

# A village within a town, A town within a city — that's ATLANTIS New growth point for Coloureds in the Western Cape

by D.W. du Plooy

This article tells the planning story of Atlantis. It explains briefly the history of the project; why it was conceived and what is envisaged. The planning process is then discussed and, as will be seen, a case emerges for a multi-level (or "re-cycle") planning approach for projects of this nature.

## PREAMBLE:

The decision to create a new "city complex" near Mamre was made by Parliament in 1970 and a Coloured group area was proclaimed two years thereafter. This concept was the brain child of the Department of Planning and the Environment in close liaison with other Government Departments, in particular the Department of Community Development. The task of implementing and co-ordinating the project was handed over to the Divisional Council of the Cape who constituted a body with delegated powers to act on its behalf. Thus the Atlantis Development Committee was born and in February 1974, it appointed a consortium of Planners, Engineers, Transportation Consultants and Land Surveyors, inter alia, to prepare a Guide Plan for the project. But first, why is Atlantis considered necessary and what function is it to perform in the Western Cape?

## A CASE FOR DECONCENTRATION:

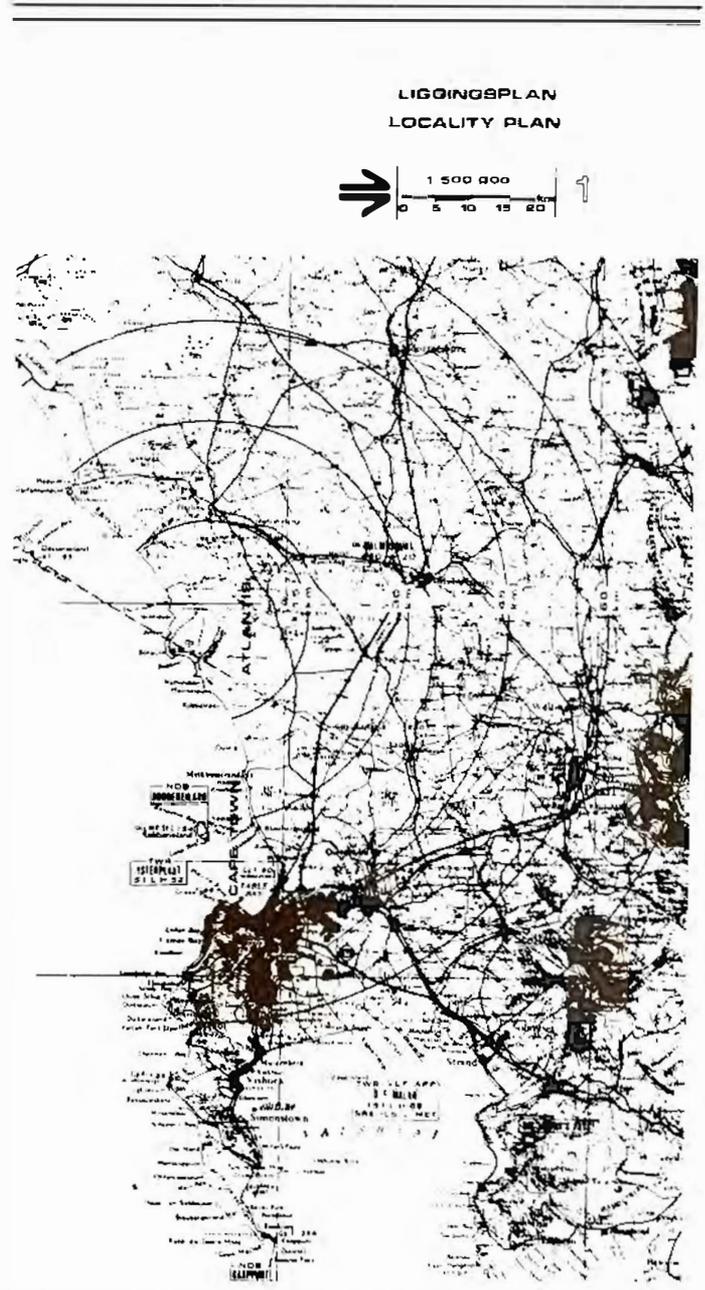
The population in the Republic is likely to reach 50 million by the turn of this century. Our urban population in the 23 largest centres is expected to increase dramatically from 4½ to nearly 30 million. This means that in the next 25 years we must supplant the previous 300 years' housing stock (and all its supportive uses). Our matro areas in particular are reaching the limits of their tired frameworks and new dimensions are called for in planning and administration if we are to cope with our urban growth problems.

In the Western Cape, the population increase dilemma is well known but can be restated here. Demographic studies have revealed that the growth rate of the Coloured population is higher than that of the country as a whole. This is due in part, to the migration of Coloureds into the urban areas, particularly the Cape Peninsula. The result is an acute housing shortage with demand for adequate shelter of housing for 190 000 Coloured in the Peninsula. Furthermore, under present zoning, there is not the space for Coloured housing in the Peninsula to cope with the end-of-century demand; even if it is assumed that the existing Coloured areas can be increased by 15% through higher densities and Mitchells Plain and Macassar are fully developed.

*New Communities or new towns conceived de Novo on the outskirts of metropolitan areas have for many years been vigorously pursued overseas as one answer to the problem - usually with considerable success.*

The Department of Planning and the Environment have, it would seem, long been concerned with the problems of over-concentration of people and economic activities in our Metropolitan areas. In order to effect a better distribution of people, goods and services, the National Physical Development Plan was published earlier this year to co-ordinate macro-development at a national level. Growth points have been identified on a national scale within development corridors and development of these areas is encouraged by the granting of financial concessions to industrialists wishing to decentralize from the Metro areas.

Atlantis must be seen against this background.



It has been positioned on the west coast within the potential development corridor of the Cape Town and Vredenburg/Saldanha, approximately 45 km. north of Cape Town and 75 km. south of Saldanha. See Locality Plan (No. 1). As a proclaimed growth point its primary function is to attract and provide for

overspill Coloured Housing and employment out of the Cape Metro area. To achieve this objective, Atlantis has two distinct advantages in its favour, firstly, it enjoys a tempting range of incentives for approved entrepreneurs wishing to settle there and secondly, it is potentially a mammoth development with the status of a new town or "city complex" which, because of its character and size, will have greater persuasiveness in establishing itself and later coercing development in its own right as a self-contained city.

The planning task is many faceted and requires a multi-disciplinary team approach. The initial efforts of the consortium were to evaluate the project potentials and in this regard a start was made on the demographic characteristics, regional aspects and conceptual ideas on city form, size and development.

### DIMENSIONALITY

Population projections:

The population projection for Atlantis was based in the first instance on the expected population growth in the Cape Peninsula area. This growth has been calculated by taking into account natural increase as well as migration. These population projections were compared with the maximum capacity of the existing Coloured group areas in the Cape Peninsula and it was found that a deficit in housing for approximately 600 000 persons will develop by the year 2000.

Assuming that a significant volume of this population can be housed at Atlantis, the population increase therefore becomes a function of the rate at which housing, work opportunities and other amenities can be provided there. The population projection was therefore based on a rational building rate of 2 000 dwelling units per year from 1975 to 1980; 2 500 units per year from 1980 to 1990, and 3 000 units per year after 1990. Accordingly, a population of 50 000 can be reached by 1980; 355 000 by the year 200, and 500 000 by 2010.

*The plan of Atlantis is however open-ended and flexible as will be seen and greater or lesser populations can be accommodated without functional disturbances of its systems.*

### INCOME DISTRIBUTION:

The future population of Atlantis should be representative of the total economic spectrum of the Coloured Community of the Peninsula. We therefore investigated the levels of income within the O1 region, as reflected by the 1970 census, as a guide to the desirable housing mix to be provided.

### EMPLOYMENT PATTERN:

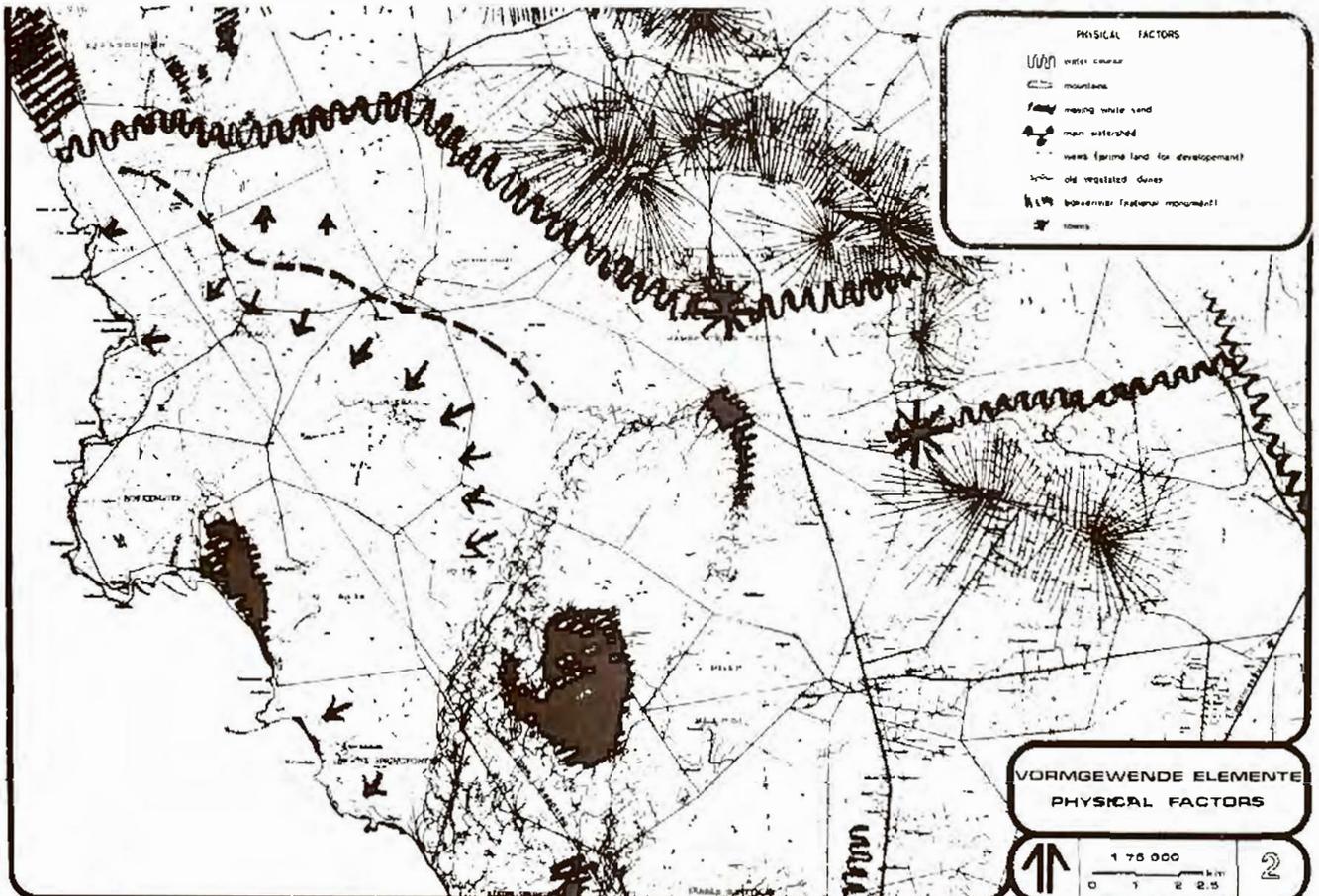
The greatest percentage (approximately 50%) of the Coloured workers in the O1 region in 1970 was employed in the manufacturing, electrical and construction sector. The Coloured workers also showed a percentual increase in this sector between 1960 and 1970 while the percentage white workers in this sector decreased over the same period. This trend is important for the proposed development at Atlantis as the decentralisation of industries to this new growth point is strongly encouraged.

The only other sector which showed growth in Coloured employment was the commerce and finance sector, which accounted for approximately 17% of the employment in 1970. The Coloured workers' share in all the other sectors showed a decrease between 1960 and 1970.

### EMPLOYMENT IN INDUSTRY AT ATLANTIS:

Based on different assumptions and techniques, three projections were made of industrial workers to be employed at Atlantis. Each projection represents a different rate of industrial establishment.

Accordingly to these projections, the number of industrial workers in the year 200 could be 24 700, 41 100 and 105 000 ranging from a low, to average to high figures respectively. The average projection for the year 2010 shows a total of 44 900 workers.



**SITE POTENTIAL:**

The design of a new town is an awesome task - but an exciting one for the planner.

When the consortium got underway in 1974, much of the initial groundwork in terms of site research, had already been completed by the Town Planning Section of the Divisional Council of the Cape. This included preliminary studies on topography, slope analysis, physiographic units, soil and vegetation characteristics, agricultural potential, and geological data. A schemata of the site potential was then analysed and the following site assets and liabilities were revealed (stated briefly): Refer Plan No. 2.

**Site Liabilities:**

Proclaimed area boundary arbitrary and irregular and not conducive as definer for large scale urban development;

Multiple catchment areas with gravitation to widely dispersed points;

Large sand-dune (vegetated and stabilized) splits proclaimed group area;

The above conditions manifest separate and distinctive "zones" for development;

Limitations to utilization of the sea and seafront;

**Site Assets:**

Lovely coastline and exquisite views of the sea obtained from large (but defined) segments of project area;

Relatively high percentage buildable land;

Beautiful setting between sea and mountains;

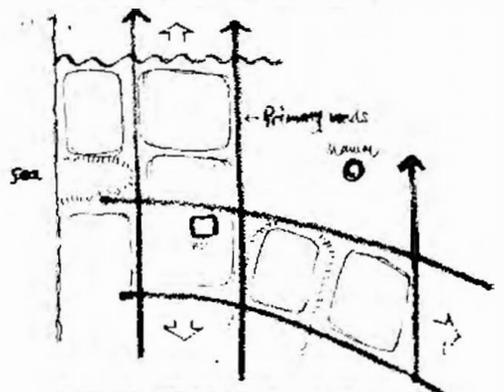
Tracts of flat land 1:80 considered approximate for industrial development) situated close to "housing" land;

Geographic centre of site a plateau area, suitable for CBD and attendant road, rail and high rise buildings (subject to further analysis).

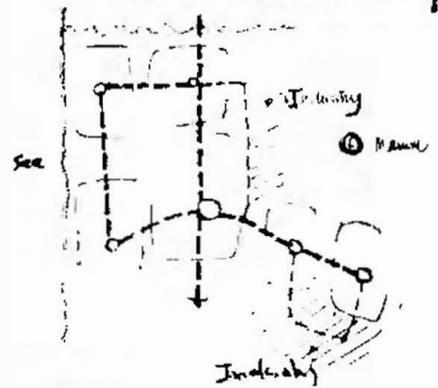
The quantification of these determinants, together with the established external road linkage to Cape Town (already approved in principle by the Cape Metropolitan Planning Committee), Plan No. 3, were the parameters for the creation of a physical concept plan for Atlantis.



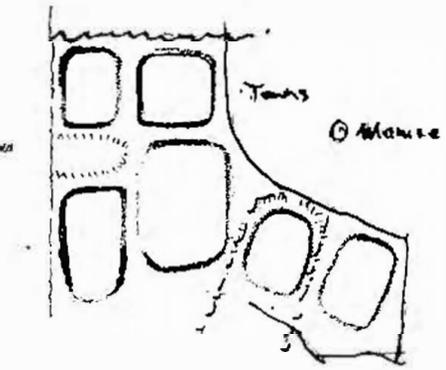
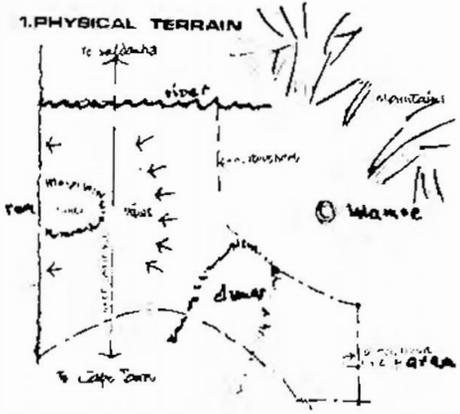
3. MAJOR ROAD PATTERN



4. MASS TRANSPORT SYSTEM



1. PHYSICAL TERRAIN



2. SEPARATE TOWNS

**PLANNING CONCEPTS:**

The four sketches opposite, (Plan no. 4) show in sequence the emergence of an idea which slowly took form and later constituted the Draft Guide Plan.

*Sketch 1.*

The site constraints and assets. Site boundary reshaped to physical locational controls (watersheds and rivers); dune areas and slopes provide heterogeneous landscape; good views (arrows) of sea; natural amphitheatre.

*Sketch 2.*

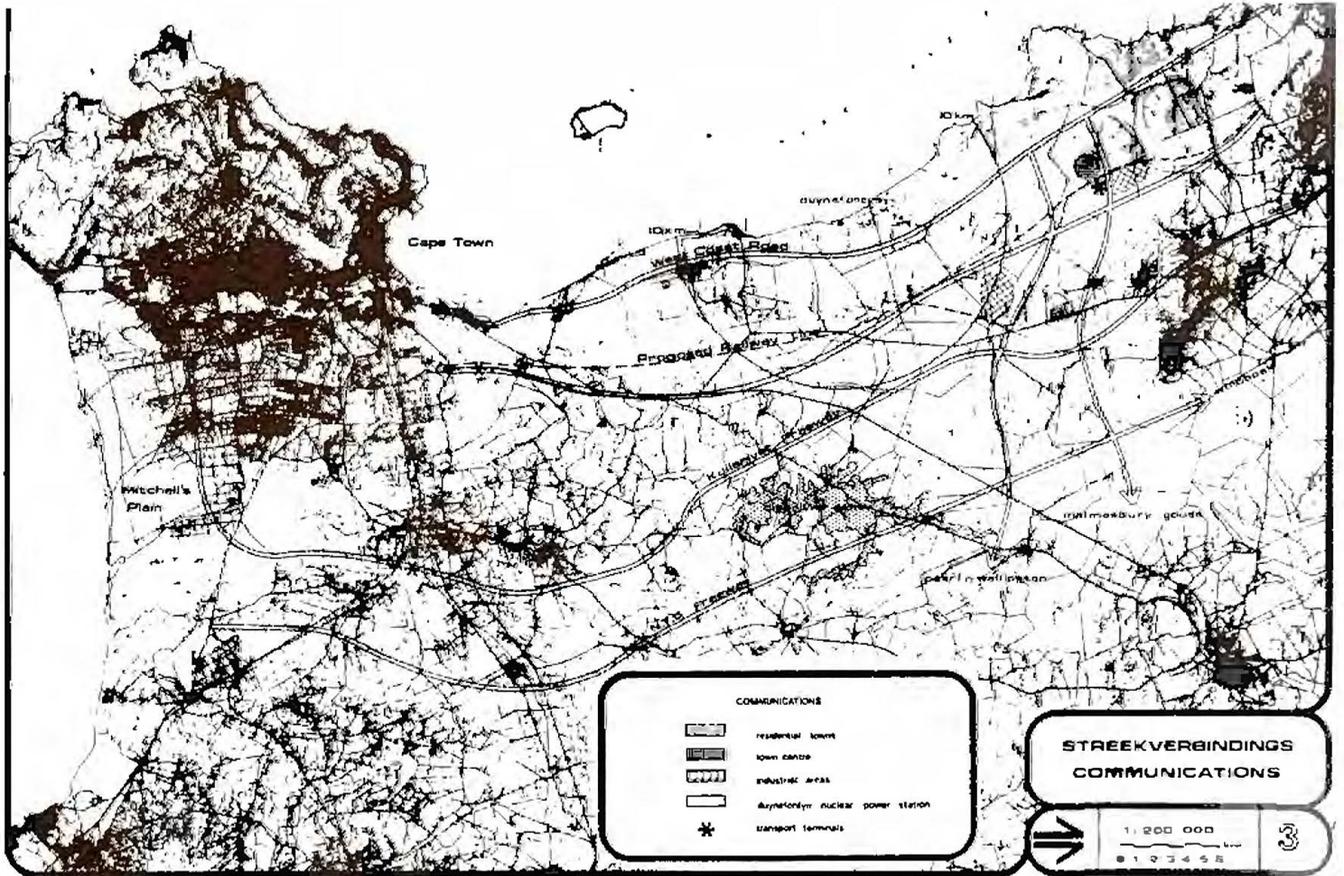
A 6-town concept; each town more or less self expressed by unique topographic conditions and in the case of the two coastal towns, delineated by the new West Coast Road, the sea and dune area in combination with farms of national importance. Yet they are sufficiently contiguous to one another to augment a unified transportation system.

*Sketch 3.*

The primary road network carrying extraneous traffic skirts the town precincts with exception of one highway designed to give direct access to the CBD placed strategically on a promontory of landscape at the coalescence of two linear bands of urban development. Future expansion is possible along these bands (extended centrifugally) without disruption to the urban systems.

*Sketch 4.*

Urban nodal points (town centres, industrial areas and the CBD) are interlinked by internal rapid-bus-on-expressway loop systems. The systems must in turn be integrated with external express bus services to Cape Town and other centres as well as inter-city passenger railway terminals on the one hand and the local bus, train, taxi and car services on the other hand.



**ADVANTAGES OF MULTI-TOWN-NUCLEATION:**

It was considered that separate identifiable towns would be preferred to a homogeneous city region, provided the towns could be constituted within an area-wide viable communications network with equitable distribution of regional supportive facilities, (hospitals, stadii, etc.). The towns should also be of sufficient size to generate a sense of identity of their own with all the advantages manifested therein. These include social benefits derived from personal and community identity in medium sized urban environments as well as economic increments due to the criterion that the cost of services per capita rises sharply with population increase beyond a certain limit. The quality of life suffers also through time consumed and irritation of transport delays. The costs of public administration tend to rise disproportionately beyond a certain scale of community size and running expense becomes burdensome. There are distinct administrative advantages in the management of smaller communities.

It is recognised that there is no proven ideal or optimal size for towns and cities. The criteria for town sizes is its ability to support basic services and amenities to satisfy all the demands of the modern life-style of its inhabitants. These include facilities of regional significance such as hospitals, universities, theatres and other cultural and institutional uses.

Small and medium sized towns can not support such extravaganzas, they belong in the cities and metro areas. And yet our metro areas are becoming abnormally large and unwieldy with many disadvantages to the urban dweller, many more in fact, than those experienced by the town dweller.

Our concept for Atlantis is *duo civic* - the development of six separate towns of manageable size ranging in population from between 60 000 to 115 000 but arranged in such a way that they are serviced as a cohesive unit by the systems and sub-systems of a full blown City complex. In aggregate, such a constellation of towns will qualify for regional facilities and if efficient transportation can be provided for inter-town

travel there is no reason why the future city complex Atlantis need not enjoy all the advantages of a city or metro area and few of its disadvantages. By the same token the accent will be on developing a community spirit at town scale with all the social and "livability" advantages which that entails. (Refer Plan No. 5).

The first town Wesfleur has taken this town-in-city concept a step further. Villages or neighbourhoods are planned as intrinsic community units with a full range of communal needs to function at a self supporting level on a day to day basis. Each village will have a population of 10 000 and is designed to hold a cross section of all income groups to ensure a balanced village structure. It is considered essential that in new settlement areas of this type, a strong sense of belonging should be augmented and nurtured from the start. (Refer Plan No. 6)

**OBJECTIVES AND STRATEGIES:**

The following objectives were set for the Guide Plan with a strategem on how these objectives were to be realized.

**Objective:**  
To design a city complex which will contain all the necessary functions to provide for a balanced and self-supporting community;

**Strategy:**  
The Guide Plan lays the framework for a city structure which would be capable of accommodating all the systems and sub-systems necessary to support it. The plan is open-ended to allow for possible future expansion.

**Objective:**  
To reconcile, as best possible, the benefits and disadvantages of an extensive urban development;

**Strategy:**  
The proposed city structure will consist of six individual towns of manageable size. Together, these would constitute a city complex with an integrated system of regional

services and communal facilities.

Within each town identifiable residential cells (villages) are being planned, with due consideration to the need for social grouping and identification.

**Objective:**

To lay down appropriate guidelines for future development with sufficient flexibility for implementation over the long term;

**Strategy:**

The nature of successive towns may vary according to changing circumstances and the end-state planning for the entire city complex will not be undertaken now and will therefore not be hampered by obsolete planning principles.

Demonstration areas are being developed in the first town for experimentation in different housing forms with the purpose of testing new life styles for the Coloured community.

**Objective:**

To ensure optimal use of the land available for development;

**Strategy:**

Land is allocated to the various uses in accordance with the potential thereof.

Disturbance of ecologically sensitive areas is avoided and protection is provided where necessary.

The economic use of land is being strived for with due recognition of the cost sensitivity of engineering services and infrastructure.

**Objective:**

To provide for a variety of transport systems with a high level of service in all phases of growth;

**Strategy:**

The external road system as approved by the West Coast

Planning Transport Group, as well as the proposed Cape Town-Saldanha railway line, was taken into consideration with the planning of the city structure.

The various town centres in Atlantis will be linked with the future city centre, industrial areas and other nodal points by rapid bus on expressway. Local buses will operate within each town where special care is also taken in the provision of safe and convenient pedestrian ways which gravitate towards the various business centres and community facilities.

Freeways carrying through traffic are planned to bypass towns and industrial areas.

**Objective:**

To ensure a streamlined programme of implementation;

**Strategy:**

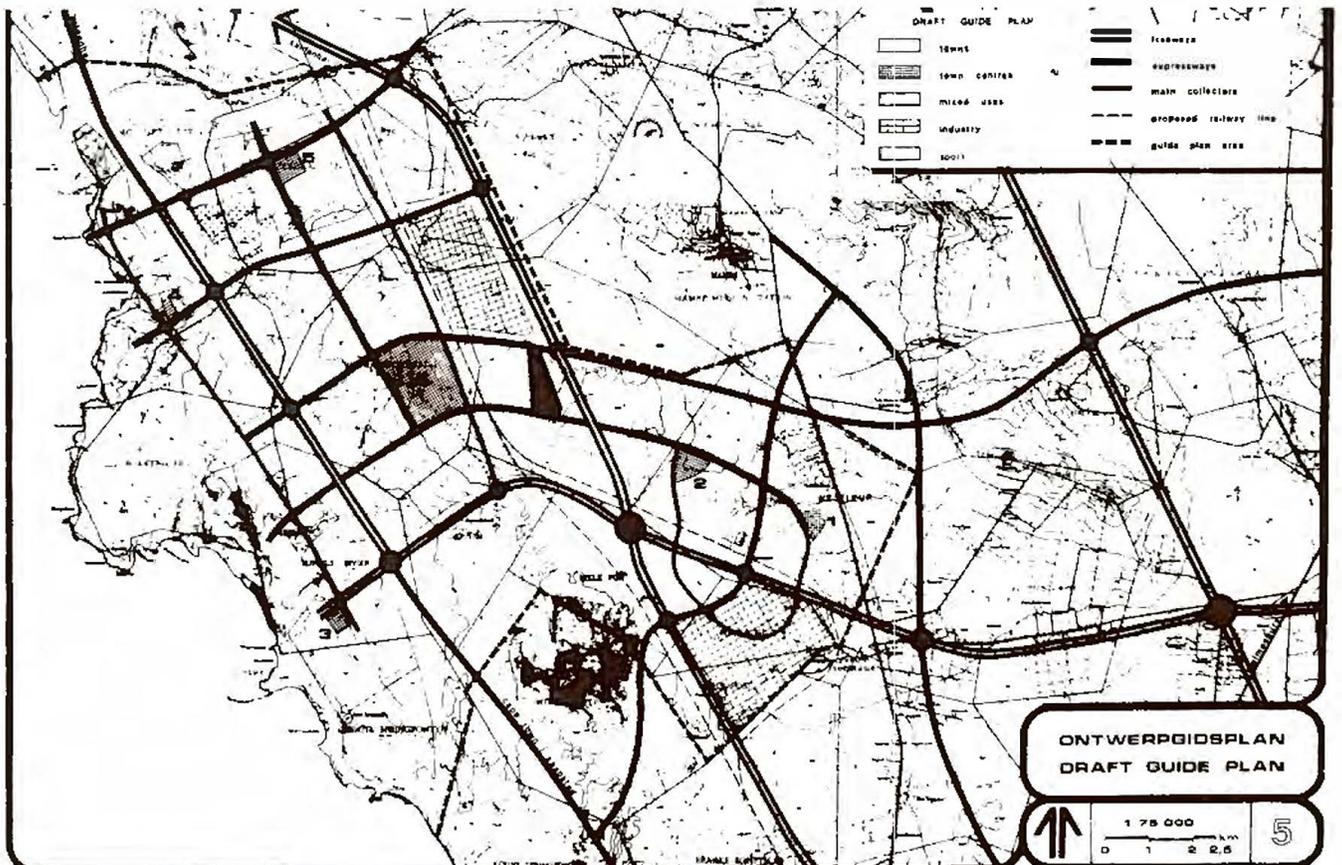
A comprehensive programme was prepared for the first town in order to co-ordinate all facets of development.

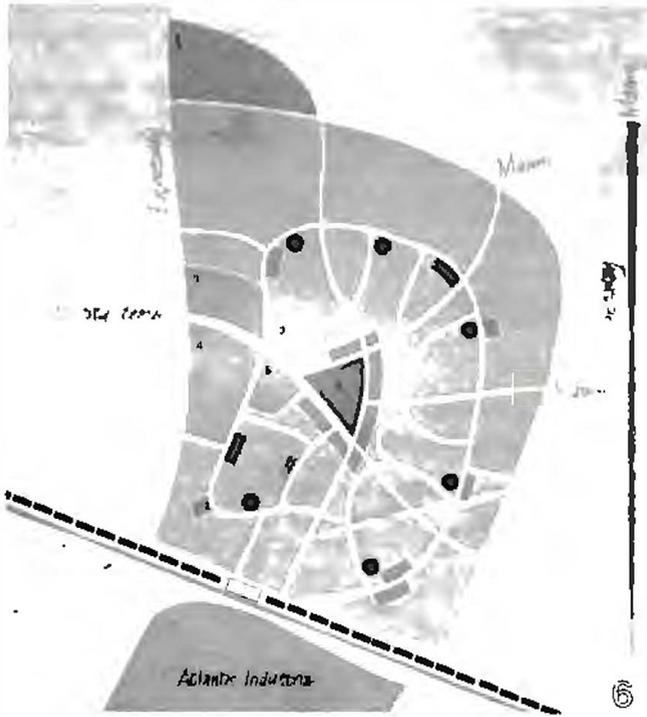
A planning and design programme is now in full swing geared to the continual development of services, housing and supportive facilities at Atlantis.

**INITIAL TARGETS:**

A fresh idea in the planning of Atlantis emerged as a result of a decision calling for an extremely tight planning and building programme. The installation of full services for a 70 ha industrial township was required by end 1975, (9 month period) to be followed by a residential component of 600 dwelling units immediately thereafter - both areas to be located and designed "from scratch".

This housing and industrial development programme handed down was made in good faith - there are thousands of Coloureds without adequate shelter in the Peninsula and many of these are jobless. Both houses and jobs were needed fast together with all their allied facilities.





Firm up on the **Guide Plan** to a level which would permit rational decisions to be taken on questions such as location and criteria for first stage development, major road locations (not alignments); transportation policy, major land use distribution, supply of essential services and supporting facilities and notions on urban form and growth policies.

**Select appropriate first stage industrial and residential areas** as commissioned, which could (a) be extended and (b) be integrated into the Guide Plan.

**Develop a Master Plan** for that area.

The area selected for housing and industrial starts was contained in and near the most eastern town which enjoyed good road access, and a single catchment area. The land is relatively level and unencumbered. Situated on the edge of the future city complex it could be integrated with the various systems planned in the Guide Plan, but detailed knowledge of the entire proclaimed area (Guide Plan area) was not considered necessary in order to proceed. The separate towns concept therefore was instrumental in initiating the segmented design of Atlantis and therefore brought the entire programme forward. A **Master Plan** was then formulated for town one (since called Wesfleur) which defined a structure at town scale with a potential population of 60 000 (Plan No. 6)

In addition to the Guide Plan, Master Planning and detailed residential (and industrial) layout plan phases, three other levels of planning activity were practised:

**Project Planning** of shopping centre design, recreation areas etc., was commenced in sketch plan form as the respective sites took form and concluded with the finalization of the layout plan when site boundaries and external parameters became fixed.

**Regional considerations** were having a decided impact on virtually all levels of planning, in particular the major communications network proposals between Atlantis and Cape Town and ramifications of the Nuclear Power Station on the project. The formulation of positive proposals in the regional context are however, beyond the scope of the consortium's brief.

**Advocacy planning** through the media of and co-ordination with all relevant bodies at all levels of planning and exercised through our Engineer Co-ordinator and the Project Director.

The point I wish to make here, is that virtually all the above activities are simultaneously ongoing to a greater or lesser extent in a sort of conveyor belt system with continual up-dating and feed back in every phase. This is what is meant by the multi-level planning approach. The diagramme below illustrates the concept.

1. Cemetery
2. Sport
3. Training College
4. Hospital
5. Technical College
6. Town Centre
7. Station
8. Local Centres

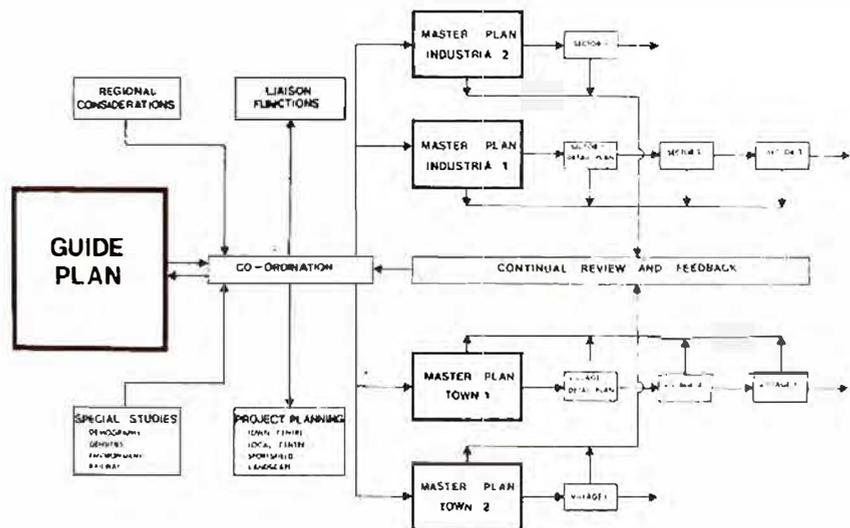
**USUAL FORMAT:**

Conventional planning methods for new town projects are the formulation of a town plan (or equivalent) illustrating the "end-state" condition of the new town in some detail. This could take between 2-4 years depending on the scope of the study. Current thinking however, is not to try to predict accurately the end-state of any community (how can we plan for the unborn?) technology is moving so fast today - the energy crisis alone has brought about rapid and wide-spread changes in our urbanized societies.

**THE MULTI-LEVEL PLANNING APPROACH:**

The original mandate of a tight planning schedule, mobilized the consortium into the multi-level planning concept. The strategy we adopted was as follows:

**MULTI-LEVEL PLANNING PROGRESS DIAGRAMME:**



The fundamental difference between this "recycled" sequence of events and conventional methodology, is simply that the planning phase for all levels at Atlantis has been telescoped into a shorter time frame and the planning wheel of process and evaluation is revolving faster and may I say, with less "friction". This has been possible due to realistic (not merely stated) flexibility in the plan especially the regional guide and master plan sequence. This element most of all, has been the strived for aim of the planners and it would seem that it has paid handsome dividends. Another aspect which has attributed to the success of the scheme is the strong co-ordination and determination on the part of the Atlantis Committee and its technical advisors and demonstrable sup-

port from Government Departments and authorities with a concern for the project. The team approach mentioned earlier is in reality much broader in scope than visualized on the surface. In effect it comprises all the bodies mentioned above.

A milestone has now been reached at Atlantis. The first houses are coming on stream and the industrial area is underway with the first factory and on services operational - all on schedule. The Draft Guide Plan has been submitted for approval (through the Administrator to a Guide Plan Committee still to be constituted). This plan and the ancillary documents which support it, will continually be under review and amended throughout the entire life of the project in an effort to keep up with the times.

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