



THE AUSTRALIAN NATIONAL UNIVERSITY
ACTON PENINSULA AREA STUDY 1975

ANTHONY COOPER & ASSOCIATES
ARCHITECTS **CANBERRA**

THE AUSTRALIAN NATIONAL UNIVERSITY
ACTON PENINSULA AREA STUDY 1975

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PART 1 - GENERAL COMMENTS

1.01 INTRODUCTION

This report summarises a study of the 'Acton Peninsula Area', considering known requirements for building development and anticipating possible future requirements. Whilst it is of necessity objective in trying to accommodate functional demands of the three Schools involved, it is also a subjective study by request. The aim of the study was to establish guidelines for the future development of the area, at the same time allowing flexibility for the unknown and working towards a more cohesive and generally more pleasing development.

The Acton Peninsula is the elevated ground at the south-western extremity of the University, marking the intersection of Sullivans Creek with Lake Burley Griffin. The area contains the Research School of Earth Sciences and the John Curtin School of Medical Research. On completion of a building now under construction, it will also contain the University's Computer Centre, to provide computing services for the whole University.

The Study area is bounded by Ward, Garran, Eggleston and Mills Roads on the eastern side and the University's lakeside boundary and Sullivans Creek elsewhere. This part of the Campus, perhaps more than any other, can reasonably be considered in isolation because of its physical separation from the remainder by Sullivans Creek to the north and the green belt containing sports fields and dense tree-planting to the east. The long-term development of the 'University Ring Road' and rationalisation of secondary roads discussed later will further identify the Peninsula Area as a separate entity.

1.02 RECENT IMPROVEMENTS & FUTURE POSSIBILITIES

Serious concern since 1969 for the appearance of buildings in the Physical Sciences and Medical School groups has led to action being taken to achieve more design cohesion and to effect some screening with strategic tree-planting. The wholesale painting of roofs and walls has done much to subdue the semi-industrial building of the Physical Sciences group, as seen from a distance. Also recent additions at each end of the Cockcroft Building and the construction of the Nuclear Physics 14 UD Accelerator Tower and associated Target Area have tidied-up those parts of the buildings as seen from close quarters.

Painting of the Cockcroft and Oliphant Buildings has united visually the Research Schools of Physical Sciences and Earth Sciences. Also the Solid State Physics/Computer Building currently under construction has been designed to bridge, as far as possible, the diverse materials of the John Curtin School on the one hand and the other two Schools. The new building will be predominantly off-white in colour, but the brick paving on the podium at Courtyard level and face brick panels between windows should provide some affinity with the John Curtin School.

The area is well endowed with fine outlook views, but building development to date still relates badly to the pedestrian. Future building should concentrate on forming a better urban environment on a pedestrian scale in the spaces between buildings, while still preserving the outward views. This is discussed in more detail below.

1.03 VISUAL IMPACT ON THE CITY OUTSIDE

As already stated, the painting programme and tree-planting have greatly improved the appearance of this area as seen from Clunies Ross Street and Black Mountain. Further benefit will be realised as the planting matures.

The University's presentation on the Southern side is, for the moment, quite satisfactory. The Oliphant and Mathematical Sciences Buildings sit well on top of the bluff and are seen well from Lake Burley Griffin or Yarralumla on the other side of the Lake. However, the advent of the Molonglo Freeway will mean that this frontage will be seen at much closer quarters, so that a re-appraisal is warranted. The end of the peninsula will dominate the Expressway as it cuts across Sullivans Creek, and the Old Geophysics Building will then be a shabby frontispiece. The existing building should eventually be replaced by a building designed with this new prominence in mind, as discussed later in Part 4 of the report. Also the landscaped treatment of the 'bluff' will need to be reviewed on motorway principles, as discussed under 'Landscape' below.

1.04 ROAD PATTERN

The existing road pattern has evolved from the original layout of roads in the old suburb of Acton. While the Old Hospital Buildings stand, there is some apparent logic, but as they are removed, the road pattern will be quite confusing. In his 1972 Master Plan for the University (drawing No. ANU72/S/747/1). Mr. Roy Simpson proposed the development of a Ring Road running around University House on the present Balmain Crescent alignment

1.04 Continued

and continuing on an even curve past the Earth Sciences and John Curtin Schools, slightly east of Mills Road and Ward Road. Mr. Simpson also proposed the elimination of Mills Road, Ward Road and those parts of Eggleston and Garran Roads now traversing the 'Glade'.

This Study endorses that proposal wholeheartedly as a much-needed rationalisation of roads in the Area. The enclosed plans Nos. 7502/S/1 and 7502/S/2 show a staged development for the Ring Road. Stage 1 would be achieved with the necessary realignment of Ward Road to accommodate extension to Wing F of John Curtin School in the 1976-78 Triennium. One compelling reason for the construction of this small section of road in 1976-78 is the elimination of the dangerous intersection of Garran and Ward Roads.

Construction of the Ring Road and re-organisation of branch roads as shown on drawing No. 7502/S/2 would make very clear and direct access to each of the Schools on the Peninsula.

Mention should also be made of recent proposals to divert Mills Road through the wooded area south of the Research School of Earth Sciences (refer Acton Ridge Study 1973 - Simpson). Such an arrangement would permit the partial or complete elimination of traffic from the John Curtin School forecourt area, and would provide more direct road access to the Physical Sciences School. There are, however, objections to this proposal from the Research School of Earth Sciences, on the grounds that motor traffic in this area would interfere with delicate experimental work being undertaken in the School.

1.04 Continued

Also, as discussed below, it is felt that traffic movement through the Main Courtyard on a changed road alignment will be an asset to the Courtyard.

1.05 A BETTER URBAN ENVIRONMENT

As previously stated, there is a need to weld the groups of buildings together with proper treatment of spaces between them on a pedestrian scale.

(a) Medical School Forecourt

In his 1969 Report on this area, Mr. H. Hely concluded that "the single most important proposal that I would make for the long term development of this Precinct is that it should be given some order and a focal point by the creation of a large quadrangle to the south of the present John Curtin School. This quadrangle should be the main entrance to the Precinct so that any person wishing to have access to any building within the Precinct would first find himself in this space and thence to the building he desires".

Completion of the Solid State Physics/Computer Building between the Cockcroft and John Curtin Buildings will close-off the space at the western end, and provide a brick-paved terrace at existing Rivett Road level. The opportunity will then exist for a complete re-modelling of the forecourt area.

1.05 (a) Continued

Two important questions to consider are

- the physical size of the Courtyard, and
- the separation of pedestrian and vehicular movement.

The existing space is far too large to relate meaningfully to the pedestrian, which suggests that it should be contained at the eastern end by new buildings.

The enclosed drawings indicate a new wing for the Research School of Earth Sciences and a new building between that and the John Curtin School.

It is considered essential to eliminate the loop driveway to the John Curtin School entrance to create a satisfactory pedestrian plaza. However the retention of Rivett Road giving access to the Physical Sciences Buildings is favoured. This will ensure that people do "arrive" in the Courtyard as Mr. Hely wanted. It would also add to the "busyness" and interest of a space that could otherwise easily be empty most of the time.

Drawing No. 7502/S/3 shows a changed alignment of Rivett Road with a set-down area central to the three buildings on the level of the main entrance to the Solid State Physics/Computer Building. It would then be possible to make a direct and formal descending approach to the entrance porch of the John Curtin School, in keeping with the dignity of that building.

1.05 (b) Oliphant/Cockcroft Building Entrance

Access to the Oliphant and Cockcroft Buildings through the existing car-filled alley is at present rather sordid. Cars should be stopped short of the entrances on the eastern side at least, and a limited-size entrance terrace created. A sense of enclosure could be achieved with a screened link between the two buildings, which is certainly warranted by the volume of User traffic from one building to the other.

(c) Mathematical Sciences/Cockcroft Plaza

The future demolition of the Old Geophysics Building and its replacement should provide incentive to develop a pleasant pedestrian plaza at the end of the peninsula. This would serve as the main approach to the new Peninsula building. It would also be a valuable focal point for Users of the Mathematical Sciences, Cockcroft and Oliphant Buildings.

(d) Nuclear Physics Courtyard

There should be no illusions about a complete refinement of the area on the South side of the Nuclear Physics Office Building. This is an industrial area, and there will always be need for access by large trucks to the workshops and accelerator buildings on the other side of the "Courtyard". Nevertheless any new building work that does occur should be aimed at tidying-up that part of the Campus.

1.05 (d) Continued

The eastern end of this space is, however, a matter of special concern because of public access to the Computer Centre. The addition of a northern wing to the Solid State Physics/Computer Centre would do much to screen the area proposed as a reserve for Engineering Physics. The implications of this are discussed in Part 4 of the Report.

1.06 LANDSCAPE TREATMENT(a) Screen Planting

Mention has already been made of the recent tree-planting programme aimed at screening the more unsightly areas of the Campus. Planting along the Sullivans Creek bank and in the 'Glade' east of the John Curtin School is already proving effective. There is still scope, however for the planting of tall-growing eucalypts immediately north of the John Curtin School, to screen the expanse of brick and tile which is so disturbing when viewed from Daley Road on the other side of Sullivans Creek.

(b) Landscape in Courtyard

If our proposal for courtyard development is accepted, landscape design will be extremely important. Substantial areas should be hard-paved to give that urban character. However, planting should be included in the larger paved areas to provide a few intimate corners.

1.06 (b) Continued

Retention of the fine "escape views" from the courtyards is considered very important.

(c) Main Courtyard

Drawing No. 7502/S/3 shows a possible treatment for the Main Courtyard in front of the John Curtin School and the Solid State Physics/Computer Building. The brick-paved podium over the Computer Room would be extended through the heart of the space. Brick planting boxes are arranged to sub-divide the pedestrian area, and informal planting is encouraged elsewhere.

(d) Sullivans Creek Bank

It is considered important to preserve the natural state along that part of Sullivans Creek within the Study Area. This is further discussed under "Car Parking".

(e) The Lakeside Boundary

There is a need for reconsideration of the landscape planting along the southern boundary of the area in relation to the Molonglo Freeway.

The steep bank below the Oliphant and Mathematical Sciences Buildings will be seen by the public at close quarters for the first time. Planting below the Mathematics Building particularly is at present very untidy.

1.06 (e) Continued

It seems appropriate now to develop substantial ground cover planting to extend right up to the base of the Mathematics Building and around the end of the 'bluff'.

Also, as discussed under "Car Parking" it may be necessary to extend parking areas south of the Oliphant Building and the Research School of Earth Sciences. Existing trees are almost adequate, but planting in a few areas would be necessary to completely screen the parking areas from the Freeway, and to improve the scene from the building.

Any parking area in the woods below Earth Sciences should be planned with a minimum of tree-felling, and should be paved with a stabilised river gravel instead of bitumen.

1.07 PROVISION FOR FUTURE MAJOR BUILDINGS

Whilst it is not possible to foresee the ultimate building requirements in the Area, it must be recognised that sites for major buildings are limited. It is therefore important to identify those sites that are available and to ensure that they are not encumbered unnecessarily.

Drawing No. 7502/S/2 shows the following areas reserved for this purpose:

1.07 (continued)

- (a) R.S.Phys.S. - at end of the peninsula, in place of the existing Old Geophysics Building.
- (b) R.S.Phys.S. - existing open area between the Homopolar Generator Building and the Solid State Physics/Computer Building.
- (c) R.S.Phys.S. Nuclear Physics - Area immediately west of the existing Nuclear Physics Office Building.
- (d) J.C.S.M.R. - replacement of the existing Workshops.
- (e) R.S.E.S. - area to the east and north of the existing buildings (three additional wings shown on plan).
- (f) Main Courtyard - area at east end of Courtyard.

Without attempting to support a usage for the building on this last site, we would like to see communal amenities (such as dining room or library) opening on to the Courtyard. This would help to generate movement and interest in the area.

1.08 NEW USES FOR EXISTING ACCOMMODATION

It is suggested that space usage of existing buildings be kept under constant review in the future, to ensure full utilisation.

1.09 REMOVAL OF TEMPORARY BUILDINGS

Our recommendations call for removal of the following existing buildings which will need to be taken into account in the University's long-term planning.

- (a) Old Hospital Buildings, A-Block, B-Block, M-Block and that currently used as the Centre for Continuing Education.
- (b) Maintenance sheds beside the tennis courts east of the Earth Sciences School.
- (c) Central Stores Building.
- (d) R.S.Phys.S. - Diesel Generator Hut.
- (e) R.S.Phys.S. - Old Geophysics Building.

1.10 CAR PARKING

Consideration of car parking is probably the most difficult planning issue on the Campus. It is impossible to treat this area completely in isolation, as parking is a matter for University policy.

As stated in our brief, "current policy is to shift the main provision for parking to the periphery of the University". The idea of structural parking facilities within the heart of the Campus has been officially abandoned.

1.10 (continued)

Certainly it is desirable to eliminate some of the untidy parking spaces existing in the heart of the Area, but it may not be practicable to provide no new parking areas close to the buildings. The Acton Peninsula has some special problems because of its isolation.

Also we would want to impose the following constraints:

- (a) It is considered undesirable to park cars along the bank of Sullivans Creek because it would destroy a valuable natural amenity, and because the area is so visible from Black Mountain. It will also be in the direct view of motorists on the proposed Molonglo Freeway crossing Sullivans Creek.
- (b) Any parking along the south boundary should be out of view from the Molonglo Freeway, and as far as possible screened from Mathematical Sciences, Oliphant or the Earth Sciences Buildings.

Parking outside the Study Area would mean a long walk particularly to buildings in the Research School of Physical Sciences. If the University makes that decision, it will require firm measures to implement the policy effectively.

We understand that two such areas under consideration are

- (a) "Frog Hollow" on the Clunies Ross Street frontage, west of John XXIII College, and

1.10 (continued)

- (b) Above the proposed Acton Tunnel as a decked structure in the residual cutting (expected to have a maximum capacity of 300 cars).

Both sites are outside the Study Area, and too much a matter for wider consideration to make a recommendation in this Report. However the latter Site is a very attractive possibility to serve this Area.

The real question is, to what extent can the amenity of the Area be destroyed and the landscape spoilt by the spread of car parks? Drawing No. 7502/S/2 and the detailed plans show the limit to which we would want to go. It is recognised however, that this might have to be reconsidered in relation to the University's wider policy.

Our plans show new parking spaces within the Study Area as follows:

- (a) North of John Curtin School Wing F - after re-alignment of Ward Road.
- (b) South of John Curtin School Wing F - the ground slope would facilitate a two-deck structure between Wing F and the proposed future building at the east end of the Main Courtyard.
- (c) South of Earth Sciences - amongst the trees.

1.10 Continued

- (d) South of Oliphant Building - on the flat stretch of ground screened by existing trees. Also in the space below the existing suspended parking deck, if the cost of opening-up the wall can be justified.

Until Rivett Road is re-aligned as part of the Main Courtyard development, the existing temporary car park north of Earth Sciences should remain.

The following table summarises the stated parking demand for each School to the year 1978, and the capacity of parking spaces shown on the plans within the Study Area.

School	Existing Spaces	Expected Demand in 1978
F.C.S.H.S.	234	72
F.S. Boys' & Computer	167	111
F.S.H.S.	146	17
TOTALS	547	200

Notes on the above figures

(a) Figures for the expected demand in 1978 are based on the figures of Property & Plans.

(b) Figures for F.C.S.H.S. include usage of the (60 cars) which is little used during the week.

(c) In a recent report, it was noted that a total (illegally) 1000 spaces are not included in the figures, but it is suggested that a review should be made to provide extra spaces.

(d) It has been assumed that the existing temporary car park will continue in use for the time being.

(e) An official provision has been made for extra spaces to the future development in the field from Physics/Computer Building and this could present a problem.

PARKING PROVISION IN THE STUDY AREA 1976-78

Refer Drawing 7502/S/1

1.10
Continued

School	Existing Spaces	Spaces Deleted	Spaces Added	Total Provision	Stated Demand 1978	Shortfall - or Surplus +
J.C.S.M.R.	229	72	83	240	250	- 10
R.S.Phys.S. & Computer	167	NIL	18	185	270	- 85
R.S.E.S.	146	17	NIL	129	74	+ 55
TOTALS	542	89	101	554	594	- 40

Notes on the above figures

- (a) Figures for the expected demand in 1978 were provided by the Department of Property & Plans.
- (b) Figures for J.C.S.M.R. include usage of the Sports Oval parking area (60 cars) which is little used during the week at present.
- (c) In a recent count, it was noted that a total of 72 cars were parked illegally. These spaces are not included in the first column of figures, but it is suggested that a review of the zoning might reasonably provide extra spaces.
- (d) It has been assumed that the existing temporary parking area north of Earth Sciences will continue in use for this period.
- (e) No special provision has been made for daytime visitors to the Lecture Theatre in the Solid State Physics/Computer Building, and this could present a problem.

PARKING PROVISION IN THE STUDY AREA BEYOND 1979

Refer Drawing 7502/S/2

1.10 Continued

School	Existing Spaces	Spaces Deleted	Spaces Added	Total Provision	Stated Demand 1978	Shortfall - or Surplus +
J.C.S.M.R.	229	94	109	384 *	250	Not directly calculable See note (a)
R.S.Phys.S. & Computer	167	37	73	203	270	
R.S.E.S.	146	123	71	94	74	
TOTALS	542	254	253	691 *	594	

Notes

(a) No demand has been stated by the University or anticipated by us beyond 1978. It would be purely academic to detail parking requirements for this period, because two of the proposed buildings, at least, are for unknown usage.

* (b) The figure for parking in the vicinity of J.C.S.M.R. includes an allowance of 150 cars parked on a two-deck structure north of Wing F. It also includes parking in the Sports Oval parking area.

1.10 Continued

Conclusions from Car Parking Figures

The yardstick for the assessment of parking provision has been the figure of 594 car spaces in 1978 as advised by the Department of Property & Plans. This seems somewhat questionable, since we have ourselves recently counted 596 cars parked legally or illegally in the Study Area. A new survey of needs for each School seems warranted.

It is unlikely that the Area can be self-sufficient in car parking in the longer term without serious effect on the landscape. Earlier construction of the additional parking areas south of Earth Sciences and Oliphant Building could ease the situation up to 1978. Ultimately, however, one of two alternative approaches must be taken. Either:

- (a) Construct large parking areas somewhere outside the Area. or
- (b) Restrict vehicular access to the Campus.

Alternative (a) would require a system of priority parking stickers, and effective policing of parking in the heart of the Campus. Alternative (b) would mean setting up gate houses at all entrances to the University which, no doubt, would be a regrettable decision to have to make.

1.11 DETAILED CONSIDERATION OF BUILDING NEEDS

The following sections of this Report deal with the building needs of the three Schools in turn, and the Computer Centre. The University's submission to the A.U.C. was used as a basis for known space needs.

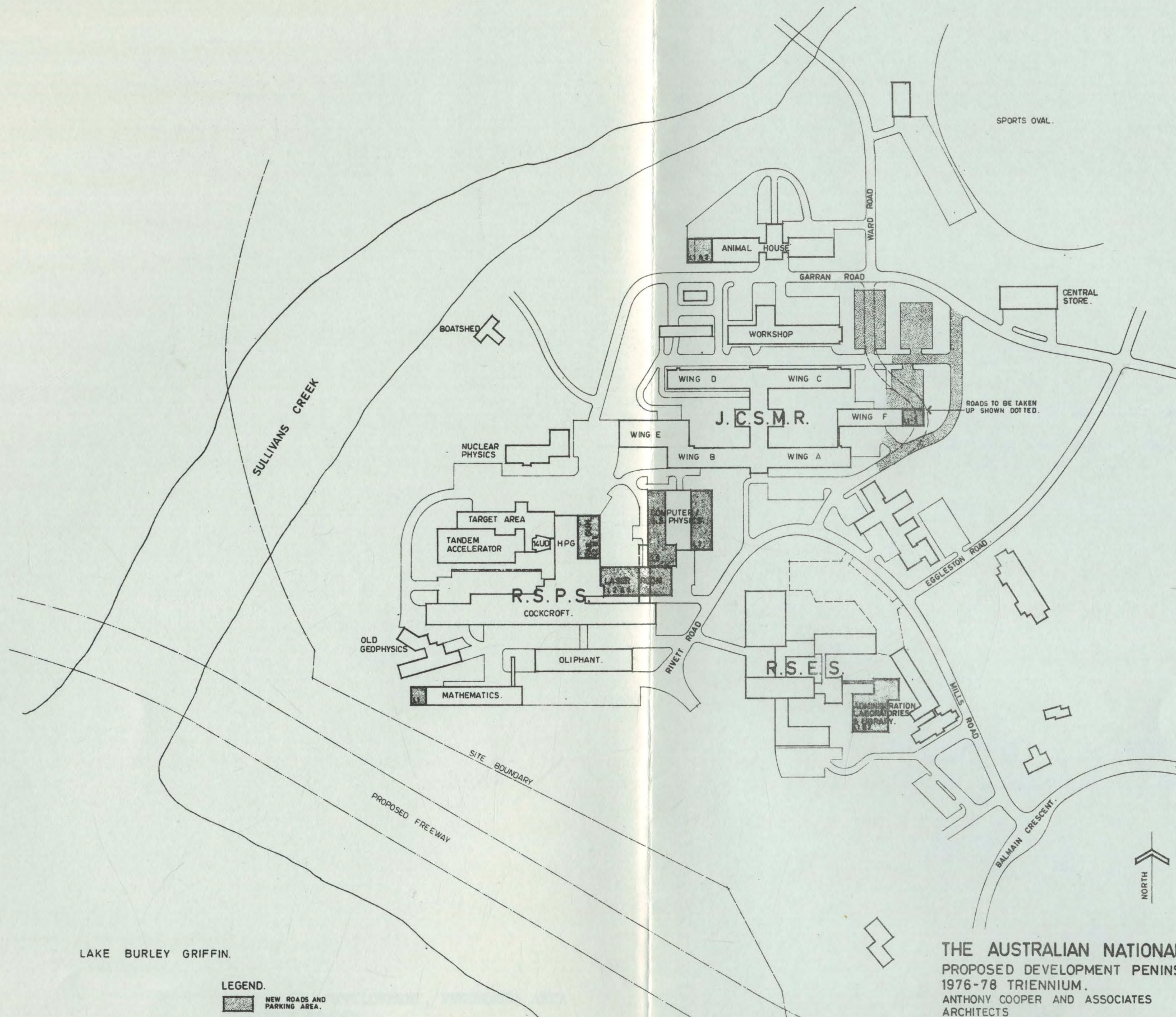
Drawings have been prepared to show development in two stages.

- (a) 1976-78 Triennium, and
- (b) 1979 and beyond - including stated requirements for the 1979-81 Triennium and anticipated longer term needs.

The Study does not take into account the 1976-78 grants announced only last month. It is understood that some building work will have to be omitted from the 1976-78 programme, but priorities have not been determined and it is assumed that the affected works will only be delayed.

PROPOSED DEVELOPMENT, PENINSULA AREA
1976-78 TRIENNIUM

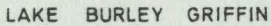
DRAWING NO. 7502/S/1



THE AUSTRALIAN NATIONAL UNIVERSITY.
 PROPOSED DEVELOPMENT PENINSULA AREA.
 1976-78 TRIENNium.
 ANTHONY COOPER AND ASSOCIATES
 ARCHITECTS
 DATE 25-6-75 DWG No 7502/S/1

PROPOSED DEVELOPMENT, PENINSULA AREA
1979 & BEYOND

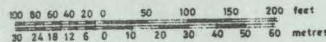
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LEGEND.

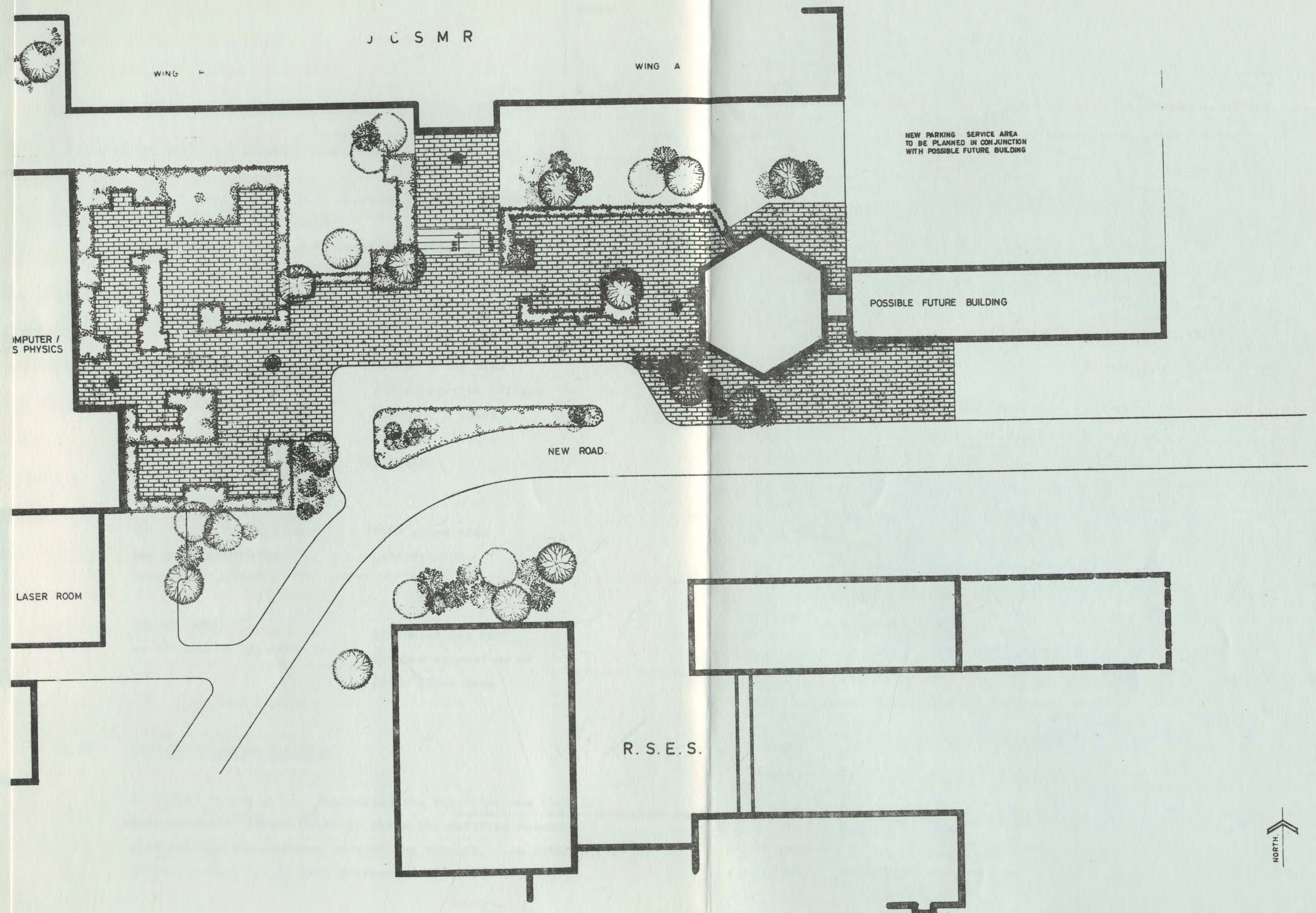
-  NEW ROADS AND
PARKING AREAS
-  LANDSCAPED
COURTYARD.
-  EXTENT OF NEW
BUILDING WORK

THE AUSTRALIAN NATIONAL UNIVERSITY
PROPOSED DEVELOPMENT PENINSULA AREA.
1979 AND BEYOND
ANTHONY COOPER AND ASSOCIATES
ARCHITECTS.
DATE 25-6-75 DWG NO 7502/S/2



COURT AREA

DRAWING NO. 7502/S/3



THE AUSTRALIAN NATIONAL UNIVERSITY
COURT AREA.

PROPOSED DEVELOPMENT 1979 AND BEYOND.

ANTHONY COOPER AND ASSOCIATES, ARCHITECTS.

18 MAR 75.

DRAWING No 7502 / S / 3

0 10 20 30 40 50 60 feet
6 4 2 0 3 6 9 12 15 18 metres.

PART 2 - RESEARCH SCHOOL OF EARTH SCIENCES

Refer to the following drawings bound immediately after this section.

No. 7502/S/4 - R.S.E.S. Proposed Development 1976-78
Triennium.

No. 7502/S/5 - R.S.E.S. Proposed Development 1979
and Beyond.

2.01 SPACE REQUIREMENTS

1976-78 Triennium	1589m ² gross area
from A.U.C. Submission	Administrative Offices
	Director's Suite
	Academic Offices
	Library

1979-81 Triennium	
from A.U.C. Submission	1640m ² gross area
and as subsequently	Laboratories
advised by Director	

Beyond 1981	Allowance for two
as advised by Director	further extensions of
	1640m ² gross area

2.02 1976-78 TRIENNIUM BUILDING

As stated in the A.U.C. Submission the intention was that the next extension should be built above the existing basement structure on the southern side of the complex. An alternative expansion east of the Main Entrance is favoured because:

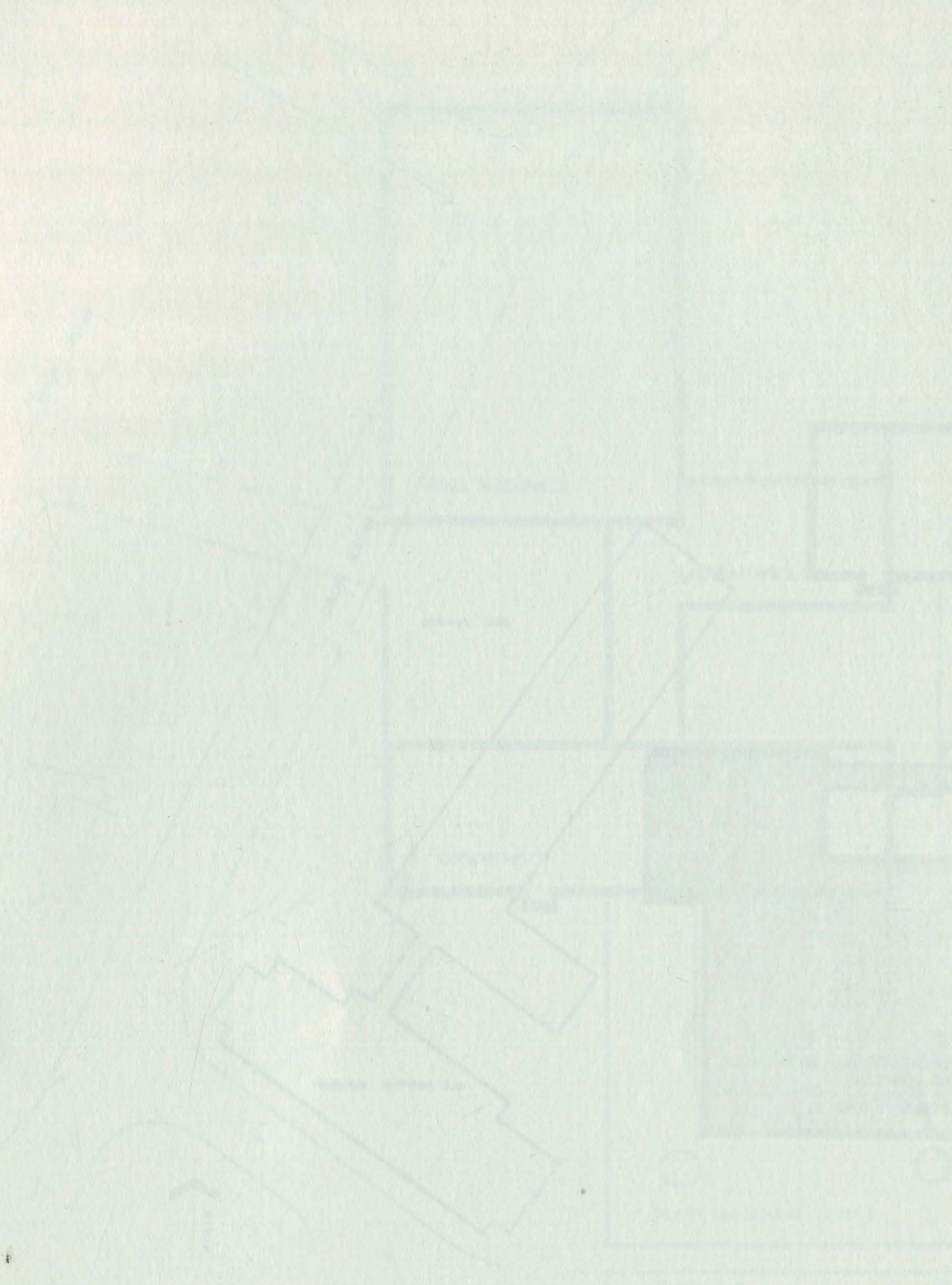
2.02 Continued

- (a) Building operations over the existing structure would seriously inconvenience research work in progress.
- (b) It is considered very desirable to preserve the view from the existing Seminar Room and Stair Lobby, and
- (c) A more central location is favoured for the Administrative Offices and Director's Suite.

2.03 DEVELOPMENT BEYOND 1979

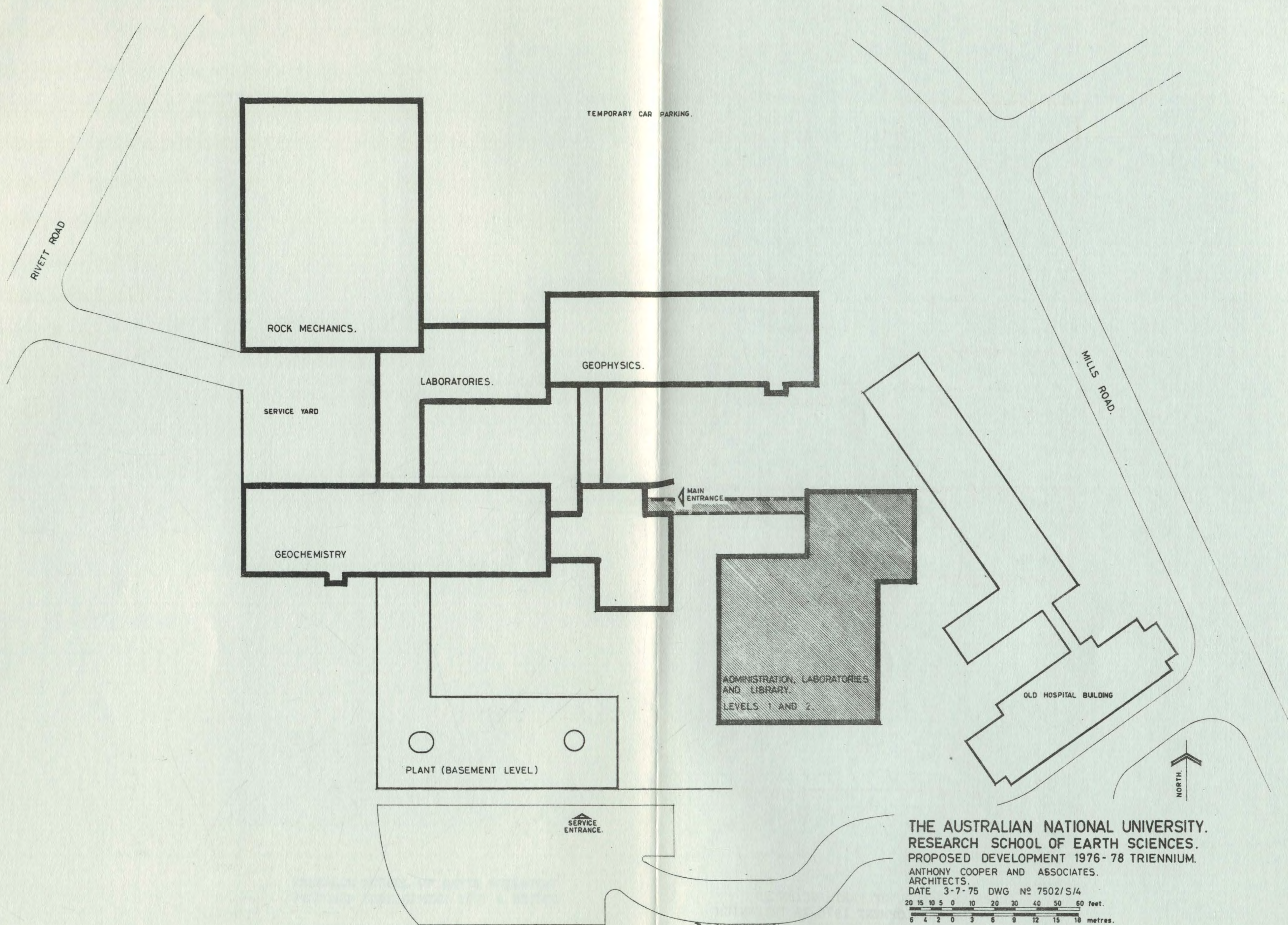
Future development would be:

- (a) Eastwards from the 1976-78 addition - shown in two blocks, and
- (b) North of the existing Geophysics Laboratory Wing.



RESEARCH SCHOOL OF EARTH SCIENCES
PROPOSED DEVELOPMENT 1976-78 TRIENNium

DRAWING NO. 7502/S/4



THE AUSTRALIAN NATIONAL UNIVERSITY.
RESEARCH SCHOOL OF EARTH SCIENCES.
PROPOSED DEVELOPMENT 1976-78 TRIENNium.
ANTHONY COOPER AND ASSOCIATES.
ARCHITECTS.

DATE 3-7-75 DWG No 7502/S/4
20 15 10 5 0 10 20 30 40 50 60 feet.
6 4 2 0 3 6 9 12 15 18 metres.

RESEARCH SCHOOL OF EARTH SCIENCES
PROPOSED DEVELOPMENT 1979 & BEYOND

DRAWING NO. 7502/S/5

RIVETT ROAD.

ROCK MECHANICS.

FUTURE BUILDING
3 STOREYS

GEOPHYSICS

LABORATORIES.

SERVICE YARD

GEOCHEMISTRY.

MAIN
ENTRANCE

NEW PARKING SPACES
INDICATED THUS

NEW ROAD

ROAD TO BE TAKEN UP
SHOWN DOTTED.

LABORATORIES
5 STOREYS
1979-81 TRIENNIAL

ADMINISTRATION, LABORATORIES
AND LIBRARY

OLD HOSPITAL BUILDING
SHOWN DOTTED

PLANT (BASEMENT - LEVEL)

SERVICE
ENTRANCE

FUTURE BUILDING
3 STOREYS

NEW ROAD

NEW PARKING AREA

NORTH

THE AUSTRALIAN NATIONAL UNIVERSITY.
RESEARCH SCHOOL OF EARTH SCIENCES.
PROPOSED DEVELOPMENT 1979 AND BEYOND
ANTHONY COOPER AND ASSOCIATES
ARCHITECTS.
DATE 4-7-75 DWG NO 7502/S/5
20 15 10 5 0 10 20 30 40 50 60 feet
6 4 2 0 3 6 9 12 15 18 metres.

PART 3 - JOHN CURTIN SCHOOL OF MEDICAL RESEARCH

Refer to the following drawings, bound immediately after this section of the Report.

No. 7502/S/6 - J.C.S.M.R. Proposed Development
1976-78 Triennium

No. 7502/S/7 - J.C.S.M.R. Proposed Development
1979 and Beyond

3.01 SPACE REQUIREMENTS

1976-78 Triennium
from A.U.C. Submission

(a) Wing F Extension
Gross area 475m^2
Three floors to provide
holding rooms, laboratories,
hospital and operating
rooms for animals.

(b) Specific Pathogen-free
Animal House - Completion
Gross area 463m^2
2-storey extension west of
existing building. Also a
small extension to the north
of the present S.P.F.
Breeding Rooms

1979-81 Triennium
from A.U.C. Submission

Animal House extension to
house non-human primates.

Beyond 1971
from discussions
with Director

Provision should be made for some
large-scale expansion in the
future. No specific need is
envisaged at present.

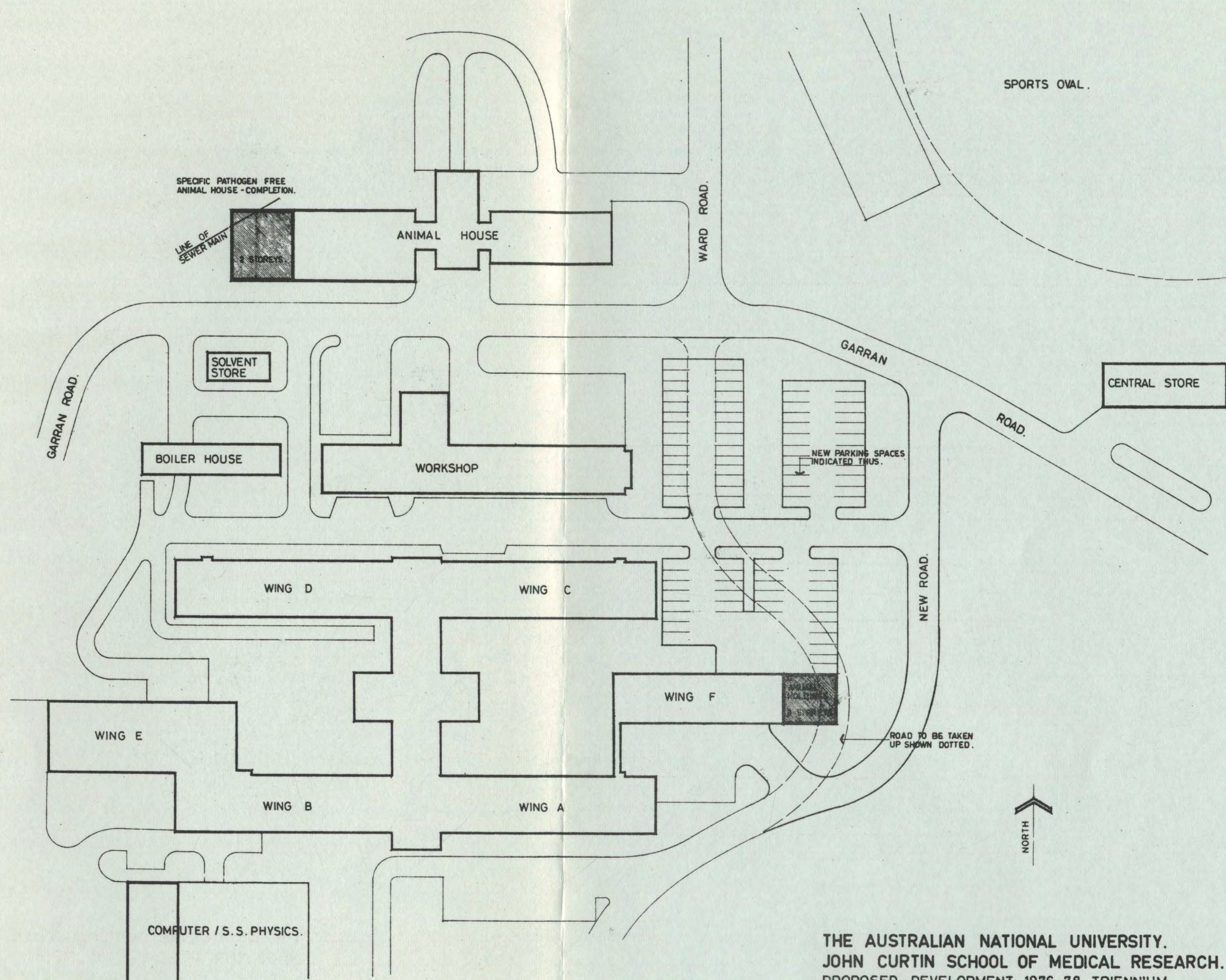
JOHN CURTIN SCHOOL OF MEDICAL RESEARCH
PROPOSED DEVELOPMENT 1976-78 TRIENNIAL

DRAWING NO. 7502/S/6

THE UNIVERSITY OF AUSTRALIA
JOHN CURTIN SCHOOL OF MEDICAL RESEARCH
PROPOSED DEVELOPMENT 1976-78 TRIENNIAL
ARCHITECTURAL DRAWING
DATE 1976-78

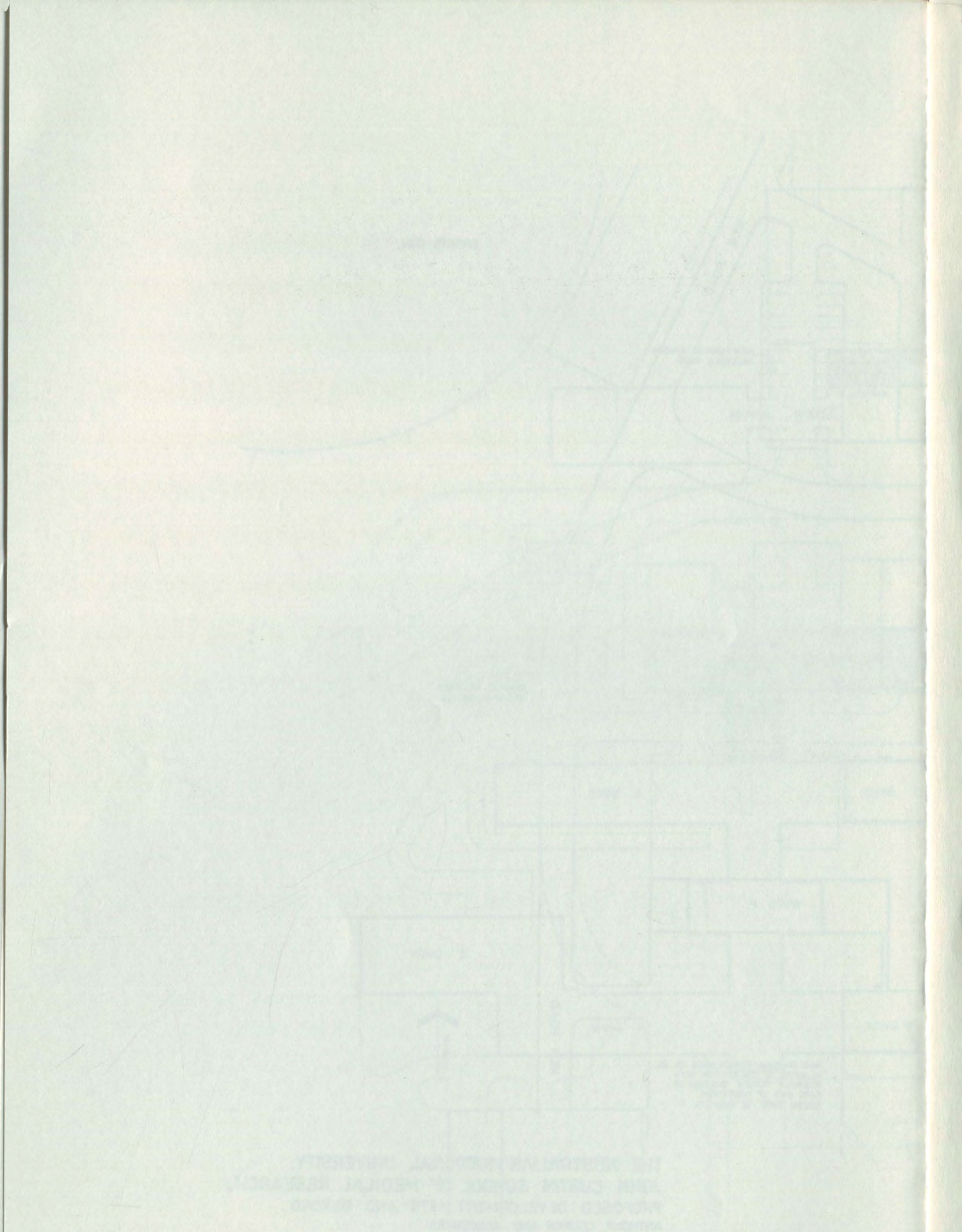
JOHN CURTIN SCHOOL OF MEDICAL RESEARCH
PROPOSED DEVELOPMENT 1976-78 TRIENNIAL

DRAWING NO. 7502/S/6



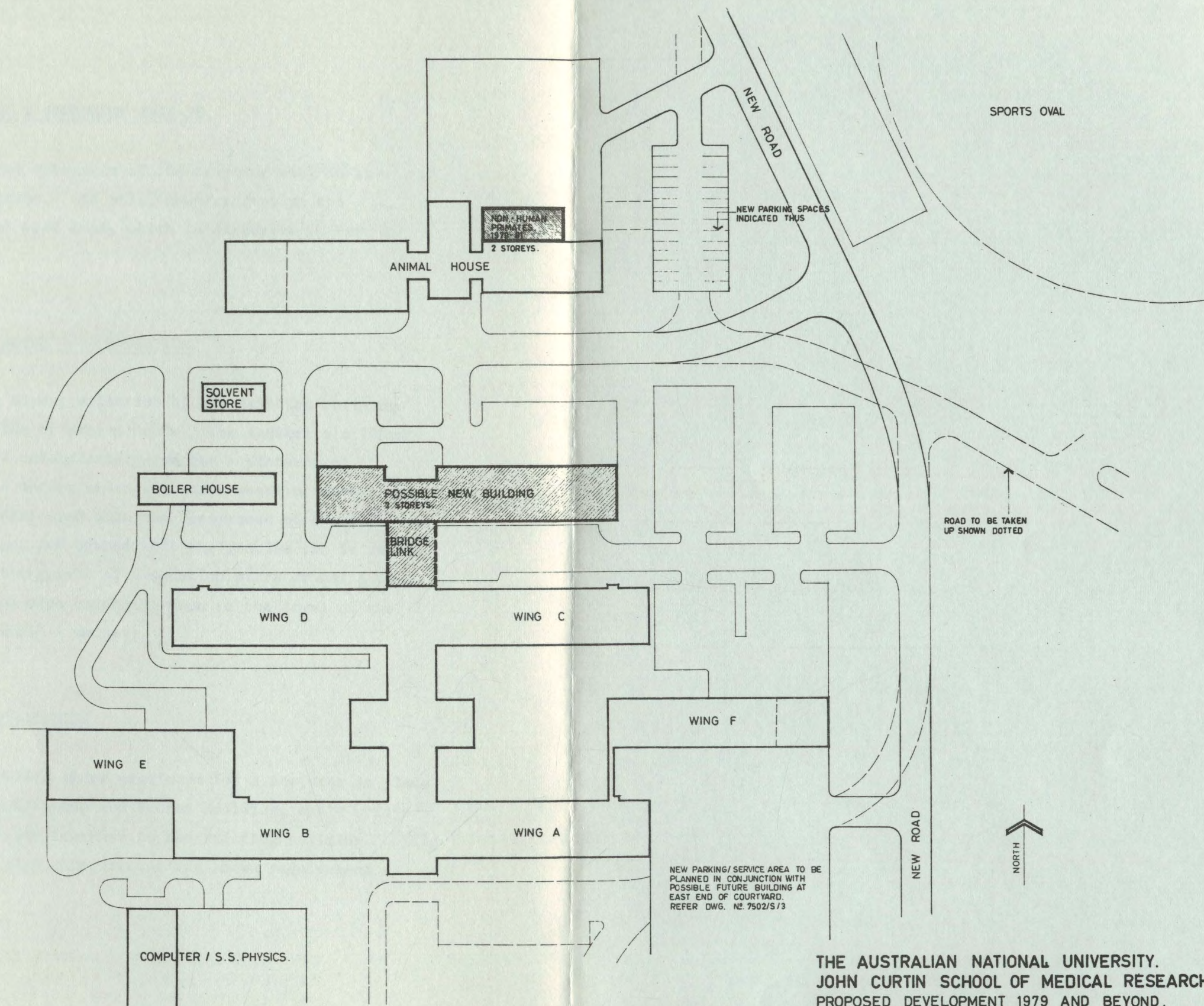
THE AUSTRALIAN NATIONAL UNIVERSITY.
 JOHN CURTIN SCHOOL OF MEDICAL RESEARCH.
 PROPOSED DEVELOPMENT 1976-78 TRIENNium.
 ANTHONY COOPER AND ASSOCIATES
 ARCHITECTS
 DATE 25-6-75 DWG No 7502/S/6

20 15 10 5 0 10 20 30 40 50 60 70 80 90 100 feet
 5 4 2 0 3 6 9 12 15 18 21 24 27 30 metres



JOHN CURTIN SCHOOL OF MEDICAL RESEARCH
PROPOSED DEVELOPMENT 1979 & BEYOND

DRAWING NO. 7502/S/7



THE AUSTRALIAN NATIONAL UNIVERSITY.
 JOHN CURTIN SCHOOL OF MEDICAL RESEARCH.
 PROPOSED DEVELOPMENT 1979 AND BEYOND.
 ANTHONY COOPER AND ASSOCIATES
 ARCHITECTS.
 DATE 25-6-75 DWG NO 7502/S/7

20 15 10 5 0 10 20 30 40 50 60 70 80 90 100 feet.
 6 4 2 0 3 6 9 12 15 18 21 24 27 30 metres.

3.02 J.C.S.M.R. WING F EXTENSION 1976-78

This is a direct extension of the existing wing in an easterly direction. It will, however, involve the re-alignment of Ward Road, which is discussed in Part 1 of the Report.

3.03 S.P.F. ANIMAL HOUSE - COMPLETION

This also is a direct extension of the existing building on the north side of Garran Road. The Authority's 700mm sewer main will unfortunately run for a distance of approximately 6 metres under the north-western corner. This has been discussed with the Department of Housing and Construction, and agreed that the problem can be overcome with an arrangement of foundation piers or walls on each side of the pipe extending down to the level of the pipe (approximately 4 metres).

3.04 FUTURE MAJOR DEVELOPMENT

Drawing No. 7502/S/7 shows provision for a new wing in place of the existing Workshop and Stores Building, and a bridge link across the Service Road to the existing building. This is a long term plan only, without any known requirement at this time.

3.04 Continued

If this wing is ever built, it should not extend to the height of the existing Wings C and D, and the northern facade should be modelled to provide some visual relief to the existing massing of brickwork behind.

Also, consideration should be given to a second major entrance to the building for convenient access from Garran Road and the parking areas on this side of the complex.

PART 4 - RESEARCH SCHOOL OF PHYSICAL SCIENCES
AND COMPUTER CENTRE

Refer to the following drawings bound immediately after this section of the Report:

No. 7502/S/8	R.S.Phys.S. Proposed Development, 1976-78 Triennium
No. 7502/S/9	R.S.Phys.S. Proposed Development, 1979 & Beyond
No. 7502/S/10	Space Allocation, Cockcroft Building, 1979 & Beyond
No. 7502/S/11	R.S.Phys.S. Section Through Main Workshop 1979-81 Triennium
No. 7502/S/12	R.S.Phys.S. Sections Through Proposed Development, 1976-78 Triennium
No. 7502/S/13	Elevation Looking West R.S.E.S.-Computer/S.S. Physics - J.C.S.M.R.

4.01 SPACE REQUIREMENTS

1976-78 Triennium
from A.U.C. Submission

- (a) Engineering Physics -
Laser & Rail Gun Facilities,
on east side of H.P.G.
Building, Levels 2 and 3.
Gross Area 1432m^2 .
- (b) Computer Centre -
Extension of Machine Room
and Offices, Level 2.
Gross Area 1432m^2 .
- (c) Mathematical Sciences Building
Library Extension
Basement Level
Gross Area 110m^2 .
- (d) Directors Laboratories
Level 5 of Solid State Physics/
Computer Building
Gross Area 700m^2 .

1976-78 Triennium
Special Submission

4.01 Continued

- 1979-81 Triennium
from A.U.C. Submission
and/or Discussions
with School
- (e) Engineering Physics
Large hall for Plasma Experiments
Levels 1 and 2 immediately East
of Homopolar Generator
Gross Area 1700m^2 .
 - (f) Nuclear Physics
Extension to Target Area
Facilities for 14 UD
Accelerator.
 - (g) School Services, Workshops
and Stores.
 - (h) Computer Centre
Office extension Levels 2 and 3
Gross Area 400m^2 approx.

4.02 GENERAL COMMENTS

The Research School of Physical Sciences, perhaps more than any other School, needs to be flexible in its forward planning. The School has recently acquired a new Director, who has expressed the desire to review the School's long-term programme. No information is available yet on revised building needs. However, our planning is aimed at providing maximum flexibility for the future.

4.03

AREAS RESERVED FOR FUTURE MAJOR BUILDINGS

- (a) The Department of Engineering Physics has requested a large development in the 1979-81 Triennium, in the area between the Homopolar Generator Wing and the Solid State Physics/Computer Building. Despite the possibility that the Department's needs may change, the area is very valuable for experimental usage, because of its proximity to the H.P. Generator. The entire ground level space is therefore shown on plan as reserved for Engineering Physics. The Computer Centre has claims on the "air space" over part of this area, which is discussed below.
- (b) The Department of Nuclear Physics may require substantial additional space in the long-term future. For this reason, a space is shown as reserved immediately West of the Nuclear Physics Office Building (it should be noted that building will be expensive here, because of poor foundations).
- (c) The area at the end of the peninsula, is reserved for a major building to replace the Old Geophysics Building.

4.04

COMPUTER CENTRE EXTENSION

The Centre's request for the 1976-78 Triennium included Machine Room on the east side and offices on the west side. The Machine Room extension involves a simple projection of the Level 2 space and brick-paved podium over.

4.04 Continued

Extension of the office space on the west side (Levels 2 and 3) is more complex, as it projects over space claimed by Engineering Physics. It is recommended that the office extension be delayed at least until 1979-81, when it can be combined with the second office extension claimed by the Centre, and when the needs of Engineering Physics might be better known.

Alternative locations were suggested for the additional Computer Centre Offices, but rejected by the Users as being unsatisfactory.

These were:

- (a) Level 6 of the Solid State Physics/Computer Building, and
- (b) Level 2 at the south end of the Computer Machine Room.

The addition of an office wing running westward at the north end of the Solid State Physics/Computer Building, would serve to screen the Engineering Physics buildings. We would, however, make the following points:

- (a) Planning of the office extension and the Engineering Physics Plasma Hall should be done concurrently if possible.
- (b) Good access must be retained to the Engineering Physics area.

4.04 Continued

- (c) Extension of the Solid State Physics/Computer Centre Building on Levels 2 and 3 only would produce a very unfortunate north elevation. It is recommended that if the extension does proceed, it should extend for the full height of the building.

4.05 ENGINEERING PHYSICS PLASMA HALL

When design work for this building proceeds, special consideration should be given to the occupants of offices in the Solid State Physics/Computer Centre. The roof should not be allowed to project above sill height of windows on Level 2. Also, selection of materials for the roof should be made considering the outlook from the Solid State Physics/Computer Building. It may be considered appropriate to create a landscaped deck.

4.06 SCHOOL SERVICES

Existing School Services workshops in the Cockcroft Building are seriously congested, and the School Manager has expressed the need for more space. Consideration was given to providing a completely new School Services Building. However, it was considered that any available space of adequate size should be reserved for research buildings. Attention was therefore focussed on the Cockcroft Building.

4.06 Continued

Some space will be vacated by Solid State Physics on completion of the new building currently under construction. Also, it was noted that the Main Workshop occupies a space extending through three floors (Levels 3, 4 and 5). Construction of a new Main Workshop on the existing "Steel Deck", would allow new floors to be built at Levels 4 and 5 in the existing void. (Refer to Drawings Nos. 7502/S/10 and 7502/S/11). It was found that this would provide approximately the additional space requested, and that the Engineering Physics Laboratories and Common Room were enlarged by the re-organisation.

Figures are as follows:

	<u>Existing</u> <u>Space</u>	<u>Total</u> <u>Space Provided</u>	<u>Total Space</u> <u>Requested</u>
Main Workshop			
(including Precision Shop)	803m ²	1582m ²	1640m ²
Electronics	142m ²	307m ²	297m ²
Stores - Internal	382m ²	382m ²	380m ²
Stores - External	246m ²	350m ²	-
Joiners Workshop	243m ²	243m ²	243m ²
Common Room	211m ²	343m ²	422m ²
Engineering Physics	766m ²	896m ²	-

It should be noted that construction of a new Main Workshop on the "Steel Deck" will be expensive, again because of foundation difficulties. Also, there would be a need to erect a gantry crane to serve the narrower steel storage yard and also the basement space at the east end of the "Steel Deck". The School's Radiation Safety Officer has advised that proper shielding of the new Workshop should present no great problem.

4.06 Continued

The existing small storage buildings would need to be removed from the "Steel Deck" for improved truck access. Drawing No. 7502/S/10 shows a new storage building to be constructed on the roof of the existing radiation chamber immediately below the "Steel Deck".

4.07 MATHEMATICAL SCIENCES LIBRARY EXTENSION 1976-78

This is a simple extension of the basement, approximately 10 metres westward. The line of the existing recessed basement wall should be continued, and a paved deck should be formed for pedestrian access from the higher ground on the south side of the building.

4.08 COMMON ROOMS

From the table in clause 4.06 it can be seen that Common Room space could still be inadequate. The Cornick Common Room is well placed at the west end of the Cockcroft Building, and should not be moved.

However, consideration could be given to the construction of a new Common Room on the upper floor (Level 4) of a bridge link between the Cockcroft and Oliphant Buildings.

ANTHONY DUFFY & ASSOCIATES
ARCHITECTS

JULY 1973

4.09 THE PENINSULA BUILDING

As stated in Part 1 of this Report, the site of the Old Geophysics Building at the end of the peninsula will acquire new prominence with the construction of the Molonglo Freeway. Any new building here will need to be sensitively designed considering its impact externally and its relationship with the internal space of the Peninsula Courtyard.

Drawing No. 7502/S/9 suggests a "Greek hillside" development, stepping down the slope, to present a highly modelled facade to the outside. It also leaves open the views from the courtyard to Black Mountain in the north west corner and to the Brindabella Ranges in the south west corner.

ANTHONY COOPER & ASSOCIATES
ARCHITECTS

JULY, 1975

UNIVERSITY SCHOOL OF PHYSICAL SCIENCES
PHYSICAL DEVELOPMENT 1976-78 TRIENNIAL
DRAWING NO. 7502/S/8

RESEARCH SCHOOL OF PHYSICAL SCIENCES
PROPOSED DEVELOPMENT 1976-78 TRIENNium

DRAWING NO. 7502/S/8

SULLIVANS CREEK

BOATSHED

GARRAN ROAD

NUCLEAR PHYSICS.

WING E.

J.C.S.M.R.

WING B.

TARGET AREA.

TANDEM ACCELERATOR.

14 UD.

H.P.G.

R.S.P.S.

COCKCROFT.

OLD
GEOPHYSICS

LIBRARY
LEVEL 1

MATHEMATICS

OLIPHANT

B
12

A
12

RAIL GUN
LEVELS 2 & 3

COMPUTER/
S.S. PHYSICS.

LEVEL 5

NEW PARKING SPACES
INDICATED THUS.

A
12

LASER ROOM
LEVELS 2 & 3

B
12

RIVETT ROAD

R.S.E.S.

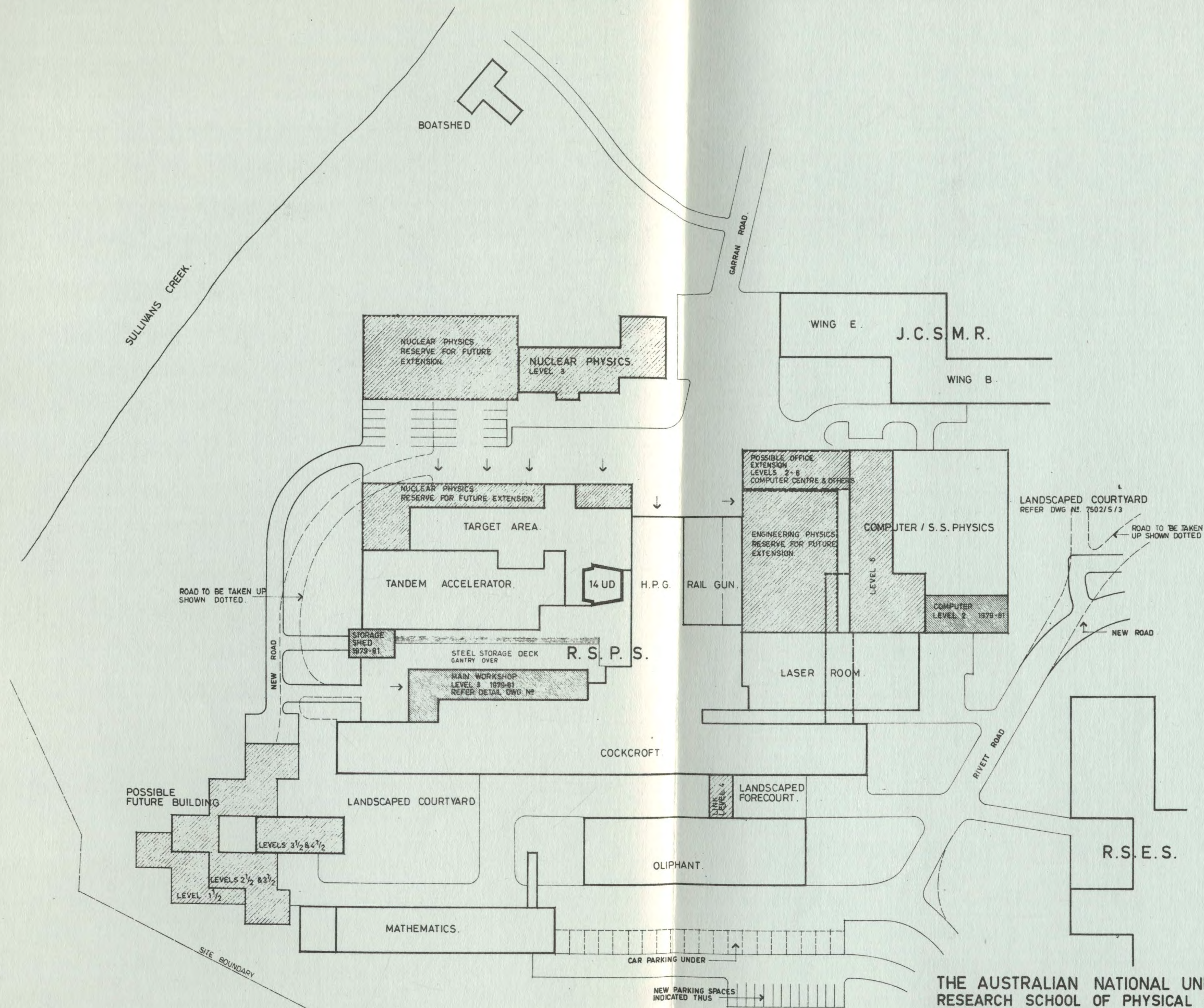
NORTH

SITE BOUNDARY

THE AUSTRALIAN NATIONAL UNIVERSITY
RESEARCH SCHOOL OF PHYSICAL SCIENCES.
PROPOSED DEVELOPMENT 1976-78 TRIENNium.
ANTHONY COOPER & ASSOCIATES
ARCHITECTS
DATE 25-6-75 DWG No 7502/S/8
40 30 20 10 0 20 40 60 80 100 feet.
12 9 6 3 0 6 12 18 24 30 metres.

RESEARCH SCHOOL OF PHYSICAL SCIENCES
PROPOSED DEVELOPMENT 1979 & BEYOND

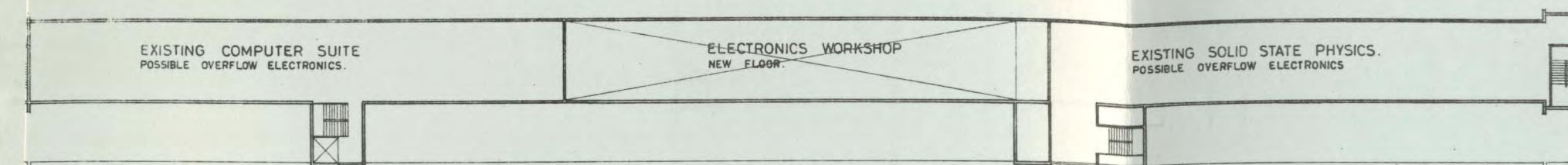
DRAWING NO. 7502/S/9



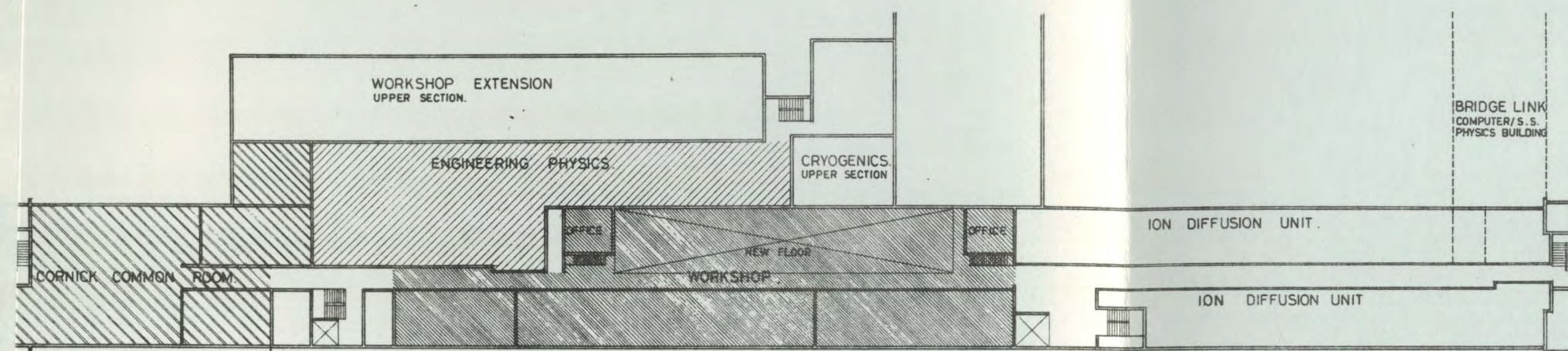
THE AUSTRALIAN NATIONAL UNIVERSITY.
RESEARCH SCHOOL OF PHYSICAL SCIENCES.
PROPOSED DEVELOPMENT 1979 AND BEYOND.
ANTHONY COOPER & ASSOCIATES
ARCHITECTS.
DATE 25-6-75. DWG NO 7502/S/9
40 30 20 10 0 20 40 60 80 100 feet
12 9 6 3 0 6 12 18 24 30 metres.

RESEARCH SCHOOL OF PHYSICAL SCIENCES
SPACE ALLOCATION, COCKCROFT BUILDING,
1979 & BEYOND

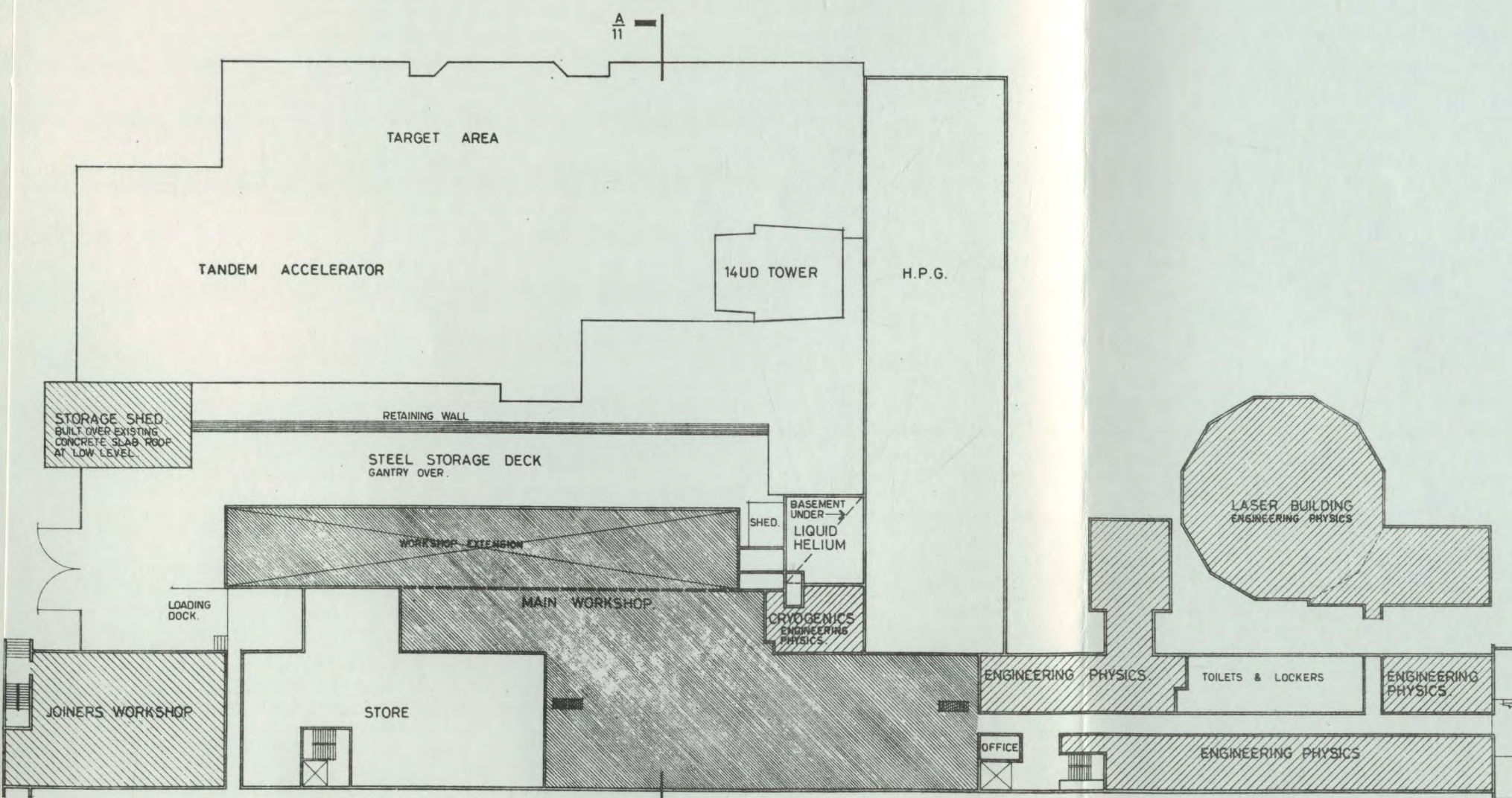
DRAWING NO. 7502/S/10



LEVEL 5



LEVEL 4

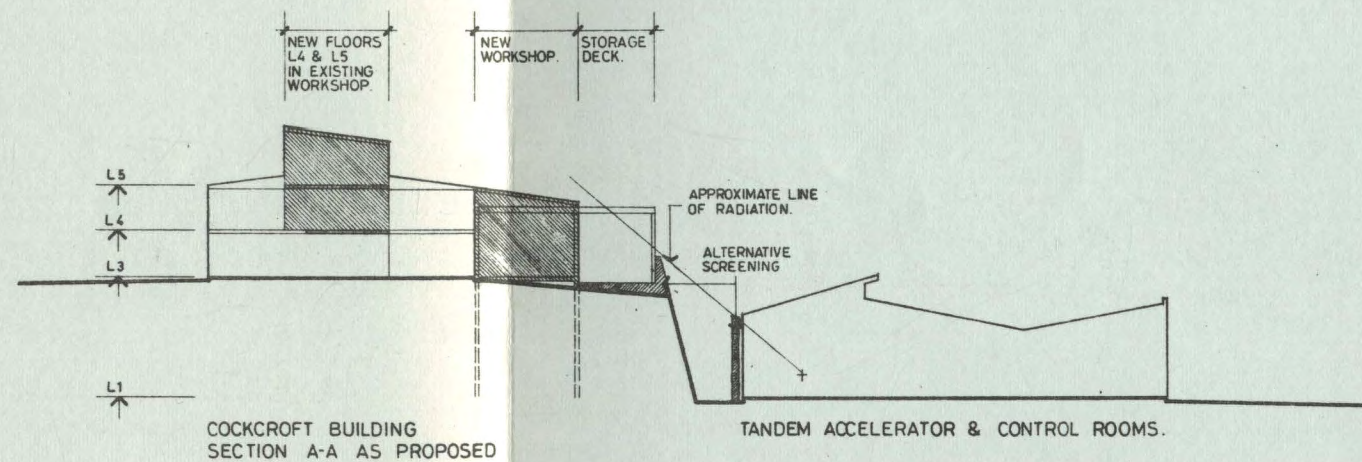
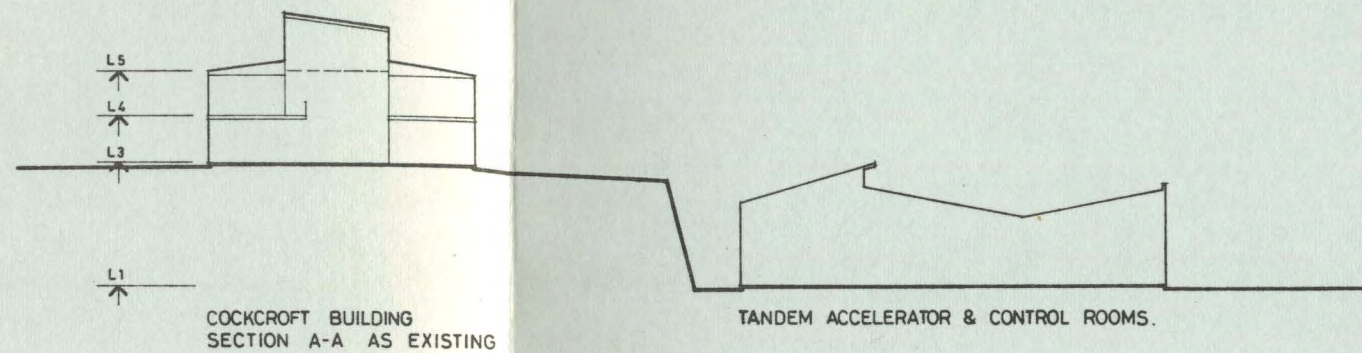


LEVEL 3

THE AUSTRALIAN NATIONAL UNIVERSITY
 RESEARCH SCHOOL OF PHYSICAL SCIENCES.
 SPACE ALLOCATION, COCKCROFT BUILDING
 1979 AND BEYOND
 ANTHONY COOPER AND ASSOCIATES
 ARCHITECTS.
 DATE 2-7-75 DWG No 7502/S/10
 20 15 10 5 0 10 20 30 40 50 60 feet.
 6 4 2 0 3 6 9 12 15 18 metres.

RESEARCH SCHOOL OF PHYSICAL SCIENCES
SECTION THROUGH PROPOSED MAIN WORKSHOP,
1979-81 TRIENNium

DRAWING NO. 7502/S/11

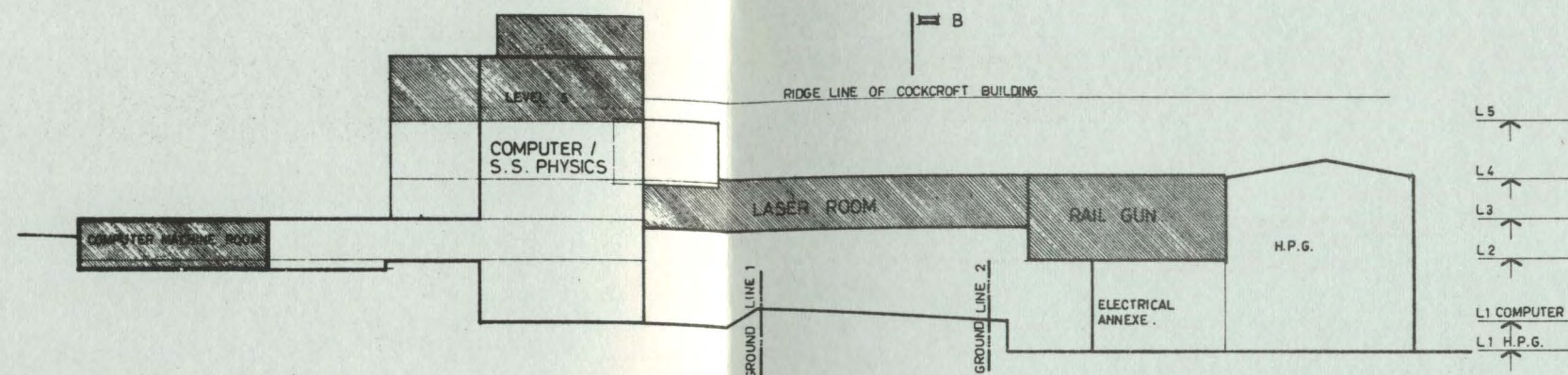


THE AUSTRALIAN NATIONAL UNIVERSITY.
RESEARCH SCHOOL OF PHYSICAL SCIENCES.
SECTION THROUGH PROPOSED MAIN WORKSHOP
1979-81 TRIENNium
ANTHONY COOPER & ASSOCIATES
ARCHITECTS.
DATE 30-6-75. DWG. NO. 7502/S/11

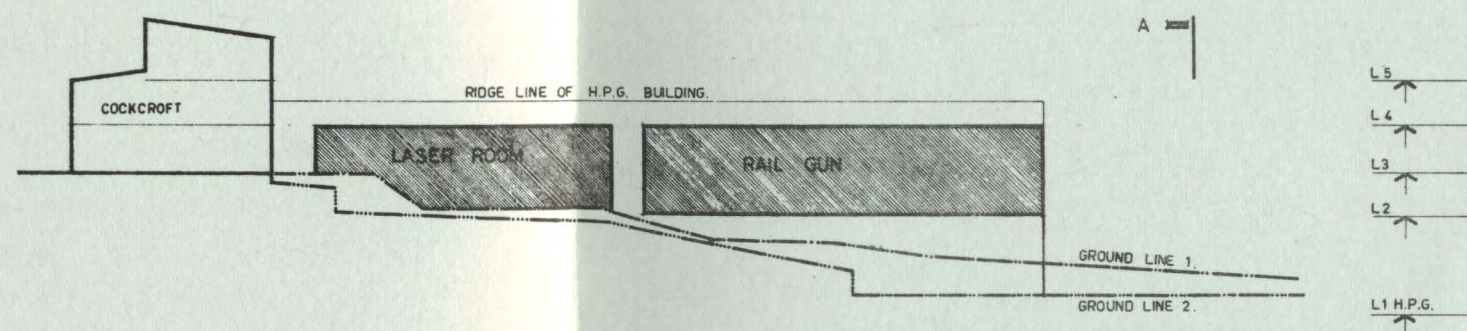
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6 4 2 0 3 6 9 12 15 18 metres.

RESEARCH SCHOOL OF PHYSICAL SCIENCES
SECTIONS THROUGH PROPOSED DEVELOPMENT
1976-78 TRIENNium

DRAWING NO. 7502/S/12



SECTION A-A



SECTION B-B

THE AUSTRALIAN NATIONAL UNIVERSITY.
RESEARCH SCHOOL OF PHYSICAL SCIENCES.
SECTIONS THROUGH PROPOSED DEVELOPMENT
1976-78 TRIENNium.

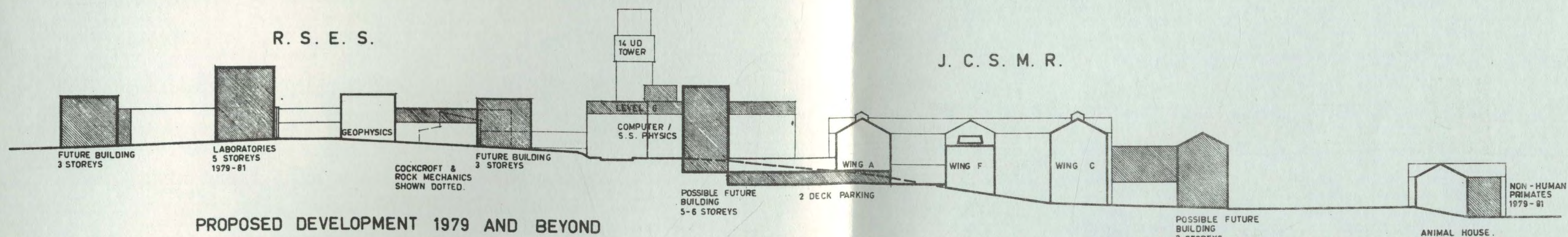
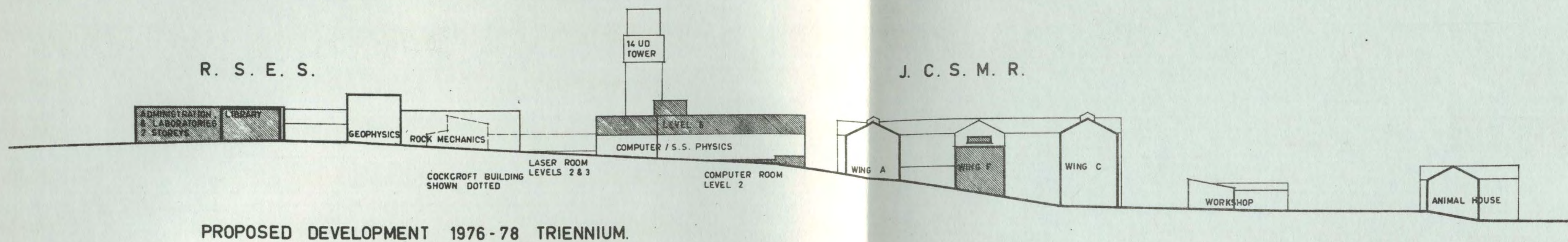
ANTHONY COOPER AND ASSOCIATES
ARCHITECTS.

DATE 1-7-75 DWG NO 7502/S/12

20 15 10 5 0 10 20 30 40 50 60 feet
6 4 2 0 3 6 9 12 15 18 metres

ELEVATION LOOKING WEST
R.S.E.S. - COMPUTER/S.S. PHYSICS -
J.C.S.M.R.

DRAWING NO. 7502/S/13



THE AUSTRALIAN NATIONAL UNIVERSITY
ELEVATION LOOKING WEST
R.S.E.S.- COMPUTER / S.S. PHYSICS - J. C. S. M. R.
ANTHONY COOPER AND ASSOCIATES
ARCHITECTS.
DATE 8-7-75 DWG NO 7502/S/13
20 30 20 10 0 20 40 60 80 100 feet
12 9 6 3 0 6 12 18 24 30 metres

