

Book 1

Suggested policies in regard to

SUBURBAN EXPANSION INTO THE URBAN FRINGE

(THE CONSTANTIA VALLEY)

B.M. Callaghan

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SUGGESTED POLICIES IN REGARD TO SUBURBAN
EXPANSION INTO THE URBAN FRINGE.

(Using the Constantia Valley as a case study)

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A thesis submitted in partial fulfillment of the
requirements for the degree, Master of Urban and
Regional Planning, University of Cape Town.
October, 1978.

ACKNOWLEDGEMENTS

Many people have contributed in a variety of ways to this study. I am deeply grateful to all concerned and wish to single out the following for special thanks.

- My future wife, for her unfailing support and encouragement.
- Brian Rees, for the many lessons learnt in regard to day-to-day planning.
- Mrs. van Vuuren, for her friendliness and most efficient typing.
- My colleagues for the invaluable help they provided in preparing the diagrams and putting this document together.
- My supervisor, Fabio Todeschini, for his direction and encouragement.

INTRODUCTION

This study is based on identifying and analysing the problems which arise from suburban expansion into the urban fringe; and on suggesting certain policy measures which could serve as a basis for directing development in such a way as to avoid these problems.

The urban fringe is recognized as the contact zone between the city and the countryside. As such, it experiences the major development forces which arise from the growth of the metropolitan population. It is characterised by change and instability; which are reflected in unrealistic land values, speculative land holding, and unproductive use of much of the land. As suburban development encroaches into this zone, so the forces which precede it reach further out into the countryside.

Many fringe areas comprise prime farmland and, in some instances, the environmental characteristics of the land are scenically attractive and offer great opportunities for meeting the outdoor recreational needs of the metropolitan population. The threat to these attributes constitutes the major problem associated with suburban expansion.

Other problems arise from the nature of such expansion; these being the various costs which accompany suburban sprawl. These costs generally take the form of extravagant use of the land and the inefficient provision of service infrastructures. A most important secondary cost is that such development proves a strain on the metropolitan area in that supporting facilities do not generally accompany housing. The role of this new development is thus simply that of a dormitory suburb. Moreover, these new suburbs do not contribute to the metropolitan rates account.

These factors tend to lower the effective welfare levels of the lower income groups of the metropolitan population. The fact that these new suburbs cater specifically for the higher income groups, merely serves to highlight the fact that such development is geared to the extravagant demands of a small sector of the population who are not compelled to bear the full costs of their privileged position.

The policies suggested are thus aimed at resolving the above problems in order to meet the following objectives:

- To ensure that the urban fringe contributes in some way to the needs of the metropolitan population - particularly the lower income groups.
- To facilitate the continued viability of existing farmlands.
- To preserve, and where possible, enhance the environmental character of the fringe.
- To optimise the outdoor recreational potential of this area.

- To guide development in desired directions.
- To ensure that the built environment is both functional and scenically attractive.
- To ensure that development takes place in an orderly and efficient manner.
- To encourage the provision of supporting facilities, so as to achieve a more self-contained neighbourhood.

A behavioural approach was adopted and, in this regard, the Constantia Valley was employed as a case study to explore the process in action. The Valley proved an appropriate, if somewhat special, example of suburban encroachment into the urban fringe. Its topographical setting and environmental beauty, coupled with the fact that it comprises extremely valuable farmland and has strong historic connotations; makes it particularly vulnerable to suburban encroachment. Although it is, in parts, already suburbanized - exhibits all the characteristic elements of a typical fringe zone.

The study is structured in the following manner:

PART ONE comprises a broad theoretical view of the suburban land conversion process. The general problems experienced in the fringe are outlined; and the forces underlying this conversion process are described. The roles played by the various participants involved in this process are highlighted.

PART TWO deals with the Constantia Valley. The past events and policies which have resulted in the present form of development are reviewed, the existing situation is analysed and the various trends highlighted. The major problem areas are then identified.

PART THREE deals with the problem of suburban expansion as experienced in Britain and the United States. The policies adopted in these countries, together with the techniques employed to effectuate these policies, are reviewed.

PART FOUR sets out the various goals and objectives in respect of the Constantia situation.

PART FIVE is devoted to suggesting certain policy prescriptions to resolve the problems found in Constantia. These policies are informed by the analysis of the existing site and the observed trends; by the British and United States policies for resolving very similar issues; and by the goals and objectives.

PART SIX is aimed at suggesting certain policy prescriptions of a more general nature. These are informed by the lessons learnt from the Constantia Study; and by the various techniques employed in Britain and the United States in order to facilitate the implementation of the adopted policies in these countries.

An outline of the study is indicated in the following diagram.

PART ONE
THE SUBURBAN LAND CONVERSION PROCESS

- Broad Problem Statement
- Underlying Forces
- Public Sector Intervention
- The process in action.

PART TWO
THE CONSTANTIA VALLEY

Study Perspective _____

Formative events and Policies _____

Analysis of Existing Situation and Trends _____

Synthesis Major problem Areas (Spatial and aspatial). _____

PART THREE
ALTERNATIVE POLICY MEASURES

PART FIVE
ALTERNATIVE POLICY PRESCRIPTIONS FOR CONSTANTIA

- The Residential Component
- The Commercial component
- The farming component
- Recreation and the Environment. General.

PART FOUR
GOALS & OBJECTIVES

PART SIX
GENERAL POLICY PRESCRIPTIONS

- The Constantia Study
- The British & U.S.A. Control Policies
- A Generalised policy statement



CONTENTS

	<u>Page</u>
<i>BOOK ONE</i> PART ONE - THE SUBURBAN LAND CONVERSION PROCESS	1
1.0 THE CONCENTRIC ZONE THEORY	2
2.0 A BEHAVIOURAL APPROACH	3
3.0 THE FORCES UNDERLYING SUBURBAN EXPANSION	3
4.0 THE FORCES AGAINST SUBURBAN EXPANSION	5
5.0 THE URBAN FRINGE	5
6.0 THE NEED FOR INTERVENTION	6
6.1 The costs of urban sprawl	7
6.2 Speculative Land Holding	8
6.3 Externalities	9
7.0 PUBLIC SECTOR INTERVENTION	10
8.0 THE PROCESS IN ACTION	11
8.1 Landowners and/or Speculators	12
8.2 Developers	13
8.3 Home Buyers	13
8.4 The Public Sector	14
 PART TWO - THE CONSTANTIA VALLEY	 16
1.0 STUDY PERSPECTIVE	17
2.0 STUDY AREA DELINEATION	17
3.0 HISTORIC OVERVIEW	19
4.0 PAST AND PRESENT POLICY FORMULATION	21
4.1 Control measures prior to 1960	21
4.2 The 1963 Scheme	22
4.3 The 1970 Scheme	25
4.4 The 1976 Scheme	27
4.4.1 Preservation of the farming areas	28
4.4.2 Special Residential Zoning	29
4.4.3 Single Residential Zoning	30
4.4.4 School Facilities	31
4.4.5 Shopping	31
4.4.6 Services and Communications	32
4.4.7 Recreation and Historic Homesteads	32
5.0 CONSTANTIA TODAY	36
5.1 Metropolitan Context	36
5.2 The Residential Component	44
5.2.1 Pattern of Development	46
5.2.2 Development Trends	47
5.2.3 Supply and Demand	49
5.2.4 Housing Demand	50
5.2.5 Market Prices	52
5.2.6 The 8000 m ² Category	53
5.2.7 The 4000 m ² Category	55
5.2.8 The 2400 m ² Category	56
5.2.9 The 1350 m ² Category	57
5.3 The Commercial Component	57
5.4 The Farming Component	60
5.5 The Environment	64
5.5.1 The natural environment	64
5.5.2 The Built Environment	67
5.6 Recreation	70

	5.7	The South Peninsula Mountain Reserve	72
	5.8	Public Infrastructure	72
	5.9	Public-Private Sector Interrelationships	75
	6.0	SYNTHESIS	77
	6.1	Metropolitan Context	77
	6.2	The Single Residential Component	78
	6.3	Special Residential Development	83
	6.4	The "Farming" Component	84
	6.5	The Environment	88
	6.6	Recreation	91
	6.7	The Commercial Component	92
	6.8	General	93
	6.9	Problem areas summarized	95
PART THREE	-	ALTERNATIVE POLICY MEASURES	99
	1.0	CONTROL POLICIES IN BRITAIN	100
	1.1	The emergence of control policies....	100
	1.2	The 1947 Town and Country Planning Act	101
	1.3	The effects of the 1947 Act	102
	1.4	Further Intervention	103
	1.5	The Community Land Act of 1975	104
	1.5.1	The basis of the Act	105
	1.5.2	Implementation of the Act	106
	1.5.3	Working with the Private Sector	107
	2.0	CONTROL POLICIES IN THE UNITED STATES	108
	2.1	A Comparison with the British system	108
	2.2	Zoning Powers	108
	2.3	Suburban Sprawl	109
	2.4	Managed Growth	111
	2.5	Techniques for managing growth	111
	2.6	Case Studies	112
<i>BOOK TWO</i>	PART FOUR	- GOALS AND OBJECTIVES	113
		FORMULATION OF GOALS AND OBJECTIVES	114
		GOALS	115
		RESIDENTIAL OBJECTIVES	115
		COMMERCIAL, "FARMING", RECREATIONAL, ENVIRONMENTAL & GENERAL OBJECTIVES	116
	PART FIVE	- ALTERNATIVE POLICY PRESCRIPTIONS FOR CONSTANTIA	118
		ALTERNATIVE POLICY PRESCRIPTIONS FOR CONSTANTIA	119
	1.0	THE RESIDENTIAL COMPONENT	120
	1.1	Unrealistically large Plots	120
	1.2	Vacant Residential Land	130
	1.2.1	High Constantia Township Ext. 1	132
	1.2.2	Approved but not yet subdivided....	144
	1.2.3	Silverhurst Farm	145
	1.3	Higher Density Housing	150
	2.0	THE COMMERCIAL AND CIVIC COMPONENTS	152
	2.1	The Constantia Centre@Civic Centre	152
	2.1.1	The future of the Constantia Centre Site	154
	2.1.2	The future of the Civic Centre site	155
	2.1.3	General	157
	2.1.4	Farmstalls and Nurseries	157
	2.3	Convenience Stores	158

3.0	THE FARMING COMPONENT	161
3.1	Prime and Viable farming land	161
3.2	Continued Farming Practices	165
3.3	Alternative Uses	166
3.4	Eagles Nest, Glen Alpine & Gordon Hts.	172
3.4.1	Site Description	172
3.4.2	Unresolved Problems	173
3.4.3	Development Potential	173
3.4.4	Alternative Uses	176
3.4.5	Evaluation of Alternatives	177
3.4.6	Policy Determinants	178
3.4.7	Policy Suggestion	179
3.4.8	Financial Implications	180
4.0	RECREATION AND THE ENVIRONMENT	186
4.1	Outdoor recreation	186
4.2	Horse riding	187
4.3	Historic Homesteads	187
4.4	Undesirable and desirable Vegetation	187
5.0	GENERAL	
PART SIX	- GENERAL POLICY PRESCRIPTIONS	191
	GENERAL POLICY PRESCRIPTIONS	192
1.0	THE CONSTANTIA STUDY	192
1.1	The residential component	193
1.2	Public Facilities	194
1.3	The Farming Component	197
1.4	Recreation	198
1.5	The Environment	199
1.6	General	200
2.0	THE BRITISH AND UNITED STATES CONTROL POLICY	202
2.1	The British policies	202
2.2	The United States policies	204
3.0	A GENERALISED POLICY STATEMENT	207
3.1	General Policies	208
3.2	The granting of residential etc...	208
3.3	Discontinuous Development	209
3.4	Protection of existing uses	209
3.5	Acquisition of Land or of development rights	210
3.6	Vacant land	210
3.7	Large-lot zoning	211
3.8	Higher-density housing	211
3.9	Low or moderate income housing	212
3.10	Public Services and Facilities	212
3.11	Farmland	212
3.12	Recreation	213
3.13	The Environment	213
	ANNEXURES	214
	CASE STUDIES OF MANAGED GROWTH IN THE UNITED STATES	215
1.0	RAMAPO, NEW YORK	215
2.0	MONTGOMERY COUNTY, MARYLAND	216
3.0	PRINCE GEORGE'S COUNTY, MARYLAND	216
4.0	BOULDER, COLORADO	217
5.0	PETULAMA, CALIFORNIA	219
6.0	SACRAMENTO COUNTY, CALIFORNIA	220
	REFERENCES:	221
	"	222

PART ONE

The suburban land conversion process

Suburban expansion has been one of the major components of urban growth. It can partly be explained by the consequences of the urban growth process itself; the most obvious factor being the demand for space which has accompanied population growth and the need for additional housing and related activities.

Over the years the incremental spreading out of suburban growth has engulfed more and more land on the urban fringe. Apart from the undesirable aspects of urban sprawl itself, the land which is being engulfed is very often prime farmland or land with a high scenic or recreational value; for these were often contributory factors in the initial location and establishment of the city itself - namely fertile soil and an attractive environment.

1.0 THE CONCENTRIC ZONE THEORY

The concentric or ring pattern of suburban growth, which is discernible to a greater or lesser extent in all urban agglomerations, can be partly explained by the very simplistic and generalised concentric zone theory. With bid-rent curves being a function of accessibility to the central city, the land use pattern surrounding the central city at any one point in time is a reflection of the value of accessibility to the user.

The pattern which emerges is that of successive concentric rings which, starting from the centre, comprise the central business district and its surrounding zone of transition (these two making up the central city): a wide band of residential suburbs, decreasing in density away from the central city; intensive forms of farming and other uses; and lastly, extensive farmland. (1)

Distortions to this idealised pattern are easily explained by topographical barriers, the existence of radial transport routes and the fact that the urban land market does not operate freely but is instead highly restricted by both public and private interference. An additional complicating factor is the multi-nodal character of all large cities and metropolitan areas.

While the concentric zone theory is essentially a static concept, it is given a dynamic dimension by the outward movement over time of each concentric ring. This is an important factor and is basic to the whole idea of successive waves of ever-increasing development densities washing over any one particular tract of land.

Despite the fact that land use patterns reminiscent of the concentric zone theory may be found in almost all urban contexts, it is generally accepted that this theory does not adequately explain all the forces which determine the process and pattern of suburban land conversion.

(1) The derivation of this pattern is well described by Richardson, pp. 56-64.

2.0 A BEHAVIOURAL APPROACH

To explain, with any degree of confidence, the existing patterns and to predict future patterns of suburban growth, the only reasonably safe method is to adopt what Hall refers to as a behavioural approach. (1) This approach is simply that of analysing past processes; identifying and understanding the underlying forces and taking note of the prevailing conditions - the state of the market, personal preferences, degree and form of public intervention and the specific characteristics of the land itself.

3.0 THE FORCES UNDERLYING SUBURBAN EXPANSION (2)

One of the major forces, which has in practice resulted in a settlement behaviour pattern in contradiction to the concentric zone theory, is that of personal preference or choice of location. Depending on the attractiveness of the environment and the nature of the surrounding rural area; a segment of the population has characteristically opted to forego accessibility to the central city in favour of the attributes of living in rural or semi-rural surroundings and of owning (on an uneconomic basis) relatively large tracts of land.

In addition to the increased commuting costs, this segment of the population is faced with high labour costs and is also required to internalise normal service costs such as those associated with sewerage, lighting, water and refuse disposal. Clearly then, the choice of a semi-rural residential location is the preserve of the wealthy.

Technological change (particularly the role of transport improvements and means of communication which have reduced the need for agglomeration), rising income levels, more leisure time and increased car ownership have, over time, emphasized the demand for more living space. Amenity has thus become an ever-more important locational determinant than proximity to the central city. (3)

Of major importance is the fact that these trends have resulted in more and more people (including those in the middle income category) looking to these semi-rural areas as a desirable, and possible, residential location. In this manner the semi-rural areas become invaded with pressures for development which can only be described as suburban.

The process of suburbanization is thus propelled by the above-mentioned forces which are in turn strongly reinforced by the general increase of the urban population and ensuing levels of congestion in the central city. Underlying this centrifugal movement, two sets of forces may be identified; those of a "pull" nature and those of a "push" nature. The former, with regard

(1) Hall, p.210

(2) The following forces are those which take place in an uncontrolled or relatively free market system. The effects of public sector intervention are discussed later.

(3) Richardson, p.69

to the movement of residential location, reflects the attractions of a semi-rural quality; while the latter reflects the diminishing qualities of a central city location.

In the same manner, a decentralised pattern of shopping facilities and work opportunities takes place - partly to the advantage of the cheaper land in the suburbs and partly as a response to a captive suburban market. These, together with the provision of services and other public amenities such as school facilities and public open space, further emphasize the attractive pull of the suburbs.

Whereas the above forces make up the demand side of the suburban market, they must naturally be complemented by forces of supply. The supply side is based on the factors of production - land, labour, capital and entrepreneurship. Just as the functioning of the market is dependent upon the degree of complementarity between the demand and supply forces, so also supply is dependant upon the interdependence between the factors of production - none of which can play an active role in the market without the other three.

The demand for land for suburban housing is by definition a derived demand. Although land in itself performs a passive function, its usefulness is to a very large degree dependant on its nature. The term "land" is perhaps better described as the physical environment which embraces all those factors ranging from topography, slope, aspect and the quality of the soil; to the vegetation and micro-climatic conditions.

Generally, land which is suitable for farming is also suitable for housing and so a conflict in use arises. Similarly, those aspects which constitute an attractive environment for recreational usage are the very factors which make it attractive for urban encroachment. Apart from the physical characteristics of the environment, its usage is determined by its location in relation to existing urban development.

The use to which land is put is thus determined by its physical characteristics and the "preferences" of the landowner which are, in turn, to a large extent determined by economic forces. The supply of land on the urban fringe is therefore dependent on this viability as farmland (in the face of competing urban uses) and on the demand forces for suburban development.

The process whereby land is converted to suburban development takes the form of minor subdivisions of land into smallholdings or large plots for residential usage, or as formal township development. In either event, the supply of land for development depends, first of all, on the willingness of the farmer to forego his existing usage. Apart from state acquisition of fringe land for institutional or other purposes including public housing projects, it is the developer who is the prime initiator of suburban development.

The developer, or entrepreneur, plays the vital, and most active role in the land conversion process. His activities are dictated by demand forces which in turn depend on the existing supply of suburban land; he is, however, able to manipulate these forces to a certain degree by "creating" a demand and so attracting the demand forces away from other sources of supply.

To perform his role, the developer is dependent upon the other factors of production - capital and labour. In the financing of development projects he is reliant upon lending institutes, such as banks and building societies; while in the actual construction of houses or other suburban uses and their supporting services, the developer is generally dependent upon construction and engineering firms. The supply and costs of money and of labour is in turn strongly affected by the prevailing state of the economy.

4.0 THE FORCES AGAINST SUBURBAN EXPANSION

In contrast to those forces underlying the suburban process are those of containment of the urbanised area. These include the power of agricultural and rural preservation interest groups, the reluctance of central city authorities to lose population and other income-generating concerns, and the soaring land prices which accompany the increasing demand for suburban land - made more acute by the practice of speculative land holding. (1)

5.0 THE URBAN FRINGE

Were suburban development to proceed in an orderly and contiguous manner, the interface between urban and rural land uses would be that of an even line of contact. The fact that such development is anything but orderly and contiguous, but instead takes place in a haphazard and discontinuous fashion (commonly referred to as leapfrog development) means that this interface is in practice represented by a fairly wide zone - the urban fringe. (2)

The focus of the above forces of suburbanization is on the urban fringe and this zone is therefore subject to some of the major transitional forces of urban expansion. Together with an influx of residential development, the urban fringe is characterized by a mix of land uses comprising intensive forms of "farming" (such as market gardening, nurseries, chicken batteries, stall-fed cattle and pigs) and various other uses ranging from state and other institutions to drive-in cinemas, storage yards and a host of uses of a semi-industrial nature. All of which require relatively large tracts of land and are dependent on fairly close proximity to the central city.

(1) Hall, p.392

(2) Richardson, p.60 refers to the zone of transition as being "typified by mixed land use, general instability and change and by a wide range in type and quality of function". This description applies equally as well to the urban fringe.

6.0 THE NEED FOR INTERVENTION

In the absence of any concerted public intervention in the suburban process, the forces against suburban expansion have, in the past, failed dismally to control or even regulate the free market pattern of urban sprawl.

The developer can hardly be expected, let alone be relied upon, to internalise the full costs of his actions. Apart from local overspill effects, the consequences of suburban expansion at the regional or metropolitan level must be considered.

Firstly, the direction and timing of urban expansion plays an all-important role in determining the efficient functioning of the city. The mere availability or cost of land for development may lead suburban expansion in directions which have little relationship to existing land uses such as workplace, shopping facilities and various urban amenities. Such undirected expansion may, through the pre-emption of land, preclude alternative uses - particularly those of a public nature such as recreational land, educational institutes, future transport corridors or even airports. Moreover, valuable resources such as prime farming land, minerals, high quality building stone or particularly valuable stands of trees may be lost.

Secondly, environmental factors are not taken into account, particularly at the regional level. Ecological systems may be irreparably interfered with and may result in endless direct and indirect, or opportunity, costs. For example, natural drainage systems may be severely tampered with leading to possible flooding elsewhere; floodlines may not be fully determined; development may take place on land which should never be built upon such as marshy land or where soils are subject to excessive movement - even potential earthquake zones; aquifer recharge areas may be fully built over; encroachment upon the natural environment may take place at the expense of rare species of animal- or birdlife. In all, there is no control over possible costs to be borne by the future homeowners (e.g. flooding, or excessive cracking of walls and foundations) or of environmental attributes which could add so much to the quality of suburban living.

Being subject as it is to numerous pressures of an array of different land uses, the urban fringe is particularly susceptible to incompatibilities and externalities. While a mixture of farmland and urban development is often cited as the form of living environment which most closely approaches the ideals of a large sector of the populace and which often forms the basis of advertising slogans for suburban living; in practice the two are frequently incompatible.

The land market system on the urban fringe is subject to numerous distorting factors which characterise its instability and the fact that land values seldom reflect the existing or optimal use of the land at the present time, but instead unrealistically reflect an anticipated future urban value.

The combination of these factors indicates that certain problems are experienced in the path of urban expansion which, if left uncontrolled, would serve not only to encourage further urban sprawl at the cost of further losses to farmland and the environment, but would also reinforce the exclusionary trends of metropolitan growth.

Furthermore, as the attractiveness of each area diminishes with an ever-increasing influx of successive waves of development, so the process tends to creep ever-outwards; leaving behind it a mix of incompatible, undesirable and inefficient uses.

Apart from the above, three major factors justifying public intervention in the suburban market process are the costs of urban sprawl, uncontrolled speculative land holding and the externalities arising from incompatible land uses.

6.1 The costs of urban sprawl

The inherent inefficiencies of urban sprawl, such as increased service costs and the extravagant use of the land for housing, tend to result in undesirable secondary costs being imposed on those least able to afford them.

Those whose residential location is tied to close proximity to the central city because they cannot afford the costs of an outer-suburban or fringe location (land or house price together with increased commuting and labour costs) are directly saddled with increased service costs and rates due to a decreased central city tax base. Alternatively, as an opportunity cost, the rate of increase in the above fixed costs is greater than it would have been under an enlarged tax base. Levels of welfare are also reduced as expenditure on central city amenities is curtailed.

Urban sprawl itself tends to be monotonous and is generally characterised by a lack of community feeling - this frequently results in the duplication, in the suburbs, of many central city amenities which suffer as a result of diminished patronage.

The heavy emphasis on private vehicular transport is costly and the resulting costs of congestion of the central city road network add to the external costs experienced by the central city residents. Another effect of this emphasis on private transport is the less-than-efficient functioning of public transport systems, which means that the lower income groups in the inner suburbs or along radial transport routes, are faced with relatively high transport costs. The personal preference for private transport amongst the higher income groups tends to negate the need for the extension of public transport facilities which adds yet another restriction on choice of residential location amongst those who would normally be reliant on them.

The encroachment of urban sprawl upon farmland and land of a high recreational potential affects the lower income groups in two ways. Firstly, the transport costs of fresh produce are increased, thus leading to higher prices for such essentials as milk, vegetables and eggs. Secondly, land which could have been purchased to serve as major recreational outlets for the urban population has been given over to low density housing; furthermore, contact with the scenic attributes of farmland and open space have been made more inaccessible and therefore more costly.

With the ever-increasing influx of middle income earners into the suburban housing market, developers are apt to forego quality in preference for quantity and the maximisation of profits. The density and layout of townships is geared to minimising survey costs, the size of plots and the design and finishes of houses are stereotyped and sterile; there is little or no attempt at diversification or recognition of natural site characteristics.

With little respect for existing vegetation and landform, the site preparation for development is placed in the hands of the bulldozer. The onus then rests on the new homeowners and the local authority to regenerate what has been lost - which is costly and takes time. Where obligatory open space is provided it is frequently unusable, inefficient or badly located.

6.2 Speculative Land Holding

A factor which contributes to urban sprawl and makes its side-effects more acute, is that of land holding or speculation.

As Lindeman (1) points out, land buyers take the form of users or holders. The users are those who treat the land as a factor of production (even if it is merely to secure privacy); holders on the other hand, do not envisage any important immediate economic use for this land, but merely hold it to have it ready for some anticipated future use - that is, urban development. Land is therefore bought by speculators specifically in order to acquire a future profit due to an anticipated increase in the market price of the land.

The land is therefore, for a period, taken out of the production process and is physically seen as derelict farm land which is often overgrown and unsightly; alternatively it is put to some sub-optimal interim use which may have a deleterious effect upon neighbouring residential or farming land. In some cases it is even subdivided and fully serviced; but because the asking price is unrealistically high due to an anticipated future demand, the plots are often unsold and unbuilt upon. The overall effect is to lower the value of surrounding properties.

(1) Lindeman.

Frequently, because of these unrealistically high land prices, developers are forced to leapfrog speculatively-held land in order to buy land at a reasonable price - this being further away from the existing built up area. The by-product of this leapfrogging pattern is that the speculatively-held land is itself enhanced in value due to the developed land which surrounds it.(1)

Speculative land holding therefore disrupts the free market by restricting the supply of land for development. The effect of this is that the available supply is overpriced and ultimately ensures that the outer suburban housing market is restricted to the upper income groups. Inflated land and house prices do not, however, remain localised at the urban fringe but tend to trickle down through the housing market, so as to affect also the lower income housing market.

6.3 Externalities (2)

Characterised as it is by numerous forms of land use, many of which tend to be incompatible, it is only to be expected that deleterious externalities are frequently experienced on the urban fringe.

For example, the effect of the encroachment of urban development into farming areas tends to make farming a more costly and precarious business. Labour costs rocket due to competing urban wages and working conditions; alternatively the quality of available labour diminishes. Moreover, increased interference (including vandalism and pilfering) with farming operations is often experienced.

These factors may encourage the farmer to consider relocation which will in turn increase costs of procurement of supplies and the transport of produce - and therefore the selling price of produce (an additional cost burden affecting the lower income groups). Alternatively, the farmer may intensify his farming operations either by diversifying them to include chicken batteries or pig rearing etc.; or by decreasing the extent of the farm through subdivision. All these factors are beyond the control of the farmers whose properties may have had generations of capital investment sunk into their improvement.

The single residential plot-holder is in turn faced with a range of externalities arising from the adjacent use of farmland. Noise, dust, smells, flies and other pests which are associated with normal farming practices can make life uncomfortable; particularly when the size of surrounding land-holdings is diminished or the activities intensified.

(1) *Ibid.*

(2) These may also be referred to as spill-over effects or external diseconomies. While many are referred to under the costs of urban sprawl and speculative land holding, their frequency of occurrence in the urban fringe justifies their being enlarged upon.

The intrusion of other uses into the urban fringe also tend to have overspill-effects on nearby residential development. This is particularly so in the case of the various forms of use such as those of a light industrial nature where the cause of the problem (e.g. noise, lighting, traffic congestion, smells, smoke or effluent discharge) remains unaffected and is therefore generally not concerned with these pollution effects upon others.

Apart from the discomfort caused by these externalities, they have a strong economic effect in the lowering of property values which can severely restrict the continuity of suburban development.

7.0 PUBLIC SECTOR INTERVENTION

The need for public sector intervention in the expansion process of suburban development is justified by the need to anticipate the socio-economic and environmental effects of such development both at the local and regional levels and in the short and long term. To devise means and ways of controlling or even preventing such development when not in the interests of the general public or of the environment. And, moreover, to channel development in desired directions, to control the form and pattern of development and to encourage or force developers to internalise the full costs of their actions.

The need for intervention in the actual market process on the urban fringe is justified by the effects of uncontrolled urban sprawl, the defects in the market forces (rigidities, monopolistic elements and externalities), and by the distortion in the price mechanism (increased housing costs and exclusionary effects).

The general policy underlying public sector intervention is to regulate individual activity in the interests of the safety, health, morals and general well-being of the whole population.

Public sector control of the suburban market is characterized by so-called police powers which are of a restrictive nature. Zoning regulations are designed to reinforce the development of complementary activities and to repel those activities which tend to be incompatible and which lower the general welfare of the surrounding property owners. Moreover, the granting of development rights (through type of use and intensity zoning) is aimed at controlling the amount and location of land which can be put on the development market at any one point in time. Compensation and betterment (or enhancement) levies are designed to redistribute the burdens or benefits (experienced through rezoning) on a fair basis.

Other regulatory functions take the form of the control of township and subdivision procedures and methods, and the development and enforcement of building and density regulations.

The public sector also provides services and functions which cannot be carried out or are inefficiently performed by the market; these include such public services such as public transport systems, road construction, water and sewerage reticulation, electricity and stormwater drainage. The provision of these services tends to attract or encourage development and is therefore a major tool for channelling suburban expansion in desired directions. Another most important function is that of the assembly of land (through expropriation by compensation) for the development of public amenities such as open space, other recreational functions and civic purposes. These functions constitute the positive aspects of public sector intervention.

The imposition of rates to cover the expenditure on public services also serves as an instrument of social policy; that is, in a similar way to zoning, it can be used to encourage one kind of land use and to discourage another. In addition, it has the potential for effectuating a measure of income and welfare redistribution.

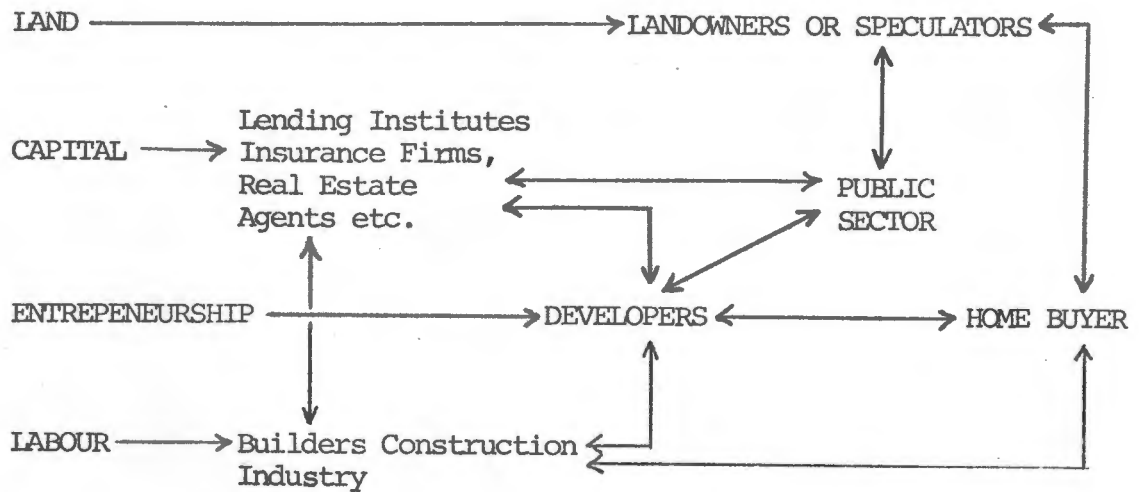
Ideally then, the public sector is seen as the guardian of private sector interests and welfare needs - as an unbiased arbiter of private sector conflicts and as the regulatory agent for harmonious and efficient development. Its function is not to replace the free market system, but rather to smooth out its defects, and encourage and facilitate the workings of its more positive aspects.

8.0 THE PROCESS IN ACTION (1)

The suburban land conversion process is characterised by a highly dispersed and complex pattern of decision-making involving various "actors" and interest groups with their numerous interrelationships and feedbacks.

To understand more fully how this process operates, the roles of the major participants are reviewed - in relation one to the other. The overall system is indicated on the following diagram.(2)

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- (1) The reason why only the housing component is described is that it is by far the largest use to which suburban land is put, and is also at the forefront of the suburban invasion process.
 - (2) This diagram is a modification of one prepared by Clawson and Hall. Although the role of the lending institutions, insurance firms and real estate agents is critical to the land conversion process (for it is through them that the process is financed, protected and made operable), they are not in the front-line of the process and for reason their role is not more fully described.



The dynamic nature of this process is exemplified by the fact that the home buyer often adopts the role of the landowner or speculator and this initiates another round in the process. So development becomes more and more dense as ever-increasing subdivision takes place.

8.1 Landowners and/or Speculators

Given the clearly observed pattern of urban expansion over the past few decades, the mere ownership of land on the fringe of suburban development rightly or wrongly results in an increase in development expectations. Whether or not this expectation is put to the test depends on the productivity of the land, the personal inclinations of the landowner, the existing or perceived future market for suburban land (whether it be for housing or related activities) and the compatibility of the present usage with that of adjoining properties. The actual attainment of development rights is dependent on public sector approval.

Generally the genuine farmer sells the land to an interim investor or speculator, who as previously stated, looks upon the land as a commodity to be traded in rather than as a factor of production to be used in a production process. (1)

The speculator is thus seen as an intermediary between the rural use of the land and its suburbanization and is considered to be the major factor in initiating a chain of increases in the price of land which is ultimately passed on to the prospective home owner. This rise in land prices depends to a large degree on the number of intermediary owners and on the time interval, and thus holding costs, involved; which in turn depends on the policies and level of efficiency of the public sector and on the pattern and trends of the suburban market.

(1) Clawson and Hall p.20

The use of land in this interim period is very often sub-optimal; this is so, whether it remains under its existing use and ownership or whether it is leased out for some other use. It is seen as a period of stagnation and typifies the urban fringe area.

8.2 Developers

As an entrepreneur, the developer is faced with a critical decision in which he has to balance the price he pays for the land, the form of development envisaged, the time taken to gain permission and to build (which determines the bridging finances or holding costs) and the price he will receive on selling.

Being responsible for initiating actual suburban development, whether for housing or for other purposes, the developer may or may not undertake the actual building construction himself; this depends to a large extent on the state of the market and on the "size" of the development company.

The form of development varies from the subdivision into residential plots and the lay-out of basic services to a complete package deal ranging from a few housing units to a self-contained neighbourhood.

With regard to conventional single residential development, it is the demand side which dictates the form of development. But, with alternative forms of housing development; such as those described above, and which may include group and cluster housing, maisonettes and even the so-called plot-and-plan concept - the developer can, to a large extent, influence the housing market through judicious advertising of a quality product geared to specific housing needs.

It is clear that the initial purchase price of the land must have a deciding effect upon the selling price of the completed housing units; and here again, the dependent variables are the state of the market and the policies and level of efficiency of the public sector.

8.3 Home Buyers

The provision of new residential land on the urban fringe, whether it be in the form of vacant plots or already constructed houses, must of necessity be geared to meet the demands of an extremely varied market.

The homebuyers choice of a suburban location is complex and highly personal, but generally, within an ability-to-pay constraint, the decision to purchase a suburban plot or house is determined by the weighing up of various alternative locations against a number of factors such as environmental amenity, the trade-off between minimising travel time/costs

to work or schools or shops and the maximising of living space (1).

Again, as previously stated, living on the urban fringe has always been associated with the wealthy and more mobile sectors of the population who could afford to forego proximity to the central city in favour of increased living space and environmental amenity. Extensions and improvements to the public transport system, expansion of the road network and increased standard of living have, in recent years, transformed the outer suburban housing market so as to now include the middle income households.(2)

The housing pattern on the urban fringe has thus changed from that of exclusive low density single residential housing or a semi-rural character to that of a more mixed form of housing densities which over time, is becoming increasingly more dense. Another factor contributing to this increase in general density is that of a declining demand for the larger plots and houses and the difficulty experienced in maintaining those already in existence. Ever-increasing costs (labour, maintenance and annual rates) together with changing life-styles have resulted in pressures to subdivide.

8.4 The Public Sector

The role of the public sector in the suburban land conversion process is complex and hierarchical and ranges from remote to intimate. In general, the public sector may be split up into national, provincial and local units of government.

The national government has, to a certain extent, the ability to control the state of the economy and, more specifically, credit facilities. It is responsible for providing the enabling or controlling legislation for both provincial and local governments and, in certain localised areas, may have a direct effect on the suburban process by means of some specific land activity associated with one of its departments such as defense, forestry or agriculture.

Within the legislative framework set down by the national government, the provincial authorities are empowered not only to set down the precise legislative process whereby suburban land conversion takes place, but also to play an active role in ensuring that this process is adhered to. In addition, they are responsible for the location and construction of major highways and public health facilities and most educational institutions; all of which affect the direction and rate of spread of suburban areas.

(1) Richardson p.19

(2) In many Third World cities, vacant land on the urban fringe is also the focus of squatters. This phenomenon is basically the result of a declining rural economy (and thus of available opportunities) relative to a growing urban economy; and the inability of the urban housing stock to cope with the needs of these immigrants.

In addition to squatter camps, South African cities are characterised by the fact that the lower income groups are (by law) compelled to live in the outer suburbs. The Group Areas Act has thus, to a very large extent, created a situation in total contradiction to the normal suburban land conversion process.

Metropolitan authorities are a fairly recent innovation and were designed specifically to co-ordinate the planning of the various local authorities within the metropolitan area. They have thus arisen as an accompaniment of the growth of cities and, more particularly, of suburbanization; their role being consultative and advisory. Although they may have an overall policy plan, they usually lack the statutory power to compel conformity to this plan.

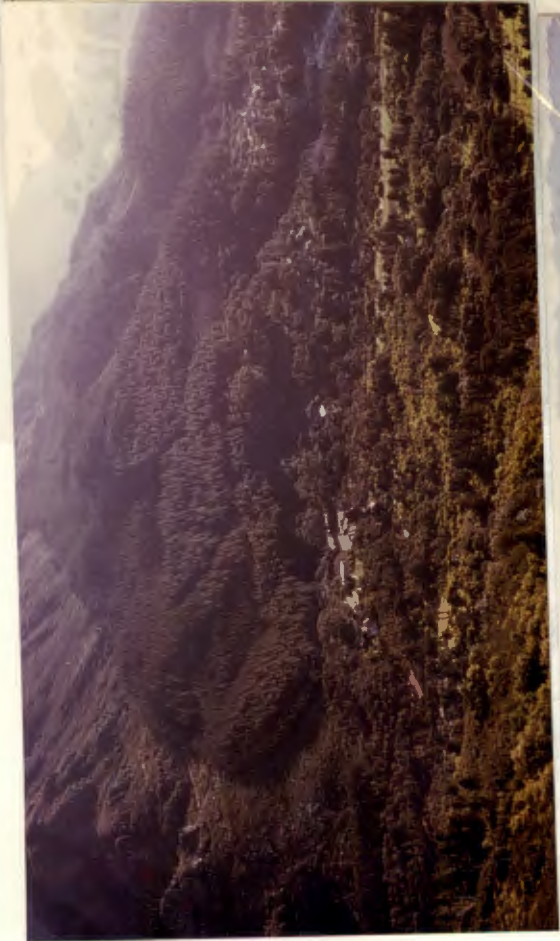
Despite the fact that local authorities function within the legislative framework set by the provincial authorities and are also dependent on that body for the sanctioning of all development, of all the authorities they have had the greatest impact upon the direction, rate and form of suburban growth.

In some instances local authorities include, in their area of jurisdiction land outside of the urbanised area; and it is these in particular which control and determine the use of land on the urban fringe.

The various restrictive (or negative) as well as positive policies or tools which are most commonly employed by local authorities have been described in Section 7.0.

PART TWO

The Constantia Valley



PHOTOGRAPH 1.

1.0 STUDY PERSPECTIVE

Having outlined the theoretical process of suburban land conversion in the urban fringe zone, the consideration of these forces of development in a practical setting are now reviewed.

The area chosen is the Constantia Valley which up to 40 years ago was prime farmland but which has subsequently experienced all the forces associated with the encroachment of suburban development. The Valley is today characterised by the three stages of suburban encroachment; land being actively farmed, land which is characteristic of the urban fringe, and land which is already suburbanized. It is therefore an ideal subject for reviewing and analyzing past forces (including control policies) for identifying and attempting to understand current forces and for anticipating and making provision for future forces of suburban expansion through appropriate control measures.

As a natural watershed, the Valley is well defined on three sides; being physically enclosed by mountainous land to the west and south. In respect to the Central City it is well located for suburban expansion which has intruded from the north and especially the east. Most of the Valley is prime farmland and this, together with its strong historic legacy, has been the sole reason for its not already having been fully suburbanized. In addition, it is renowned for its environmental beauty comprising numerous minor valley lines interspersed with rolling topography set against a backdrop of mountains. Its equable climate and high annual rainfall has benefitted not only agriculture (notably high quality vineyards) but also extremely luxurious vegetation - both indigenous and exotic.

It is, in short, an ideal living environment with the upper slopes in particular affording magnificent views over False Bay and across the Cape Flats to the Hottentots Holland mountains. Little wonder, then, that it has experienced particularly strong forces of suburban encroachment.

2.0 STUDY AREA DELINEATION (1)

The Constantia Valley is locally recognized and easily identifiable as comprising two separate portions; Constantia proper and the Tokai neighbourhood. They are physically separated by a belt of State-owned forest land and two State reformatories.

Historically, the pattern and nature of development in Tokai has differed markedly from that of Constantia. Housing densities are considerably higher and cater for a lower income group. The reason being partly due to its closer proximity to the relatively dense and heterogeneous development which existed along the Cape Town - Muizenberg "corridor", and partly due to the more level terrain and generally poorer quality soils than Constantia. Higher density development has in fact been encouraged through appropriate zonings including two shopping complexes of a regional or semi-regional nature. Moreover, Tokai has been heavily intruded by State-owned land in the form of the expansive Pollsmoor prison complex and defence land.

(1) This study area is depicted in Figure 1, together with the place names referred to in the text.

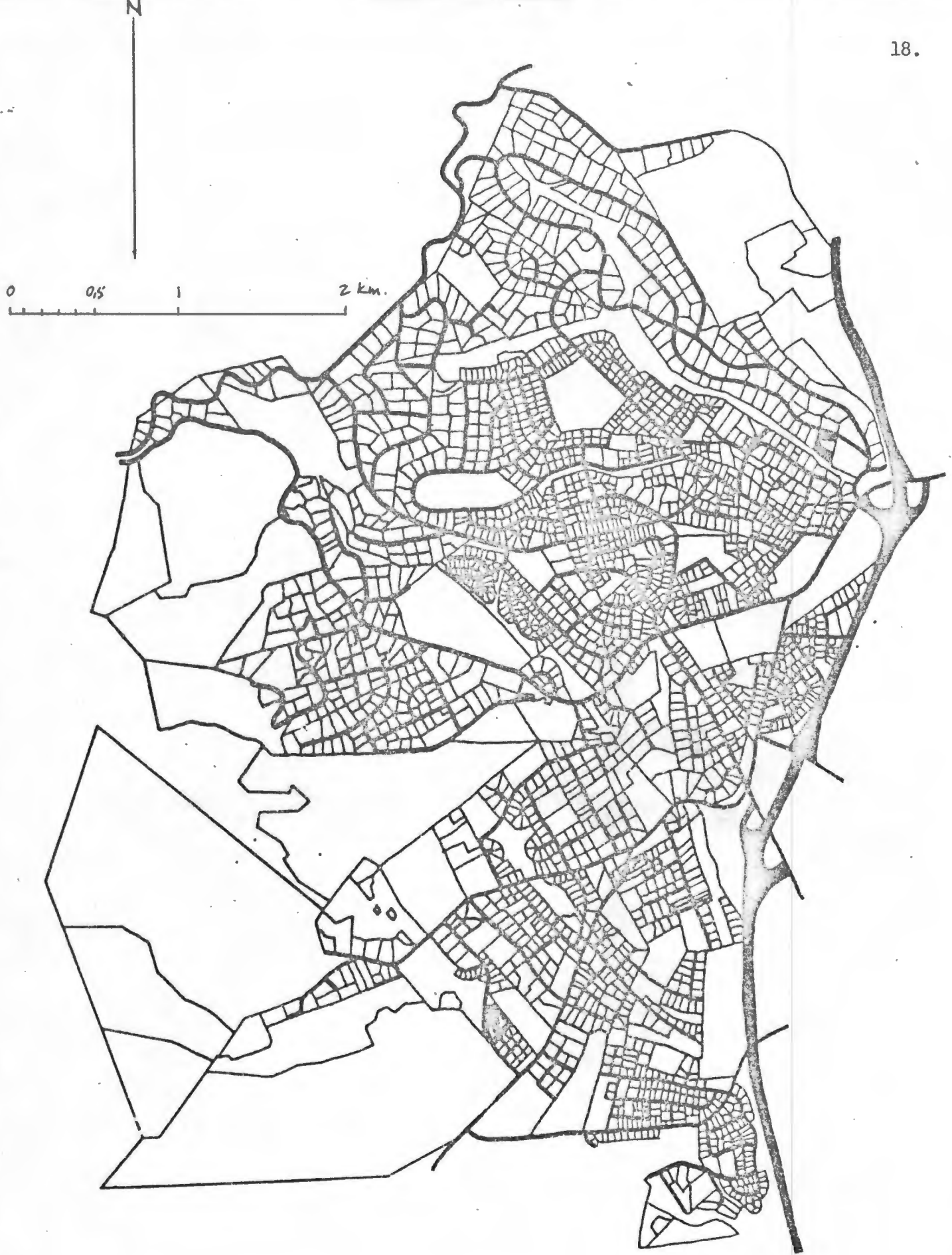


FIGURE 1 : STUDY AREA.

Despite the fact that Tokai and Constantia fall within a single administrative unit - or Local Area (under the control of the Cape Divisional Council), this study will concentrate only on the Constantia portion of the Valley.

This does not, however, mean that the Tokai area will be altogether ignored as the study area cannot be considered in isolation; particularly as the two portions of the Valley are closely linked in an economic, administrative, social and physical manner.

Nevertheless, for the purposes of this study, Constantia proper displays all the necessary ingredients of urban fringe development. The inclusion of Tokai which, apart from the western portion leading up to the mountain slopes, does not altogether share the characteristic problems of Constantia, was felt to be unnecessary.

The study area is further delineated by the Simon van der Stel Freeway, for this effectively separates the more dense land use pattern to the east from that of Constantia proper. The remaining boundaries of the study area follow the natural watershed of the Valley; namely the upper slopes of Constantiaberg and the Hohenhort ridge.

3.0 HISTORIC OVERVIEW (1) (See Figure 5)

The history of settlement in the Constantia Valley goes back to 1685 when a large tract of land was granted to Governor Simon Van der Stel. His home, Groot Constantia, remains the focus of the strong historic ties which characterise the Valley. On his death, the estate was subdivided - giving rise to equally well known estates such as Hope of Constantia, Klein Constantia, Alphen, Hohenhort, Silverhurst, Belle Ombre and Sillery.

While some of these estates have been whittled down through generations of subsequent subdivisions, and all that remains of them are the historic homesteads and their immediate environs, others are still being farmed.

The strategic position of the Cape with respect to the world's shipping lanes boosted its development as an agricultural complex. Steady expansion of Cape Town under British occupation led to its transformation from a revictualling station to a commercial seaport. Increased population growth and prosperity led to subdivisational pressures on the surrounding farming land; these being intensified with the growth impetus arising from the development of the hinterland and particularly the discovery of diamonds at Kimberley and gold in the Transvaal.

(1) This section comprises material extracted from the following Cape Divisional Council reports:

- (1) An interim report on the control of urban settlement in the Constantia Local Area; Feb. 1963
- (2) Constantia "Green Belt" Area: Proposed Treatment; Feb. 1970 (C.R. Shirley)
- (3) Proposed replanning of Constantia "Green Belt" area: March 1970 (Prof. J. Beinart)
- (4) Report on subdivision of "Silverhurst" Farm; Jan. 1970 (Prof. J. Beinart)
- (5) Rezoning of properties and road improvements in the Tokai neighbourhood; 1972
- (6) Constantia Local Area - Revised Town Planning Scheme; May 1976

(Reference acknowledgements will hereafter refer to the reports as numbered above)

Suburban expansion in the form of select residential homes, crept southwards from Cape Town as far as Kenilworth. A military camp and magisterial offices had previously been established at Wynberg and this attracted a cluster of higher density development.

Constantia was little affected by this suburban expansion, other than that market gardening along the river alluviums and dairy herds around the vleis and low-lying ground prospered with a ready and expanding market. These farming practices were given a further boost with the establishment of a naval base at Simonstown. From a very early date, however, vineyards dominated the farming activity and its wine industry flourished in the face of a Local and European market.

The natural beauty of the Valley was enhanced by the nature of the farming activities, the gracious style of living and the distinctive Cape-Dutch architecture which characterised the estates. Coupled with the generally lush nature of the vegetation, the propagation of exotic trees such as oaks, willows, poplars and plantations of conifers and eucalyptus served to distinguish the Valley as a particularly attractive environment for potential residential settlement. For many years, however, the profitability of its farming activities managed to safeguard it from suburban encroachment.

The success of the wine industry was seriously affected in the 1920's by the development of earlier ripening strains in the Berg River and Hex River valleys. This factor, together with increased accessibility to Cape Town afforded by the construction of the railway line and main road to Simonstown, led to the rapid subdivision of the estates into smallholdings and large residential plots.

Various attempts to control subdivision were made by the authorities, but it was soon evident that the bulk of the Valley was destined for suburban development. The first township was approved in 1935 and, although the next 20 years saw relatively minor township development (with the exception of the Southern Cross and Hohenhort townships), piecemeal subdivisions continued unabated; particularly during the post World War II boom period.

During this period, the only control over subdivisions was the "freezing" of the larger farms and the restriction of subdivision sizes to a minimum of 2 acres - with the exception of the Tokai area where smaller subdivisions were permitted. The Hohenhort and Southern Cross townships were established on land which was not considered to be prime farmland - due partly to the fairly steep slopes of the land. These townships were fully laid out in regard to road construction and the fairly generous provision of public open space; the plots being 2 acres or more in extent. In the absence of a reticulated sewerage system, slopes, the nature of the soil and the size of the plots dictated where septic tanks could be installed and therefore development permitted. The public open space followed the valley bottoms and this pattern in fact gave rise to the policy which has since been adopted over the whole of Constantia and which forms one of the major structural elements characterising the future development of the Valley.

In recognizing the limited viability of farmland in the face of inevitable suburban expansion, density zones were drawn up in 1963 to control all plot sizes according to a gradation of densities in conformance with the topography. The rapid growth of Cape Town in general as a result of the buoyant economy of the 1960's led to mounting suburban pressures on Constantia and these were to a large extent facilitated by the 1963 plan.

During the late 1960's an attempt was made to create a green belt comprising the farms and the areas containing larger plots. This attempt did not get off the ground due to the enormous costs of compensation which would be involved in recompensing the landowners for their loss of development rights.

In an attempt to retain the "green belt" image, proposals were put forward in 1970 for reconciling development pressures and the preservation of these areas. These proposals hinged around the introduction of cluster and group housing concepts and were at first in principle, well received by the Constantia residents. When it came to actual implementation, however, enormous pressure was brought to bear to prevent them on the grounds that they did not comply with the proposals as advertised and moreover that they impinged on the historic homesteads of Hope of Constantia and Nova Constantia. As a result of this pressure, the Hope of Constantia scheme had its approval withdrawn and the Nova Constantia scheme was drastically curtailed through the acquisition by Council of the land comprising all but the first approved stage.

During the late 1960's and early 1970's, Constantia was subjected to the introduction of decentralised shopping complexes, the construction of the Simon van der Stel Freeway and the zoning of land for high density (or general residential) purposes and further cluster schemes at Forest Glades and Alphen Mews. These, together with the growth of single residential development and its accompanying infrastructure (water and sewerage reticulation and land acquisition for future school sites) have effectively committed the Valley to its adoption of a dormitory suburb role.

4.0 PAST AND PRESENT POLICY FORMULATION

Before describing and analysing the existing situation in which Constantia finds itself, it is important to review the various ideas and policies which have been considered and implemented in the past; for they have served to shape not only what exists on the land today but also the future pattern and extent of development. Moreover, they give a very real picture of what public sector intervention can or cannot achieve in controlling suburban development on the urban fringe.

4.1 Control measures prior to 1960 (1)

Despite efforts by local residents to elicit public control over the ever-increasing pattern of subdivisions which began in the 1920's, for a considerable period little was done other than a few minor and unsuccessful attempts.

(1) D.C. Report No. 1

The townships ordinance of 1934 served to adequately control the establishment of townships but made no provision for the effective control of minor subdivisions. It was not until the land boom period following World War II that any positive intervention took place.

In 1946 the policy was adopted by the Divisional Council and the Joint Town Planning Committee that no subdivisions less than 2 acres would be permitted. This blanket "zone" did little to stem the cutting up of land and furthermore took no cognisance of the topography and made no provision for road networks, public open space or school sites. Moreover, the 2 acre plots were invariably too large for normal residential purposes and too small for viable farming purposes.

The lack of control on the fringe of all the larger towns and cities became more obvious with the passing of time and culminated in the Tomlinson Report on Smallholdings in 1955. Arising from this report, an embargo was placed on Constantia-restricting all subdivisions to 10 morgen; this being amended two years later by the prohibition of any subdivision less than 25 morgen without the consent of the Administrator. At the same time the Divisional Council was directed to prepare a master plan for the co-ordination of subdivisions in the Valley. This plan was duly prepared and advertised in 1958.

The plan went beyond a broad blanket zone and divided the area into various neighbourhoods - each with its own density zone. The higher density zones abutted the existing development in the east; while the land furthest from the municipal boundary, in which the larger farms existed, was zoned for agricultural purposes for a period of 15 years.

As a result of objections received to this plan, which mostly revolved around the "freezing" of the agricultural zone, the Administrator determined in 1960 that the "agricultural" zone should be redesignated as "undetermined" in which applications for subdivision were to be treated on their merits. The need for a more comprehensive plan led to the drawing up of Council's first meaningful scheme for the control of settlement in Constantia - this was completed in 1963 and approved by the Administrator in 1964.

4.2 The 1963 scheme. (1)

This scheme was not intended to encourage development, but was drawn up in an attempt to control development in a fashion that would retain the existing character of the Valley.

(1) D.C. Report No. 1

The Cape Divisional Council is referred to in various ways in the text; namely "Divisional Council", "D.C.", or simply "Council". The Single Residential density zones are depicted on Figure 3 at the end of Section 4.

Consequently, it made no land use zoning proposals as such but was purely based on density controls. These controls were strictly determined by topographical features; the major elements of the plan being to preserve the stream-lines as public open space strips or for market gardening purposes, and to channel the higher density plots into the valley enclosures - thereby restricting the steeper slopes and ridges to low density development.

It was stressed that Constantia was still a peri-urban or fringe area and should be encouraged to remain so, while at the same time recognizing that forces of development were inevitable. Because it was considered that rigid land use zonings could encourage speculation in land, a more flexible approach was advocated whereby each application would be considered on its merits and in terms of the density zoning proposals put forward. These zonings, together with the road and open space network formed the essential framework of the plan and were to be strictly adhered to.

It was not intended that the plan should dictate the way in which each parcel of land was to be subdivided; instead, a "bottom drawer" development plan was to be drawn up for each area indicating the desired pattern of subdivision, together with a long term road and open space reticulation. These development plans were to be non-statutory, reasonably flexible and were to be used simply as a guideline for future development. They have in fact proved very useful in co-ordinating piecemeal development and particularly in formulating neighbourhood road networks, and open space linkages.

but The framework underlying the 1963 scheme was based on an extremely sensitive appreciation of the environmental attributes of the Valley and the long term impact of suburban development. It laid down the basic form of development which characterises Constantia today and in retrospect can be described as having been based on sound judgement. The fact that certain problems have subsequently been experienced does not detract from the fact that Constantia would today be considerably worse off, in terms of its environmental beauty, in the absence of the 1963 scheme. Certain proposals deserve to be more fully elaborated for some of them remain extremely pertinent to existing development control and the preservation of the environment.

The gradation of density zones (or the size of subdivisions) was based, partly on a general falling-off in densities from the more built-up area in the east to the farmlands and historic homesteads in the west, and also partly on the fall of the land. Where slopes were steeper than 1:7 or 1:10 and where soil stability was suspect, subdivision sizes were limited to 2 acres in extent. Apart from the danger of surface movement and erosion, the construction and maintenance costs of roads and retaining walls were likely to be prohibitive on these steeper slopes and could prove an embarrassment in the long run to the local authority. Moreover, road construction was likely to scar the landscape.

One acre plots were earmarked for the less steep slopes; approximately on gradients between 1:10 and 1:20. In this way the visual character of development on the ridges was to be as unobtrusive as possible - with plots being large enough for vegetation to camouflage housing development. Smaller subdivisions would then be permitted on the flatter land in accordance with the gradation of density zones.

These density zones with their underlying subdivision sizes remain largely intact. An important factor referred to in the scheme report was the recognition that "the 2 acre plots could, in time, be subdivided once the opposition to the subdivision died down, as existing residents moved out of the area or as economic conditions changed".

It was recommended that the existing and potential market gardening which followed the fertile alluvial beds be kept in a state of productivity for as long as possible. Ultimately they would become public open space; but even after acquisition by Council, they should be leased out for market gardening purposes until such time as they were needed for open space purposes.

The area between Southern Cross Drive and Constantia Main Road comprised extremely steep land, was well endowed with indigenous shrubs and trees and constituted a ready-made sanctuary for wild birds. It was recommended that this area should be acquired by Council for its development as a nature reserve for birds and indigenous plants and shrubs. It was further recommended that careful and gradual eradication of alien vegetation should take place and the cleared areas be used to propagate nursery plants for newly planted indigenous shrubs.

It was felt that no residential subdivisions should be permitted on land above contours varying from 500-700 feet. Such subdivisions would burden the local authority with heavy construction and maintenance costs. For this reason, as well as aesthetic arguments, it was recommended that these slopes should only be used for forestry purposes or as public amenities. If for the latter, limited access points were to be provided and trails established so as to control pedestrian movement.

With regard to continued farming practices, the scheme had little to offer in the way of resolving the problems facing farmers; namely the declining viability of vineyards and the very real labour problem. It was suggested that this was the concern of investigations by agro-economists; but that, in any event, as an alternative to viticulture - poultry and pigs were not to be permitted. Chicken batteries were considered to be more appropriate to an industrial area than to a farming environment.

In 1969 the first comprehensive land use zoning plan was prepared to complement the 1963 single residential density zones. Other than formalising the single residential zones, this plan simply reflected the already authorized zonings and was amended from time to time as rezonings took place. Nevertheless, in some respects it contradicted the intention of the 1963 scheme in that the two plans together served to encourage a new spate of minor subdivisions and in effect took the form of a speculators guide.

4.3 The 1970 Scheme (1)

The 1960 attempt at resolving objections from farmers to the "freezing" of the agricultural zone by its redesignation to "undetermined" failed to appease the affected landowners. Despite the fact that all applications were to be considered on their merits, the attitude adopted by the authorities to applications for subdivision in this area was negative and the land remained in effect "frozen".

The area affected by these restrictive measures included not only the major farmlands but also some of the areas comprising 1 to 2 acre plots - all of which comprised an area referred to as the Green Belt. While of undisputed benefit to all those not directly affected, the Green Belt concept resulted in enormous imminent claims for compensation which led to the authorities dropping the present proposal and looking for some alternative.

Consequently, when an application was lodged for the establishment of a township on the Belle Ombre estate, Council was asked to investigate the possibility of permitting some alternative forms of usage on land zoned "undetermined". Joint proposals for the Green Belt area were put forward by the appointed Town Planning Consultant (Prof. Beinart) and Council's planner in 1970.

As with the 1963 scheme, these proposals were highly sensitive to the dictates of the environment, but went further in that positive guidelines were put forward for alternative strategies of striking a balance between preservation and development.

Although the 1970' scheme was never fully approved, some of its proposals were carried out - but in some instances the underlying objectives were not altogether adhered to and gave rise to much opposition.

The Green Belt area was divided into three separate and identifiable pockets for which specific recommendations were put forward. The essence of these proposals were that in order to best achieve the implicit aims of a green belt (on the assumption that public land or development rights acquisition was not a viable proposition), an alternative to a blanket low density single residential zoning must be sought.

(1) Divisional Council reports Nos. 2, 3 and 4.

The former Green Belt area, together with some of the proposals are indicated on Figure 3.

The various townships referred to are indicated on Figure 2 at the end of Section 4.

The stated aim of the plan was to retain as much of the natural beauty and "openness" as possible, while at the same time permitting the owners of subdivisible land to derive a degree of benefit from residential development without it being too conspicuous.

The alternative proposals were therefore based on permitting development on a limited land area only - to be sited in selected pockets where it would be effectively concealed by contours and folds in the land. To compensate for this limited coverage, high density forms of development would be permitted such as cluster and group housing, as well as maisonettes in certain special cases. This development would be subject to a two-storey height restriction. Ridges and valley bottoms would be preserved as part of the obligatory open space provision for the development and, wherever possible, these reservations would be linked together to form a continuous open space network.

The previously "undetermined" areas were to be rezoned to "rural" as it was anticipated that existing farming operations would continue, but that when pressures to change the use occurred, development along the above lines would be permitted subject to a fully comprehensive plan being drawn up to the satisfaction of the authorities. The remainder of the property would remain zoned for rural purposes and, apart from continued farming practices, the land could also be used for golf courses, riding purposes or country clubs. Alternatively, it could be acquired by Council for other amenity purposes such as public open space or mountain reserves.

2. Specific proposals were put forward for the development of both Belle Ombre and Silverhurst estates. These proposals centred on the retention of the valley bottoms as public open space with residential development surrounding it. An internal road circulation pattern with limited access to the surrounding road network would form the major structural element, and development would be based on a gradation of plot sizes in relation to the slope of the land and proximity to the open space. To compensate for the greater than normal provision of open space, higher density forms of housing such as maisonette development in Belle Ombre and cluster housing in Silverhurst were recommended.

The greater variety of housing choices would serve to break away from three undesirable trends which characterized the blanket large-lot zoning in Constantia, namely, monotony of development, plots which are too large to be effectively maintained and the fact that exclusionary practices prevailed. With regard to the last factor it was felt that Council was obliged to cater for a mix of income groups which would lead to a more balanced community.

Whereas the proposals for Belle Ombre were adopted, those for Silverhurst were not. In fact the one half of Silverhurst has subsequently been subdivided into relatively small plots with only a narrow strip along the stream line being set

aside for public open space - a pattern of development which bears little relationship to that recommended.

4.4 The 1976 Scheme (1)

The opening paragraph of the revised scheme read as follows:

"Constantia is undoubtedly one of the finest living environments in the country; portions of the Valley still constitute prime farming land (28%) and the Valley's historic legacies are still very much in evidence. In short, it is a very special area, worthy of special consideration."

In recognition of the above, the scheme represented an attempt to preserve the character and environmental qualities of the Valley in the face of increasing development pressures. It was recognized that the scheme could not provide the ultimate solution in reconciling the conflict between preservation and the prevailing economic forces and social pressures; but it was anticipated that it would, to a large extent, ameliorate this conflict situation.

The observation was made that "ultimately, it comes down to the hard fact that preservation implies a monetary cost, and this cost will have to be borne (directly or indirectly) by the ratepayers."

The major proposals put forward involved the preservation of the farmlands and other large properties not yet committed to residential development, and the identification of certain pre-selected sites where Special Residential (cluster or group housing) development could be considered.

An important aspect of this scheme revision was that, contrary to Council's usual practice, positive attempts were made to present and explain the proposals to the residents. During the period of advertising a model with all the relevant plans were open to public viewing at a publicised venue in the Local Area, and Council officials were on hand to explain the proposals. In addition, a well-patronised public meeting was held to further explain the underlying reasons behind the proposals.

The scheme was advertized in January of this year (18 months after its adoption by Council) and a large number of objections were submitted. These objections have resulted in the reconsideration of the proposals by the Town Planning Section and, if supported by Council, will mean the virtual nullification of the major proposals put forward.

The proposals are set out as follows, followed by the objections and the Town Planning Section's recommendations (2).

-
- (1) Divisional Council report No. 6 The proposals are shown on Figure 4
 - (2) A report on the reconsideration of these proposals, in the light of the objections received, was completed at the end of August and was due to be considered by Council at the end of September.

4.4.1 Preservation of the farming Areas

The intent of the scheme was that privately-held properties should maintain their status quo. To make farming practices more viable, it was proposed that these properties be excluded from the Local Area, thereby affording the owners some measure of rates relief.

It was anticipated that this proposal would not only decrease the costs of farming, but would also minimise uncertainty and do away with the false expectation of development rights. The visual qualities and rural atmosphere of these properties would thus be retained. It was considered that the long-term social cost of losing these farms to development would outweigh the loss of rates income derived from these properties and which have to be recovered from the balance of the property owners in the Local Area.

No legal problems were anticipated in regard to this proposal; for there would be no change in zoning as such and therefore no loss of development rights or decrease in the value of the land.

The proposal amounted to a holding measure to preserve the environmental qualities of the land, without imposing too much hardship on individual property owners. In this way, it was anticipated that the previous "green belt" idea could be resuscitated.

Despite the rates relief incentive, opposition to the proposal stemmed from all the affected landowners. The reason for objecting being the fact that if these properties were to be excluded from the Local Area they would then be controlled under Act 70 of 1970, as amended (1). It was claimed that the tax relief benefits were minimal and would in no way compensate the landowners for the virtual "freezing" of their properties for any use other than farming.

In view of the strong objections submitted and the acknowledgement that the amount of tax relief would do little to lessen the hardships experienced by these landowners, it was recommended to Council by the Town Planning Section that the proposal be dropped. It was further recommended that, as a matter of priority, consultation be held with all the relevant bodies (governmental and other) with a view to seeking some alternative means of preserving these properties while at the same time lessening the hardships experienced.

It is therefore patently evident that the present situation is identical to that which prevailed prior to the 1970 scheme; where the proposal was put forward for introducing into these areas high density development in the form of cluster and group housing.

-
- (1) The amendment to this Act gives considerable power to the Department of Agriculture and applies to all land outside Local Areas and municipalities. No subdivision of land for purposes other than farming may be granted without the prior permission of the Minister of Agriculture. The stated views of the Department with regard to the Constantia Valley are that this is prime farming land and should be preserved at all costs.

4.4.2 Special Residential Zoning

In the period following the 1970 scheme, three cluster housing schemes were constructed. None of these, however, could be described as having faithfully carried out the prescriptions of the 1970 proposals. The accent in all three was on development optimisation rather than environmental enhancement. Their location was allied to existing built-up areas, rather than the more open rural areas; and the provision of open space and visual concealment failed to comply with the intentions of this concept.

With the submission of a number of additional applications for cluster and group housing, much opposition arose from the residents and the Constantia Property Owners Association (CPOA). The basic objections to this form of development centred on the following factors:

- "It would destroy the character of the Valley, particularly where associated with areas of historic interest or exceptional natural beauty.
- It would cause a strain on services such as roads and schools, thus detracting from the quality of services for the existing residents.
- It would form a precedent which would be difficult to control.
- It would be an imposition on existing residents in that the quality which governed their choice of a place to live would be destroyed. It would therefore lower the value of adjacent properties.
- It had been allowed to proceed without adequate public hearing."

As previously mentioned, the approval of the application (Hope of Constantia) was withdrawn and the scale of development of the Nova Constantia Scheme was heavily curtailed through Council's acquisition of the land not already committed.

All further applications were effectively blocked by Council, pending further investigations into pre-selecting certain sites where such development would not only be suitable, but would minimise the above factors. The selection of these sites was based on their compliance with a set of objective criteria.

Firstly, these criteria constituted certain prohibitive factors; such as south-facing slopes of greater than 1:6 gradient, undue visual exposure, marshy land, non-availability of sizeable adjacent areas of public open space, potential intrusion upon the immediate surroundings of historic homesteads and non-availability of sewerage reticulation in the long-term.

Secondly, a more positive (if intuitive) criterion was applied; that of inherent desirability for cluster or group housing. This took into account various factors such as the development potential offered by the site in terms of physical environment, the existing use of the land, the surrounding natural environment, the impact such development would have on adjacent uses of land and on the general area, and the relationship with other potential and existing cluster sites.

On the basis of the above criteria, certain sites were proposed in the 1975 scheme for the optional purpose of developing group or cluster housing. The idea was that the landowner or developer would have the option of carrying on the existing use of the land, of developing it according to its underlying Single Residential density capacity or of developing it for Special Residential purposes - subject to the payment of an enhancement levy.

The number of cluster or group units to be permitted was based on a doubling of the single residential capacity applicable to the site. Furthermore, a rough guide or diagrammatic development plan for each site was drawn up to indicate what portion of the site could be developed and what portions should be set aside for open space. However, these development plans would be flexible; and the developer would be given the opportunity of expressing his own ideas.

Nevertheless, certain control measures were to be strictly adhered to. These included landscaping of the sites (from both internal and external visual aspects) and the visual and functional intergration of on-site private open space with the adjoining public open space.

With regard to control over the quality of the design layout and construction of the units, it was anticipated that by permitting more schemes to be put on the market, natural competition would serve as the most effective control measure.

Very strong objections were submitted in respect of both specific sites earmarked for Special Residential development and the concept in general. The reasons for objecting were much the same as those listed above.

It was recommended to Council that all the proposals be dropped; with the exception of two in the Tokai area which were not objected to. This again has resulted in a stalemate situation where Council still considers that the environmental benefits to be gained from this form of development far exceeds the side-effects of increased density.

4.4.3 Single Residential Zoning

It was observed that in the 1960's most of the Single Residential development had been concentrated in Constantia proper

which consisted primarily of the lower density zones. The development trend had, however, been changing since 1971, and most of the new development land now shifted to the higher density zones in the Tokai neighbourhood.

A further observation was made that there was an over-supply of lower density-zoned land and it was predicted that based on the extrapolation of the average annual rate of development, there would soon be a shortage of land in the higher density zones. It was anticipated that the proposed Special Residential sites would serve to take up some of the demand for the smaller and medium-sized plots which fell in a comparable price range.

Nevertheless, apart from certain anomalies in the demarcation of density zone boundaries and the minor adjustment to the minimum plot size in one of the density categories, no major changes were proposed.

The majority of objections were submitted against the fact that no changes had been proposed and that no provision had been made for the hardships experienced by the large plot-owners. The costs of upkeep and unavailability of suitable labour made it impossible to maintain the large gardens; and furthermore, because of the lack of demand for these large properties, their resale value was being considerably lowered. In some cases sale prices were lower than the initial purchase price.

In view of these objections, a rough analysis was undertaken of the demand and sales trends of these larger plots. Various indicators verified the claims made by the objectors and on this basis it was recommended to Council by the Town Planning Section that a lowering of the minimum subdivision size be permitted in an area where all the property owners supported further subdivision.

4.4.4. School Facilities

It was observed that no schools (with the exception of one private school) had as yet been provided. An analysis of the demand for schools based on estimated existing and potential number of pupils was carried out. On the basis of this analysis, which treated the Local Area as four separate "catchment areas", it was determined that an urgent need existed for at least one primary school. The number of sites already set aside for school purposes was considered adequate.

4.4.5 Shopping

Based on an analysis undertaken, there appeared to be a gross overprovision of land zoned for commercial purposes. The analysis was based on an estimation of the total floor

space required to serve the shopping needs of the existing and ultimate population of the Local Area; which, for convenience, was separated into the Constantia and Tokai areas. The results of this analysis indicated that the existing Blue Route and Tokai shopping centres served a regional function; and that the entire Valley's existing and potential population fell within their effective catchment area - as determined by competing shopping centres.

There appeared therefore, to be no justification for the envisaged development of the Constantia shopping centre (previously referred to as the "Cleghorns" centre) (1), although a slight expansion of the present Glenstantia centre could prove viable even at the present time. It was suggested that alternative uses might serve a useful purpose and, in this connection, it was pointed out that to date very few job opportunities (other than those allied to shopping) existed in Constantia.

It was contended that a demand would exist for local convenience stores, as the density of development increased. However, it was pointed out that it was not Council's function to determine the need or location of these sites and that the initiative should be left to the entrepreneur to decide when or where such rezonings should take place.

4.4.6 Services and Communications

The only proposal in this regard was that, to cater for future metropolitan traffic movement demands, a site abutting the Simon van der Stel Freeway was earmarked for future "Park and Ride" purposes. Sited in a convenient location to tap the commuters from not only the Constantia Valley, but also the population lying to the east, west and south of the Local Area; this facility would provide a rapid-transit bus service to the Central City.

4.4.7 Recreation and Historic Homesteads

While an integrated public open space system was almost fully linked, long-term proposals for the integration of this system with a pathway system connecting the Forest Reserves and Historic Homesteads were contemplated. In this connection it was suggested that the relevant bodies be consulted on preliminary ideas for its effectuation.

It was further suggested while the preservation of the historic homesteads was adequately controlled by the National Monuments Council, future public access to these homesteads should be considered. Furthermore a "preservation clause" should be imposed on sections of Rhodes Drive due to its attractiveness as a scenic drive.

(1) This site (on which the existing Glenstantia Centre stands) was purchased in the 1960's and represented what was to have been the first example of a decentralized shopping centre in the Peninsula.












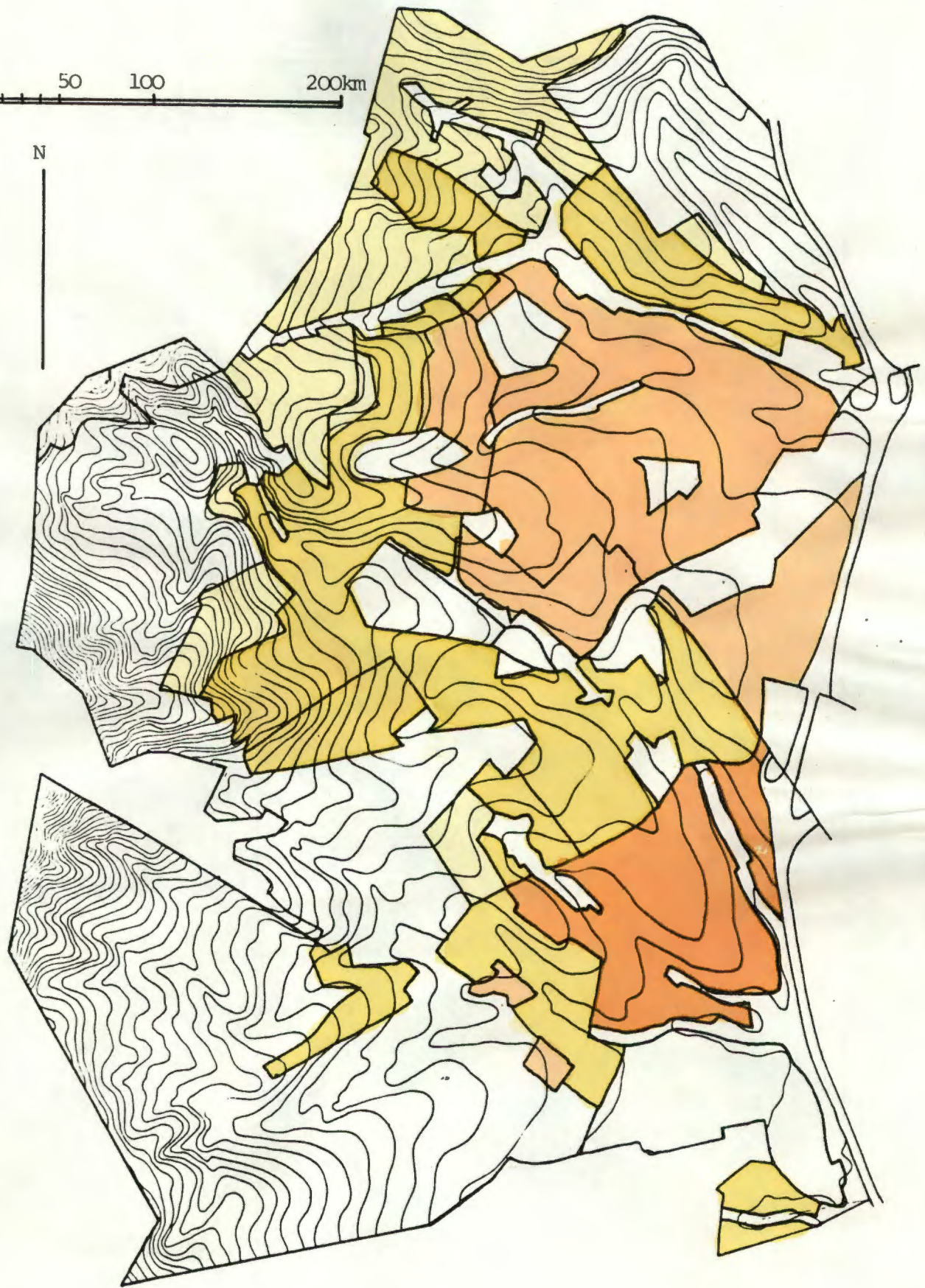
- | | | | |
|---|---------------------|---|-------------------|
|  | Single Residential |  | Public Open Space |
|  | Special Residential |  | Hotel |
|  | Rural |  | Cemetery |
|  | Commercial | | |
|  | Civic Centre | | |
|  | Education | | |

FIGURE 2 : LAND USE ZONING

0 50 100 200km

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



-  8000 m²
-  4000 m²
-  2400 m²
-  1350 m²

FIGURE 3 : SINGLE RESIDENTIAL DENSITY ZONES.



FIGURE 4 : THE 1976 PROPOSALS.

5.0 CONSTANTIA TODAY (1)

In describing and analysing the form and pattern of development (and "non-development") which exists in Constantia today, it is first of all necessary to consider the Valley in its metropolitan context. For what has happened in the Valley in the past, and what is likely to happen in the future, is largely determined by forces of a regional or metropolitan nature.

Thereafter the existing situation will be dealt with as broken down into eight separate components; residential, commercial, farming, the environment (both natural and built), recreation, the South Peninsula Mountain Reserve, public infrastructure and, lastly, public-private sector interrelationships. Where relevant, the components will be analysed in relation to the various forces which have been instrumental in determining its existing pattern and form, and present trends will be analysed to determine the likely future patterns.

Emphasis will be given to the role of Constantia as a dormitory suburb and as an area of exceptional environmental beauty; and particularly as an area subject to strong pressures typical of an urban fringe zone. The major problem areas will be touched on and will be more fully assessed in Section 6.0.

5.1 Metropolitan Context

The historic development pattern of Metropolitan Cape Town is strongly characterised by the two major axes of development; namely southwards and towards the east. The former axis has become known as the southern suburbs, while the latter is referred to as the northern suburbs. The development pattern is demonstrated in Figure 2.

The first growth away from Cape Town, took place along the roadways leading to the farming area in the Constantia Valley and eastwards towards present-day Bellville. Nodes of development grew up at vantage points along these routes. Subsequent development was concentrated around these nodes and was given a considerable boost by the construction of rail lines, the development of port facilities at Simonstown and the opening up of the interior. Development also began to take place between the two axes. (The ensuing period saw urban expansion as a process of infilling and consolidation of more land around existing development).

The location of the study area on the fringe of this suburban expansion and its subsequent intrusion into the Valley is clearly depicted in Figure 5. Its relationship to the built-up area of Metropolitan Cape Town and to the Peninsula Mountain Chain is indicated in Figure 6, and this emphasizes its vulnerability in the face of further suburban encroachment.

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- (1) As previously stated, the study area comprises only that portion of the Valley which constitutes "Constantia proper", and which is indicated on Figure 1. Photograph No. 1 shows the Constantia Valley as it was in 1961. The overlay shows the existing situation, and also indicates the various place names etc. referred to in the text.

The population of the study area at present only comprises 1% of the total metropolitan population, yet the study area covers approximately 6% of the total built-up area. This emphasizes the low form of residential density which exists in the Valley.

Constantia's role as a dormitory suburb is dictated partly by its location and partly by its environmental attributes. The suburbanization of the Valley has taken place as a logical progression of the historical growth of the metropolitan area and, more specifically, the outwards expansion from the southern suburbs "corridor". Its environmental attributes have determined its potential as an extremely high quality residential area; and this factor resulted in its being typified by a certain degree of leapfrog development in its early stages.

In addition, it comprises the most suitable land for farming in the metropolitan area.⁽¹⁾ This factor, together with its topographical setting, its vegetation and the nature of development which has taken place in parts, gives it an additional role - that of great scenic beauty.

With strong forces of suburbanization vieing with equally strong forces of preservation, the study area is in a particularly vulnerable position. No other area in the metropolitan area experiences such strong conflicting forces. Moreover, the study area displays none of the "repelling" forces such as various state institutions and services as are found in many other areas on the urban fringe.

There is no data available to indicate the form and strength of its linkages within the central city and the rest of the metropolitan area; but certain assumptions can be made based on the metropolitan-wide distribution of workplaces, shopping, educational and recreation facilities. Figure 7 indicates the distribution of these land uses.

It is evident from this figure that the population of the study area is dependent upon the rest of the metropolitan area for its economic livelihood in terms of workplaces and shopping facilities; existing shopping facilities in Constantia are limited and of a low-order nature, while the number of jobs are negligible. Although educational facilities are not indicated, with the exception of a single private school, all the schooling and university facilities are outside the study area. Recreation is in fact the only use for which the local population is not entirely dependent upon the rest of the metropolitan area.

Despite certain instances of shopping and, to a lesser extent, job decentralisation, the focus of the metropolitan area is still very much towards the central city, as facilitated by the transport network. The study area is well located with regard to the road network but, as Figure 7 clearly indicates,

(1) As determined by the Department of Agricultural Technical Services, the soils of the Constantia Valley display a very high potential for annual, and, especially perennial, crops.

it is not directly served by the rail system. A local bus service does exist but it is of limited importance and is oriented to the southern suburbs rather than the central city.

The local population movement is therefore almost entirely car-oriented, although it is unlikely that the greater majority would choose not to be. (1) The only indicator of linkage strengths is the peak-hour traffic volume. (2) On the assumption that traffic moving through the study area via Constantia Main Road and Southern Cross Drive (from Hout Bay) and via Spaanschemat River Road (from Tokai and Ou Kaapse Weg) has the same destination as the Constantia traffic; it is found that 51% of the total volume leads in the direction of the central city via the Freeway, and the remaining traffic filters through the three main exit roads to the southern suburbs.

The interpretation of the above percentages must take into account various factors. Peak-hour traffic volumes (particularly in a case such as this) do not reflect only travel-to-work patterns. Because of the lack of schooling facilities, many trips are devoted solely to taking children to school. The fact that 54% of the pupils attend schools which would not be reached via the Freeway, indicates that a large proportion of eastward-bound traffic has nothing to do with travelling to work. (3)

Other factors which could serve to distort the pattern are the possibility of driving to the nearest station and catching a train to work. Similarly, many of the trips via the Freeway are likely to be directed to the university, and many others could be devoted to taking children to schools further up the line.

Despite the absence of confirmatory data, it is reasonable to assume that the Constantia population is mostly dependent on the central city as the major work-place. The fact that the Constantia residents fall within the upper-income group which is generally associated with the tertiary and quaternary forms of employment (concentrated in the central city) serves to support this assumption.

The pattern of decentralised shopping facilities is indicated in Figure 7. Apart from the complexes such as the Blue Route Centre, the Tokai Centre, Cavendish Square (in Claremont) and the Kenilworth Centre; both the Claremont and Wynberg shopping centres provide a wide range of facilities. Nevertheless, with the possible exception of Cavendish Square, high-order shopping is still predominantly carried out in the central city.

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- (1) This assumption is supported by the fact that, as indicated in Figure 8, the Constantia population falls within the upper-income bracket which as a general rule is allied to private rather than public means of transportation.
 - (2) The average peak-hour volume was determined from the 7-9 a.m. period for 1974. The figures were obtained from the D.C. Data Bank.
 - (3) The pattern of school-going children is based upon a study undertaken by the Cape School Board in 1977.

Recreation linkages are widespread and, apart from the obvious emphasis on the coastline, are directed to pursuits within or on the borders of the study area; such as horse-riding, walking and climbing, or the more organised forms of recreation associated with the Gildale Sports Centre. In addition, it is to be expected that a fair amount of the residents look to the southern suburbs for other forms of organised recreation. Entertainment, also, is widespread; but is concentrated in the central city and the southern suburbs.

From the above, it is apparent that the Constantia residents are heavily dependent upon facilities provided outside of its boundaries and that its role in the metropolitan area is almost solely that of a dormitory suburb. In this regard, it is interesting to note that the local rate-payers do not contribute to the costs of providing and maintaining these facilities; other than the obvious fact that the considerable amount of spending power is channelled elsewhere.

The existing and future housing demand pattern in the metropolitan area bears little relationship to the supply. The demand for housing is very much concentrated in the lower income groups where an enormous backlog of housing provision exists. It is anticipated that the present focus of township development for this income group (in-filling, Mitchells Plain and also Atlantis) will have reached its capacity by 1990 and that thereafter additional land will have to be made available to cater for the growth in the population. (1)

Because of the very low family incomes of the majority of this income category, housing provision is largely provided by the public sector. The rate of housing construction, however, can barely keep up with the very high population growth rates, let alone diminish the housing backlog. (2)

In contrast, there is an oversupply of subdivided erven catering for the housing demand of the upper and middle income groups. (3) The distribution of these unbuilt-on plots is quite naturally seen to coincide with the outer suburban or fringe areas. It is anticipated that there is sufficient land already subdivided to cater for the housing needs of the upper and middle income groups for some years to come. Even when assuming that a 10% surplus of vacant erven is necessary ... "to ensure a sufficiency of choice and a realistic price level"; there is still no immediate need for additional land to be subdivided to cater for the needs of these income groups. (4)

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- (1) Cape Metropolitan Planning Committee, Draft Guide Plan, p.29
 (2) Ibid, p.28
 (3) This paradoxical situation is partly due to the government's Group Areas policy which prevents Coloured families of a higher income group from participating in the housing market in areas zoned for Whites only. It is due also to discriminatory practices with regard to salaries and education facilities. Nevertheless, despite governmental policies; the problem is to a very large extent, simply one of poverty.
 (4) Ibid, p.26

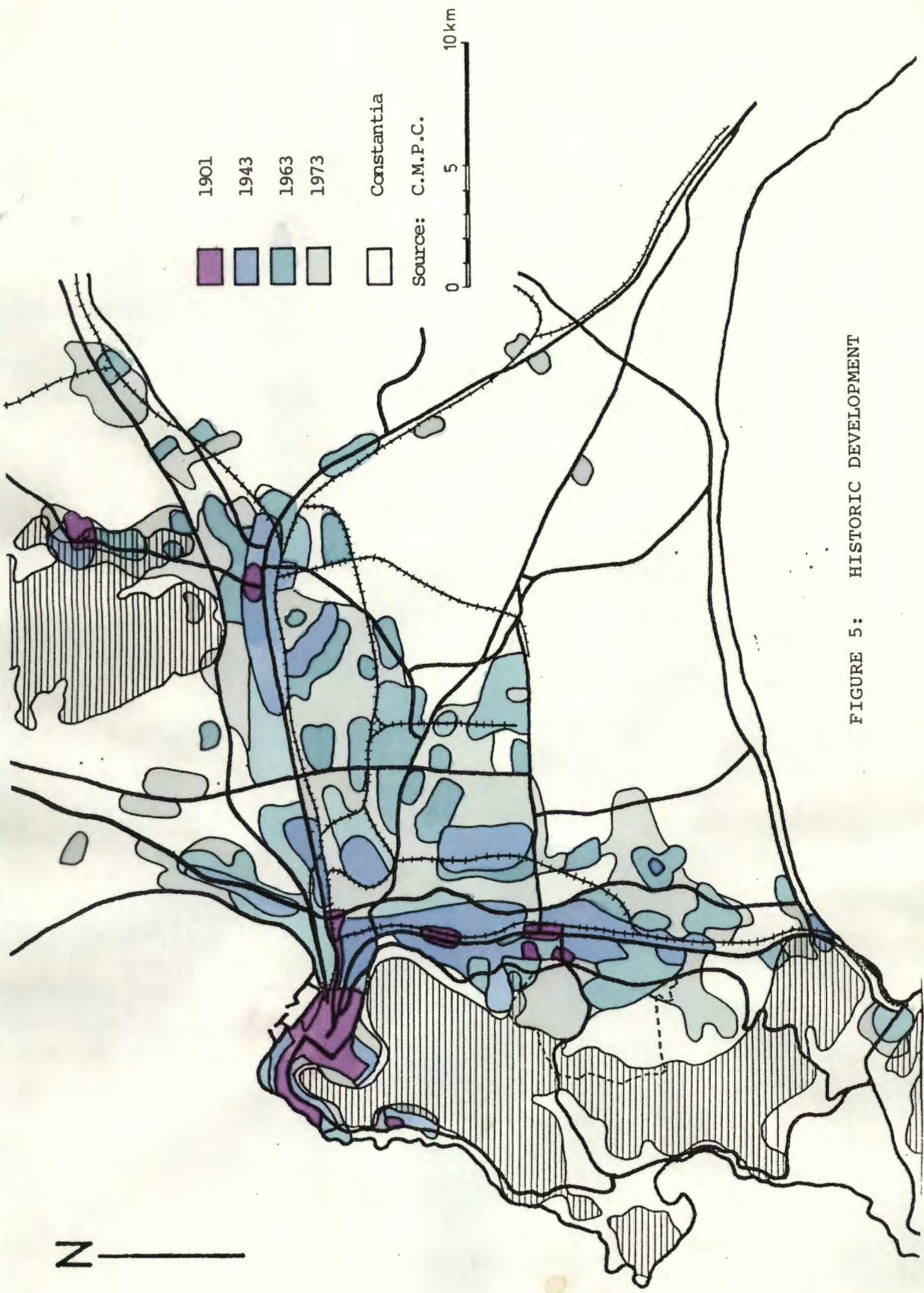
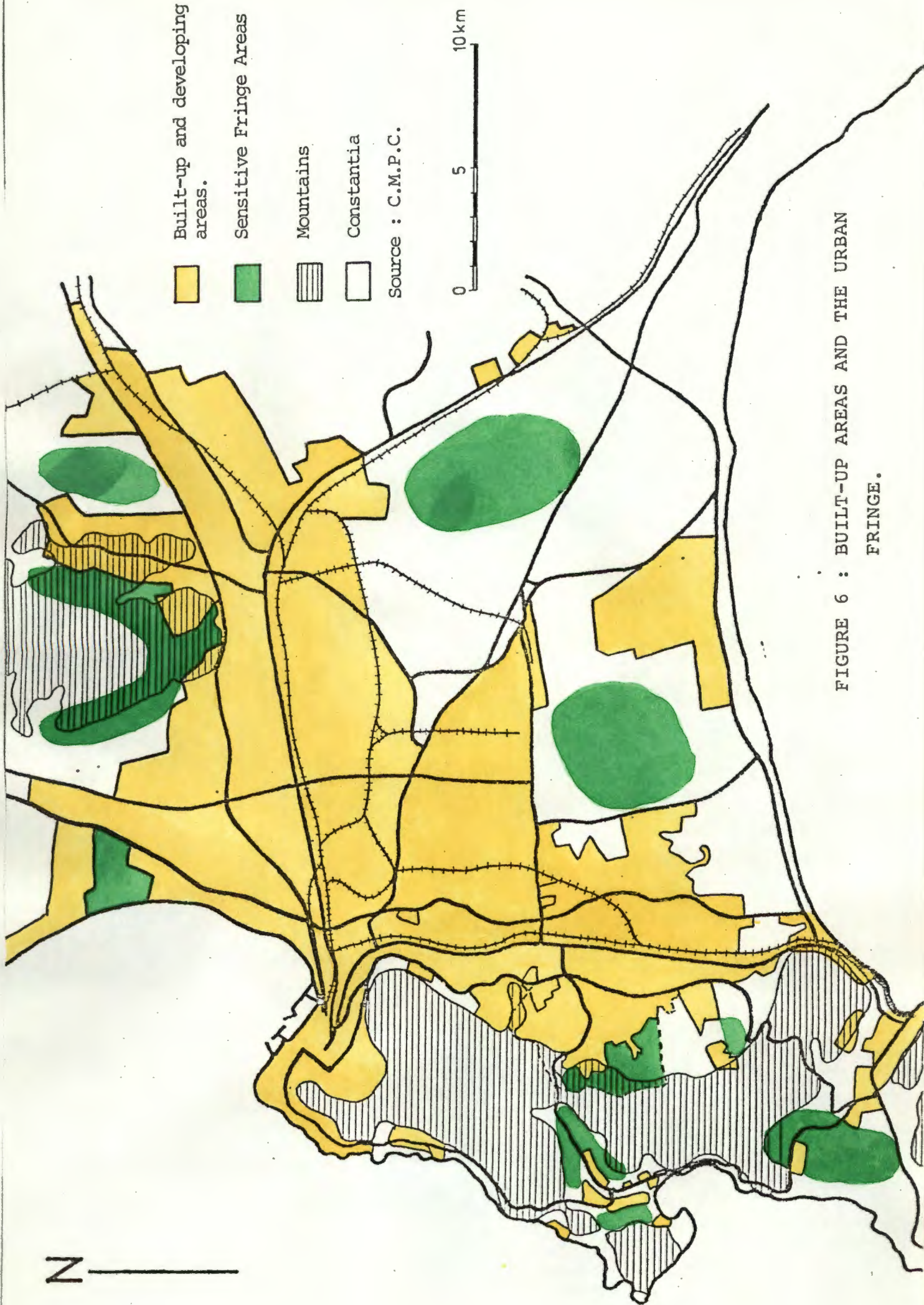


FIGURE 5: HISTORIC DEVELOPMENT



Built-up and developing areas.

Sensitive Fringe Areas

Mountains

Constantia

Source : C.M.P.C.

0 5 10 km

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FIGURE 6 : BUILT-UP AREAS AND THE URBAN FRINGE.

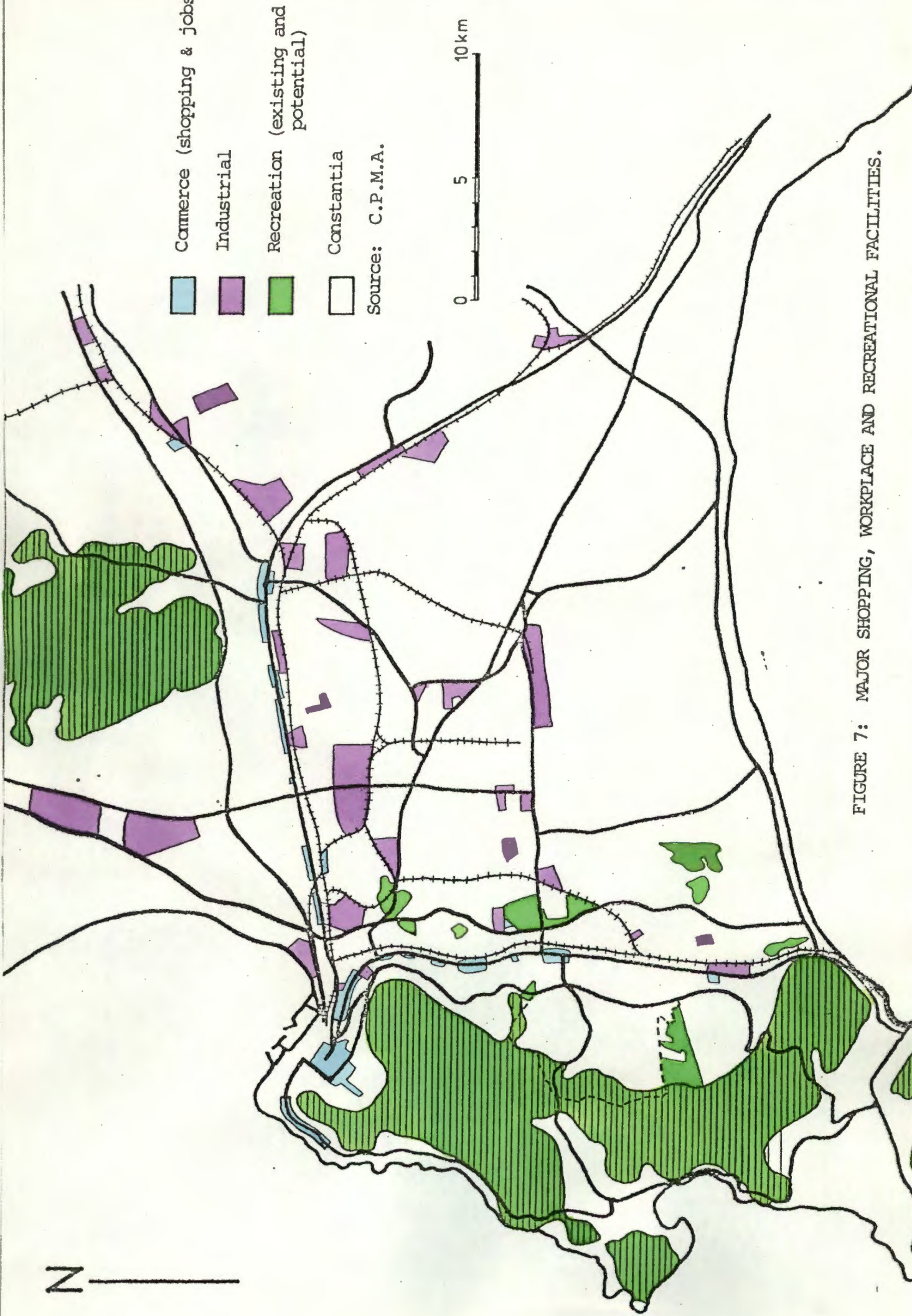


FIGURE 7: MAJOR SHOPPING, WORKPLACE AND RECREATIONAL FACILITIES.

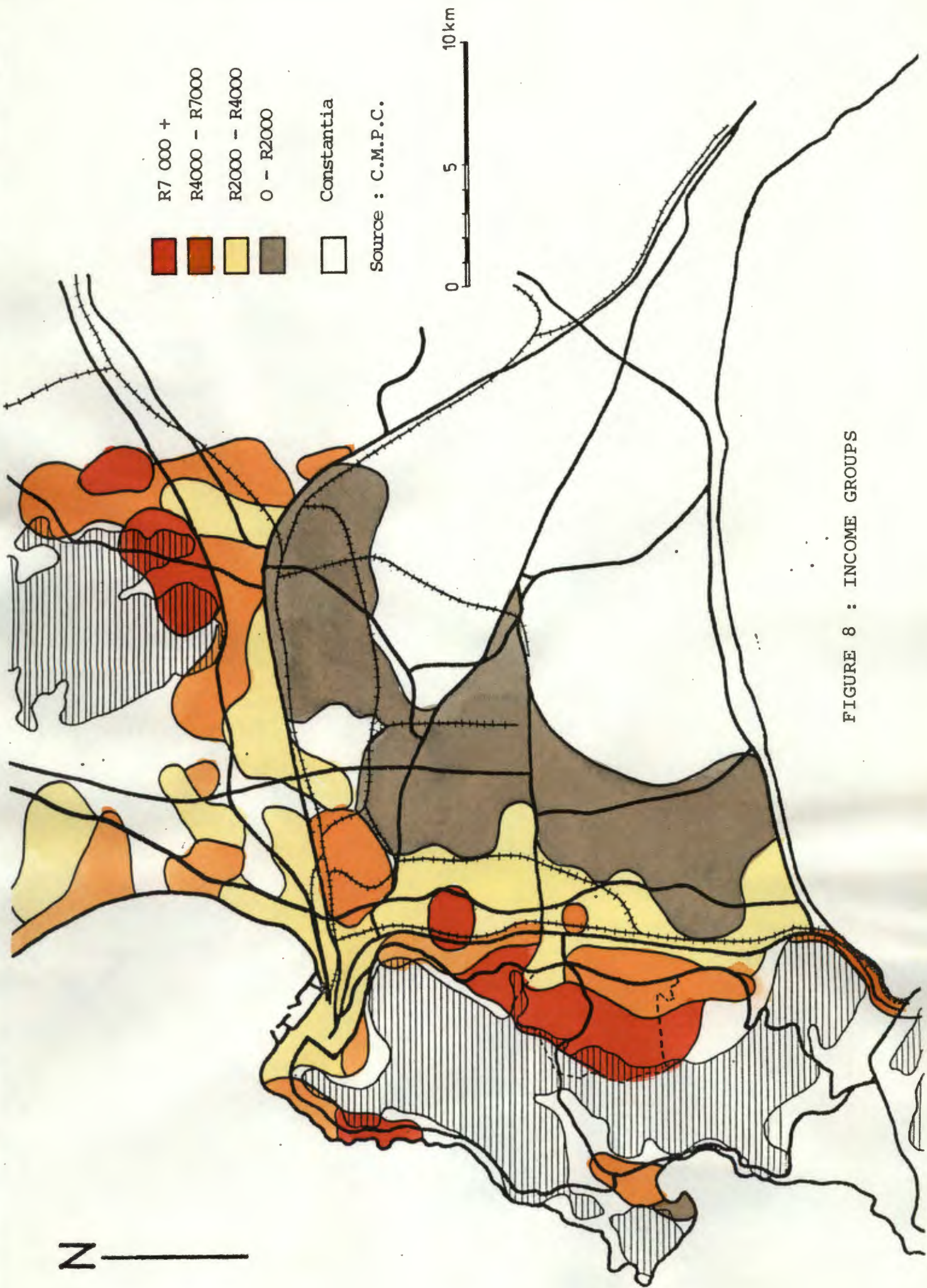


FIGURE 8 : INCOME GROUPS

The major problem found in the metropolitan area is that of a lack of housing and associated facilities, the extremely low welfare levels and the lack of opportunities open to the lower income groups. In view of this fact, it may seem paradoxical that this study should be concerned with an area which houses only the upper income group. On the face of it, it would seem that a more equitable distribution of incomes, welfare levels and opportunities should be sought and that the upper income private sector is quite capable of looking after its own interests.

This view is to a very large extent endorsed; nevertheless certain qualifications are made. Firstly, in the long term interests of both the society and the economy, it is maintained that a capitalistic form of economy is not only desirable, but necessary for the healthy development of the entire population - including the lower income groups. In any capitalistic system there will always be an elite minority who have achieved their position through their own efforts and enterprise. Not only is this made possible through a relatively free market system, but it is essential to the dynamic growth of the economy and the development of a healthy society that efforts be rewarded in full; and furthermore, that there will always be the attainable incentive of improving one's standard of living through one's own efforts.

Secondly, it is strongly maintained that the environmental attributes of the Valley (including the built-up area) constitute a metropolitan-wide asset which future generations can ill afford to lose.

5.2 The Residential Component

Whereas only 17 years ago, the major land-use component of Constantia would have been farming, today it is very much the residential component which predominates. This is made clearly evident by Figure 9 which depicts the amount of land and subdivision which has taken place since 1961.

With the exception of two relatively small cluster schemes and two hotels, this component comprises solely single residential housing.

The definition of single residential housing is self-explanatory and is governed by the regulation which determines that only one house per plot is permissible. (1)

(1) Exceptions to this rule date back to houses which existed prior to the introduction of zoning regulations.

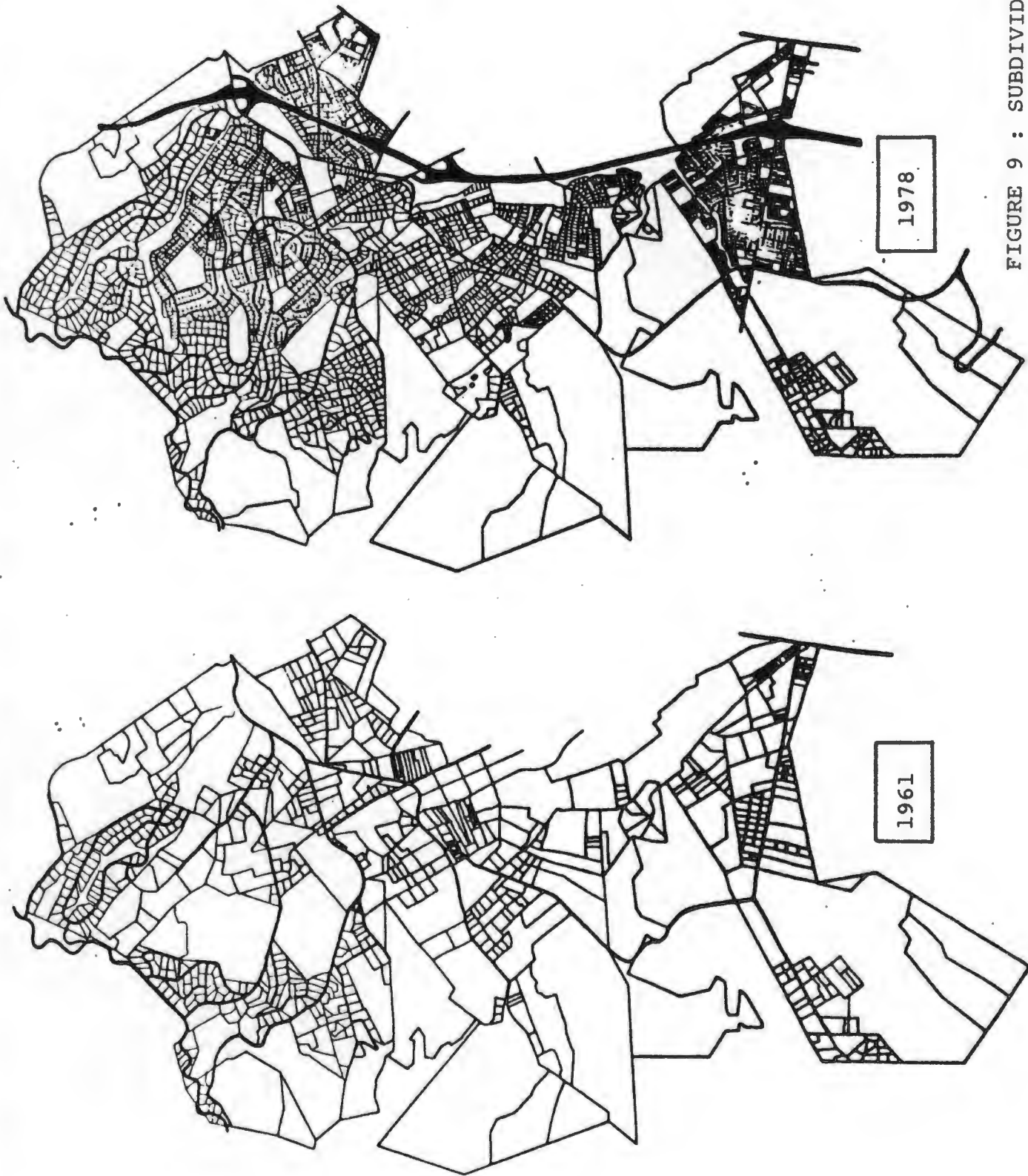


FIGURE 9 : SUBDIVIDED LAND

This component comprises 4 separate density zones which were pre-determined by the 1963 scheme. The minimum subdivision sizes in each zone or category are 8000 m² (2 acres), 4000 m² (1 acre), 2400 m² and 1350 m². The first two categories are referred to as the larger plots, while the last two are termed the medium-sized plots. Smaller-sized plots are found in Tokai and east of the Freeway; there being none in the study area.

5.2.1 Pattern of Development

As indicated on Figure 3, the density categories consist of pockets or zones, some seemingly isolated, decreasing in density from east to west. As described in Section 4.2, the density pattern is dictated by the topography and the slope of the land.

While most of the land comprises township development, minor subdivisions have also accounted for a large proportion of the subdivided plots. Furthermore, certain townships were subdivided according to a gradation of plot sizes - namely Belle Ombre, Constantia Vale, High Constantia Ext. 1 and, to a lesser extent, Silverhurst Ext. 1.

The breakdown of this component into the various plot size categories is indicated in the following table.

TABLE ONE - SINGLE RESIDENTIAL DENSITY CATEGORIES ⁽¹⁾

m ²	Existing Erven	Developed Erven	Vacant Erven	Zoned Potential	Capacity
1350	1221 (52%)	832 (55%)	389	249	1470 (51%)
2400	314 (13%)	150 (10%)	164	90	404 (14%)
4000	584 (25%)	396 (26%)	188	201	785 (27%)
8000	207 (9%)	147 (9%)	60	17	224 (8%)
TOTAL	2326	1525	801	557	2883

It is evident from the above table that more than half of the single residential development (both existing and potential) falls within the 1350 m² category. This category also comprises the most built-up area - as is evidenced in Table Two.

The 4000 m² category comprises the next largest zone, followed by the 2400 m², then the 8000 m² categories. Although the 8000 m² category comprises a large portion of the total area of Constantia, it constitutes only 9% of the properties - and thus also of the total population.

(1) The numbers refer to the number of plots, while the percentages refer to the breakdown of the total. "Developed erven" refers to the number of houses completed, while the zoned potential refers to those properties which have not yet been subdivided but which are zoned for residential development - the numbers referring to the estimated number of plots which could be obtained.

Table Two indicates the degree to which each category has been developed, both in terms of existing subdivided erven and the capacity which includes the zoned potential.

TABLE TWO - PERCENTAGE DEVELOPMENT BY DENSITY CATEGORIES

m^2	Existing Erven	Capacity
1350	68%	57%
2400	48%	37%
4000	68%	50%
8000	71%	66%
TOTAL	66%	53%

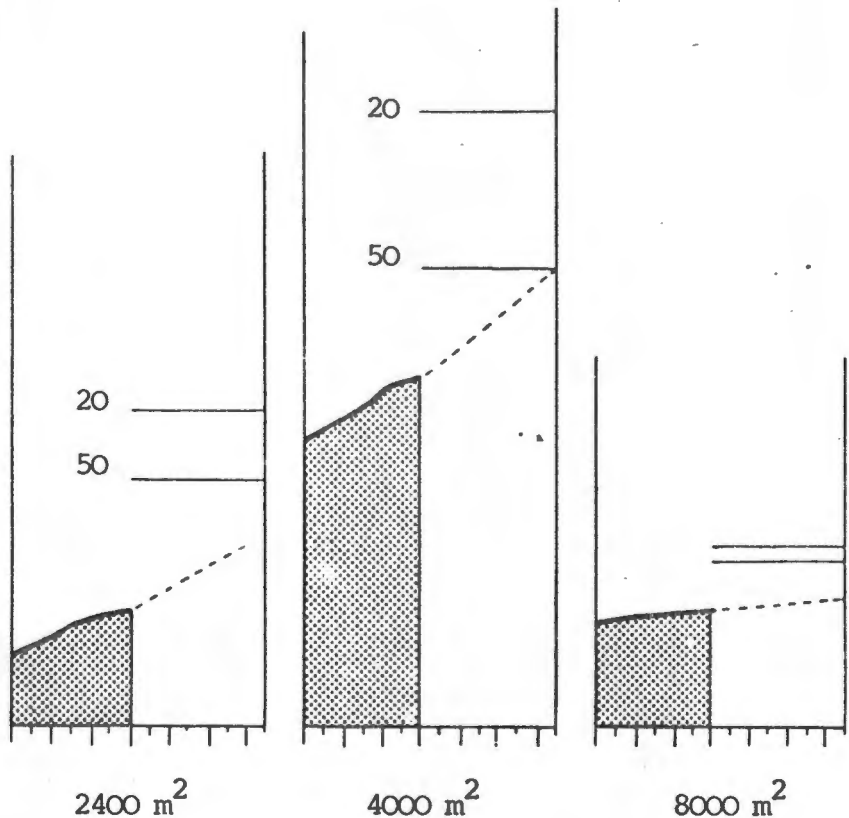
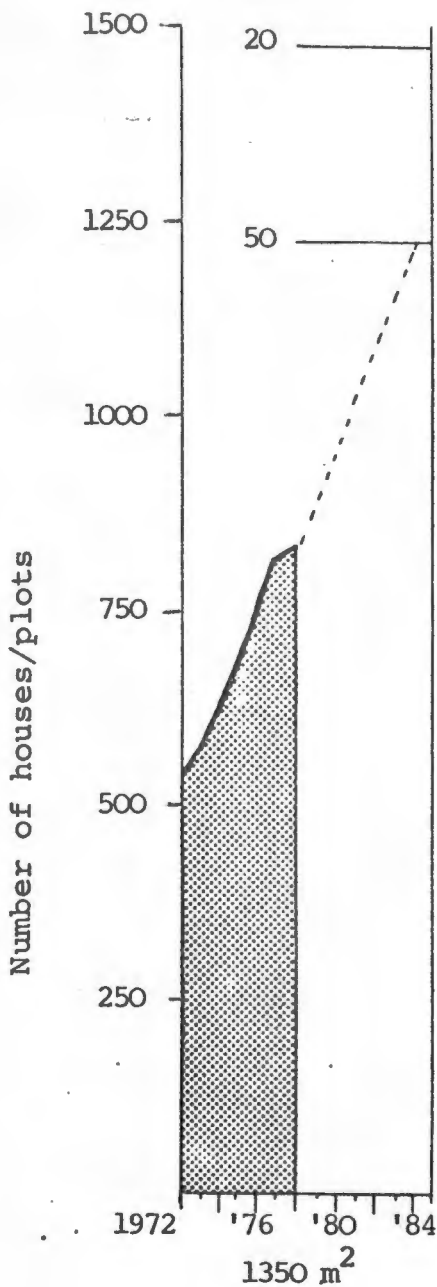
The above table is self-explanatory, but a number of points deserve to be elaborated. Based purely on the above data, it would appear that the 8000 m^2 zone has proved the most popular in terms of housing take-up; this will be further discussed but it must be borne in mind that this category represented the first residential development in the Valley and has thus had a far longer take-up period than the other categories.

Not only does the 1350 m^2 plots constitute the largest category, but they have also experienced a high percentage of take-up; as has the 4000 m^2 category. In contrast, the 2400 m^2 category has seemingly not proved as popular. The possible reasons for this are discussed later.

5.2.2 Development Trends

Housing construction trends over the past 6 years are indicated in the following graph. This gives a clear picture of the breakdown of single residential development in terms of each density category; of the differing rate of development in each category (indicative of the demand for particular plot sizes), and of the number of plots not yet built upon and not yet subdivided. It thus gives a fairly good indicator of the demand trends in relation to the supply.

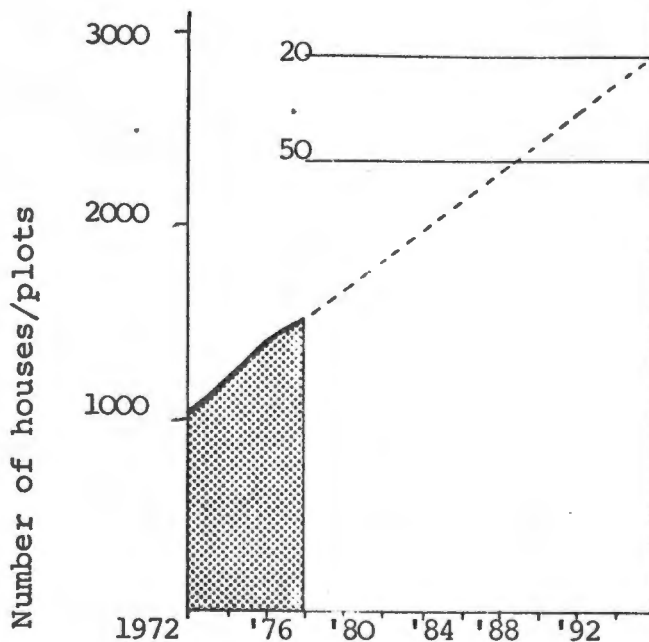
(The graph is to be found on the following page)



GRAPH ONE (a)
HOUSING CONSTRUCTION TREND BY
DENSITY CATEGORIES

ZC = Zoned Capacity
SE = Subdivided Erven

Dashed line indicates extrapolation based on pre-1976 growth trend.



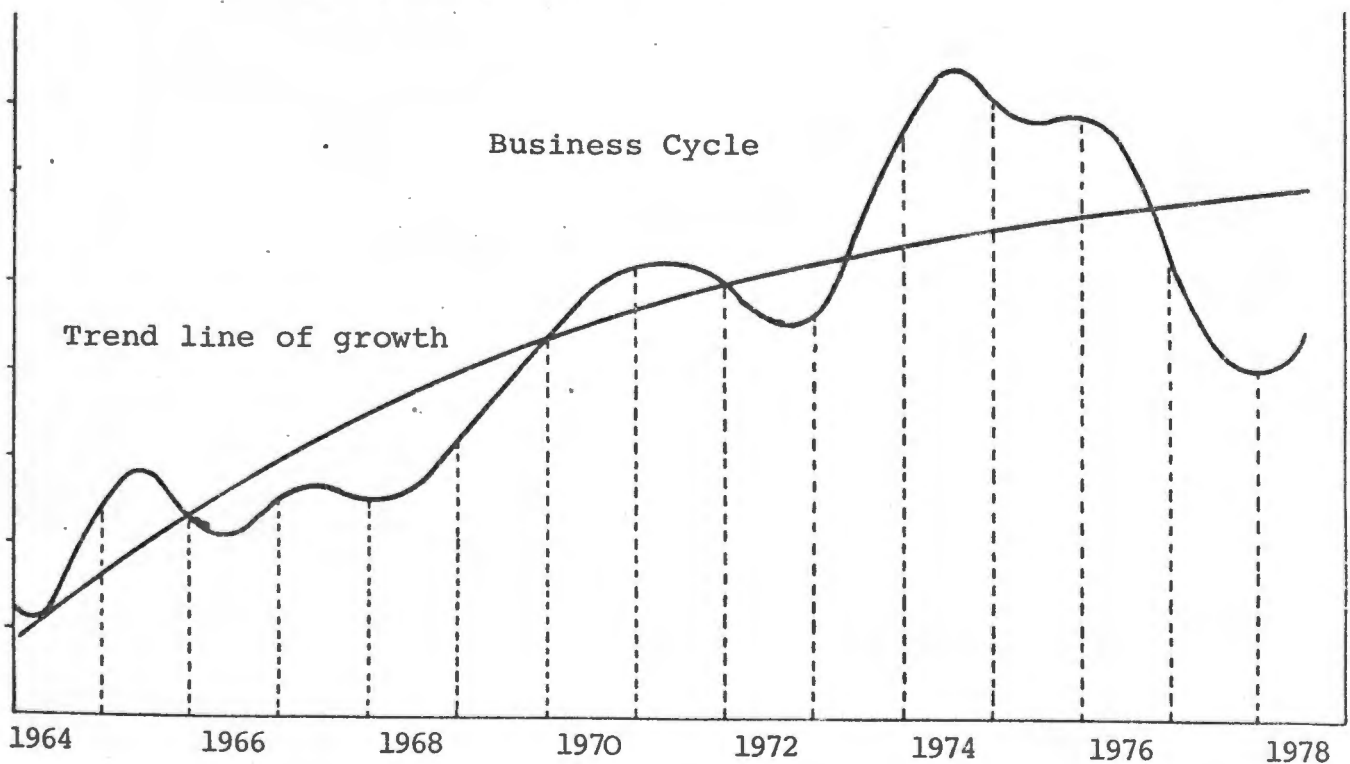
GRAPH ONE (b)
TOTAL HOUSING
CONSTRUCTION TREND.

Apart from the dominant role of the 1350 m² category and the minor roles of the 2400 m² and 8000 m² categories, the rate of development of each category has differed markedly. A comparison between the 1350 m² and 8000 m² growth rates gives a very positive indication of the popularity of the smaller-sized plots and the almost negligible demand for the large plots. The 2400 m² and 4000 m² growth rates have been fairly similar, with the 4000 m² category exhibiting a more healthy rate of development.

The levelling-off of each curve (other than that for 8000 m² which has remained fairly level throughout the 6-year period) is a clear reflection of the downturn in the economic climate (and thus the housing market) following the 1974/75 boom years. The fact that 1976 still reflects a high development rate is explained by the fact that the data used - houses completed - characteristically lags behind other indicators of the economy. (1)

5.2.3 Supply and Demand

Comparing the rate of development to the supply of vacant erven; if the existing trends continue, then it can only be said that there is an over-provision of land (not only zoned but also already subdivided) in each category. Recent information from the Bureau of Economic Research at Stellenbosch University, however, indicates that the national economy appeared to have reached its lowest point in January of this year and is now steadily picking up. This is clearly indicated in the following graph, which was generalised from one appearing in TRENDS, VOL.1 No. 6, June, 1978.



- (1) The average time-lag between the decision to build a house (which is taken under certain conditions of the economy) and its completion is approximately 9-12 months. The sale of vacant plots was not considered to be a reliable indicator of development trends; for the simple reason that they are more likely to include speculative practices than the building of houses.

One obviously cannot base predictions on cyclical trends in the economy. Nevertheless, if the housing market were to pick up its pre-1976 growth trend, it is apparent that, by extrapolating the trend lines in Graph One, the supply of subdivided erven in each category would be taken up by the following years:

1350 m ²	category	-	+	1983/84
2400 m ²	"	-	+	1992
4000 m ²	"	-	+	1984/85

At the present rate of development of the 8000 m² category, it is clear that the supply will far exceed the demand for many years. With regard to the other categories, it is evident that even if the supply of subdivided erven were to be taken up, the amount of land already zoned for development would cater for the next 10 years at least.

In Graph One, the total housing construction trend in relation to the total supply indicates that if the 1974/75 growth rate were to be restored for the next 13 or so years (which is highly improbable), only then would the total zoned capacity be fully developed.

The major reason why this is an unrealistic supposition, is that cyclical fluctuations will always take place so that a sustained rate of growth applicable to a boom period is virtually untenable. Furthermore, even if the existing zoned capacity were reached, this is not necessarily a reason for additional land being made available. Firstly, the demand could be channelled elsewhere in the metropolitan region; secondly, the question of desirability in terms of environmental preservation must be considered, whereby a desired population ceiling could be established - this could also apply in respect of availability of services or community facilities. An additional factor to be taken into account is that of housing succession which represents another aspect of housing demand.

5.2.4 Housing Demand

The demand for housing is not confined to the construction of new houses. The demand pattern includes also the sale of existing houses; or, as referred to in this study - developed erven. The construction of new houses is generally characteristic of the outer suburbs or the urban fringe zone; where the role is that of adding to the metropolitan housing stock - as represented by an invasion (of the countryside) process. Once an area becomes built-up, this role is replaced by one of housing succession.

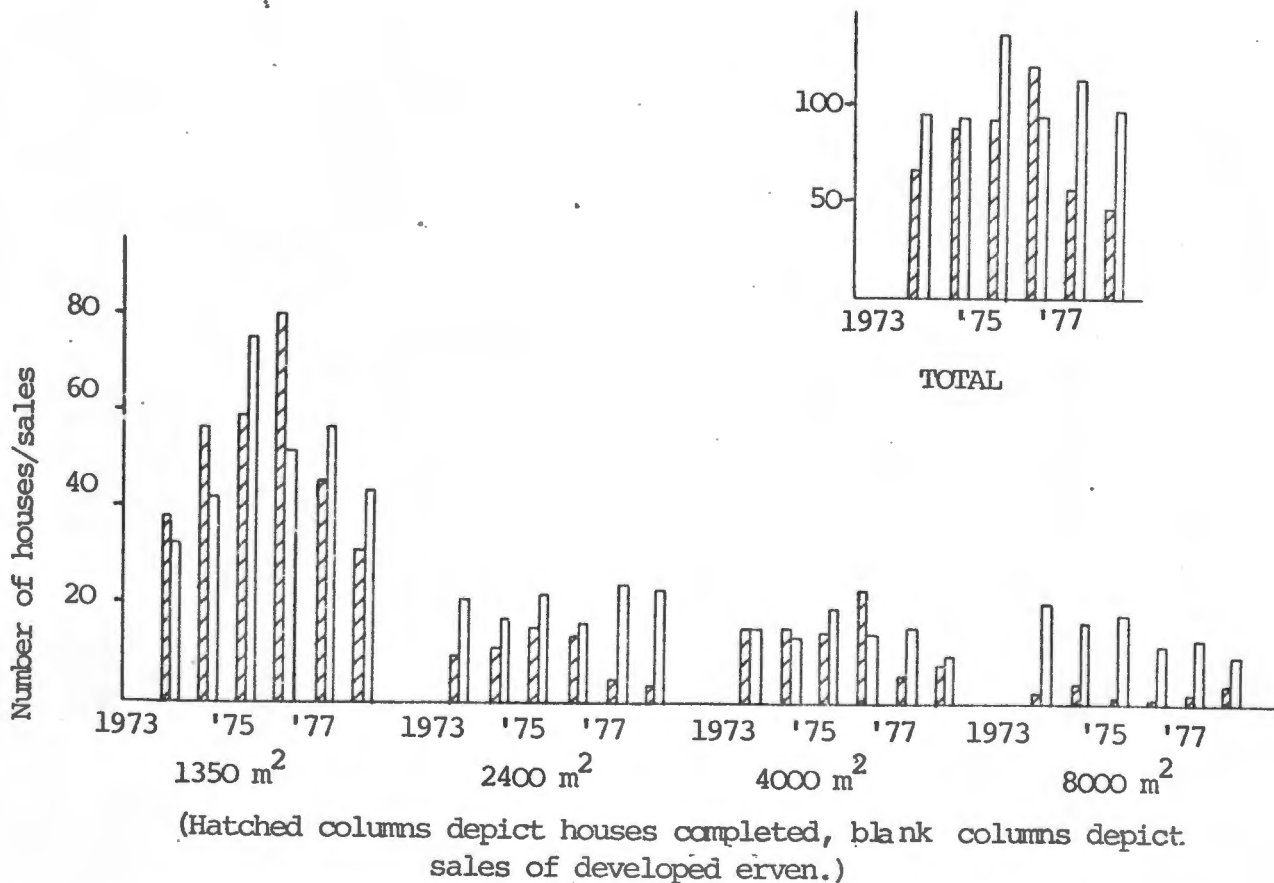
Housing succession is a complex phenomenon and involves a wide range of interrelated factors - both social and economic. The causal factors underlying housing succession are as follows:

Firstly, the existing owner must want to sell. The reasons for selling are numerous and could include economic necessity, the desire to own a larger or smaller property or the desire to live in a different locality. Alternatively, it could be simply a natural accompaniment of a change in life style or a particular stage of the family life cycle.

Secondly, in order to sell, there must be a willing buyer. The reasons for buying are naturally the same as those applicable to the seller. The major point to be made is that at different stages in the family life cycle, a different set of circumstances is not only necessitated but also desired. Given the ability to pay, families will tend to optimise their choice of a home in terms of its size (including garden), and its location in relation to an array of factors - such as the environment, proximity to schools, workplace, shopping, recreation etc. In other words, the existing housing stock serves as stepping stones to cater for the needs and desires of the population.

The following graph indicates that Constantia's role is characterised more by housing succession than by adding to the metropolitan housing stock.

GRAPH THREE - HOUSING DEMAND TREND BY DENSITY CATEGORIES



Apart from the fact that more houses are sold than built, the above graph further emphasizes the cyclical nature of the housing market as depicted by the trend of houses constructed.

The most interesting point which it highlights, however, is that the sales of developed erven do not follow the same pattern or trend as that of housing construction. The 2400 m² and 8000 m² categories, in particular, exhibit a distinctly high rate of house sales. The implications of the above patterns are discussed in relation to the individual plot size categories.

5.2.5 Market Prices

Development trends based upon only the number of houses constructed is not a meaningful indicator. This is particularly so when they form the basis of anticipating future demand trends in order to control the supply of land for residential development.

Similarly, the number of sales of developed erven (even when related to the number of houses constructed) fails to convey any significant message; other than that it gives a degree of measurement to the amount of housing succession which has taken place - which in turn can be interpreted as a measure of "maturity".

The introduction of market prices into the analysis gives a more meaningful portrayal of the housing demand pattern.

Sale prices are determined by both supply and demand factors. The prospective buyer (of a house) bases the purchase price upon his ability to pay and upon his need or desire for a certain "bundle of goods" - apart from the individual qualities of the house itself, other factors are taken into account such as the size of the garden and the location of the property.

In turn, the seller bases his asking price upon the initial purchase price or the costs of construction (including a reasonable profit margin). For both the buyer and the seller there are alternatives if the price cannot be agreed upon; the former can look to alternative houses, while the latter can simply choose not to sell - depending upon his desire or need.

For the seller's asking price to be realistic, it must reflect the general market price for similar sized, priced and located properties. If the desire to sell is not so great, the seller can choose his time of selling according to the fluctuations in the market.

The following indicates the average sale price of houses in the four categories for the years 1974 (representing a buoyant housing market) and 1977 (representing a slump in the housing market): (1)

	1350 m ²	2400 m ²	4000 m ²	8000 m ²
1974	R38 000	R47 000	R54 000	R75 000
1977	42 000	47 000	51 000	64 000

Although each category exhibited a very wide range of prices, so that in some cases considerably more was being paid for a 2400 m² property than a 4000 m² property, for example; the average prices paid fit into fairly well-defined price categories.

The major point to be made from the above prices are that whereas the average price paid for 1350 m² plots increased by 10,5% between the two periods, the 2400 m² prices remained much the same, the 4000 m² prices decreased by 6% and the 8000 m² prices by 15%.

This is not only a clear indication of the effect which the downturn in the economy has had on the higher-priced plots; but also strongly suggests that sellers in the 4000 m² and more particularly the 8000 m² category, are being forced into selling at abnormally low prices. Further indicators to support this will be outlined in the following section.

5.2.6 The 8000 m² category

The high rate of house sales and abnormally low prices fetched, can almost certainly be put down to the fact that many families can no longer afford to live on these large properties. This is due to a number of factors such as the size of the properties which, at the time of construction or purchase, was a key factor in governing its choice - but which has since become one of the prime reasons for wanting to sell. The reasons for this are the high maintenance costs involved and the inaccessibility of suitable labour.

Other reasons for wanting to sell are the high rates of interest applicable to bond repayments and relatively high rates to be paid to the Local Authority. Additional factors are the lack of public transport facilities and the increasing commuter and general travel costs.

Not only have the above factors made it difficult to maintain an accustomed style of living, but many families have, through necessity, been forced into selling. This is not an entirely new phenomenon but has been gradually becoming more prevalent over the years - the present slump in the housing market of

(1) This is a generalised picture as certain obvious distortions were omitted. For example, one 8000 m² property was purchased by the Canadian Embassy for R103 000 and a 2400 m² property was purchased for R100 000. Moreover, because the criterion used was all "non vacant" properties, certain plots (ranging in price from R15 000 downwards) were omitted as they clearly did not reflect house sales. The average prices were rounded off to the nearest 1000.
Source: D.C. Data Bank (Property Digest)

these higher-priced plots has merely introduced a new dimension to what has emerged as a clear example of a "buyers market".

The situation is made more complex by the fact that not only can few families afford to continue living on these properties, but for the self-same reasons there are decidedly fewer prospective buyers willing to purchase them.

From information obtained from an estate agent, it was apparent that a large number of these properties have been on the market for some time, without finding a willing buyer. Many of the properties which have been sold, have realized a price far below the initial asking price, and in quite a few cases the sale price has been lower than the initial purchase price.

This is verified by the following examples taken from the Hohenhort area. (1)

- One property was purchased for R65 000 in 1974 and sold for R44 000 in 1978.
- Another was purchased for R41 000 in 1968 and sold for R35 000 in 1978.

These are not isolated examples, as evidenced by the following:

- A property in Constantia (in excess of 8000 m²) has been on the market for some time; it was bought in 1969 for R62 000, the asking price is R80 000 - yet it is anticipated by the estate agent involved, that it will only fetch R55 000 at the most. (2)

That this is not a situation peculiar to Constantia alone, but is a general metropolitan-wide pattern characteristic of large properties, is evidenced by similar cases appearing in the Property Argus from time to time. A recent example is a property adjacent to the Local Area which was sold for R70 000 - its municipal valuation being R104 000. (3)

Generally, the market price of property sales is considerably higher than the valuation. A narrowing of the ratio of valuation to sales prices is a clear indication of the distortion in the housing market. The following pattern is based upon a ratio of the average sales per annum to the ratable valuation in the Hohenhort Township which comprises only 8000 m² plots. The ratable valuation is given an index of 100.

1973	114	
1974	141	
1975	148	
1976	112	
1977	41	
1978	14	(4)

(1) D.C. Data Bank (Property Digest) (2) Information obtained from R. Berrisford, Durr Estates. (3) Property Argus; 2 September 1978
 (4) D.C. Data Bank (Property Digest)

A further indication of the above trend is that the average sales price - to - ratable valuation index of all 8000 m² plots in Constantia was 142 in 1974; whereas in 1977 it was 65.

It is evident that in many cases the asking or negotiated price is not necessarily the prime issue in the sale of these properties. In some instances, prospective buyers have been quite prepared to pay the price, but have been put-off by the size of the garden. (1)

The Hohenhort Township reflects the typical problems facing the ownership of 8000 m² properties. With its establishment in 1951, a title condition was imposed prohibiting any further subdivision. Based on the submission of applications for subdivision, the more level properties were rezoned to allow for subdivisions down to 4000 m². Various petitions have been drawn up from time to time objecting to this rezoning; the last being in 1977 when it was apparent that the majority still favoured 8000 m² plots. Since then, a number of those who signed the petition have indicated that they now have no alternative but to subdivide.

Furthermore, a petition was submitted in response to the advertising of the 1976 revised scheme, requesting the subdivision of 8000 m² plots into 4000 m². This petition was signed by all the homeowners whose properties form an isolated pocket above the Hohenhort Township. It was recommended to Council by the Town Planning Section, that this request be supported.

5.2.7 The 4000 m² category.

The sales of developed erven in this category have been much the same as for the 8000 m² category; the difference being that the number of houses built on 4000 m² plots prior to 1977 was considerably higher. In the past 18 months the number of houses constructed has been double that of the 8000 m² category. There has not been the same pressure for subdivision as has been experienced in the latter category and it would appear that there is no immediate problem attached to the 4000 m² category.

Nevertheless, a close inspection of the townships and subdivided erven in this category reveals that, while most of them have developed at a reasonable rate, others have not. For example, High Constantia Ext. 1 was approved in 1966; but of the 52 erven in this township, only 4 have been built upon. It was, however, found that a large number of the plots are still being held by the developers and their selling price has generally been far higher than similar sized plots in Constantia. In a sense, therefore, the asking price has

(1) This was established from individual property owners who visited the Divisional Council Town Planning section with a view to obtaining subdivision rights.

determined that these plots are not effectively "in the market". The reasons for not lowering the asking price can only be suggested at; the one possibility being that the developers could be holding onto the plots in the anticipation of further subdivision rights.

Another example is the Klaasenbosch Heights Township. Half of this township was zoned for 1350 m² and the other half for 4000 m² plots. The former half is almost fully developed while the latter is still in the hands of the developer. The developer maintains that there is no demand for 4000 m² plots and, although the erven have been on the market for some time, none have been sold. On the basis of this supposed lack of demand, permission has been sought for either the lowering of the minimum plot size or for developing Cluster housing. Not knowing the asking price of these plots, it is difficult to gauge whether or not the developer is genuinely suffering a hardship due to a lack of demand. It would, however, appear that sales at a lower price than anticipated are being withheld in the hope that greater profits could be achieved through a change in the density zoning.

5.2.8 The 2400 m² Category

While the housing construction trend indicates that this category has not been very popular, the number of sales of developed erven (both numbers and sale prices) has indicated the opposite. Being so much smaller than the 8000 m² plots, the problems which characterise the large properties cannot be attributed to this category.

With respect to the slow rate of building, an estate agent with an intimate knowledge of the housing market in this area has maintained that its apparent unpopularity has nothing to do with the plot sizes as such, but is rather a reflection of its location and various other factors applicable to the area. (1)

The factors mentioned were the south-facing slopes; the fact that many of the plots were in fairly close proximity to the Freeway and potential buyers were wary of the associated noise level; the existence of a cemetery and a bible college also proved to be a dis-incentive; also the roads were not tarred and were in a state of disrepair. A major factor was the large amount of vacant and idle land in the vicinity and the fact that it was common knowledge that applications for Cluster housing had already been submitted.

The reason why the above "repelling" factors has not affected the sales of developed erven is that the more built-up area within this density category (where the bulk of sales has presumably taken place) is located well away from the influence of these factors. Another factor is that many of the

(1) R. Berrisford, Durr Estates.

sales in this category have not taken place in the 2400 m² pocket as such, but instead constitute sales in the "No further subdivision" townships such as Belle Ombre and Constantia Vale.

5.2.9 The 1350 m² Category

Despite the cyclical housing demand trend in this category, it appears to present no problems and clearly represents the most sought-after plot size category. Further evidence of this is given by the fact that it is the only category where the average sale price of developed erven has not decreased between 1974 and 1977.

5.3 The Commercial Component

The shopping pattern of Constantia residents can be assumed from the existing shopping facilities in the study area and those in the surrounding suburbs. Because existing facilities are limited, convenience shopping is carried out in the Wynberg and Claremont shopping centres and the Blue Route and Tokai centres. The trend has, for some time been towards the one-stop shopping facilities provided by the major shopping complexes.

The existing shops and shopping centres in Constantia, together with their respective gross floor area are as follows: (1)

Glenstantia Centre	-	853	
High Constantia	-	781	
Alphen Farm Stall	-	306	
Old Cape Shop	-	127	Total = 2067 m ²

All the above, with the exception of the High Constantia Centre, do to some extent cater for passing traffic in addition to the local population. Alphen Farm Stall and the Old Cape Shop are extremely popular and are almost certainly characterized by a high turnover, as evidenced by the fact that both have recently increased their effective floor area.

Glenstantia Centre comprises a number of low order neighbourhood-type facilities, together with a service station and the Dairy Den which caters to a large extent for passing traffic. The range of facilities provided does in fact cater for virtually all the needs of a local neighbourhood, it has a post office, a bank, a building society cum estate agent, a 'minimarket', a butcher, a dairy, a hairdresser, a dress boutique, a dry cleaner cum bookshop, a bottle-store and a chemist.

Somehow, however, it does not give the impression of a vibrant centre; in fact, on most days, there are generally more people found at the Alphen Farm Stall across the road.

The High Constantia Centre comprises only a butchery and a small supermarket. It has never proved very popular largely due to the fact that it is located off the Main Road and is not directly accessible to passing traffic. At one stage it contained also a bottle-store, an estate agency and a small restaurant - all of which have subsequently closed down.

In addition, there are three extremely well-patronised nurseries in the study area; two of which have requested permission to widen their range of stock by selling also goods of a "farm stall" nature. These requests have not been granted because of the possible effects of increased traffic generation; both nurseries being located on busy through-roads.

Farmstalls have been a feature of the study area for many years. Only one exists at present and the general policy in regard to these facilities is that they should be allowed only if they comply with certain standards regarding traffic movement. The one drawback experienced is that whereas a farm stall is meant to carry only the produce from the land on which it is located, owners have in the past attempted to increase their stock by the acquisition of a general dealers licence. This has been strongly resisted by Council and has possibly led to an over-reaction with regards to the restrictions imposed on farm stalls. The reasoning behind these restrictions is that once a general dealers licence has been granted, there is little control to prevent the future expansion of the facility.

As previously mentioned, the Glenstantia site was purchased many years ago for the purpose of developing the first decentralized shopping centre in the Peninsula. To cater for this, the land has already been appropriately rezoned; and approval has in fact been granted for a centre comprising 21 710 m² of shopping space. Due to the existence of competing shopping centres, it appears that the developers have no intention of developing at the present time.

To give a rough indication of the total amount of floor space required to serve both the present and ultimate population of Constantia, the following analysis was undertaken. This presupposes that all convenience shopping would take place within the study area.

		Total Disposable Income	Effective Spending Power	Required Floor Area	(1)
Existing Pop.	5543	R23 323 255	R4 664 651	6220 m ²	
Ultimate Pop.	10 232	R43 844 120	R8 768 824	11 692 m ²	

Bearing in mind that this is a rough and possibly conservative estimate, it nevertheless confirms that the existing shopping facilities cater for approximately only one-third of the local shopping needs.

One of the assumptions listed below is that the effective spending power (or the amount spent locally) constitutes only 50% of the total spending power. Were the proposed Constantia Centre to be developed, the effective spending power would obviously rise. Assuming it rose to 70% of the total spending power; this would result in a required floor area of 17 538 m² to serve the ultimate population. This indicates that even when Constantia is fully developed; the full development of the Constantia Centre would not be justified.

In any event, the existing nearby shopping facilities (particularly those in Tokai) must be taken into account. An analysis of the existing shopping floor space in Tokai in relation to the floor area required to serve the Tokai population, indicates that once the area has developed to its capacity there will be an over-provision of 11 500 m². (2) It must, however, be pointed out that the catchment area of the Tokai shopping facilities includes a large population to the east of the Cape Town-Muizenberg Main Road.

In the absence of more meaningful data, the only conclusions to be drawn from the above analysis are that the existing shopping facilities are insufficient to meet

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- (1) This analysis is based upon the following assumptions:
- That the average family size is 3,5 persons.
 - That the average per capita income is R4285 per annum; this is based upon the average family income by enumerators districts for 1970 (Source: Technical Management Services Branch, C.C.C.)
 - That the average income has increased by 50% since 1970. This is based on the assumption that increases in income have lagged behind the consumer price index trend which has risen from a base of 100 in April 1970 to 164,6 in December 1975. The present index (July 1978) is 219,8 (Source: D.C. Data Bank) Because a conservative estimate was required, it was considered that a 50% increase would suffice.
 - The population figures are derived from Table
 - That discretionary spending constitutes 40% of the total disposable income. (Source: Tomalin)
 - That 50% of this is spent locally (Effective Spending Power)
 - That R750 of effective spending power is the annual turnover required to support 1 m² of gross floor area.
- (2) Divisional Council Report No. 6.

shopping facilities are insufficient to meet local needs; (1) but that the development of the Constantia Centre cannot be justified at this stage. Its future viability would need to be determined by an in-depth investigation of the existing and anticipated future regional shopping patterns of the southern suburbs population.

5.4 The Farming Component

Included with those properties being actively farmed, are a number of large properties which are zoned for farming (rural) purposes but which, for various reasons, are not being used as such.

All the land comprising these properties is considered by the Department of Agricultural Technical Services (D.A.T.S.) to be of prime agricultural potential. Farming practices are almost entirely devoted to vineyards.

For convenience, these properties are discussed as three separate "blocks" the Zonnestraal Valley, the Eagles Nest/ Glen Alpine block and the Groot Constantia/Klein Constantia block. Other properties, such as Silverhurst Farm, will be discussed separately.

Zonnestraal Valley comprises three properties under separate ownership. Bordered by the Freeway on one side, it is totally surrounded by residential development. Apart from the valley bottom and the various homesteads, it is almost entirely covered in vineyards. To date, there has been no pressure to subdivide.

The Groot Constantia/Klein Constantia block comprises six major properties. Groot Constantia is owned by a state-subsidised company (The Groot Constantia Control Board), while the remainder are all privately owned. This block together with Zonnestraal, makes up the bulk of Constantia vineyards.

The Groot Constantia Control Board are currently putting into practice a policy for re-establishing the former state of the estate; to this end, the Bertrams Winery has been re-opened and wine-making on-site will again be practiced.(2) Apart from a massive programme to replace old vineyards with new, additional land has been cleared and planted high up on the slopes, and a policy of consolidating adjacent-lying land has been embarked upon. Under the regulations governing estate wines, existing estates can only increase their land holding

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- (1) This is borne out by the number of complaints received from local residents that convenience shopping facilities are inadequate; the suggestion being made on numerous occasions that small "corner stores" should be permitted.
 - (2) The produce was, for many years, sent to Stellenbosch for processing.

(and still produce under the same label) in respect of abutting land. To date, the Control Board have already purchased Hope of Constantia and a sliver of Forestry land separating the estate from Klein Constantia. It is at present negotiating with the Divisional Council for the purchase of a portion of the Nova Constantia property as well as the public open space at the top of Price Drive - which separates the estate from Eagles Nest.

The remaining properties in this block comprise Klein Constantia itself, Husseys Vlei, Uitsig, a small property lying on the upper slopes between Hussey's Vlei and Uitsig (referred to as Farm 'X'), and lastly Buitenverwagting. Almost all the usable land on Uitsig and Buitenverwagting, and a large portion of Klein Constantia, are under vineyards. Hussey's Vlei and Farm X are not farmed as such, but comprise large pine plantations. An additional property, Coleyn, is considerably smaller than the other properties; but is also covered in vineyards.

The Eagle's Nest/Glen Alpine block comprises, apart from these two properties, one other - Gordon Heights. All are privately owned; and only Eagle's Nest is at present being farmed - and this not very extensively. Much of Eagle's Nest comprises very steep slopes which are well vegetated; predominantly by pine forests. Where possible, land has been cleared for market gardening purposes. Glen Alpine comprises far more potentially usable land than the other two properties; but, while there is still evidence of orchards and vineyards, these have all become neglected and overgrown - at present there is no farming activity on the property. Gordon Heights comprises very steep land and, apart from a few neglected orchards, there is no evidence of any farming practices having been undertaken in the past.

The future of this block, poses a dilemma. On the one hand, it would appear that viable farming practices are not possible - due to the slope of the land and the fact that it has no real farming history. Nevertheless, the D.A.T.S. have stated quite categorically that they consider that not only do these properties comprise prime agricultural land, but that farming practices, under proper management, could be feasible and viable.

On the other hand, applications for cluster housing have been received for all three properties. Of these applications, the one for Gordon Heights has been turned down by the Administrator and the other two have been held over pending the response to the advertising of the 1976 scheme and the findings and recommendations of the Hey Commission on the South Peninsula Mountain Chain. (1)

(1) This will be discussed in section 5.7

As referred to in Section 4.4.2; because of the very strong objections submitted in respect of the Special Residential sites as proposed by the 1976 scheme, it has been recommended that all the proposals be dropped. In addition to the objections to specific sites proposed, there was a general feeling that no Cluster or Group housing should be permitted in Constantia at all.

In the meantime, apart from whatever hardships may be suffered by the owners, a very real problem exists in the form of infestation of alien vegetation. Port Jackson wattle and Stinkbean are virtually impenetrable in parts, and hakea is intruding from Constantia Nek. All three properties suffer from this problem and while attempts have been made to eradicate, or even control their spreading, it is quite apparent that something will have to be done if the costs of eradicating them are not to become prohibitive. (1)

At present the major income derived from Eagle's Nest is almost certainly not from farming purposes, but from the renting-out of the numerous cottages on the property. The same applies to Gordon Heights, where the renting-out of two houses is the sole means of income derived from the property. The Austrian Embassy was housed on Glen Alpine, but this has now moved; at present there is a well laid out private Country Club comprising tennis courts and a swimming pool which is presumably a source of income to the owner.

Of the isolated properties found in the Valley, Silverhurst farm is the largest and poses the biggest problem. At present its major source of income is derived from chicken batteries; although market gardening and the cultivation of flowers are also extensively carried out. Because of numerous complaints against the flies associated with the chicken farming, Council's health authorities have instructed the owner to close down the batteries on the grounds that the flies are a health hazard and a public nuisance.

The owner maintains that the closing down of the batteries will leave him little alternative but to sell the land for housing development as alternative methods of farming could not prove viable. The D.A.T.S., however, maintains that despite the fact that the property is totally surrounded by residential development, it could still be made viable under vineyards. In this regard, they refer to the many vineyards in the centre of Paarl which function quite happily.

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- (1) In this regard, a large property alongside the road leading to Hout Bay, has become totally overgrown by Port Jackson wattle and Council's Chief Forestry Officer has intimated that there is virtually no way of eradicating it at this stage other than putting the land to some active use - preferring housing development. The costs of eradicating it could not be recouped through farming purposes.

Various other properties which are still being farmed, are found throughout the study area. All of them are already zoned for single residential development and, with the exception of one or two, there has been no indication that the owners wish to stop their farming activities. The owners of the few properties who wish to subdivide are continuing their farming practices (mostly vineyards) in a half-hearted way in the expectation of gaining more development rights than the land is zoned for. This situation is certainly not desirable as the properties are becoming more and more neglected. In some instances farming activities have been totally abandoned and there is a very real danger of these properties becoming infested with alien vegetation.

The problems facing continued farming practices are numerous and, while not necessarily peculiar to Constantia, are made more acute by the mere fact that the properties are located in what is essentially a suburban area.

Coupled with the fact that farming is the slowest growing sector of the national economy; (1) increased costs of farming (such as labour, fertiliser, farm implements and rail tariffs) have meant that on a nation-wide level most farmers are struggling to attain accustomed profits, while many are barely making a profit. A major crippling factor facing continued farming in the nation generally is that of Estate Duties - farmers are loath to improve their farms, or increase production, for the simple reason that either they or their heirs will be saddled with increased costs. Moreover, state subsidies are not considered to be in keeping with the rest of the economy.

The situation in close proximity to an urban area is worsened by the fact that suitable labour is more scarce and considerably more costly because of the competing wages and more attractive working conditions offered by the urban sector.

In Constantia, the situation is made more acute because of the government's restrictions on Black labour; convict labour from Pollsmoor Prison cannot be relied upon as the quota allowed per farmer can be changed at will; the farmers are called upon to pay higher rates than farmers outside the Local Area; much vandalism and pilfering has accompanied the intrusion of suburban development into the Valley and lastly; the monetary, labour and time costs of eradicating alien vegetation which has spread from adjacent properties is crippling.

(1) Basically this means that incomes derived from farming have not kept pace with the incomes derived from other sectors of the economy.

The above situation has been imposed on the genuine farmers (whose properties are still zoned for rural purposes) without their having any choice in the matter. The general feeling is that, although they may not necessarily want to subdivide their land, they should have the right to do so - particularly as the fact that subdivision rights which have been granted to adjoining property owners has increased the problems experienced. (1)

The attempt by Council, to alleviate the recognised hardships experienced by these property owners by introducing a measure of rates relief was strongly opposed on the grounds that the rates remission would have little effect on the losses already experienced. But more important, once removed from the local area, these properties would be under the effective control of the Minister of Agriculture; the general feeling being that such a step would remove for all time any hopes of gaining development rights.

It is anticipated that the various bodies (governmental and private) involved in the future farming practices in the Valley, will attempt to find some meaningful way of alleviating the plight of the property owners.

5.5 The Environment

In the true sense, "the environment" includes not only the physical component; as determined by the natural and man-made features, but includes also the social and economic components. For the purpose of this study, however, the social and economic aspects of the environment have been discussed in the previous section. This section therefore deals only with the natural features and the physical or visual aspects of the man-made or "built" environment.

5.5.1 The natural environment

The three basic elements which comprise the natural environment of the study area are the climate, geology (including soils) and vegetation.

Climate

The climatic conditions of the Peninsula are of a Mediterranean type; warm dry summers and mild winters of moderate rainfall and occasional strong winds. Temperatures are seldom extreme because of the moderating influence of the coast.

Table Mountain has a decided effect on the micro-climatic conditions of its surrounding areas - including the Constantia Valley. The particularly high winter rainfall which is experienced along the mountain slopes and the western portion of the Valley is due to the pattern of precipitation caused by Table Mountain's effects on the rain-bearing winds.

(1) These views were expressed in various letters received as a result of the advertising of the 1976 scheme.

To quote...."Constantia suffers from no extremes of climate, changes in seasons are gradual, rainfall is good and temperatures and winds are moderate. This type of climate is generally predictable so that the gamble with the weather is virtually taken out of farming. From a residential stand-point, the micro-climatology generally produces no mist shrouded vales, frost pockets or other unpleasant aspects of climate which rule against settlement".(1)

Geology (2)

The topographical features and soils which characterise the Valley are the result of its geological formations and the erodibility of the different rock types.

The uppermost layer comprises Table Mountain Sandstone which is stable, erodes very slowly and is typified by the familiar rock faces of Table Mountain itself. Vertical joints in the horizontal bedding planes constitute zones of weakness; the weathering of which have resulted in features such as the Constantia Nek saddle. The Sandstone weathers down to a thin and fairly sterile sandy soil.

Underlying the sandstone layer are shales of the Malmesbury series. This is a softer formation and weathers deeply as evidenced by the erosion scars on Table Mountain. Such erosion not as evident on the mountain slopes of Vlakkenberg and Constantiaberg which lie southwards of Constantia Nek. The soils derived from this rock type are clayey and rich in iron.

The granite which underlies the above comprises the lower mountain slopes. It weathers rapidly on exposure to the elements and the steeper slopes are highly susceptible to soil creep and landslides under conditions of heavy rainfall.

The erosion cycle in the study area is juvenile in character and is typified by the dendritic drainage pattern. The valley lines in the upper slopes comprise precipitous gorges and deep narrow valleys. Because of the gradient of these stream lines, deposits of alluvial soils are only found in the lower valley bottoms.

The soils in Constantia are generally highly fertile due to the diversity of the parent rock types and to the rich organic or humus content derived from the rich vegetation which has for centuries characterised the valley.

(1) Divisional Council Report No. 1, pp. 10,11

(2) Ibid, pp. 11, 12; Hey, p.3

Vegetation (1)

The indigenous vegetation in the valley was determined by the topography, the soils and of course the climate. The shallow and poorer soils of the upper slopes were thickly covered by fynbos, together with various species of protea. The lower slopes comprised these, together with large stands of silver trees; and the more level land was covered with grass and scrub-like vegetation. Rich vlei grasses covered the valley bottoms. Groves of wild almond and Keurboom followed the water courses. Large trees were not plentiful and were restricted to the cooler ravines and upper valley lines;

With the settlement in the valley, much of the vegetation was stripped for firewood or for farming purposes and continued veld fires over the years have cleared the landscape of much of its indigenous vegetation. Because this vegetation is very slow growing, barren slopes were particularly susceptible to erosion. Various alien species were introduced to the Cape at an early date for the purpose of reclaiming sandy areas, creating windbreaks, covering the barren slopes and for scenic purposes. The major species being oaks, cluster pine, eucalyptis and Port Jackson wattle. Pine and eucalyptus plantations were established in Tokai and on the mountain slopes and oaks and poplars were extensively planted throughout the Valley.

The present vegetation, which is so characteristic of Constantia, is thus almost solely made up of exotic trees. The purposes for which the alien species were introduced were adequately fulfilled but a major problem arose in respect of some species, from the vigorous nature of their growth. The natural spreading of these species led to their invasion of large tracts of indigenous growth. Port Jackson wattle and cluster pine together with Rooikrantz, Stinkbean and Hakea have spread alarmingly and in many cases comprise almost impenetrable stands - Port Jackson, Stinkbean and Hakea being the major culprits.

Apart from the fact that they have almost completely replaced the indigenous vegetation in many areas, they are difficult to eradicate or control, particularly as burning merely serves to regenerate thicker growth. They represent a very real fire hazard and in addition to their impenetrable growth, with the exception of Port Jackson in the flowering season, they are not particularly attractive.

Today, the only surviving indigenous vegetation is found on the upper slopes where small stands of fynbos, and protea and silver trees still exist; and in the more inaccessible ravines where indigenous trees are still found. But even these are becoming rapidly invested by alien species. Port Jackson and Stinkbean in particular, are found in proliferation throughout the study area; and any vacant

(1) Hey, pp. 3, 5, 13.

unused land is susceptible to their intrusion as is evidenced on many of the larger properties.

Despite the fact that Constantia comprises such an abundant growth of trees, many of the oaks are old and have become diseased in recent years. Little has been done to replace them. The large size of plots has enabled individual owners to effectively camouflage much of the development by vegetation.

5.5.2

The Built Environment

This includes, not only the built-up area (including the historic homesteads), but also the farmlands and scenic drives.

The residential sector

Apart from the farmlands, the most visually pleasing aspect of the Valley is the way in which much of the development, particularly the larger plots, is camouflaged by vegetation. This is well illustrated in Photograph No. 2. This is obviously not as feasible on the smaller properties, yet even portions of these density categories are still environmentally pleasing.

As a suburban area, there are very few areas in metropolitan Cape Town to rival it with regard to scenic beauty. Apart from the trees and landscaped gardens, much of the architecture is visually attractive. Horse-keeping on many properties and market gardening add to the character of the Valley and the open space systems along the valley lines are an essential part of its charm.

In some instances, however, the more dense forms of residential development have little to offer aesthetically. They are often visually sterile and the housing itself is more of an eyesore than a visual asset. Generally, however, the sensitive demarcation of density boundaries according to topographical features has paid dividends - the potentially more visible slopes and ridge-lines having been devoted to the larger plots.

The intent of introducing cluster housing to Constantia was that it should serve to enhance the architectural character of the Valley and should be an improvement on the alternative of conventional single residential housing in that a greater degree of "openness" would be obtained. Moreover, the schemes were to have been built in and around existing trees. In the case of Alphen Mews, this has been successfully achieved; the fact that the density of development has not been accompanied by the provision of a sizeable amount of open space being due to the fact that it was actually zoned for maisonette development rather than Cluster housing. (Photograph No.s 3,4)

In contrast, the Nova Constantia scheme cannot be said to have carried out the full intent of cluster housing. Although open space was provided, its location was certainly not concealed from the surrounding area. Moreover it is intrusive upon the immediate environs of the historic homestead. There is no vegetation to camouflage the development and future extensions to the scheme (already approved) will only serve to further mar the landscape. Although its layout and architecture works reasonably well for its residents, the external aspect has little aesthetic merit. (Photograph No. 5)

Nevertheless, in regard to the Nova Constantia scheme, the surrounding single residential housing is visually just as unattractive - if not more so. (Photograph No. 5) This poses a major problem in regard to various other sites in Constantia. The future development of visually exposed sites with little existing tree cover is bound to detract from the environmental character of the Valley - this is made more acute by the lack of demand for larger plots. An effective example of what should be avoided is the relatively dense single residential development which has taken place on the slopes of Kreupelbosch township which adjoins the study area - see Photograph No.6

Historic Homesteads

In addition to the historic associations of these homesteads and their outbuildings, they are excellent examples of Cape Dutch architecture. As the original farm homesteads, their surroundings are, in general, in harmony with the buildings themselves. Apart from Groot Constantia and Hope of Constantia which are owned by the Groot Constantia Control Board, all the others are privately owned.

Klein Constantia, Buitenverwagting and Uitsig homesteads are located on properties which are still being actively farmed. The Nova Constantia homestead is the headquarters of Tupperware (Pty) Ltd., and was recently restored to its original state. Apart from the small grounds on which it is located, its surroundings have in recent years been invaded by residential development. Were it not for the fact that the Divisional Council purchased a large portion of the surrounding land simply in order to prevent further encroachment, the impact of development upon this homestead would have been far worse than it is.

The original Alphen homestead has functioned as a hotel for many years, and despite the fact that much residential development has taken place in the vicinity, it still retains much of its original character. This is basically due to the fact that it is inward-looking as opposed to Nova Constantia which is outward-looking.

The importance of preserving these homesteads and their surroundings cannot be over-stressed. Their preservation is adequately controlled by the National Monuments Council



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2.



3.



4.



5.



6.

but there is a limit to the effectiveness of this control over the surrounding landscape. To date, only the Nova Constantia homestead has been affected by encroaching development; but in view of the problems facing continued farming, the future preservation of the Uitsig, Buitenverwagting and Klein Constantia homesteads, could be threatened.

Following the approval of the Nova Constantia scheme, it was recommended by the residents in the area (and others) that, in order to prevent any possible further cluster housing, Council should purchase the development rights of all potentially developable land in the area referred to as the "Historic Triangle". Council's response was that, while the importance of preserving these homesteads was recognised, a more practicable solution would be to treat each homestead and its immediate surroundings as a separate issue. To provide continuity between the homesteads, it was anticipated that this could be achieved through a linked, open space system; which in time could become an "historic walking circuit".

At present, only three of the homesteads are open to the public. Being an hotel, Alphen is restricted as regards normal public viewing, while Nova Constantia is open only on obtaining permission from the owners. Groot Constantia is in fact the only homestead which freely caters for the public. Its great popularity as a local and tourist attraction gives some indication of the potential usage of the other homesteads.

The farmlands

Situated as they are on the lower slopes of the mountain, the farmlands are large, as yet undeveloped properties, are highly visible from across the valley and from close at hand(1) The vineyards are as much a part of the historic character of the valley as the historic homesteads.

A measure of the environmental importance of preserving these properties is gained simply by imagining the visual effect of their being replaced by conventional housing. The fact that much of the upper portions of these properties is not viable farming land, suggests that in time some form of recreational usage could be made of them. Some of this land is forested, while other portions are lying idle and gradually becoming infested with alien vegetation.

While most of the uses of farmland add to the charm of the Valley and enhance its value as a residential environment, certain other uses are considered to be out of character and have a deleterious effect upon the neighbouring residential areas. Examples of the latter are chicken batteries and pig farming but with one exception (Silverhurst Farm) these have all been phased out.

(1) See Photograph No. 7

A close inspection of many of the properties, particularly those not being actively farmed, reveals that alien vegetation has intruded to an alarming degree. This factor has been adequately covered in section 5.5.1 and needs no further discussion.

An important usage allied to farming activities is that of farmstalls. These generally serve a useful function and add to the environmental character of the valley. Nurseries, too, fall into this category.

Scenic Drives

In addition to the utilitarian use of the road system, many of the roads pass through very attractive residential and farming environments, while others afford magnificent views.

Of the major through-roads, Constantia Main Road, Spaanschemat River Road, Southern Cross Drive and portions of the Freeway are particularly noteworthy. Rhodes Drive is one of the most beautiful scenic drives in the Peninsula and in recognition of this, the Divisional Council has recommended that some form of preservation clause be imposed to ensure its unchanged state.

The proposals to widen Constantia Main Road and Spaanschemat River Road (together with its realignment) could affect the scenic value of these roads. In regard to the former, many trees may be lost if it is widened; however, some of these trees are old and may, in any event, have a limited life-span.

5.6

Recreation

The recreation activities of the study area and its immediate surroundings are mostly of an informal or passive nature. In fact, the only formal recreational facilities are those of the Gildale Sports Centre.

The existing system of public open spaces are a great asset to the local population. Full continuity of the system has not yet been established but ultimately it will give continued access through the various sectors of the valley. It is anticipated that they will also be linked up with the Forest reserves, historic homesteads and the mountains. The existing system is already well used by local residents for both walking and riding.

The forest reserves separating Constantia and Tokai are equally as well used and in fact serve both a regional as well as local function. Apart from their timber production, they lend themselves to multiple recreational usage such as walking, riding and picnicking.

Horse riding is extremely popular but facilities are limited - particularly on an organized basis. A number of equestrian and pony clubs have been trying unsuccessfully for some years to find a permanent venue for their activities. The policy at present adopted by Council is that annual permits are required to enable the keeping of horses and that in future new permits will only be issued to owners of properties in the 8000 m² category.

Constantia Nek is the focus for much recreational activity; it is the starting point of three major walking routes - along the contour path to Rhodes Memorial, via the Bridle Path to Table Mountain, and southwards over Vlakkenberg.

The northern routes are the most popular; (1) they are easily accessible, comprising of well-established pathways and pass through extremely beautiful forests. The southern route is not as well used or as well known as the other two. The first stage is also not as attractive; the indigenous vegetation has been intruded by thick stands of hakea and the path leading onto the mountain is rough and constitutes more of a climb than a walk.

A much-used picnic site is also found at Constantia Nek, and the tea-room/restaurant is an extremely popular venue - particularly as it is located at the meeting place of three popular scenic drives.

Between Constantia Nek and the Tokai Forests, the only access point onto the mountainside is the public open space at the top end of Price Drive. This route is very seldom used, the mountainside is very steep and while a contour path leading across to Constantia Nek did exist at one time, it is now totally overgrown with Port Jackson wattle. The view from these slopes is indicated in Photograph No. The Groot Constantia Control Board are at present negotiating to acquire this portion of public open space.

The major portion of the mountain slopes lying south of Constantia Nek is privately owned and therefore inaccessible to the general public. The slopes are nevertheless extremely steep and not easily negotiated. An exception to this is the Eagle's Nest/Glen Alpine block where the slopes are more reasonable and Glen Alpine in particular comprises much fairly level land.

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- (1) An indication of the popularity of the northern routes is afforded by the fact that on Sunday 25th June, a count was made of the number of cars parked on the northern side of the road. Those obviously allied with picnicking (13) were discounted and the remainder (92) were assumed to belong to walkers, hikers or climbers. Based on this sample and assuming an average of 3 persons per car, it is estimated that approximately 32 000 persons would use the routes per annum. The fact that this was mid-winter suggests that the above figure is likely to be a conservative estimate. This is borne out by the fact that McLachlan and Moll estimated that in 1976 the number of persons using these routes (together with Cecelia Forest) amounted to 50 000; and that this figure was likely to reach 90 000 by 1992.

5.7 The South Peninsula Mountain Reserve

The Divisional Council proposed some years ago that the mountain chain from Constantia Nek to Cape Point should be consolidated with the Table Mountain Preservation Board area to form a major nature reserve; to be effectively preserved from encroaching development and to serve as a metropolitan recreation area.

The Hey Commission of enquiry into the feasibility of this proposal has recently been published and, apart from endorsing the above proposal, the recommendation was made that the 152m contour be established as the limit of development, but that discretion should be used in some instances on a give and take basis. The terrain and the visual impact of development should be taken into account. (1)

It was not considered necessary to purchase all privately-owned land. Instead, those landowners who were prepared to use their land for conservation of the indigenous vegetation and outdoor recreation could continue to enjoy ownership of their properties. An appropriate measure of rates relief should be applied to these properties. Alternatively, if the property owner was unable to maintain his property, it was suggested that the property be sold or ceded to the state for nature conservation purposes - the owner retaining the right to continue living on the property. (2)

Nevertheless, it was anticipated that in the long term, all the land falling within the reserve should become state owned, and that a 5 or 10 year land acquisition programme should be embarked upon. It was stressed that the costs of acquisition would be minimal compared to the benefits not only in respect of the metropolitan population, but of the country as a whole. (3)

The problems associated with infestation by alien vegetation was stressed. It was pointed out that the provision of the Weeds Act No. 42 of 1957 relating to the compulsory eradication of hakea and other noxious weeds was ineffectual and the recommendation was made that financial assistance be given by the state to eradicate alien vegetation.

5.8 Public Infrastructure

This section deals with those services and amenities which the private individual cannot provide for himself. They are therefore provided and maintained by the local authority and, unless they serve a greater-than-local population, are financed out of local rates.

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- (1) Hey, p.81 In this regard Council recommended that, in the vicinity of Constantia Nek, slopes steeper than 1:3 should be the basis of delineation.
- (2) Ibid, pp. 83,101 (3) Ibid, p.83

General services are provided as an on-going process and are adequately catered for in the study area. The major problem in balancing the expenditure with rates income is that the major service reticulations (road and sewerage) are constructed well before the total population they are designed to cater for has been reached. Although the expenditure on these capital works is in the form of loan repayments, which means that this cost is stretched over a long period, the impact of the loan charges on the rates account is severe. This is evidenced by the fact that in 1970 they comprised 34% of total expenditure, whereas in 1976 they comprised 56%. (1)

In order to increase the income side of the account and so allow for the more rapid provision of services, as well as attaining a more optimal use of those already in existence, the argument has been put forward that more development should be encouraged. The alternative being that the rates should be increased. (2)

The funding of capital works is clearly a very real problem in an area such as Constantia where, because of the large properties, the service costs per erf are higher and the ratable value of the land lower than if it were more densely built up. (3)

As it is, not all of Constantia has been sewered and the more outlying and less built-up areas are not likely to be for some time. Because these areas mostly consist of large plots and are generally located on sloping land with adequate soil conditions, the present reliance on septic tanks is considered adequate. (4)

Early township conditions placed few obligations on the developer with regard to the provision of essential services and these had in effect to be paid for by the general rate-payer. This situation has now been rectified and developers are required to provide a high standard of services. (5)

With regard to existing development, the road system is adequate - in certain instances the road standards would appear to be excessive in relation to the needs. Road widening is scheduled to take place on Constantia Main Road and Spaanschemat River Road where a number of properties have already been purchased so as to facilitate its realignment. Admittedly, the sight distances at the intersection with Klein Constantia Road are poor but its realignment would seem a drastic measure and some alternative could be sought.

(1) Divisional Council Report No. 5, pp. 14, 15

(2) Ibid, p. 15

(3) Ibid, p. 15

(4) Ibid, p. 36

(5) Ibid, p. 36

In many cases, financing of necessary road works is the cause of excessively high standards. In order to qualify for provincial subsidies minimum standards have to be met. These standards frequently bear little relationship to the use of the road and consequently have a disastrous effect on the environment in some instances - particularly as many of the smaller roads follow historic rights-of-way which are often tree-lined and closely related to the topography. While many roads have retained their character, others have been reconstructed at the expense of existing vegetation.

Certain of the smaller roads are in a poor state of repair simply because funds are not available to maintain them. The local residents are then faced with the choice of either contributing to the repair of these roads themselves, or losing the character of the roads through subsidized road works.

An additional problem in regard to the more narrow roads, is that the verges are often too narrow or are obstructed by trees which makes both pedestrian movement and horse-riding both difficult and dangerous.

The recent proposal for a Park-and-Ride site is designed to cater for future metropolitan traffic movement demands. The acquisition of this property will be funded by the provincial authorities, but because it is designed to serve a long-term need, it will certainly not be implemented for some years.

In anticipation of the long-term social needs of the local population, the property adjoining the proposed Constantia Centre site was acquired by Council some years ago for the purpose of developing a civic centre. Apart from a number of existing dwellings on the property, which are leased out; the site is currently being used as Council's waterworks department.

In the meantime, however, plans have already been drawn up to convert the Old Alphen Winery (adjacent to the Alphen Farm Stall) into an audio-visual theatre; and a library is to be constructed alongside it. It would appear that this theatre cum hall could well serve whatever civic purpose is required for Constantia; both in the short and long term. In view of this the Constantia Property Owners Association (C.P.O.A.) have questioned the need for the civic centre site.

At present, Council's local engineering and waterworks offices are housed on land in the City Council area on the eastern side of the Freeway. Although they have existed for many years, the buildings are essentially of a temporary nature.

5.9 Public-Private Sector Interrelationships

In addition to providing public service facilities, the function of a local authority is basically to protect the interests of the local residents.

As with most fringe development, many of the more wealthy (and frequently more influential) residents have lived in the area for a long period. They have seen more and more residential development intruding into what was previously farmland, and have moreover experienced more and more of the restrictions which accompany such suburban development. It is therefore only to be expected that a certain amount of antagonism should be felt - this is a natural and world-wide phenomenon. The facing-up to reality is sometimes a bitter pill to swallow, particularly when an accustomed way of life is threatened and one has little choice but to pay increased rates for benefits that one may choose to do without.

Nevertheless, economics have dictated that the large properties and way of life of yesteryear are no longer possible; and population increases has demanded that more land for housing must be provided. Because of the exceptional environmental attributes of the valley, many Constantia residents have been characteristically antagonistic towards further development. In an urbanising area, preservation implies a monetary cost which must, in some way, be paid for by the residents. This factor has not been appreciated and has resulted in a fairly strained relationship with the local authority.

The C.P.O.A. is the acknowledged body representative of the residents; but, until very recently, its activities were also seen as a threat to the valley. Many people were in fact ignorant of its existence, while others refused to have anything to do with it. This was unfortunate as the Association has long attempted to adopt a realistic and sympathetic viewpoint.

Apart from certain isolated instances, the Association has had little support from the residents (whom they represent) and in fact it is only in the past year that it has managed to elicit not only local interest, but also support. This has been achieved through very active campaigning and has been considerably helped by Council's efforts at public participation.

Council has, in the past, not given due recognition to the potential role of the Association and has in fact been loath to participate too closely with the public. This attitude arose from certain abortive attempts in the past (not necessarily in Constantia) where public meetings have been held

and merely resulted in a verbal attack by residents on Council officials. No meaningful purpose was served by these meetings other than to give local residents an opportunity to unloose long-held grievances - which generally had nothing to do with the purpose of the meeting.

The advertising of the 1976 scheme, in January of this year, was accompanied by the open display of the relevant plans and a model of the valley. Council officials were present to explain the underlying features of the scheme and to answer questions. These displays were held in the Alphen Winery and took place out of office hours. They were well advertised and members of the C.P.O.A. also participated in answering queries and made use of the opportunity for eliciting further membership. In addition, a public meeting was held to explain the underlying reasons behind the scheme.

Both the display and the meeting were well attended and represents the first real attempt by Council to co-operate with the C.P.O.A. and to involve the public in the planning process. A measure of its success is the very large number of not only objections, but also constructive comments and suggestions which were submitted. Furthermore, it is anticipated that this public response will, to a large extent, be taken heed of and incorporated in proposals being either withdrawn or put forward. As mentioned, the recommendations made in view of public feeling are at present before Council.

The above emphasises the fact that such public participation is not simply a matter of encouraging goodwill between the public and private sectors. It is also an opportunity of determining the real needs of the residents and of educating the public in terms of the various issues which are generally looked upon simply as bureaucratic self-interest.

6.0 SYNTHESIS

As stated in Section 1.0, the reason for selecting the Constantia Valley as the study area was that it experiences all the forces associated with the encroachment of suburban development into farmland. It displays the three stages of suburban encroachment; land being actively farmed, land which is characteristic of the urban fringe, and land which is already suburbanized.

Past forces (including control policies) have been reviewed and analyzed (Sections 3.0 and 4.0). Current forces have been identified in Section 5.0; both in terms of the study area's role in the metropolitan area and in terms of its separate components - the major problem areas having been touched on.

This section is an attempt to summarize the major problems found in the study area - it being a particular example of urban fringe development. It also represents an attempt to consider why these problems have arisen; where past policy formulation has been successful or has failed; and lastly, to identify and isolate particular problem areas (both spatial and aspatial) where policy intervention may serve to achieve a more optimal and desirable result.

6.1 Metropolitan Context

Looked at in the metropolitan context, the Constantia Valley represents a good example of suburban development on the urban fringe. Its extremely high environmental qualities tend to emphasize the importance of containing the suburban encroachment of such an area, as such, it serves as a very special example. As with other fringe areas, it displays a marked dependancy on the central city and the surrounding more built-up areas. In return, it has little to offer in the form of metropolitan infrastructure - other than prime living space and considerable spending power.

The fact that this spending power is virtually lost to Constantia does perhaps vindicate the fact it contributes no rates to the central city.

As a living environment of a semi-rural nature, Constantia can hardly be equalled. The factors which have determined this environment are, without doubt, the Valley's major attributes - namely its topographical setting and micro-climate, its soils and its abundant vegetation. The form of settlement and land use which has taken place in the Valley has been dictated by the above factors. The historic homesteads, vineyards and the general quality of much of the residential development are the major factors which characterize Constantia's "built" environment.

Were the Cape Peninsula not able to offer such high quality living environments, its economic standing in the country would most certainly be considerably lower. As it is, Cape Town's role as a commercial and industrial centre has diminished in the face of the greater economic attractions of the P.W.V. conurbation.

Within the metropolitan area, Constantia offers that very rich reward to economic enterprise - a beautiful area in which to live. While this is an important factor in any capitalistic society, it must be ensured that it is not a luxury which is paid for by the rest of the metropolitan area. Apart from any other factors, the fact that Constantia is not open to all sectors of the population who could afford to live there must surely lower its role performance in the metropolitan area.

Nevertheless, as an area of great scenic beauty, it is open to all metropolitan population groups. Its potential for outdoor recreation must be seen as its major possible future contribution to the metropolitan population. To a lesser extent, perhaps, it must be seen as a potential source of food supply (market gardening) which has not yet been fully optimised. Its importance in respect of viticulture is well known and its continued grape production is of vital interest to the metropolitan area - from both an economic and historical point of view.

6.2 The Single Residential Component

As with most urban fringe areas, the initial residential settlement pattern took the form of large plots and expensive homes. This is only to be expected for it was only the wealthy who could afford to cut their close ties (in terms of proximity) with the central city and internalise many of the necessary service costs. This pattern has also traditionally been dictated by public sector policy in an attempt to minimise public service costs and the impact of development on the environment. An additional factor has of course been the increased value of land on the urban fringe which precluded the middle and lower income groups.

It was only with increased standards of living, greater consolidation of the suburbs, the provision of public transport facilities and more universal car-ownership, that it became possible for the middle income sector to move into these areas. Consequently, subdivisions into relatively smaller plot sizes were not only demanded, but also permitted by the authorities as land within the built-up area became more scarce.

The transition from an urban fringe character to that of a suburban area was characterized by speculative land holding, leap-frog development and distortions in the market value of the land. But also, and possibly of most importance, it resulted from the attitudes of the authorities in a climate of economic growth.

Land, far in excess of existing needs, was zoned for residential development. This was partly due to pressures from landowners on the urban fringe who wished to increase the value of their land; but also partly due to the grandiose ideas of urban authorities whose prime aim was to increase the local rates account as a means to competing with other urban areas. The offer of semi-rural land for residential development proved a major incentive to attract additional population.

Because of the particularly high environmental and farming qualities of the Constantia Valley, the need to control forces of suburban growth was far greater than for other fringe areas. However, despite the fact that control measures have been largely determined by the environment, and have generally been more effective than elsewhere on the fringe; it is quite apparent that Constantia has been considerably ravaged by suburban encroachment.

Not only has far too much land been zoned for residential development, but there has been too little control over the strict application of Need and Desirability in approving both townships and minor subdivisions. This is clearly evidenced by the large amount of unsubdivided land zoned for residential development, by the large numbers of vacant unsubdivided plots and by the discontinuous nature of both existing development and undeveloped land with residential zoning.

The 1963 scheme made it very clear that the purpose of drawing up density categories was not to encourage development, but rather to give certain guidelines to the form which development should take when, and if, it was to be permitted. Consequently, the scheme made no land use zoning proposals as such. It was recognized that land use zonings would not only encourage development but also speculative land holding and a more flexible approach was advocated whereby each application would be considered on its merits.

By 1969 these warnings had been ignored and a comprehensive land use zoning plan was prepared whereby all the land at present zoned for single residential purposes was so designated. In retrospect, it is this plan which has been primarily responsible for many of the problems found in Constantia today. As stated, this plan took the form of a speculators guide. Both township development and minor subdivisions were insufficiently rationed and too little regard was given to the question of need. Moreover, this plan lacked any form of staging or gave any indication where development was to be preferred or given priority - the result being the discontinuous nature of development.

The 1963 scheme was basically concerned with controlling the form of development by relating plot sizes to the topography. The principles laid down regarding the demarcation of the density categories were adhered to and resulted in a pleasing gradation of plot sizes in conformity with the topography. However, as pointed out in the 1970 scheme, three undesirable trends have arisen out of the density categories; namely, monotony of development in certain areas, plots which are too large to be effectively maintained and the fact that exclusionary practices prevailed.

Guidelines for the development of two properties (Belle Ombre and Silverhurst) were prepared. These guidelines represented an attempt to avoid the recurrence of the above trends and were based on providing a greater variety of housing choices. Two important innovations were the recommended introduction of higher density forms of housing such as maisonette and cluster development; and the proposal that a greater amount of public open space be provided than was normally required of township developers. It was anticipated that these innovations would satisfy the demands of all concerned - the developer the future home-owners and the Constantia residents as a whole.

Nevertheless, the proposals for Silverhurst were totally ignored. Half of this property was subsequently laid out as a conventional township with the bare minimum of open space being provided. The potential retention of the Valley line has thus not been optimised.

The Belle Ombre proposals were adhered to; but certain problems have subsequently been experienced in that the very large proportion of the bigger plots have not been developed and neither has the demarcated maisonette development. Apart from the sub-optimal use of the land, these vacant properties have become overgrown with Port Jackson and the attractiveness of the township has been lowered in respect of existing and prospective residents. It is clear that provision was made for too much development and that insufficient control existed to enforce development and so discourage land-holding for speculative purposes. Staged development with a strict and effective building clause could most certainly have been beneficially adopted.

The inevitable result of the suburbanization of the fringe is that high quality services are demanded by the new homeowners who generally comprise the more vocal and perhaps influential members of the metropolitan community.

These demands are usually met and because of the economics involved, the service infrastructure is generally geared to a generous over-supply in the anticipation of the long-term needs of an "ultimate" population. This, in itself, can in turn only be justified by encouraging more development so as to cover the costs of the enormous loan charges involved and to ensure the efficient functioning of the infrastructure. The situation is considerably worsened by the discontinuous or leapfrog nature of most fringe development.

As stated, Constantia has fared better than most urban fringe areas subjected to forces of suburbanization. It nevertheless has experienced many of the negative characteristics of such encroachment. This is clearly illustrated by the consideration of each of the plot-size categories which also highlights those problems which are perhaps more peculiar to an exceptionally environmentally-rich area such as Constantia.

The 8000 m² Category

When Constantia was first subdivided for township development, this size of plot appeared to meet a ready demand. At the time, the policies which determined this plot size were undoubtedly to be applauded for the impact of this development has clearly enhanced the environmental attributes of the Valley.

Various changes have, however, taken place over the past decade or so which has meant that these properties are today unrealistically large.

These over-large properties prove a hardship on existing owners which has become more severe with the present economic climate. They represent a sub-optimal use of the land in that many owners are unable to maintain the full garden area. Portions of these plots subsequently became overgrown with alien vegetation which, apart from providing a seed-bed for further infestation, tends to lower the tone of the neighbourhood - both visually and in terms of property values. This vegetation constitutes a potential fire hazard and is also a haven for vagrants. The situation is more problematic on vacant plots for which there is virtually no market.

This is to some extent a zoning problem; but is also affected by township conditions which then depend on the self-interest of those who can afford to maintain these large properties and effectively block further subdivision by those who cannot.

An additional problem is that if further subdivision were to be allowed, this could detract from the environmental character of the neighbourhood. It could also lead to problems in regard to lack of soil-stability. Moreover, there are already too many vacant 4000 m² plots on the market and it could mean that there would be no assured market for them. This could encourage further lack of maintenance on those plots awaiting a potential buyer.

Assuming that the lack of demand for 8000 m² plots is not only a reflection of the present economic climate, but rather indicative of a long-term trend which is unlikely to change, the major questions which arise are as follows. How much subdivision should be permitted, where should it be permitted; and how is the precedence of permitting subdivision to be controlled. Above all, the impact of subdivision on the environmental character of these areas needs to be determined.

The initial zoning of these areas for 8000 m² plots was to minimise the effects of suburban development and to retain the outstanding environmental attributes. Because their attractiveness is an attribute which has metropolitan-wide significance, to consider the lowering of the minimum plot size permissible in these areas on the basis of individual needs is perhaps not the intent of planning control which ought to give priority to general welfare interests. This situation clearly represents a dilemma which requires urgent resolution.

The 4000 m² Category

These properties do not experience the same problems as those of the 8000 m² category. Nevertheless, certain problem situations are found - mainly in that "speculative" land-holding has resulted in a large number of vacant, already subdivided, properties. (1) The fact that these plots are being withheld from the market, tends to lower the attractiveness of adjacent-lying plots. Also, because these properties are often overgrown, they pose the same problem as described in the 8000 m² category.

Although in more recently approved townships, a condition of establishment has been imposed so as to encourage development. This being that if no building plans have been submitted within two years of the sale of the property, the property would be rated as for a developed property. Apart from the fact that this building clause does not apply to the vast majority of vacant plots; where it has been applied it has not proved very effective for the simple reason that the plots have never been sold but have instead been held by the developer.

A major problem with such "speculative" land-holding is that it too frequently achieves its objectives; which are to either distort the property market in its favour or to convince the authorities that there is no demand for that particular plot size; and that further subdivision rights should be granted. In many cases the apparent lack of demand is simply a reflection of unrealistically high asking prices.

As mentioned above, were the 8000 m² plots to be subdivided, this could lead to a serious over-supply of 4000 m² plots. Similarly, the vital question arises of whether or not the desires of individual owners or developers should be catered for when the results could mean a lowering of the general interests or welfare of the public.

In regard to both the townships mentioned in section 5.2.7 (High Constantia Ext. 1 and Klaasenbosch Heights, the underlying reason behind the fact that they were zoned for 4000 m², and not smaller plots, was based on sound judgement of the impact of development on certain areas. Generally, the visual exposure of the slopes and the nature of existing development in the vicinity were taken into account.

The 2400 m² Category

This category experiences much the same problems with regard to speculative land-holding as the 4000 m² category. There does not appear to be any problem with its plot size as such, but the rate of development has been slow. This is possibly due to the fact that there has been much indecision during the past four years over whether or not cluster housing was to be permitted on certain sites. This illustrates the problem of inordinate delays in the public sector decision-making process.

(1) This is not strictly speculative land-holding as the properties are being withheld by the developers themselves in the hope and expectation of either a diminished supply (in which case their asking price may find willing buyers), or of gaining further subdivisional or development rights.

6.3 Special Residential Development

This form of development offers the opportunities for resolving many of the problems faced in the urban fringe zone; and more particularly in the above single residential categories.

For example it could provide for more optimal use of the land, it could offer some form of built-in measure for the preservation of the natural environment and it could add variety to the built environment. It could also provide housing accommodation in a select environment for the middle income families, or alternatively for the higher income families who do not wish to be saddled with the maintenance problems of large gardens.

Possibly of most importance, it could offer farmers the opportunity of an additional form of income which could supplement farming income. In respect of the larger properties which are not being farmed, it could offer the opportunity for providing the necessary finance simply to maintain the remainder of the property and facilitate the costs of eradicating alien vegetation.

The more vocal residents of Constantia are strongly opposed to this form of development in the Valley. This is largely due to the fact that the proposed application of this form of development as outlined in the 1970 scheme was never fully complied with. The existing schemes failed to carry out the full intent of this concept and the Nova Constantia scheme should never have been approved. (1) Furthermore, insufficient control has been built into the regulations to ensure a high performance standard of these developments. For example, there is too little control over landscaping requirements.

While the general feeling of the residents is that group housing should not be permitted at all - the concept of cluster housing is generally found acceptable - provided no increase in the density over that of conventional single residential development is permitted.

This qualified support is virtually the equivalent to a rejection of the concept, for no developer (with however marginal a profit motive) would choose to undertake cluster housing development, with its enormous bridging finances, if no increase over conventional subdivision rights were permitted. This applies in particular to the larger plot-size categories; unless, of course, there was an assured market for cluster housing at high prices and conversely, definitely no market for large single residential plots. At present the latter appears to be the case, but the real demand for cluster housing is largely an unknown factor.

In retrospect, the 1976 optional zoning proposals would appear to have been a tactical error. The selection of sites based

(1) Apart from the indirect costs due to the lack of aesthetic appeal the approval of the Nova Constantia scheme constitutes a direct cost to the local ratepayers of R100 000 - this being the cost of acquiring the land to prevent any further development taking place.

on the criteria outlined in Section 4.4.2 was well founded; but it should have been anticipated (from previous objections) that there would be enormous public pressure against the sudden allocation of eleven new sites for this form of development.

As many of the property owners of these sites were not in the least interested in Special Residential or any other development at this point in time; it would probably have been more meaningful if the sites selected served as long-term "bottom drawer" plans.

Whereas Special Residential development could make better use and serve to enhance those sites proposed; the withdrawal of these proposals is not critical as the alternative usage of these sites exists in the form of conventional single residential housing. (1) Their withdrawal therefore represents an opportunity lost to the Valley in terms of a foregone alternative which is a pity.

The real problem, however, lies on properties such as Eagles Nest, Glen Alpine and Gordon Heights where viable farming practices are suspect (if not impossible) and where no reasonable alternative use of the property (as in the form of conventional subdivision) exists. Moreover, it is on properties such as these rather than those in the built-up area, that the underlying intent of introducing cluster housing to Constantia, could best be served.

Again, in retrospect, the proposed exclusion of the above properties from the Local Area, appears to have been another error on the part of the 1976 proposals. Despite the Department of Agriculture's contention that these form both prime and viable farming units, this was never fully established by an in-depth agro-economic investigation. As it happens, the situation has still not been resolved; and the 2½ years which have passed since the 1976 proposals were put forward, could well have been used for initiating and carrying out such investigation.

6.4 The "Farming" Component. (2)

The fact that over the past 20 years various attempts have been made to preserve the farming lands and that during this period many have been lost to suburban pressures, does little to instill confidence in the authorities. Very much the same problems are being experienced today as at the time the Green Belt proposal was put forward.

The lack of any firm policy regarding the future of these properties and the evident lack of control in regard to residential development elsewhere in the Valley, has resulted in high expectations for development rights being experienced by some property owners. The farming practices of the more genuine farmers have in the meantime been detrimentally affected by the state of uncertainty which has prevailed. There has been a very

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- (1) Nevertheless some individual property owners or developers have been holding onto the land (at the cost of high interest rates and the foregone opportunity of developing elsewhere or of subdividing in a conventional manner) for 2½ years. Yet it could be argued that these holding costs merely represent one of the risks of the property market. The problem is that these risks are invariably paid for in some way or another by the general ratepayer or ultimate home-owner.
- (2) This component includes those large properties zoned for rural purposes but which are not being farmed.

definite lack of liaison between the public and private sectors in regard to the various policies put forward.

Were the 1970 proposals for allowing limited forms of residential development on the properties adopted (along with a firm policy statement regarding their future), the present problems would almost certainly have been considerably lessened.

The following are the major features and problems being experienced by this component.

Vineyards are the mainstay of the Constantia farming activities and their continued viability has been largely affected by the intrusion of suburban development.

There is a very obvious need for some enlightened policy in regard to immediate and long-term needs of the farming areas and other large properties. Many of the possible solutions to the problems being experienced are out of Council's hands, but it is nevertheless up to Council to suggest certain avenues of enquiry which will be to the benefit of the Constantia residents as a whole. It is also fairly obvious that much of the land which is not suitable for farming could well serve a metropolitan-wide recreational function.

For the continued production of wine and table grapes, it is essential that the farmers in the Valley be in a competitive position with other grape-farmers in the Western Cape. The major additional costs which the local farmers are forced to bear, are those related to rates and labour. (1) While it is not known to what extent other farmers are faced with the problem of controlling and eradicating alien vegetation; this is a most important factor in the Valley.

- (1) The following comparison between local rates and those applied in respect of the farming properties in Paarl are as follows. The Paarl properties were selected as a comparison for they experience much the same problems of farming in the context of adjacent-lying urban land. The rates on other grape-farms in the Western Cape will obviously be far less than those in Constantia. Two local properties were selected as samples; the one is being actively farmed (Klein Constantia) while the other (Glen Alpine) has no farming income but does comprise two large homesteads and a private club. The rates which would apply were the 1976 exclusionary proposals to be adopted, are also indicated.

	Existing Rates (1978)	Based on the Paarl 1976 Rating system	1976 proposal
Klein Constantia	R5 072	R1 594	R2 125
Glen Alpine	R6 471	R1 347	R2 711

Whereas the local rating structure (for 1978) is based on 2,53 c/R for both the land and buildings; the Paarl structure is based on a 70% rebate on the following - 2,9c/R for land and 0,83c/R for buildings. All beneficial improvements in both Constantia and Paarl are exempt from rates.

It is quite clear from the above that even were the 1976 proposals to be adopted, the local rates would still be considerably higher than those of Paarl. (The Paarl rating structure was obtained from the Paarl Town Treasurer).

With regard to labour, it is evident that governmental policies regarding Black labour is a crippling factor affecting local farmers. The uncertainty of quotas for convict labour from the Pollsmoor Prison further emphasizes the labour problem. Convict labour represents a large potential labour resource which is not made sufficient use of. The uncertainty of quotas is largely due to the very informal nature of the system of allocation. A more formal system is obviously called for.

Another untapped labour resource is that of the two boys' reformatories in the Valley. The clearing of alien vegetation could provide a useful extra-mural activity. Use has been made in the past of various youth organisations throughout the peninsula for the purpose of "cleaning up the mountain" etc. These organisations could be mobilised into a very effective work force which would be highly compatible with their recreational activities, while at the same time affording a useful means of education in regard to the environment.

The take-over of Groot Constantia by the Control Board and its long-term consolidation programme is a logical solution to the preservation of the vineyards in Constantia. However, despite the fact that the Control Board have stated that provision will be made for both pedestrian and horse-riding rights-of-way through their property; their actual implementation is doubtful as pilfering and vandalism (which are already prolific in the Valley) would be difficult to combat, and the public could easily disrupt farming operations.

The present negotiations to acquire a portion of Nova Constantia and the public open space at the top end of Price Drive should be considered in the light of the overall recreation system. With regard to the Nova Constantia land - the use of this site as a permanent venue for the riding fraternity could well be of more benefit to the general public than its usage as vineyards.

Moreover, it is known that the present owner of Klein Constantia, which abuts Groot Constantia, is struggling to maintain his farming practices - which are predominantly vineyards. The take-over of a portion of this property by the Control Board would appear to make infinitely more sense. The problem in this regard, is that the owner is apparently not keen on selling at this stage.

Another alternative means of expanding Groot Constantia's land holding is that of incorporating the Coleyn property which also abuts it - this is at present up for sale. However, because the property consists of a large homestead and numerous expensive outbuildings, the asking price is almost certainly way beyond the consideration of the Control Board - who, after all, are only interested in land for vineyards.

With regard to the proposed acquisition of the public open space referred to; such acquisition would, apart from the extra land gained for vineyards, prove a highly strategic move - for Groot Constantia would then abut the Eagles Nest /Glen Alpine block. Such a move would give the Control Board the long-term opportunity of incorporating into the Groot Constantia estate the entire "farming" area stretching from Uitsig in the south to Constantia Nek in the north.

This would obviously solve the problem in regard to the future of the Eagles Nest/Glen Alpine block; nevertheless two important factors must be borne in mind. Firstly, the Control Board has limited finances. Essentially, land acquisition is meant to be funded out of profits made on the estate; with financial assistance being obtained from the Department of Agriculture Land Credit and Tenure. In any event, it would seem more logical for land consolidation to take place to the south of the estate where vineyards are already in existence; rather than the north where much of the land is clearly too steep for viable farming purposes.

The second factor is the more important; this being the Eagles Nest/Glen Alpine block's potential role as a metropolitan-wide recreation node. Were this block to remain under private ownership, the public open space which is already in existence, could serve a vital linking function for pedestrian access between the built-up area and the mountain slopes.

Most of the large properties (currently being farmed or not); but especially the Eagles Nest/Glen Alpine block, are extremely well-suited in parts to some limited form of development such as cluster housing.

Alternative uses which come to mind for these sites revolve around various forms of outdoor recreation or public amenities such as hiking and horse-riding trails, picnic spots, golf courses and holiday or youth camps. Whatever the usage, it is most important that the mountain slopes be treated with utmost sensitivity. Photograph No. clearly indicates the vulnerability of these slopes from a visual point of view.

As mentioned in Section 6.3, no in-depth investigation has yet been undertaken to determine exactly what land is definitely prime farmland and constitutes viable farming units. Until such findings are available, it would be inadvisable to consider any alternative uses on these properties.

An important factor which must be taken into account, is that vineyards are not the only farming activity which should be encouraged in the Valley. Market gardening (including

orchards and flower-farming) provide a most important potential food supply for the metropolitan population. In this regard, the fact that market gardening and flower-farming are at present being carried out on a limited scale on Eagles Nest, and that remnants of fairly large orchards and vineyards are still in evidence on Glen Alpine, suggests that these uses could be encouraged. While it would appear that they would not provide sufficient income to maintain the remainder of the property; some long-term alternative form of ownership could be considered.

In this regard, it is interesting to note that many irrigation schemes throughout the country (particularly along the Orange River) comprise state-owned land which is leased out to private farmers for a given period. This land is either advertised or put out to tender. A similar policy could well be considered in regard to the above properties as well as others in the study area.

To give some indication of the demand for land for market gardening purposes; the owner of the Old Cape Shop has, for some years, been leasing both privately- and publicly-owned land throughout the Valley for growing vegetables. At present he has a virtual monopoly on all vacant and usable land - including proposed school sites. Moreover, many enquiries by other residents have been made over the past couple of years in regard to available land for such purposes.

6.5 The Environment

The environmental attributes of the Valley, both natural and built, are its greatest asset and transcend purely local interests. Without its topographical setting, its micro-climate, its soils and its abundant tree growth and other vegetative covering, the present character of the Valley - which is essentially a built environment - would be vastly different.

As it is, the beauty of the Valley is largely determined by the farmlands, historic homesteads and the character of the larger residential properties. Much of the road system consequently performs a scenic as well as utilitarian function. Various other land uses serve to enhance the above attributes; these include market gardening, nurseries, the keeping of horses and the public open space system.

As conventional residential development (in the form of plots smaller than 4000 m²) spread into the Valley, so

these attributes have been diminished. The sole reason why much of the 1350 m² and 2400 m² categories do not today constitute an eyesore is that sufficient trees and other vegetation still exist to break up the overall impression of development. These categories are, however, not yet fully developed and it can only be expected that much of the existing vegetation will, in time, be lost.

The intent of cluster housing is partly to retain or enhance these environmental characteristics on land not yet committed to conventional development. Nevertheless, as was indicated in Section 5.5.2, the Nova Constantia Scheme has merely served to mar the landscape - Photograph No. 5.

Much of the development in the 8000 m² category is well-camouflaged by trees (Photograph No. 2); while the 4000 m² category allows provision for a reasonable amount of covering vegetation.

Various factors pose a very real threat to the attributes of the Valley. Most of these are not new, but have become more imminent in recent years. The continued viability of farming practices is seriously questioned; as is the retention of the large plot sizes.

Because the farmlands and larger properties are generally located on the mountain slopes, they are highly visible and any development thereon would most certainly mar the landscape. Solely from a visual aspect, therefore, their preservation is all-important.

A lowering of the plot sizes in the 8000 m² category would have to be very sensitively controlled. Not only to retain the environmental character of these slopes, but also to avoid the possibility of overloading slopes which are susceptible to soil creep or landslides.

Similarly, future development on the more exposed slopes in the smaller plot-size categories will have to be sensitively controlled. The example given of what should be avoided (Photograph No. 6), constitutes a far higher form of density than is permissible in Constantia; nevertheless, it gives some indication of the possible impact of development on slopes which are devoid of trees.

The preservation of the historic homesteads themselves presents no problem as they are adequately controlled by the National Monuments Council. The assured preservation of their immediate surroundings is, however, a matter of concern. For example, residential development has already been allowed to encroach upon that of Nova Constantia. Three homesteads (Klein Constantia, Buitenverwagting and Uitsig) are located on existing farms and their future is inextricably bound up with the future of the farming practices on these properties.

Apart from their historical and architectural value, these homesteads and their surroundings are an essential part of Constantia's beauty and, moreover, represent a potential amenity for general public usage. They also represent the focal points in the possible long-term effectuation of an historic walking circuit.

Only a few isolated pockets of indigenous vegetation are still to be found. These comprise fynbos, proteas and silver trees high up on the mountainside and, in certain steep valleys and ravines - a few species of indigenous trees. The major threat to this indigenous vegetation is the infestation of alien vegetation - particularly Port Jackson, wattle, Stinkbean and hakea. These species pose a major problem in regard to the natural beauty of the Valley and the various uses to which the land may be put. This problem cannot be over-emphasized and the present position is that private landowners find it too costly to effectively control, let alone eradicate, such infestations.

Other alien species such as oaks, poplars, eucalyptis and stone pines constitute an integral part of the Valley's beauty. Little, however, is being done to replace these trees as they become diseased or simply die of old age. Dead branches of Stone Pine in particular pose a potential safety hazard.

The major problem in regard to the preservation of the environmental character of the Valley is one of economics. The financial burden is too often placed on the individual property owner. The easing of this financial burden is clearly a matter of public sector control and intervention. Certain other aspects of the environment are also in the hands of the authorities; these include various road-widening and realignment proposals, policies in regard to the improvement of road alignments and, surfacing, and also restrictions in regard to various uses such as horse-keeping, farm-stalls and nurseries. In general, required performance standards are too high and restrictions too severe; with too little consideration being given to the environment - both visual and living.

6.6 Recreation

As mentioned, together with the scenic value of the Valley, its recreational potential represents the major potential contribution to all sectors of the metropolitan population.

At present, the three foci for outdoor recreational pursuits are the public open space system, the Tokai Forest Reserve and the mountainside north of Constantia Nek. These are all extremely well used and present no problems.

The public open space system is not yet fully co-ordinated; this will depend on future subdivision of private properties and on the availability of funds. It is envisaged that the system will ultimately be linked with the forest reserves and the mountainside and will also include an historic walking circuit.

There is, however, a need for a site to be set aside as a permanent venue for the horse-riding fraternity - which comprises several organisations. In addition there is a need for a more flexible policy to be adopted in regard to horse-keeping which in the future is to be restricted to the 8000 m² category. Furthermore, safe and easily accessible riding trails are sadly lacking.

The mountainside south of Constantia Nek is little used and constitutes a major potential for outdoor recreation. The existing pathway up the mountainside (above the tearoom/restaurant) is below-standard, is too steep and could lead to soil erosion. Consequently, this portion of the mountainside is not optimised as a potential hiking or walking trail. Moreover, the existing pathway leading southwards to the public open space at the top end of Price Drive, is totally overgrown and virtually inaccessible. Infestations of hakea and Port Jackson are a major problem.

The recommendations made by the Hey Commission in regard to the South Peninsula Mountain Chain represent a major step forward in both the preservation of this portion of the mountain chain and of its recreational usage. Possible major stumbling blocks behind the implementing of these proposals are likely to be the actual acquisition of the land and the willingness of private owners to allow their properties to be accessible to the general public.

The use of the mountainside is clearly a long-term matter; but allied to its future usage, is the immediate necessity for the preservation of indigenous vegetation and the control and eradication of alien vegetation. In this regard it is noteworthy that the Commission has recommended that financial assistance be given by the State to private property owners for the eradication of such alien species.

6.7 The Commercial Component

With the exception of the residential component, all the above represent the more rural or countryside aspects of urban fringe development - which are emphasized by the particularly high amenity value of the Valley.

The commercial component, along with the residential sector, represents the more urban aspect of development in the Valley. The form and pattern of commercial facilities are typical of any suburbanizing area, namely small clusters of local- or neighbourhood serving convenience outlets. The scenic attributes of Constantia have resulted in these facilities catering also for passing traffic.

An additional aspect of the local provision for shopping which is typical of the urban fringe, is that forces of decentralisation from the central city have left their mark. The fact that the proposed Constantia Centre has not been developed is largely the result of bad timing; its anticipated role was successfully usurped by the development of other regional or sub-regional shopping centres in Tokai and Claremont.

In considering the local provision of shopping facilities, the following factors are evident. On the one hand, there are at present insufficient shopping facilities available. On the other hand, however, there has been too much land zoned for long-term local shopping needs. This, again refers to the dangers of over-zoning.

In regard to existing facilities; the Glenstantia and High Constantia centres do not appear to be functioning all that successfully - particularly the latter. The problem with the High Constantia centre is that it is not easily accessible to passing traffic and the existence of a number of vacant premises merely accentuates its lack of viability and attractive power.

The Glenstantia Centre has all the ingredients for success, but clearly lacks something. It requires a boost of some sort to introduce a bit of life - and more custom.

Future shopping needs must obviously take into account shopping facilities in neighbouring suburbs. It seems, however, almost certain that the already approved development of the proposed Constantia Centre is far in excess not only of what would be ultimately required to serve local needs, but also what would be desirable for Constantia. A centre of the size envisaged, would most certainly have an enormous impact on the surrounding living environment and on the road system.

Were the developers of the proposed centre to acknowledge that the full development of the centre would not be a viable proposition - even in the long term; it would seem reasonable to expect that they would consider some more modest and possibly alternative use for the site.

A slight expansion of the Glenstantia Centre, even at this stage, would serve a useful purpose in terms of further provision of shopping facilities and in terms of revitalising the present centre. From a metropolitan stand-point, the present over-provision of office space in the central city suggests that no decentralised employment opportunities in this category are necessitated. Nevertheless, solely from a local point of view, some form of additional employment in the Valley would seem desirable.

At present, there is a riding school for disabled children being run on a temporary basis on a portion of the site. This could become a permanent venue for this use - but obviously the land-owners would not be prepared to forego the high land-values of this site for such a purpose. Alternative uses such as an old age home, a creche, adult education classes, art and handicraft classes come to mind - but these would depend on the demand and on alternative facilities in the vicinity. Again, these uses could hardly justify the costs of acquiring the land.

Were the approval for the full proposed development to be withdrawn on the basis of its undesirability; Council (and thus the ratepayers) could be saddled with claims for compensation. This would obviously not be equitable.

In regard to other facilities such as farm stalls and nurseries, it appears that Council has adopted an over-restrictive and negative attitude to these uses. Obviously, safety (with regard to traffic and pedestrian movement) must be taken into account; as must the possible devaluation of adjacent residential properties. Nevertheless, in the past, too much emphasis has been placed on the danger of creating precedents which are difficult to control. A more flexible approach is warranted; especially as these uses perform a useful function and add to the charm of the Valley. In addition, a more flexible policy with regard to spot-zoning for isolated "corner stores" is called for.

6.8 General

The efficient functioning of any suburban area is dependent on clear and realistic policy directions as contained in the zoning plans and other ordinances. These must first of all respond to the perceived and anticipated welfare needs of the residents; and secondly, be strongly informed by reliable social and economic trends. Parochial self-interest at the expense of other sectors of the metropolitan community must be guarded against.

The role of the public sector is basically to protect the interests of the private sector and this fact is too often lost sight of. All expenditure on services and amenities is funded out of the ratepayers pocket and it is only fair that the individual resident should not only understand and appreciate what these funds are being spent on, but should also be given the opportunity to voice his opinion in the knowledge that some cognisance will be taken.

One of the major problems in an area such as Constantia is the funding of capital works and services in the face of an inadequate tax base. The only solutions to this are to cut down expenditure, to increase the annual rates or to encourage more rapid (and possibly more dense) development. All of these solutions give rise to strong opposition and it is clear that no matter what policy is adopted - there will be strong opposition from some residents.

It is evident that there has been an overprovision of land for future uses such as the proposed civic centre site. This is particularly so when it is considered that facilities which could adequately serve local civic purposes have in the meantime been proposed for the Old Alphen Winery. There is an evident lack of a clear policy in regard to Council-held land which requires fairly urgent resolution - particularly as it is ratepayers money which is being employed. Another example of possible wastage of public money is the proposed Park and Ride site which will not be implemented for many years - no thought has been given to the use to which this site could be put in the interim period.

Public-private sector interrelationships are largely based on the existence and effectiveness of a representative or mediatory body. Ideally, this body should comprise members of both the private and public sector whose prime role should be one of objective participation. In the local context the private sector is represented by the Constantia Property Owners Association, together with a representative Divisional Councillor and of course, provincial and national governmental representatives.

The importance of the C.P.O.A. has, in the past, not been recognised by either the local residents or the Divisional Council. Its role as a representative body and as a barometer of public needs and attitudes has only recently been appreciated. There is clearly much scope for improved relationships between the two sectors and effective public participation has been denied far too long. The fact that the advertising of the 1976 scheme proposals was accompanied by a fair measure of public contact, and that positive cognisance is likely to be taken of objections to Council's proposals, augers well for the future.

Apart from the policies and proposals put forward by the authorities, the inefficient functioning of the public sector together with the lack of any meaningful co-operation or liaison between the various sectors at all levels, requires drastic overhauling. The whole system is cumbersome and far too much time is wasted in the decision-making process. The enormous costs which accompany delays in the consideration of various development proposals are invariably passed on to the individual ratepayer - both in a direct and indirect, trickle-down, fashion. Ultimately, therefore, the entire metropolitan population is affected - and most of all, the lower income groups.

6.9 Problem areas summarized

As illustrated in the previous Sections, there are certain aspects of the way in which Constantia functions as a suburbanizing area which are a cause for immediate and future concern.

Some of these so-called "problem areas" (both spatial and aspatial) are typical of most urban fringe zones, while others are peculiar to Constantia. Generally, the typical fringe problems are made more severe because of the particularly high environmental qualities of the Valley - both built and natural.

A major point to be made is that these problems are neither solely related to the land nor to the people, but rather to the interrelationships between them. For convenience, the problem areas are listed under the component headings; but it must be borne in mind that many of the problems and their possible solutions reflect the inextricable interrelationships which exist between these components.

Residential

- The 8000 m² properties are too large for conventional residential purposes. Property owners suffer severe hardships and there is little or no demand for these properties. However, their subdivision could lead to the deterioration of the environmental qualities of some of the most beautiful areas of the Valley, and to an over-supply of 4000 m² plots. Moreover, overloading certain slopes with development could be dangerous due to the unstable nature of the soil.
- There is too much land in the 4000 m² and 2400 m² categories being held back by developers or land-owners. This represents a sub-optimal use of the land, distorts the property market and lowers the tone of the neighbourhood.
- Special Residential development (cluster housing) has not performed its required role of optimising the use of the land and enhancing the environment.

Commercial

- Existing shopping facilities are insufficient to serve local needs.
- Both the Glenstantia and High Constantia centres do not function efficiently.
- Land zoned for commercial purposes is in excess of the long-term needs of the local population and some alternative use of the proposed Constantia Centre is required.

- Too heavy restrictions are placed on the establishment and functioning of farmstalls and nurseries.
- There is a need for more convenience stores of a neighbourhood type.

Farming

- Prime and viable farming land has not yet been determined.
- Existing farming practices are becoming increasingly less viable.
- Some alternative usage is urgently required for those large properties not being farmed, or being farmed on a limited scale.

Recreation

- The outdoor recreational potential of the Valley is far from optimised.
- There is an urgent need for a permanent venue for the establishment of an equestrian centre.
- The policy in regard to horse-keeping is too restrictive.
- There is a lack of safe and easily accessible riding trails.

The Environment

- Certain species of alien vegetation need to be controlled and eradicated.
- Remnant pockets of indigenous vegetation have become increasingly endangered.
- There is no meaningful replacement programme to replenish the loss of existing trees.
- The immediate surroundings of the historic homesteads are subject to encroachment by residential development.
- Environmental factors are not given sufficient importance with regard to road standards.

General

- The public is not given sufficient opportunity to participate in the planning process.
- The potential role of the Constantia Property Owners' Association is not fully realized.
- There is an imbalance between expenditure and income in the local rates account.

- Public expenditure of private sector funds tends in some cases to be wasteful; examples being the proposed civic centre site and unrealistic road standards.
- The lack of efficiency in the public sector has direct and indirect repercussions on the private sector.

And lastly, in terms of its metropolitan context:

- Constantia is too dependent on the rest of the metropolitan area - and, in particular, the central city; without contributing sufficiently to the needs of the metropolitan population.
- Its major asset, and one which represents its sole potential means of contributing (namely the environment and its outdoor recreational and scenic potential), is being threatened by developmental pressures, private-sector self-interest, unrealistic public-sector standards and restrictions, and the intrusion of alien vegetation.

In seeking solutions to the above problems; many of which are typical of urban fringe development both in this country and elsewhere; it is extremely useful to be able to consider what alternative policy measures have been adopted in other countries. Both Britain and the United States have experienced much the same urban fringe problems as South Africa.

Part Three outlines the policy measures adopted or put forward in these countries. While both essentially deal with the problem of urban fringe development or suburban containment; they depict vastly different approaches.

The British approach is determined at the national level and the various attempts at controlling development coincide with the terms of office of the Labour Party. Basically, the policies adopted have been to redistribute the ownership of land, and the profits gained therefrom, in a more equitable manner; mainly through the nationalisation of the development rights on the land. The emphasis has been on containing suburban spread and thereby preserving both the farmlands and the environment - with emphasis being placed on the role of green belts.

The approach in the United States has been largely determined by the very strong democratic and free market conditions which are characteristic of America. The largely uncontrolled market forces have resulted in severe conditions of urban sprawl; and it is only relatively recently that positive measures in the form of "managed growth" have been implemented. These measures have no nation-wide applicability and are instead applied by individual authorities.

Many of the problems experienced in both countries have strong applicability to urban fringe development in the South African, and thus local, context. There have been, and still are, many similarities in the actual pattern of suburban expansion; although of course, both the British and United States have experienced far greater population - and thus development-pressures - than South Africa. Moreover, the fact that the South African planning system is less socialistically-oriented than the British system under the Labour Government, but not as democratic and with less emphasis on the free market as the United States - places it very much in an "in-between" position.

The lessons to be learnt and the ideas gleaned from the British and United States experiences are therefore of great relevance to the local situation.

PART THREE

Alternative policy measures

1.0 CONTROL POLICIES IN BRITAIN

The British approach to suburban control is founded on "a strong philosophy of what the ideal urban structure should be". (1) This philosophy or attitude to urban expansion was founded on the ideas formulated by Ebenezer Howard at the turn of the century when his concept of Garden Cities was put forward. These ideas were based on combining the attributes and opportunities of city life with the physical environmental characteristics of the countryside. The major elements being self-contained Garden Cities located well away from the larger cities and surrounded by a wide tract of publicly-owned countryside in the form of a green belt. (2)

These ideas did not, however, at first take root. And it was not until an unprecedented rate of suburban expansion, together with much speculation in land, took place during the 1930's (with the consequent loss of much valuable agricultural land) that serious consideration of the policy for suburban containment became commonly accepted by both the authorities and the general public.

1.1 The emergence of control policies during World War II

The advent of World War II led to the realization of two major factors - these being the strategic necessity of curbing the growth of London and the other large cities, and also the importance of preserving farmland in the face of wartime blockades of imported foodstuffs. The former resulted in the Barlow Commission which revived Howards Garden City ideas in the form of a programme for the development of New Towns. (3) The Scott Committee reported on the preservation of agricultural land and came up with some rather radical proposals.

The basic notion of the Scott Committee was that "agriculture should occupy a specially privileged place in the national economy. It was not to be regarded as any other industry, subject to the hard rules of economic competition - which would possibly lead to long-term decline, but was to be protected against competition for the land it used. In respect of prime agricultural land, the system of land use planning should guarantee that it should never be displaced. Elsewhere, it should always have first claim; and the onus should be on the intending developer to show that a change in land use was in the national interest." (4) In view of the fact that these proposals were made in response to the particularly trying period of the war years, it was only to be expected that in the climate of postwar euphoria (and the lifting of blockades) they should fail to be adopted. (5)

(1) Clawson and Hall, p.262
 (3) Ibid, p.40
 (5) Clawson and Hall, p.38.

(2) Ibid, p.33
 (4) Ibid, p.38

One of the most revolutionary ideas to emerge from the war years was that put forward by Uthwatt; namely that although undeveloped land may be privately owned, the development rights pertaining to the land should be nationalised. (1) "It was felt to be wrong that a private landowner or developer should make and retain a large profit from selling land or from its development where most of this profit had been made possible by the actions of the general public and by the granting of planning permission particularly as the local authorities were encumbered with the additional expense of providing roads, schools and other amenities and services".(2)

A betterment tax (or enhancement levy), representing the increase in value of the land through the granting of development rights, was to be levied. This tax would serve to pay for the provision of public amenities and services and would also serve to compensate land prejudiced through the withholding of development rights. Although Uthwatt's proposals were not immediately adopted, they played an important role in shaping all future planning policies in Britain and elsewhere. (3)

Prior to World War II, Unwin had formulated ideas for a "green girdle" around London. The proposal was to be based on the public purchase of tracts of land for the recreational use of London's inhabitants. "Instead of a continuous belt of land, the proposal was essentially based on the drainage network and open space would therefore be woven into the urban fabric. In this way the interface or "edge" between the built-up areas and the open space would far exceed that of a continuous belt of land - thus optimising its recreational usage to a far greater number of people".(4)

While this plan was to a minor extent implemented, with the outbreak of the war, the emphasis on containment and the preservation of farming land led to Abercrombie's proposal for a continuous green belt. This did not require much outright purchase of land - merely the withholding of development rights; and so Unwin's proposals were never fully carried through. (5)

1.2 The 1947 Town and Country Planning Act (6)

The 1947 Act was promulgated during the postwar boom period, when land values escalated and speculation was rife. It was designed to replace the modified free market system by formally nationalising development rights on all land - not only undeveloped land as suggested by Uthwatt.

(1) Ibid, p.39

(2) Editorial Notes (Town Planning Review, p.241

(3) Clawson & Hall, p.39

(5) Ibid. p.154

(4) Whyte, p.153

(6) Hall, pp. 225, 390; Clawson and Hall, p.41.

The state and its agents (the local authorities and new town development corporations), would have absolute and effective power over all new development. These authorities would be empowered to prepare and regularly revise development plans for their areas and all development would be controlled in accordance with these plans.

Betterment levies would be payable in respect of all land granted development rights in accordance with these development plans. Moreover, local authorities were empowered to expropriate private land (compulsory purchase) at existing use values. Although no compensation was to be paid to those developers denied the right to develop land, in recognition of the fact that some landowners might experience hardship - the state made provision for a sizeable sum of money to pay claims based on the 1947 value.

1.3 The effects of the 1947 Act (1)

In its attempt to control peripheral urban growth, the 1947 Act may be said to have been successful. In practice, however, this containment had a number of side-effects which in the welfare interests of the population could only be described as near-disastrous.

Firstly, because the green belts around the conurbations and other large cities served to curb any peripheral expansion, land values within the city areas increased enormously due to a limited supply of land; consequently, speculation, housing densities and the cost of housing soared. Congested living environments, traffic congestion and the strain on public services and amenities led to a general lowering of the Welfare levels - particular amongst the lower income groups.

Secondly, the policy adopted by the rural authorities reflected the traditional influence of the more wealthy landowners whose major concern was the maintenance of an existing situation and the staving-off of suburban encroachment of farming land. With mounting pressure on existing small towns and villages, especially those within reasonable commuting distance of the cities, the rural authorities tended to channel overspill population from the cities to the less "attractive" villages and small towns where limited land was made available for development. The extremely high land and development costs (holding costs and betterment levies) in these smaller towns tended to discourage the development of shops, offices and other work opportunities, together with normal urban amenities including educational establishments. This meant that the new housing developments functioned simply as dormitory suburbs with strong commuter linkages to the cities.

(1) Hall, pp. 394 & 400, Clawson and Hall pp. 263, 264 and 280.

As a result of this artificial restriction on the supply of land for development, the ever-increasing demand for housing and for land with development rights caused land prices to rise astronomically and speculation flourished. The planning system in fact created a situation where landowners and speculators found themselves in a monopolistic position. Because land was so scarce and costly, and because of the high costs of obtaining development rights (betterment levies and holding costs), developers were forced to concentrate on high density mass housing with little emphasis on quality of housing or on general living environments; and, because the demands for housing were rising rapidly, they could afford to do so - at ever-increasing asking prices.

Coupled with the total lack of control over land prices, the overall effect of this restriction in the supply of land for development was to impose an ever-increasing cost burden on the housing consumer who was forced to bear the full costs of those passed on by the developer. The system thus proved highly inflationary and showed little concern for the welfare levels of the lower income groups.

1.4 Further Intervention (1)

In the 23 years following the 1947 Act, three abortive attempts were made to improve the restricted private market so as to curb the inflationary land and housing prices.

Firstly, under the 1954 Act, the betterment levy on land which already had planning permission was done away with, in the hope that the private housing market would be revived and that housing costs would be lowered. Moreover, as local authorities could still expropriate land at current use values, it was expected that they would acquire land for public housing projects. Apart from the fact that this proved highly inequitable in respect of those landowners without development rights, and who were still required to pay a betterment levy in order to acquire them, the private market failed to meet the ever-increasing demand for housing and the rural authorities steadfastly continued their policy of discouraging new development.

Secondly, to rectify the inequity of the above Act, market value was restored as the basis for compensation on the expropriation of land by local authorities. This merely reinforced the attitude of the rural authorities and, where land was acquired for public housing projects, the increased land acquisition costs were imposed on the new homeowners - thus precluding the lower income groups. Furthermore, the major beneficiaries of this proposal were the upper income, entrepreneurial sectors who availed themselves of the current sellers market.

(1) Hall, pp. 219, 224, 225 & 400.

Thirdly, in an attempt to redress the situation, the Land Commission was set up in 1967. It was recognized that the distortions in land values with the resultant exorbitant housing costs was due, not to the great changes in demand, but rather to speculation, local planning control (holding costs) and legislation (betterment levy); the major cause being due to the fact that local authorities were not designating enough land for urban development.

The objectives of the Land Commission were therefore to assemble land in the areas of greatest land pressures and to release parcels to developers as the need for more land arose. Furthermore, the betterment levy was re-introduced - to 40% of the increase in value arising out of the granting of development rights.

The Commission failed in its attempt to stabilize land prices for a number of reasons. It had too small a budget and made no real contribution to land assembly. Its aims were strongly resisted by local authorities, particularly the countries. Apart from the assembly of land, it was not sufficiently attuned to the market to be able to judge when land should be released. It therefore created uncertainty and suspicion in the market and in fact only served to feed the inflationary spiral. For example, on average, land was less than 10% of the housing package costs in 1960, whereas by 1970 it was about 30% - and much of this increase occurred after 1965.

With the dissolution of the Land Commission in 1970, the betterment levy was once again done away with and instead, provision was made for development value realized through the normal system of taxation and capital gains. The basic problem of land supply therefore remained unresolved and was dependent on local authority estimates of the demand for land and their willingness to release it.

1.5 The Community Land Act of 1975 (1)

With the return to power of the Labour Government in 1974, the third major attempt was made to fundamentally reform the country's pattern of land ownership and development. As with the previous attempts (the 1947 Act and the 1967 Land Commission Act), the 1975 Community Land Act represents an attempt to obtain for the public most of the profits that accrue from the sale of land for development. To reiterate - it was generally felt to be wrong that a private owner should make and retain a large profit from selling land for development where most of this profit had been made possible by the actions of the general public and by the granting of planning permission; particularly as the local authorities were encumbered with the additional expense of providing roads, schools and other amenities and services.

(1) Lichfield, pp. 84, 85; Lock, pp. 205, 206; Editorial Notes (Town Planning Review) pp. 241, 242; Harris, p.38; White, p.5; Oakes pp. 6, 7.

The events of the past indicated that for the public to recoup its rightful share of "betterment", two major side-effects had to be taken into consideration; either the supply of land became restricted or the housing consumer was forced to bear the full costs of development - including the betterment levy.

To avoid these side-effects, the Community Land Act adopted the two major proposals put forward 33 years before by Uthwatt, namely, that all development land should come into public ownership at the point of development (land nationalization), and that ultimately a situation should be reached where all land would change hands at current use value - in this way all development value would accrue to the community.

An all-important factor in bringing in this new Act was that economic conditions had changed markedly since 1973. The land-boom of the 1960's had played itself out and there was now a distinct falling off in direct and derived demand for development. In addition, a combination of inflationary building costs, exceptionally high interest rates and development gains tax had curtailed the role of the developer. As Lichfield points out, the prevailing context under which the Act came into operation was that of "planning in a no growth situation".

From this, it followed that not only should the Act reflect the need to make the best use of existing resources, but that it should also adopt a more positive and creative approach to planning.

A major lesson learnt from the past was that instead of trying to suddenly impose an abrupt restriction on the market system, these measures should be phased into the system with, in addition, strong liaison between the public and private sectors being encouraged.

1.5.1 The basis of the Act

The essence of the Community Land Act is that all land for development would ultimately be purchased by the local authorities at current use values; this would then be sold to developers at its speculative or development value and the profits would revert back to the authorities.

A most important aspect of the Act was that the local authorities were duty-bound to bring development land into public ownership and hence into development. This was a fundamental change from the past where local authorities were free to release or acquire land for development as they pleased.

An integral aspect relating to the Act - and one which served as its vital tool for implementation - was the introduction of the Development Land Tax. This, together with

the Act, forms part of the package of measures called the Community Land Scheme. The major objectives of the Development Land Tax Bill were: (a) to move the land market towards a system by which compensation is based on the current use value of land, rather than on the blend of hopes and speculation which makes up the market value, and (b) to tax unearned gains made from development values and to pass this tax directly to the local authorities. (1)

1.5.2 Implementation of the Act

Prior to the Act actually coming into operation, local authorities were obliged to prepare land acquisition and management schemes (LAMS) and land policy statements. These would, together, indicate what land should be purchased, what it should be used for, when it should be purchased and when it should be sold. A five-year rolling programme would be drawn up showing the above and would be subject to public scrutiny.

In this way the local authorities would assist positive planning and the more orderly development of their areas based on the perceived needs of the various sectors of the community. The only land which would not be affected by the Act would be the so-called "exempt (or minor) development" and "excepted development" which would include all land which already held planning permission, land already held by developers and all development on sites less than 900 m². Furthermore, the local authority proposals were to conform with the overall structure plan of their district or county and required co-ordination between authorities.

The Act came into operation on April 1st, 1976, which was referred to as the first appointed day. Thereafter local authorities were obliged to purchase land in accordance with the LAMS rolling programme and land policy statement. At this stage the authorities would pay market value for the land they buy less the Land Development Tax; which was fixed at 80% (with certain exceptions) of the difference between market value and current use value.

Another procedure that would operate from the first appointed day was the ability for authorities to "suspend" planning permission (i.e. where applications had actually been made for permission to develop) for relevant development where they wished to buy the land in question.

Dependent on a high rate of public acquisition of land, a second appointed day was tentatively put at ten years hence (1986), when the Act would have reached its objective - for the basis of all land acquisition would then be set at current use value.

(1) For the purposes of this study, the complexities of the Development Land Tax Bill are not more fully elaborated.

1.5.3 Working with the Private Sector

Inherent in the Act was the strong realization that, although the role of the developer had declined rapidly in the face of the current economic climate, it was essential that his entrepreneurial skill and experience should not be wasted - it was, in effect, a resource which the land and housing market could ill afford to do without.

This is why the Act emphasized the interim nature of the nationalisation of land. It was recognized that the public sector machinery was not geared to the development process; being too cumbersome and inflexible to replace the flair of developers. Intervention was thus based on sorting out land values and profits and returning them to the rightful recipients. Once the land was acquired, the developers would be brought back into the system either as relatively free agents or even under a so-called "partnership-agreement" with the local authority.

Another aspect of this new policy was that a too detailed approach to control with the temptation to implant uniform standards of design based on the requirement of the authority should be avoided. Thus, on disposing of the land to developers, a fairly flexible approach was to be adopted, with sufficient attention being given to the preferences of the public. Architects, planners and designers were to be given the scope to innovate and to apply their design skill to the fullest extent.

At the same time the system afforded the opportunity of giving the developer, at an early stage, a clear brief of the broad design aims of the authority. Successful examples of this process already exist in the new towns. In this way the Act would provide the tool for shifting the system away from a reactive and often negative approach towards a more positive consideration of land needs and how these can best be met.

2.0 CONTROL POLICIES IN THE UNITED STATES

2.1 A Comparison with the British System (1)

Planning control of suburban expansion in the United States has not been as successful as that in Britain. This is primarily due to the fact that the general attitude in the United States has been one of growth and development, while that of Britain has been one of containment and preservation of the countryside. Moreover, the United States has adhered to the tenets of the free market and the private enterprise system, while Britain has repeatedly attempted to replace the free market system by a publicly controlled system.

The general pattern of post-World War II urban development in Britain has been characterised by containment of the large cities through green belts and the channelling of urban development towards small towns or villages including the new towns. In the United States the pattern has been one of largely uncontrolled suburban sprawl; Housing densities in Britain are consequently considerably higher than those in the United States.

Another dissimilarity between the two countries is that planning control and policy making is highly centralized in Britain, whereas in the United States it is largely in the hands of the local authorities. As a result, the strong philosophy of urban form and its control which is so characteristic of Britain has no equivalent in the United States - where countless different theories and policies have been put forward but none accepted as national policy.

Suburban development in Britain is dependent upon planning permission which is strictly enforced according to comprehensive strategy plans. In the United States, suburban development is controlled through zoning powers which in theory constitute a powerful planning tool, but which in practice have proved largely ineffectual - in addition, the zoning plans frequently lack any comprehensive land-use policy.

Despite these dissimilarities, the forces underlying suburban expansion are similar - in Britain they have been controlled, but in the United States they have been allowed almost unlimited freedom.

2.2 Zoning Powers

Effective means for planning control date back to 1926 when the legal issue of zoning powers was largely resolved with the Supreme Court decision in the case of *Village of Euclid v. Ambler Realty Co.* This decision empowered local authorities to make and enforce restrictions on the use of private land whereby certain activities could be forbidden, restricted or controlled because of their threat to public health, safety, morals, and other aspects of the public welfare. A model

(1) Clawson and Hall, pp. 180, 181, 260-264.

zoning law was published in 1928 and it is this which has subsequently formed the basis of local authority police power - bolstered by subdivision control measures, building codes and the scheduling of public works. (1)

The ineffectiveness of zoning powers in regard to suburban expansion has been due partly to the encouragement of urban growth by the authorities, partly to the lack of effective control measures and also partly to the extreme democracy of the system - whereby private sector appeals to the law courts were frequently upheld due to the fact that the welfare aims of zoning could not be satisfactorily proven. (2)

Zoning powers soon lacked credibility amongst land buyers, sellers and tax assessors. Transactions in suburban land conversion did not take present zoning seriously "sometimes land was traded subject to a rezoning, while often it was traded on the assumption, nearly always realized in practice, that zoning could be changed as desired. Although land is supposedly assessed according to its highest and best use (which should reflect zoning) - in practice the assessment of most suburban land for tax purposes took little account of zoning and therefore was seriously under-assessed." This situation encouraged speculation and major windfall gains were made when properties were rezoned. (3)

2.3 Suburban Sprawl

Since the 1930's increased car ownership and usage resulted in a more dispersed urban settlement pattern than previously prevailed. The intrusion of suburban development into the urban fringe usually took the form of a sprinkling of large single residential lots (1-5 acres) along roads leading into the countryside. These were followed in turn by groups of small subdivisions and then larger clusters of subdivisions or housing estates - often located in or near scenic areas. Larger-scale development was generally located where land was expansive, relatively flat and inexpensive. (4)

The post-World War II years experienced a rapid increase in momentum of this outwards expansion and led to the characteristic pattern of urban sprawl. The development of expressways and decentralized shopping centres facilitated urban sprawl but also led to a pattern of scatteration or leapfrog development. Other factors which led to this leapfrog pattern were the fact that the most scenic and attractive areas for residential development (and the most saleable) were often located some distance from existing development; this land was not yet affected by suburban land values and could therefore be acquired relatively cheaply. Moreover, the authorities

(1) Clawson and Hall, p.156; Clawson, p.93, 345

(2) Clawson, p.355 (3) Ibid. p.346

(4) Isberg (Management and Control of Growth Vol III) p.30.

were easily coerced into rezoning the land for residential development and in many cases indirectly encouraged discontinuous development by the mere fact that the cost to the developer of extending service reticulations took no account of the distance involved. (1)

Although it has been argued that leapfrog development can beneficially affect long term suburban expansion in that flexibility is implanted in the system, allowing for the future provision of school sites, public open space and other amenities; this is generally overridden by the more obvious drawbacks and costs of discontinuous development. (2)

Firstly, the land values of tracts which are skipped over are considerably escalated by the fact that development has taken place around them and thus makes future public land acquisitions very costly. Secondly, the tax base of the area is low and cannot cover the costs of the provision of public services such as police, fire protection. Thirdly, the provision of essential services such as water, sewerage, roads and school facilities leads to enormously high property taxes which in many cases are also imposed on the owners of skipped-over land - thus making continued farming an uneconomic prospect. Finally, the pattern of discontinuous development is reinforced by the fact that much vacant land is held by speculators. (3)

Suburban sprawl has too frequently resulted in an unaesthetic and monotonous environment, it has been extremely costly and wasteful of land, it has encroached upon valuable farmland and areas of scenic beauty. Perhaps its major negative feature has been its exclusionary effect. It has catered for the upper income car-oriented sector of the population thus effectively lowering the economic base for public transport systems and adversely affecting the tax base of the central cities. In general, it is the lower income groups within the City centre who have suffered the costs of suburban sprawl. (4)

Notwithstanding the negative effects of suburban sprawl, its vitality and the fact that it has served to accommodate a way of life which obviously appeals to many, cannot be ignored. The highly dispersed nature of the suburban decision making process and the ineffectiveness of control measures did in fact allow for greater innovation in development techniques - which was lacking in Britain.

Still, these positive aspects fail to balance the more negative aspects of suburban sprawl; and it was only to be expected that the particularly rapid growth rates of the early 1960's should trigger-off a widespread questioning of the American growth ethic as a necessary premise of progress. (5)

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- (1) Ibid pp. 30 (2) Thompson, p.328
 (3) Isberg (op cit, p.31) (4) Clawson and Hall, pp. 271,275
 (5) Scott (Management and Control of Growth Vol. 1), p.2

2.4 Managed Growth

The direct and indirect effects of suburban sprawl led, quite naturally, to a proliferation of studies outlining the long-term impacts of uncontrolled growth. These also quite naturally elicited an almost emotive outburst of "stop/non/zero-growth" lobbying which, in turn was vigorously opposed by not only the participants on the supply side of the suburban market (landowners and developers), but also by representatives of the lower income demand side. (1)

Arising out of the above, a so-called "new mood" evolved; whereby it was recognized that continued (but limited) growth was not only necessary, but desirable - provided it was positively guided in an integrated and systematic manner. "Choices and decisions should be made explicitly and with full knowledge of the variables and trade-offs involved, programmes should be co-ordinated in furtherance of clear community growth and land use objectives." (2)

This then constituted what has become known as "managed growth". The essence of managed growth being that the free market forces underlying suburban expansion should be harnessed and channelled in predetermined directions. The means for channelling these forces took the form of various planning tools or techniques which have been implemented by a number of city and county authorities in the United States since about 1964.

2.5 Techniques for managing growth.

A large variety of techniques have been devised to complement traditional police powers of control. The realization that the ineffectiveness of past control measures was due to its inflexibility, its "ad-hoc" approach and its lack of comprehensiveness led to the adoption of a "package" system of control measures. Such systems would comprise a number of techniques which would complement each other, but at the same time would perform a certain specified function based on stated goals and objectives. These techniques would have to be legally permitted, enforceable and should not place impossible or unreasonable demands on the private sector. (3)

Many of the techniques which have been employed in the United States are similar to those implemented in South Africa. Of those which are not, the following have been selected for their potential applicability to the study at hand.

Easements: In situations where the scenic attributes of a site make it desirable that a site, or portions of it, be preserved - the landowner is given some preferential form of tax treatment. Alternatively, the development rights of the particular portion of land could be purchased by the local authority. This is also applicable to the preservation of public rights of way. The advantage of this technique is that the landowner is placed in a better financial position to bear the costs of maintenance over the remainder of the property. (4)

(1) Ibid, p.5

(2) Ibid, p.4

(3) Carter, Bert and Nobert (Management and Control of Growth Vol.11)p.341

(4) Einsweiler and others (Management and Control of Growth Vol.11) p.293

Transfer of Development Rights: This technique is a relatively recent innovation and has not yet been fully tested. It is based on all landowners within some administrative boundary having inherent development rights. In order to restrict development in certain pre-selected areas, a minimum number of additional "rights" are required before a landowner in the "permitted" area can develop. In order to obtain these additional rights, he must purchase them through the market mechanism from those landowners not in the "permitted" area. The basis of this technique is to prevent the so-called "windfalls" and "wipeouts" which normally accompany zoning restrictions. It is basically the same control technique as compensation and enhancement - the difference being that it is operated through the private market rather than through public authority intervention. (1)

Bonus and Incentive Zoning: In order to obtain additional community benefits such as open space or community facilities, the developer is recompensed in some form - generally through being permitted to increase the allowable density of development. This technique has also been employed to encourage the development of housing for the low and moderate income groups. (2)

Conditional Zoning: In a similar manner to the above technique, community facilities or amenities are obtained through granting development rights by the rezoning of the land subject to certain requirements being demanded of the developer. (3)

Planned Unit Development (PUD): This technique is similar to that of cluster housing in that more dense, tightly structured patterns are achieved - with the major portion of the site being given over as public open space. It differs from the cluster concept in that the scale of development is generally larger and includes shopping and community facilities - its basic aim being to create a self-contained neighbourhood. (4)

Exactions (or endowments): Although these are identical to the endowment requirements accompanying development in South Africa (and which have been in force for a good many years), it is of interest to note that this technique of requiring the developer to "pay-his-way" was only introduced on a large scale in the United States in the late 1960's. This is a measure of the relatively free reign given to the private sector in regard to suburban expansion in the United States prior to the introduction of the managed growth concept. (5)

2.6 Case Studies

Six selected case studies are reviewed in Annexure ; these serve to illustrate the implementation of managed growth systems under conditions of suburban expansion similar to that found in the Constantia Valley. Although some of these case studies are dissimilar to the Constantia situation, the various techniques employed have potential relevance.

(1) Ibid, p.294 (2) Ibid, p.295 (3) Ibid, p.295
 (4) Isberg (op cit) p.32 (5) Einsweiler (op cit) p.296