Structure Review, in particular the move of the 1st Armoured Regiment from Puckapunyal to Darwin, have resulted in the need to reassess the selection of Townsville as the preferred long-term location for the centre. The relocation to Darwin resulted in considerable excess accommodation, training and support facilities becoming available at Puckapunyal. Relocating the school to Puckapunyal would allow effective utilisation of the existing 1st Armoured Regiment facilities and ready access to a field firing range.

29. Accordingly, Defence undertook a number of comprehensive studies into the facilities and field firing range requirements of the centre, including detailed analysis of capital and operating costs. The studies initially considered the following locations:

- North Head: this offered the least cost solution (\$20m at December 1994 prices) in terms of facilities, but it was considered unacceptable on the basis of lack of ready access to a field firing range, and pressures of urban encroachment on the Singleton and Holsworthy ranges.

- Holsworthy: this option was discarded due to range encroachment pressures by surrounding communities, aircraft overflight on approaches to Mascot, and because it does not meet the School of Artillery's stated training area requirement.
- Singleton: this option was discarded because of the lack of range space and insufficient utilisation time to meet the total program required by the School of Artillery. The range does not meet the School of Artillery's requirement for field firing range access.
- Rockhampton: this was the most costly option (\$60m-\$70m at December 1994 prices.) It would involve a 'greenfields' development, which would require construction of new facilities. being a green field site which necessitated all new facilities. The lack of a Defence presence and existing infrastructure was another factor which caused this option to be rejected.
- Townsville: This was the preferred option until the relocation of 1 Armoured Regiment from Puckapunyal to Darwin and the consequent availability of suitable facilities at Puckapunyal. The proposed location was a green-field site adjacent to the already well established Lavarack Barracks at Townsville with services already at site boundaries. This option is the second most expensive (\$53m at December 1994 prices) after Rockhampton.
- Puckapunyal: The Puckapunyal (Robertson Barracks) option offers the most economical solution. In addition, it includes access to a suitable field firing range and permits the reuse of facilities after the departure of the 1st Armoured Regiment to the North of Australia. This option is costed at \$30.912m at December 1994 prices.

- Tobruk Barracks, Puckapunyal
- Lavarack Barracks, Townsville.

31. The initial planning study confirmed that Robertson Barracks offered the least cost solution and the best opportunity for efficient operation. Operating costs of each option were also examined. The combined impacts of capital, operating and opportunity costs were analysed using Net Present Value analytical techniques, and Puckapunyal was determined as the most cost effective solution.

Description of Puckapunyal

32. Puckapunyal is one of the largest Defence establishments in Australia. It is located in central Victoria, about 20km west of Seymour which is on the Hume Highway approximately 125km north of Melbourne. The site, which includes the live firing range, occupies 42 500ha of undulating and flat grasslands and forests and is the largest field firing range in south-eastern Australia. Facilities were established by the Army in 1939 and have been in constant use since that time. The Army's Proof and Experimental Establishment (P&EE Graytown) is located adjacent to the range. By way of comparison, the Puckapunyal and Graytown ranges comprise 50 000ha while the Singleton and Holsworthy ranges are 11 000 and 14 000 ha respectively.

33. The developed area of the Puckapunyal facility is referred to as the Cantonment which accommodates a population of about 3000 including military personnel and their families. The Cantonment occupies approximately 12km² at the south-east boundary of the site and Robertson Barracks is set on a gently sloping area at the northern edge of the Cantonment.

34. In recent years the Committee has recommended the construction of a number of facilities at Puckapunyal, namely:

- 1972 Construction of a Royal Australian Army Service Corps Centre - estimated cost (1972) - \$8.4m
- 1981 Armoured Centre redevelopment - estimated cost (1981) - \$12m

Initial planning study

30. In October 1994 Defence commissioned an initial planning study in order to confirm the most suitable location for the school and the following sites were assessed in more detail against the criteria of cost effectiveness and functional performance:

- Robertson Barracks - Puckapunyal

- 1983 Provision of airconditioning to Main Instructional building, Schools of Transport and Catering - estimated cost (1983) - \$2.26m
- 1990 Stage 1 redevelopment - estimated cost (outturn) - \$44m.

35. In addition, the Defence Housing Authority has a substantial inventory of houses at Puckapunyal and in 1993 the Committee agreed with the proposed construction of 204 houses, costing \$22.2m, to replace existing substandard houses at Puckapunyal.

Committee's Conclusions

36. For the Army's School of Artillery to operate effectively and efficiently, it needs to be located adjacent to a suitable field firing range and to have modern, purpose designed training facilities.

37. Use of the closest field firing range for the school, at Holsworthy, is restricted, due to its size and urban encroachment and is inefficient due to travelling time from North Head.

38. The support battery at Holsworthy which is used by the school, will be relocated to Darwin by 2000.

39. Training facilities at the School of Artillery are inadequate.

40. The need to relocate the School of Artillery has been recognised for many years, public announcements by the Government to that end have been made, and studies into the most suitable location undertaken by the Department of Defence.

41. The results of an examination of alternative locations for the School of Artillery indicate that Puckapunyal is the most suitable cost-effective site due to the large field firing range and surplus accommodation available.

Reactions to the need to relocate to Puckapunyal

42. Elected representatives of Commonwealth and State electorates encompassing North Head, Manly Council, and representatives of local business interests and community organisations raised a number of matters

in response to relocation of the school from North Head to Puckapunyal. Concerns expressed essentially relate to:

- the future of the land at North Head
- the impact of the current review of the Army's role and force structure (Army 21)
- the need for an artillery battery to be located at Puckapunyal to support the school which, it was claimed, would double the cost of relocation
- the negative impact of the move on the local community and spouses of Army personnel.

Future of the land at North Head

43. The land at North Head comprises 73.7ha, with the built up area taking up 15ha. The balance of the land is bushland or the museum site and the old fortifications. The Minister for Defence (Senator the Hon Robert Ray) has made the following commitments about the future of North Head:

- present areas of natural bushland will be incorporated into the Sydney Harbour National Park
- areas of national heritage significance will be preserved
- there will be no commercial development at North Head
- a steering group of Local, State and Commonwealth representatives will be established to oversight a management study for North Head.

44. It was suggested that Defence proposes to sell-off the land and use the proceeds to fund new construction at Puckapunyal. Defence advised the Committee that over the next few years there will be considerable rationalisation of Defence property holdings in the Sydney area. This rationalisation stems from a range of Government decisions – the Defence Logistics Redevelopment Program and the Force Structure Review. Defence acknowledged that some of these properties occupy sites on Sydney Harbour foreshores. Under current arrangements Defence may retain revenue from

property sales up to a limit of one per cent of Defence outlay per year. Defence assured the Committee that funding of any relocation to Puckapunyal will not need to rely on revenues from land sales because Defence forward estimates already make provision for the School of Artillery proposal.

45. It was also suggested to the Committee that relocation should await the development of a plan of management for the site. The development of a management plan will be under the direction of a Section 22 Committee, convened under the provisions of the NSW Environmental Planning and Assessment Act. Defence advised that the Committee will be chaired by a representative of the NSW Department of Urban Affairs and Planning.

46. The membership will comprise representatives from:

- Manly Council - up to nine representatives: the mayor, four from the council and four from precinct committees.
- Department of Defence
- Defence Housing Authority
- National Parks and Wildlife Service
- St Patrick's
- Manly Hospital
- Greening Australia
- Police College
- Water Board
- Federal and State members of Parliament.

47. Defence also assured the Committee that the involvement of residents will be determined as part of the establishment of the Section 22 committee. The first meeting of the Committee will be held late this year and Defence indicated that the study would be concluded in one to two years.

48. In response to the suggestion that the relocation should be deferred until the Section 22 committee has concluded its tasks, Defence advised that should the Committee recommend the relocation to Puckapunyal proceed, Defence will remain at North Head for two years. That being the case, Defence believe that planning issues can be resolved in the next 12 months.

49. The local Federal Member (Mr Tony Abbott MP) said that the land and buildings occupied by Defence would be prone to vandalism and squatters when Defence vacates the site. Defence assured the Committee that it does not intend to walk away from the site; it will be placed under care and maintenance with adequate security. Similar provisions are undertaken elsewhere by Defence in relation to other property rationalisation projects. There is no evidence of vandalism having occurred to facilities of the former Quarantine Station at North Head which is now part of Sydney Harbour National Park. In response to a suggestion that the benefits of significant expenditure on buildings at North Head could not be recouped if the school were to relocate, Defence advised the Committee that the annual expenditure on maintenance over the past ten years was \$1m. This amount has been spent on ground maintenance, operating costs, building repairs and maintenance and some new work. A considerable proportion of the funds was spent on improving living-in accommodation because Defence is obliged to provide adequate accommodation for personnel. On this basis, Defence believe the expenditure on maintenance can be justified on the grounds of obligations to personnel and environmental responsibilities.

50. The meaning of 'no commercial development', contained in the Minister's statement, was questioned by a number of witnesses. Defence advised the Committee that:

In terms of the meaning of 'no commercial development of North Head', this was seen to mean no new construction for commercial purposes of the land occupied by the School of Artillery, with existing historical buildings being subject to examination for adaptive re-use. This could involve limited building alterations to enable the re-use. In terms of the married quarter area, the potential for low scale, medium density

redevelopment was an option to be further considered by the planning committee.¹

51. The Committee questioned Defence about the future of the Artillery Museum, which is operated by an incorporated association. Defence advised that the future of that facility would be considered as part of the management study by the Section 22 Committee.

52. The Committee requested advice from the Defence Housing Authority (DHA) about the future of the 34 married quarters located at North Head. DHA advised the Committee that the future of the married quarters is related to the Section 22 Committee. However, DHA would prefer to continue the use of all of the properties for Service housing after the School of Artillery is relocated. DHA indicated that 27 of the houses are owned by the Authority. The value of these houses and land was transferred to the DHA in 1988. Subdivision of these houses to separate titles in the name of the DHA has been held off while the future of the School is being determined. DHA advised the Committee that it will require compensation at full market value should the land be sold to another party or resumed for public use. The balance of seven houses is categorised as 'on base' and are owned by Defence.

53. The Committee considers that much of the apprehension about the future uses of the land is focussed on the developed area, comprising 15ha, occupied by the School of Artillery. It consists of buildings, roads, married quarters and other support infrastructure. The future of the balance of the land, some 60ha, has been assured by the Minister for Defence. This land is either natural bushland or is on the Register of the National Estate. It will be incorporated into Sydney Harbour National park. Whilst the future use of the larger area has been predetermined, a management regime will need to be developed under the direction of the Section 22 Committee. The Public Works Committee believes future uses of the 15ha should complement the objectives of the management plan for the larger site. The Committee also believes this planning context should therefore preclude any development or adaptive reuse of land and buildings which are incompatible with, or detract from, a significant natural recreational asset on the shores of Sydney Harbour.

¹Transcript, p. 153

Committee's Conclusion

54. A Section 22 Committee, comprising Commonwealth, State and local government officials, will develop a management regime for the land at North Head.

Army 21 and artillery battery

55. The School of Artillery, as part of the individual artillery training, requires weapons to be fired on a suitable field firing range and to practise the technical procedures and the tactical manoeuvre associated with the deployment training. Both equipment and suitably qualified personnel are needed to conduct that training. At North Head, the Committee saw examples of artillery pieces on issue to artillery units used by the School for instructional purposes. However, Defence explained that the School of Artillery currently does not have the personnel or sufficient equipment to conduct live firing or deployment training for the students under instruction. Currently, support is provided from artillery units in the Land Command element of the army.

56. A further argument advanced for deferring any decision on the future location of the school was that it should await the outcome of *Army 21*, a study which is examining the Army's force structure for the next century. The Committee understands the study will be concluded at the end of this year. It was suggested that for the school to be able to operate effectively at Puckapunyal, it is essential for a depot artillery battery to be located there. At present the school uses batteries at Holsworthy and Townsville for training. The battery at Holsworthy is due to be relocated to Darwin by 2000.

57. It was asserted that a decision to locate a battery at Puckapunyal had not been made. The Committee was assured by Defence that there is every confidence to believe that a battery will be located at Puckapunyal for the School as an outcome of the *Army 21* study. The battery will have a strength of 84 personnel and Defence advised that there is spare capacity at Puckapunyal to provide living accommodation for the personnel. The battery itself will require basic facilities comprising equipment storage and administrative space which Defence estimates will cost \$0.52m to provide.

Committee's Conclusion

58. It will be necessary for an artillery battery to be located at Puckapunyal to support the School of Artillery and, whilst this must await the outcome of a study of the Army's force structure, there is every confidence to believe that a battery will be relocated to Puckapunyal.

Impact on communities and Army personnel

59. A number of witnesses pointed to the long history of the Army's presence at North Head and the strong links which have been developed in that time between the community and the school. These links, and the possibility that Army personnel based at North Head may not be in agreement with relocation to Puckapunyal were seen to be further reasons why the school should remain at North Head. A number of submissions also questioned the availability of spouse employment at Puckapunyal.

60. The Committee is mindful of the strong economic and social links between the Army and the community at Manly. It remains to be demonstrated that the economic loss to the Manly community will be as severe as suggested. The Committee believes it will not.

61. The DHA advised the Committee that DHA-owned housing in Sydney, which will be vacated by personnel and their dependents relocating to Puckapunyal will be occupied by other Service families. At present there are 500 families in receipt of Temporary rental Allowance in the DHA North Sydney Regional Office area. Defence has asked DHA to reduce the incidence of TRA in Sydney.

62. The Committee is also mindful of the consequences to Army personnel and their dependents of relocating to Puckapunyal. The relocation, or posting of personnel, is a feature of service life. It is estimated that 400 people will be involved in the relocation of the school to Puckapunyal, of which 114 will be school age children. The Committee was advised that the opportunities for spouse employment have increased dramatically at Puckapunyal with the appointment of a commercial support program contractor (*Serco-GM*) to run all the base support services. The contractor employs about 300, 40% (140) of which are spouses of service people in the Puckapunyal military area. In addition, a number of spouses of serving personnel are employed within Seymour itself and in the surrounding communities – particularly in teaching and nursing positions.

63. Defence also advised that a number of service personnel work at Puckapunyal but live in Melbourne and other centres. About 167 Defence civilians work within the Puckapunyal military area, and a number of them are also spouses. There are also long-term contracts let by the Puckapunyal logistic battalion and 28 spouses involved in family day care activities.

64. In short, Defence believe there is a considerable diversity of employment opportunities, many of which stem from the contract let to *Serco-GM*.

Impact on Mitchell Shire

65. Representatives of Mitchell Shire strongly supported the relocation of the school from North Head to Puckapunyal. The military has had an association of more than a century with Seymour and the surrounding community.

66. Mitchell Shire has a population of 27 000 and covers an area of 2864km². The Army plays a significant role in the local economy and society in general. Following amalgamation of local government areas in Victoria, the Puckapunyal military area is now within one municipality, the Mitchell Shire. Shire representatives pointed out that resolution of issues can be addressed with a single municipality, rather than three—as existed in the past. This provides an assurance of consistency of response to any matters raised. The Council will shortly commence the preparation of a new planning scheme for the municipality which will provide an opportunity for the integrity and future of the range to be protected through planning controls.

67. The representatives of the Council highlighted the importance of local community acceptance of the Puckapunyal range as a live firing range and the relative ease with which the army is able to undertake training there involving live firing. This is evidenced by the fact that the El Alamein fire power demonstration is held at Puckapunyal every second year. While firing is intense over the period of the demonstration, its occurrence is well accepted.

68. Defence also commissioned an extensive community consultation to gain the views of the community on the proposed relocation.

69. The consultative process encompassed:

- letters and newsletters distributed by mail to every resident neighbouring the base, government, interest and community groups and Seymour businesses
- representatives of local media being briefed on the background to the proposal to encourage community participation
- public notices and media releases about the proposal and to promote an Open Day
- television, radio and print news.

70. Defence advised the Committee that responses received over the past few months indicate that 98 per cent of submissions registered support for the proposal. Defence arranged a tour of the range for the Seymour environment group which commended Defence's efforts and supported the proposal. One of the major impacts of the proposal on the local community will be noise generated by artillery firing on the range. Defence advised the Committee that the school will fire between 40 to 50 days on the Puckapunyal range. Utilisation of the range will not necessarily involve live firing. For example, it might be driver training or infantry minor tactics. A variety of range uses can be going on at any one time. The relocation of 1st Armoured Regiment to Darwin has provided range capacity and Defence believes that the School of Artillery's requirements can be readily accommodated on the range with the existing rate of usage.

Committee's Conclusion

71. **The relocation of the School of Artillery to Puckapunyal has the support of Mitchell Shire Council and the local community.**

Housing at Puckapunyal

72. Mr Tony Abbott MP also questioned the availability of housing at Puckapunyal-Seymour and if the DHA would need to construct additional houses to cater for relocated families, including those associated with the artillery battery. The DHA has 693 houses managed by the Housing Management Centre at Puckapunyal. Of these, 600 are occupied by Service families. The surplus was caused by a reduction in Service personnel

following the introduction of the Commercial Support Program. DHA advised the Committee that the surplus will be increased further with the movement of a further 130 families to Darwin as a consequence of the 1st Armoured Regiment being relocated there. DHA also advised the Committee that there is a stock of 90 good quality houses available which is presently being let to civilians or is under maintenance and care. Upgrading and refurbishment of poorer quality houses is programmed to occur before the arrival of the School of Artillery.

THE PROPOSAL

Development of preferred option

73. Following on from the Initial Planning Study, the Robertson Barracks option was subjected to further investigation and evaluation including the preparation of concept designs and budget quality estimates. A comprehensive existing conditions survey of buildings and services together with development of the design concepts was undertaken so that cost estimates and operational suitability could be assessed.

74. The selected option was based on optimum re-use of existing buildings and provided for adaptive reuse in a manner which was closest to the design for which each building was originally intended. As a result, new buildings represent approximately 30 percent of the total floor area planned for the refurbished Robertson Barracks. Consequently, the only facilities to be provided as new buildings are a Headquarters building to accommodate the School of Artillery and the Directorate of Artillery, a Central Instructional Facility (CIF), and additional living accommodation for officers and senior NCOs.

75. A master plan was developed and is based on maximum adaptive reuse of existing buildings on the Robertson Barracks site. The following sections describe the new facilities to be provided, refurbishment of buildings which will be retained.

NEW CONSTRUCTION

Headquarters Building

76. This will be a new building of two storeys, to accommodate:

- Directorate of artillery
- School of artillery headquarters
- Training co-ordination group
- Development wing
- guard house.

Design and structure

77. The building will be of steel frame construction with concrete floors, pre-finished metal clad roof and external brick walls. Windows will be aluminium framed with sun screens to north facing windows. Internal fitout will be of painted plasterboard walls and suspended fibre board ceilings with carpet and vinyl tile floor finishes. Building will comply fully with BCA requirements and will be of good commercial quality.

Central instruction facility

78. This will be a new building of two levels to accommodate:

- eight central shared classrooms
- four special instruction facilities
- five simulator rooms
- four syndicate rooms
- a model room
- staff resource areas
- library
- entry foyer
- staff offices.

Design and structure

79. The CIF will be of steel frame construction with concrete floors, pre-finished metal clad roof, external brick walls and aluminium window frames with sun shades to north and west facing windows. The internal fit out will comprise painted plaster wall, suspended ceilings with fibreboard tiles and vinyl floor finishes.

New officers' and senior NCO accommodation

80. The briefed requirements for all officers and NCO accommodation cannot be met by refurbishing the existing messes. These buildings provide only sufficient accommodation for permanent staff. In order to meet the accommodation requirements of both staff and students, it is proposed to construct three new accommodation blocks to be shared between officers and senior NCOs depending upon demand. The three new blocks will each be of two storeys with eight rooms on each level. Rooms will be motel style with an ensuite to each room. Buildings will be of load bearing brickwork, metal deck roofing and aluminium framed windows.

REFURBISHMENT

Training equipment hangar

81. This is an existing building which was previously used as a tank hangar. It is a bow trussed structure, clad with corrugated iron. The floor is a concrete slab and sides of the hangar are open, secured with sliding steel mesh gates. The hangar has no internal columns and has high internal clearances and is ideally suited for the uses intended by the school, namely equipment storage and workshops for:

- regimental training wing equipment
- locating wing equipment
- air defence wing equipment
- Electrical Instrument Repair (EIR) and Royal Australian Electrical and Mechanical Engineers (RAEME) workshops
- Category A storage areas

- indoor all weather training area and storage for field artillery support units
- support areas.

Proposed refurbishment

82. The structure of the hangar will be repaired and painted, the floor slab will be patched and the jointing edges ground to provide an even surface. The roof will be reclad and a new profile will be created to accommodate new highlight glazing. New roller doors will be fitted and a cantilevered canopy added to the north facade. New internal partitions (offices) and internal masonry walls for Category A storage are proposed together with new fire walls to EIR and RAEME workshop areas. The northern and eastern facades will have canopies added to provide all weather access and short term storage.

Technical support troop

83. This is an existing workshop building which will be re-used for the technical support troop (exclusive of EIR and RAEME workshops which are in Building 792). This is a relatively new building and is in good condition. It is proposed to accommodate the following technical support troop activities:

- vehicle workshop and servicing areas
- engineering workshop
- repair parts store
- offices and support areas.

Proposed refurbishment

84. The workshop will be reclad with new roof and walls and the structure is to be repaired and painted. A new canopy is to be fitted to the north facade to connect in with that of Building 792. Offices are to be refurbished and store areas reconfigured.

Support wing transport section

85. This is an existing transport compound with undercover parking bays, central office facility, wash down areas, extensive asphalt tarmac area and perimeter fencing. All the elements of this existing asset are suitable for re-use by the support wing of the School of Artillery. Only minor work is proposed and will include repair and painting of storage structures, re-cladding covered parking bays, the reconfiguring of office areas and the creation of a new point of entry.

Support wing Q stores

86. This existing asset is a metal clad, storage building, comprising single portal frame structure with seven roller doors in its southern side. Its location close to other Support Troop areas and the Training Equipment storage makes it ideally suited for use as a Q Store. The area of the present building is insufficient for the requirement briefed; consequently it is proposed to extend the building to the north and to the west using similar materials and form of construction.

Regimental Aid Post (RAP)

87. This building is already being used as an RAP. It is in fully operational condition and meets the requirements of the School of Artillery, with only minor upgrade work including new vinyl floor finishes, new joinery to suit requirements, patch and paint internal walls and ceilings.

Canteen

88. This facility is the present Robertson Barracks canteen. The ground floor accommodates dry and wet canteen facilities and the upper level is used for recreation and assembly purposes. It is proposed to retain this facility and its present use for the School of Artillery. It is also proposed to re-use the upper level for the Corps Shop and auditorium. The building was constructed in the 1960's and has been used extensively; consequently there is a need for minor renovation. Work proposed will include new floor finishes throughout, patching and painting internally, new roof and general refurbishment to the services areas.

Other ranks mess

89. This mess is a single level building with a seating capacity for approximately 500. Whilst the kitchen equipment is in generally good condition, the facility has excess capacity. It is proposed to reconfigure the kitchen and partition off part of the mess hall to improve operational efficiency and reduce energy consumption. The kitchen will be brought up to current standards with the reconfiguration. The proposed works will also include a new impervious ceiling to the kitchen and new internal light-weight partitions and repainting of the dining hall.

Other ranks accommodation

90. These two storey accommodation blocks dating from the 1980s have, over the last 5 years, received upgrade work to meet Services' Scales and Standards. Whilst the buildings have been well maintained, the ablution blocks are in need of significant remedial work. It is proposed to provide a general upgrade and to landscape adjacent precincts to give a greater sense of community and amenity. Floor coverings will be replaced, entry foyers will be upgraded and north facing windows will be fitted with shading elements to reduce the influence of summer sun.

Officers' mess

91. This two storey building is currently used as the officers' mess. It accommodates 19 officers and has recently been upgraded. Because of the requirement for additional living-in accommodation, it is proposed that a common kitchen be developed at the senior NCO's mess and that the present officers' kitchen-dining area be converted to additional officer living-in accommodation with ensuite facilities. It is proposed to re-use the kitchen equipment in the new common kitchen proposed for the NCO's Mess. Existing shared ablution units will be upgraded and new floor coverings are proposed throughout.

NCO mess

92. This building is of two storey construction and in current use as a senior NCO's mess. The building has a capacity for 15 living-in members. It is proposed to develop a common kitchen in this building and to extend part of the existing structure to provide new dining and mess facilities for officers thus reducing staff requirements. The NCO's mess was selected (in

preference to the officers' mess) for this addition because of its relative position to the headquarters building. The works proposed will include extending and upgrading the present kitchen to current standards, the construction of a new officers' dining room, ante room and foyer; upgrading existing NCO's foyer, bar and dining room, general repainting and new floor finishes throughout.

BUILDINGS TO BE RETAINED

93. The following buildings are to be retained without refurbishment:

- Two other ranks accommodation blocks: These facilities are used by the Armoured School and are not available for use by the centre.
- Squadron headquarters: This building will be retained for use by sports/social club facilities and sports equipment storage.
- Battery shed: This building is for re-use by the centre in its existing condition.
- Other ranks accommodation block: This existing building is to be retained for area transit accommodation purposes.

BUILDINGS NOT REQUIRED

94. Whilst most of the buildings at Robertson Barracks will be re-used, there are a few which are not required because of their inappropriate location or poor condition. The following buildings are to be demolished:

- Guard House: This is a small single level brick structure which has no relevance to the proposed master plan and cannot be re-used.
- Headquarters: This is a single level brick structure which it would not be cost effective to upgrade and extend to meet the requirements of the proposed new Headquarters building.
- Q Stores: These are single level brick structures which are not suitable for upgrading and which occupy the proposed location for the CIF.

- Squadrons' Q Stores: These are of brick construction with raised concrete floors. These buildings, because of their specific designs, are costly to convert for other purposes. Further, if the tank hangar is to be re-used, these Q stores would occupy a site proposed for gun parking. Because a strategy to re-use high value assets has been adopted, the Q stores which have a low value, and therefore a low priority, should be removed/demolished.
- Squadron Headquarters: This building is not required and has no potential use.
- Storage shed: No use has been envisaged for this shed which is therefore proposed for demolition.

PLANNING AND DESIGN

Priorities of works

95. The Committee questioned Defence about the adequacy of the proposed work in meeting the requirements of the school. Defence indicated that additional work could be undertaken on the living-in accommodation for other ranks. The building to be retained and used for transit accommodation could also be upgraded. Defence indicated that these are lower priority works.

96. The Committee also questioned Defence on the practicalities of including the refurbishment of the Puckapunyal shopping centre within the scope of the works. Defence advised that a number of studies were undertaken which indicated that \$1.6m would be required to make the shopping centre more presentable. The area at present consists of a range of transportable buildings which have been adapted a purpose for which they were not intended. During the inspection of the site, the Committee noted that the main grocery store is in a very poor condition. In response to the Committee's concern, Defence indicated that subject to the school relocating to Puckapunyal, there would be sufficient confidence of the viability of the shopping centre. Defence therefore proposes to seek the Committee's agreement to vary the scope of the Stage 1 works to include work on the community centre.

Accommodation for artillery battery

97. Defence assured the Committee that the design and the costs of the proposal are based on a depot battery being located at Puckapunyal.

Heating of instructional facilities

98. Lt Col Douglas Bryan (Rtd) made a number of useful suggestions concerning the need for instructional facilities to be providing with adequate heating and weather protection. This is particularly relevant to the equipment storage and training hangar. The Committee was assured that during further development of the proposal all options, including the use of under floor heating as suggested by Lt Col Bryan, will be re-examined.

Codes and standards

99. New buildings will be designed in accordance with current Services Scales and Standards and built in accordance with Building Code of Australia (BCA) together with the relevant and applicable local codes and standards including the Code of Practice for Provision of Amenities in Commonwealth Government Employment.

Master planning and future development

100. The redevelopment proposed will be augmented by landscaping and storm water run-off retarding works. These will be designed to emphasise and enhance the three major functional zones of the barracks, namely:

- other ranks accommodation and recreation
- officers and senior NCO accommodation and recreation
- administration, education and training.

101. Provision has been made for future expansion in the master plan by the appropriate positioning of new buildings and extension works. Similar provisions will be made in the detail design phase of the project.

102. The existing buildings are predominantly of load bearing brickwork with light weight roofs with the exception of the metal clad hangar and workshop buildings.

103. A new entry road will be constructed, leading to the new headquarters building. The Headquarters building will address the entry road and the parade ground and will be linked visually to the training facilities. The parade ground, resurfaced from grass to gravel will be the central focus for the centre linking together the headquarters buildings on one side of the parade ground and the new CIF on the other side. The parade ground will have the quality of the "collegiate" quadrangle and will provide a similar theme to the school's present facilities at North Head.

104. The new CIF will be sited opposite the headquarters. It will have a major formal frontage to the parade ground area.

Provisions for people with disabilities

105. Access and toilet facilities suitable for use by people with disabilities will be provided in the new Headquarters building, the new CIF and in all messes.

Noise control

106. The prime purpose of the centre is education and training; therefore attention has been directed to the elimination and control of noise and noise generating elements in the immediate vicinity of the CIF. The CIF has been physically separated from Gun Park and Equipment Storage areas, and will be of steel frame construction and external brick walls. Noise control will be addressed further in the detail design stage.

Landscaping

107. The grassed and planted areas at Robertson Barracks have been well maintained; however, the refurbishment program will provide an opportunity to upgrade the landscaping to develop it to a standard consistent with other areas at Puckapunyal which have already been upgraded. The landscape plan will include storm water run-off and retarding measures.

108. Detailed landscaping plans will be prepared for each of the three zones at Robertson Barracks.

109. Existing landscaping relies solely on fresh-water supplies. Alternative sources of water for landscape irrigation have been investigated including grey water (treated water from laundries, showers, sinks, etc.), treated

effluent from sewage treatment plant and storm water retention. Whilst fresh water offers the cheapest option, limitations are imposed when storage is low. Therefore, the option of utilising treated effluent from the Puckapunyal sewage treatment plant (already in use in other areas of the Cantonment and with spare capacity) will be examined as part of the detailed design process.

Committee's Conclusions

110. The scope of proposed refurbishment makes good use of existing facilities. New construction has been restricted to the provision of specialised training facilities and three new accommodation blocks to be shared between officers and senior non-commissioned officers, depending on demand. The siting of elements of new construction is in accordance with the master plan.

SERVICES

Electrical

111. Robertson Barracks takes its HV supply from the Puckapunyal HV radial main. Existing mains and sub-station capacity is generally sufficient for the new occupation proposed. However, the new buildings will result in an increased electrical load and upgrading of two substations will be required.

112. Many of the buildings do not have emergency lighting and exit signs. The site will be brought up to BCA requirements in this regard.

113. There is a requirement for new Low Voltage reticulation cabling to those buildings being extensively modified. New sub mains will be underground for aesthetic and safety reasons. New mains will be provided for the following:

- Q store
- equipment storage hangar
- technical support troop workshop
- CIF

- headquarters building
- new officer/senior NCO accommodation blocks.

Mechanical

114. All offices in the CIF and headquarters buildings will be air conditioned from central plant rooms in each building. Computer and simulator rooms will have their own dedicated cooling equipment. All amenities areas will be mechanically ventilated.

115. The principal form of heating used on the eastern side of the site is high temperature hot water (HTHW) which is generated by three natural gas fired boilers. There is no need to change this system which services:

- canteen
- other ranks mess
- other ranks accommodation
- regimental aid post.

116. New facilities (living accommodation, headquarters and CIF) will be heated by natural gas fired equipment, thus obviating the need to extend the HTHW reticulation which would result in further heat losses.

Communications

117. Investigations into the capacity of underground telephone cabling indicates that an extensive upgrade is necessary throughout the site. A combination copper and fibreoptic system will be installed to carry the data requirements for the site which include:

- inter-building wargame simulation data
- fire detection data
- CCTV
- local or base area data transmissions

- security monitoring data
- audio visual.

118. The existing PABX is served by a 200 pair copper cable which has sufficient capacity to meet the new requirements. However, existing site wide reticulation will be upgraded and extended.

119. A fibreoptic 'star' backbone will be provided in accordance with Army Cabling Manual requirements.

Watermains

120. The water reticulation systems appear to be adequate, however, allowance has been made to replace and upgrade control valves and to replace some existing pipes of asbestos cement manufacture. The Committee sought further details of the extent of the asbestos pipes. Defence advised there are asbestos watermains which are well contained and unlikely to deteriorate. Some mains need replacing for structural and capacity reasons and Defence believe it would be prudent, in the context of a capital investment project, that they be replaced.

Sewer

121. The existing sewage lines are in poor condition. Based on a video assessment report 80% of existing will require replacement or relining. Waste water systems which are to be re-used will be jet washed and replaced or relined as necessary.

Stormwater

122. The existing stormwater drainage system appears to have adequate capacity, but is in need of maintenance and some repairs. This proposal also allows for additional management of stormwater run-off by using landscape modifications to retard surface flows.

Civil Works

123. Existing roadway and parking area pavements will be re-sheeted to extend the pavement life. A new road is proposed to provide an appropriate

entrance to the site from the main access route. An additional car parking area is proposed for the western side of the site.

HERITAGE AND ENVIRONMENTAL IMPACT

Heritage

124. Robertson Barracks were constructed mainly in the 1960s are not considered of heritage interest. No buildings are included on the Register of the National Estate. There are a number of sites within the Puckapunyal Military Area which are of local significance. These are the camp grid system, Range Homestead (a small holding grazier homestead) and Whitechurch Homestead (a small selector's homestead). These sites will not be affected by this proposal.

Flora and fauna

125. Range management staff at Puckapunyal have established a reputation in environmental /conservation circles for sustainable land use practices and active programs in flora and fauna regeneration. The extensive buffer areas on the outer perimeters of the range are a known and documented habitat for a variety of native fauna including kangaroos. The Range impact areas are subject to monitoring and restoration program that is aimed at maintaining the long term sustainability of training in the area. This proposal in conjunction with the departures of units to the Darwin will result in a reduction in training activity and live firing on the Puckapunyal Range and therefore it is expected that this proposal will have a positive impact on flora and fauna.

Range noise

126. Military staff at Puckapunyal have received infrequent complaints from communities surrounding the range about noise generated by live firing activities. Complaints have been due, in the most part, to noise from the annual El Alamein/Alam Halfa series of exercises, and in particular from RAAF aircraft fly-overs and bombing activity. This proposal, in conjunction with the planned move of 1st Brigade units to Northern Australia will result in less live firing on Puckapunyal range, compared with historical usage rates. The result will be a reduction in the number of large calibre weapons fired on the range compared with activity levels prior to December 1995 with a consequential impact on noise levels. Defence is aware however that

the annoyance caused by noise is a matter of individual perception. The program of community consultation which commenced in September 1995 will provide information on the issue of noise and seek input from local residents.

Site contamination

127. Site audits have been conducted by appropriately qualified specialists for asbestos content in buildings and services, and for site contamination by diesel fuel spillage and wash-down chemicals. Prior to the commencement of construction, all residual asbestos will be removed from buildings to be demolished or upgraded. The asbestos materials will be disposed of in accordance with EPA requirements. Specialist reports have indicated only minor contamination in two localised areas on the site as follows:

- Washdown area: Site investigations have shown that there are raised levels of heavy metal contaminants and contamination due to fuel, oil and grease in the vicinity of the washdown area to the north of the site. The consultants have recommended that this can be treated by either removing the material or by mixing with clean fill to reduce levels of contamination.
- Boiler house: Contamination levels detected adjacent to the boiler house indicate that the fuel oil tank has been leaking. The consultants recommend that more detailed studies are undertaken to determine the most appropriate remediation method. This area will be treated, or the affected soil will be removed and disposed of in the manner prescribed by the consultants and the appropriate legislation.

128. The Committee questioned Defence about the confidence of the cost estimate provided for soil decontamination. Defence assured the Committee that costs estimates were developed through an expert consultant, following which contractors were asked to place an estimate against the scope of the work. The allowance in the budget estimate was made on that basis.

129. The Commonwealth Environment Protection Authority (CEPA) will be advised of the change of circumstances at Puckapunyal through the issue of a Notice of Intention (NOI) by Defence. Consultation with CEPA has commenced and an Environment Clearance Certificate in accordance with

the Administrative Procedures of the *Environment Protection (Impact of Proposals) Act 1974* will be sought.

FIRE PROTECTION AND SECURITY

Design standards and approval procedures

130. All construction and fire protection requirements will, as a minimum, be in accordance with the provisions of the Building Code of Australia (BCA) which is the Defence construction standard, the Defence Manual of Fire Protection Engineering (FACMAN 2) and all other applicable Codes and Standards. FACMAN 2 details Defence fire protection policy for asset and building function protection. The levels of fire protection specified are above BCA requirements and have been determined by a risk assessment and risk management approach to fire protection.

131. Defence will require certification, from a suitably qualified certifier, that the design and construction met the requirements of the BCA, FACMAN 2, relevant Codes and Standards and any additional State, Local Government and Defence requirements.

132. The Country Fire Brigade and the Puckapunyal Fire Service will be invited to comment on the project, visit the site and offer comment throughout the construction phase to ensure their operational requirements are met.

133. Any recommended departures from BCA requirements in relation to the project will be technically assessed by Defence specialist fire protection staff. Agreed departures (ensuring an equivalent or higher level of protection than BCA requirements) will require written approval from Director General level.

134. Successful tenderers will be required to produce a Quality Assurance Plan to clearly show how BCA, Australian Standards and any additional Defence requirements in relation to fire protection/fire safety will be met and the required standards for construction/installation maintained.

135. Fire alarms for individual buildings will terminate at the Fire Indicator Panel (FIP) in the 24 hour manned guard house, which will be connected to the 24 hour manned on base fire station.

Security

136. Provision will be made to meet the requirements for Category A Security Storage and Status Monitoring.

137. Security provisions will include a security and lock schedule for each building plus lighting to the external perimeter walls of storage buildings and workshops to eliminate areas of darkness. Lighting will be controlled by means of photo-electric cells with manual over-ride switching.

ENERGY CONSERVATION MEASURES

138. Reticulated services were selected on the basis of unit costs relative to capital investment costs. A number of possible alternative energy sources were investigated, including:

- co-generation - economically not viable
- solar and wind power - not economically viable because savings generated would not cover the initial capital outlay during the life of the plant.

139. The electrical load for Robertson Barracks is approximately 800 kVA. The most cost effective tariff is HV and Puckapunyal is already on this tariff.

140. Natural gas which is a 'clean fuel', is already reticulated at Robertson Barracks and continues to be the most efficient source for the High Temperature Hot Water services (HTHW) - used for heating in the other ranks accommodation blocks, canteen, mess and Regimental Aid Post.

141. All lighting sources to be installed will be the most energy efficient for the purpose intended. In addition to the use of efficient lamp types, advantage will be made of natural lighting through the use of sky-lights. A daylight control system, which will activate lights in accordance with external levels of light, will be provided in the internal training and storage areas.

142. Windows facing north and west will have appropriate sun shading elements included with building facades.

CONSULTATIONS AND LOCAL IMPACT

Authorities and organisations

143. Defence advised the Committee that the following authorities were consulted during the development of the proposal:

- Shire of Mitchell
- Commonwealth Environmental Protection Agency
- National Acoustics Laboratory
- Asset Services - Department of Administrative Services
- Chief Engineer Puckapunyal Military Area

144. Defence intend to consult other state and local authorities on issues surrounding this proposal during the planned community consultation program.

Local impact

145. The relocation of the centre to Puckapunyal will have a significant long term economic implication for the local communities of Puckapunyal and Seymour.

146. There will also be short term economic benefits to be derived from the construction and refurbishment works which are planned to extend over 18 months. Sections of the works will be of a suitable size and nature to attract tenders from local trades and builders.

Community consultation

147. A program of Community Consultation was commenced in September 1995, with the purpose of:

- disseminating information to enable members of the Puckapunyal and Seymour communities members to understand better the proposal to relocate the centre to Puckapunyal

- discussing issues with concerned individuals or groups
- using an open-day display, the media and an advertising program to reach the wider local community and to encourage comments
- recording and answering all queries relating to the activities of the centre at the Puckapunyal Range
- advising the local communities of the continued commitment to the area by Defence and the economic advantages of the continued presence.

148. The results of the program, together with any specific issues identified, will form the basis for further project development and administration of ongoing training activities at Puckapunyal.

PROJECT DELIVERY SYSTEM

Managing contractor

149. The refurbishment and new works proposed for Robertson Barracks will be delivered by the managing contractor form of Defence contract. Defence advised the Committee that this method of delivery allows the work to be broken up into small trade packages. The advantages of this method of delivery are:

- the project can be organised into a series of smaller packages, providing flexibility
- competitive pricing can be achieved at all levels of the work
- participation by a range of contractors and trades, which is particularly suitable for a community where local contractors will be keen to participate.

Protection of subcontractors

150. Under the managing contractor delivery system, the managing contractor engages subcontractors and consultants. All payments to

subcontractors are made from a trust account which is controlled by Defence.

CONSTRUCTION PROGRAM

151. Defence advised that subject to Parliamentary approval, a managing contractor will be appointed in early 1996. Construction is scheduled to commence in April/May 1996 with completion in December of 1997 with the following target dates:

Advertise Registration of Interest for Managing Contractor	November 1995
Call tenders for Managing Contractor	December 1995
Engage Managing Contractor	January 1996
Commence Construction	April/May 1996
Completion and handover	December 1997

PROJECT COST

152. The estimated outturn cost of the project is \$34.8m. The Committee questioned Defence about the basis of costings for the Seymour area when compared with capital city costs. Defence advised the Committee that prices will be competitive and this and variations between capital city and local costings were factored into the cost estimate.

Committee's Recommendation

153. The Committee recommends the development of facilities for the Artillery Centre, Puckapunyal, Victoria, at an estimated outturn cost of \$34.8 million.

CONCLUSIONS AND RECOMMENDATIONS

154. The conclusions and recommendations of the Committee and the paragraphs in the report to which they refer are set out below:

	Paragraph
1. For the Army's School of Artillery to operate effectively and efficiently, it needs to be located adjacent to a suitable field firing range and to have modern, purpose designed training facilities.	36
2. Use of the closest field firing range for the school, at Holsworthy, is restricted, due to its size and urban encroachment and is inefficient due to travelling time from North Head.	37
3. The support battery at Holsworthy which is used by the school, will be relocated to Darwin by 2000.	38
4. Training facilities at the School of Artillery are inadequate.	39
5. The need to relocate the School of Artillery has been recognised for many years, public announcements by the Government to that end have been made, and studies into the most suitable location undertaken by the Department of Defence.	40
6. The results of an examination of alternative locations for the School of Artillery indicate that Puckapunyal is the most suitable cost-effective site due to the large field firing range and surplus accommodation available.	41
7. A Section 22 Committee, comprising Commonwealth, State and local government officials, will develop a management regime for the land at North Head.	54

8. It will be necessary for an artillery battery to be located at Puckapunyal to support the School of Artillery and, whilst this must await the outcome of a study of the Army's force structure, there is every confidence to believe that a battery will be relocated to Puckapunyal. 58
9. The relocation of the School of Artillery to Puckapunyal has the support of Mitchell Shire Council and the local community. 71
10. The scope of proposed refurbishment makes good use of existing facilities. New construction has been restricted to the provision of specialised training facilities and three new accommodation blocks to be shared between officers and senior non-commissioned officers, depending on demand. The siting of elements of new construction is in accordance with the master plan. 110
11. The Committee recommends the development of facilities for the Artillery Centre, Puckapunyal, Victoria, at an estimated outturn cost of \$34.8 million. 153



Colin Hollis MP
Chair

23 November 1995

WITNESSES

- ABBOTT, Mr Tony, MP, Federal Member for Warringah, 4 Sydney Road, Manly, NSW
- BAILEY, Ms Fran, 'Glenholme', 213 Bleases Lane, Yarra Glen, Vic
- BECK, Lieutenant Colonel Geoffrey Richmond, Project Officer, Director General of Accommodation and Works—Army, Department of Defence, CP3-2-24, Campbell Park Offices, Canberra, ACT
- BRYAN, Lieutenant Colonel (Rtd), Douglas Ninian, 82 Buckingham Drive, Heidelberg, Vic
- CLEELAND, Mr Peter Robert, MP, Federal Member for McEwen, 3 Hamilton Street, Craigieburn, Vic
- COLLINS, Mr Wayne Anthony, General Manager, Manly Council, Council Chambers, 1 Belgrave Street, Manly, NSW
- GEARY, Commissioner Leslie, Commissioner, Mitchell Shire Council, Tallarook Street, Seymour, Vic
- JONES, Colonel Gordon, Director of Armour, Army Area Representative Puckapunyal, Directorate of Armour, Hopkins Barracks, Puckapunyal, Vic
- LYON, Mr Carey Hamilton, Consultant to the Department of Defence, and Associate Director, Perrott Lyon Mathieson, 18-20 Fitzroy Street, St Kilda, Vic
- McCANN, Brigadier Raymond Leslie, Director General of Accommodation and Works—Army, Department of Defence, CP3-2-15, Campbell Park Offices, Canberra, ACT

MACDONALD, Dr Peter Alexander Cameron, MP, State Member for Manly, 35 Sydney Road, Manly, NSW

MACDONALD, Mr Ian, Chair, Manly Hospital Community Development Committee and Immediate Past President, Manly Rugby Football Club, c/- 82 Bower Street, Manly, NSW

PLATT, Lieutenant Colonel John Campbell, Commanding Officer/Chief Instructor, School of Artillery, Department of Defence, North Head Barracks, Scenic Drive, Manly, NSW

TRELOAR, Mr Darrell John, Chief Executive Officer, Mitchell Shire Council, Elizabeth Street, Seymour, Vic

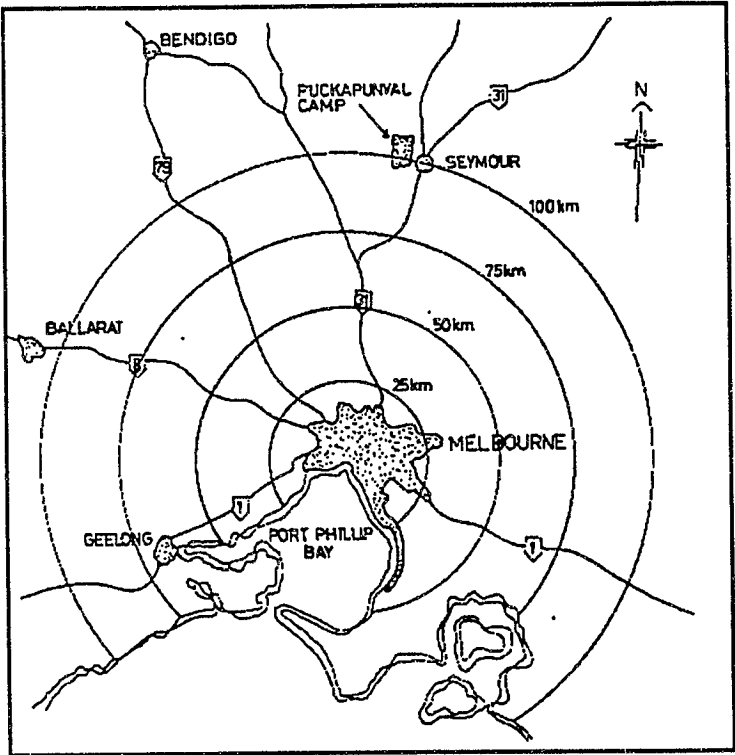
VESCIO, Mr Nicholas, President, Manly Chamber of Commerce, PO Box 4, Manly, NSW

APPENDIX B

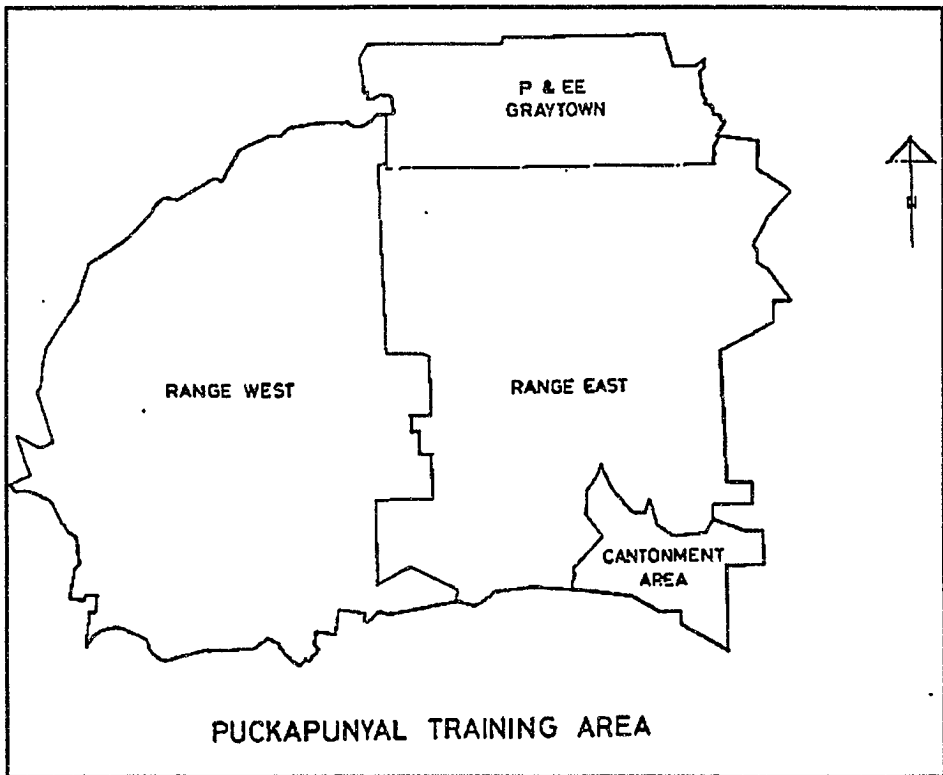
PLANS

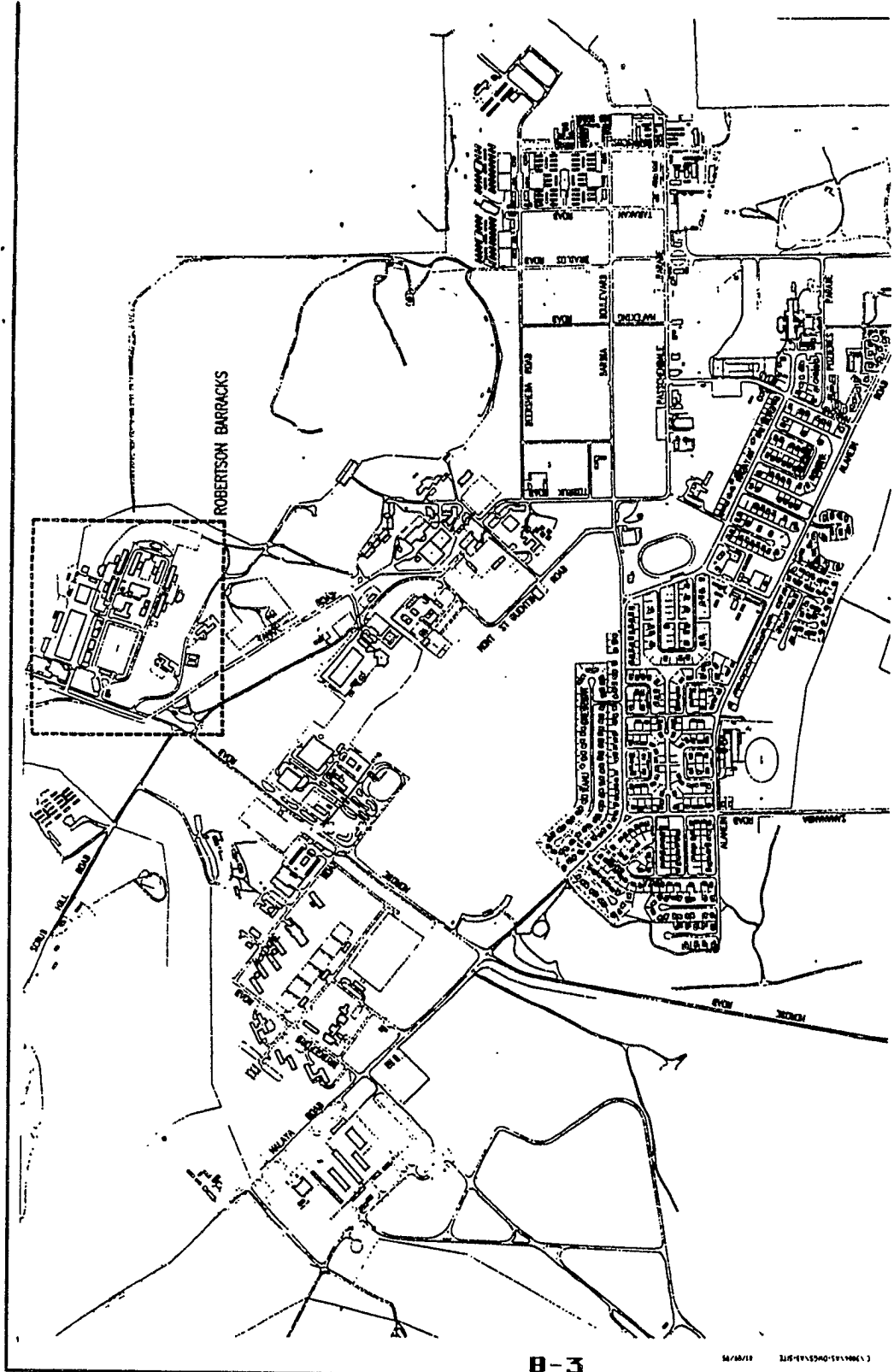
	<i>Page</i>
Puckapunyal - location	B - 1
Puckapunyal - range layout	B - 2
Location plan - Puckapunyal	B - 3
Existing conditions - Robertson Barracks	B - 4
Headquarters building - plan	B - 5
Headquarters building - south elevation	B - 6
Central instructional facility	B - 7
Officers and Senior NCO accommodation	B - 8
Officers' accommodation	B - 9
Senior NCO accommodation and Senior NCO and Officers' Mess	B - 10
Training wing hangar	B - 11
Support wing Q store	B - 12
Master Plan - concept design	B - 13
Aerial perspective - concept design	B - 14

PUCKAPUNYAL LOCATION DIAGRAM



PUCKAPUNYAL RANGE LAYOUT





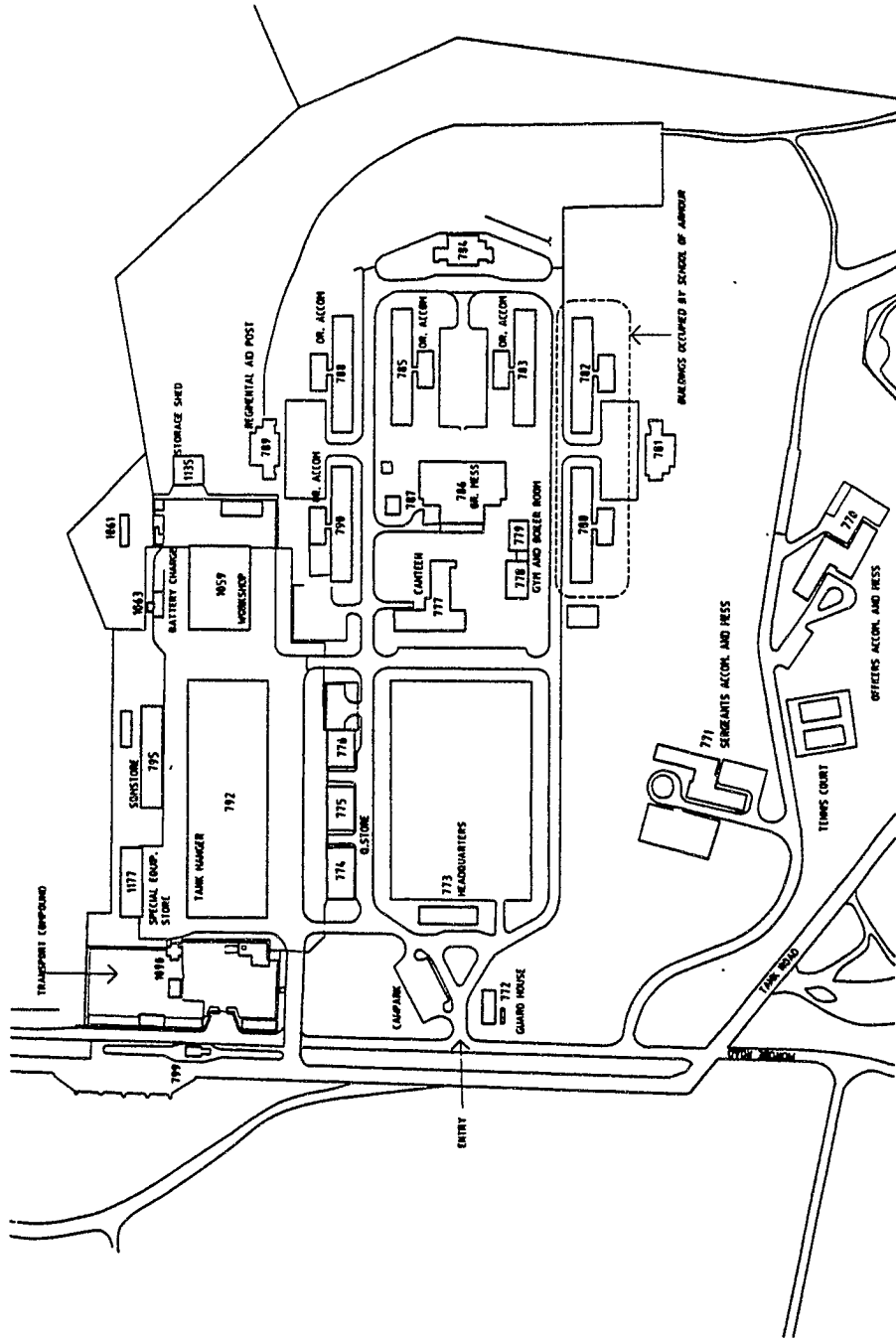
01.09.95

LOCATION PLAN
PUCKAPUNYAL

A3024

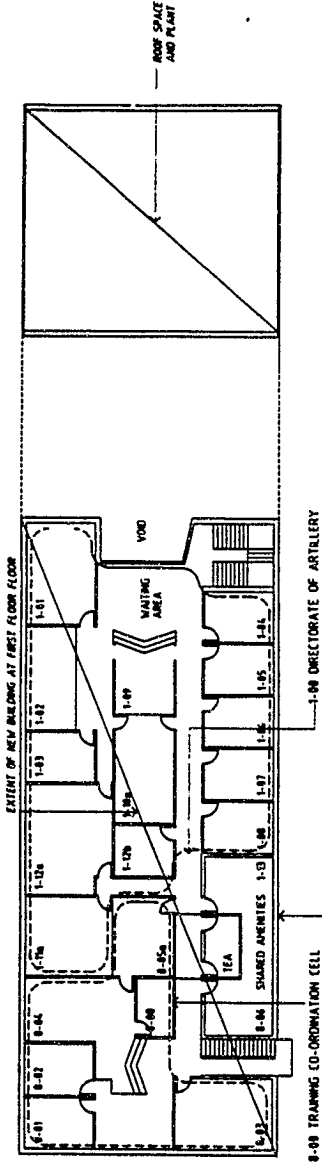
DEPARTMENT OF DEFENCE - ARTILLERY CENTRE RELOCATION

PETER LYON MATHEISSON

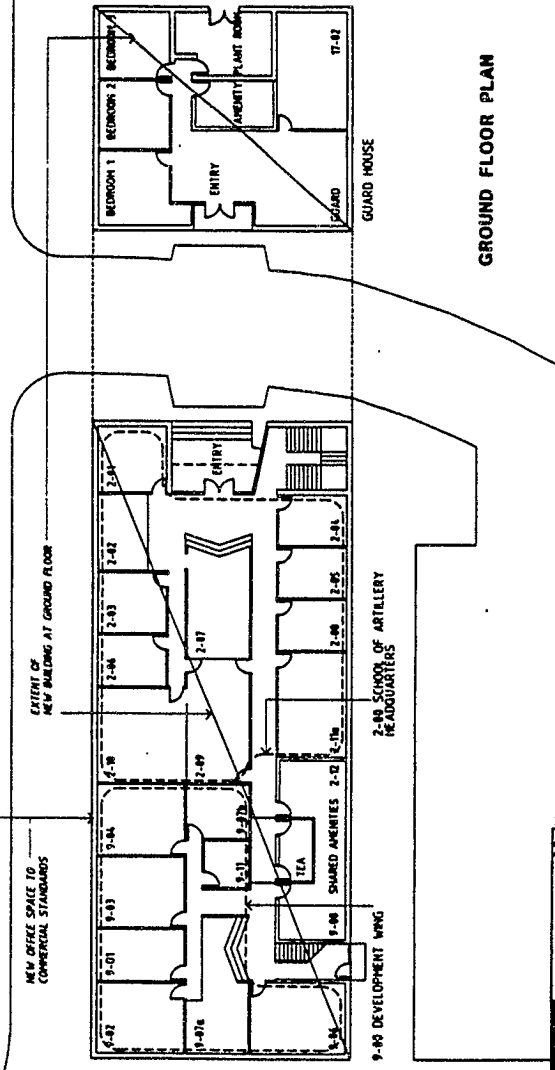


01.09.95

EXISTING CONDITIONS
 ROBERTSON BARRACKS, PUCKAPUNYAL
 A3024
 DEPARTMENT OF DEFENCE - ARTILLERY CENTRE RELOCATION
 PERRYOTT LYON MATTHEWSON



FIRST FLOOR PLAN



GROUND FLOOR PLAN

BUILDING N1

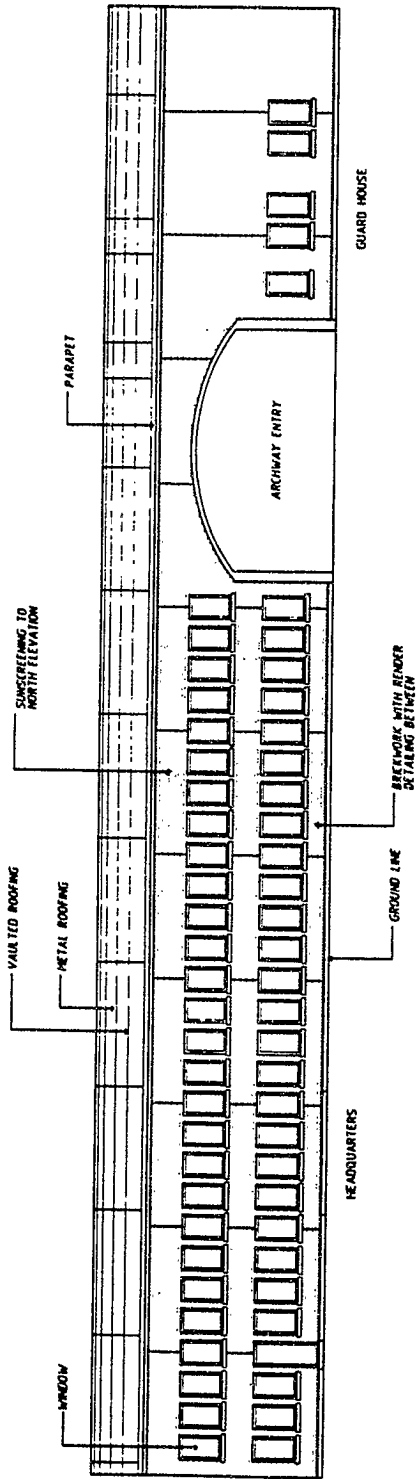
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HEADQUARTERS BUILDING
ARTILLERY CENTRE CONCEPT DESIGN
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DEPARTMENT OF DEFENCE - ARTILLERY CENTRE RELOCATION

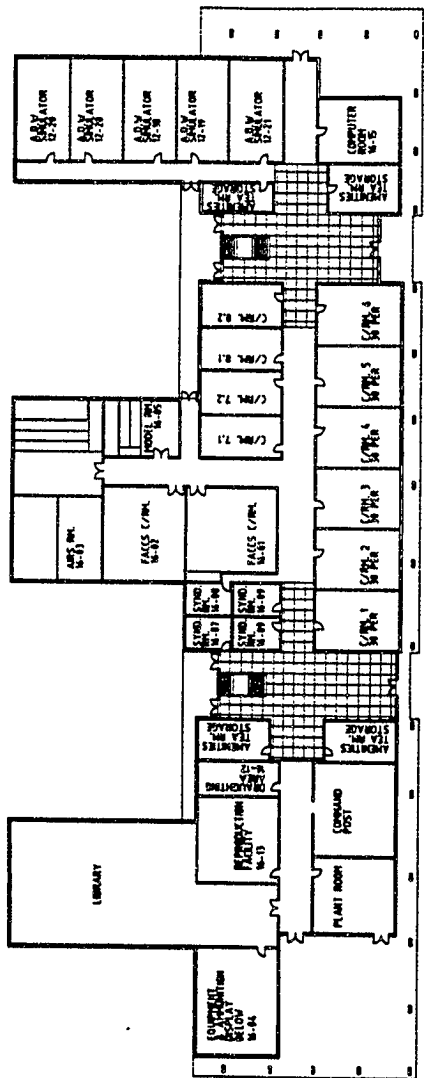
PERROTT LYON MATTHEWSON



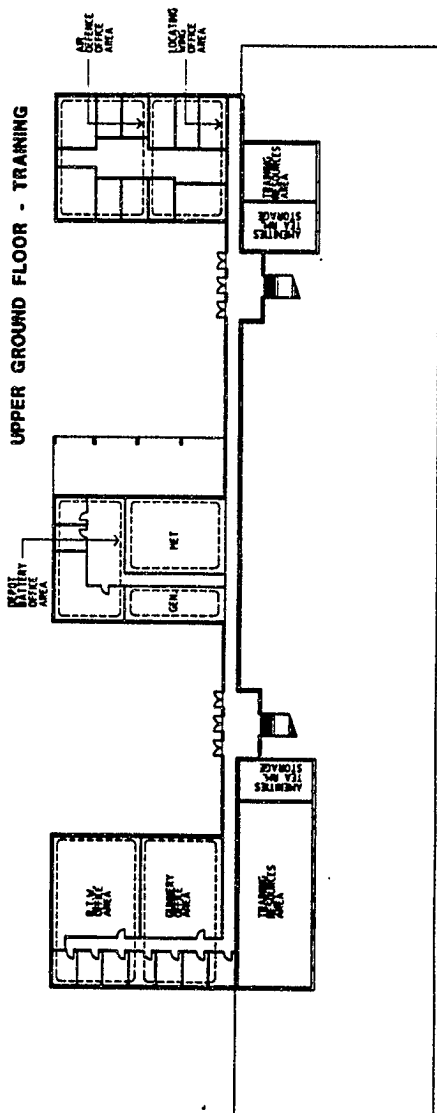
SOUTH ELEVATION

BUILDING N1
01.09.95

KEY SECTION N.T.S.
C.I.F. & HANGAR



UPPER GROUND FLOOR - TRAINING



LOWER GROUND FLOOR - OFFICE/ADMIN.

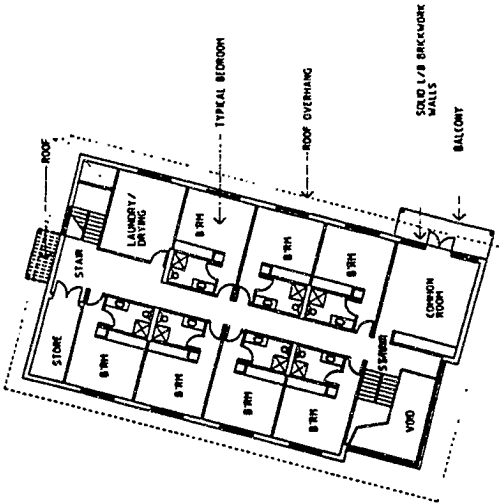


BUILDING N2

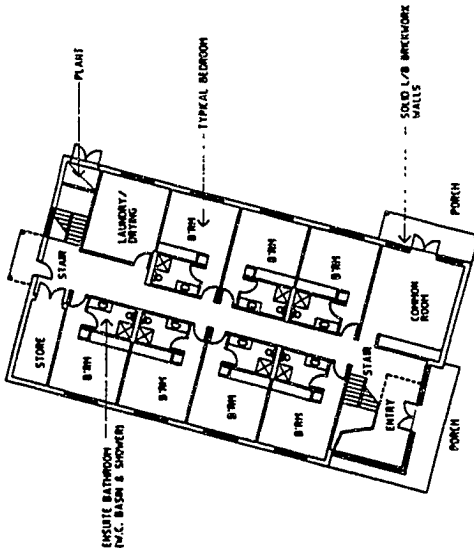
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CENTRAL INSTRUCTIONAL FACILITY
ARTILLERY CENTRE CONCEPT DESIGN A3024





FIRST FLOOR PLAN



GROUND FLOOR PLAN

ACCOMMODATION FOR 42 PERSONS TOTAL

BUILDING N3/N4/N5

01.09.95

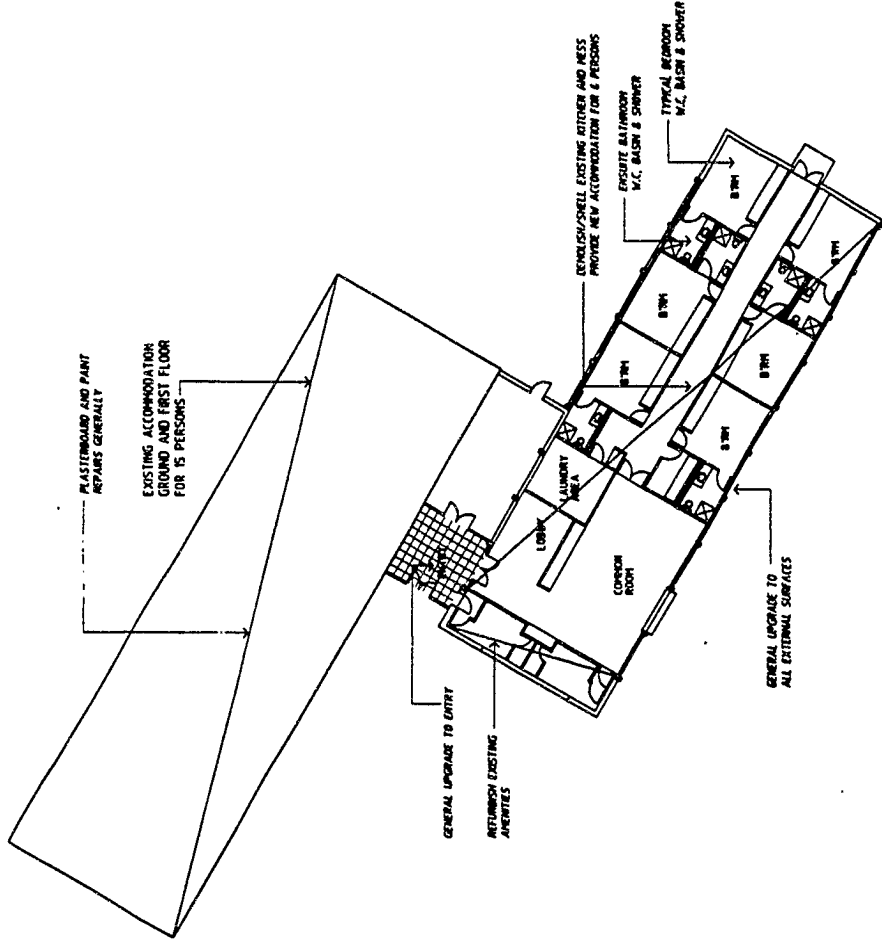
OFFICERS/BNCO'S ACCOMMODATION
ARTILLERY CENTRE CONCEPT DESIGN

A3024

DEPARTMENT OF DEFENCE - ARTILLERY CENTRE RELOCATION

P E R R O T T L Y O N M A T R I S O O N



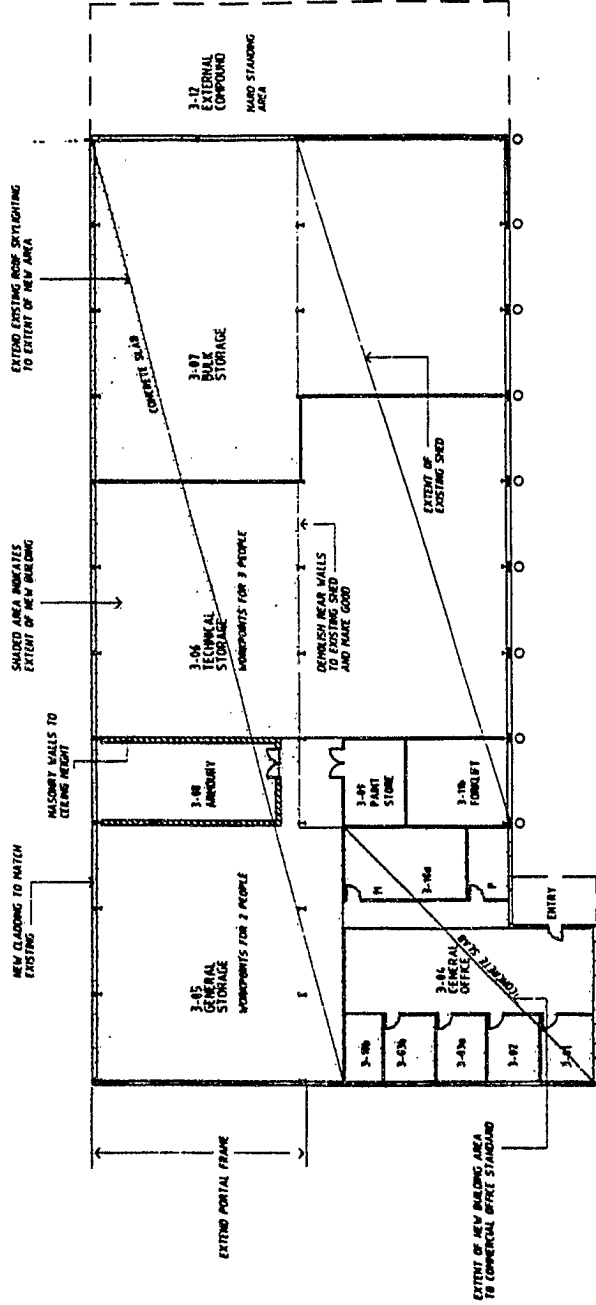


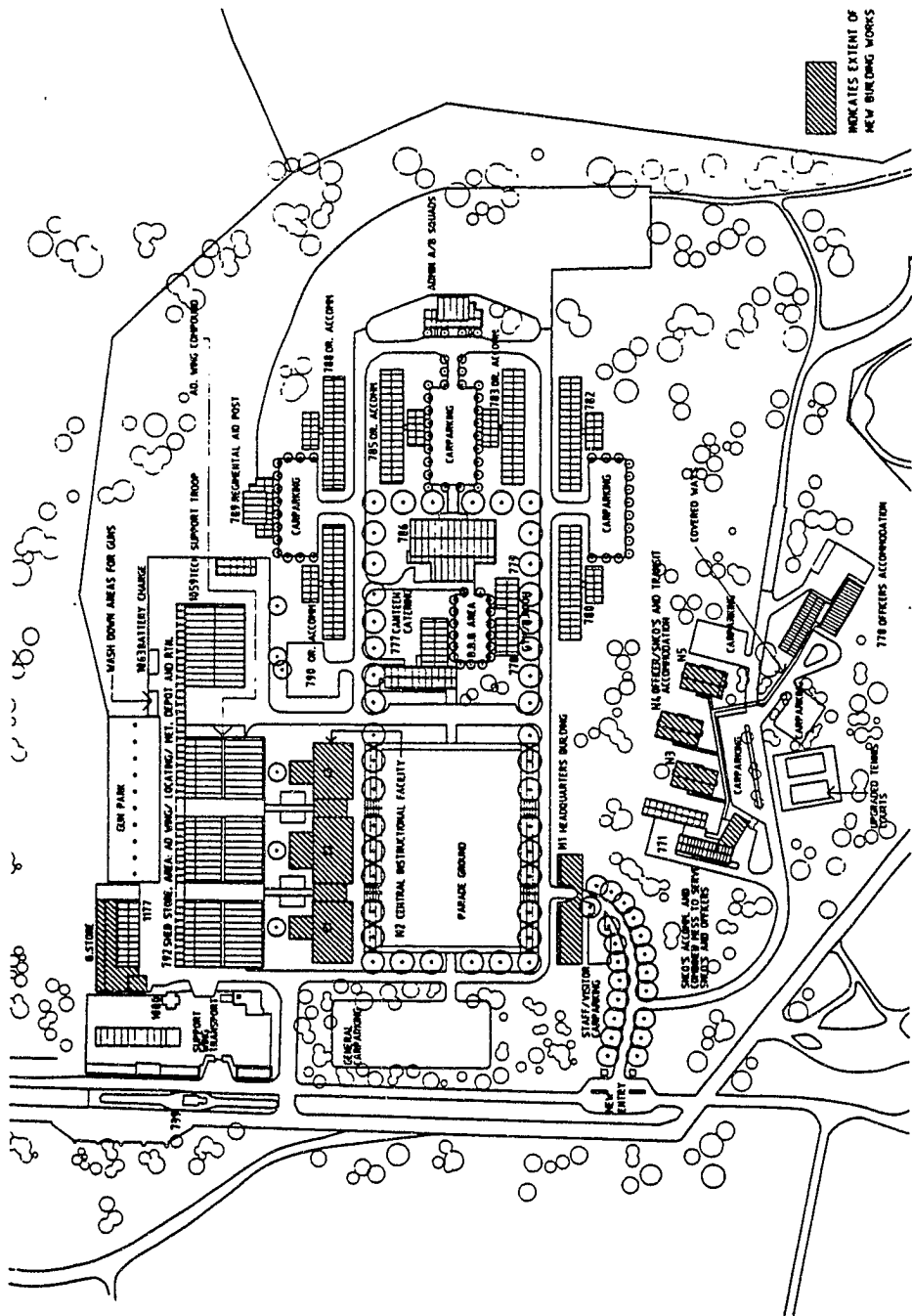
GROUND FLOOR PLAN

ACCOMMODATION FOR 21 PERSONS TOTAL

BUILDING 770

01.09.95

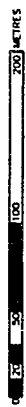


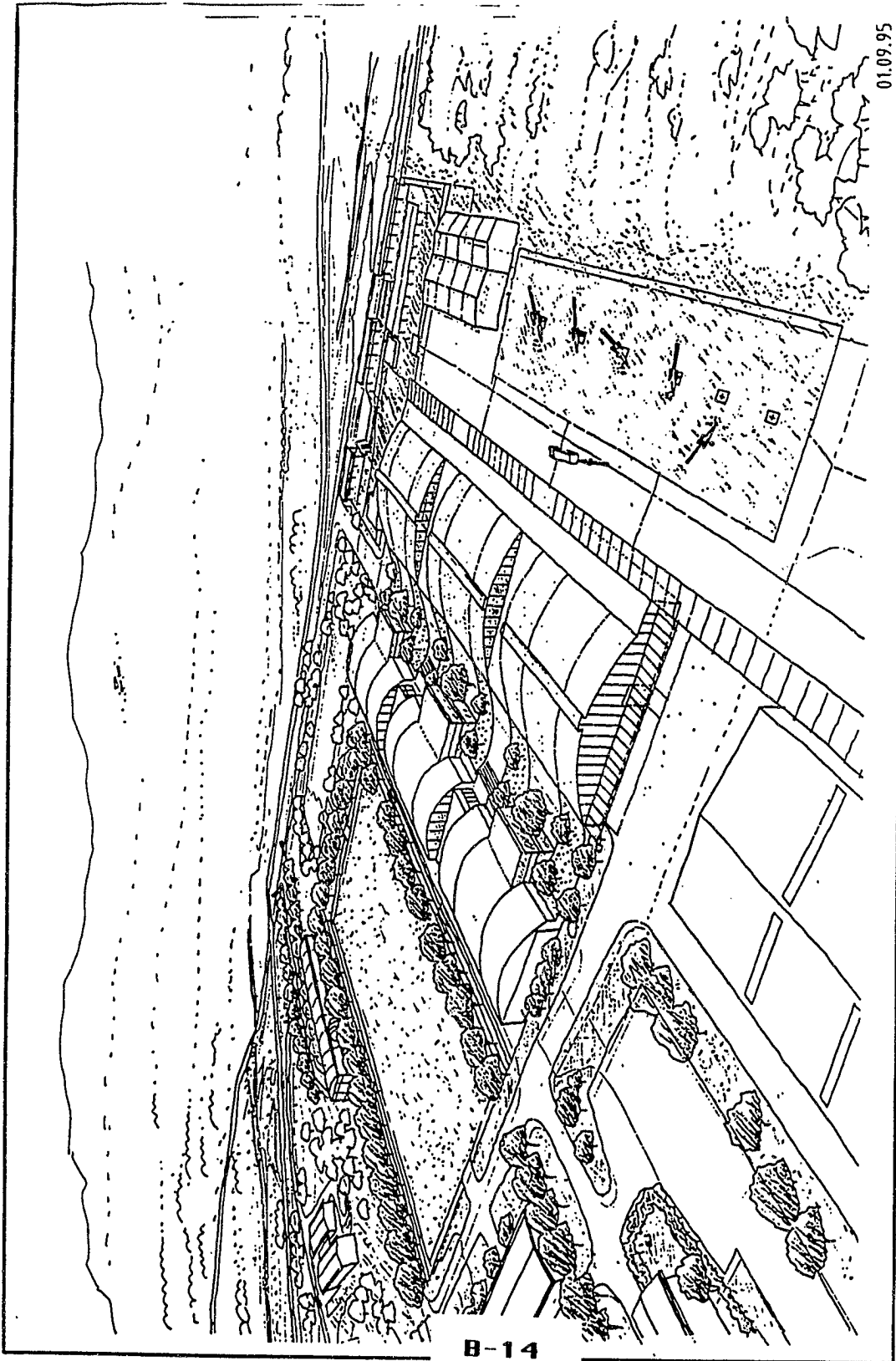


INDICATES EXTENT OF NEW BUILDING WORKS

01.09.95

MASTER PLAN
ARTILLERY CENTRE CONCEPT DESIGN
A3024





01.09.95

AERIAL PERSPECTIVE

ARTILLERY CENTRE CONCEPT DESIGN

A3024

DEPARTMENT OF DEFENCE - ARTILLERY CENTRE RELOCATION

FERRIS LYON MATHESSON



(1)