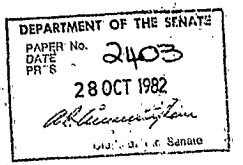
PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS



REPORT

relating to the

CONSTRUCTION OF AN

ENGINEERING TRAINING CENTRE,

PASADENA, S.A.,

FOR

TELECOM AUSTRALIA

(Fifteenth Report of 1982)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA 1982

1 9 8 2

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

R E P O R T

relating to the

CONSTRUCTION OF AN

ENGINEERING TRAINING CENTRE,

PASADENA, S.A.,

FOR

TELECOM AUSTRALIA

(Fifteenth Report of 1982)

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS
(Twenty-sixth Committee)

Melville Harold Bungey, Esq., M.P. (Chairman)
James Leslie McMahon, Esq., M.P. (Vice-Chairman) [5]

Senate	House of Representatives
Senator Dominic John Foreman [3]	David Bruce Cowan, Esq., M.P.
Senator Bernard Francis Kilgariff	Benjamin Charles Humphreys, Esq, M.P.
Senator John Raymond Martyr [4]	Urquhart Edward Innes, Esq., M.P.
Senator Jean Isabel Melzer [1]	Murray Evan Sainsbury, Esq., M.P.
Senator Harold William Young [2]	

1 Retired 30 June 1981.
2 Ceased to be member on election as President of the Senate on 18 August 1981.
3 Appointed 25 August 1981.
4 Appointed 25 August 1981.
5 Appointed Vice-Chairman 27 August 1981.

EXTRACT FROM
THE VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES
NO. 95 DATED 19 AUGUST 1982

28 PUBLIC WORKS COMMITTEE - REFERENCE OF WORK - ENGINEERING CENTRE, PASADENA, S.A.: Mr Hunt (Minister for Transport and Construction), pursuant to notice, moved - That, in accordance with the provisions of the Public Works Committee Act 1969, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for consideration and report: Construction of an engineering training centre, Pasadena, S.A. for Telecom Australia.

Mr. Hunt presented plans in connection with the proposed work.

Question - put and passed.

WITNESSES

Andrews, J.S., Esq., Project Manager, Department of Transport and Construction, SA/NT Region, City Mutual Centre, 10-20 Pulteney Street, Adelaide, South Australia

Brigden, W.F., Esq., Manager, Program and Projects Branch, Building Sub-Division, Headquarters, Telecom Australia, 172 William Street, Adelaide, South Australia

Richards, Dr. A.D., Chief Architect, Communications, Department of Transport and Construction, 470 Northbourne Avenue, Dickson, Australian Capital Territory

Schutz, R.A., Esq., Supervising Engineer Training, South Australia, Telecom Australia, Engineering Building, 42 Franklin Street, Adelaide, South Australia

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

CONSTRUCTION OF AN ENGINEERING TRAINING CENTRE, PASADENA, S.A., FOR TELECOM AUSTRALIA

R E P O R T

By resolution on 19 August 1982 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for investigation and report to Parliament the proposal for the construction of an Engineering Training Centre at Pasadena S.A. for Telecom Australia.

The Committee has the honour to report as follows:

THE REFERENCE

1. This is the first work of a statutory authority to be referred to the Committee since assent was granted to the amendment of the Public Works Committee Act on 9 April 1981. A period of 12 months from assent to the Bill was provided before works of authorities came under the purview of the Committee to allow those authorities which became subject to the Act to modify procedures and timetables.

2. The proposal referred to the Committee is for the construction of a new Engineering Training Centre to accommodate technical training for Telecom's Internal Plant (Technical) and External Plant (Lines) staff from South Australia and the Northern Territory, and for staff from all states in some specialised areas. The new complex will enable consolidation of these training activities in a single location, and will replace existing leased

accommodation used for Internal Plant training and inadequate buildings on the site that are presently used for External Plant training. The site, in Cashel Street, Pasadena, has been owned by the Commonwealth since 1971. The estimated cost of the proposal is $3.2 million at June 1982 prices.

THE COMMITTEE'S INVESTIGATION

3. The Committee received written submissions and drawings from Telecom Australia and the Department of Transport and Construction and took evidence from their representatives at a public hearing in Adelaide on 24 September 1982. Written submissions were received from Mr R. Payne, MLA, the State Member for Mitchell, the South Australian Department of Technical and Further Education, Mr and Mrs I. Stockbridge, and the Australian Postal and Telecommunications Union.

4. Prior to the hearing the Committee inspected the existing facilities for External Plant training in temporary accommodation on the site at Pasadena, and for Internal Plant training in the Simpsons Building, Pirie Street, Adelaide.

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

BACKGROUND

6. Training Responsibilities The South Australian Engineering Training Section of Telecom Australia has the responsibility for training Internal and External Plant staff from South Australia and the Northern Territory for both the Engineering and Operations Departments of Telecom. It also provides training in general matters such as first aid and radiocommunication tower and mast construction.

7. Telecom maintains an integrated, national approach to training whereby expertise developed in a particular field in one state is utilised by all other states. Due to this rationalisation, South Australia sends some students and instructors to other states for training and interstate students and instructors undertake certain courses in South Australia.

8. The two main engineering training groups, Internal and External Plant, are currently housed at two separate locations:

- Internal Plant training, which is concerned with telephone and exchange installation and maintenance, presently occupies six floors of the Simpsons Building in Pirie Street, Adelaide;
- External Plant training, which involves installation and maintenance of cables, conduits, aerial lines and towers is presently conducted at Pasadena, using twenty transportable buildings and an outdoor training area simulating network conditions.

9. The Internal Plant training provides for:

- Primary training (recruited from outside Telecom) for Apprentice Technician (Telecom) and Trainee Technical Officer;
- Bridging training (recruited from within Telecom) for Technicians-in-Training (Telecom); and
- Secondary training (further training for qualified staff) for Technicians, Technical Officers, Technical Assistants, Draftsmen and Engineers.

10. The External Plant training provides for:

- Primary training (recruited from outside Telecom) for Trainee Linesmen and Trainee Line Servicemen;
- Bridging training (recruited from within Telecom) for Line Servicemen-in-Training and Lines Officers-in-Training;
- Secondary training (further training for qualified staff) for Linesmen, Line Servicemen, Lines Officers, Lines Supervisors and Cable Assigner; and
- General specialised training (for all Telecom staff) in first aid, safety practices, motor driving instruction and fire protection.

11. In 1982/83 2215 students in South Australia were either training, or will undertake training in Internal Plant, External Plant, and special area activities. These students are undertaking studies in 248 training modules out of 392 modules that are available nationally. Of the total program, 13 modules (generally in the fields of electrical technology and communications) are available in state educational institutions and are being utilised by Telecom.

12. Courses in State Educational Institutions The South Australian Department of Technical and Further Education advised that it can offer further training in electrical technology and communications, as well as in metalwork, woodwork and supervision. Facilities for metalwork and woodwork are planned for the new training centre. The State Department has also advised that in the longer term, joint programs and shared facilities could be developed even in areas such as electronics and telecommunications.

13. During the hearing Telecom advised that recent discussions had been held with the Principal of the nearby Daws Road High School. The Principal indicated that there was some surplus capacity in the woodwork and metalwork areas of the school, and that these facilities may be available for use by Telecom if required.

14. To date Telecom have not made use of further state controlled training modules as it has not been economical or practical to do so. This is due to integration problems, timing considerations, or the small proportion of courses that are required. In addition, much of the equipment used by Telecom is unique to that organisation and state educational institutions do not have the appropriate specialised facilities, nor the appropriately trained instruction staff to take over training in many areas.

15. The Committee notes that limited training already takes place in state educational institutions, and encourages the further utilisation of state resources wherever practicable.

THE NEED

16. Forecast Student Numbers. Population forecasts indicate that 2100 students will be involved in Internal Plant and External Plant training, and special area activities in 1984/85. This is a five per cent reduction on the total number of students at Pasadena and the Simpsons Building during the current year, but is the level at which the student population is expected to stabilise.

17. The average daily population forecast for Telecom's Internal and External Plant training is as follows:

	1982/83	1984/85
Students	180	169
Staff	88	75
Total	268	244

18. Training Considerations The high technology communication equipment utilised by Telecom is, to a large degree, unique to that organisation. To enable Telecom to provide sufficient qualified and skilled technical staff to install, operate and maintain this equipment, a high level of staff training is necessary.

19. Training within operational telephone exchanges or on live network cabling is impractical due to the risk of jeopardising the network and affecting subscriber services. Model exchanges and outdoor lines areas, which simulate actual field installations, are therefore necessary. These facilities are currently provided in the existing training establishments, and will also be required in the new training centre.

20. Standard of Existing Accommodation Internal Plant training presently occupies six floors of the Simpsons Building in Pirie Street, Adelaide. This building is leased from the Department of Administrative Services on a monthly basis, and Telecom has been advised that permanent leasing arrangements cannot be entered into. The likely period of tenure is one to two years with a six month notice of termination.

21. This accommodation is substandard and over the years has been the subject of considerable staff association representations. The building was formerly a washing machine factory and many of the classroom areas are irregular in shape and size. It has many physical defects: the walls

are deteriorating and fretting away, fire exits do not meet normal requirements, the building leaks, and the toilets are below standard. The last upgrading took place in 1978. The walls were painted, carpets were laid in many areas, the water supply was improved, and the air conditioning was upgraded. Nevertheless, the building generally remains below standard..

22. External Plant training is presently conducted on the site at Pasadena, using twenty transportable buildings and an outdoor training area simulating normal network conditions. Fifteen of these buildings were provided rent free for three years from 1972 by the South Australian Department of Education, as part of a property exchange agreement, pending completion of a permanent centre. The Department of Education has now indicated that it requires the buildings for its own use.

23. Consolidation of Facilities Internal and External Plant training are totally separate schools and there is no functional reason why they should be located on the one site. However, the decision to consolidate training will result in savings due to increased efficiency and reduced travel. There will be further savings as many support facilities will not have to be duplicated and rental savings when the lease of the Simpsons Building is terminated.

24. Summary The existing Telecom Australia Engineering Training facilities in Adelaide comprise an engineering Internal Plant training group occupying six floors of the Simpsons Building leased from the Department of Administrative Services, and an engineering External Plant training group occupying twenty transportable buildings rented from the South Australian Department of Education, temporarily located on a site owned by Telecom at Pasadena.

25. Because of the uncertain tenure of the Simpsons Building, the poor quality of existing premises, and pressure from both the South Australian Department of Education and Mitcham City Council to remove the transportable buildings, Telecom considers the development of a new training centre to be essential.

26. Committee's Conclusion The Internal Plant training facilities in the Simpsons Building, and External Plant facilities in temporary buildings at Pasadena are inadequate and are unable to meet the training needs of Telecom in South Australia. New training facilities are therefore required.

THE PROPOSED WORK

27. The Proposal The proposal is to construct an Engineering Training Centre for Telecom Australia at Pasadena, South Australia. The major activities that will be conducted at the centre will be technical training for the Engineering and Operations Departments' Internal Plant (Technical) and External Plant (Lines) staff. The provision of modern accommodation and amenities will be conducive to the development of high level skills, and will be of a similar type and standard to facilities provided by Telecom in its training establishments in other States.

28. The project comprises:

- six single storey blocks containing classrooms, practical training areas, staff rooms, an administration area and staff amenities;
- a central corridor linking these blocks;
- a separate building containing a classroom and amenities for external training programs; and
- associated roads, car parking, landscaping, stormwater drainage and engineering services.

30. The proposal has been developed to meet projected training requirements taking into account the latest Five Year Engineering Operations Plan (FYEOP) staffing assessments, trainee intake levels, and the effects of technological changes on the required staff numbers and the level of skill to be developed.

31. The centre will incorporate amenities in accordance with local ordinances, and the code "Provision of Amenities in Telecom Australia Buildings 1979".

32. Indoor amenities will include a lunch room serviced by food and beverage vending machines. Seating will be provided for 150 persons, the number of staff and students expected to be on meal break at any one time. An adjacent indoor recreational area has also been provided. Folding partitions between this and the lunch room will enable use of the combined space as an assembly hall when the need arises.

33. Provision has been made for handicapped staff in respect of access to classrooms, facilities and amenities.

34. When formulating this proposal, eight other accommodation options were considered but were discarded for various practical or economic reasons. These reasons include unavailability of suitable premises for purchase or lease, a higher initial capital outlay in building and site works, the additional travel, staff, equipment and functional costs which would be generated with two separate establishments, and the large capital outlay that would be required to re-establish the extensive pole, conduit, tower erection and general outdoor practical areas.

35. This proposal has been assessed as the most efficient and economic solution to the provision of suitable training facilities for Telecom's Engineering and Operations Departments in South Australia.

36. Committee's Conclusions The design of the proposed Engineering Training Centre at Pasadena, to provide accommodation for Internal and External Plant training, is satisfactory.

THE SITE

37. The site of 8.27 hectares of Commonwealth land, is bounded on the north and east by residential houses, on the west by Cashel Street and on the south by Adelaide Terrace; it is eight kilometres south of the Adelaide central business district.

38. A number of facilities are presently located on the site. There are twenty transportable classrooms for External Plant training and an outdoor lines area. Present development is mainly to the north-west of the site.

39. Although relatively flat, the site has a natural slope to the west.

49. The proposed complex will be centrally located on the site. The Committee was advised that present permanent facilities and the facilities proposed in this reference will leave sufficient space for the size of the complex to be doubled.

41. Committee's Conclusion The site selected for the Engineering Training Centre is suitable.

ENVIRONMENTAL CONSIDERATIONS

42. Statutory Requirements A Notice of Intent covering the proposal was forwarded by Telecom in April 1979 to the former Department of Science and the Environment. Telecom was advised that the proposal did not require the preparation of an Environmental Impact Statement. This was recently confirmed by the Department of Home Affairs and Environment.

43. Visual Appearance and Noise The single storey design will generally be domestic in scale and set back from Cashel Street. The visual impact of the complex will be lessened by extensive landscaping of the site, particularly around outdoor facilities and training areas.

44. Some owners of adjacent residential properties claim that the storage compound, located close to the northern boundary fence, is unsightly. Telecom plans to enhance the amenity of these residential properties by relocating the rear fence of the compound to provide sufficient space for substantial screen planting.

45. Noise impact on local residents caused by the operations of equipment in practical training rooms will be minimised by the inclusion of acoustic ceilings and masonry walls. Fixed mechanical plant equipment will be housed in plant rooms designed to reduce noise transmission to acceptable levels.

46. Traffic The Mitcham City Council agrees with the location of vehicle entry and exit points to the site. The movement of vehicles to and from the site will be negligible except during peak periods. During departure peaks minor delays to traffic entering Daws Road from Cashel Street are expected.

47. Construction Some noise will be generated during the construction of the complex. This will occur during normal working hours and is not expected to cause undue nuisance.

CONSULTATIONS

48. The Committee was advised that Telecom had discussed the proposal with staff associations.

49. The proposal has the approval of the Council of the Corporation of the City of Mitcham, the South Australian State Planning Authority and the South Australian Department of the Environment.

LIMIT OF COST

50. The limit of cost estimate for the project when referred to the Committee is $3.2 million at June 1982 prices, made up as follows:

	$M
Building works	1.94
Engineering services	1.26

PROGRAM

51. The Department of Transport and Construction proposed to call tenders for the project in January 1983. Construction is expected to take 52 weeks.

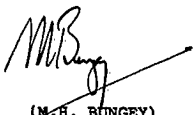
52. Committee's Conclusion The Committee recommends construction of the work in this reference.

RECOMMENDATIONS AND CONCLUSIONS

53. The summary of the recommendations and conclusions of the Committee and the paragraph in the report to which each refers is set out below.

		Paragraph
1.	THE INTERNAL PLANT TRAINING FACILITIES IN THE SIMPSONS BUILDING, AND EXTERNAL PLANT FACILITIES IN TEMPORARY BUILDINGS AT PASADENA ARE INADEQUATE AND ARE UNABLE TO MEET THE TRAINING NEEDS OF TELECOM IN SOUTH AUSTRALIA. NEW TRAINING FACILITIES ARE THEREFORE REQUIRED.	26
2.	THE DESIGN OF THE PROPOSED ENGINEERING TRAINING CENTRE AT PASADENA, TO PROVIDE ACCOMMODATION FOR INTERNAL AND EXTERNAL PLANT TRAINING, IS SATISFACTORY.	36

		Paragraph
3.	THE SITE SELECTED FOR THE ENGINEERING TRAINING CENTRE IS SUITABLE.	41
4.	THE LIMIT OF COST ESTIMATE FOR THE PROJECT IS $3.2 MILLION AT JUNE 1982 PRICES.	50
5.	THE COMMITTEE RECOMMENDS CONSTRUCTION OF THE WORK IN THIS REFERENCE	52



(M.H. BUNGEY)
Chairman

Parliamentary Standing Committee on Public Works
Parliament House
CANBERRA
27 October 1982

APPENDIX A

CONSTRUCTION

1. Building Form The complex will consist of six single storey blocks linked by a central corridor. A separate building for External Plant training is located approximately 50 metres to the east of the main complex.

2. The model exchange, workshop/store and the lunch/recreation area require higher ceilings than is normal.

3. Non-structural internal walls will be extensively used so room sizes can be modified with realtive ease and minimal cost should the need arise.

4. Structure The building will be constructed with stiffened raft concrete floor slabs and footings with edge beams.

5. Exterior walls will be steel framed with concrete masonry infill panels.

6. The design complies with relevant earthquake and wind loading standards.

7. External Finishes External walls will be masonry brickwork, with windows and door frames of anodised aluminium. Roofing and fascias will be prefinished coloured metal. Concrete paving will be used for paths, steps, ramps and the forecourt.

8. Internal Finishes Internal concrete masonry walls will be unpainted. Non-structural internal walls will be painted plasterboard on metal studs.

9. Generally floor coverings will be vinyl but some areas such as administrative offices and staff rooms will be carpeted.

10. Service areas will have granolithic finishes.

11. Ceilings will be suspended acoustic tiles.

12. Mechanical Services Classrooms, offices and staff rooms will be air conditioned. Practical work rooms will be ventilated for the removal of fumes.

13. A central plant room will provide reticulated hot and cooling water for air conditioning to air handling plants in each block.

14. Gas fired boilers will provide hot water for air conditioning. The water cooling plant and package air conditioners will be electric powered.

15. Hot water for the kitchen and amenity areas will be provided by solar units.

16. Exhaust ventilation will be provided to toilets and food preparation areas.

17. Electrical Services Power for the complex will be supplied from Electricity Trust of South Australia mains.

18. Lighting will be provided for external security, pedestrian access and car parking areas.

19. An under-floor duct system will be provided for electrical and telephone cable distribution to benches in general classrooms.

20. Fire Protection The building will be protected by an automatic fire alarm system connected to the local fire station.

21. Hose reels and portable fire extinguishers will be provided inside the buildings. Fire hydrants will be provided externally.

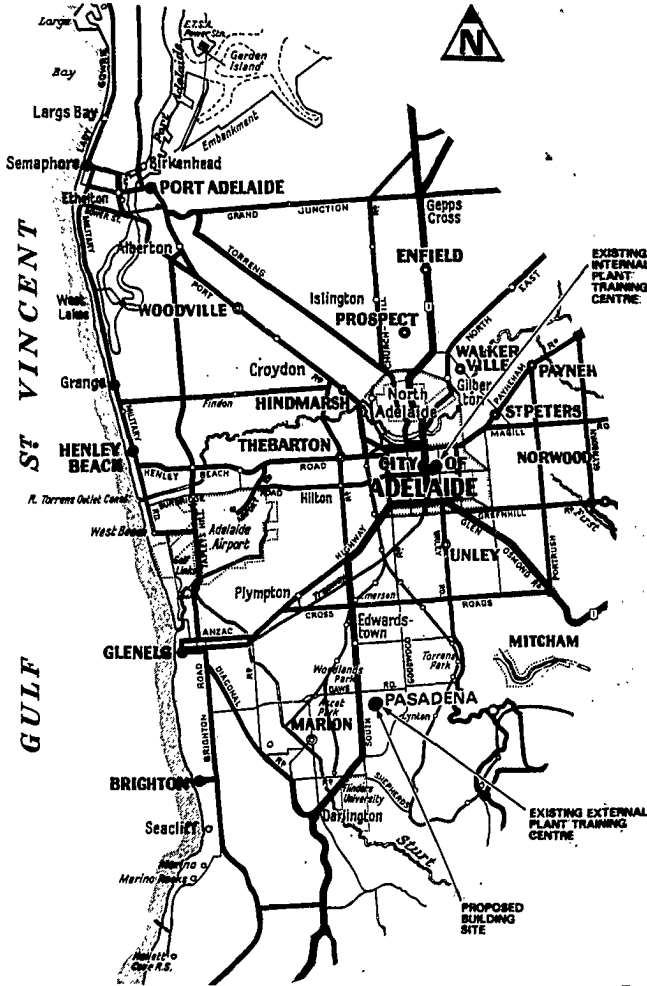
22. Civil Works and Hydraulic Services New roads providing access to the car park and building complex are designed to integrate with existing roads. The access road from Cashel Street and the car park will be sealed and provided with kerbing and guttering.

23. Parking for 120 cars will be provided.

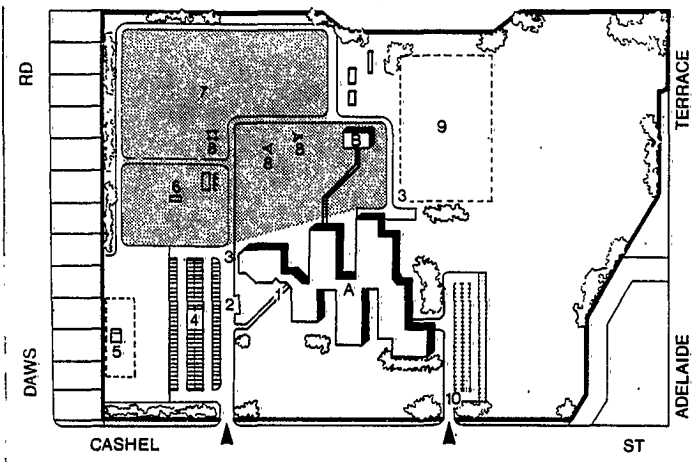
24. Surface drainage, will be collected in drainage pits and discharged into existing stormwater drains.

25. Roof drainage will be collected from downpipes connecting into the drainage system.

26. Hydraulic services, comprising water and sanitary drainage requirements, have been designed to comply with relevant state regulations.



AREA PLAN SHOWING EXISTING AND PROPOSED LOCATIONS



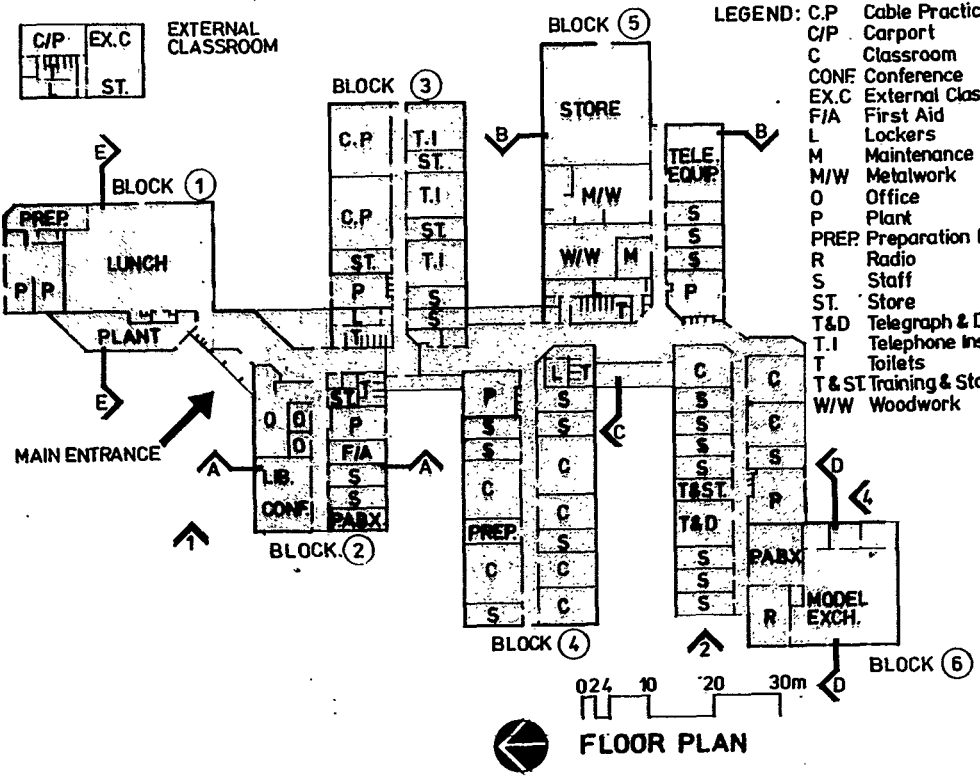
A MAIN TRAINING BUILDING
B EXTERNAL PLANT BUILDING

1 main entrance
2 visitors parking (5)
3 goods entrance
4 parking
5 storage compound

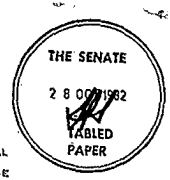
6 cable training
7 pole training
8 training tower
} existing outdoor training areas

9 conduit & mechanical aid practice area
10 temporary parking

SITE UTILISATION PLAN


C/P
EX.C
ST.
EXTERNAL CLASSROOM
BLOCK 1
PREP.
LUNCH
P
P
PLANT
MAIN ENTRANCE
BLOCK 2
O
O
ST.
P
F/A
LIB.
S
CONF.
S
PABX
BLOCK 3
C.P
T.I
ST.
C.P
T.I
ST.
ST.
T.I
P
S
BLOCK 4
P
S
S
C
PREP.
C
S
L
T
S
S
C
C
S
C
C
BLOCK 5
STORE
M/W
W/W
M
T
TELE. EQUIP
S
S
S
P
C
S
S
S
S
T&ST.
T&D
S
S
S
C
C
S
P
PABX
MODEL EXCH.
R
BLOCK 6
LEGEND: C.P Cable Practice
C/P Carport
C Classroom
CONF. Conference
EX.C External Classroom
F/A First Aid
L Lockers
M Maintenance
M/W Metalwork
O Office
P Plant
PREP. Preparation Room
R Radio
S Staff
ST. Store
T&D Telegraph & Data
T.I Telephone Installation
T Toilets
T & ST. Training & Store
W/W Woodwork
0 2.4 10 20 30m
FLOOR PLAN

TELECOM TRAINING



DEPARTMENT OF THE SENATE
PAPER No. 2404
DATE
PRESENTED
28 OCT 1982

ATTORNEY-GENERAL
PARLIAMENT HOUSE
CANBERRA A C T 2600

16 OCT 1982

Dear Senator Rae,

I refer to your letter of 14 September 1982 to Senator Chaney seeking information on a question asked by Senator Bolkus relating to the engagement by the Commonwealth of certain Western Australian firms.

Senator Bolkus has asked for a list of any occasions since 6 September 1977 on which the Perth firms James Mazza and Co., Northmore, Hale, Davey and Leake, or Jackson, McDonald and Co., have been engaged by the Commonwealth.

The Acting Deputy Crown Solicitor, Perth, was asked to investigate this matter. He has been unable, from inquiries he has made, to find any record of the above-mentioned firms having been engaged by the Deputy Crown Solicitor's Office, Perth, since 6 September 1977. The Acting Deputy Crown Solicitor has commented that he is unable to provide information on whether the firms have been engaged by statutory authorities or departments without reference to his office.

Yours sincerely,

Sgn. N. A. BROWN

(N.A. BROWN)

Senator Peter Rae,
Chairman,
Estimates Committee A,
Parliament House,
CANBERRA. A.C.T. 2600

ESTIMATES COMMITTEE G

FURTHER WRITTEN REPLIES TO QUESTIONS
ASKED DURING ESTIMATES COMMITTEE G
EXAMINATION OF PROPOSED EXPENDITURE
FOR 1982-83 AND EXPENDITURE UNDER
ADVANCE TO THE MINISTER FOR FINANCE 1981-82