

Parliamentary Standing Committee on Public Works

REPORT

relating to the

CONSTRUCTION OF A NEW RESOURCE MANAGEMENT CENTRE, ST LEONARDS, N.S.W.

(Fourth Report of 1986)

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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

R E P O R T
relating to the
CONSTRUCTION OF A NEW
RESOURCE MANAGEMENT CENTRE,
ST LEONARDS, N.S.W.

(Fourth Report of 1986)

Canberra 1986

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

Senator Dominic John Foreman (Chairman)
Percival Clarence Millar, M.P. (Vice-Chairman)

Senate

Senator Gerry Norman Jones
Senator Dr Glenister Sheil

House of Representatives

John Neil Andrew, M.P.
Robert George Halverson,
O.B.E., M.P.
Colin Hollis, M.P.
Leonard Joseph Keogh, M.P.
Keith Webb Wright, M.P. (1)
John Saunderson, M.P. (2)

- (1) Resigned 13 February 1986
(2) Appointed 18 February 1986

EXTRACT FROM THE
VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES
NO. 86 DATED MONDAY, 14 APRIL 1986

- 13 PUBLIC WORKS COMMITTEE - REFERENCE OF WORK - RESOURCE
MANAGEMENT CENTRE, ST LEONARDS, NSW: Mr West (Minister
for Housing 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 new
Resource Management Centre, St Leonards, NSW.

Mr West presented plans in connection with the proposed
work.

Debate ensued.

Question - put and passed.

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

CONSTRUCTION OF A NEW RESOURCE MANAGEMENT CENTRE,
ST LEONARDS, N.S.W.

R E P O R T

By resolution on 14 April 1986 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposed construction of a new Resource Management Centre, St Leonards, N.S.W.

The Committee has the honour to report as follows:

THE REFERENCE

1. The work proposed under this reference comprises two operations buildings, an engineering services building and a support building to provide accommodation for operational management support services.
2. The two operations buildings are each of two storeys and house equipment areas and associated engineering services.
3. The engineering services building is of three storeys and contains the centralised engineering services.
4. The support building is of two storeys and houses a paper store, equipment room, security control centre, offices and staff amenities.
5. The limit of cost of the proposed works is \$86 million at February 1986 prices.

THE COMMITTEE'S INVESTIGATION

6. During a private meeting of the Committee on 13 March 1986, officers of Telecom Australia and the Department of Housing and Construction (DHC) appeared before the Committee to explain details of the proposal and requested that the hearing into this reference be held in private.

7. The following is an extract from the Minutes of Proceedings of the Committee's meeting on 13 March 1986 at Canberra:

Telecom Australia - Construction of a new Resource Management Centre, St Leonards, N.S.W.

The Committee had before it copies of a Discussion Paper summarising formal evidence from Telecom Australia. Telecom sought a private hearing rather than a public hearing and the Committee had requested a briefing on the proposed work before deciding the form of hearing.

The following officers were admitted:

Telecom Australia

- Mr Wal Brigden
- Mr Bob Conlin
- Mr Dennis Read

Department of Housing and Construction

- Mr Ewen Fraser
- Mr Brigden made a statement, supported by Mr Read and Mr Conlin.

- Mr Fraser provided details on construction aspects.
- The Committee sought clarification on a number of matters.
- The witnesses withdrew.

Debate ensued.

Resolved - On the motion of Mr Halverson:

That an in-camera hearing be held for the Committee's inquiry into the Resource Management Centre, St Leonards, N.S.W.

8. Paragraphs 18A(1) and (2) of the Public Works Committee Act 1969 state:

Inquiries by Committee

18A(1) Subject to this section, where a public work is referred to the Committee for consideration and report, the Committee may direct that the inquiry by the Committee into the work shall take place in public or in private.

(2) Where the Committee directs that an inquiry by the Committee into a public work take place in private, the Committee may give directions as to the persons who may be present at the inquiry.

9. The private hearing was held in Sydney on 21 April 1986. Telecom and DHC representatives formally put written submissions and plans to the Committee and were examined on those submissions.

10. Prior to the hearing, the Committee inspected Telecom Australia's Resource Management Centre at North Sydney and the site for the new centre at St Leonards.

11. A list of witnesses representing Telecom Australia and DHC who appeared at the hearing is at Appendix A.

BACKGROUND

12. Telecom Australia's major resource management centres are located at Clayton, Victoria, and in North Sydney, New South Wales. A small resource management centre is currently being developed at Knoxfield, Victoria, to provide bridging accommodation needed prior to the completion of the expansion of Clayton and the construction of the centre at St Leonards. The facilities in resource management centres are used to process the requirements of client oriented systems such as customer billing, customer records, finance and accounting information, engineering operations processing and records and a range of internal services.

13. In general, Queensland and New South Wales operate through the North Sydney centre, and Western Australia, South Australia, Victoria and Tasmania, are served by the Clayton centre. Facilities at both centres are expanding rapidly and accommodation requirements will be met by optimising the use of the two sites involved and then providing extra centres in Sydney and Melbourne. The second centre in Sydney, to be located at St Leonards, is the subject of this report. Growth in demand has outstripped the availability of accommodation at North Sydney and Telecom has been required to obtain bridging accommodation in both owned and leased premises to cater for immediate needs. Additional facilities, the subject of the Committee's fifteenth report of 1985 following a hearing on 31 October 1985, are being developed at the Clayton centre.

THE NEED

14. Telecom advised that continued growth in demand for services has exhausted the supply of accommodation available at the North Sydney facilities. There is consequently a need for additional accommodation and services to provide for future growth and to enable the ongoing adoption of an approved development plan for two major resource management centres to be located in both New South Wales and Victoria.

15. Existing Facilities at North Sydney The existing facility results from two major stages of development. The first is the use of an existing 3-level telephone exchange building on a site acquired in 1929. The building has been modified to suit current needs. Acquisition of the final lots making up the site was in 1949. The second stage of development consists of an 11-level (one basement, ground floor plus nine floors) building adjacent to and contiguous with the first building on a site acquired in 1973. This building of 7400 sq.m. was partially occupied in 1982 and completed in 1983.

16. The complex consists of the following accommodation:

Basement	- plant
Ground floor	- plant and paper storage
1st-4th floors	- operational equipment.
5th-9th floors	- administrative and support staff
Roof	- plant

17. Future Requirements The Committee was advised that commercial and network strategies will continue to place heavy demand on the capacity and performance of resources management centres. The strategies are aimed at achieving a number of objectives including:

- increased capacity to meet demand for new applications;
- improved resilience of the integrity and survivability of Telecom operations;
- improved performance, i.e., faster response times and increased throughput.

18. Additional or upgraded capacity will be required to improve the resilience of operations and performance. Forecast growth in demand is derived from new applications required to meet new customer and support services to be provided by Telecom. Major applications contributing to high growth include:

- customer accounting and billing system;
- distributed customer record information system;
- local engineering operations processing and analysis of recorded data; and
- records automation for special services.

19. Forecast growth in equipment requirement during the next decade is as follows:

Year	1988	1989	1991	1993	1995
Equipment Space - National	13000	15100	17300	18300	19800
(square metres) - St Leonards	2400	3600	3600	4800	4800

20. During the same period the number of systems will increase from one in 1988 to four in 1995, and the demand in units of power requiring these systems will increase dramatically from 49 in 1986 to 481 in 1995 at St Leonards. This large increase will require the provision of substantial engineering services such as air conditioning and electrical power.

21. Summary Resource management centres are an area of high growth due to extensions in the range of services available to Telecom's customers and Telecom's operational requirements. Short term bridging accommodation has been provided for administrative and operations staff in Victoria to satisfy immediate national requirements. Projections indicate a continuing demand for specialised operational accommodation and support services in Sydney to house existing and new systems.

22. Committee's Conclusion There is a need for operational and support space to be provided for a Telecom Australia Resource Management Centre at St Leonards, to cater for projected growth.

THE PROPOSAL

23. The proposal is for four buildings to be constructed on the Telecom-owned site at St Leonards. The buildings comprise:

- operations (two)
- support
- engineering services

24. Telecom advised that the new buildings will provide accommodation to meet its planned growth at this centre until about 1995.

25. General Design Concept The design concepts for all four buildings reflect the following common characteristics:

- simple elevational treatment, with minimal projections, ledges, openings and windows;
- windows designed to provide maximum sun control and reduce glare to enhance energy conservation;

- external walls constructed of precast concrete panels;
- buildings will be interconnected by elevated pedestrian service corridors generally accessed only from the support building.

26. Operations Buildings The operations buildings will operate 24 hours a day and will house processing equipment. The buildings will have a gross floor area of 6120 sq.m. each, which will provide space for the following:

	sq.m.
Processing Equipment	2400
Air handling plant, uninterruptible power supply equipment and electrical distribution services	2616
Dock/uncrating, storage, access corridors, lifts and stairwells and staff amenities	1104

27. The buildings are planned on two levels with both levels designed to accommodate equipment and associated services. An area of 1200 sq.m. for equipment will be provided on each floor. Engineering plant will be located in plant rooms along each side of the equipment room. The Committee was advised that it is intended to fitout the first operations building initially to meet planned growth needs and the second operations building as an immediate following stage of construction works. (Elevations of the Operations Buildings are at pp. C-5, C-6, C-9 and C-10, Appendix C.)

28. Support Building This will be a two-storey building with a gross floor area of 3215 sq.m. which will accommodate the following:

- Ground Floor - security control post, loading dock, paper store, input/output operations and receipt/despatch areas with areas for associated plant.
- First Floor - office accommodation for administrative and supplier support personnel; lunch/recreation room to accommodate the 37 staff who are expected to be on a meal break at any one time; store rooms, staff amenities including locker rooms and toilets and conference room. (Elevations of the Support Building are at pp. C-3 and C-4.)

29. Engineering Services Building This building will have a floor area of 3540 sq.m. and will house engineering services to support the operations and support buildings. Engineering services to be provided include electrical distribution equipment, emergency power plant and chilled water plant which will service the total resource centre complex. The emergency power plant, and main electrical switchboard will be provided at ground level, the chilled water plant, Local Monitoring and Control Systems Office and staff amenities will be on the first level. The second floor will contain cooling towers and chilled water storage tanks. (Elevations of the engineering services building are at pp. C-7 and C-8, Appendix C.)

30. Site The site is regular in shape and has an area of 15,975 sq.m. The site was acquired by Telecom in 1977 and is vacant. The site was purchased for \$963,000 and is presently worth between \$6 million and \$6.4 million. Telecom confirmed that the site is an old quarry and assured the Committee that there are no fill areas.

31. The Royal North Shore Hospital Helipad is located behind the proposed site. The Committee expressed concern over the flight paths to be used by the helicopters in relation to these high security buildings. Telecom advised that the Sydney Surf Life Saving Association Helicopter Rescue Service had confirmed that the normal approach and departure routes do not involve flying over the proposed buildings. Even in the case of an emergency landing there would not be a need to land on the proposed buildings as there is ample provision of space on the present routes, which are along adjacent roadways. The Department of Housing and Construction advised that a review of the structural design of the buildings has revealed that only limited damage would result from impact from a crashing helicopter. Following concern expressed by the Committee DHC advised that the strength of the structure will be upgraded to further minimise this damage. Telecom considers the risks associated with the existence of this helicopter service to be minimal and acceptable.

32. Amenities and Staffing As mentioned above, a lunch/recreation room will be provided on the first floor of the support building. The lunch room has been designed to meet the maximum number of staff on a meal break at any one time, estimated to be 37 persons. The maximum number of staff on duty simultaneously in 1995 will be 59. Telecom advised that the total number of persons to be employed on the site, including shift staff, will be 109 in 1995. The Committee queried the ratio of female to male staff to be employed at St Leonards. Telecom advised that it is planned that by the year 1995, 50 per cent will be female and 50 per cent male. The staff will consist of Computer Operators, Computer Systems Officers, Clerks and Clerical Assistants. The Committee was assured that the design of staff amenities is in accordance with local government requirements and Telecom's guidelines for the 'Provision of amenities in Telecom Australia buildings' which are endorsed by all relevant staff associations.

33. Facilities for the Disabled All levels of the operations building and the support building will be accessible to disabled persons. Facilities will be provided in the support building in accordance with Australian Standard AS 1428 - 'Design Rules for Access by the Disabled'.

34. Car Parking Parking will be available for a total of 36 official, visitors and staff vehicles at the front of the building. Telecom assured the Committee that this meets the Traffic Authority of New South Wales requirements.

35. Committee's Conclusion The extent of the proposed work is justified and will satisfy Telecom Australia's operational and support space requirements until 1995. The number of parking spaces to be provided when the new buildings are completed complies with State Government and staff requirements.

ENVIRONMENTAL CONSIDERATIONS

36. Telecom stated that a Notice of Intent was forwarded to the Department of Arts, Heritage and Environment, which advised that there is no objection from an environmental viewpoint to the proposal and that an Environmental Impact Statement is not required. The Australian Heritage Commission advised Telecom that no place of national estate significance is likely to be affected by the proposal.

CONSULTATIONS

37. Telecom assured the Committee that the proposal has been discussed with relevant staff associations in accordance with Telecom Consultative Council agreements and the Associations' reactions have been favourable. Telecom will hold further consultations with Associations during the development of the final fitting out of the various stages.

38. The proposal was referred to the Council of the Municipality of Willoughby, the Metropolitan Water Sewerage and Drainage Board and the N.S.W. Department of Environment and Planning. The Committee was assured by Telecom that no objections to the proposal have been received from these authorities.

COSTS AND TIMETABLE

39. The estimated cost of the proposed buildings is \$86 million at February 1986 prices. Telecom carried out an economic evaluation of the building proposal which indicated that the expected returns which will result from building the centre, after taking into account the savings from rental costs avoided, would be acceptable.

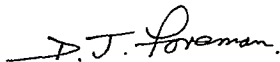
40. It is proposed to invite tenders as soon as approval is given with a view to completion of construction to enable the installation of equipment by the fourth quarter of 1987.

41. Committee's Recommendation The Committee recommends construction of the work in this reference.

RECOMMENDATIONS AND CONCLUSIONS

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

- | | <u>Paragraph</u> |
|---|------------------|
| 1. THERE IS A NEED FOR OPERATIONAL AND SUPPORT SPACE TO BE PROVIDED AT THE PROPOSED TELECOM AUSTRALIA RESOURCE MANAGEMENT CENTRE, ST LEONARDS, TO CATER FOR PROJECTED GROWTH. | 22 |
| 2. THE EXTENT OF THE PROPOSED WORK IS JUSTIFIED AND WILL SATISFY TELECOM AUSTRALIA'S OPERATIONAL AND SUPPORT SPACE REQUIREMENTS AT THIS SITE UNTIL 1995. | 35 |
| 3. THE NUMBER OF PARKING SPACES TO BE PROVIDED WHEN THE NEW BUILDINGS ARE COMPLETED WILL COMPLY WITH LOCAL GOVERNMENT AND STAFF REQUIREMENTS. | 35 |
| 4. THE ESTIMATED COST OF THE PROPOSED BUILDINGS IS \$86 MILLION AT FEBRUARY 1986 PRICES. | 39 |
| 5. THE COMMITTEE RECOMMENDS CONSTRUCTION OF THE WORK IN THIS REFERENCE. | 41 |



(D. J. FOREMAN)
Chairman

Parliamentary Standing Committee
on Public Works
Parliament House
CANBERRA

22 May 1986

LIST OF WITNESSES

Conlin, Mr R.J., Manager, Planning, Programming and Projects
Branch, Buildings Division, Telecom Headquarters,
172 William Street, Melbourne, Victoria

McKenzie, Mr G., Associate Director, Projects Division 1,
Department of Housing and Construction, Australia Square,
George Street, Sydney, New South Wales

Murphy, Mr R.R.B., Manager, Information Systems Branch, Telecom,
New South Wales, West Street, North Sydney, New South Wales

Parsons, Mr A.L., Project Manager, Projects Division 1,
Department of Housing and Construction, Australia Square,
George Street, Sydney, New South Wales

Read, Mr D.J., Manager, Systems Operations Branch, Information
Systems Department, Telecom Headquarters, 199 William
Street, Melbourne, Victoria

CONSTRUCTION DETAILS

1. Structure The substructure of the buildings will be founded on bored piles or pad footings on the underlying rock. The superstructure will be of reinforced framed construction with floor and roof systems as follows:

- Operations building - floor slabs of reinforced concrete frame construction with post-tensioned concrete beams over the equipment areas. The roof is steel framed.
- Support building - reinforced concrete framed construction with post-tensioned concrete beams over column free equipment area. The roof is steel framed.
- Engineering services building - floor slabs of reinforced concrete framed construction with a steel framed roof.

2. External Finishes Roofs will be pre-painted steel decking on steel framing fixed to a reinforced concrete slab which acts as a security barrier.

3. Windows will be anodised aluminium framed with laminated security glass. Louvres will be anodised aluminium with security mesh backing.

4. All plant and equipment on roofs will be enclosed with security mesh.

5. External walls will be of precast concrete panelised construction.

6. Internal Finishes Internal walls generally will be metal stud and plasterboard with a paint finish. Masonry walls will be provided in heavy use areas and in areas requiring a fire rating in excess of one hour and will be painted.

7. Ceilings to office areas, one floor of one of the operations buildings, amenities and corridors will generally be suspended acoustic tile. In unstaffed equipment rooms and plant rooms, ceilings will be off-form concrete with a paint finish.

8. The room housing the emergency power plant located in the engineering services building will be acoustically treated.

9. Floors in the equipment room and surrounding corridors will be laminate finished raised access flooring.

10. The floors in the support building offices will be carpeted. Amenities areas, corridors and lobbies will have vinyl coverings. Wet areas will have ceramic tiles. Plant rooms and other heavy wear areas will have concrete floors surfaced with an applied paint finish and with vinyl to selected areas.

11. Mechanical Services Generally, the mechanical services will comprise air conditioning, mechanical ventilation and exhaust systems.

12. The air conditioning systems with their associated central chilled water plant will serve all equipment areas, uninterruptible power supply areas, offices and store rooms for equipment parts and records.

13. Process cooling units will be provided for air conditioning the equipment areas. A variable air volume air conditioning system will serve air conditioned rooms and office areas in the Support Building.

14. Electric heating will be utilised for air conditioning heating and humidification. Neither use of solar energy nor provision of heat recovery are cost effective for this project.

15. Mechanical ventilation will be provided for emergency power plant room, battery rooms, stores other than the above, toilets and cleaners' rooms.

16. Electrical Services Electric power will be supplied by alternative dedicated underground 11kV supplies from the Sydney County Council area substation to the High Voltage Switching Centre. The power will be reticulated by high voltage ringmains to various substations placed adjacent to the main equipment rooms and plant areas. Power is supplied at medium voltage to the equipment areas from these substations through an Uninterruptible Power Supply Unit (UPS) and various switchboards.

17. Lighting will be fluorescent type in the Operations and Support Building. In the offices of the Support Building the extensive use of visual display units will require specially designed lighting.

18. Emergency power will be supplied from multiple equal size emergency generating plants. These sets will generate at 11kV and feed directly into the site distribution system. The plant will be installed at ground level in the Engineering Services Building.

19. Full standby power will be provided in accordance with Telecom policy for Resource Management Centres.

20. Fire Protection and Detection Systems All buildings will be protected throughout by automatic sprinkler systems, hydrants and hose-reels.

21. A Halon 1301 gaseous flooding system with associated controls will serve equipment areas above and below raised floors, UPS rooms, substations, high voltage switching centre and the Engineering Services control room.

22. Emergency lighting and emergency warning and evacuation systems will be provided in all buildings in general accordance with the relevant Australian Standards.

23. Security For security reasons, a concrete slab will be part of the roof structure for each building. Mechanical plant located on roofs will be enclosed by solid walls or security mesh. The site will be monitored with closed circuit television cameras. Entry to buildings will be by card key. External security lighting will also be installed. The security systems will be monitored doors and areas throughout the complex.

24. Lifts Hydraulic goods/passenger lifts will be installed in the Operation, Support and Engineering Services Buildings of a size and capacity to accommodate the largest piece of air conditioning equipment to be lifted into each building.

25. Hydraulics External water supply and fire services will be provided from street mains. Adequate sewerage and drainage facilities are available to the site.

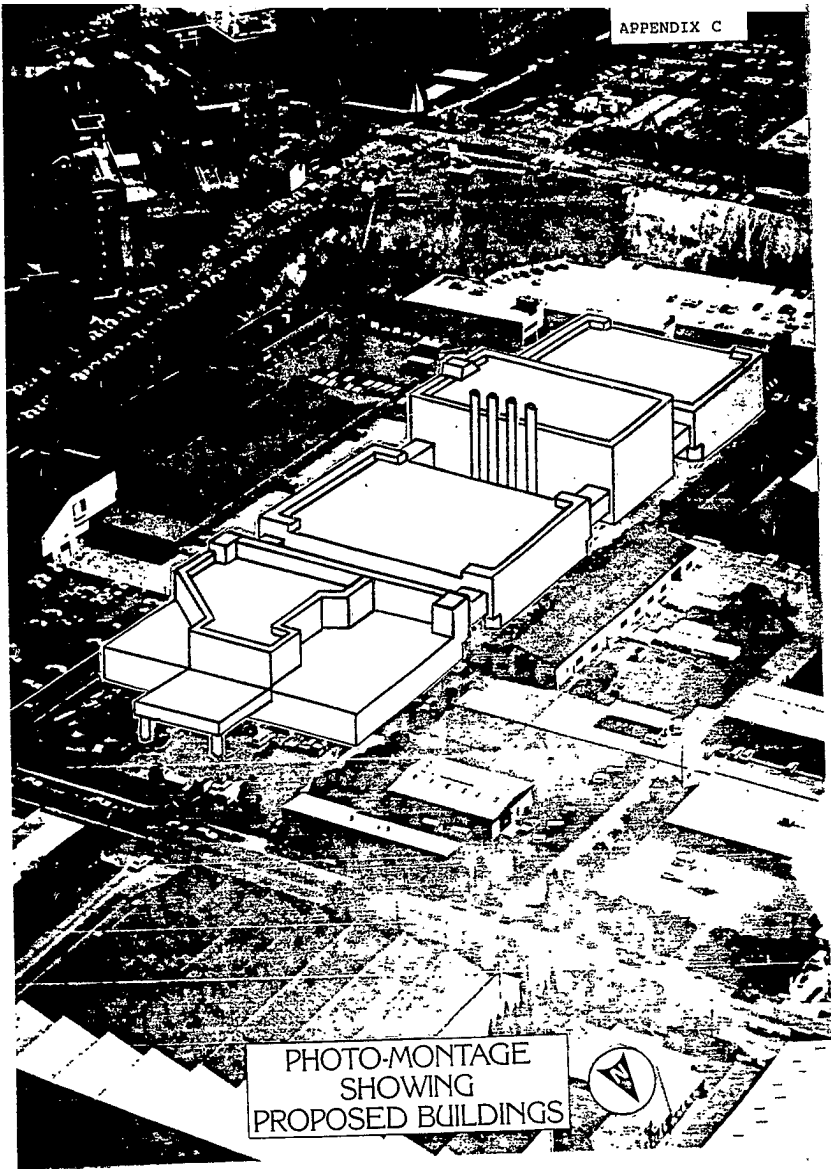
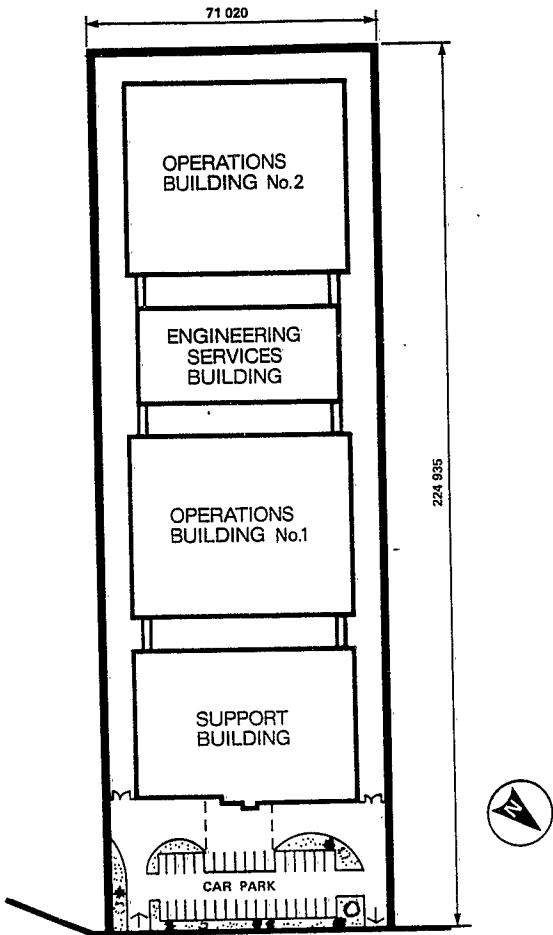
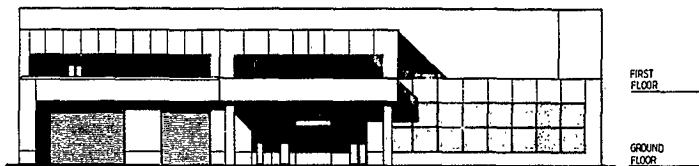


PHOTO-MONTAGE
SHOWING
PROPOSED BUILDINGS

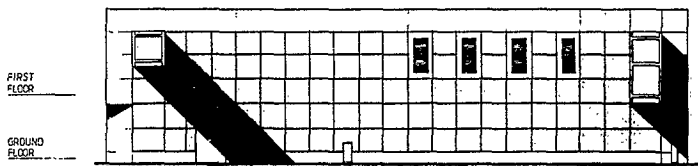


SITE PLAN

(c-2)



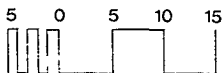
EAST

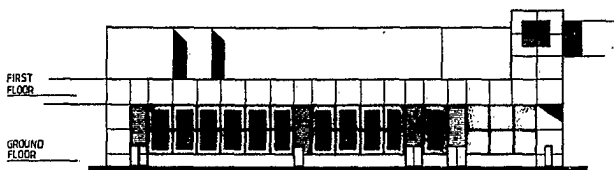


WEST

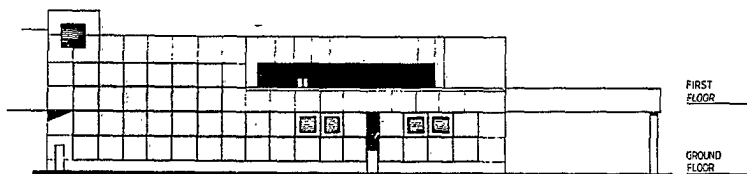
Support Building

Elevations East and West





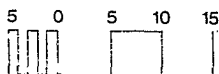
NORTH

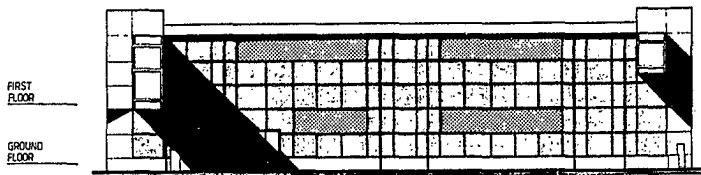


SOUTH

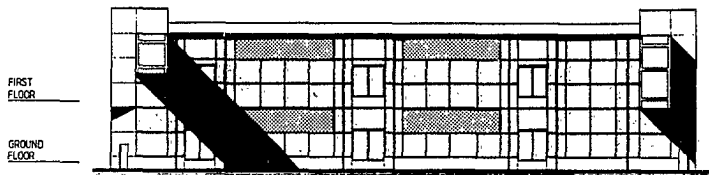
Support Building

Elevations North and South





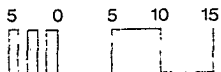
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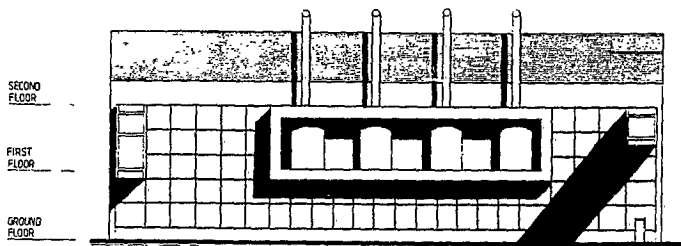


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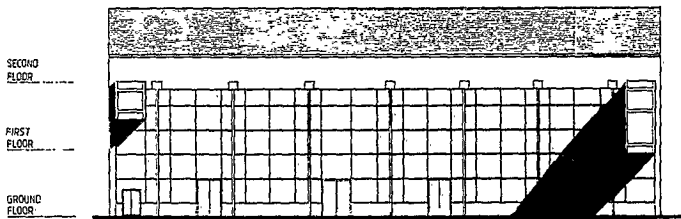
Operations Building No. 1

Elevations East & West





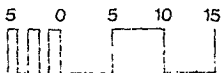
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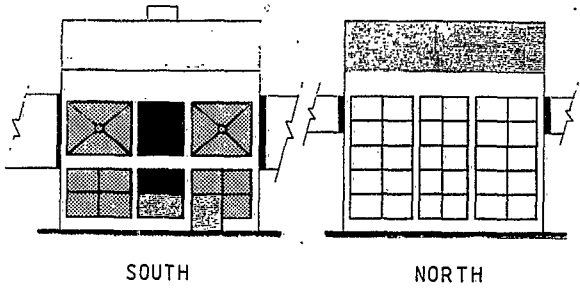


WEST

Engineering Services Building

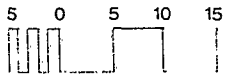
Elevations East and West

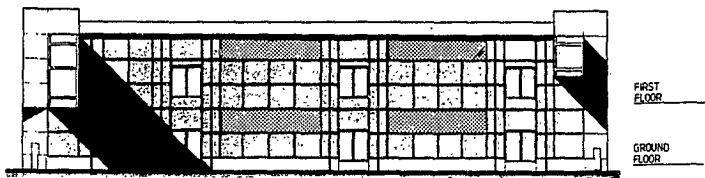




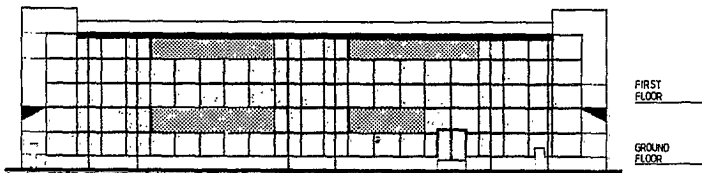
Engineering Services Building

Elevations North and South





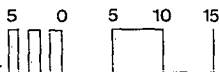
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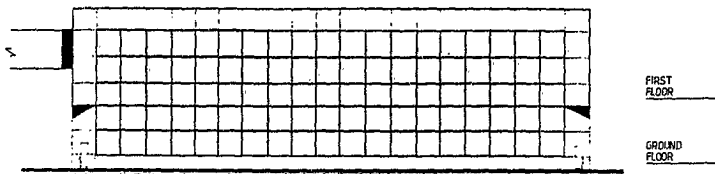


WEST

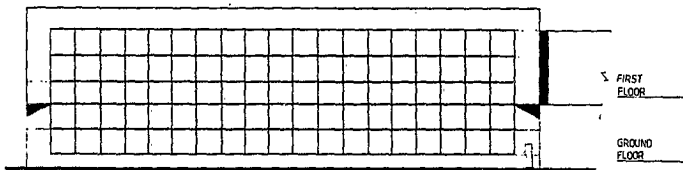
Operations Building No. 2

Elevations East & West





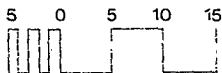
NORTH



SOUTH

Operations Building No. 2

Elevations North & South



(C-10)