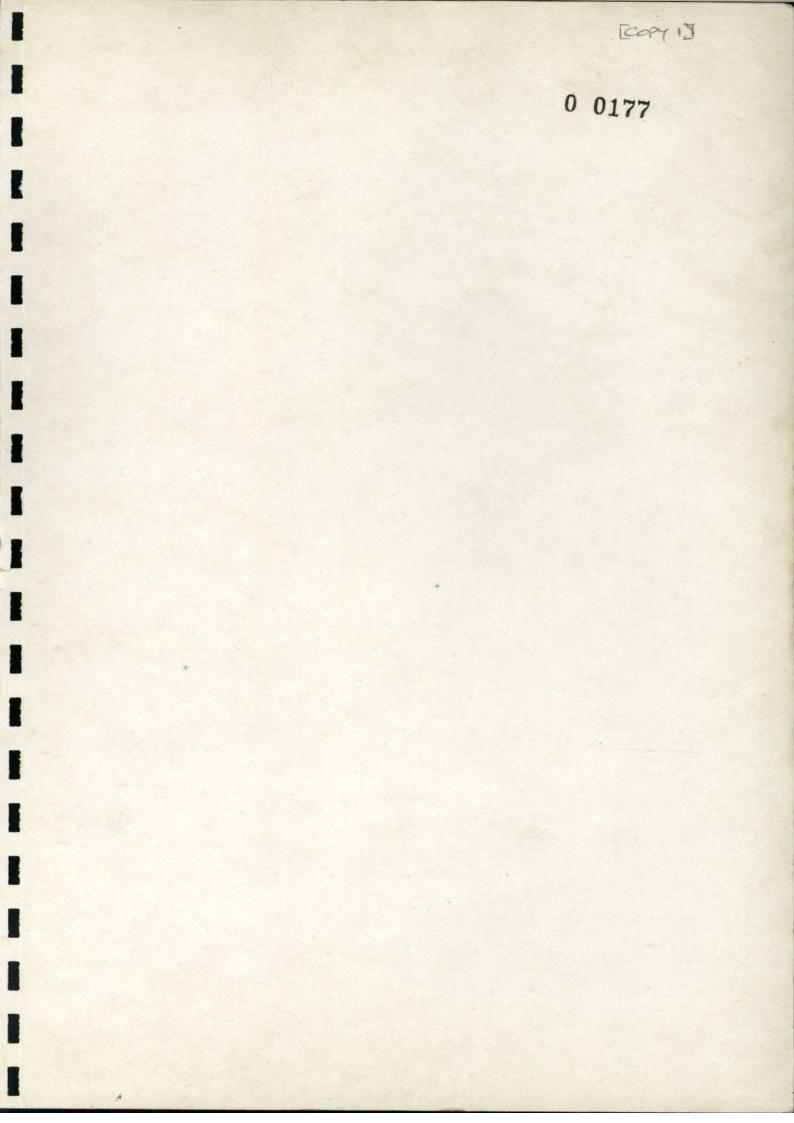


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NAA: AA1980/485, 177 COPY 1

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Entry 177 [Parliament House Design Competition - R Thorp] - Copy 1



1.

- 1.1 We consider the land axis of Canberra as the fundamental gesture of the city, a line around which all other design has evolved in circular and radial directions.
- 1.2 The area established by the Griffin plan and the Commission for the Parliament is at the converging point of primary avenues which connect the site to major points of the city. We interpret this as an extension and bridge from the formal areas of the capital to its residential sectors.
- 1.3 The round form of the site was accepted as the generating form of the Parliament complex. In consequence, our attention has been focused upon a tri-dimensional system of forms that will articulate the basic circular plan without opposing it. Our intention is to arrive at an architectural imprint that derives its value through a balanced and unforgettable geometry, as all exemplary architecture has done throughout time.
- 1.4 On the other hand, our preoccupation as architects has been that of grafting meaning, myths, and symbols into a geometric scheme for the Parliament as a synthesis of the Nation's presence.

- 1.5 The hill is of utmost importance. For centuries man occupied its crest with structures as signs of possession and power. We feel that the hilltop should be left clear of visible constructions. Only the flag, which has been there since the city's foundation, will be present, supported by a new structure of which the entire complex is part, as permanent rallying-point or symbol for the citizens.
- 1.6 The land axis remains as a key element of the composition and will extend across the hill, developing a spatial continuity with the perspectives of the avenues leading into the residential sectors of town.

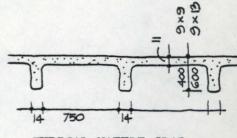
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- 1.7 This gesture will be framed and reinforced by two curvilinear walls separated by a grass mall always open to the public. Between these walls all formal functions of the complex will be housed, including the government quarters. The Senate and the House of Representatives Chambers and their offices will extend east and west, beyond the wall.
- 1.8 The curved walls are designed as major circulation systems. Their glazed roof allows natural daylight to enter the corridors and adjacent areas. At night the reverse illumination will provide easy identification of the Parliament complex from the air. These same walls also unify the overall design, by providing support for the roofs of the Chambers, as well as extending to become the vertical support for the national flag at the center of the hill.

- 1.9 On the north, the extension of the land axis will provide spaces for rituals. The forecourt is a highly visible, symbolic link with the Commonwealth, where among other formal occasions, the Queen will meet the People.
- 1.10 The profile of the complex has been purposefully arranged so that the roofs over the two Chambers are clearly expressive of the bicameral system of government.

1.11 The Offices of Senators and Representatives are to provide optimum working conditions, as non-institutional as possible, and in this respect they are intended to constitute a visible paradigm. Characteristic of this intention are the low buildings, generous daylight in working areas, ample courts and gardens, and a well-considered potential for expansion and change. The fabric of the landscape surrounding the offices will provide the delineation for such expansion; it will also contain places for exercise and the pursuit of physical fitness, a necessary aspect of a design responsive to the health and well-being of its occupants.

1.12 Thus the form of the Parliament will express a sense of fellowship and dignity for the citizens, made evident by the integration of the complex into the spatial scheme of the city as a whole, and through both the buildings' humane accommodation of daily work, and their visual evidence of the commitment of the government and the demension of the Commonwealth. It is a fellowship and dignity which is not accessorial, but which must be conceived of as fundamental to their lives. 2.1 The structure for the Executive Government Office building and the offices surrounding both the Senate and the House Chambers is a maximum of three stories in height. Portions of the latter areas are one and two stories high. The structual module of all three areas is generally 9m x 9m or 9m x 13m. It is also anticipated that floor and roof framing will be by conventional cast-in-situ systems (waffle slabs, for example) or by conventional precast systems. Cast-in-situ systems will accommodate the distribution of mechanical equipment more easily, resulting in a lower floor to floor height.





2.2 The major ceremonial and monumental spaces (Foyer, Reception Hall, Members Hall, Refreshment Rooms, Library, Reading Room, and main Committee Rooms) are all located in the central zone, and have a structural module of the order of 18m x 18m. Conventional beam-and-slab construction of reinforced concrete is anticipated for this work. Structural depth will be about 750mm.

2.3 Some structural steel construction may be desired in the longer span areas, such as the roofs over the Senate and House Chambers. Steel framing, in this application, may provide for a more economical overall profile through the better integration of the structural, mechanical and lighting systems.

Framing for the flagpole assembly, located at the geometric centre of the project, will utilize four composite welded pipe supports as the compression members, together with four tension members below. Each tension member will consist of 3 or 4 pre-stretched bridge strands. The flagpole will be a double tapered steel tube. Finish for the framing members will be stainless steel.

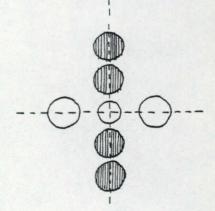
2.4

- 3.1 The Parliament House complex will be a low rise building of light color, set within a landscaped base. We believe it is essential to retain the sense of a natural hill at the site.
- 3.2 The major external elements viewed from the north will be the two curvilinear walls to either side of the grass mall, rising to the top of Capital Hill to support the Flag flying high above.
- 3.3 The curved walls will be faced with Australian Granite using a combination of smooth and bush hammered finishing techniques.
- 3.4 Australian Granite will be used as the primary facing material elsewhere in the complex, together with solar grey glazing and stainless steel metal work.
- 3.5 All materials and finishes, both exterior and interior, will be selected with due consideration for their durability and maintenance characteristics.
- 3.6 The large roof areas over the two Chambers will be finished with glazed terracotta tiles.

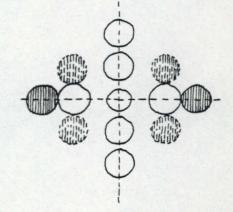
4.1 The land axis is the key element of the composition. A second axis, perpendicular to the land axis, is introduced at the center of the site.

4.2 The two chambers are located to each side of the land axis across a central hall.

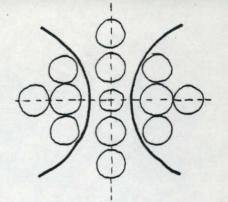
4.3 The ceremonial and public elements are located on the land axis to the north, while the Executive Government and Committee Rooms are to the south.



4.4 Elements relating directly to the Senate and House are introduced on the west and east respectively of each chamber.

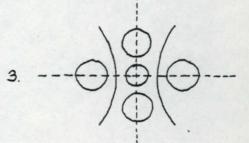


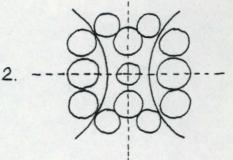
4.5 A system of circulation is introduced in the form of two curved walls, dividing the diagram into 3 zones: Senate, a central area, and House.

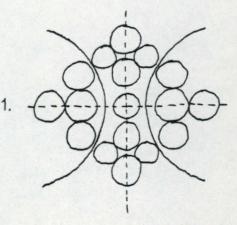


4.6 The composition is transposed into a three level matrix, with the elements on the land axis shifted to conform to the profile of a hill.

4.7 Additional elements of the program are introduced and located within the 3 level system. Placement of elements is made at appropriate interfaces of movement (circulation) and function. Attention is given to locate elements most conducive to growth on the perimeter of the system.







5.1 Various circulation systems for specific users have been incorporated into our design proposal. When combined with the general system inherent in our scheme, a network is established whereby orderly and efficient movement of people and services is available throughout the complex.

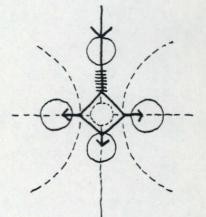
> In particular, circulation systems have been included for the following: PUBLIC EXECUTIVE

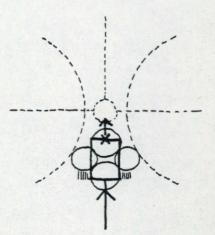
GENERAL GOODS

5.2 The Public system is the most direct, following a route from the Entry Foyer via a monumental stair to a second level central gallery, overlooking the activities in the Members Hall below. From this central gallery space, access is available to the public galleries of the House and Senate chambers, and to the Committee Room Foyer.

> All public circulation is purposefully restricted to the northern part of the central zone of the building: in this way visitor orientation will be simplified.

5.3 Executive circulation is similar to the public system, but is from the opposite direction. It is also contained within the central zone and operates on two levels. Isolation of this element is intentional, so as to fulfill requirements of security and identity.



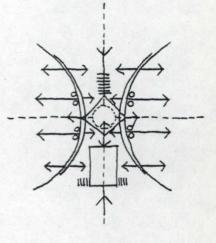


General Circulation is the most extensive system. It is primarily conceived of as two trunks, each located within the curvilinear walls, and each extending through three stories. Branches extend from the trunks in lateral directions at regular intervals, with control points at appropriate locations. Centralized banks of elevators are included in each trunk to facilitate vertical movement in addition to the stairs located at each branch.

Future extensions of the Parliament complex are envisaged as being connected to this general circulation system.

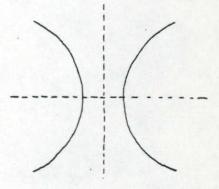
5.5 Goods circulation is proposed in the basement level with connections to the General circulation system by means of elevators and dumb waiters.

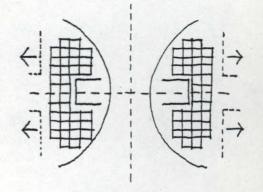
5.6 Taken together, the various circulation systems provide an extensive network of routes reaching all elements of the complex. Certain sections of a single path will necessarily be devoted to a primary user - control points can be inserted to designate such areas as are appropriate.

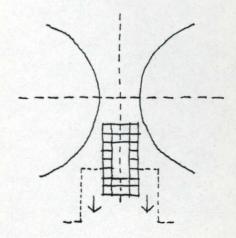


5.4

- 6.1 A major goal in seeking a design solution for the program has been to find a system capable of accepting unequal growth and change.
- 6.2 Our Design proposes a project that establishes a fixed and immediate image for Parliament House and yet allows for expansion in the future without changing the basic identity of the complex.
- 6.3 This is achieved by means of the two curvilinear walls which establish the major aspect of the design and provide both the link and continuity of Griffin's plan.
- 6.4 With the exception of the House & Senate Chambers, all spaces to the east and west of the curved walls are considered as subject to change and growth. Our design proposes that these areas be built as simple office buildings using established principles of construction and design.
- 6.5 The Executive Government element located in its own "office building" to the south is structurally similar to the offices spaces discussed above. Opportunities exist in this location for expansion to the south.

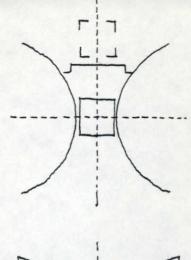


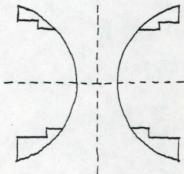




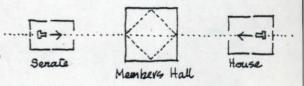
6.6 The ceremonial and public elements, generally of a more fixed nature, have been located in the central and northern part of the design. We have considered these elements as the major "form giving" spaces of the scheme, and as such they will have a more monumental and permanent nature.

6.7 The two curved walls, considered as spines for circulation of people and services, also provide opportunities for growth and expansion. Their function in this mode will be as connectors, allowing for future elements and areas to be contructed that "plug into" the existing system.

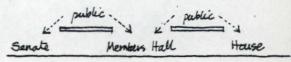




7.1 As stated above, our design continues the tradition of locating the two chambers on a common axis with the presiding officers facing each other across a central hall. The profile of the complex has been purposefully arranged so that the tiled roofs over each chamber are clearly expressive of the bicameral system of Government.



- 7.2 Public circulation has been integrated into the design to permit an easy and immediate route for tourists to see the parliamentary system in operation. Public galleries are provided at the second level to overlook the two chambers and the Members' Hall.
- 7.3 Access to the Members' Hall, located at the geometric center of the design at entry level, can be gained from both Chambers, the Executive Government area, the Foyer, and from each of the circulation systems contained within the curvilinear walls.



- 8.2 Our design proposes making this connection with a formalized grass mall leading into the naturally landscaped slope of Capital Hill. This connection of mall and hill serves two functions: Firstly, it provides a means whereby the most formal element (the Forecourt) can be introduced into the geometry; and secondly, it allows for the subtle integration of the public access to the top of the hill and the continuity of the land axis beyond the complex itself.
- 8.3 The Parade Ground and extensions, together with the Saluting Battery and Assembly areas are all accommodated by virtue of this arrangement. The present location of the Commemorative Stone is not changed, as it remains in its new context of the Parade Ground.

8.4 The parts of the hill to either side of the Forecourt are intended to provide advantageous positions from which the public can watch the ceremonial functions on the Parade Ground and Forecourt levels. These positions are such that problems resulting from sun direction are minimalized.

SITE

- .5 The design reflects our belief that the character of the Capital Hill site should be determined by the following primary considerations:
 - a) The landscaped nature of the area should be retained.
 - b) The identity of the hill should be preserved.
 - c) The ground should essentially be a landscape where buildings find their own accommodation.
 - d) Easy public access to the crest of the hill and across the site is paramount.
- 8.6 The landscaping to the south, east and west at the base of Capital Hill is proposed as a series of densely planted areas or bosques. Containing closely planted coniferous evergreens, these bosques will give privacy to the Executive, Senate and House Office buildings. Additionally, the bosques are proposed to have clearings at their centers where facilities for sports and other services are located.
- 8.7 The courtyards and gardens located within the fabric of the project have been proposed at a scale that will permit ample penetration of sunlight while affording protection from the cold northwest winds.
- 8.8 The parking elements of the program have all been located in below grade structures with direct connections to the appropriate entry points. We consider that the visual benefits gained by eliminating on-grade parking far outweigh the additional construction cost of underground parking structures.

8.5

9.1 Our proposal for the road system for the Parliament House complex includes the provision of a separate system for visitors and tourists. This major group of users will enter the site from Capital Circle (made into a two way system) at a point below the proposed mall to the north. Access to this entry can also be gained from the new roads to each side of the mall, and then via ramps connected to Capital Circle. A public parking facility and bus drop-off point is proposed at this location below the Forecourt, with direct pedestrian access to the Entry Foyer via both ramp and lift. Additionally, it is also possible for special groups to be brought by bus directly to the Forecourt area.

9.2 Ceremonial access to the site is from the north. Dignitaries will proceed by automobile from either Commonwealth or Kings Avenues to Victoria Terrace, turning onto the Mall roadway for the long processional drive to the Forecourt. Vehicles will then proceed to layby positions in the vicinity or to the lower level parking facility via the ramp connectors.

9.3 Separate access roads from Capital Circle are proposed for each of the following:

- a) Senators and staff
- b) Representatives and staff
- c) Executive Government
- d) Government staff
- e) Media

In each case, provision is made for direct drop-off at entry level, as well as for ramps leading to below grade parking areas. The single exception to this is in the case of the Executive Government, whose entry road leads directly to a drop-off point with an adjacent layby area provided for parking of executive vehicles only.

- 9.4 The major Service entry is from Capital Circle, where service vehicles will enter the lower level using the same roadway as provided for the public and visitors. Provision is made at this point, for a service lane into the basement or lower level areas where extensive utility elements are located. The decision to situate the service entry at this point was strongly influenced by virtue of its location below the mall, where delivery vehicles would be screened from view.
- 9.5 Other secondary service approaches would no doubt be required for special areas. Included in this category for example would be access to the cooling towers near the northeast section of the site. Such access however, would be infrequent and would correspondingly be treated as simply as possible.

- 10.1 The mechanical and electrical services required for Parliament House are divided into the following basic elements.
 - 1. Electrical Power Service and Distribution
 - 2. Refrigeration Plant for Chilled Water.
 - 3. Heating Plant for Hot Water.
 - 4. "All Air" HVAC Systems.
 - 5. Fire Protection Systems.
 - 6. Storm and Sewage Drainage Systems.
 - 7. Emergency Services.

10.2 For the large campus-style spread of low rise buildings, it is proposed that a central utility plant be included at the most advantageous location insofar as distribution, service entry, truck access and possible fossil fuel storage are concerned. This central plant houses approximately 2500 tons of electric drive centrifugal refigeration machines and three natural gas fired hot water boilers with all primary pumping apparatus. Four cooling towers are to the north east of the central plant in a below grade configuration located within a bosque of trees.

10.3 The hot water distribution lines and heat exchange apparatus will be sized for "low-temperature" hot water which can utilize input from a future solar powered heating plant addition when such installation becomes economically practical.

> The centrifugal refrigeration machines will be of heat-reclamation configuration (split-condensers) to allow rejected heat from refrigeration cycle to be used for preheat/heat purposes or stored in tanks for later (night-time) use.

- 10.4 From this central utility plant, main distribution pipes for chilled water and hot water will be routed to six major mechanical equipment rooms equipped with secondary pumping. These rooms will house all HVAC supply, return and exhaust systems serving all office and support spaces.
- 10.5 The HVAC systems will be "all-air"; (variable air volume) of the full-metering type to allow modulation in direct proportion to the load. No simultaneous heating and cooling will occur in the same space. However, the system will be capable of cooling the interior of the structure and the sun-side perimeter, while heating other exposures as required.
- 10.6 All air systems will be economizer equipped to allow free-cooling with outside temperatures of 16°C. (60°F.) and below.
- 10.7 High voltage electrical service will enter the utility area from underground duct banks. Transformation as required for service in the utility plant and distribution to the mechanical equipment rooms and other load centers will be accomplished at each major mechanical element and in electrical rooms throughout the project.
- 10.8 Emergency power generated by natural gas fueled turbines or diesels, sized for essential services and life safety capabilities, will be located in the Utility Plant.

- 10.9 The entire complex will be fully sprinklered to a density in accordance with the requirements of each area's occupancy and use. Two sources of water for fire fighting purposes will be utilized, connecting to a continuous loop main around the Parliament House complex.
- 10.10 All storm and sewage flows from the building will connect to site piping provided at convenient locations around the Parliament House periphery.

- 11.1 This cost estimate is based on Gross Floor Areas measured in accordance with the NPWC/AIQS definition. Rates prevailing in may 1978 have been applied.
- 11.2 The specialized nature of this project requires consideration and inclusion of several cost factors. Together, they have resulted in higher than normal costs being applied.

Briefly, the reasons for this are as follows:

a) To ensure that the completion date of 1988 is achieved, extensive overtime allowances have been included, for both on- and off-site activities.

b) Transportation costs to Canberra have been allowed for.

c) The quantity of material to be used, fabricated, constructed, etc. is extensive, and existing Canberra facilities alone cannot cope with the huge demand.

d) High labor costs.

e) During recent years there has been a downturn in construction activity in Canberra. Many contractors and sub-contractors have left the area or entered other fields of work. Since it is likely that this project will be the major contract in the area over the next ten years, the amount and quality of competition will be diminished.

- 11.3 Items included in Estimate: All services, floor, wall and ceiling finishes, internal partitions and fixed furniture. Consultants fees.
- 11.4 Items not included in Estimate: Loose furniture and fittings. Cost increases from May 1978.

11.5 COST ESTIMATE

a) The Building: (includes 15% for all Fees)

Third Floor Gross Area	=	15,744 m ²	
Second Floor Gross Area	=	31,284	
First Floor Gross Area	=	36,936	
Basement Floor Gross Area	=	14,800	
		22 24 2	
Subtotal		98,764 m ²	\$114,000,000

b) Building Siteworks & Services:

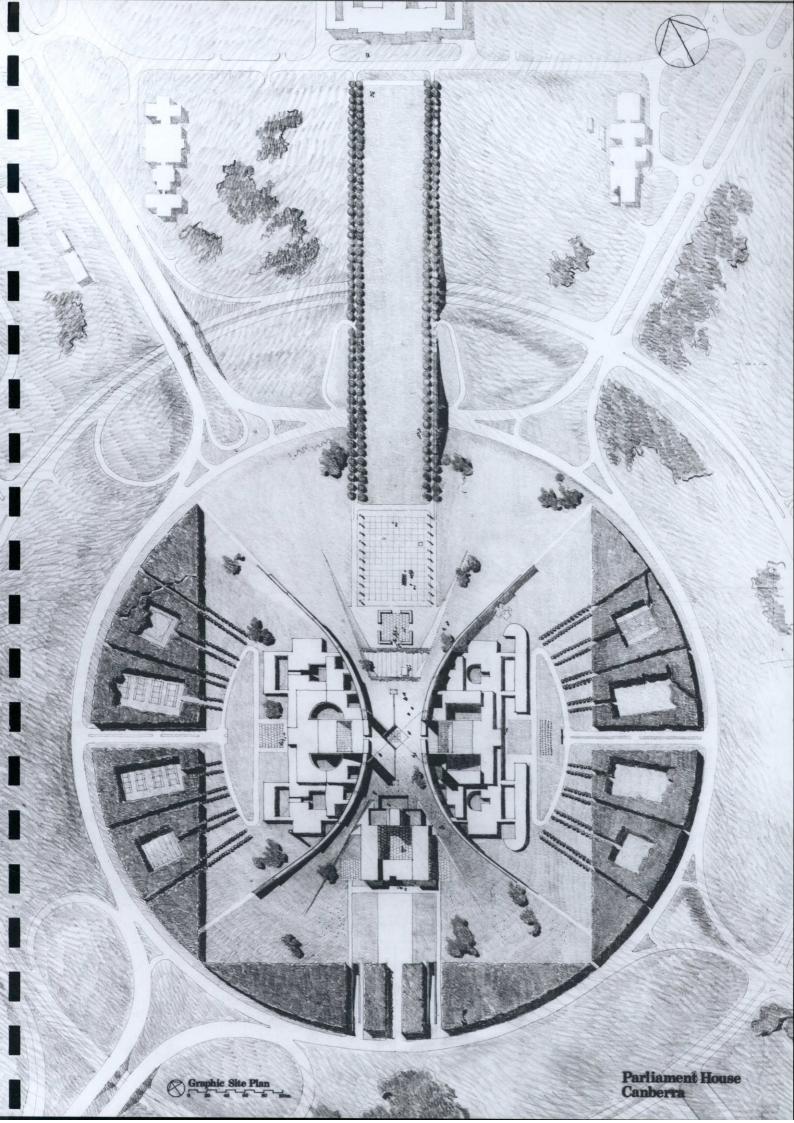
Below Grade Parking Areas = 47,500 m² \$16,000,000 On-site roads, paved areas, sports facilities, gardens, and landscaping = \$4,000,000

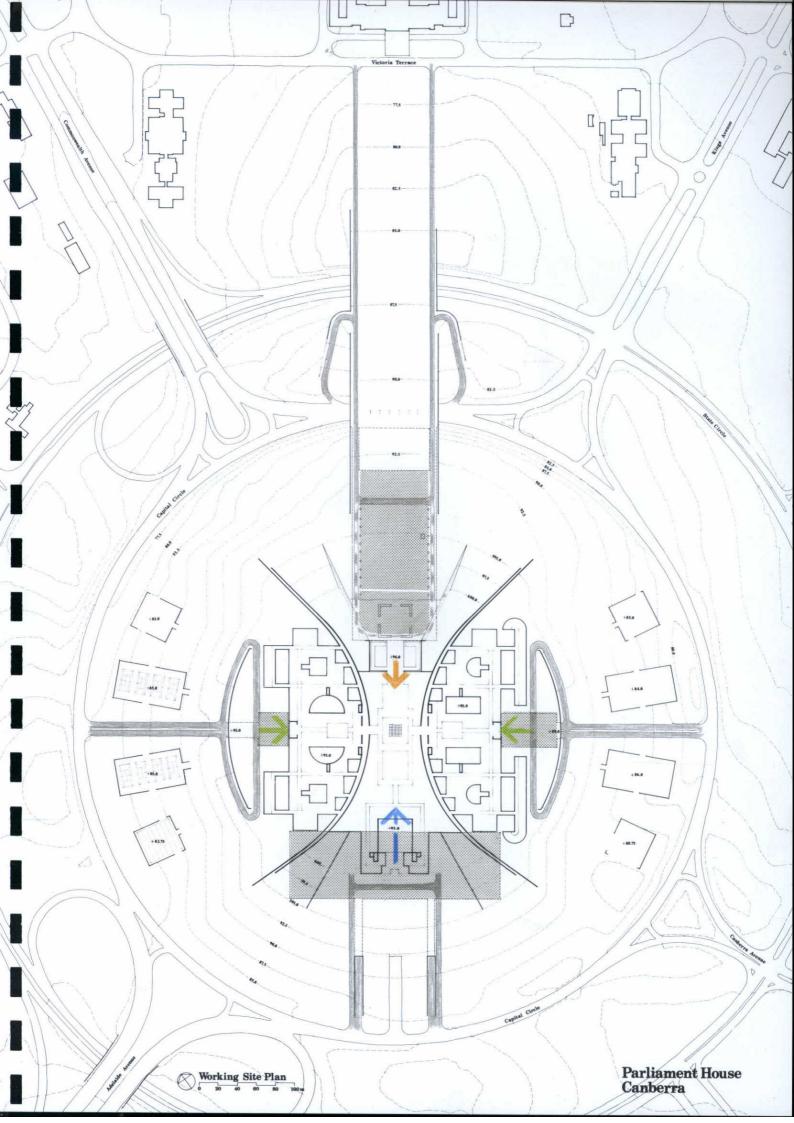
c) Approach Works:

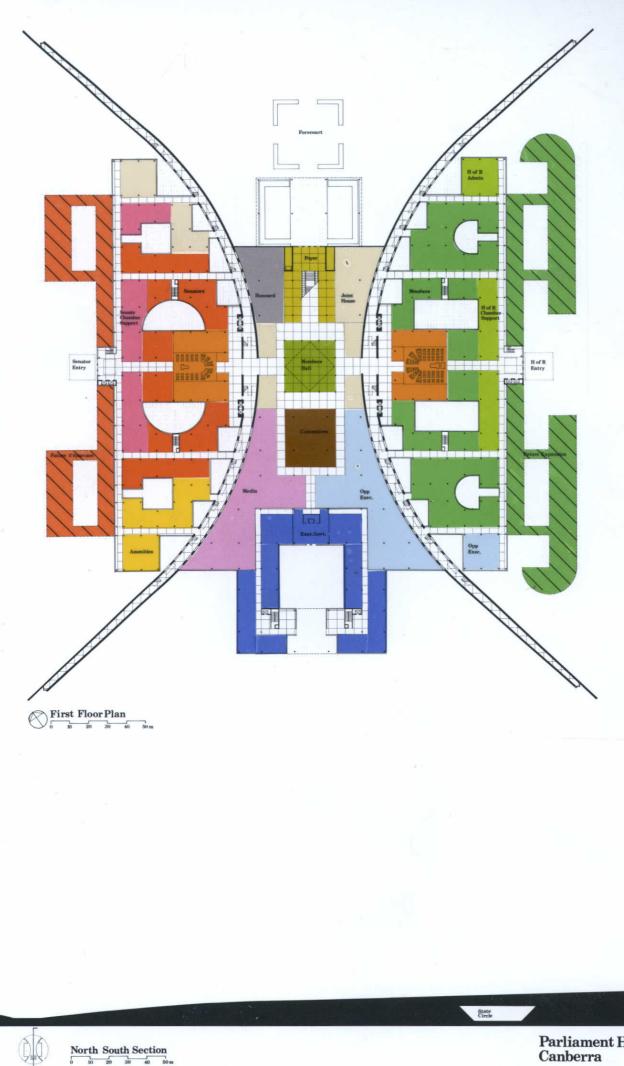
Grassed mall and road work from Victoria Terrace to Capital Circle = \$12,000,000

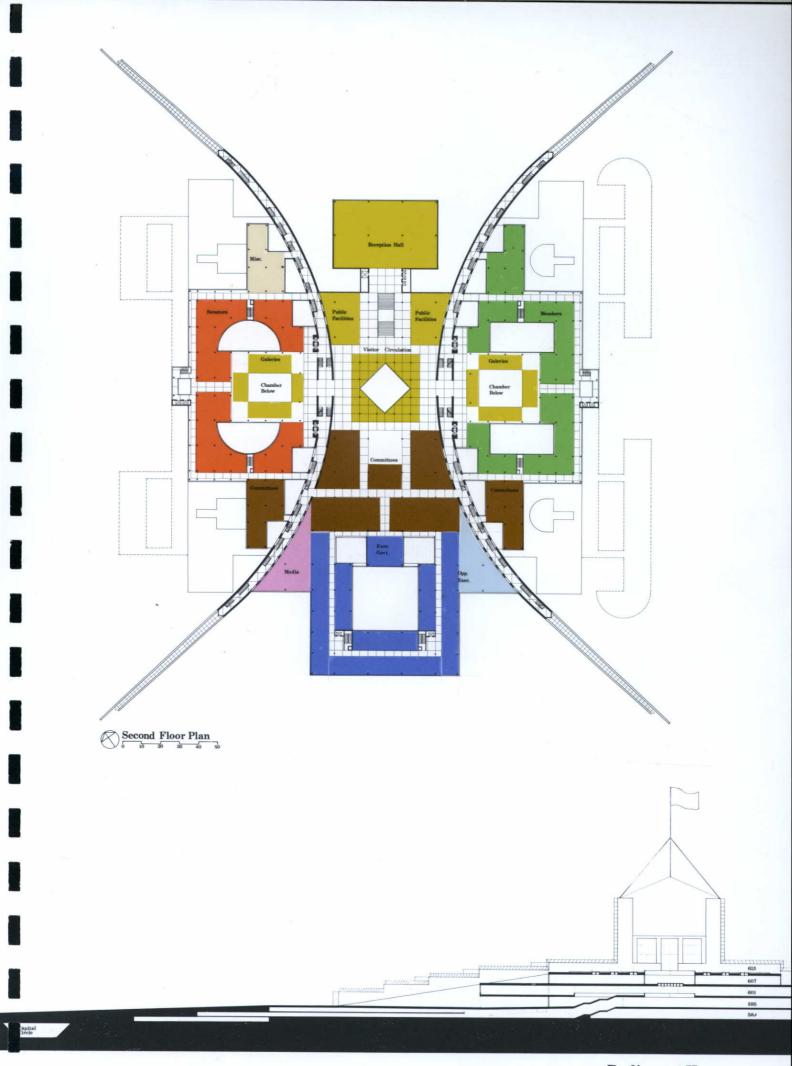
GRAND TOTAL ESTIMATED COST

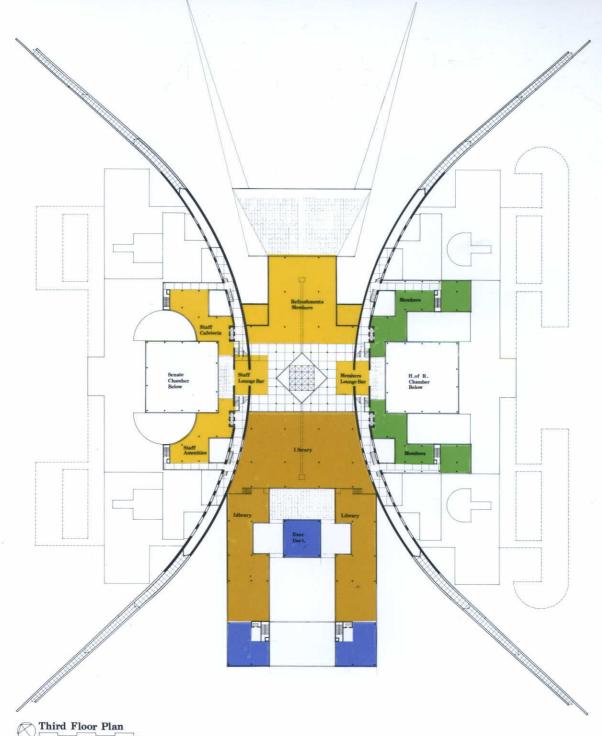
\$146,000,000



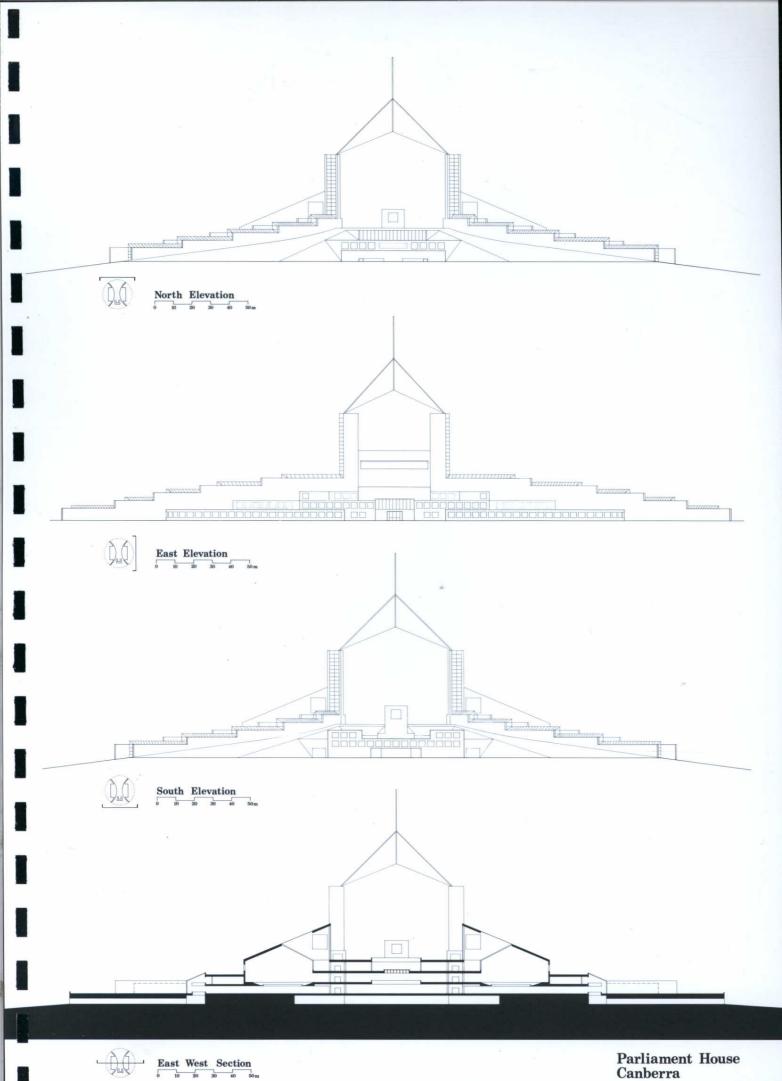


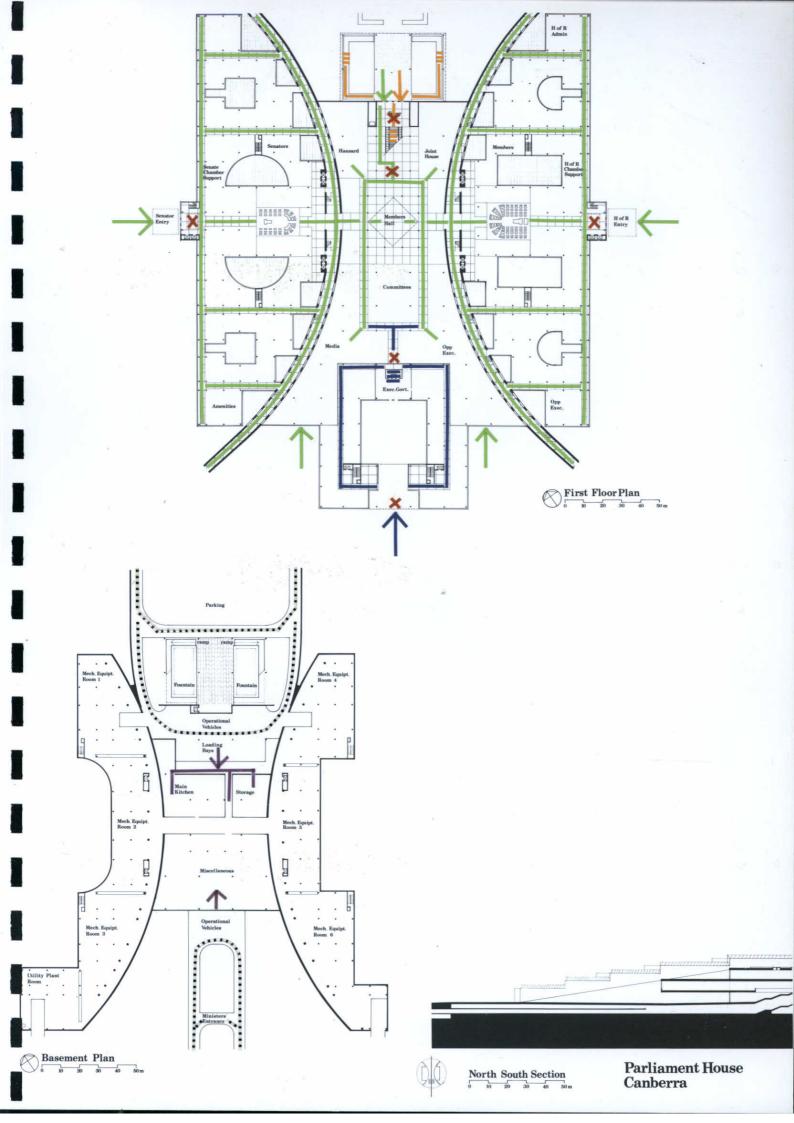


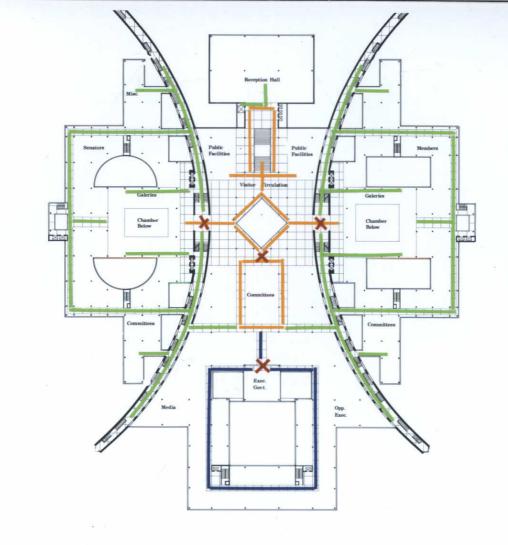




Third Floor Plan

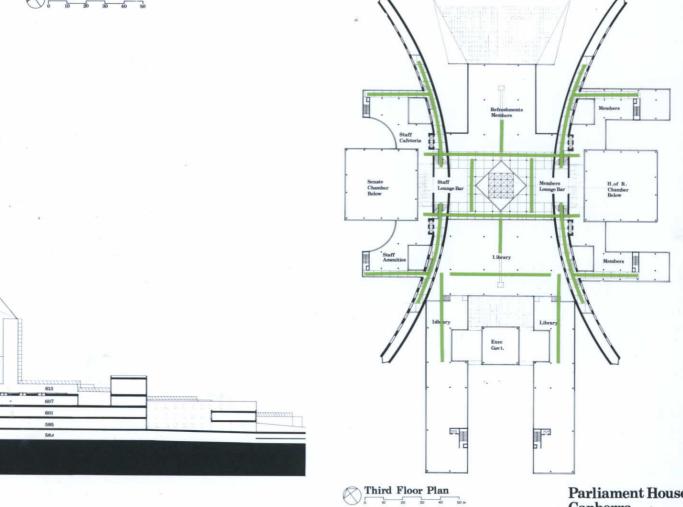


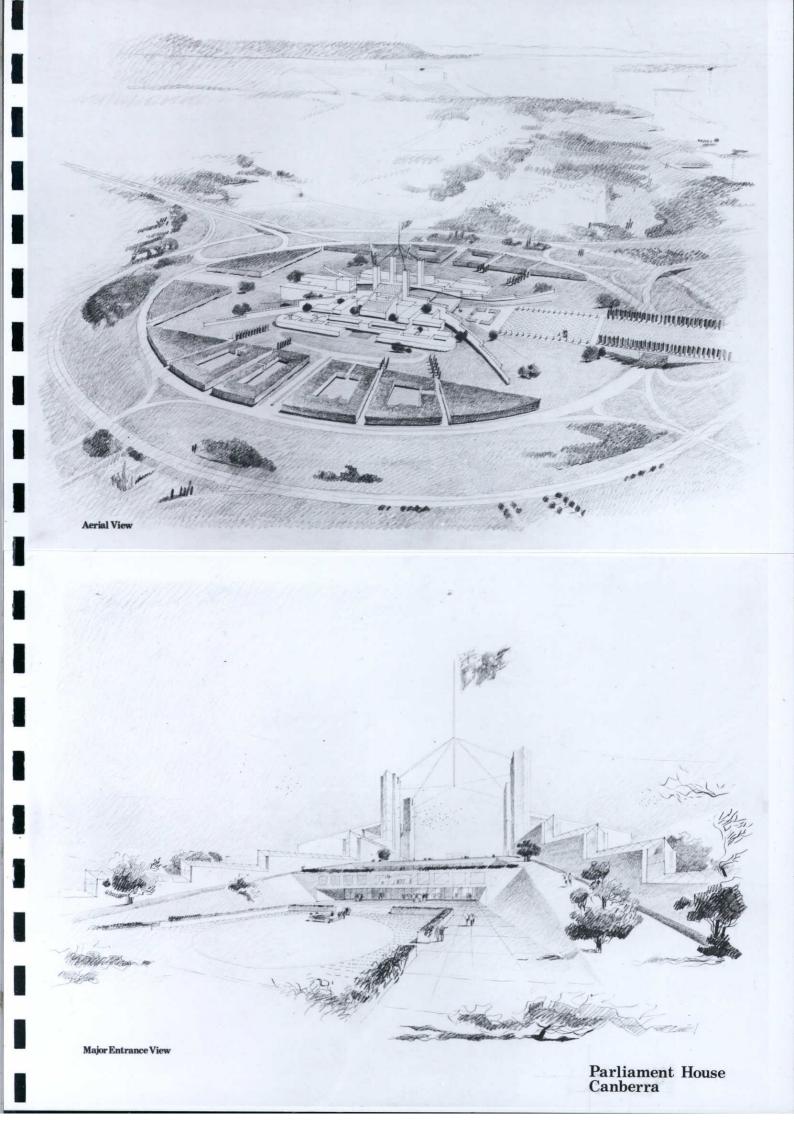


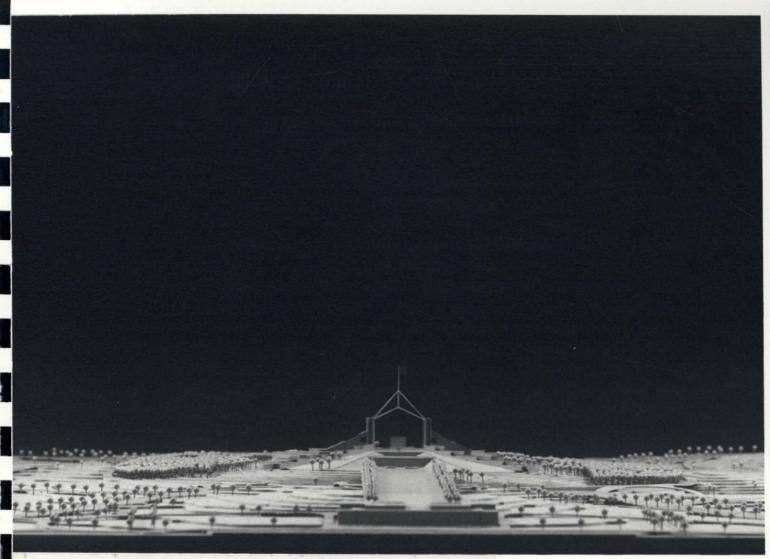


Second Floor Plan

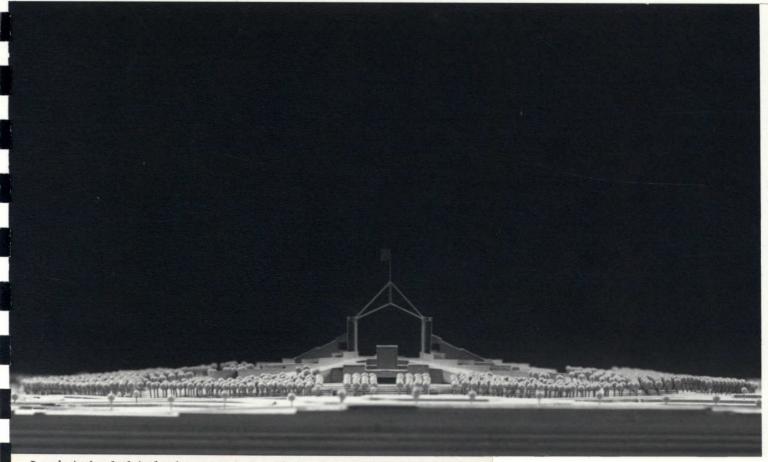
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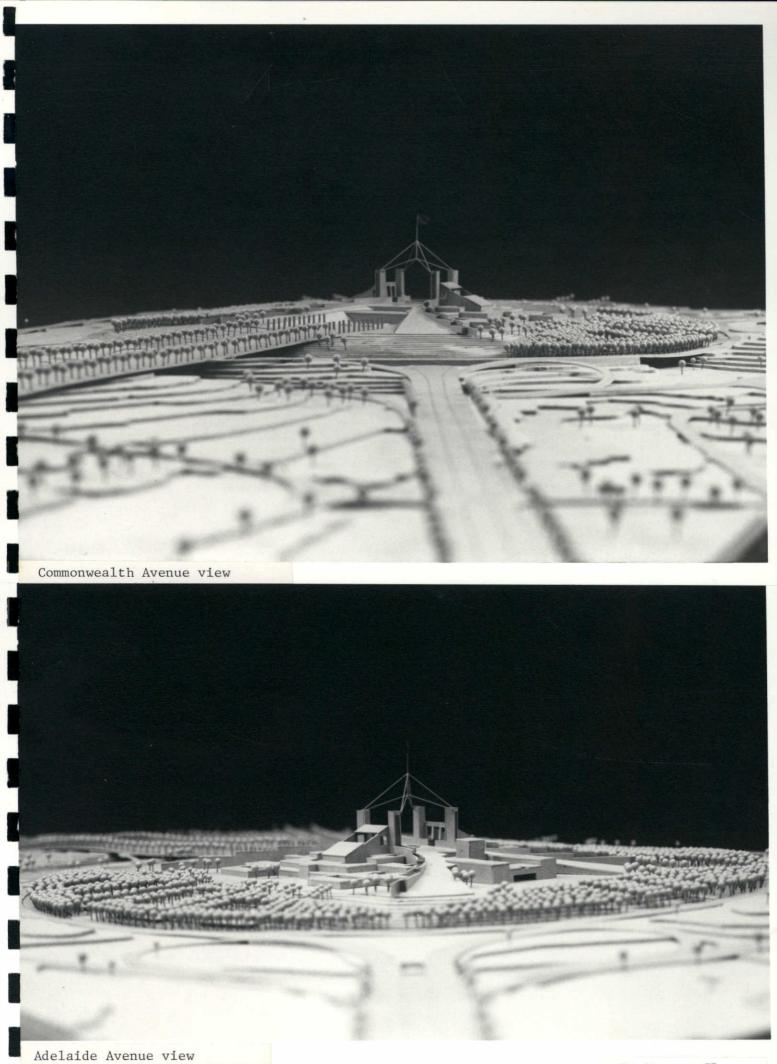


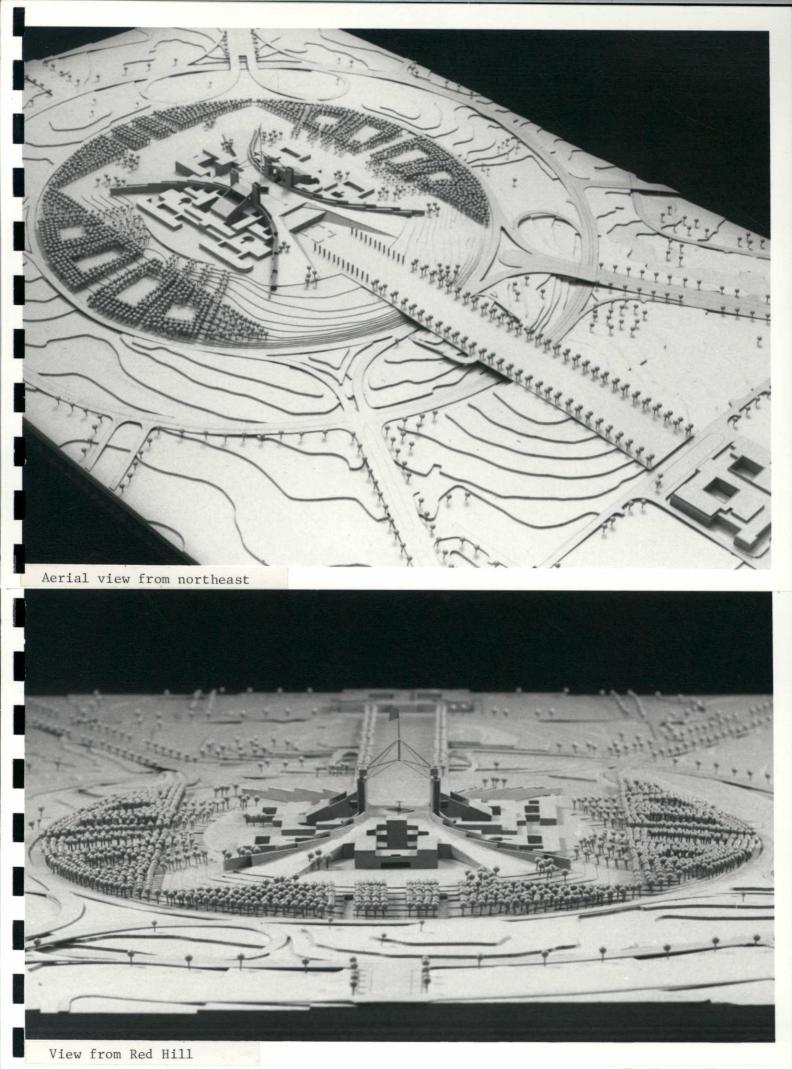


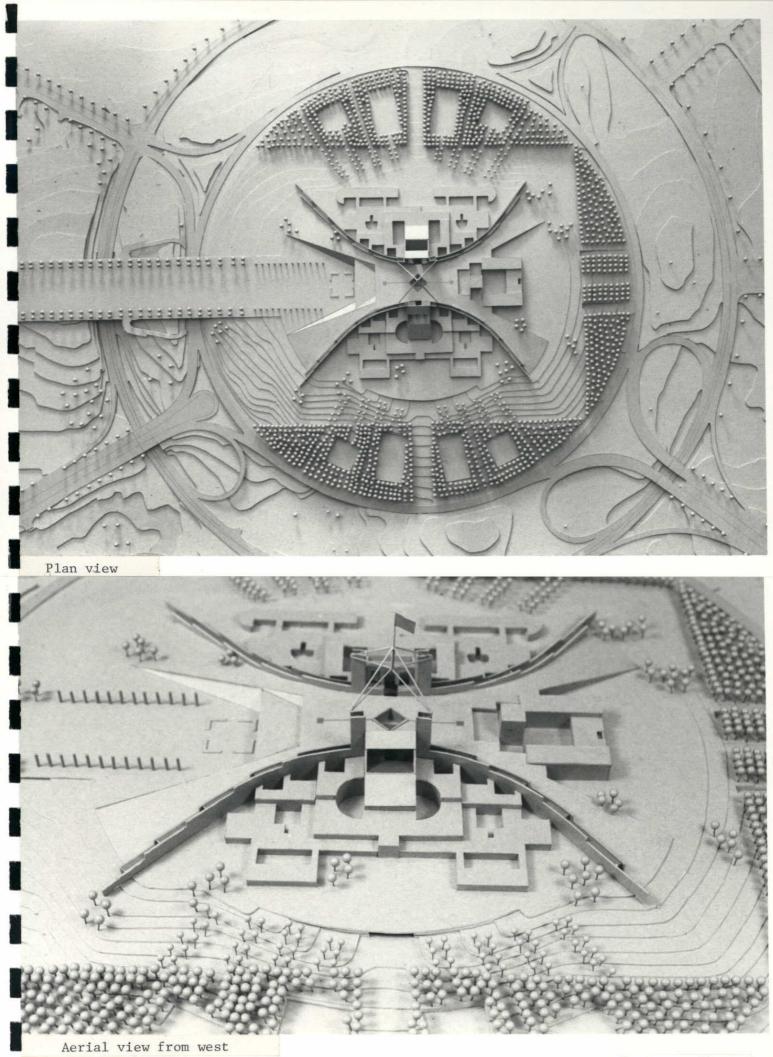
Land Axis in front of the provisional Parliament House



Land Axis behind the provisional Parliament House







	Notes	<pre>* indicates that elements have not been broken down</pre>	Into components.								
AREAS	Element	1050	952	1980	0 1552	1780	1865	862	904	4258	7540
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NET AREA ANAL	Element	A Foyer B Ancillary Rooms	Public Facilities Public Cafeteria Theatrette Post Office	Reception Hall Hall Kitchen Public Gallery Ancillary Rooms	Senate Chamber Chamber Service Rooms Lobbies Galleries	House of Representatives Chamber Chamber Service Rooms Lobbies Galleries	Circulation Spaces Members Hall Visitor Space Ancillary Rooms	Senate Office Holders President's Suite Chairman of Committee's Suite Whips	House of Representatives Office Holders Speaker's Sulfe Chairman of Committee's Sulfe Whips	Senators Minor Party Leaders Senators' Suites Party Rooms Transport Office	Members MInor Party Leader Member's Suites Party Rooms Transport Office

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		Notes	* Indicates that elements have not been broken down into components.								z	
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		Component	227 175 318 65	227 355 65 120	130 130 40	166 160 81	522 522 584 584 304 228 2059	1382 2005 867 82	430 483 345	1630 860 608 430	330 450	358 160
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			earch				(x6) (x4) (x4) (x4)					5
		Element	Senate Chamber Support Clerks Chamber and Legislation Journals, Records and Research Usher of the Black Rod Printing Office	House of Representatives Chamber Support Clerks Table Office Serjeant-at-Arms Procedure Office Printing Office	Senate Administration Accounts and Personnel Stores Registry	House of Representatives Administration Account and Personnel Stores Registry	Committees Committee Room No. 1 Committee Room No. 2 Committee Room No. 3 Committee Room No. 4 Committee Room No. 5 Foyer Committee Secretariats	Refreshment Rooms Kltchen and Stores Members' Facilities Staff Facilities Dispersed Facilities	Parliamentary Library Reading Rooms C.I.S. Library Executive	collections and Visitor's Reading Room Staff Administration Technical Services	Joint House Department Administration Engineering	and Housekeeper Gardening Staff

	Notes	indicates that elements have not been broken down into components.				Measure	-	
REAS	Element N	982 *	7586	3345	2945	465 100) wea	4130	61907
AS PLANNED AREAS	Component E	700 200 82	700 509 * * 500 509 * * * * *	* * * ***	* * * * *	950 14 194 100 220	264 70 1306 640 300 400	9
	Repeated Unit (195					
EAS	Element	1076	1387	3318 *	3022	1456	4464	59640
AS BRIEFED AREAS	Component	720 251 105	664 42 281 251 251 288 85 85 85 100 100	191 154 444 196 2267 66	1446 450 529 130	950 203 80 223	264 70 1640 640 300 400	
AS	Repeated Unit		194	10		40		
	Element	Hansard Reporting Staff Administration Workshop	Executive Government Frime Minister Cabinet Cabinet Cabinet Deputy Prime Minister Leader of the Govt. In the Senate Leader of the House Ministerial Suite - Type A (x26) Ministerial Suite - Type B Multi-purpose Rooms Press Conference Room Government Information Unit Parliamentary Counsel	Opposition Executive Leader of the Opposition in the Senate Deputy Leader of the Opposition in the Senate Leader of the Opposition in the House Deputy Leader of the Opposition in the House Standard Suites (x20) Opposition Executive Party Room	Media Large Bureaux TV Bureaux Small Bureaux Production Studios Common Areas	Amenities Indoor Recreation Personal Services Lounges (x2) Staff Amenities	Miscellaneous Attendants Police Lunch Restroom Special Services Telecommunications Sound and TV Services Civil Defence Accommodation	GRAND TOTAL