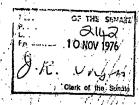
#### THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA



JOINT COMMITTEE ON THE AUSTRALIAN CAPITAL TERRITORY

REPORT ON
PROPOSALS FOR VARIATIONS OF
THE PLAN OF LAY-OUT OF
THE CITY OF CANBERRA AND ITS ENVIRONS

(SIXTY-SECOND SERIES)

## PERSONNEL OF THE COMMITTEE

Senator J.W. Knight Chairman

Deputy Chairman Mr K.L. Fry, M.P.

Senator B.R. Archer

Senator G. Georges

Senator S.M. Ryan

Mr M.E. Baume, M.P.

Hon. F. Crean, M.P.

Mr J.W. Haslem, M.P.

Mr A.J. Mackenzie, M.P.

Mr M.E. Sainsbury, M.P.

Clerk to the Committee

Mr D.W. Nairn

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#### ATTACHMENTS -

A. Stormwater Drainage Considerations.

Index of detail maps incorporating the City Plan.

Maps Q4 - L5

#### JOINT COMMITTEE ON THE AUSTRALIAN CAPITAL TERRITORY

The Joint Committee on the Australian Capital
Territory was first appointed by resolutions of both Houses
of Parliament on 8 November 1956 and has been re-appointed
in succeeding Parliaments. The present Committee was
appointed for the life of the 30th Parliament by resolutions
of the Senate and the House of Representatives in March 1976.

The duties of the Committee as specified in its Resolution of Appointment are to:

- (a) examine and report on all proposals for modification or variations of the plan of lay-out of the City of Canberra and its environs published in the Commonwealth of

  Australia Gazette on the nineteenth day of
  November 1925, as previously modified or varied, which are referred to the committee by the Minister for the Capital Territory, and
- (b) examine and report on such other matters relating to the Australian Capital Territory as may be referred to the committee -
  - (i) by the Minister for the Capital Territory, or
  - (ii) by resolution of either House of the Parliament.

#### RECOMMENDATIONS

The Committee recommends that the 62nd
Series of Variations to the Plan of Lay-out of the City
of Canberra, as gazetted in 1925, be implemented except
the proposed variations involved in Map Q4 Variation 4,
Map P4 Variation 1, Map L5 Variation 2 and Map N6
Variation 1. The Committee wishes to consider the
specified variations further and requests that they not
be implemented until it has reported again to Parliament.

# JOINT COMMITTEE ON THE AUSTRALIAN CAPITAL TERRITORY REPORT ON THE 62ND SERIES OF PROPOSED VARIATIONS TO THE PLAN OF LAY-OUT OF THE CITY OF CANBERRA AND ITS ENVIRONS

#### INTRODUCTION

- 1. On 6 October 1976, the Minister for the Capital Territory, the Hon, A.A. Staley, M.P., pursuant to paragraph 1(a) of the Resolution of Appointment of the Committee. referred 32 proposals for variations of the plan of lay-out of the City of Canberra and its environs, for examination and report by the Committee. These proposals, designated the 62nd Series, were considered at a meeting called for that purpose on 22 October 1976. At this meeting, officers of the National Capital Development Commission (N.C.D.C.) and the Department of the Capital Territory (D.C.T.) appeared to explain the proposals to the Committee.
- 2. The Committee was notified of formal objections to items -

Map Q4. Variation 4

Map Q5, Variation 1

Map P5, Variation 3

Map P5. Variation 7

Map N6, Variation 1

Map M5, Variation 7

lodged by Mr W.W. Lennon, M.L.A., Chairman of the Standing Committee on Lands, Flanning and Environment of the Australian Capital Territory Legislative Assembly following a meeting with his Committee, and of formal objections to items -

Map Q4, Variations 1-4 Map Q5, Variation 1 Map P4, Variation 1 Map L5, Variation 2

lodged on behalf of the Society for Social Responsibility in Science (A.C.T.) (S.S.R.S.). These objections are discussed in their context in the Report.

invited to appear personally and state their objections to the Committee. The practice was adopted with this Series of facilitating, where necessary, an exchange of views between objectors and the official representatives of N.C.D.C. and D.C.T. The Committee found this exchange of views useful in assisting it to inform itself fully on issues raised by the objectors. It also believe it was of considerable value to objectors. The Committee proposes in future to adopt this practice whenever it considers such an exchange to be necessary to enable it to discharge properly its function under paragraph 1(a) of its Resolution of Appointment.

#### VARIATIONS INVOLVING MEDIUM DENSITY HOUSING SITES

- 4. In its previous Report on the 60th and 61st Series of Variations, the Committee approved the addition of main distributor roads and the addition of collector and access roads to serve 104 cottage and standard detached housing blocks in the new residential district of Florey. This district had previously been set aside by N.C.D.C. solely for medium density housing.
- 5. In this present Series, N.C.D.C. have again sought the Committee's approval to the addition of roads on the City Plan to service standard detached housing in areas previously designated for the development of medium density housing.
- 6. The proposed variations in the 62nd Series involving the inclusion of standard detached housing in areas previously set aside solely for medium density include Map Q4, Variations 1-4, Map P4, Variation 1 and Map L5, Variation 2.

#### Map Q4, Variation 1: Charnwood, Section 111

7. Involves the addition of a new cul-de-sac access road off Cartwright Street to serve 24 detached housing blocks.

Four of these blocks are "cottage" blocks slightly smaller than normal blocks. The development is base? on the Radburn principle. 1

8. Detached housing exists to the north and west and future developments will include medium density housing to the east and a high school to the south. The Charnwood Group Centre is to the south-east of this section. The Committee was informed that the proposed development would harmonise with the Radburn concept, the only difference being a lower density than originally proposed.

#### Map Q4, Variation 2: Flynn, Sections 67-70

9. Deletion of access roads off Blackwell Street, which were originally designed to serve medium density housing development, and the addition of new access roads to serve 76 detached housing blocks. The area is bounded on the west by Tillyard Drive and the Charnwood Group Centre with existing detached housing north of Blackwell Street. To the east it is bounded by an existing pedestrian way, screen planting and

This is based on the concept of having the front access leading onto a public landscape area which provides access to neighbourhood facilities (e.g. schools, shops). The rear access leads onto a cul-de-sac which provides access for motor vehicles. It aims to separate traffic movement from other activities in the area, in the interest of safety and enjoyment of amenities.

detached housing. The proposed inter-town public transport route originally included within this location will now be developed on the southern side of Ginninderra Drive.

#### Map Q4, Variation 3: Latham, Sections 80-87

- 10. Deletion of previously gazetted access roads off
  Florey Drive designed to serve medium density housing
  development and the addition of new access roads to serve
  59 detached housing blocks (of which 10 are cottage blocks)
  and five sites for cluster housing development of approximately
  60 units.
- 11. The area is bounded by existing detached housing across Florey Drive on the west. Ginninderra Creek on the south separates it from the remainder of Latham. Beyond an electricity transmission easement and a low ridge to the north is an area intended for future residential development. The proposals provide for a road to link with this northern foot-path under Florey Drive giving access to the Macgregor area. The foot-path will eventually connect with the Charnwood Group Centre to the north.
- 12. Portion of the major loop access road is located parallel to the existing trunk sewer. The Committee expressed

concern at the proximity of a sewer vent to the proposed residential development. The Report from the Department of Construction recommends the removal of a vent and its re-location. Other vents in the area cannot be removed until construction of Stage 4 of the sewer has been completed. N.C.D.C. assured the Committee that the matter was under examination and the vent would be re-located should it be found to threaten nuisance to householders in the proposed development. The other sewer vents between Ginninderra Drive and Latham are remote from present residential areas. These vents will be needed at least until design detail of Stage 4 of Gungahlin trunk sewer are finalised. Depending on population increase, this development could be 20 years away.

## Map Q4, Variation 4: Latham, Sections 99-101

13. Addition of a new access road off Rudall Street to serve 46 detached housing blocks (including 11 cottage blocks). Ginninderra Creek is to the north-west of this area; a planned intertown public transport route and Ginninderra Drive to the north-east; an existing electricity sub-station to the south-east. Trees and shrubs will be grown between the area and the adjoining sub-station. Across Macrossan Crescent and Rudall Street to the west and south are existing detached houses. An area between the proposed development and

Macrossan Crescent is also intended for future detached housing developments with access from Macrossan Crescent.

- 14. Part of the area east of Macrossan Crescent and north of Rudall Street has been designated on the Neighbourhood Plan for medium density housing and part for institutional purposes. This proposed development is generally consistent with the previous land use designation. There would be no direct affect on residents along Rudall Street as a result of the change. Further development contemplated along Macrossan Crescent will only proceed after consultation with residents in the area.
- 15. An objection to this variation suggested that the lower blocks near the Ginninderra Creek being located close to the one hundred year flood-mark might expose householders to the danger of flooding.
- 16. N.C.D.C. informed the Committee that locating the lowest point of these blocks above the 100 year flood-mark was considered a sufficient margin against all but the most extreme occurrences. The standards applied in this development were the same as those applied elsewhere in Canberra and accorded with internationally recognised standards. A higher standard would mean higher costs in terms of land-take and urban development. N.C.D.C. satisfied the Committee that the existing standard was adequate.

- 17. It was put to N.C.D.C. that although flooding may not affect these blocks in the normal course of events, it may do so if extraordinary events occurred e.g. blocking of the creek with debris. Although systems are designed within the flood frequency standards as outlined to the Committee by N.C.D.C. in connection with the 60th and 61st Series (see Attachment A), periodic maintenance is required to ensure that they function correctly. Land reserved for flooding ought, ideally, to be protected from possible conflicting land use to minimise the likelyhood of unforeseen blockages and other interference with the system. In the Committee's view, floodways should be reserved for compatible use and inconsistent land use entirely prohibited.
- 18. N.C.D.C. informed the Committee that current urban development standards require road drainage sumps to be provided including adequate inlet openings. In the event of one of these blocking, either an overland flow path or other inlet in the area prevents the excessive accumulation of flood water.
- 19. Where roads pass over creeks and floodways, bridges and culverts are designed with space above the design flood level to prevent the accumulation of floating debris.

  Ginninderra Creek as a natural waterway has a large cross sectional area and floodway reserve. Its scale is such that

:

it would not be blocked by normal debris. The spillway of Lake Ginninderra has been designed to pass the maximum probable flood to ensure its safety during the most extreme weather. Similarly all road bridges crossing the Creek have been designed to have space above the 100 year frequency flood. The Committee was satisfied that the design standards incorporated in developments being currently undertaken by N.C.D.C. is adequate to meet all reasonably foreseeable contingencies.

#### Map P4, Variation 1: Holt. Section 47

20. Addition of new access roads off Moyes Street and Chave Street to serve 63 detached housing blocks and two cluster housing sites containing a maximum 12 units. The section also contains 4 medium density housing sites served by Moyes Street. The area was previously designated for institutional use, with the southern portion designated for medium density housing. The proposed change of development intentions does not directly affect residents in the existing development across Southern Cross Drive.

#### Map L5, Variation 2: Wanniassa East

21. Addition of access roads to serve approximately 280 detached housing blocks (including approximately 40 cottage

blocks) in new residential development areas north and south of Sternberg Crescent and adjoining Erindale Drive. The area is bounded by proposed medium density housing and the Wanniassa Group Centre to the south-west; Erindale Drive to the east; and proposed detached housing to the north and north-west.

#### Objections

22. The S.S.R.S. in objecting to proposed changes from medium density to standard detached housing in these sections, submitted that the suburban sprawl of Canberra could be attributed to the past policy of favouring standard detached housing in preference to medium and high density development. A consequence of this policy, in the Society's view, is to add to the cost of providing public transport and other community faci ties and services. The existing low density of dwellings means that it is very difficult to upgrade the public transport system, so that the private car is the accepted mode of transport. S.S.R.S. regards this situation as having serious social implications. For those without access to cars in Canberra, mobility within the metropolitan area is severely restricted. Excessive use of private motor cars in Canberra is causing air pollution levels to rise. Policies favouring the private car as a means of transport can also lead to a waste of scarce resources such as oil.

23. S.S.R.S. stated as its view, the desirability of providing a range of alternative living styles within communities. This is best achieved by ensuring that housing and shelter are appropriate to the needs of individuals and families at various life stages. Flats and town-houses should be provided in proximity to standard detached houses so that single persons, childless couples and the elderly are not driven into separate areas but can be included as a composite part of a total community. The Society notes an apparent reversal in the policies of N.C.D.C. with regard to the provision of higher density housing. The proposals to which objection is made chiefly involved the designation of areas previously reserved for medium density development as areas available for development as standard detached housing. The Society submit that the areas to which their objection relate are particularly suitable for medium density development being in proximity to planned public transport routes and shopping facilities. Development as standard housing effectively excludes these areas from consideration for medium and high density development in the foreseeable future. Whilst recognising that current demand for flats and town-houses is not strong enough to justify the immediate development of these sites, the Society argues that without prejudice to the needs of the Canberra community, the sites could remain undeveloped until there is such a demand.

- 24. The Society submits that N.C.D.C. and D.C.T. should adopt policies providing incentives for selection of medium and high density housing. Moreover, the Society was of the opinion that government, by its control over reserve prices for medium and low density blocks, has it in its power to increase the desirability of medium density housing compared to low density housing. If medium density housing were significantly cheaper, the Society believed many people, particularly young couples, would opt for it.
- 25. S.S.R.S. specifically objected to further construction of detached housing blocks in Charnwood. Latham and Evatt i.e. variations involved in Map Q4, Variations 1 and 4 and Map Q5, Variation 1. The Society pointed out to the Committee that certain lands in Holt and Latham serviced with roads some 1 - 2 years ago, still await the construction of medium density housing. These are especially suitable for medium density development. The area in Holt is near the Kippax Group Centre alongside Section 47 Holt and bounded by Chave Street, Hoyes Crescent, Starke Street and Southern Cross Drive. In Latham the area is near the shopping centre. and includes Inglis. Macfarlane and Moorhead Place. S.S.R.S. considered it extremely wasteful to have these serviced streets lying idle for such a long period and suggested that if N.C.D.C. itself would not build appropriate medium density

units on these sites, then it should offer the private sector some inducement to do so.

- subdivision, consisting mainly of detached housing blocks, in close proximity to the Kippax Shopping Centre. This group complex, almost complete, is designed to provide a range of shopping and service facilities for a group of suburbs. The Society considered it absolutely essential that lands near such a group complex be restricted to medium and high density units, so that the centre would be viable and fully utilised. It would also provide more people with the opportunity to obtain accommodation close to such facilities.
- 27. N.C.D.C. in commenting on the objections stated that more land had been set aside for medium density development than current demand requires. On the basis of a survey conducted in 1972 and reported in the Commission's 16th Annual Report, the N.C.D.C. concluded that people who chose medium density housing do not want suburban locations but prefer more central locations in proximity to the attractions of the town centre. N.C.D.C. stated that its strategy is to concentrate much more on getting medium density sites near the main town centres of Belconnen, Woden and inner Canberra. There was general agreement that the problem of making medium density housing more attractive was exacerbated by the apparent

inability of builders to make this kind of housing compete
in price with standard detached housing. The current demand
for medium density was from the quality end of the market.
Builders have not been able to provide dwellings that compete
in price with detached housing for those on lower incomes.
The areas concerned are generally located within, or
adjacent to, areas of existing detached housing developments.
N.C.D.C. considered that these areas must be developed now
even though in the longer term they might be suitable for
medium density housing. N.C.D.C. is now planning for a
range of accommodation types such as detached housing, cottage
lots, courtyards housing, town-houses and flats. The
proportions would depend on requirements as areas are
developed.

28. In the past, proposed medium density housing development has been discussed with residents in the area affected. The response has almost invariably been negative with suggestions that if these areas were to be used for residential development then detached housing would be more acceptable.

29. The Committee has been asked to deal with this Series of proposals quickly to enable work to commence on the Belconnen Mall and Monaro Highway early in the new year. The same urgency does not attach to the foregoing proposals. all of which involve a change in land use intentions. the time available, it was not possible for the Committee to obtain from N.C.D.C. all the information it required. For instance, population projections for the areas in question are available and should be considered in connection with these proposals. The Committee considers that such projection should be provided when the question of housing density is being considered. To recommend at this stage that all the foregoing proposals be implemented would be to progressively endorse a major change in land use planning intention. The Committee wishes to look at the policy of change from medium to low density dwellings in the total context of the City's development. The Committee considers that the proposals involved in Variations 1, 2 and 3 of Map Q4 do not affect the verall position greatly and should proceed; accordingly. it recommends their implementation.

The Committee requests, however, that variations involved in Map Q4 Variation 4, Map P4 Variation 1 and Map L5 Variation 2 not be proceeded with until the Committee has considered the matter further and reported to Parliament on these proposals.

#### OTHER PROPOSED VARIATIONS

# Map Q5, Variation 1: Evatt (South-West)

- 30. Addition of new access roads off Moynihan Street near Copland Drive to serve approximately 100 detached housing blocks and a church site. The area is bounded by a Roman Catholic Parish Centre (under construction) across Moynihan Street to the north and proposed detached housing development to the east where land is presently being serviced. It adjoins Copland Drive to the west and Ginninderra Creek parklands to the south.
- 31. A former, long disused Church of England cemetery and church site lies within the area near the intersection of Moynihan Street and Copland Drive. It was objected that the new access roads provided for in this variation appeared to intrude upon a gazetted cemetery site. This gave rise to concern as to the likelihood of desecration of graves.
- 32. Information supplied by the Church of England Diocesan Office in Reid indicates that all burials were in an area north of the proposed road i.e. in the area not to be developed. The former cemetery area has, in fact, been incorporated into the proposed new church site at the request of the Anglican Diocese of Canberra and Goulburn.

## Map Q5, Variation 2: Mitchell

33. This proposal involves the extension of Essington Street, north of Felton Street and Vicar Street, and east of Hoskins Street to serve proposed industrial sites.

# Map P4, Variation 2:

#### Florey

34. This proposal involves minor modification to a previously gazetted road adjacent to the Roman Catholic High School to provide a turn-around facility for buses serving the School. Officials of the Catholic Education Office were consulted and support the provision of this facility.

#### Map P4, Variation 3 and Map P5, Variation 1: Hawker Group Centre, Section 33

35. The addition of a service access road to serve retail developments on blocks 14 and 15, Section 33, Hawker, and future development in Section 33. Hawker shopkeepers were consulted regarding the provision and design of this service access and N.C.D.C. indicated that agreement had been reached.

## Map P5, Variation 2: Belconnen, Lake Ginninderra

36. Existing access roads off Cohen Drive, and an associated boat trailer parking area, serving recreation

areas in the Western parklands adjoining Lake Ginninderra are included on the Plan.\*

#### Map P5, Variation 3: Belconnen Town Centre, Sections 50-53, 56-61

- Addition of a new road layout (comprising a public transport route, major entry roads, distributor roads and access roads) for the north-western part of the Belconnen Town Centre which will serve the retail mall; commercial, residential, entertainment, and institutional developments; and the parklands adjoining Lake Ginninderra. Deletion or modification of sections of Cohen Drive, Emu Bank, Lathlain Drive, Josephson Street and Rae Street will be effected.
- 38. Extensive consultation has taken place and agreement has been reached between the Canberra Commercial Development Authority (C.C.D.A.) and the Department of the Capital Territory. Modifications sought by the C.C.D.A. have been incorporated and the present proposals are supported by the C.C.D.A.

Included in accordance with the Committee's resolution of 24 June 1976 to include roads within parklands on the City Plan.

- 39. Mr Lennon expressed his concern
  that the plan for the Belconnen Town Centre as indicated
  in this variation could encourage motorists driving eastwards
  along Southern Cross Drive to attempt to proceed through the
  town centre rather than turning north or south at Coulter Drive.
- 40. N.C.D.C. envisages Southern Cross Drive as only giving access to the Belconnen Town Centre and not as a through-road. Within the town centre, 'traffic control signals' will control traffic movements on the major roads so that traffic entering the adjoining parking areas will receive preference over traffic wishing to pass through the town centre. The number and location of parking areas and their access points will act to discourage through-traffic from using the town centre roads. In addition, buses on the intertown transit route will have preference at the traffic lights thus discouraging motorists from using Benjamin Way as a "through" route. To ensure further that through-traffic does not become a significant problem in the Belconnen Town Centre, N.C.D.C. will monitor traffic movements and implement further traffic measures (e.g. "give-way" signs) to slow down the traffic.

# Map P5, Variation 4: Belconnen town Centre, Sections 28, 29

41. Addition of a new alignment of College Street west of Lathlain Drive to connect with Belconnen Way, and the

extension of Josephson Street to connect with the new alignment, in order to improve traffic movement into the town centre. Deletion of a section of Lathlain Drive south of College Street and modifications to the road layout to serve Sections 28 and 29 are a consequence of the above additions.

42. The purpose of the new arrangement of roads is to provide a more direct access route into the town centre, from the southern and western suburbs of Belconnen and discourage through-traffic using Lathlain Drive. It is considered that the new alignment of College Street with Belconnen Way will better achieve these objectives than the connection of Lathlain Drive south to Belconnen Way as previously proposed.

# Map P5, Variation 5: Belconnen Town Centre

43. Addition to an access road off Emu Bank to serve residential, community and recreational development sites along the shore of Lake Ginninderra. The access road will serve a proposed site for the Foundation for Youth recreation centre to the east; medium density housing development to the north; and a site for a proposed indoor recreation complex to the south.

## Map P5, Variation 6: Belconnen Town Centre

44. Addition of a road reservation between Benjamin
Way and Eastern Valley Way to accommodate a public transport
route. A bus station will be located between Benjamin Way
and Chandler Street. It will be possible to enlarge the bus
station to cater for the growth in public transport operations.
The bus station is located to the south of the Cameron Offices
and future retail and commercial outlets will be located to
the north.

## Map P5, Variation 7: Bruce Intertown Centre

Access roads from Ginninderra Drive are proposed. These will serve a Drive-in Theatre site, an Australian Capital Territory Electricity Authority switching yard, and will form part of the access road system to serve the National Athletics Stadium. The access road serving the Drive-in Theatre will be long enough for cars to queue, thus preventing interference with traffic on Ginninderra Drive. The road system is designed to ensure the efficient handling of traffic at times of major sports events in the Athletics Stadium.

46. In response to an objection from Mr Lennon of the A.C.T. Legislative Assembly Lands, Planning and Environment Committee, that more points of egress would be required, N.C.D.C. informed the Committee that one egress point in Ginninderra Drive will provide more than adequate capacity for the Drive-in Theatre traffic. To handle Sports Stadium traffic additional road reservations have already been gazetted to connect with Ginninderra and Haydon Drives. These will be constructed when the need is indicated and will depend on the frequency of use of the stadium and the average size of the crowd. For the Pacific Games consideration is currently being given to its traffic access requirements. N.C.D.C. commented that it was not sensible to design road systems to cater for maximum sized crowds when it was possible to make a short-term traffic arrangement to cope with unique events such as the Pacific Games or other occasional special requirements.

## Map P5, Variation 8: Lyneham, Section 58

47. Realignment of the existing cyclepath (gazetted in the 60th Series) to enable better use of land in Section 58, Lyneham for proposed medium density housing (i.e. 40 to 50 residential flat units). This was discussed as part of a study of the proposed medium density housing for Section 58, Lyneham and was presented at a public meeting of interested residents. There were no objections to the proposal.

# Map N5, Variation 1:

#### Yarramundi Reach

48. This proposal involves the inclusion on the Plan\* of two existing access roads and a car parking area off
Lady Denman Drive which serve the parklands around Yarramundi
Reach, Lake Burley Griffin. Further development of parkland
facilities will be undertaken and additional parklands roads
and parking areas provided as public usage of the area increases.

#### Map M5, Variation 1: Stirling, Section 24

49. This item involves the inclusion on the Canberra City Plan\* of existing access roads and parking areas off Fremantle Drive which serve existing recreational facilities and will serve proposed club and community development sites.

#### Map M5, Variation 2: Oakey Hill

50. This proposal involves the inclusion on the Plan\* of an existing access road off Heysen Street, providing an access to Oakey Hill reservoir. This road also provides public access to the Oakey Hill recreational area and is necessary for

Included in accordance with the Committee's resolution of 24 June 1976 to include roads within parklands on the City Plan.

bushfire control. Future recreational and lookout facilities, equestrian and cyclepaths will be provided when Tuggeranong Parkway is completed.

# Map M5, Variation 3: Phillip, Section 8

51. The addition of a service access road off
Bradley Street to serve further development of Woden Plaza
Retail Centre. The road is designed to provide access to
delivery and loading docks within the retail centre.

#### Map M5, Variation 4: Woden Valley Park

52. The inclusion of an existing access road and parking area off Launceston Street, Phillip which serve the Woden Valley Park.\*

## Map M5, Variation 5: Phillip, Sections 30 and 32

53. The addition of two access roads off Parramatta Street to join Townshend Street so as to provide access to 13 blocks in the Phillip Service Trades Area. The proposed development adjoins other service trades areas to the north and a transmission line easement to the south.

<sup>\*</sup> Included in accordance with the Committee's resolution of 24 June 1976 to include roads within parklands on the City Plan.

#### Map M5, Variation 6: Phillip, Sections 71-75

54. Minor modification to the road reservations of English Court and The Verge to simplify boundaries of adjacent sites. Roads already constructed within the reservation are not affected by the modifications.

# Map M5, Variation 8; Map L5, Variations 4, 5 and 6: Tuggeranong and Jerrabomberra Districts

55. Modifications to the alignments of Mugga Lane and Long Gully Road currently being undertaken or already completed are included on the City Plan\* by this proposal. These roads are two-lane rural roads. The modifications will eliminate severe curves and unsatisfactory road junctions. Details of these minor modifications to the alignments were not available at the time of inclusion of all rural roads on the Plan of Lay-out in the 60th Series of Variations.

#### Map M6, Variation 1:

## Fyshwick : Canberra Avenue

56. Involves correction of the City Plan to include the approaches to the railway bridge and a cyclepath on the northern side of Camberra Avenue between Newcastle Street and the A.C.T./N.S.W. border.

<sup>\*</sup> Included in accordance with the Committee's resolution of 24 June 1976 to include rural roads on the City Plan.

<sup>\*\*</sup> This was not included in a similar variation .volving Canberra Avenue in the 60th Series of Variations.

# Map M6, Variation 2:

# Jerrabomberra District, Block 21

- 57. The addition of an access road off Canberra Avenue to serve a site for a tannery and other as yet undetermined industrial uses. The area consists of 9 hectares and is bounded on the east side by the Abattoir, and on the southside by Canberra Avenue with the railway line running to the north-west. It is intended to develop the site for industries considered "offensive". The area is considered suitable for such developments since there are no land users in the area who will be affected adversely. The initial need has been to provide a site for a tannery operation. However, the Committee was told that other similar activities will be located in the vicinity as the growth of Canberra creates the need.
- 58. The Committee questioned the representatives of D.C.T. and N.C.D.C. closely on this proposal. It was informed that the Draft <u>Clean Air Ordinance</u> contained provisions that would ensure that industries in the area did not cause air pollution. Existing regulations administered by the Department of Construction concerning stormwater and the discharge of processed effluent would be enforced when the sites were being developed. The representatives of D.C.T. assured the Committee that legislation imposing environmental standards will be enforced during the construction and operation of any industries developed on these sites. The Committee

notes however, that the <u>Clean Air Ordinance</u> is not yet law and believes that construction of the tannery should not proceed until it is enacted.

#### Map L5, Variation 1: Kambah, Section 346

59. The modification of Primmer Court to permit access to commercial leases by articulated vehicles and to improve the access to a Tavern Bottle-Shop.

#### Map L5, Variation 3:

#### New Intersection Erindale Drive/Long Gully Road

60. Addition of a new intersection between Erindale Drive and Long Gully Road and the deletion of a section of Long Gully Road is affected by this proposal. This road will be a replacement for an existing two-lane rural road.

## Map L5, Variation 7 and Map K5, Variation 1: Tuggeranong District

of the Monaro Highway south of Isabella Drive, the deletion of sections of the existing Monaro Highway and Tuggeranong Road to enable the future development of western parts of the proposed suburbs of Gilmore, Chisholm and Theodore. A new section of Isabella Drive east of Coyne Street, Macarthur is proposed to connect with the new Monaro Highway. Sections of the existing Kambah Road affected by this extension will be deleted, and minor

modifications of the junction of Isabella Drive with Coyne Street, Macarthur and Hambridge Crescent, Gilmore will be made.

- 62. Original plans by N.C.D.C. provided for residential development on both the western and eastern side of the Highway. The realignment of the Highway further east and the deletion of the existing carriageway will make allowance for an additional 300 blocks to be developed. Initial construction of the Highway, a dual carriageway, will commence in April 1977. Besides being used as a major highway it will serve commuter traffic in nearby suburbs.
- 63. The Committee considered the proposed variations as set out in paragraphs 30-62 in this Report and recommends

  the implementation of these variations to the Plan of Lay-out of the City of Canberra, as gazetted in 1925.

#### Map N6, Variation 1: Campbell Park

64. This proposal involves the addition of an access road off Fairbairn Avenue to serve the Campbell Park Office Complex. The proposed road would provide a second access road to the Campbell Offices. Buildings 3 and 4 are presently under construction and it is expected that they will be occupied by mid-1977. This second access road is proposed to

cater for the resulting increased traffic flows. The road as proposed will be constructed as a two-lene single carriageway road from Fairbairn Avenue to link with the additional carparks now under construction.

- 65. Present planning indicates that Monash Drive will be located parallel and just north of Fairbairn Avenue. In addition, it is expected that the Eastern Parkway will be located to the north-east of the Campbell Park Offices. It was submitted by N.C.D.C. that the proposed access road will need to be upgraded later to form a link between these two major traffic routes. The standard of construction would probably then need to be upgraded to a four-lane, dual carriageway road.
- 66. One objector expressed concern at the effect on Fairbairn Avenue traffic flow of a further major intersection and considered it preferable to channel traffic through the existing Northcott Drive/Fairbairn Avenue intersection. The need for the new road was questioned on the grounds of cost/effectiveness. It was suggested that there was a more urgent need for other roads in the A.C.T. at the present time and that problems of congestion as a result of opening new office blocks could be overcome by the provision of public transport.

- 67. N.C.D.C. informed the Committee that the opening of Stage 2 (Buildings 3, 4) at Campbell Park Offices will approximately double the entering and exiting traffic in the peak periods (viz. 7.45 to 8.45 a.m. and 4.15 to 5.15 p.m.). This amounts to some 650 vehicles per hour (v.p.h.) now and about 1,300 v.p.h. with Stage 2. Off-peak traffic volumes are at present in the vicinity of 110 v.p.h. before noon and 200 v.p.h. after noon. To provide access for this increased volume, N.C.D.C. suggested that the existing road space will need to be augmented and a second intersection with Fairbairn Avenue provided to handle the heavy turning movements.
- 68. N.C.D.C. informed the Committee that by building the proposed road it hoped to -
  - Leave Northcott Drive uncongested and therefore providing an unhindered route for traffic travelling between Russel and Campbell Park Offices.
  - Ease traffic congestion at the Northcott Drive/ Fairbairn Avenue intersection.
  - Provide easier access to and from future development (e.g. further developments at Campbell Park) and road developments which will create more traffic.

- Slow traffic movements along Fairbairn Avenue by providing additional traffic lights thus discouraging its use as a through-road and encouraging its use as a residential/distributor street.
- Provide a link between Monash Drive and Fairbairn Avenue.
- 69. The Committee wishes to further examine the issues raised by this proposal. It considers that it would be premature to recommend the implementation of this proposal until further information on these issues can be provided for consideration. Accordingly, the Committee requests that the variation not be proceeded with until it has considered the matter further and reported again to Parliament.

# Map M5, Variation 7:

# Causeway

70. The purpose of the variation was to provide an access road to an undeveloped parcel of land which would then be developed with government houses. It was intended that residents in Causeway should be given the opportunity of occupying these new dwellings which would then enable their vacated homes to be removed and to be replaced by new houses.

- 71. Following the preparation of the variation proposal and subsequent printing in the Gazette, several residents indicated that they would be prepared to move from the area into government houses elsewhere. Representatives of the area have now agreed to a proposal to develop the first new housing along the existing Mulberry Road which avoids the need to proceed with the proposed road in its present form for the time being.
- 72. The Committee concurs with the withdrawal of this variation from this Series.

10 November, 1976

(JOHN W. KNIGHT) Chairman

#### ATTACHMENT A

(See Map Q4 Variation 4 at p.8)

## STORMWATER DRAINAGE CONSIDERATIONS

#### Introduction

Major Planning Input

Drainage is a major consideration in the Commission's planning process from its very beginning, and in this way stormwater drainage systems become fully integrated into the urban framework from the outset.

High Standard/ Efficiency

Such planning integration enables the Commission to achieve high standard facilities in an economic

and efficient manner.

Derivation of Standards

The Commission's drainage design follows the best Australian professional practice and is based on the Institution of Engineers publication "Australian Rainfall

and Runoff".

Standards for Canberra Conditions The Commission has also prepared a document called the "N.C.D.C. Urban Stormwater Drainage Planning and Design Guidelines" which takes special account of Canberra conditions and clarifies and amplifies the relevant sections of 'Australian

Rainfall and Runoff'.

Drainage Approach

The drainage provision consists basically of a system for controlling nuisance flooding together with an overland flow path or floodway to accommodate rarer flood events.

#### Objectives

The objectives underlying the Commission stormwater design policy are:

- 1. To minimise and control nuisance flooding.
- To stabilise the land form and control erosion.
- To provide public safety and convenience and to protect property.
- 4. To enhance the urban landscape.
- To maximise the land available for urbanisation.
- 6. To maintain Regional water quality.

## **Policies**

In the context of the above objectives, the following policies outline the Commission's current approach in dealing with stormwater drainage.

Cut-off Drains

Building sites are protected against the 100 year frequency flood and catch and cut-off drains are provided on the upstream side of development. Generally, overland flow paths for floods up to at least the 100 year flood are provided.

Piping

Piping is installed throughout urban development to take away the more frequent drainage flows (these are designed to 5 year frequency in normal residential areas, 10 year in shopping centres and 20 year in town centres) and neighbourhood roadways are only used to carry flood water up to the limits imposed by public safety considerations.

Floodways

Floodways are provided to contain the 100 year frequency flows and incorporate in their inverts linings and/or pipes to cope with the more frequent flows and to minimise maintenance. In particular cases freeboard is also provided. Where floodways occur land is set aside for drainage purposes.

Safety Facilities

Safety facilities and advisory signs are provided in and adjacent to channels and major floodways. To improve safety, floodways are designed, where possible, to minimise velocities and depths. Pedestrian bridges are provided across the floodway at points of greatest public need. Land use near channels and major floodways reflects the nature of floodway and safety considerations.

Natural Solutions

Natural solutions are adopted where possible and engineered floodways are landscaped with grass and specific tree plantings. Cross-sectional slopes are made flat enough to allow machine mowing. Floodways are designed so that scour of the grassed parts is minimised.

Flows Over Roads

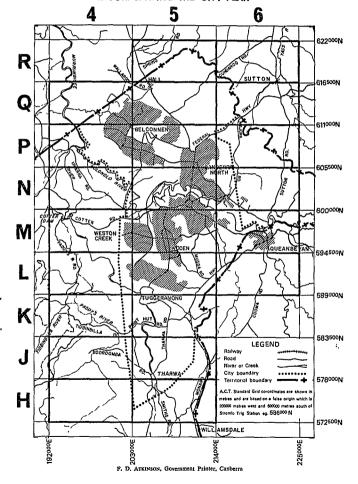
Where floodways cross roads overland flows up to the 1000 year frequency together with freeboard is provided for by means of culverts, pedestrian underpasses or bridges. On arterial roads longitudinal drainage provision will maintain the availability of one traffic lane in a 50 year rainfall event.

Special Consideration Consideration is given to less frequent floods and account is taken of the possibility of special drainage and danger to life and property which might occur in specific situations.

Water Quality Control Water quality control facilities e.g. silt traps and detention ponds are included in drainage system designs where necessary.

Plan of Layout of City of Canberra and its Environs Published in the Commonwealth of Australia Gazette on 19 November 1925 as Modified or Varied to 1 October 1976

# INDEX OF DETAIL MAPS INCORPORATING THE CITY PLAN



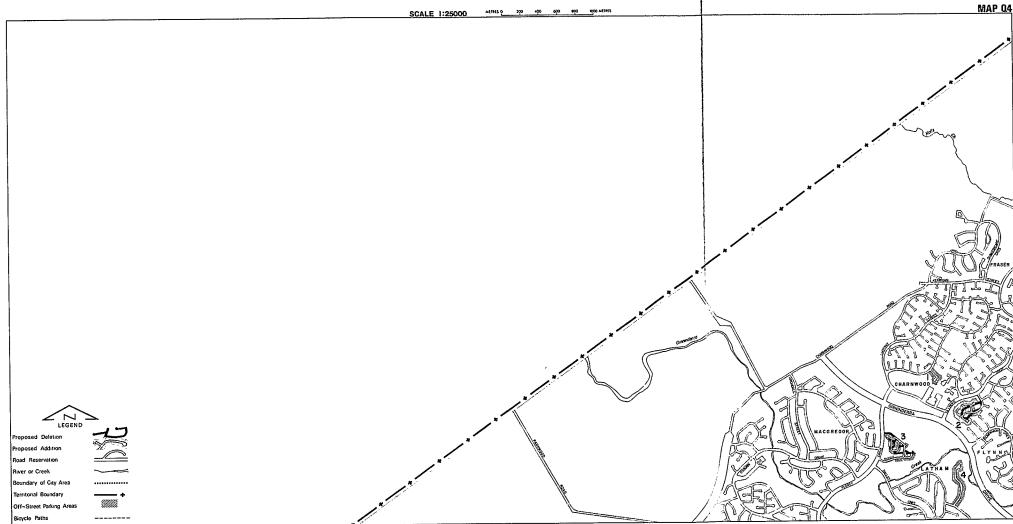
#### VARIATION 7

Tuggeranong District: Realignment of a section of the Monaro Highway south of Isabella Drive, and the deletion of sections of the existing Monaro Highway south of Tuggeranong Road which are affected by the new alignment, in order to enable the future development of the western parts of Gilmore, Chisholm and Theodore residential areas, Addition of a new section of Isabella Drive cast of Coyne Street, Macarthur to connect with the new alignment of Monaro Highway; the deletion of sections of the existing Kambah Road affected by this extension and minor modification of the junction of Isabella Drive with Coyne Street, Macarthur and Hambridge Crescent, Gilmore, (Refer also to Map K5, Variation I for continuation.)

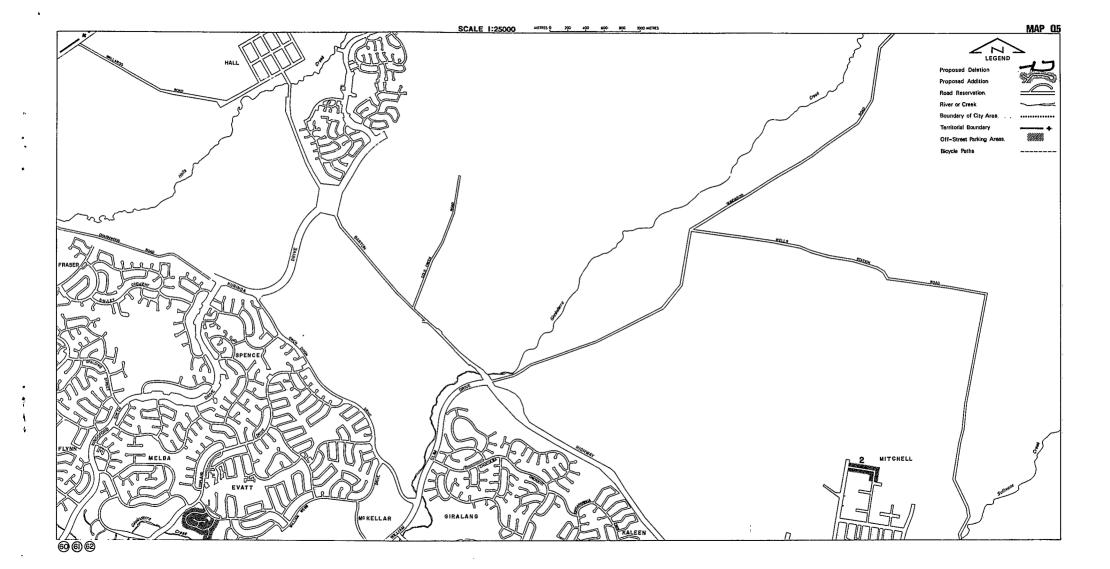
## MAP K5

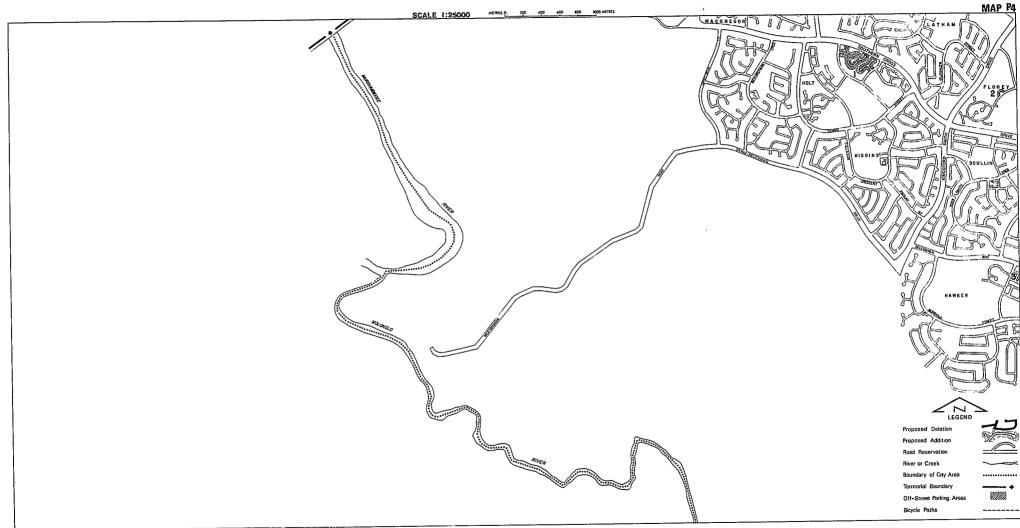
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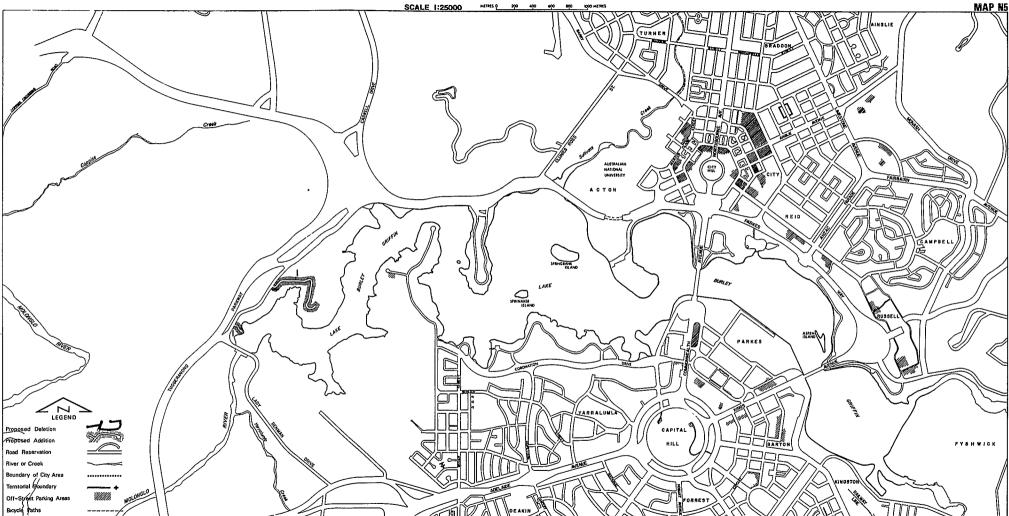
Tuggeranong District: Continuation of realignment of the Monaro Highway. (Refer also to Map L5, Variation 7 for continuation.)

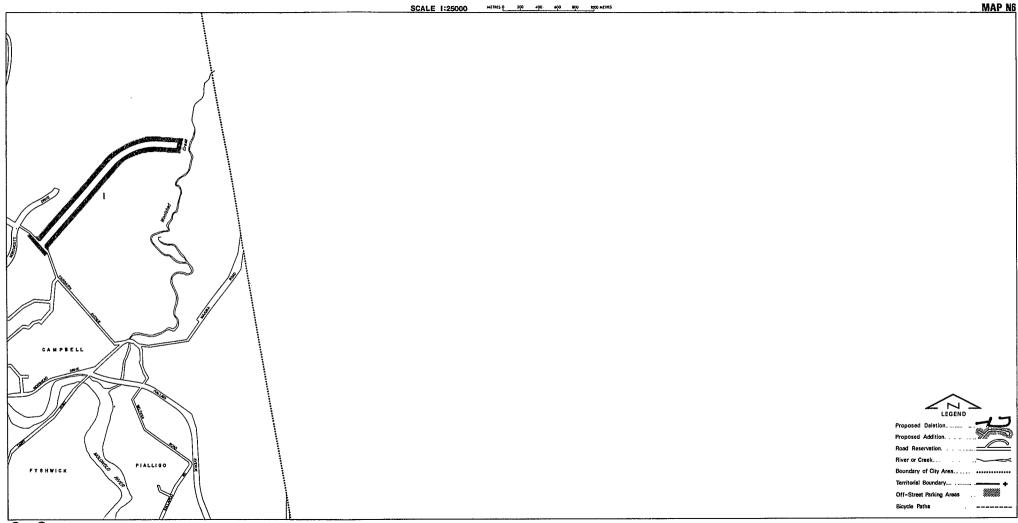


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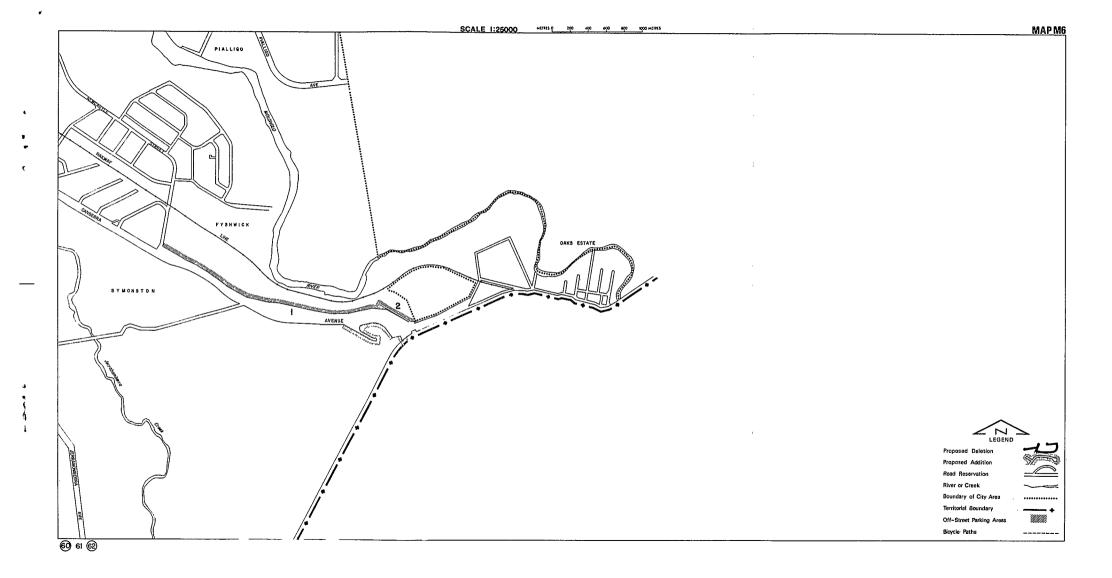


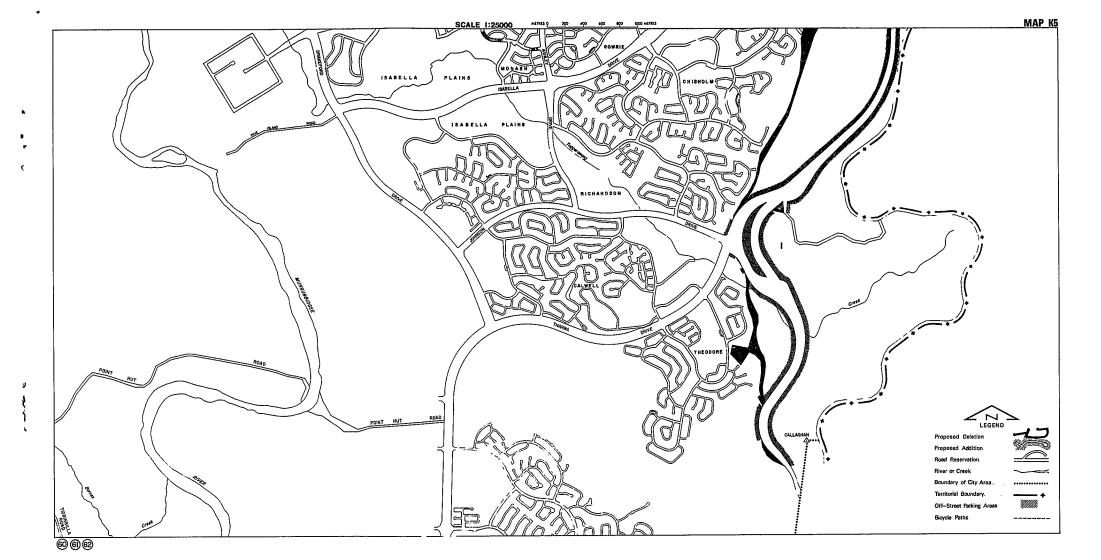


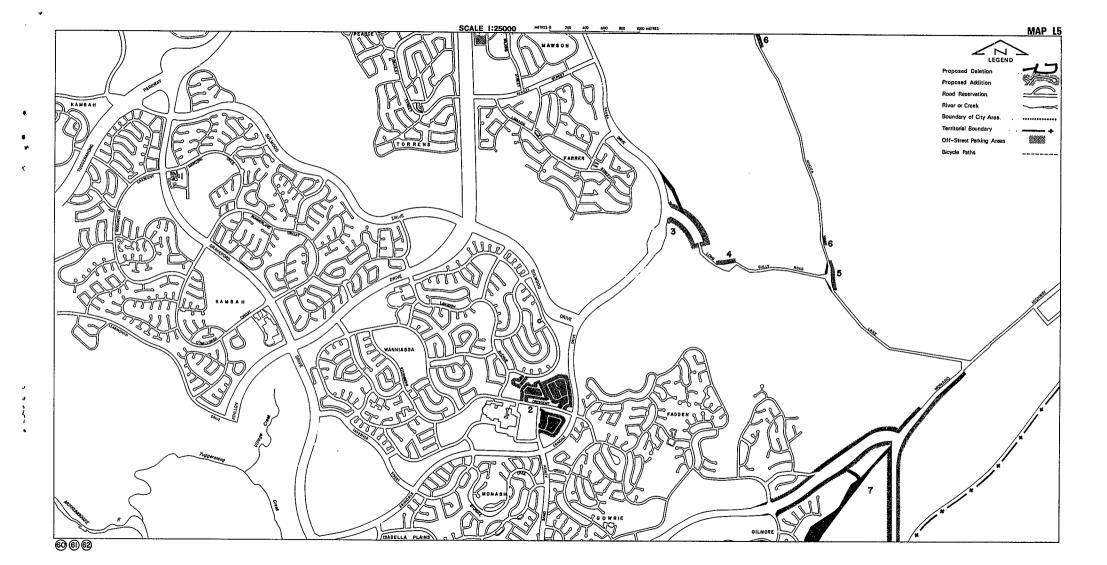




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F. D. ATEMSON, Government Printer, Canberra

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Statement (And M Allan) Senate

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5. BROWN	37. McLAREN
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