

PLANNING FOR FUTURE GRAVEYARDS IN URBAN AREAS:
A CASE STUDY OF BLOEMFONTEIN

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DEDICATED TO MY

HUSBAND-MTSHEKU

AND

DAUGHTER-LEVUGAZE

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CHAPTER ONE

BACKGROUND TO THE STUDY

1.1 INTRODUCTION

*'Where we were, you are. What we are, you will become.
Behold my grave as you pass by. As you are living so once
was I. Death suddenly took hold of me, and so will be the case
With thee'* (Jackson and Vergara; 1989:2).

This research is premised on the fact that no sector of the society is immune from death. According to Kubler-Rose (1975: x), death is not an enemy to be conquered or a prison to be escaped. It is an integral part of our lives that gives meaning to human existence. It sets a limit on our time in this life, urging us on to do something productive with that time as long as it is ours to use.

Death is in us and outside us, beside us in every room, in every street, in every field, in every car, in every plane, etc. It is what we are (Shneidman, 1984:118). Death is a principal vital event and is the disappearance of all evidence of life at any time after a live birth has taken place (Stats SA, 2002:24). In my own view, death is inevitable since it has to happen. That is, it is the final stage of growth for every human being. As a result, there is a need to plan for future burial space in Bloemfontein taking into consideration the increasing population sizes due to urbanisation, mortality rates due to HIV/AIDS, existing burial methods and existing cemetery capacity.

According to Mitchell, (23 November 2000:8), the graveyards, hospitals and mortuaries are overflowing with corpses most of which are AIDS victims. Both cremation and multiple burials will have to be highly considered in the future. The question is how to share the available land between the dead and the living population? Contrary to needs of dead people, the above options look more reasonable and conducive.

1.2 PROBLEM STATEMENT

* There is an alarming increase in deaths, therefore a need arise to allocate more land for the use of cemeteries.

* Most of the people in South Africa still prefer inefficient burial methods that affect the planning and area of land allocated for cemeteries

Graveyards are not well - maintained by Local Municipalities

* Taking these statements into consideration, more land has to be reserved for burial grounds hence a need to plan ahead for new graveyards with less land requirements.

1.3 PURPOSE OF THE STUDY

The study focuses mainly on planning strategies to maximize the use of available graveyards in Bloemfontein. This is due to the rapidly increasing land requirements for graveyards as a result of the alarming death rates and increasing population growth that also need land to sustain them. The study is therefore intending to come up with planning strategies for graveyards that will cut down land requirements for cemeteries enabling both the council and undertakers to deal with the alarming death rates.

The study is therefore going to investigate and identify problems and possible solutions relating to the state of cemeteries and burial methods in Bloemfontein and finally develop guidelines for town planners which will produce enough and well managed cemeteries incorporating the most adequate burial methods. This can be summarised in the hypothesis adopted for the study, which are discussed in the next paragraph.

1.4 HYPOTHESIS

In order to ensure the validity of statements made by the writer, academic sources as well as surveys will be utilised. The following hypothesis will be tested to fulfil the aims of this study:

- * Burial methods have changed over time and are influenced by socio-economic, religious and cultural factors as well as the conscious need to save land for other uses than cemeteries.
- * Looking at the present population growth and death rates, it is likely that in the near future, Bloemfontein will run out of burial space
- * The tariff structure of municipalities influences the level of maintenance of cemeteries as well as the fact that municipalities incur many costs and responsibilities for indigent burials leading to poorly maintained cemeteries and uncontrolled entrance to graveyards.
- * There is a set of basic requirements for the planning of cemeteries which need to be considered by planners when planning or extending cemeteries.

1.5 STUDY METHODOLOGY

The methodology that is used together with existing information to carry out objectives of the study includes the following:

1.5.1 Research design

Two research designs were used in this study.

Quantitative and qualitative methods / triangulated data collection method. This method involves questionnaires, interviews, and observations as discussed below:

1.5.1 Interviews

Other information was obtained from experts and professionals on this field of study in terms of policies and regulations. These are experts from the department of parks and recreation, department of town planning, water affairs, Mangaung Local municipality and from undertakers. They provided valuable information.

1.5.1.2 Questionnaires

The structured questionnaires are designed in such a way to help the researcher to obtain all the information needed regarding graveyards and the current burial methods in Bloemfontein hence satisfy the objectives of the study and ultimately

provide an answer to the research problem. Different questionnaires were designed for different respondents. These were town planners, cemetery controller in the department of parks and recreation from Mangaung local municipality in Bloemfontein, funeral undertakers that are registered with the Mangaung local Municipality and the crematorium manager (See attached questionnaires marked annexure: B, C, D and E).

Due to the fact that few town planners in Bloemfontein are knowledgeable about this field of study, other questionnaires were faxed while others were personally delivered. They really provided valuable information.

Data collection concentrated only on 11 people and the community was excluded. The reason for this is that more in depth information was required. As a result, the study could not focus on too many people including the community who may not know much about graveyards.

1.5.2 Literature review

Most of the information relating to the study was obtained from journals; articles from the Internet and reports from various institutions while very little were obtained from published books since there is not yet enough information in published books about planning for graveyards. These sources will provide information about different burial methods in other countries. The study also relied more on Statistics South Africa, which provided more information on the population sizes, growth rates, and death rates. The data was valuable as it enabled the researcher to determine spatial requirements for cemeteries in Bloemfontein.

1.5.3 Data Analysis

Frequency distribution was used as data analysis technique. It is quantitative in nature but it helped to interpret qualitative data by the use of tables, graphs, and percentage distribution followed by the interpretation of the distribution.

Projections were also used. Both qualitative and quantitative methods of population projection were used. This information ultimately helped anticipate future spatial requirements for burial space in each cemetery. Photographs were also used to indicate the state of cemeteries and different burial methods in Bloemfontein.

1.5.4 Conclusion and recommendations

A comprehensive conclusion is drawn from all the chapters in this study. The findings of the case study were then used to draw guidelines for cemetery planning in Bloemfontein.

1.5 LIMITATIONS OF THE STUDY

The researcher experienced problems during the research phase of the project to visit all the cemeteries within the Bloemfontein area and more attention was therefore paid to the cemeteries that are still operational.

Although the writer would have preferred to include public opinion on the planning of cemeteries, this was hampered due to financial and time constraints. The research findings therefore do not fully represent Bloemfontein communities. However, to overcome this problem, the writer focused on questions that needed response from funeral undertakers, people responsible for cremations, the cemetery controller and town planners. All these people had to respond also on behalf of the communities they serve. Hence data analysis did not include opinions of the residents denying public participation.

Another problem was that some of the people requested to complete the questionnaires did not respond in time and claimed confidentiality of their information. Several attempts were made to follow-up; however, some of the respondents said that they are too busy to assist.

The lack of published books on graveyards planning also restricted the writer to support the study with appropriate theory, hence a use of unscholarly journals and magazines and too many Internet sources had to be relied upon.

1.6 SEQUENCE OF CHAPTERS

Chapter 1: This is the introductory part of the study, which brings to attention what the study is all about. It entails problem statement, aims, and hypothesis together with the other methodological parts giving an overview of the procedures that were used to carry out the study.

Chapter 2: This chapter sketches a background to cemeteries in which forces behind emergence of cemeteries and burial methods both at international, national and local levels are discussed.

Chapter 3: This chapter deals with the relevant planning theories for cemeteries. In this chapter, planning is defined in various ways, different planning theories together with their evolution and purpose in planning are discussed, a broad description of land use planning together with its evolution and purpose are highlighted, and finally the concept of graveyards planning is discussed.

Chapter 4: It entails the legislative requirements for the planning of cemeteries at National, Provincial and Local Municipality level. It highlights the planning requirements of various departments that need to be considered by planners when planning for the extension or development of new cemeteries.

Chapter 5: This chapter highlights the case study and the findings of the research done. It deals mainly with the status quo and discusses the situational analysis of graveyards in Bloemfontein. Most of the information was collected from the local authorities responsible for graveyards and funeral undertakers, people undertaking cremations and town planners. It also deals with the future

need for burial space in Bloemfontein and the spatial requirements related thereto.

Chapter 6: This chapter involves guidelines for cemetery planning. Guidelines are based on the findings of this study. The chapter gives the overall summary of the study and the synthesis of the subject of graveyards. Guidelines for future planning of graveyards especially for town planners are discussed at length.

1.7 SUMMARY

Chapter 1 is an introduction to the study and highlights the purpose of the study and methodology used to proof the hypothesis adopted for this dissertation. A brief summary of what each chapter entails has also been outlined. The next chapter is going to focus on the background of graveyards at international, national and local levels. This will help the researcher to draw guidelines for future burial space following/comparing what used to happen in other countries and what is happening now.

CHAPTER TWO

BACKGROUND OF CEMETERIES

2.1 INTRODUCTION

The background of cemeteries is going to be discussed at international (North America, London, India, etc), national (South Africa), and local (Bloemfontein) levels. The chapter tries to display evolution of cemeteries and forces that brought about changes in the experience of cemeteries in the past and the present. This will then be compared with the situation in the study area. First of all, definitions, characteristics, forms, functions and components of cemeteries/graveyards will be discussed since they are going to be frequently mentioned throughout this study.

2.2 DEFINITIONS

- ***Cemetery/Graveyard***

A cemetery is an area of land, not a churchyard, used for burying the dead (Hornby; 1989:181). While a churchyard is an enclosed area of land round a church, often used for burials (Hornby; 1989:200). This proposes a view that not every space of burial is a cemetery. As stated by Rugg, (November 2000:259), there are different methods of burial sites depending on a number of key characteristics such as physical features, ownership and purpose, sacredness, and the ability of the site to protect the individuality of the deceased. A graveyard is the same as cemetery (Hornby; 1989:545). As a result, a graveyard and a cemetery are going to be used with the same meaning in this study. They are characterised by the following physical features as indicated by table 2.1.

X

Table 2.1 Cemetery physical features and functions

Physical features	Relation to cemeteries	Purpose
<i>Location</i>	Located close to but not within the settlements.	Cemeteries are meant to be substantial in size and should allow for extension.
<i>Boundary</i>	Marked by a hedge or other planting e.g. high wall, railings, etc.	Protect the dead against disturbance, Sequester the dead from the living.
<i>Entrance</i>	Marked literally or by symbols.	Declares meaning of the site, Define a cemetery as a separate place with special purpose.
<i>Landscaping</i>	Indicated by roads and paths and established address for each grave.	Enable users to easily locate a specific grave, Gives each family a sense of ownership of and control over a particular plot. Helps in memorialising a particular individual.

Source: own table compiled from information provided by Rugg (November 2000:259-276)

- **Grave:** A place for burial and it is often marked with individual memorials.
- **Burial ground:** Burial space ([www.graveyards.org:03/20/2002:1of 5](http://www.graveyards.org:03/20/2002:1of5))
- **Multiple burials:** Burial of many bodies in one grave. As stated by www.ancestorsreunited.com, (03/04/03:1of2), multiple burials was a way of keeping families together and to maximize the use of available space. **Multiple burial gravestones** are said to be most important in that they provide

the researcher with much information about the deceased relationship with others contained in the same grave. For instance, '**beloved wife of**'.

- **Cremation:** It is a process of extreme dehydration and evaporation created with intense heat, which reduces the composition of the body to bone fragments. These fragments are further processed into a powdery substance called cremated remains. (www.mthopebgr.com;03/04/03:2of3).
- **Crematorium:** A furnace for incineration of the dead (www.graveyards.org;03/20/2002).
- **Cremation area:** An area where ashes of the cremated dead are scattered or contained ([www.graveyards.org;03/20/2002:2of 5](http://www.graveyards.org;03/20/2002:2of5)).

2.3 DIFFERENT BURIAL METHODS

Different burial methods will be generally discussed. Burial methods have influence on burial space. That is, burial methods that allow burials of more than one person in a grave consume less space as compared to the single burials. Due to increasing mortality rates and population growth, there will be a time when the dead occupy more land than the living. As a result, more adequate, sustainable and affordable methods of disposal of the dead must be found. Two of them will be discussed below. These are inhumation and cremation.

2.3.1.1. Inhumation

- It presupposes existence of cemeteries (King, 1988:5). Among the various methods of the disposal of the dead, inhumation has been considered by many to indicate or symbolise 'the return to the womb of mother earth' (Molyneux, 1985:44). Inhumation has been carried out in various ways depending on the socio-cultural aspects of the people as discussed below. According to Dixon, February-March 1994:15), different religious orders have

their own unique needs with regard to separation, morgues, direction of graves, etc. Each group has its own culture, rites, and beliefs that have to be accommodated.

- ***Below-ground horizontal inhumation***

This is the most common form of burial though it varies with different cultures. For instance, the extra deep method of horizontal inhumation allows piling of more than one body in the same grave while the single deep allows only one body in the same grave. In comparison, the extra deep type of grave should be opted for as it gives allowance of more than one person in a grave (Molyneux; 1985: 47).

- ***Below-ground vertical inhumation***

The potential for this type of burial is zero because of high water table especially in Sub-marine areas. This is because to satisfy the legal requirements, very deep graves will have to be dug depending on the height of that particular person (Hinze; 1989:34). Despite the high water table, this method could most likely be adopted for.

- ***Above-ground mausoleum inhumation***

This method was erected by families providing about six burial niches into which the coffin would be placed and then sealed into position with granite or marble bearing the inscription. In an attempt to reduce costs of normal inhumation, providing a solution to the increasing population, to save space and to reduce the costs of maintaining a cemetery, a public mausoleum was erected. This method can also allow for reuse (King; 1988:54).

- ***Aboveground high-rise inhumation***

This was an American idea to address the shortage of cemetery space. Some twenty skyscrapers were built for this purpose in Nashville Tennessee. Reports say that hundred thousand niches would have needed 192 acres of conventional

cemetery land, but have been accommodated on only 14 acres. Most importantly, the cost was 20 million, which is very expensive as compared to the R1.5 million for the modern crematorium (Molyneux; 1985:49).

However, the problem with inhumation (below-ground) is that it will be overgrown with weeds and overcrowded with tombstones and therefore need extra maintenance. According to Molyneux (1985:85), 36% of cemetery expenditure is spent on burial services and 64% is used for maintenance. It was also realized that as cemeteries fill up and age, their value drops and therefore financial problems are experienced as expenditure for maintenance rises.

Another problem associated with inhumation is that it requires large extends of relatively flat ground with specific soil types, and within a reasonable distance of an urban centre. Again most of the land required for the actual burial is taken up by paths, roads, etc (Molyneux, 1985:18). It can therefore be concluded that inhumation is not the best alternative in terms of saving space not unless it can be differently planned.

2.3.1.2. Cremation

Cremation is considered to be economically viable as compared to inhumation. It is therefore, seen as a solution to the land use and financial problems. The crematorium becomes a new burial ground with its columbaria and garden of remembrance. The scattering of ashes result in the garden of remembrances being reused several times and that it never becomes redundant. Crematorium can use all soil types particularly those that are regarded as not suitable for cemeteries. A smaller site is required as compared to cemeteries and only few buildings will provide for the disposal of bodies into perpetuity (Molyneux, 1985:8) Hence many people do choose cremation for economy (minimizing costs that are usually incurred in the other types of burials). Others choose it for its concerns for the environment, simplicity and dignity. As a result of these factors, its popularity is increased (www.csnh.com:2002).

Cremation is also seen as less traumatic for the bereaved than earth burial. According to Molyneux; (1985:1) 56% of the interviewed persons desired cremation and 79% agreed that cremation is less upsetting than earth burial. It is seen as an opportunity to create a new type of cemetery-one never to reach saturation point and requiring space for only few buildings. However, with other cultures, this might not be the case.

Cremations were more popular as compared to inhumation and were the main practice in the Roman society until the mid third century (www.globalideasbank.org:2002). Cremation seemed to be the standard of burial throughout the Roman Empire (www.colleges.org:2002).

Cremation is now mostly accepted and allowed by many religions except for orthodox Jewish, Islamic, Eastern orthodox and a few fundamentalist Christian faiths. As for Catholics, cremation is allowed or accepted as long as it is not chosen for reasons, which do not contradict Christian teachings. However, other people still believe that cremation is against the teachings of the Bible. In objection to this, one Biblical scholar said, 'what occurs to the body after death has no bearing on the soul's resurrection. The body that rises is not made of the same substances as the one that was buried, or cremated, but is immortal and incorruptible' (www.csnh.com: 2002). With respect to the development of the columbarium, (a space where cremated remains of deceased members could be interred and where deceased members could be remembered), support from the people/congregation is very important. That is, with increased support for cremation from the people, many churches will offer this service (www.csnh.com:2002).

The researcher is therefore, of the view that cremation seems to be the best alternative burial method due to the fact that it consumes little space, can use all soil types, and is affordable, simple, dignified, need low maintenance and not

forgetting its concern for the environment. It is also accepted by many religions. However inhumation is still preferred by most cultures and people have to be given chance to express their cultures.

2.4 INTERNATIONAL EXPERIENCE

Experiences of cemeteries, particularly the way people used to be buried including problems encountered are going to be discussed. The author indicated that, throughout most of history, and for most of the people on earth, the preferred space for disposing of the dead body has been the cemetery. This tradition of burial in a sacred place dates back thousand of years. Ancient Egyptians regarded it as dishonourable to deprive the dead of proper burial (Jackson; 1989:4). The same thing applies to Romans. The discussion will be based on India, Rome, North America and London.

- **India**

The fact that people's attitudes towards mortality or death have never been the same reflects both economic and geographic reality as well as religious and cultural attitudes. For instance, 'Dakotah Indians honoured dead warriors by placing them in trees, where vultures could separate flesh from bone, while in contemporary India, both religious belief and scarcity of land have created a pattern in which the deceased are being burned, clearing away the need to relegate space for a cemetery (Jackson; 1989:4).

- **Rome**

Romans treated death and burial very seriously. Many myths held that those buried improperly would not receive entrance to the afterlife and would be left in the kind of purgatory. For instance, much ceremony was attached to death of a loved one with extended formal mourning periods and grand funeral processions (www.colleges.org;02/07/29:1 of 2).

Romans have a short life expectancy due to diseases and limited medical knowledge. The Romans also died easily because of gladiatorial combats, constant wars, and even human sacrifice. However funerary rituals and practices played an essential part in Roman life because the Romans believed that remembering and honouring the deceased members of their family was very important and also a proper burial was necessary for the afterlife. There were numbers of laws and customs that Romans had to follow accurately to assure that the deceased would have a successful afterlife (www.geocities.com: 2002).

- ***North America***

In North America, prior to the end of the eighteenth century, the deceased were usually buried inside a parish church or in its adjacent burial ground/churchyard just because most of the people preferred a place close to a house of God. However, burying the deceased within the church was often inconvenient and the space available was not adequate for the demand, hence the tradition of using the surrounding grounds developed. As a result, the church graveyards were at the centre of life, part of the pattern of everyday existence (Jackson; 1989:10).

Due to popularization of memorials, cemeteries were then designed in such a way that it reflects the social and economic aspects of the people (society). For instance, the most striking way in which the American cemeteries reflect the larger society is in the hundreds of thousand of photographic and sculpted portraits as a remembrance of the deceased. Indeed in quantity and breadth of representation, cemeteries offer the most comprehensive collection of American portraits from the period spanning 1880 to World War II. As with other aspects of memorial design, portraits in exclusive rural cemeteries differ from those in ordinary burial grounds. Common throughout elite cemeteries are expensive busts, reliefs and full-length statues honouring people who played important roles in political and economic life (Jackson; 1989:40).

It is clear from the above explanations that Americans do not want to lose touch with their deceased hence why commemoration in terms of different monuments or portraits played important part in their lives. They wanted to express their honour to the deceased as they have played important roles while still alive creating a relationship with them.

- **London**

London has played a major role in its history of cemetery movement until after the founding of its first garden cemetery in 1832. Before then, burials in London were either traditionally in the churchyard or in one of the recently founded private burial grounds and chapels. By 1830's both burial methods were proved unsatisfactory. Some churchyards had been in use since the middle Ages and they were now expected to cope with over 40 000 deaths annually, fuelled by cholera epidemics and a vast increase in the population. The city churchyards were, quite simply, filled to overflowing (Meller; 1985:6)

Before the nineteenth century, graves in churchyards were generally reused, which meant that a small piece of land could readily accommodate the parish dead without need of extension. However, this situation broke down due to the fact that the rapid expansion of urban populations and the popularization of memorials placed pressure on such limited provision. This is because unlike cemeteries, churchyards were not bound by regulations on the registration of individual graves and the unrestricted re-use of ground is reflected in the landscape. As a result, there was a shift to cemetery burial (Rugg, November 2000:264).

In addition, memorialization is said to be problematic in that it makes it difficult to reuse graves hence is not a good option in terms of saving space. There were also other problems encountered regarding cemeteries in London as discussed below:

2.4.1 Problems

2.4.1.1 Cemeteries as business

Superintendents referred to themselves as 'majors of cities of the dead' responsible for the upkeep, planning, policing, financial supervision, public relations, and sometimes even the advertising of their cemeteries. Their work gave them a special opportunity to study, shape and take delight in nature. It was not long before there was loss of interest in the cemetery as a place of commemoration that allowed administrators to dictate the use of their grounds. Cemeteries therefore, had to be managed by salesmen who thought more about increasing revenues than about beautifying the landscape. The American cemetery association neglected its goal instead, turned responsible for the upkeep, planning, policing, financial supervision, public relations, and sometimes even the advertising of their cemeteries. Their work gave them a special opportunity to study, shape and take delight in nature. It was not long before there was loss of interest in the cemetery as a place of commemoration that allowed administrators to dictate the use of their grounds. Cemeteries therefore, had to be managed by salesmen who thought more about cemeteries into an aggressive business. Salesmen were not interested in the up-keep, planning and even beautifying the cemeteries' landscape. They were only interested in charging high tariffs for their services (Jackson; 1989:99). The cemeteries therefore became neglected.

2.4.1.2 Neglected cemeteries

Whenever a cemetery is full, its revenues diminish drastically, yet expenses still continue. Money is needed for lawn care, new paintings as well as for trained personnel to discourage thieves and vandals and also to restore toppled markers. If the cemetery does not have a perpetual care fund, its income dries up, and it cannot maintain its grounds and become neglected. Neglected cemeteries often become garbage dumps or places where local teenagers have

parties, race motorcycles and vent their boredom and frustration by toppling monuments (Jackson; 1989:100).

Most city planners and government officials argue that cemeteries are costly, useless, wasteful and ugly. They went further to say cemeteries take away space from the living. As a result, Government agencies began to have their eye on under-utilized or neglected cemeteries as 'passive recreational space' that is, as little used but scenic land. Neglected cemeteries with broken monuments can also become unofficial neighbourhood parks. A serious threat to the cemetery is posed by the Department of Housing and Urban Development (HUD) report that burial grounds serve only a transitory and unimportant purpose. This report also suggests that, rather than converting cemeteries to another use, the unused space under elevated highways or in sanitary fills be landscaped to provide burial space as a way to preserve the best land for needed services (Jackson; 1989:106).

This is also reflected in England where a large cemetery was created in a disused Liverpool quarry from 1825 to 1829 at a cost of twenty one thousand dollars to design (Curl; 1990:262).

The writer is of the view that even though cemeteries are expensive to maintain, the cemetery owners are also to blame. That is, they are only interested in making money and not in the up-keep of cemeteries. Consequently, HUD report states that, besides using cemeteries as recreational spaces and neighbourhood parks, the unused spaces can be used for cemeteries so as to reserve good land for useful purposes such as housing, shopping centres, health centres, etc. In addition, the use of cemetery space should rather be maximised.

2.5 NATIONAL EXPERIENCE (SOUTH AFRICA)

South Africa is a highly multicultural country and as such, it is planned in relation to race, class and Socio-economic status. As a result, a pattern of cemetery provision in Port Elizabeth, according to Christopher; (March, 1995: 45), reflects

the same aspects and it is replicated throughout South Africa as required by the National Reservation of Separate Amenities Act of 1953 and the Provincial Reservation of Separate Amenities by local authorities Ordinance of 1955. A number of these aspects will be discussed below.

During the apartheid era, the state exerted far-reaching control over the rate and pattern of urban growth. This was meant to achieve racial segregation in all aspects of social and economic life, so as to protect the resources and lifestyle of the white minority and to subordinate less-advantaged groups. In the cities the intention was to create racially distinct and financially independent and self-contained localities with separate public amenities, administrations and infrastructures (Turok; September 1993:2).

2.5.1 Race

A ceremonial military cemetery was established in the 1980's in Port Elizabeth. This cemetery was laid out in two sections, one for the white troops and the other for the black, coloured, and Indian soldiers. Separate burials took place until the end of legal apartheid in 1991 whereby various pieces of racially based legislation were officially withdrawn (Christopher; March, 1995:42).

2.5.2 Economic aspects

The tombstones or lack of them reflected the relative wealth of the various communities. Thus the early black cemeteries consist of unmarked graves where even the pathways between the rows have become overgrown and the sites have become irregular grassed areas. Most of these cemeteries are converted into children's playgrounds after they have been closed for burials. Some of these cemeteries do not even show evidence of the previous use due to low maintenance levels, which reflected the limited financial resources of the municipal administrations in charge of Black cemeteries (Christopher; March, 1995:45). Phahameng cemetery in Bloemfontein can become a typical example of this.

2.5.3 Religious aspects

Due to diverse religious affiliations of inhabitants, cemetery provision in Port Elizabeth was such that each church is allocated its own burial ground. For instance, in the late 1830's and 1840's, the Wesley Methodists, Roman Catholics, and Congregationalists were granted their own burial grounds. Although they were adjacent to one another, walls separated them and each church built its own entrance (Christopher; March, 1995: 41).

South Africa is also planned in such a way that, the military activity, the conduct of war and armed conflict / liberation struggle has long played a significant role in South African history. Remembrance of human loss it causes is part of the contemporary landscape. Graves, burial sites, war memorials and monuments are tangible and symbolic reminders of South Africa's turbulent history. Graves are architectural examples of space where the historical past is transcended.

There are also problems relating to cemeteries in South Africa. Most of the cemeteries in South African locations are not maintained, adequate supervision and maintenance are very difficult to achieve and vandalism. These problems can be categorized as public health, violence, theft, vandalism and poor maintenance. Only three of them will be discussed due to the fact that time constraints restricted the researcher to get information about the rest.

- **Public health**

The problem of public health is taking place in KwaZulu Natal. That is, informal burials stimulated by filling up of cemeteries due to HIV/AIDS, have become a major problem. Many graves were dug regardless of the ecological impact and dangers of the seepage into water supplies. This informal sites add to those dictated by tribal custom (Southern Africa Report; March 15, 2002:7).

Laws were also passed to protect public health and improve sanitation and ultimately cemeteries began to be located outside cities and were managed by local and central authorities by early nineteenth century (Hall and Hanbury, 1991:21).

- **Theft in cemeteries**

South Africa's hottest business is hustling for corpses. Mortuaries and cemeteries are out of space. A lively black market in stolen burial equipment is escalating. (Masland, September 17, 2001:38). X

- **Violence in cemeteries**

According to Clifford (September 27, 1999:27), cemeteries have become places for crime. Urban cemeteries are normally located out of town where it is not very easy for police to patrol. As a result most elderly and young widows, who often visit graves, are vulnerable to attack, rape and robbery.

It is therefore concluded that planning of cemeteries should take into consideration safety and health of the people so that there is security all over the cemeteries and that people are buried on registered burial grounds. X

2.6 LOCAL EXPERIENCE (BLOEMFONTEIN)

Bloemfontein cemeteries date as far back as 1800s. Around that time, there were cemeteries for Dutch Reform church, Garison and civilians, military, and war. The well known people were buried in these cemeteries. For instance, President Brand was buried in one of those cemeteries in 1888. Some of the soldiers who died of enteric fever were buried in the cemetery in Monument road in the 1900s. This cemetery got full and a new one was founded in 1901 in the southern side of the town. A military cemetery was also founded in the north which is now known as garden of remembrance in Waverley road (Schoeman, 1980:4-201).

Women's Memorial Bloemfontein, is a stark reminder of the thousands of women and children who perished in concentration camps established during the Anglo- X

Boer War (www.sahra.org.za: 2004).

Of the sixteen cemeteries in Bloemfontein, only nine are still operational. These are South Park, Bloemspruit, Phahameng and Heather heights with 90% of their burial space utilized, Bainsvlei, Storm Avenue, Mooidam which is reserved only for burial of soldiers, crematorium and Memorium. The rest are full and others are informal cemeteries and do not show any signs of graves hence were closed. Those that are still operational are left only with 24% of unutilized burial space. There is no security in Bloemfontein cemeteries hence vandalism and maintenance has been major problems to most of those cemeteries.

It is however concluded that Bloemfontein cemeteries were located in such a way that different people such as soldiers, heroes and heroines as well as different religions, were allocated their own graveyard. In particular, people were buried to different cemeteries depending on the status and the role that 'he' played for the country. Cemeteries and graves are thus important to the country's historic mix and memory.

2.7 CONCLUSION

Learning from international as well as national experience, there have been changes associated with burial methods due to religion, cultural beliefs, and economic status and so on. Different burial methods also came as a solution to limited space but most were expensive to carry out and other methods needed extra maintenance. Poor maintenance of graveyards as well as honouring of the deceased has been a common experience at international level reflected by memorialization hence hampering re-use of graves. More planning for graveyards is therefore mandatory to overcome existing problems.

Town planners should learn from the past experiences of different countries to avoid repeating the same mistakes. There will always be differences in ideas depending on a particular area hence planners will have to choose ideas that suit

their area of study. Over and above these, there should be enough and properly located burial space allocated to avoid people using informal burial space which threatens public health. Adequate burial methods should be encouraged to save burial space.

The following chapter will therefore concentrate on urban planning theories that a planner can make use of in order to find a solution to the already mentioned problems regarding Bloemfontein cemeteries and finally achieve objectives of the study.

CHAPTER THREE

RELEVANT PLANNING THEORIES AND FRAME-WORK FOR CEMETERIES

3.1 INTRODUCTION

This chapter is concerned with indicating the background of planning theories. First of all, some definitions of planning will be discussed according to different authors, followed by forces behind planning, the need for planning and the background of planning theories. The chapter also indicates land use planning, forces behind or elements of land use planning, and roles played by land use planners in the urban environment. Finally the land use for graveyards is discussed.

3.2 WHAT IS PLANNING?

In order to arrive at a comprehensive definition of planning, Catanese and Snyder (1979:110) firstly examined what planning is not. Planning is not a purely individual activity; neither present orientated, nor can be routinized. Planning can also not use trial-and-error approaches and finally it is not utopian.

It is therefore concluded that if planning is not any of the above-mentioned principles, then it must be societal, future orientated, non-routinized, deliberate and action orientated. As the case may be, planning is comprehensively defined as; 'The deliberate social or organisational activity of developing an optimal strategy for achieving a desired set of goals. Such planning aims to apply the methods of rational choice to determine the best set of future actions addressed to novel problems in complex contexts, it is attended by the power and intention to commit resources and to act as necessary to implement the chosen strategy' (Catanese and Snyder, 1979:111).

Bruton (1974:26) defines planning as a multi-dimensional activity, which ought to be integrative, embracing social, economic, political, psychological, anthropological and technological factors. Planning is also the art that foresees

change, and mediates between the economic, social, political and physical forces that decide the location, form, and impact of urban development (Ratcliffe, 1975:4).

According to Hall (1982:3), planning is deliberately concerned with achieving some objectives and continues by putting together actions into some orderly sequence. Planning today is applied to almost all human activities.

Finally, Bruton (1974:27) highlighted some essential features of planning as;

- Integrating in approach and multidisciplinary in character;
- Normative and self-directing, concerned with choice, preferences and goals;
- Adaptive to change, that is, continuously modifying ends and means, preferences and goals;
- Democratic and participatory;
- Based on adequate information and consideration of alternative courses of action.

According to Alexander (1992:93), a definition of planning is only putting into place a general idea about planning. So, in order to better understand the comprehensive aspect of planning, both the forces behind, the need for planning, planning theories and the roles of planners in planning have to be discussed at length, which will eventually portray adequate description of reality.

It can be concluded that planning is multidisciplinary and rational. That is, one has to consider all the disciplines affected by the plan as well as the possible alternatives before implementing the project.

3.2.1 Forces behind planning-the need for planning

According to Ratcliffe (1975:3), planning came about as a result of the following factors:

- Persisting process of urbanisation

- The worst excess of an industrial city
- Explosion in population growth and car ownership
- Concern for provision of the right site, at the right time, in the right place and for the right people
- Inequality, deprivation and squalor caused by the interplay of free-market forces and lack of a social concern prevalent during the nineteenth century. Planning therefore helped the market to become more efficient.
- At the time of ever-accelerating social, technological and political change, planning seeks to direct and control the nature of the built environment in the interest of the society as a whole.

In addition, Glasson (1992:17) indicated that there has been an increase in planning reflected by acceptance of state intervention in almost all aspects of everyday life. He further showed that increase in planning is due to the fact that the normal interplay of private action and market forces often result in situations which the nation is not willing to tolerate and which can only be improved by means of control mechanism-planning.

McConnell (1981:3), saw planning as a necessity to improve or protect the environment. By that, it is meant that planning has to ensure that appearance, the living and working conditions in settlements are healthy. Preservation of older buildings, conservation of some trees, open spaces and historical developments should not be excluded. McConnell further stated that planning is required to do the following:

- Create order out of chaos regarding relationship of land and traffic ways
- Create a greater efficiency in the distribution of scarce resources and convenience
- Make decisions for the market forces for the development and change of urban areas
- Co-ordinate the use of urban spaces and channels of movement

In my own view, planning came about as a tool to regulate and correct the competing or incompatible land uses. It integrates both different aspects of the society hence solve spatial problems enabling the people to live in harmony with their neighbours and the surroundings. A more specific type of planning is elaborated below:

3.3 WHAT IS LAND USE PLANNING?

Land use planning is the process of making recommendations regarding the allocation of space for a variety of human activities. It provides the framework for rational decisions made to allocate space for public and private purposes. It is therefore linked to implementation, evaluation and modification over time (Kral, 1984:13).

Land use planning creates policy guidance of how land and its resources will be used. Planning of this kind is directed both by the social, cultural and economic interests of the people (www.sahtulanduseplan.com:2003).

According to the White paper on spatial planning and land use management (March 2002:34), land use planning is planning pertaining to human activities to make sure that land is put to optimal use, taking into account the different effects that land uses can have in relation to social, political, economic and environmental concerns.

Marther (1974:212) is of the same view that, at one level, land use planning is concerned with reconciling conflicting objectives of land uses. At another level, land use planning may seek to mediate or adjudicate between the objectives of interest groups and thereby establish compromise goals for the management of government-owned land or to balance broad policies among the main land use sector. As a result, all recognized land uses would be allocated space according to these factors.

3.3.1 Purpose of land use planning

Land use planning was adopted in response to some critical land use issues that generate uncertainties that could either be perceived as problems or opportunities. It is also adopted to make our future more certain or to decrease any uncertainties (Fabos, 1985; 7).

Land use is what the land is used for regardless of whether the use is permitted or not. For example, land can be used for residential, industrial, agricultural purposes, etc. As a result, for land use to be legally permitted, it has to go through a proper land use plan or control. In comparison with land use, zoning is within the lawful provision while land use is not since it is what the land is used for irrespective of whether that use is permitted or not. So, in planning for graveyards, zonings will help guide whether that use is permitted or not and whether it is compatible with the surrounding land uses or not. This is supported by Cullingworth (1993:34), who states that zoning is the division of an area into zones within which uses are permitted as set out in the zoning ordinance.

Zoning is the method by which the development plan separates parcels of land or areas of towns resulting in broad classifications of appropriate use such as residential, industrial, commercial, or educational. It indicates suitable land use for influencing change and threatening incompatible uses (Ratcliffe, 1975:292).

Michael (1992:288), indicated that the **NIMBY** (not in my backyard) syndrome was used to prevent unpopular projects from being cited in or near the communities. This could be projects like land fill sites, prisons, hazardous waste facilities, incinerators, etc. **NIMBY** refers to the protectionist attitudes of and oppositional tactics adopted by community groups facing an unwelcome development in their neighbourhood. This syndrome could help put pressure on the responsible authority to improve the proposed project or cause positive adjustments to the program plans of human service providers.

The zonings are stipulated in the town-planning scheme, which is a precise plan, showing exactly what use is permitted on each piece of land. On it, everybody should be able to determine the exact land uses. It can also be used as a control document although it has little future planning in hand. However, it used to be a planning document some time in the past when the proper structure plans were not yet implemented (Alder, 1979: 1). It is therefore, indicated on the town-planning scheme, the exact land use for cemeteries.

Zoning was seen as an instrument for providing the necessary security against both unwanted development and legal challenge. It provided protection to homeowners from uncongenial neighbouring uses, which would affect amenity and market value (Cullingworth, 1993:28). Zoning came about when it was realized that land use had to be controlled in order to do away with misuse, abuse and inadequate reuse of land that could result in conflicts (Listokin, 1974:4).

According to Fabos (1985:173), zoning is the most likely and commonly used development control device at the local level in the United States. It regulates the type of land use, the extend of land area or a lot which may be developed, the land use density and the height or bulk of buildings. Town planning scheme applies in the case of South Africa.

The town planning scheme regulates development of an area to which it is to apply, puts certain restrictions, and prohibit certain developments. It is also governed by the following principles; promotion of health, safety, order, amenity, beauty, convenience and general welfare of such area as well as efficiency and economy in the process of such development (Machogo class notes: 2003).

Land use is one of the essential factors influencing the pattern of urban development (Darin-Drabkin, 1977:1). Through land use planning therefore, graveyards can be properly located in accordance with other land uses.

In my own view, natural patterns take place when people prefer to locate their settlements wherever they feel comfortable due to their socio-economic beliefs. In this case, they can either locate close to or far from graveyards. However, these patterns can be corrected through the use of legal documents of land use controls (town planning scheme) stipulating different land uses of each municipal land.

It is therefore proven that land use planning came about as a tool to mediate between conflicting uses and make use of existing opportunities. In order to do away with uncertainties, planners should make use of planning models. These are going to be discussed below.

3.4 PLANNING MODELS

As it has been indicated earlier on, Alexander (1992:93) argues that a definition of planning is only indicating to us planning at a general level. He further on stated that even planners themselves assume different roles to undertake different tasks though they all directly or indirectly involve planning. Alexander finally indicated that in order to better understand what planning is all about, planning models have to be looked at. There are three main approaches used to differentiate planning models. These are substantive theories, instrumental models and contextual models.

3.4.1 Substantive models

This approach views planning according to the way social institutions are organised. It is seen as a useful way of differentiating between various types of planning activity such as physical, economic, social and environmental planning (Alexander, 1992:94). Land use framework as figure 3.1 below, indicates a good example of these model integrating both types of planning following this discussion.

example of these model integrating both types of planning following this discussion.

Figure 3.1 Land use framework



Source: Catanese and Snyder, (1979:235)

Land use planning consists of three elements that interact. These are activities, people and locations. Each of these three elements can therefore be evaluated in terms of their relationships with others. For example, both the people and activities have their own location preferences and this will result in patterns of concentration and dispersion. Consequently, land use planners can reinforce these natural patterns or create new patterns through land use controls (Catanese and Snyder, 1979:235). Zoning is a typical example of land use controls.

3.4.1.1 Physical planning

According to Alexander (1992:94), physical planning is concerned with the land and the built environment. The land involves the spatial distribution of goals, objects, functions and activities while the built environment has to be addressed by urban design. Urban design in its implementation tools such as regulation, zoning and public development merges into land use planning.

- Appearance
- Space standards
- Topography and physical constraints
- Separation of incompatible uses
- Economy

3.4.1.2 Social planning

According to Burchell and Sterlieb, (1978: xviii), social planning emphasise the needs of the plan's consumer population. They are a reaction to the functional and efficiency orientation of physical planning and are intimately concerned with the systemic distribution of resources to address social inequity. Social planning is therefore defined as the application of social values to programs undertaken to achieve economic or political goals.

This type of planning activity covers functional sectors such as health, education, labour and welfare programs (Alexander, 1992:103). This clearly shows that social planning is orientated towards the social well being of the people. As the case may be, socio-cultural, religious, economic and political aspects of the people are to be considered in planning new graveyards.

3.4.1.3 Economic planning

It covers a number of levels of functional areas. National economic planning is usually left to the economist but planners are now active in economic development planning at the state, regional and local levels, and in community and neighbourhood development planning. Planners are also moving into decision related fields such as budgeting, fiscal management, and policy analysis as the relation of these activities to the generic planning process becomes obvious and as the usefulness of planning skills is recognised (Alexander, 1992:97).

3.4.1.4 Environmental planning

Environmental planning as another sphere of planning activity took precedence in the 1970's. This was when natural environment became a centre for social concern. Environmental planning is an umbrella term identifying all the environmentally critical areas of land use such as nature preserves, flood plains and wetlands and locating potentially environmentally destructive facilities such as nuclear generators, waste disposal areas and power transmission lines. As a result, the environmental impact statement (EIS) has been authorised in many situations to integrate environmental with other planning considerations (Alexander, 1992:96).

3.4.2 Instrumental models

This approach places more emphasis on the variations/distinctions in planning objectives and the tools employed to achieve them (Alexander, 1992:98). It can be clarified in three forms, namely, regulatory, allocative, and indicative.

3.4.2.1 Regulatory planning

It describes a desired end-state and regulates private decisions and actions to bring that state about, usually by prohibiting those that are within approved categories and limits. The classic case of this type of planning is the local master plan and zoning regulations. Naturally, regulatory planning requires the power to undertake the planning process and implement the plan, a government or public agency to legislate and enforce the rules that make the plan's implementation possible. To be effective, this power must extend over the entire area included under the plan and all the relevant actors in the process of developing this area must be subject to the regulations (Alexander, 1992:99). In South Africa, a town planning scheme can represent regulatory planning since it regulates or controls the use of land.

3.4.2.2. Allocative planning

It uses different tools to achieve social goals. Allocative planning depends on the power to provide resources for desirable objectives or activities (Alexander, 1992:100). According to Glasson (1992:20), it is concerned with coordination and resolution of conflicts ensuring that the existing system is ticking over efficiently through time in accordance with evolving policies.

3.4.2.3 Indicative planning

Indicative plan depends on the power of persuasion to affect the decisions of firms, organisations and households. This type of planning indicates the plans and decisions of others and finally other's actions may also be affected by the plan to the extent that they participated in its preparation and identify with its goals and targets. Accordingly, interaction with the major affected parties and their active involvement in the planning process is an important prerequisite for indicative planning to be implemented (Alexander, 1992:101). Indicative planning lays down the general guidelines and is advisory in nature (Glasson 1992:21).

3.4.3 Contextual models

It identifies a succession of another type of planning models by referring to the historical emergence of planning. These relate more to their context in time, social institutions and value ideological premises. Some of these are presented below:

3.4.3.1 Comprehensive planning

It evolved from the physical-planning model that was in existence in the 1920's and 1930's. This type of planning realises that physical or land use decisions are affected and affect the complexity of factors such as social and demographic characteristics of a population, economic variables such as income and local or regional economic base, transportation factors, travel patterns, modal split, and transportation networks. As a result, comprehensive- planning focuses mainly on taking all these factors into account in a rational, analytic planning process (Catanese and Snyder, 1979:120). Alexander (1992:102) indicated that this

model used to be dominant in planning practice during 1950's to early 1960's. However, it is still widely applied in land use planning by Local Government. The model also assumes that the planner knows or can discover other people's needs.

Altshuler (1966:299) also indicated that comprehensive planners claim the following functions:

- To create a master plan to guide the deliberations of specialist planners
- To evaluate the proposals of specialist planners in the light of the master plan
- To co-ordinate the planning of specialist agencies so as to ensure that their proposals reinforce each other to further the public interest.

In addition, he further stated that each of these functions requires for ideal performance that the comprehensive planners understand the overall public interest, at least in connection with the subject matter of their plans. And that they possess casual knowledge that enables them to gauge the approximate net effect of proposed actions on the public interest. Hence comprehensive planning promotes public participation.

3.4.3.1.1 Public participation

Land use planning affects every member of the community naturally. In allocating the use of land and promoting future change, it determines the value of land, creating, apportioning and redistributing wealth. Planning has always been remote to the community or residents most of whom are affected by the development. The planning advisory group was established in 1964 to review the future of development plans. One of its main objectives is to ensure that the planning system serves its purpose satisfactorily both as an instrument of planning policy and as means of public participation in the planning process (Ratcliffe; 1975:245).

Participation must begin at the beginning of the planning process. It is not a matter of information, good relations or persuasion, but a matter of opening government to the general public as a collectivity of individuals and encouraging interaction. Participation should be a dialogue, a continuous two-way process between planners and politicians with the people (McConnell; 1981:119). According to the Development Facilitation Act 67 of 1995, laws, policies and administrative practices should promote participation of the people who are affected by the land development in the communities.

3.4.3.2 Advocacy planning

According to Catanese and Snyder (1979:12), Advocacy planning, focuses on the awareness that society is heterogeneous, as the case may be, the society consists of many groups with different interests and values. In this society, power is not equally distributed and access to resources is not the same to everybody. Therefore, an advocate planner will become a spokesperson for the most disadvantaged groups in a society.

Alexander (1992:108) says that an advocate planner has to provide people (with inadequate access to government) with the expertise they need, to make their voices heard in public decision-making. The advocacy planner actively seeks those at the bottom of the social structure and uses his expertise to plead their case in the planning process. Planning therefore is no longer neutral but pluralistic meaning that advocacy planning in one sense is thus a new type of politics, a medium through which local interests are expressed in the larger political system (Burchell and Sternlieb, 1978: xxx). It is also insisted that the task of a planner is to advocate the interest of the city's poorest residents with respect to the built environment (Burchell and Sternlieb, 1978: xxvi).

The planner therefore became an advocate of group interests and his alternative plan became a reaction to, rather than an enactment of the basic plan (Burchelle and Sternlieb, 1978: xxix).

The final step that planners can make use of is the model of the planning process. This model consists of seven steps of the planning process as indicated below by figure 3.2.

3.5 THE MODEL OF PLANNING PROCESS

Figure 3.2: Model of planning process

Stage 1

Problem
diagnosis

Stage 2

↓
Goal
articulation

Stage 3

Prediction
and
projection

Stage 4

↓
Alternative
development

Stage 5

↓
Feasibility
analysis

Stage 6

Evaluation

Stage 7

↓
Implementation

Source: Catanese and Snyder, (1979:115)

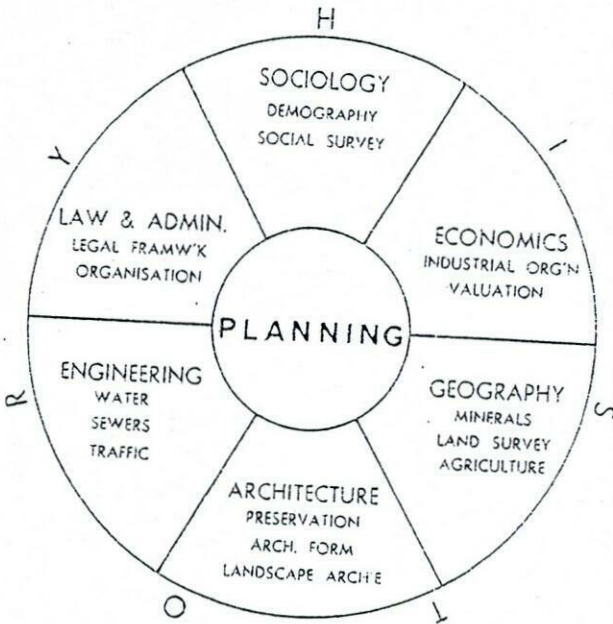
Every planning model has its own merits hence all of them cannot do without each other. That is why 'we' say planning is multidisciplinary. It integrates people from different fields of study in order to arrive at a comprehensive plan. As a result, comprehensive planning has to be adopted for cemetery development. Most importantly, is the model of the planning process. It is a clear indication of how to go about planning. First of all, a problem has to be known so that a goal is set, planning is future oriented thus the future situation using the previous trends has to be predicted and projected, alternative courses of action has to be considered, then comes analysis of those alternatives whether they are feasible or not, Last but not least, the best option is chosen and then finally comes implementation of the project. This cannot be undertaken by planners alone. There are also disciplinary and professional land use planners.

Brethen and Watson (1996:48) confirmed that a planner couldn't operate in isolation from other design and development professionals. A team of professionals is therefore expected to work together and undertake the process of planning.

3.5.1 Disciplinary planners

These include architects, engineers, landscape architects, etc. They are not only involved in land use planning but devote a major proportion of their efforts to planning. Training in these disciplines is oriented towards real life needs. Even other professionals have added disciplinary training to their planning education contributing to an increased disciplinary involvement in planning (Fabos, 1985:98). This is explained by figure 3.2 below:

Figure 3.3 Different disciplines in planning



Source: Keeble; 1969:18)

Chapkin (1965:79) further indicated that the planner is not the only party involved in land use planning. There are also government officials, citizens and experts appointed to various community board and city staff playing important roles using their skills and qualities.

3.5.2 Professional planners

They were initially called physical land use planners. However, with rapid increase of planning issues and the changing role of planners to become more of catalyst learning, planning began to specialise. This is reflected by the introduction of the four currents of planning known as physical, social, economic, and policy planning. So, both disciplinary and professional planning/training is an appropriate framework to a more diverse planning to remedy more complicated problems of land use issues (Fabos, 1985: 98).

3.6 PLANNING POLICIES

Finally, all planning policies that influence land developments should be taken note of before planning so that everything is in accordance with the legal context.

These are structure plans, local plans, integrated development plans, land development objectives, and development facilitation act (DFA).

*** Structure plans**

According to Bruton (1979:20), structure plans are seen as policy statements on strategic issues such as economic, social and physical systems of the areas under consideration in so far as these issues are subject to physical control or influence.

A structure plan is a more relevant and exact plan stipulating the basic policies for city development (Gallion; 1974:203). It is a written statement without a map but with diagrams and other descriptive matter. It looks at an area with regard to the surrounding areas, labour, money and land likely to be available. It can be prepared for the whole or part of the country or a large town (Reekie; 1975:7).

Structure plans are supposed to do the planning. The main purpose of a structure plan is to evaluate the level of change that is likely to occur over the plan period and to make sure that new developments will not destroy the character of the historic environment. Structure plans should also do the following:

- Indicate the main elements of the historic environment of relevance for strategic planning purpose,
- Set out general policies for their protection, conservation, and enhancement of the historic environment,
- Identify priority locations where protection, conservation, and positive management of the historic environment should be pursued (www.scotland.gov.uk, 2002:10).

Structure plans guide development, indicate how much land will be needed for houses, factories, shops, etc and ways in which these requirements are to be

balanced with the need to protect the environment of the country for present and future generations (www.luco.gov.bc.ca:2002).

It is therefore, on the structure plan that it is indicated how much land is required for future graveyards depending on the current population size, growth rates and death rates.

The layout of a structure plan is supported by the policies of the local plans (www.luco.gov.bc.ca:2002), Bruton (1979:20), highlights that local plans are aimed at working with more detailed proposals within the context of the structure plan and can take the form of a district plan, where factors in a local planning issue need to be examined in a comprehensive way, on a subject plan specific problems can be tackled outside of a time-table, or the territorial expression of other plans; or an action area plan, whereby the local authority can play in a comprehensive way for development, redevelopment or renewal which intends to implement within a short period of time.

*** Local plans**

In preparation of local plans, the local authorities are enabled to clearly identify and specify their objectives, policies and criteria for the protection, conservation and enhancement of historic areas. In order to achieve effective local plans, public participation is highly needed with other partnerships especially in terms of policy formulation (www.luco.gov.bc.ca:2002).

However, structure plans have long been replaced by land development objectives (LDOs) in terms of section 27 of the development facilitation act (DFA) no. 67 of 1995 which is also on its way out. DFA provides specific principles for promoting efficient and integrated land development that amongst other things makes maximum use of available resources and avoids duplicating existing infrastructure and services, encourages environmentally sustainable practices and processes, establishing viable communities, protecting the environment and

meeting the basic needs of all citizens in an affordable manner (MLM Integrated development plan 2003/2004:3).

The LDOs therefore became the most powerful planning tool as can ever be forced upon a Municipality. The LDOs are the ideal planning documents and together with the town planning schemes control land use and planning will have to go hand in hand in the interest of the community as a whole (Kruger, 1997:30). The LDOs therefore need to be integrated with control mechanisms in order to promote planning and control of land development. IDPs carry the budgetary phase for the LDOs and these have to be implemented (Gxabuza, October 2000:77). Planning for future graveyards will have to be incorporated in these control mechanisms.

*** *Integrated development plan (IDP)***

According to Municipal Systems Act, IDP is a plan whose main objective is to achieve an integrated development and management of an area of jurisdiction of the municipality concerned in terms of its powers and duties, and which has been compiled with regard to the general principles of the land development as set in the DFA and a subject matter of Land Development Objectives (LDOs).

Through the integrated development planning, the municipality prepares a strategic development plan extending over a five-year period. It represents the driving force for making municipalities more strategic, inclusive, responsive and performance driven in character. It is a principal strategic planning instrument guiding and informing, all budgeting, investment, development, management, and implementation in the medium term decision-making (MLM Integrated development plan; 2003/2004:2).

According to MLM IDP (2003/2004:114), the cemeteries service is aiming at providing graves and crematoria, which are in consistence with the cultural requirements of the entire people resident in Mangaung municipal area. In order

to achieve this aim/goal, the cemeteries service is going to use the following strategies:

- **Cemetery life spans:** The cemeteries service is going to explore means to reduce costs and extend life span such as the use of double depth graves
- **Improving administration:** Cemetery records are going to be incorporated into a computer system ensuring that graves are numbered and promulgating and enforcing uniform cemetery regulations
- **Security and maintenance:** The service is going to develop a plan to ensure a safe and secure environment and reduce vandalism. Outsourcing of maintenance is will also be considered.
- **Improving communications:** It is also going to be developed and implemented a community communication plan.

3.7 PLANNING FRAMEWORK OF GRAVEYARDS

Planning is multidisciplinary. With specific reference to definitions and characteristics of graveyards above, a normative type of planning will have to be applied in graveyards planning. That is, cultural, ethnic, religious, and other physical characters like location, size, boundary, entrance and major land use regulations, are the most important factors that have to be taken into consideration when planning for graveyards that will be conducive to the community that planners will be planning for. In other words, planning for graveyards is both normative [not value free], social advocacy, and as a result, rational comprehensive. So, planners should be oriented towards these factors. For example, Hartshorn (1980:208) stated that transportation planners must take cognizant of cemetery locations when projecting future corridors because they are prohibitively costly to move and often too sacred legally and politically to disturb.

With reference to figure 3.1, both the people and activities have their own location preferences. People can prefer to locate within a walking distance to

graveyards for economic, social and religious factors. On the other hand graveyards can be located outside the community for the following reasons:

- To allow for extension of a burial ground,
- Graveyards are viewed as sacred places which need no disturbance
- To avoid the unhealthy condition that takes place within the community confines
- And finally to avoid underground water contamination especially to people who directly use underground water.

According to the three elements (locations, people and activities), a natural pattern will therefore result. This explains substantive theories, as there has been application of the theories' elements (social, economic, and physical planning).

With reference to instrumental models, location of graveyards as an activity and the people, depend on three types of planning: regulatory, indicative and allocative. In this case, the master plan and the zoning regulations will regulate location of the people and the cemetery. Power of government or public agency is also needed to enforce the rules that make possible the plan implementation and to undertake the planning process of graveyards. Government or public agencies will also provide resources and resolve conflicts and ensures that everything is in accordance and in harmony with existing policies and guidelines. In this case, a new pattern rather than a natural one will result.

In contextual models, every factor mentioned in the above types of planning is considered hence location of both the people and graveyards is comprehensive. As the case may be, comprehensive planning is the most important type of planning in planning for graveyards.

3.8 CONCLUSION

Different definitions of planning emphasise its multidisciplinary, integrative, societal nature and its embracing social, economic, political, anthropological and technological factors. For this nature, planning was adopted to cater for all the different uncertainties of life aspects. As a result, different planning models have to be adopted to help each other solve these problems. Both urban and land use planners cannot plan in isolation from other experts or professionals to cater for different problems relating to graveyards planning. These are land issues and socio-economic aspects of the people. The most important part of planning is theory and practice. That is, there should be some point of reference in planning. All these factors are of great concern in graveyards planning. The responsibilities of land use planners shifted from that of synthesizers and or catalyst to that of facilitators. Therefore, as already explained, planners should adopt a holistic approach of integrating theorists from other disciplines even stakeholders in the communities.

In planning for graveyards, planners have to involve all the professionals from different disciplines who will have influence on cemetery plan. To go about planning, they should without fail base themselves on the model of planning process to avoid trial and error/muddling through. Muddling through is the theory by Lindblom which is based on trial and error (In planning one can try different tools until 'he' gets to the right one). Planners should also put into practice theories which they basically have to use as their point of reference. This will help them identify the problem area and go about solving that problem.

CHAPTER FOUR

LEGISLATIVE REQUIREMENTS FOR THE PLANNING OF CEMETERIES

4.1 INTRODUCTION

This chapter gives an overview of legislation governing cemetery establishment in South Africa. The regulations will be discussed at all levels affected by cemetery development including regulations set out by other departments that could be affected thereby.

The constitution of the republic of South Africa section 52 of 1996 provides the primary overarching framework within which local government planning must be contextualised. As a result, local government is mandated by the constitution to;

- Ensure the provision of services to communities in a sustainable manner
- Promote social and economic development
- Promote safe and healthy environment (Local Government Municipal Systems Act 32 of 2000:4).

In this case, the Constitution is giving mandates to Local government to manage and control both regional and local cemeteries. As a result, regional cemeteries are supposed to be managed by District municipalities and local cemeteries by Local municipalities as mandated by Local government.

4.2 PLANNING REQUIREMENTS/GUIDELINES

There seems to be two components of Local government legislation pertaining to cemeteries.

1. Local government ordinance 1962 (8/62) section 135(1) which delegates diverse powers to the municipality to set regulations that controls and organizes cemeteries.

2. Cemetery ordinance 1952(4/52) which prohibits the unworthy treatment of graves and organizes the issues dealing with movement of corpses (Regional legislation service-Free State).

4.2.1 Local Government cemetery regulations

It is required by the Local Government cemetery regulations that a proper geo-technical investigation should be conducted in a proposed site addressing excavation capabilities, stability of grave walls and permeability of soil. That is, a soil of 1.8 meter deep, should be a suitable one to make excavation easier,

- A surface gradient should be less than six degrees,
- Stability of grave walls should be ensured,
- Permeability of the underlying soils to prevent ground water contamination should be low (10 to 100cm/s),
- The site should be situated at least 100 meter from the 1:50 year flood line of the watercourses,
- A suitable water level/table should be at least 2 meter below the base of the graves to ensure attenuation of escaping fluids.

Furthermore, the cemetery site should be big enough to last for 30years. That is, any potential for further growth must be assessed so that the sectored cemeteries do not inhibit future township establishment. The Local Government also states that the department of environmental affairs and the department of water affairs should prepare a scope report. The department of water affairs should note the contamination, flood lines and water table of the area. Last but not least, layout with standard measurements for graves is indicated as follows;

- adult grave = $1.5\text{m} \times 2.5\text{m} = 3.75$ square metres
- child grave = $1.0\text{m} \times 1.5\text{m} = 1.50$ square metres

Gross area per grave: adult = approx. 5 square metres per grave

Child = approx. 2 square metres per grave

Size of site = approx. 3000 graves per hectare.

Finally, the access roads and routes from churches to the proposed cemetery site should be noted by the department of public works, roads and transport (if close to the roads).

4.2.2 Department of water affairs and forestry cemetery regulations

As far as planning of cemeteries is concerned, only the department of water affairs and forestry (DWAF) has the written down regulations governing the location of cemeteries in terms of water contamination. These regulations states that, according to the national water act (NWA) no.36 of 1998,

1. Cemeteries constitute water use, which needs to be authorized, but, since there is low pollution from cemeteries, such authorization is currently under preparation by the broad general authorizations.
2. The department of water affairs and forestry require that cemeteries should not be:
 - Located below the 1 in 50 year flood line of a river
 - In close proximity to water bodies such as wetlands, vleis, pans, estuaries, and flood plains,
 - Situated on unstable areas, like fault zones, seismic zones, dolomitic or karst areas where sinkholes and subsidence are likely,
 - Situated in or near sensitive ecological areas,
 - Situated in or on areas characterized by flat gradients, shallow or emergent ground water,
 - Situated in areas characterized by steep gradients, or shallow bedrock with little soil cover, where stability of slopes could be a problem,
 - Situated in areas of ground water recharge on account of topography and/or highly permeable soils and
 - Situated in areas overlaying or adjacent to important aquifers where such aquifers are to be used for water supply purposes.

3) If cemeteries are poorly sited, and are causing elevated risk to the users of ground-and or surface water, the local authorities are to be blamed for poor planning and the DWAF Regional water quality management officials on recognition of water pollution, should ensure that the parties responsible for the pollution, address and correct the situation accordingly as contained in the water act (Department of water affairs and forestry: Water quality management policy with regard to the management and control over cemeteries as a source of water pollution, 2001:2)

4.2.3 Burial of poor people in the area of jurisdiction

It has been stated that, MLM is obliged in terms of the health Act (63 of 1977 section 48) to make sure that poor people and those whose bodies are not claimed are buried. This condition or policy does not apply to those poor people who have their next of kin who can still bury them but do not want to. The main objectives of this condition are to;

- To dignify the burials of all the residents of Mangaung local municipality
- To make a provision for the socio-economic needs of the community
- To enable all cultural groups to bury their deceased according to their customs
- To make good relations between the council and the community hence create a reciprocal relationship between the council and the people
- To express the concept of ubuntu
- To instil in people a sense of taking co-responsibility for one another
- To meet all legal and financial requirements pertaining to the above (Mangaung local municipality department of medical officer of health: October 2001)

4.2.4 Public works requirements to cemetery provision

In order to provide a cemetery, both the preferences and attitudes of a beneficiary community should be addressed. It is further indicated that, maximum distance from an urban cemetery should be 30km and 50km for a rural cemetery.

Again, to guarantee a facility to a cemetery, its community should be of sufficient size and finally, the following factors will determine the need for that facility;

- the mortality rate of beneficiary and adjacent communities
 - the population growth of beneficiary and adjacent communities
 - the age distribution of beneficiary and adjacent communities
 - the availability of existing cemetery capacity to beneficiary and adjacent communities
 - the accessibility of adjacent facilities
 - the availability of transport or more remote facilities
 - problems in reaching facilities in adjacent or more remote communities
- (Consolidated Municipal Infrastructure Programme(CMIP)2001 :31)

It was further stated that a cemetery should serve a 30-year period with a plot of 0.15 hectares serving 1000 head of the average population. The cemetery should be developed in 10-year phases. Taking these in account, the following facilities should be provided:

- A 6m wide paved access road, to a maximum of 100m in length
- A 4m gravelled internal distributor
- An administration block
- flush toilets for the public or VIP's depending on availability of services
- Ablution facilities for workers, supervision and control
- Storage space for equipment
- A parking area
- Shelter
- Security fencing (CMIP: 34)

4.3 MANAGEMENT GUIDELINES

It is stated by MLM that, according to Local Government Ordinance (8 of 1962), the mentioned cemeteries below as well as the new ones within the municipal area, are the property of the municipality and are under the management and control of the council.

- (i) Bainsvlei cemetery
- (ii) Bloemspruit cemetery
- (iii) Heather heights cemetery
- (iv) Memorium cemetery
- (v) Phahameng cemetery
- (vi) South park cemetery
- (vii) Storm Avenue cemetery
- (viii) Traditional cemeteries (Bloemfontein)
- (ix) Botshabelo cemeteries (2)
- (x) Thaba nchu urban cemeteries (2).

4.3.1 MLM by-laws

For the establishment of new cemeteries, it is the responsibility of the council to set aside suitable land within the municipal area. With reference to the approved layout plan of a cemetery, it is the council's obligation to set aside, demarcate and reserve areas that are considered to be of exclusive use by members of a particular religion or denomination, or for the burial of adults, children, security forces or war heroes, or to create or manage the following sections:

- Berm-section
- Monumental-section
- Semi-monumental
- Natural grass section
- Traditional-section

All these have been indicated by annexure A together with requirements and planning standards for a cemetery.



4.4 CONCLUSION

According to the planning standards of cemeteries stipulated by Mangaung Local Municipality as annexure A, there is quite a big difference between that with those stipulated by Provincial and Local government. The areas of these graves are almost half the size of those stipulated by Provincial and Local Government. Adult single grave is equal to 1.5m by 2.5m and child grave is equal to 1.0m by 1.5m. Furthermore, the formulas used to calculate cemetery spatial requirements differ for both CMIP and Local government. In terms of saving space, Provincial and Local government standards for graves are unrealistic.

Another problem lies in the fact that other methods of burial are not addressed in both levels of government regulations. This means that both regulations are not complete hence need to be revised and expanded. In addition, both the district municipality and the national level of government should have their own cemetery regulations to address the greater municipal area and South Africa as a whole incorporating all appropriate burial methods and how they should be handled. The local authority should also see to it that all other departments affected by cemetery development have their own regulations stating requirements to cemetery development and management.

Most importantly, there are regulations stipulated in other departments and do not appear in others. In this case, all the departments should sit down and try to put together all those regulations so that they come up with a comprehensive plan for cemeteries.

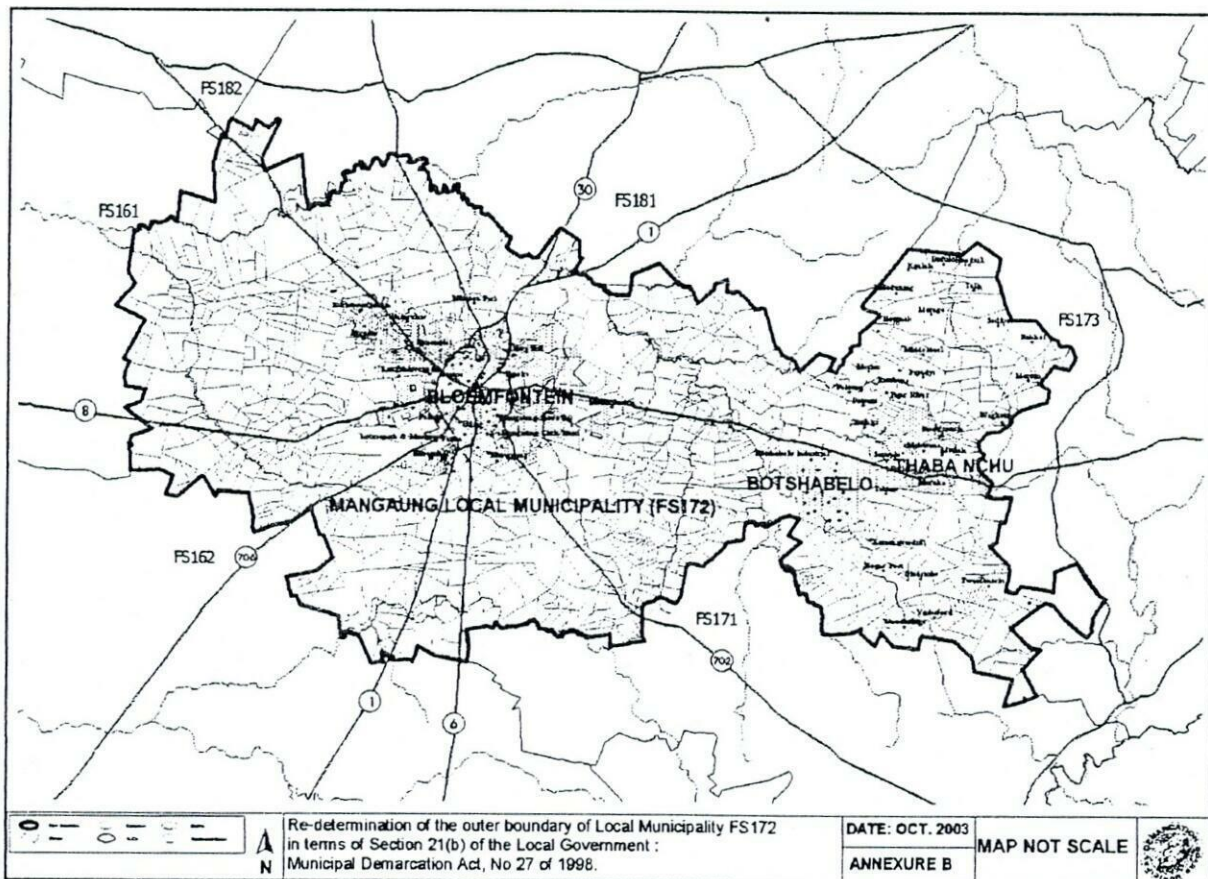
CHAPTER FIVE

CASE STUDY

5.1 INTRODUCTION

Bloemfontein was chosen as a study area due to the fact that it is the most prominent urban node under Motheo District. Motheo District Municipality comprises of 3 local Municipalities namely; Mangaung, Naledi and Mantsopa. Mangaung Local Municipality comprises of Bloemfontein, Thaba-nchu and Botshabelo as indicated in Map 1 below. It is also said to be the stronghold of Motheo.

Map 1: Location of Bloemfontein in Mangaung Municipal Area



Source: www.demarcation.org.za (06/10/2003)

Bloemfontein also serves as the capital of the Free State and judicial capital of South Africa. It accommodates the Provincial government of the Free State, Motheo District Municipality and Mangaung Local Municipality's headquarters. It also has excellent institutions in terms of health, education, and other economic and social opportunities. As a result more people are moving from their original places to Bloemfontein hence promoting population growth. Consequently, more people create a need for more space for burials and other developments.

It is important to note that a plan for future graveyards is influenced by many factors most of which form the basis of this chapter. Those factors include demography of the study area, impact of HIV/AIDS, alternative burial methods, existing cemetery capacity, and accessibility to the site. It is therefore going to be discussed in details how these factors influence graveyards development.

5.2 DEMOGRAPHY OF STUDY AREA

Demography is defined as a study of human populations, their size, structure and development. It focuses mainly on births, death and migration rates, their composition and interactions (Long and Lubben-Dankelaar, 1992:3). It is therefore of vital importance to know the demography of Bloemfontein in order to be able to predict future needs of burial space. That is, more people and more deaths means more space has to be reserved for burials. Most of the statistics gathered on demography will then be discussed on comparative basis to be able to get more precise details.

5.2.1 Population Size

The population size of Bloemfontein is indicated in the tables below:

Table 5.1 Bloemfontein population size by group and gender, 1996

Population group	Gender		Total population
	Male	Female	
Black	102 321	113 410	215 731
Coloured	14 982	15 757	30 739
Indian	447	395	842
White	47 892	53 026	100 918
Unspecified	1 275	999	2 275
Totals	166 917	183 587	350 504

Source: Stats South Africa 2002 (Census 1996)

Table 5.2: Bloemfontein population by group and gender, 2001

Population group	Gender		Total population	Growth rate
	Male	Female		
Black	135 579	144 648	280 227	5.98%
Coloured	15 131	16 000	31 131	0.26%
Indian	475	392	867	0.59%
White	36 433	41 207	77 640	-4.6%
Totals	187 619	202 247	389 866	2.25%

Source: Stats South Africa 2003 (Census 2001)

The black African populations seem to have the highest population sizes and growth rate as compared to other population groups. This could either mean that more African people are migrating to Bloemfontein or that African people are more fertile in a sense that they give birth to more children as compared to other population groups. With white people, things differ. They are the second largest population group but have a negative growth rate which could either mean that they have low fertility or migrate to other towns or even have high mortality rates.

Bloemfontein showed a population growth rate of 2.25% per annum between 1996 and 2001. This growth rate would have been influenced by the fertility rate, migration patterns as well as the mortality rate of the area. The next paragraph will therefore deal with these factors influencing population growth:

5.2.1.1 Fertility, Migration and Mortality

According to Thomas (1982:24), **fertility** refers to the occurrence of live birth. He is of the view that the level of fertility is affected by changes in the proportion of

married couples, changes in the completed family size among married couples. Thomas also insisted that fertility declines among people living in urban areas, people with higher levels of education and people with larger incomes.

Another aspect is that of **migration**. It is the movement of people from one place of abode to another. It was further indicated that it is the instrument of cultural diffusion, social integration and results in more meaningful redistribution of population. Migration is also said to have a three-fold impact as indicated below:

- On area of immigration
- In the area of out-migration
- On the migrants themselves (Chandna and Sidhu, 1980:56)

This means migration brings changes to both the place of origin, the place of destination and to migrants themselves.

The final aspect that changes the structure of the population is **mortality**. It refers to the occurrence of death. It has been indicated that mortality is determined by such factors as wars, epidemics, famines, food shortages and natural calamities (Chandna and Sidhu, 1980:8). One can therefore conclude that the need for burial space will be influenced by fertility rates, migration patterns as well as mortality rates.

According to Statistics South Africa (2003) Bloemfontein has recorded 10209 new births for the year 2002 compared to the 31172 new births registered for the Free State in 2002. As comparison figures were not available, the fertility rate for the area could not be determined.

Presently Statistics South Africa do not have migration pattern information and therefore it is not possible to determine the migration trends for Bloemfontein. However, the writer is of the opinion that Bloemfontein will experience a high immigration rate as it is one of the main sources of job opportunities in the Free

State and therefore more people will settle here. It also offers a range of social facilities not found elsewhere in the Free State which will also contribute to an increase in immigration to the area.

Statistics South Africa (2003) estimates that the number of recorded deaths for the whole Free State is 109 952 from 1997 to 2000. Among the thirty towns in the Free State Province, Bloemfontein has the highest number of deaths which amount to 18.47 % of the total deaths in the Province. Bloemfontein also has the highest population size in the Free State. This raises concerns that Bloemfontein will need more burial space than any other town in the Free State.

Table 5.3: Recorded number of deaths for the Free State per age group.

Age	1997	1998	1999	2000	Totals	Average increase rate
<15	631	793	974	1 285	3683	27%
15-19	179	187	234	237	837	11%
20-24	852	945	1 065	1 007	3869	8%
25-29	1 619	1 918	2 381	2 669	8587	18%
30-34	1 795	2 303	2 868	3 454	10420	24%
35-39	1 764	2 272	2 739	3 261	10036	23%
40-44	1 589	1 992	2 424	2 648	8653	19%
45-49	1 613	1 973	2 210	2 310	8106	13%
50-54	1 540	1 686	1 927	2 205	7358	13%
55-59	1 653	1 898	1 815	1 825	7191	4%
60-64	1 684	1 843	1 701	1 919	7147	5%
65-69	1 773	2 037	1 981	1 869	7660	2%
70-74	1 654	1 729	1 812	1 949	7144	6%
75-79	1 928	1 797	1 618	1 463	6806	-8.8
80+	2 781	3 120	3 093	3 322	12316	11.2%
Total	23 055	26 493	28 842	31 423	109813	9.4%

Source: Stats SA (2002)

The number of deaths recorded for the ages less than 15 years in the Free State has showed a stable increase (23% and 26%) from 1997-1999 and drastically picked up to 32% in 2000. This has been the highest increase rate in all age groups. This indicates that younger people are dying at much earlier age than previously which might be attributed to the spreading of HIV/AIDS infections through mother to child transmission. Other age groups which also experienced a higher than average increase of deaths are ages 25-54. However, the ages 30-39 shows the highest number of recorded deaths between the ages 25-54. Age groups 55-74 have experienced a very low increase in the number of deaths in the Province as compared to other age groups. The age group 75 -79 has showed a negative growth in recorded deaths.

If one compares the proportion of deaths recorded per age group, the age group 80+ experiences the highest proportion of total deaths recorded in the Free State. This age group contributes 11.2% to the total number of death recorded in the Free State. It is followed by the age groups 30 – 34 which represents 9.48% of the total number of recorded deaths and 35 to 39 which represents 9.14% of the total number of recorded deaths. Lastly, the age groups <15 only represents 3% of the total number of deaths recorded and therefore less children graves will be needed than those reserved for adults. However the stark increase of 27% of deaths recorded in this age group indicates the need to increase or reserve more burial space in future for children graves.

If one considers the recorded deaths in Bloemfontein per sex, as indicated in the table below, the following can be concluded:

Table 5.4 Recorded deaths in Bloemfontein by sex (1997-2000)

Year	Male	Female	Unspecified	Total
1997	2608	2123	15	4746
1998	2632	2197	11	4840
1999	2858	2299	9	5166
2000	2976	2577	8	5561
Total	11 074	9196	43	20 313

Source: Stats South Africa 2003

According to table 5.4 above, it seems that more males (54.5%) die than females (45.3%). However, the average increase for male-recorded deaths is only 3% per annum whilst females recorded deaths have showed an average increase of 5% per annum. It is also clear from table 5.4 that the annual increase in recorded number of deaths between 1997 and 1998 was only 1.98% while between 1998 and 1999 an annual increase of deaths recorded was 6.74% and between 1999 and 2000 an increase of 7.65% was recorded. If one compares this with the total of deaths recorded for the Free State for the same periods, the Free State showed an increase 14.91% of recorded deaths between 1997 and 1998 while it recorded an increase in the number of deaths between 1998 and 1999 of only 8.87% and between 1999 and 2000 an increase of only 8.95%. If one compares this trend with that of Bloemfontein, the Free State showed an annual decline in the increase of recorded deaths over the period 1997 to 2000 while Bloemfontein showed an annual increase in the number of recorded deaths for the same period. One can therefore conclude that Bloemfontein will have to make more provision for burial space in future if the trend continues.

As the recorded deaths per age group were not available for Bloemfontein, one will therefore have to predict the needs according to the different age groups. For this the writer used the Free State proportions of deaths recorded and applied it to the total number of deaths recorded for Bloemfontein. The following

table reflects the estimated total number of deaths from 1997 to 2000 for Bloemfontein per age group:

Table 5.5 Estimated numbers of deaths per age group for Bloemfontein (1997-2000)

Age	Proportion of deaths for the Free State	Estimated number of deaths per age group in Bloemfontein
<15	3.35%	681
15-19	0.76%	155
20-24	3.52%	716
25-29	7.82%	1588
30-34	9.49%	1927
35-39	9.14%	1856
40-44	7.88%	1601
45-49	7.38%	1499
50-54	6.70%	1361
55-59	6.55%	1330
60-64	6.51%	1322
65-69	6.98%	1417
70-74	6.51%	1321
75-79	6.20%	1259
80+	11.22%	2278
Total	100.00%	20313

Source: Writer's own calculations (2003)

In conclusion, it is clear from the above trends that Bloemfontein has still showed an increase of 2.25% per annum in its total population between 1996 and 2001 but it also showed an increase in the number of recorded deaths between 1997 and 2000 which can indicate that the population growth rate would have been higher if the number of recorded deaths were less. This again focus on the need to make provision for more burial space as both the population of Bloemfontein shows an increase as well as the number of recorded deaths.

5.3 IMPACT OF HIV/AIDS ON MORTALITY AND BURIAL SPACE

Another factor that will impact on population growth is the impact of HIV/AIDS. South Africa is at the epicentre of the AIDS epidemic sweeping through Sub-Saharan Africa, where more than 25 million are living with the disease. It has

more people living with HIV/AIDS than any other country. The UN estimates 4.7 million South Africans or one in nine in the population to be living with the deadly disease (www.dfl.org.za:2002). Table 5.6 below shows comparison of HIV prevalence in the Free State between 1999 and 2000.

Table 5.6: Comparison of 1999 and 2000 HIV prevalence for the Free State Province

Age Group	Positive %		% Increase
	1999	2000	
<20	17.65	15.75	-1.9
20-24	29.87	29.09	-0.78
25-29	35.79	27.90	-7.89
30-34	27.23	17.31	-9.92
35-39	21.41	7.55	-13.86
Age Group	Positive %		% Increase
	1999	2000	
45+	0.00	0.28	0.28

Source (Department of Health: 2000)

It is encouraging to see the negative growth rates of HIV prevalence in the Province for the period 1999 and 2000. However, the table below, indicates an increase in HIV infections between 2000 and 2001 with women attending antenatal clinics:

Table 5.7: HIV prevalence rates by Province among antenatal attendees in South Africa (2000-2001).

Years	WC	NC	Limpopo	EC	NW	FS	GP	MP	KZN
2000	8.7	11.1	13.2	20.2	22.9	27.9	29.3	29.7	36.2
2001	8.6	15.9	14.5	21.7	25.2	30.1	29.8	29.2	33.5

Source (Department of Health: 2002)

It is also discouraging to discover that among nine Provinces in South Africa HIV prevalence is decreasing only in three Provinces (Western Cape, Mpumalanga

and KwaZulu Natal). Among the six Provinces which shows an increase, the Free State occupies the third position with the increase rate of 2.2%, while the Northern Cape has showed an increase of 4.8% and the North West an increase of 2.3%. The other three provinces have marginal increases with 0.5% for Gauteng Province, 1.3% for Limpopo and 1.5% for Eastern Cape. This trend again signals that Bloemfontein is at risk since it comprises most of the population of Bloemfontein.

The increase in mortality due to HIV/AIDS will result in more uptake of land for cemeteries and a much greater number of funeral attendances. This will result in a proportionately higher economic loss due to time taken off work by people attending funerals (Whiteside and Woods, January 1996:13).

It has also been indicated that, graveyards in Johannesburg are running out of space due to the soaring rates of AIDS epidemic (www.dfl.org.za:2002). The cemeteries in Soweto are no longer coping. They used to bury adults on weekends and children during the week. Now, adults are buried whenever space can be found. The building of a large number of crematoriums is the only solution since there will never be enough spare urban land for graveyards (www.cpjustice.org:2002).

'Our orphanages are overflowing, our graveyards are full and our economies are threatened. And because of global economic interdependency, you are threatened' a speech by Archbishop Ndungane (www.anglicanmediasydney.asn.au:2002). This is a clear indication that HIV/AIDS does not only impact on mortality and burial space but also on the economy of the country in various ways.

AIDS has changed the way people live and now it is changing the way people are buried. Zambia's local government authorities are complaining that graveyards get full almost as soon as it is designated, thereby predicting a

shortage in burial space very soon. Zambians are therefore being encouraged to see cremation as a burial alternative (www.aegis.com:2002). "HIV/AIDS is taking so many lives that the bereaved have to start re-using relative's graves" (Hlongwa, September 19 2002:25).

Due to the unavailability of HIV prevalence statistics for the whole population, it is not going to be easy to make projections of the impacts of HIV on mortality and the need for burial space. However, the statistics available already indicate that the number of deaths recorded has increased and therefore the need for more burial space will become evident.

5.4 STATUS QUO OF EXISTING CEMETERIES

The main purpose of this section is to analyze data collected from different categories of people. These were the cemetery controller, undertakers, crematorium manager and town planners. The data was collected through different questionnaires for each category. The aim of the questionnaires was to gather information about the state of the existing graveyards and the preferred burial methods in all cemeteries in Bloemfontein.

5.4.1 Status of cemeteries

Table 6.1 below indicates the names, sizes in hectares; capacity and years in which each cemetery started to operate.

Table 5.8: Cemetery sizes in hectares and space still available

Operational cemeteries	Year of operation	Total size in hectares	Hectares still available
South Park	1970's	88	35
Memoriam	1889	26.9	-
Heather heights	1982	7.98	0.8
Phahameng	1950's	49.67	-
Bloemspruit	1981	8.56	5.1
Bainsvlei	1982	17.43	10.45
Storm Avenue	1980	3.96	1.2
Waverley	1800's	0.2	-
Hamilton	1939	7.55	-
Pres Brand	1899	4.22	-
Total		214.47	52.55

Source: Questionnaire completed by Cemetery Controller (2003); BKS (1998)

There is no documented information about other cemeteries. This is probably because those are informal cemeteries and others might not be under the control of the Municipality such as the Military cemetery. Most of the old cemeteries are full and closed such as President Brand, Anglo Boer war memorial, and Hamilton war cemetery. While the operational ones were in existence from the 1950's.

5.4.1.1 Burials per week.

The cemetery controller indicated that the maximum number of burials per week in all the cemeteries in Bloemfontein is 120. However, this number excludes cremations. As a result, it is still expected that more than 120 people are buried per week in Bloemfontein. The table below indicates the number of deaths received by each undertaker per week.

Table 5.9: Corpses received by undertakers per week.

Name of undertaker	No. Of corpses
S.A funeral	32
Cairo	8
Twilight	12
SAFFAS	12
AVBOB	45
EMANUEL	8
MABULE	1
Total	118

Source: Own table (questionnaire completed by undertakers)

Among these seven undertakers, the total of 118 corpses per week is received. This number is very high because the undertakers visited represent only a quarter of the total undertakers in Bloemfontein. Again, this number is very high as compared to the available burial space (52.55hectares) which amount to 24.5% of the total hectares available.

5.4.1.2 Preferred burial methods

According to the cemetery controller, the Municipality allow the following burial methods:

- Single berm
- Double berm : Burial on the side of the other
Burial on top of the other
- Multiple berm
- Cremation

However, the cemetery controller indicated that, in almost all the burials taking place in Bloemfontein, single burial seems to be the most preferred. He is of the view that, this could be due to the fact that most of the people are not yet exposed to different burial methods and those that are exposed, feel that it is not

in their culture to be cremated or to bury one corpse on top of the other. Almost 42.9% of undertakers stated that the people prefer single burials due to their cultures, which do not allow them to engage in multiple burials or double burials especially unmarried people. However 28.6% of the respondents say people prefer double burials. This normally happens to married couples. Another 28.6% say people prefer multiple burials to save costs since only one grave and tombstone are to be purchased in this case. This normally happens to people who are culture-free and up-to-date. According to Dixon; (Feb-March; 1994:14), cremation and other alternative methods of burial such as re-use of graves, vertical burial, lawn graves, or berm type graves, are not readily accepted. However, in other countries there are conditions, which necessitate alternative methods. Examples of such conditions are scarcity of land in Japan, inclement weather in Europe, and a high water table in Cape Town. Do 'we' have to wait for such conditions to be able to accept other methods of burial? However, Interview with the cemetery controller, some families are increasingly accepting multiple burials because they see it less costly. There is no need to buy many graves and gravestones for just one family.

5.4.1.3 Convenient burial methods

Cremation is indicated as the convenient burial method since it is easier to reuse the grave, which undertook a burial of ashes. About 71.4% of the undertakers opted for cremation for saving land, costs and time. Their argument is that, the type of coffin used for cremation is cheaper compared to the standard coffin for normal burials and the type of grave used is often cheaper. Arrangements for cremation takes less time compared to arrangements for normal burials. Furthermore, the method of disposal of the cremains is diverse. That is, cremains can be buried on the ground, in a wall or scattered in the garden of remembrance. However, 28.6% indicated that multiple burials are more convenient, because they save time, costs and more importantly land. In this case, there is no need to buy another grave; one grave will. Both of the town planners prefer cremation for cost effectiveness, consumes less time and space.

It has been indicated that by the year 2020, the annual demand for burial space will have doubled unless cremation becomes more popular or an alternative method of burial, requiring less land become accepted by the public (Dixon; Feb-March,1994:14) One respondent also considered multiple burials for the same reasons as that of cremation. However, other people do not favour multiple burials at all. That is, town planners say that, only two burials in one grave should be allowed so as to preserve space. Again they show that tradition (culture and religion) plays an important part in that other people may consider burying in an upright position. Another respondent said only one burial should be allowed or else, consider more than one if it is from the same family.

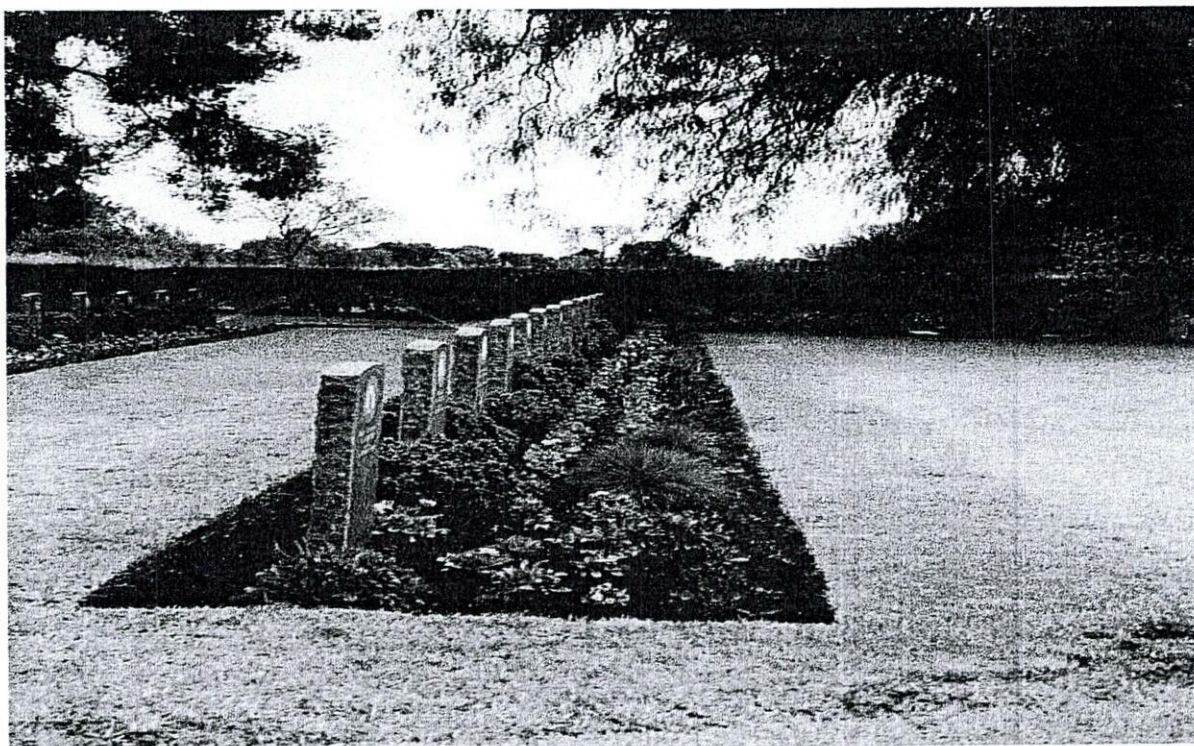
5.4.1.4 Cemetery maintenance (whose responsibility)

The council is responsible for maintenance of the cemeteries in Bloemfontein, but due to lack of funds for maintenance of graveyards, only few are well kept. Photos1 and 2 below illustrate this. Maintenances of cemeteries that are seldom visited pose further problems in cases where the local authorities do not have adequate funds at their disposal. In such instances, maintenance is neglected and the cemeteries become dilapidated. However, in some cases, cemeteries are successfully maintained with cost savings by private contractors (Dixon; Feb-March 1994:14).

Photo1: Phahameng cemetery in Bloemfontein



Photo 2: Bloemfontein Hamilton war cemetery



5.4.1.5 Tariff structure for graves in Bloemfontein

The cemetery controller indicated that tariffs differ according to the method of burial to be used, the type of coffin, and the particular cemetery to be used for burial. In addition, an extra R16 is charged for burials done on weekends. This was meant to cut down the weekend's burial influx.

Table 5.10: Tariff structure

Name	Weekdays	Weekends
South Park 1	6ft R868	R884
	8ft R931	R947
	6ft-cas-sml R931	R947
	-cas-lrg R979	R995
	8ft-cas-sml R979	R995
	-cas-lrg R1077	R1093
	6ft-brk R1064	R1080
	8ft-brk R1194	R1210
	Coach R543	559
	Berm R54 Non-berm R38	
South Park 2	6ft R279	R295
	8ft R304	R320
	6ft-cas-sml R306	R322
	-cas-lrg R315	R338
	8ft-cas-sml R322	R331
	-cas-lrg R340	R356
	Coach R174	R190
	Oprig R24	
South Park 3 and Heather Heights	6ft R570	R586
	8ft R595	R611
	6ft-cas-sml R633	R649
	-cas-lrg R682	R698
	8ft-cas-sml R670	R686
	-cas-lrg R727	R743
	6ft-brk R764	R780
	8ft-brk R844	R860
	Coach R369	R385
	Oprig R54	
Bainsvlei and Bloemspuit	6ft R742	R758
	8ft R805	R821
	6ft-cas-sml R805	R821
	-cas-lrg R853	R869
	8ft-cas-sml R894	R710
	-cas-lrg R951	R967
	6ft-brk R938	R954
	8ft-brk R1068	R1084
	Coach R440	R456

Source: Cemetery controller

However, all the undertakers indicated that the tariff structure is not satisfactory in that some of the people do not afford it hence they resort to the council for financial assistance.

5.4.1.6 Contribution of the council to funeral undertaking

The council assists with excavation of the desired graves and to cover graves after burials. They even excavate the already existing graves in cases where multiple or double burials are involved. This is done manually so that the excavators can be able to detect when they are nearing the coffin inside the grave. An example is given by photo 3 below.

Photo3: Excavation of an existing grave for the second burial



5.4.1.7 Destitute people

In the case of poor people, the undertakers refer them to the council who will authorize the undertaker to undertake the cheapest burials for such people. In addition, the cemetery controller showed that the council also subsidizes people who cannot afford it financially to bury their dead. This type of subsidy is known

as indigent burial. An example of graves for such people is illustrated by photo 4 below though this is specifically for paupers. The respondent also showed that, people take advantage of the subsidy, that is, even those who can afford to bury their dead, do apply for the subsidy. One of the town planners stated that, it is necessary only if it concerns a normal burial. That is, if it is done at no profit. In this case, the council and the undertaker should go hand in hand in such matters. Another town planner said it is necessary due to the impact of HIV/AIDS, unemployment and that every human being deserves a descent burial. However another respondent indicated that, it is not government function to bury dead people. That is, people should be able to provide for their own funerals.

Photo 4: South Park 1 cemetery (paupers' graves)



5.4.1.8 Problems

The cemetery controller indicated that most of the cemeteries are being vandalized. That is, most coffins and tombstones are stolen from graves. Sometimes disputes break up among family members of the deceased leading to breaking up of tombstones. Vandalism takes place so easily because there are

no security at all the Bloemfontein cemeteries. It was indicated that most of the undertakers steal tombstones from the graves. They also do not want to pay and even to book for graves. Sometimes graves for normal coffins are excavated by the council instead of graves for caskets due to communication breakdown between the undertaker, the bereaved family and the cemetery controller. Undertakers indicated that sometimes graves are poorly dug inconveniencing them to carry out burials. About 42.9% of the undertakers stated that they do meet problems with other undertakers due to jealousy, competition for customers, which lead to destruction of cooperation between them while the rest have not yet met problems. Approximately 42.9% of undertakers indicated that they do meet problems with the council in that there is too few staff to supervise and when it comes to booking of graves for burials, there is only one person in charge who is always out for other matters relating to his job. As a result, a lot of time is wasted trying to find the responsible person to book graves and arrange for funerals. However, others never met any problems with the council. Undertakers stated that the road to South Park cemetery is not well constructed hence they get problems especially during rainy seasons.

5.4.1.9 A Need for future plan of cemeteries

The cemetery controller felt it is necessary to plan ahead of time for new graveyards to cater for the needs of the growing population. All the undertakers interviewed saw a need to plan ahead for new cemeteries so as to take care of the graveyards that are filling up, increasing death rates, so that the council has time to consult the communities and hear their views about burial methods, to prepare the people's mind sets so that they slowly accept different burial methods and finally, that the council be able to consider some options such as letting undertakers to own graveyards, in other words, privatizing graveyards. Town planners also indicated that it is a requirement to plan ahead for cemeteries since tradition requires more land and a suitable one. That is, they prefer burial methods, which require more space and a very suitable one in that a normal burial requires soil depth of 1.8m to avoid ground water systems being

contaminated. Again, to be able to look for alternative burial methods and to have time to consult and convince people of those alternatives so that burial space can be saved.

5.4.1.10 Full cemeteries

All of the respondents indicated that full cemeteries should be maintained. The reason being there is no other choice in that Bloemfontein has a diversity of cultures most of which, especially black communities, view cemeteries as sacred places. As a result, they cannot be reused, reserved for parks, nor neglected. It is indicated that almost all Durban townships have run out of burial space hence the council has had to re-use the graves to do away with the chronic shortage of burial sites (Hlongwa, September 19,2002:24). One of the respondents opted for two choices: as maintained and reserved for parks.

5.4.1.11 Factors influencing planning of future graveyards

One respondent indicated that fewer graveyards are needed for management and maintenance purposes. That means, few graveyards will be easily managed and maintained since it is very expensive to maintain graveyards. Another respondent stated that available land is to be considered first then one will be able to make a decision from that. In addition, they both say that proper geotechnical and physical conditions should be considered whereby depth of topsoil would be indicated to distinguish between graves for adults and children. Finally, another respondent stated that, since graveyards are developed on land that is suitable for other uses such as residential, other alternatives like wall of remembrance at churches should be considered.

5.5 CREMATION

Photo 5: Crematorium block

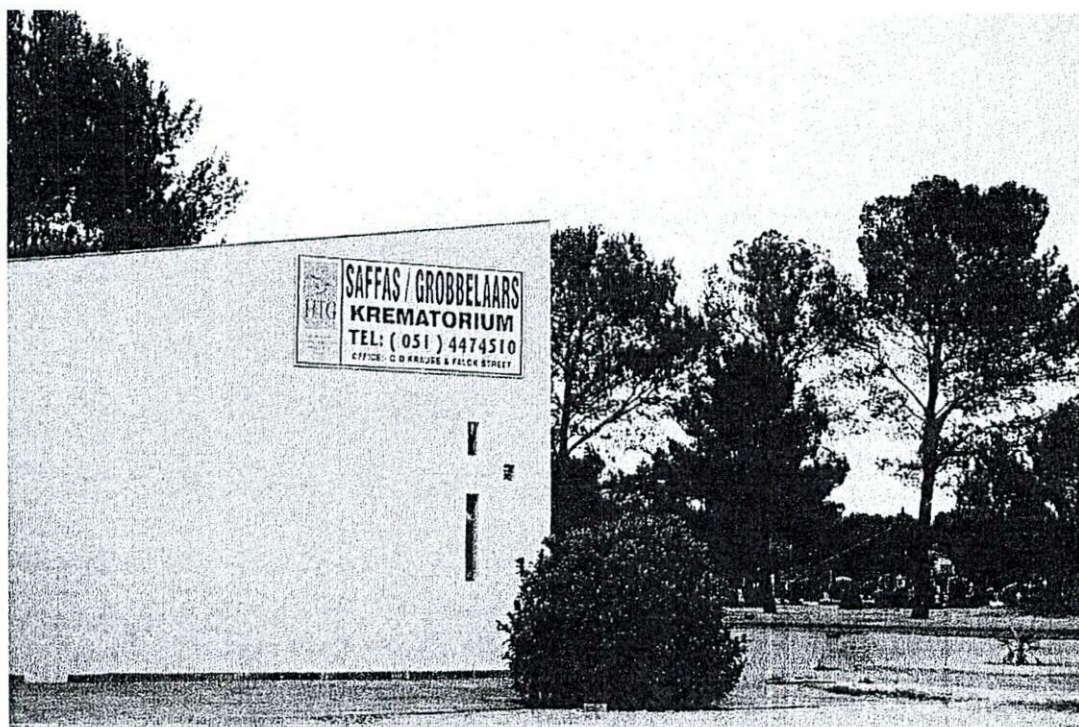


Photo 5 above shows the one and only crematorium building existing in Bloemfontein. It is located in the same yard as Memoriam 2 cemetery. Opposite, are the Memoriam 1 and Hamilton cemeteries.

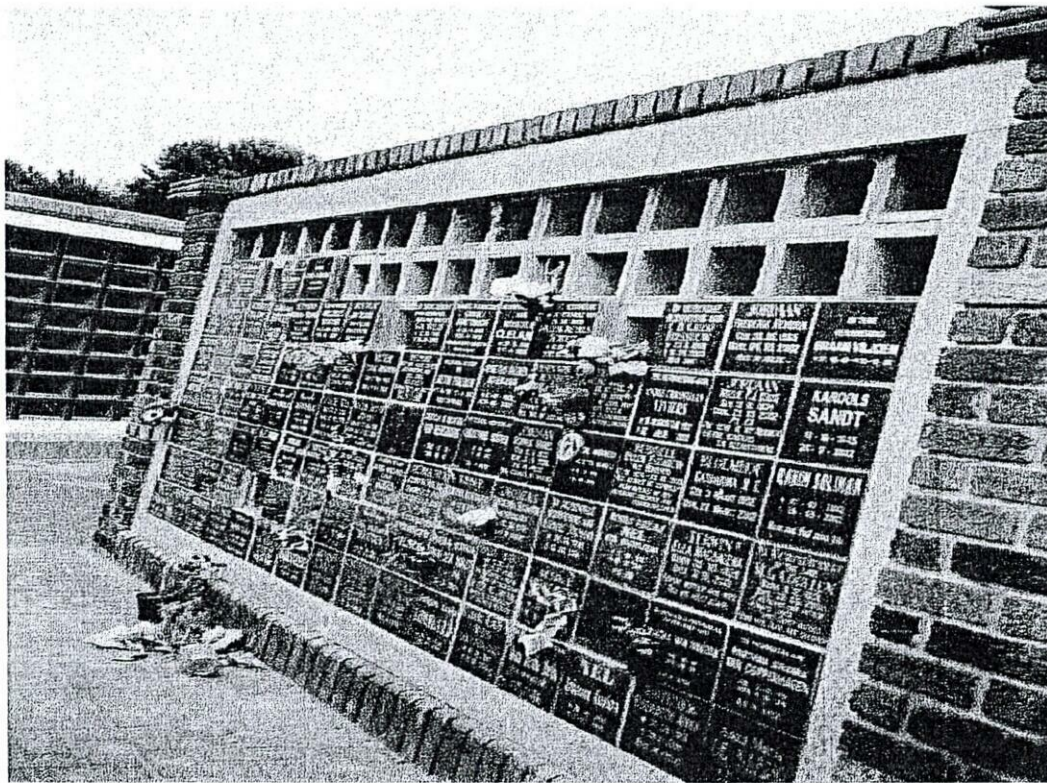
A structured questionnaire was also used for the crematorium. The purpose of this questionnaire was to gather information about the state of the existing crematorium in Bloemfontein; that is, the popularity of cremation, whether there is need for more crematoriums, if they encounter any problems and whether there is government subsidy for cremations. However, the manager for the crematorium indicated that the information for cremations is confidential and could not complete the questionnaire. Therefore the researcher relied on the study undertaken by Bloemfontein Transitional Local Council (BTLC) on cemeteries and crematorium especially the crematorium part. This study was carried out during 1997/1998.

According to the BTLC study, it was not very easy to estimate the number of Bloemfontein local residents being cremated since other people cremated came from as far as Upington, Aliwal North, Lady Grey, Kroonstad, Senekal and Welkom. However, the average cremations performed were between 50 and 60 per month. If per week, the number of earth burial is 120, then the number of people cremated by then was very low. Around that time, cremation for children was approximately R300 and R546 for adults.

They indicated that most of the next-of- kin did not prefer to use the wall of remembrance for storing the ashes making it difficult to plan for future need for niches. However, the walls were in good condition, but the sizes of the niches were not constant hence placing of the plaques was problematic. Alignment of plaques was another problem experienced since there were a number of contractors responsible for the attachment of plaques. This problem was supposed to be solved by a new different design that would provide a larger space between plaques.

They also suggested that, the wall of remembrance needs to be lengthened because only a few numbers of double niches are available. There is also a problem where tablets are opened and ashes removed. Many of such cases where the tablets are undone from the wall are not pleasing to the eye. Example of such cases is indicated by photo 6 below. They showed that a further investigation to cover these open niches with blank tablets should be done. Poor workmanship of some of the agencies that erect these tablets is the major complaint regarding the wall of remembrance. They finally indicated that, it is most beneficial to obtain services from a single agency that does satisfactory work and go into contract with him to supply and install all the tablets.

Photo 6: Wall of remembrance



The study revealed that the existing cemeteries (both closed and operational ones) and the burial methods adopted could be revised or rearranged to be able to serve and sustain the existing population as well as future generations. More than half (57.1%) of the total burial space is used up already due to high death rates as well as inappropriate burial methods adopted.

The municipality also has a lot of responsibilities regarding the graveyards. All town planners indicated that full cemeteries should be maintained. About 67% showed that the council should fund the burial of paupers and destitute people. Vandalism at graveyards is rapidly increasing because there are no security in the cemeteries in Bloemfontein. Cremation is not widely used in Bloemfontein. As indicated earlier, it is not very easy to plan for cremations since many people take the ashes home and do not store them in the wall while, others come back

and remove the niches from the wall which poses inconveniences and leaves the wall not pleasing to the eye.

5.6 THE NEED FOR NEW CEMETERIES

5.6.1 Projected population growth

According to Thomas (1982:33), population growth is likely to be affected by the following factors:

- Medical advances
- Improvement in hygiene
- Sanitation
- Food supply and transportation
- In-migration

Researchers utilise population trends to assist with the projection of future population growth trends. At present, the new demarcation of local municipalities has changed the enumerator areas which are used for Census purposes. This implies that previous statistics are less compatible with recent statistics and therefore comparison is made difficult. This hampers the determination of population trends and therefore the difficulty in predicting future population growth trends. The writer is therefore obliged to use recent trends together with qualitative projective methods particularly scenarios to project future population growth for Bloemfontein.

According to Catanese and Snyder (1979:115), prediction and projection means that in planning, current data are not enough. The development of alternative solutions to problems always requires projection into the future in order to estimate the conditions, needs and constraints. Prediction is essential for evaluating and selecting alternatives. Evaluation cannot be done without projecting the future impacts of alternative proposals under possible future conditions. Estimations are based on projections of the previous trends and changes in lifestyles. There are both quantitative and qualitative projective

methods to be used in this study. The qualitative one that is going to be used is scenario writing.

Scenario 1: *Population growth is inevitable*

This scenario is drawn from the fact that Bloemfontein is the most prominent node in the Free State drawing people from different areas for both economic and social opportunities. There has been a positive population growth evident from census 1996 to 2001. This scenario therefore predicts that Bloemfontein will continue to show a positive population growth. However, the writer is of the opinion that the growth rate will decrease over time as fertility rates are most likely to decline. The latter can be ascribed to possible larger incomes and the more educated people get, according to Thomas (1982:24). This scenario therefore builds upon the present growth rate of 2.25% per annum and shows a marginal decline over the predicted 15 year period.

Scenario 2: *Slower population growth due to increasing mortality rate (low impact)*

This scenario is derived from the fact that mortality rates have increase over the last couple of years. Another factor that impact on an increase in mortality is the alarming rate of HIV/AIDS infections; hence aggravating mortality rates. This scenario predicts a lower impact associated with higher mortality rates while scenario 3 reflects a higher impact associated with an increase in mortalities.

Scenario 3: *Slower population growth due to increasing mortality rate (high impact)*

This scenario reflects slower population growth associated with a high increase in mortalities and shows 0% population growth in 2021.

Table 5.11: Projected population sizes and growth rates for Bloemfontein

	1996	2001	Growth rate	2006	Growth rate	2011	Growth rate	2016	Growth rate	2021	Growth rate
Scenario 1	350504	389866	2.25%	429476.4	2%	470896.8	1.90%	512677.1	1.75%	551589.3	1.50%
Scenario 2	350504	389866	2.25%	427466.2	1.90%	459910.9	1.50%	494818.2	1.50%	532374.9	1.50%
Scenario 3	350504	389866	2.25%	419456.8	1.50%	440597.5	1%	451656.4	0.50%	451656.4	0%

Source: Own projections (2003)

5.6.2 Projected Burial Space Requirements

The Consolidated Municipal Infrastructure Programme (CMIP) (2001) requires that 0.15 hectares of burial space need to be reserved per 1000 of the population for a 30 year period. The following table indicates the application of the above spatial requirement for cemeteries to the projected population size of Bloemfontein:

Table 5.12 Spatial requirements based on the future Bloemfontein population growth scenarios.

Scenarios	1996	2001	2006	2011	2016	2021
Scenario 1	53	58	64	71	77	83
Scenario 2	53	58	64	69	74	80
Scenario 3	53	58	63	66	68	68

Source: own calculations (2003)

In terms of the first scenario, it is evident from the above table that, by the year 2021, 83 hectares of burial space need to be secured in Bloemfontein. The second scenario is experiencing slower population growth and therefore the reduction in the need for burial space so that by 2021 only 80 hectares of land need to be reserved for graves in Bloemfontein. The last scenario shows the impact of high mortality rates on the need for burial space but due to the fact that population growth is declining over the 15-year period, only 68 hectares of land need to be secured for burial space by 2021.

In conclusion, the above table indicates that more land will be needed for burial in the short term, even though mortality will increase over the long run. (Scenario 1 indicates the need for 63 hectares of land by 2006 while Scenario 3 indicates the need for 64 hectares of land by 2006. However by 2021 only 68 hectares of land will be required in the case of Scenario 3.) This is due to the fact that the negative impact of HIV/AIDS on fertility rates slows down population growth and therefore less land will be required in the long run.

The following formula was given by the Provincial and Local government Regional legislation service for determining the number of hectares required for burial space over a 30 year period.

Formula: (Average total of deaths *period) + (deaths per year *percentage growth rate *period)/3000

$$\frac{(5078.25 * 30) + (5078.25 * 2.25 * 30)}{3000} = 165 \text{ hectares}$$

According to the above formula, a burial space of 165 hectares will be required in Bloemfontein to serve 30 years. According to the findings of this study, there is a need to identify more land for burials. That is, there is only 52.55 hectares available for burials which can serve only plus or minus 10 years. According to this formula, if a cemetery is planned for 10 years, 55 hectares of burial space will be required, 110 hectares for 20 years and 165 hectares for 30 years.

In order to predict future burial space requirements in Bloemfontein, the availability of burial space within the existing cemeteries will be considered together with the future spatial requirements. Table 5.8 indicates the size of cemeteries in Bloemfontein, hectares used and available. According to that table, if one compares the existing available land for burials to that of the projected need, it is clear that additional land will have to be provided for burial space in Bloemfontein. In the short term at least 10 hectares of additional land for cemetery use will be required while in the long run the additional need may vary between 20 and 15 hectares of land, depending on the scenario provided for.

However, the spatial requirements for cemeteries are also influenced by the manner in which people are buried. For instance, less land will be required for cremation while our present single berm system requires much more land than double berm and multiple burials. It is therefore necessary to determine the impact on spatial requirements associated with the different burial options available.

Table 5.13: Number of graves with application of grave dimensions per burial method

Names of cemeteries	Single berm at 1442/hectare				(Child grave) Single berm at 1442/hectare		Double berm at 1634/hectare		Multiple berm at 2450/hectare	
	Hectares available	No. of graves before applying grave dimensions (BAGD)	Area of a grave (grave dimensions) (GD)	No. of graves per available space (PAS)	Area of grave (GD)	No. of graves (PAS)	No. of grave (BAGD)	No. of graves (PAS)	No. of grave (BAGD)	No. of graves (PAS)
South park	35	50470	(2.3+0.5)*(0.76+0.45)=3.4 square metres	14844	(1.52+0.5)*(0.61+0.45)=2.14 square metres	23584	57190	16820.6	85750	25220.6
Memoriam	-	-	-	-	-	-	-	-	-	-
Heather Heights	0.8	1153.6	3.4	339.3	2.14	539.1	1307.2	384.5	1960	576.5
Phahameng	-	-	-	-	-	-	-	-	-	-
Bloem spruit	5.1	7354.2	3.4	2163	2.14	3436.5	8333.4	2451	12495	3635
Bainsvlei	10.45	15068.9	3.4	4432	2.14	7041.5	17075.3	5022.1	25602.5	7530.1
Storm Avenue	1.2	1730.4	3.4	508.9	2.14	808.6	1960.8	576.7	2940	864.7
Waverly	-	-	-	-	-	-	-	-	-	-
Hamilton	-	-	-	-	-	-	-	-	-	-

Source : Own calculations

There is quite a slight difference between single berm and double berm methods as compared to multiple berm and single berm for children. That is, double berm can bury only 13% more burials than single berm while multiple berm can bury 70% more and single berm for children can bury 58.9% more than adult single berms. Table 5.13 above also indicated that approximately 864.7 can be buried on more or less a hectare of land using multiple burial methods. This can be due

to the grave dimensions used. The area of an adult grave used is 3.4 square metres including distance between graves. However, multiple burial method seems to be the most economizing method. Hence there is a need to promote it as well as practising grave dimensions that will at least save more space.

5.7 AGE AGAINST HEIGHT

Another aspect that needs to be considered in a plan for burial space is the height of people. Interview with one of the nurses at Universitas hospital, growth charts for adults are not constructed due to the fact that growth of adults is affected by many things such as pregnancy, stress, etc. As a result only growth charts for children between 2-18 years according to sex are available. Both the girls and boys growth charts differ. Their growth level is not the same at some stage. As the case may be, the height of the people has to be taken into consideration in planning so as to be able to anticipate future spatial requirements for cemeteries (Humatrope: undated)

5.8 CONCLUSION

It must be born in mind that demography plays an important part in planning. That is, one cannot properly plan for unknown number of people or else the planned project will not meet all the people's needs. As a result, planners should pay attention to aspects that affect population growth so that at the end, 'he' is in a position to follow trends that will help foresee the future. Fertility, mortality and migration have been used as major determinants of population growth. Regardless of unreliable statistical data, there was light as to how spatial requirements for burial space can be determined using different formulas. Scenarios were also drawn based on existing data on population growth. According to these scenarios, it seems Bloemfontein still has a need to identify more land for burials. The available burial space cannot serve 10 years. The alternative is that of different burial methods. Existing burial methods consume land differently depending on the number of corpses to be buried in one grave. In

this regard, burial methods that consume little space should be opted for hence extending the period that the existing burial space can serve.

CHAPTER SIX

GUIDELINES FOR PLANNING CEMETERIES

6.1 INTRODUCTION

As stated in the first chapter, the aim of this study is to investigate the problems and identify possible solutions relating to the state and management of graveyards in Bloemfontein. The thesis will also try to develop guidelines that will produce adequate, acceptable and affordable burial methods as well as properly managed graveyards.

6.2 GENERAL FINDINGS

The concept of burial space has been an on-going subject reflected by the fact that people's attitudes towards death differs. Cultural differences are the major contributor to these attitudes. Other cultures favour less consumption of burial space and others do not. They go to an extent of placing a corpse on a tree for vultures to feed on. They also burn corpses. Other cultures saw this as improper denying the deceased entrance to the afterlife. Other people only realised after experiencing increasing mortality and high population growths due to urbanisation that burial space is a problem. As a result, they started re-using graves which also did not last due to rapid use of memorials. To other people, memorials are not a big deal. Once a person is buried, everything is over.

One of the problems facing cemeteries today is poor maintenance. Such cemeteries do not even show signs of previous use. It has been found that, once a cemetery gets full, it is no longer generating money but spending it. There is a need to spend money for lawn care, pruning of trees, and making other renovations.

Many studies have revealed that planners cannot do it all. There is an inevitable need to involve various disciplines and professions in a cemetery plan. Other departments affected by cemetery development, have already drafted their regulations to abide by in cemetery development.

Planning models have also been proved efficient for planners to follow. A typical example is a planning process model by Catanese and Snyder. This model helps planners to plan for the unforeseen world which is the basic idea in planning. There are however various types of urban planning used in this study that a planner can be equipped with. Some of them such as advocacy planning as well as legislation and policies used promote public participation.

The most important factors promoted by planning policies and legislation are integration, convenience, participation, safety and security, healthy environment, and provision of services. A good cemetery plan has to promote these factors.

Demographic projections used in this study revealed that there is a need to identify more land for burials in a short run. However, one can consider options like burial methods that consume little space so that the period that the existing burial space is expected to serve is prolonged.

6.3 ACCEPTANCE OF HYPOTHESIS

The following hypotheses should be accepted:

- Socio-economic factors influence burial methods. According to the cemetery controller, most people still prefer single burials. This could be because their cultures do not permit other alternative methods like cremation or even engage in multiple burials. Other people might have not yet been exposed to different burial methods. Hundred percent of town planners showed that cemeteries that are full should be maintained rather than be re-used, reserved for parks or neglected. That is, they indicated

that Bloemfontein is multicultural, especially black communities view cemeteries as sacred places. Again, most, if not all the respondents preferred cremation as the most convenient method of burial. They indicated that cremation consumes little space, saves time and is cost effective, multiple burials was also recommended.

- Many responsibilities and costs incurred by the council led to neglected and poorly maintained cemeteries, though it was indicated that maintenances of cemeteries in Bloemfontein is the council's responsibility. The council sprays herbicides, plants trees and lawn though this does not happen to all cemeteries. The council is also responsible for excavation and covering of graves after burials with all the necessary equipment to carry out all the duties. The council also finances indigent burials.
- Maintenance of graveyards is dependent upon the tariff structure for that particular cemetery. That means tariffs differ according to the cemetery used for that particular burial. For instance, in South Park 1, tariff for six feet is R868 while in South Park 2, six feet is R279. This is quite a big difference showing clearly that South Park 1 is better maintained as compared to South Park 2. Tariff structure for cremation is also high for the fact that walls of remembrance are low in maintenance.

6.4 PLANNING GUIDELINES FOR FUTURE CEMETERIES

Guidelines for future graveyards in Bloemfontein are based on the following points:

1. Re-organisation of burial methods used in Bloemfontein has to be achieved
2. Mobilizing support from the responsible departments for spatial planning
3. Promoting public participation since this matter mostly concerns the public
4. Promoting skill development
5. Promoting Comprehensive planning
6. Encouraging expansion and revision of the by-laws/regulations
7. Promoting safety and security
8. Devising the system of data capturing

9. Revising their system of allocating cemetery blocks
10. Enforcement of other departments to design cemetery regulations

These strategies will help the appropriate burial methods to easily gain public acceptance hence promote integration among diverse Bloemfontein cultures. These points are explained as follows;

6.4.1 The need for re-organisation of burial methods

Adequate burial methods are therefore proposed. These are cremation, multiple burials and re-use of graves. Other existing cemeteries will accompany the system so that those that are full will be re-used after a given period to complete decomposition. These burial methods are based on maximising the use of burial space. The municipality should therefore identify possible locations for a new cemetery. The following are the recommended locations:

- Extension of south park cemetery is recommended. South park cemetery is already large enough to accommodate many burials at the same time and extension of this area is also possible. That is, the area is already out of the residential confines and surrounded by flat, undeveloped land. However, it is still more accessible to most of the Pellissier and Mangaung residents who are also experiencing high population sizes in Bloemfontein. **See Annexure F.**
- Extension of Bloemspruit cemetery. This cemetery is also already out of the confines of the communities. It can be suitable provided there are many people on that side of the town because it is a bit far out of the town (24km from the city centre). The town is already growing towards that side of the town (development of Mandela view).

6.4.2 Promoting public participation

In planning for a development which will affect the people either physically or mentally, the residents should have some participatory roles including opportunities to initiate proposals and to review and comment on the proposals of others (Lucy; 1988:480). That is, a decision for a proposed burial site should either be accepted or rejected by the residents. South park cemetery is already located next to the dumping site. This is not pleasing to the eye especially during windy seasons as wind blows litter around the fences of the cemetery.

The people also have a right to decide on the burial methods they prefer or rather settle for due to their various religious and cultural beliefs. As a result, the municipality should see to it that residents are involved in the decision from the beginning to the end by means of representatives of local communities who will establish forums for discussing and analyzing issues relating to cemeteries and crematoriums hence promoting community based planning.

6.4.3 Mobilizing support

Planners should mobilize a true support with the political cabinet of the minister in charge of spatial planning, members of political parties, traditional sectoral departments, and consultants and the broader public, etc. That is, successful planning practice depends on the committed and corporative efforts of many people and on leadership (Albrechts; 1999:496).

If the highest elites (politicians, executive members of Senate, and others), can be able to convince the former president of South Africa, Mr. Nelson Mandela to be cremated, then most people, not only in South Africa are likely to resort to cremation. In addition, the local authorities should subsidize cremation so that it is affordable to most people. The municipality should also plan extensive education programmes to make people aware of cremation

and that it is low in maintenance. This can help reduce the number of indigent burials hence unburden the council.

6.4.4 Promoting skill development

In terms of maintenance of cemeteries, the council should see to it that it hires the unemployed population in the community it serves. This will help cut down the after effects of unemployment in that area. Again, the council will not have to incur more costs as the community will use their labour to clean the cemeteries. An example of more or less such a case is presently happening in Phahameng cemetery as indicated by photo 7 below. Some unemployed Phahameng residents have volunteered to clean up a cemetery in their community, which among all the cemeteries operating in Bloemfontein seemed to be the most poorly maintained. In addition, the municipality should draw up a policy to ensure proper maintenance of graveyards. That is, the council should consider raising its charges for graves so that people can resort to the cheapest method of burial and that the council as well be able to maintain cemeteries.

Photo 7 Volunteers cleaning Phahameng cemetery



7.4.5 Comprehensive Planning

Planning for future graveyards needs consideration and contributions of other professionals and stakeholders. They can include the following:

- Environmentalists
- Engineers
- Surveyors
- Landscape architects
- Economists
- Town planners

One needs to consider all these disciplines and plan with them not excluding the communities; hence the Municipality should appoint a team with representatives from all the affected departments and companies to draw an integrated comprehensive master plan for cemeteries.

6.4.6 Revision of the bylaws and regulations

The bylaws should be updated and expanded where necessary. It is often very difficult to make a decision for a dead person. For example, one might not be able to decide to cremate the deceased. As a result, the council should propose/introduce a new law that enforces people especially adults to fill in forms for a declaration of a burial method they prefer. The law should have conditions of amendment by the local authorities should situations change. In addition they should be forced to make reservations for graves especially the working groups. That is, they should pay for their graves and not wait until they no longer have money. This will also unburden the council in that, if need be, the council will only help with the coffin.

6.4.7 Promoting Safety and Security

Vandalism of cemeteries and graves is on the increase and the council should establish an extensive social upliftment program to address this problem. The council should have security at all graveyards in Bloemfontein so that entry to the cemeteries' conduct of the public within the cemetery is

controlled. That is, loitering and pedestrian thoroughfare should not be allowed.

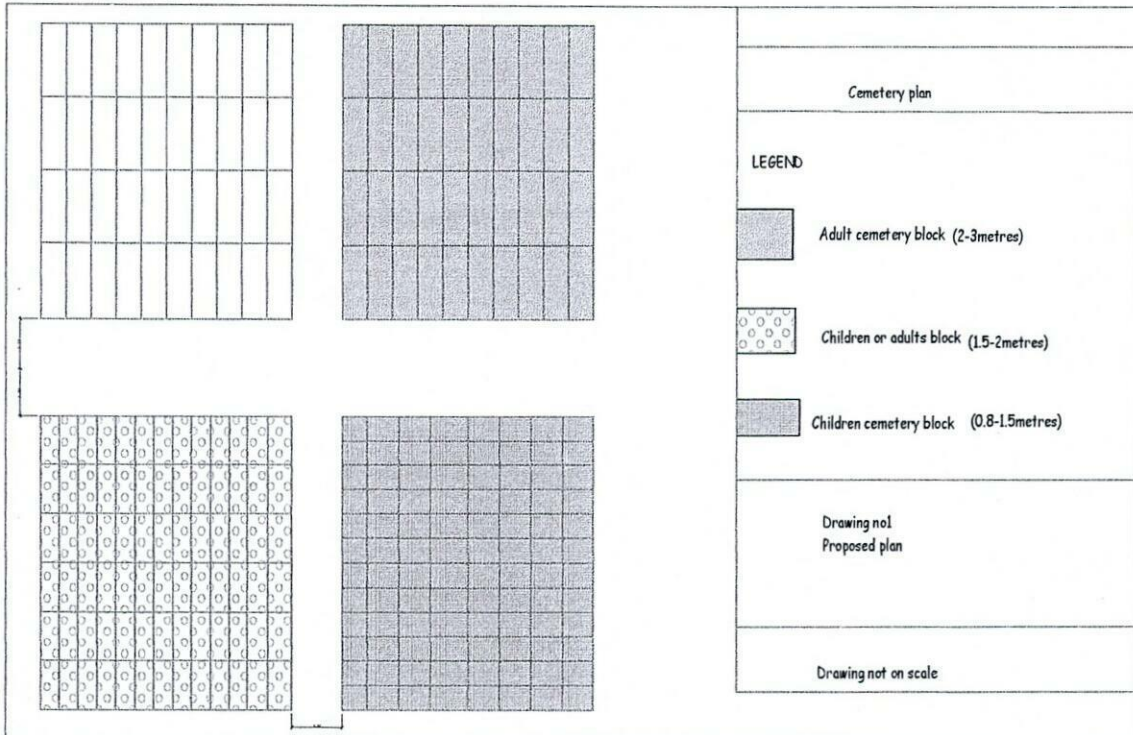
6.4.8 Devising the system of data capturing

The department of health should try and devise their ways of capturing data on people infected with HIV virus. That is, the available statistics rely only on people attending antenatal clinics (pregnant women). This hampers development in a sense that it is not easy to plan for spatial requirements of burial space because data for the present major determinant of mortality (HIV) is not reliable. Otherwise, projection for future cemetery requirements will be inefficient.

6.4.9 Revising the system of allocating cemetery blocks

The Municipality should not only allocate cemetery blocks according to different cultures but also try and allocate blocks according to height of individuals regardless of whether a person is an adult or child. This will help save burial space in a sense that people of the same height will be allocated their own block. As a result, the Municipality will have to work hand in hand with undertakers so that they can be in a position to know exactly the size of the grave to be excavated. Following is the proposed layout plan of cemetery blocks.

Plan1: Proposed layout plan for cemetery blocks



Interview with Mr. Avbob, the cemetery block should not be more than 20 metres long to enable them to carry the coffin to a grave since the cars are not supposed to go through the internal streets. These streets are 4metres wide. They are only allowed on a 6metre road as indicated on the plan.

6.4.10 Enforcement of other departments to design their own cemetery regulations

The Local and Provincial government should enforce other departments influenced by cemetery development to design their own regulations governing cemetery development. The Municipality should enforce those regulations. For example, the department of water affairs among other departments already have their regulations and the Municipality should ensure enforcement of those.

6.4.11 Cemetery layout

The municipality should propose well-planned streets, footpaths, storm water drainage, and water and sewer connections. This will ultimately produce a well planned cemetery blocks and gravesite grids.

6.4.12 Provision of basic infrastructure

Cemeteries are a long-term operation and continue to be visited even after closure. As a result, they have to be accessible at all times to the public. Access road to South Park cemetery is not well constructed. It is gravel road, which is prone to muddy and slippery conditions during rainy seasons. As a result, the municipality should see to it that the road is properly constructed and tarred taking into consideration parking facilities to avoid congestion and improper parking inconveniencing other people. In this there should also be special parking services for public transportation especially for buses. Better still; the municipality should encourage people to spread funerals throughout the week to avoid heavy traffic and crowds for residents who live near graveyards. The council should allocate different blocks to different undertakers so as to do away with congestion during burials. Provision for offices, shelter, storage facilities for staff members, public toilets, trees for shade, electricity and lighting should also be made.

6.4.13 Location of a cemetery

Location of a cemetery should be within the accessible confines of the community especially for black communities who normally have a high funeral attendance with a preference for weekend burials and also because of socio-economic reasons. Since Heather Heights and Phahameng cemeteries are nearing capacity, South Park will be the nearest. There are 2 cemeteries in Bainsvlei and 1 in Bloemspruit that can still serve many years.

6.4.14 Size of a cemetery

The council should see to it that the size of a cemetery caters for the growing population in a community. That means taking into account that the number of deaths will also increase. Again it should make provision for extension in case of emergencies.

6.4.15 Proposed land use of the site and the surrounding land uses

The proposed land use of the site should be suitable for excavation while the surrounding land uses should be compatible with cemetery use to avoid the NIMBY syndrome. Many people are not happy about the dumping site next to south park cemetery. The council should do something about the dumping site so that it does not affect the cemetery and the peoples' mind sets. That is, the council should see to it that, the dumping site is properly managed and the rubbish is incinerated every week to avoid being blown all over the place.

6.4.16 Geo-technical conditions

The geotechnical investigation should be done so as to ensure that the cemetery serves its purpose as economically and effectively as possible. That is, the harder the ground, the difficult it is to dig the required number of graves per day and therefore becomes more costly. Again, if the ground is too loose, the sides will collapse and threaten the lives of cemetery workers. As the case may be, a cemetery should be located on a site that is neither too hard nor too loose to ease excavation of 1.8metres.

The geotechnical conditions should also be checked to make sure that the cemetery does not pollute the ground water or threaten public health. That is, the depth of the water table must be determined as well as proximity of existing water sources to the cemetery site. The permeability of the ground underlying the floor of the grave should also be determined and must fall within the specified ranges. As a result, the council for geosciences must approve the use of the site

as a cemetery together with the department of mineral and energy affairs to determine the type and depth of future mining.

6.4.17 Environmental Impact Assessment (EIA)

Environmental impact assessment should be conducted in order to be able to know if the cemetery development will pose remediable impacts or not. The site should be suitable from the traffic viewpoint, infrastructural network and a land use perspective. The council should, as a result ensure that a proper EIA is conducted.

*

6.4.18 Provision for full/closed cemeteries

6.4.18.1 Where re-use of graves for another burial is not accepted

Old cemeteries within residential communities occupy considerable areas of land and because of ongoing costs; most of them are not adequately maintained. To avoid an ongoing maintenance of cemeteries at the expenses of the living taxpayers, rather than being a burden, cemeteries should be a resource for local communities. This can be achieved either through conversion to usable land or using a cemetery as nature reserve. The cemeteries should be properly fenced; trees planted inside and later on the area will be stocked with indigenous animals. It is therefore recommended that the municipality make a provision in its by-laws and regulations the introduction of indigenous fauna and flora so that cemeteries would be transformed into assets rather than being wasted on misguided sentiment.

By such, cemeteries could become ecologically beneficial resources to the surrounding communities. Management of these resources would also provide finance for the community rather than absorb it.

6.4.18.2 Where re-use for another burial is accepted

The council should consider granting families a 10-20 year lease on a grave so that after that period, a grave can be dug up and prepared for another body. In

this case, the council should discourage people from buying tombstones because it is not very easy to dig up a grave covered with that thick slab of granite. People should also be encouraged to buy coffins made with soft wood because it becomes easier to decompose.

6.5 CONCLUSION

Bloemfontein already has a number of cemeteries whose maintenance levels are not the same. Some are properly maintained while others are poorly maintained and look dull. About 50% of the cemeteries are still operational with 75% of burial space already utilised. The council spends too much of the limited funds on maintenance of closed cemeteries and indigent burials. Vandalism is also on the increase due to uncontrolled entrances to Bloemfontein cemeteries. As a result, there is a need of urban planning policies that will give more priority to graveyards as sacred and final resting places for the deceased. Priority should be given to the following:

- **Appearance;** cemeteries should be pleasing to the eye in terms of beauty and maintenance.
- **Accessibility;** they should be accessible to different modes of transport and roads should be well constructed.
- **Location;** to avoid heavy traffic within communities, they should be located outside but not very far out of the communities to accommodate large attendance of funerals.
- **Layout;** street patterns and landscaping of cemeteries should add to the beauty of a town.
- **Security;** entrance to cemeteries should be controlled.

Cremation and other appropriate burial methods do not gain a lot of public support. As a result, they should be properly planned and promoted to gain public acceptance in order to ensure long-term management. This study therefore indicated that there is a need for further research in this field to verify

validity of the recommended guidelines. Graveyards consume more land and more importantly they enhance beauty of a town if properly planned.

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ANNEXURE A: MANGAUNG LOCAL MUNICIPALITY

BY-LAWS RELATING TO MUNICIPAL CEMETERIES as promulgated by Local Government Notice No 97 of '17
September 2002

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CHAPTER I INTERPRETATION

1. Definitions

In these by-laws, unless the context otherwise indicates, an expression to which a meaning has been assigned in the Local Government Ordinance, 1962 (Ordinance No 8 of 1962), the Structures Act and the Systems Act or any other applicable legislation, shall have the meaning so assigned to it, and

"adult" (where the word is used to describe a corpse) means a corpse buried in a coffin that will fit into a Brave for adults as contemplated in section 14,

"ashes" means the remains of a corpse after it has been cremated;

"burial" means burial in earth or any other method of disposal of a corpse, ashes or a cadaver in the manner provided for in these by-laws;

"burial order" means an order issued in terms of the provisions of the Births and Deaths Registration Act, 1992 (Ad No 51 of 1992) authorizing a burial;

"caretaker" means the official appointed by the Council to supervise and control a cemetery or cemeteries, and his delegates;

"cemeteries" means land or part thereof, including the buildings and works thereon, that is owned and controlled by the municipality, duly set aside and reserved for the purpose of burials and made available for public use from time to time for burials;

"child" (where the word is used to describe a corpse) means a corpse that is being buried in a coffin that fits into a Brave for a child as contemplated in section 14,

"columbarium" means a memorial wall or a wall of remembrance provided by the Council for the burial of ashes;

"corpse" means any dead human body including the body of a stillborn child;

"Council" means the municipal council of the Mangaung Local Municipality, its legal successors in title and its delegates; "grave" means a piece of land in a cemetery laid out, prepared and used for a burial;

"holder" means a person to whom a reservation certificate for a specific Brave has been issued in terms of the by-laws repealed in terms of section 24,

"Medical Officer of Health" means the official appointed by the Council from time to time in such position and his delegates;

"memorial work" means any headstone, monument, inscription or other similar work or portion thereof erected or intended to be erected upon a Brave or a columbarium;

"municipality" means the Mangungu Local Municipality, and when referred to as -

- (a) an entity, means Mangungu Local Municipality as described in section 2 of the Systems Act; and
 - (b) a geographic area, means the municipal area of Mangungu Local Municipality as determined in terms of the Local Government: Municipal Demarcation Act, 1998 (Act No. 27 of 1998);
 - "niche" means the cavity in a columbarium provided for the burial of ashes;
 - "plaque" means a tablet erected on the columbarium for identification purposes;
 - "prescribed fees" means the fees as determined from time to time by the Council by means of resolution;
 - "resident" means a person who at the time of his death, was ordinarily resident within the municipality or under law liable for the payment of assessment rates, rent, service charges or levies to the Council;
 - "responsible person" means the nearest surviving relative of the deceased person or a person authorised by such relative, or if the caretaker is satisfied that such person does not exist or that the signature of such relative or authorised person cannot be obtained timeously for the purpose of completing the necessary application forms, another person who satisfies the caretaker as to his identity, interest in the burial, capacity to pay the prescribed fees and to comply with the applicable provisions of these by-laws;
 - "still-born" in relation to a child, means that it had at least 26 weeks of intra-uterine existence but showed no sign of life after complete birth, and "still-birth" in relation to a child, has a corresponding meaning;
 - "Structures Act" means the Local Government: Municipal Structures Act, 1998 (Act No. 117 of 1998);
 - "Systems Act" means the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000);
- In these by-laws, unless the context otherwise indicates, words and expressions denoting the singular shall include the plural and vice versa, words and expressions denoting the male sex shall include the female sex and vice versa and reference to a natural person shall include a legal person and vice versa.

CHAPTER 2

ESTABLISHMENT AND MANAGEMENT OF CEMETERIES

2. Establishment of cemeteries

- (1) The Council may from time to time set aside and reserve suitable municipal land within the municipality for the establishment and management of a cemetery. The Council may consider and approve an application for the establishment and maintaining of a private cemetery or a private columbarium on private land on the conditions that the Council may deem necessary.
- (2) The following cemeteries have been established by the Council, and are currently managed and controlled by the Council:
 - (a) Batswale Cemetery
 - (b) Bloemfontein Cemetery
 - (c) Heather Heights Cemetery
 - (d) Memorial Cemetery
 - (e) Phahameng Cemetery
 - (f) South Park Cemetery

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- (3)
 - (a) Storm Avenue Cemetery
 - (b) Traditional cemeteries (Bloemfontein)
 - (c) Botshabelo cemeteries (2)
 - (d) Thaba Nchu urban cemeteries (18)
 - (e) Thaba Nchu rural cemeteries (38)

The Council may set aside, reserve and demarcate within a cemetery, in accordance with an approved layout plan, such areas as the Council may deem necessary for exclusive use by the members of a particular religion or denomination, or for the burial of adults, children, security forces or war heroes, or for the creation and management of the following sections:

- (a) **Berm-section** where memorial work of a restricted size may be erected only on a concrete base provided by the Council at the top or bottom end of a grave. The top surface of graves are levelled and the Council will cut planted as well as natural grass as part of its maintenance program.
- (b) **Monumental-section** where memorial work erected shall cover the entire grave area.
- (c) **Semi-monumental section** where memorial work, without a restriction on the size, may be erected only on a concrete base at the top end of a grave, which base will not be provided by the Council;
- (d) **Natural-grass section** where the surface of graves are levelled. Graves are identified by numbers affixed on top of the graves in such a way that lawnmowers can be used to cut the natural grass without damaging the numbers;
- (e) **Traditional-section** where memorial work does not have to cover the entire grave area, and may be erected on graves that are not supplied with a concrete base as required in the Berm-section. The surface of graves are levelled.
- (f) **Columbarium-section** where ashes may be buried in a niche in a memorial wall or wall of remembrance provided by the Council;

3. Official hours

- (1) The cemetery and the office of the caretaker shall be open during the hours as determined by the Council.
 - (2) The cemetery office of the caretaker shall be open from Monday to Friday.
 - (3) Burials shall take place on the days and during the hours as determined by the Council.
 - (4) The Council has the right to close a cemetery or any portion thereof to the public for such periods and for such reasons as the Council may deem fit.
- No person shall be or remain in a cemetery or part thereof before or after the official hours as determined by the Council or during any period when it is closed for the public, without the permission of the caretaker.

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4. Register
 - (1) A register of graves and burials shall be kept by the caretaker.
 - (2) Such register shall be completed as far as possible immediately after a burial has taken place, with reference to the prescribed particulars contained in the burial order concerned.
5. Numbering of graves
 - (1) All graves in a cemetery that are occupied or for which a burial has been authorised in terms of the provisions of section 9, shall be numbered by the Council.
 - (2) The number shall be affix to the grave and indicated on a plan to be kept available in the caretaker's office.
6. Reservation of graves
 - (1) No reservation of a grave in a cemetery shall be allowed.
 - (2) Reservation of graves made and recorded in the official records of the Council in terms of the by-laws repealed in terms of section 24, shall still be valid and the Council shall honour such reserved rights.
7. Transfer of reserved rights
 - (1) A reserved right as contemplated in section 6(2), may not be transferred without the prior approval of the Council.
 - (2) Application to transfer such right shall be made to the caretaker in writing by completing and submitting a prescribed application form.
 - (3) If the application is granted, a certificate will be issued in favour of the transferee who will become the holder.
 - (4) The reserved right may be cancelled on request of the holder and if the request is approved by the Council, the amount paid by the holder (if any), minus 10% administration fees, will be refunded to the holder.
8. Number of corpses in a grave
 - (1) Only one corpse may be buried in a grave with measurements as contemplated in sub-section 14(1) and 14(2).
 - (2) Only two corpses may be buried in a grave with measurements as set out in sub-section 14(4). Provided that application for the burial of two corpses has been made to the caretaker in writing by completing and submitting an application form mentioned in sub-section 9(1) before the first corpse is buried.
 - (3) After the re-opening of a grave for the purpose of the burial of a second corpse as mentioned in sub-section 9(2) in that grave, a concrete layer of not less than 25 mm thick shall be cast above the coffin previously buried.

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- (4) If on re-opening any grave, the soil is found by the Medical Officer of Health to be affluant or dangerous to the general health of people, the situation will be handled in consultation with the Medical Officer of Health.
- CHAPTER 3
BURIALS**
9. Application for a burial
 - (1) Application for permission for a burial in a cemetery shall be made to the caretaker in writing by completing and submitting a prescribed application form. An application shall be accompanied by:
 - (a) the prescribed burial order;
 - (b) the prescribed fees; and
 - (c) a reservation certificate, if applicable.
 - (2) No person shall, without the prior written approval of the Council, execute, cause or allow a burial in any other place in the municipality than in a cemetery established and managed by the Council. This includes the burial of a corpse, of ashes and of a cadaver.
 - (3) An application for permission for a burial must be submitted to the caretaker at least 24 working hours prior to the planned burial, failing which the caretaker may refuse the application.
 - (4) No person shall execute a burial or cause or allow a burial to be executed in a cemetery, unless written permission for the burial has been obtained, a specific grave has been allocated for the purpose of the burial and a date and time for the burial has been arranged with the caretaker.
 - (5) In allocating a date and time for a burial, the caretaker shall have regard to the customs of the deceased's relatives and their religion or church affiliation.
 - (6) In allocating a grave the caretaker shall as far as practicable possible allow the responsible person access to a plan of the cemetery showing the various sections, and allow him to select the section of his choice, but not the individual grave of his choice. The allocation of a specific grave is the sole responsibility and discretion of the caretaker and a burial shall be executed only in a grave allocated by him.
 - (7) The Council may allow in its discretion a burial without payment of the prescribed fees in a part of a cemetery set aside for such purposes and in such manner as it may deem fit.
 - (8) Notice of cancellation or postponement of a burial must be submitted to the caretaker at least 4 working hours before the time set for the burial.
 - (9) The granting of permission for a burial and the allocation of a specific grave in a cemetery, does not give the applicant, the responsible person or any other person any right in respect of such grave other than to bury a corpse in the grave.

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10. **Burial of a corpse**
 - (1) All graves shall be provided by the caretaker with the exception of brick-lined or concrete-lined graves, in which cases the brickwork or concrete work shall be carried out by the undertaker under the supervision of the caretaker and in conformity with the specifications applicable to ordinary graves.
 - (2) There shall be at least 1200 mm of soil between the top of an adult coffin and the ground surface, and at least 900 mm of soil between the top of a child coffin and the ground surface.
 - (3) All corpses shall be placed in a coffin for the burial thereof, except as provided for the Muslim community.
 - (4) No person shall without the prior permission of the caretaker conduct any religious ceremony or service according to the rites of one denomination in any portion of a cemetery reserved by the Council in terms of the provisions of section 2 for the use of some other denomination.
 - (5) No person shall permit any hearse in a cemetery to leave the roads provided, and every hearse shall leave the cemetery as soon as possible after the funeral for which it was engaged.
 - (6) Every person taking part in any funeral procession or ceremony shall comply with the directions of the caretaker as to the route to be taken within the cemetery.
 - (7) No person shall convey or expose a corpse or any part thereof in an unseemly manner in any street, cemetery or public space.
 - (8) Every application and every document relating to any burial shall be marked with a number corresponding to the number in the register referred to in section 4 and shall be filed and preserved by the Council for a period of not less than ten years.
 11. **Burial of ashes**
 - (1) Ashes may be buried in a coffin and only two such coffins containing ashes may be buried in an extra deep grave as contemplated in sub-section 14(4) : Provided that a coffin does not exceed the average body weight of 70 kg, and furthermore that the grave is re-adjusted to the prescribed depth and measurements.
 - (2) No person shall execute a burial or cause a burial of ashes to be executed in a cemetery, unless written permission for the burial has been obtained, a specific grave or niche has been allocated for the purposes of the burial and a date and time for the burial has been arranged with the caretaker.
 - (3) Application for the burial of ashes for definite periods or in perpetuity, or for the provision of memorial tablets of approved material to be fixed on the building, columbarium or other facility shall be made to the caretaker in writing by completing and submitting a prescribed application form.
 - (4) Niches will be allocated by the caretaker strictly in the order in which the applications therefore are received and no reservations for future use will be made.
 - (5) An application for permission for a burial must be submitted at least 24 working hours prior to the planned burial, failing which the caretaker may refuse the application.
 - (6) An urn or casket containing ashes that has been deposited in a building, columbarium or other facility shall not be removed without the caretaker's prior written consent.
 - (7) Every niche containing ashes shall be sealed by a tablet approved by the Council and shall only be opened for the purpose of withdrawing an urn or casket contained therein for disposal elsewhere, or for the purpose of depositing an additional urn or casket therein whereafter it will once again be sealed.
 - (8) Application for the opening of a niche shall be made to the caretaker in writing by completing and submitting a prescribed application form.
 - (9) No person shall introduce any material into the columbarium for the purpose of constructing or erecting any memorial work therein unless and until:
 - (a) approval for the burial has been obtained in terms of the provisions of section 9,
 - (b) approval for the erection of the memorial work has been obtained in terms of the provisions of sub-section 17(1), and
 - (c) the prescribed fees have been paid.
 - (10) Any person engaged upon any work on the columbarium, shall execute such work to the satisfaction of the caretaker, and such work shall be undertaken during the official hours of the caretaker as set out in section 3.
 - (11) No permanent wreaths, sprays, flowers or floral tributes may be placed in or on a columbarium.
 - (12) The columbarium may be visited daily during the official hours set out in section 3.
 - (13) Plaques shall be made of material approved by the Council and shall be affixed simultaneously with the placing of the ashes and within 30 days of the obtaining of the consent.
12. **Burial of a cadaver**

The remains of a corpse used at an educational institution for the education of students, generally known as a cadaver, may be buried in one coffin and two such coffins containing cadavers may be buried in an extra deep grave as contemplated in sub-section 14(4) : Provided that a coffin does not exceed the average body weight of 70 kg, and furthermore that the grave is re-adjusted to the prescribed depth and measurements.
 13. **Persons dying outside the municipal area**

The provisions of these by-laws shall apply mutatis mutandis to any burial in a cemetery of a person who has died outside the municipality.
 14. **Grave measurements**
 - (1) The excavation of a grave for an adult shall be at least 1820 mm deep, 2300 mm long and 760 mm wide.
 - (2) The excavation of a grave for a child shall be at least 1370 mm deep, 1520 mm long and 610 mm wide.

- (3) In the event that a grave of a greater depth, length or width than those specified above is required, application in respect thereof, together with extra prescribed fees that are due, shall be made to the caretaker together with the application to obtain permission for a burial.
- (4) The excavation of an extra deep grave for the burial of two corpses shall be at least 2400 mm deep, 2500 mm long and 760 mm wide.
- (5) Deviations from measurements of graves shall be as follows:

- Extra wide : 2300 mm long
: 840 mm wide
- Extra long : 2530 mm long
: 760 mm wide
- Rectangular small : 2500 mm long
: 810 mm wide
- Rectangular big : 2400 mm long
: 900 mm wide
- Brick-moulding : 2600 mm long
: 1050 mm wide

- (6) The area of a rectangular grave for an adult shall be 1500 mm wide by 2600 mm long.
- (7) The area of a grave for an adult shall be 1210 mm wide by 2430 mm long.
- (8) The area of a grave for a child shall be 1210 mm wide by 1520 mm long. If a coffin is too large, an adult grave shall be used.

CHAPTER 4
CREMATION

- 15. Cremation
Cremation within the municipality shall only take place in an approved crematorium established for that purpose, and in accordance with the applicable legislation.

CHAPTER 5
EXHUMATION

- 16. Exhumation
(1) No person shall without the written authority of the Premier of the Free State as contemplated in the Burial Place Ordinance, 1952 (Ordinance No 4 of 1952) and then only after notifying the Council, exhume or cause or allow any corpse or the mortal remains of a corpse to be exhumed.

- (2) Any person duly authorised to exhume a corpse as set out above, shall furnish such authority to the caretaker at least eight working hours before the time proposed for the exhumation of such corpse, and shall at the same time pay the prescribed fees.
- (3) An exhumation and removal of any corpse shall be made only in the presence of the caretaker or any authorised member of the cemetery personnel, accompanied by the funeral undertaker and in accordance with the stipulated legislation applicable to exhumations and re-burials.

- (4) A grave from which any corpse is to be removed shall, if required by the caretaker, be effectively screened from public view during the exhumation.
- (5) The person who applied for the exhumation of a corpse, shall provide an acceptable receptacle for the remains and shall remove the remains after the exhumation.

- (6) No person shall be permitted to re-open a grave unless he has satisfied the caretaker that he is authorised thereto.
- (7) After the exhumation of a corpse and the removal of the remains, all rights in the grave will revert to the Council. The re-use of the grave shall be done in consultation with the Medical Officer of Health.

- (8) If at any time and for whatever reason the exhumation and transfer of a corpse to another grave shall become necessary, the Council may, after the relatives of the deceased person have been notified accordingly, exhume such body and transfer it to another grave.

CHAPTER 6
MEMORIAL WORK

- 17. Memorial work
(1) Application for the erection of memorial works shall be made to the caretaker in writing by completing and submitting a prescribed application form.
- (2) The erection of trellises around graves is prohibited.
- (3) No person shall bring or cause any material to be brought into any cemetery for the purpose of the erection or construction of any memorial work, unless and until:

- (a) approval for the burial has been obtained in terms of the provisions of section 9;
- (b) approval for the erection of the memorial work has been obtained in terms of the provisions of sub-section 17(1); and
- (c) the prescribed fees has been paid.

- (4) Graves of the war heroes which are in the care of or maintained by the South African War Graves Board or by any other recognised body or by the government of any foreign country, shall upon application to the Council, be exempt from the requirement of payment of the prescribed fees.
- (5) The Council may refuse its consent for the erection of any proposed memorial work if the plan and specification thereof reveals that it will be of inferior quality or in any manner likely to disfigure a

- cemeteries or which bears any inscription likely to cause offence to users of the cemetery or to visitors thereto.
- (6) No person engaged upon any memorial work in a cemetery shall at any time disturb any adjacent graves. On completion of such work he shall leave the grave and the cemetery in a clean and tidy condition and remove any building material or surplus ground therefrom.
- (7) A person engaged in the erection of memorial work in a cemetery shall comply with the following provisions:
- (a) arrangements will beforehand be made with the caretaker with regard to the date and time of the intended erection;
 - (b) all separate parts of any memorial work other than masonry-construction shall be affixed by copper or galvanized iron dowel-pins of a length and thickness sufficient to ensure the permanent stability of the work;
 - (c) any part of such work which rests upon any stone or other foundation shall be fairly squared and pointed;
 - (d) the underside of every flat stone memorial and the base or landing of every headstone shall be set at least 50 mm below the natural level of the ground;
 - (e) all headstones shall be securely attached to the base;
 - (f) flat stones shall consist of one solid piece in the case of all graves;
 - (g) all headstones shall consist of granite, marble, bronze or any other durable metal or stone approved by the Council;
 - (h) all curbing or memorial work on graves shall be erected on concrete foundations at least 120 mm wide and 200 mm deep over the full width in the case of adults graves and 90 mm wide and 200 mm deep in the case of children's graves;
 - (i) the size of a monumental tombstone (all inclusive) shall be as follows:

Single grave	: 2440 mm long
	: 1070 mm wide
Child grave	: 1370 mm long
	: 700 mm wide
Double grave	: 2440 mm long
	: 2290 mm wide
 - (j) all curbing on larger than single graves shall be fixed on substantial concrete mats at the four corners and where joints occur;
 - (k) any concrete foundation on any grave must, upon instruction of the Council, be reinforced where this is considered necessary owing to the weight of the memorial work.

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- (8) No person shall erect any memorial work within a cemetery unless the number and section letter of the grave upon which such work is to be erected, shall be engraved thereon in such a position that it will be legible at all times from a pathway. With the consent of the family of the deceased, the name only of the maker of such memorial work may be placed upon any foot stone.
- (9) Memorial work shall be constructed and erected in a cemetery only during the official office hours as contemplated in section 3.
- (10) No person shall fix or place any memorial work during inclement weather or where the soil is in an unsuitable condition.
- (11) Every person carrying out work within a cemetery shall under all circumstances comply with the directions of the caretaker.
- (12) The Council may, after due notice, at any time change or alter the position of any memorial work in any cemetery provided that in any case where any memorial work has originally been placed in a certain position with the express consent of the caretaker, any alterations of such position in terms of the provisions of this regulation shall be executed at the expense of the Council.
18. Graves supplied with a berm
- (1) Notwithstanding anything to the contrary contained in these regulations, a grave which is supplied with a berm shall be subject to the following conditions:
- (a) no kerbing shall be erected at such graves;
 - (b) the berm provided by the Council shall be 1200 mm long, 500 mm wide and 300 mm deep;
 - (c) the base of the memorial work to be erected on the berm of a single grave shall not be larger than 1000 mm long and 250 mm wide. The memorial work together with the base may not be higher than 1200 mm from the ground surface.
 - (d) a memorial work shall not protrude beyond the base;
 - (e) no object may be placed and kept on any grave. A memorial work or a vase for flowers or foliage placed in the orifice provided in the berm, may however be placed and kept on a grave until such time that the ground surface over the grave is levelled.

CHAPTER 7

MAINTENANCE

19. Maintenance of graves

- (1) A memorial work erected upon a grave shall at all times be maintained in good order and condition by the responsible person. Should any such work fall into a state of disrepair or constitute a danger or be a disfigurement of the cemetery, the Council may by written notice addressed to the responsible person by registered post at his last known postal address, require of him to effect such repairs as may be considered

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necessary. On failure to effect the required repairs within one month of the date of such notice, the Council may have the repairs effected or may have the memorial work removed as it deem fit and may recover the cost for such repairs or removal, from the responsible person.

- (2) Unless otherwise provided for in these regulations, the Council shall be responsible for keeping cemeteries in a neat and tidy condition.
- (3) Grass may be planted on a grave by family members of the deceased, subject to the directions of the caretaker: Provided that the Council shall maintain the grave, as part of the cemetery, at its own cost and in accordance with its own standards and programs:
- (4) All memorial work which has been dismantled for purposes of a further burial shall be re-erected or removed from the cemetery within two months of the date of such dismantling. On failure to do so the Council shall be entitled to remove any such dismantled memorial work from the cemetery without further notice, and to recover the costs of such removal from the responsible person.
- (5) No person shall plant any tree, shrub, bush or any other plant on or in the vicinity of a grave.
- (6) The Council shall have the right to remove, trim or prune any plants which extend beyond the limits of any grave or which are untidy.
- (7) No person shall deposit any flowers, grass, weeds or other materials removed from a grave, on any other grave, roadway or any other place in the cemetery, except in the refuse bins intended for that purpose.

**CHAPTER 8
GENERAL CONDUCT IN CEMETERIES**

- 20. **General conduct in cemeteries**
 - (1) No person under the age of 12 years shall enter a cemetery unless he is in the care of an adult or with the approval of the caretaker.
 - (2) No person shall enter or leave any cemetery except through the gates provided for that purpose nor shall any person enter any office or enclosed place in any cemetery, except on business or with the consent of the caretaker.
 - (3) No person shall make a false statement or provide false information in an application or other form or document to be completed and submitted in forms of these by-laws.
 - (4) No person shall carry on any trade or hawking activity, or solicit any business, or exhibit, distribute or leave any business card or advertisement within any cemetery or on any public place within thirty metres of the boundary of any cemetery, except with the written approval of the Council and on such conditions as the Council may determine.
 - (5) No person shall sit, stand or climb upon or over any tombstone, memorial work, gate, wall, fence or building in any cemetery.

- (6) No person shall hold a demonstration of any kind in any cemetery or allow or participate in such demonstration.
- (7) No person shall bring into or allow any animal to enter any cemetery. Any animal found in a cemetery may be impounded.
- (8) Directives from the caretaker to ensure the orderly procession of the ceremony concerning the placement of structures, chairs, voice amplification equipment volume and the type of music must to be played, must be adhered to.
- (9) No person shall within any cemetery obstruct, resist or oppose the caretaker or any official of the Council whilst acting in the course of their official duties, nor refuse to comply with any reasonable order or request of the caretaker or any official of the Council.
- (10) No person shall remove from the cemetery any soil, sand or other substance or thing of a similar nature without the express permission of the caretaker.
- (11) No person shall want only or willfully damage or cause to be damaged nor shall any person mark, draw or erect any advertisement, bill or placard upon or in any manner deface any grave, tombstone, monument, wall, building, fence, path or other construction within any cemetery.
- (12) No person shall bribe or try to bribe any employee in the service of the Council in regard to any matter in connection with a cemetery or burial, neither with money gifts or any other benefit.
- (13) No person shall, except where expressly permitted by these by-laws or with the consent of the caretaker, disturb the soil, or plant or uproot any plant, shrub or flower, or in any way interfere with any grave or construction in any cemetery.
- (14) No person shall play any game or take part in any sport, or discharge any firearms except as a salute at a military funeral, or discharge any airgun or catapult within any cemetery, or disturb or annoy any person present therein.
- (15) No musical instruments shall be played in a cemetery without the consent of the caretaker.

**CHAPTER 9
MISCELLANEOUS**

- 21. **Injuries and damages**
 - (1) A person using a cemetery do it on his own risk, and the Council accepts no liability whatsoever for any personal injuries sustained by such person or for any loss of or damage to such person's property relating to or resulting from the aforementioned usage of the cemetery.
 - (2) A person using a cemetery accepts full responsibility for any incident, damages or injuries that may be caused by or that may result from the aforementioned use of the cemetery and he accordingly indemnifies the Council, its members, employees or agents, whether in personal or official capacity, against liability for

all claims from whichever nature by himself, his dependants or third parties in respect of any patrimonial loss, consequential damages, injuries or personal prejudice that may be suffered or sustained in connection with or resulting from such a person's use of a cemetery. The aforementioned indemnity also applies to injuries sustained by employees of the Council while on duty at the cemetery, as well as damages to Council property at the cemetery.

22. Fire-arms and traditional weapons

No fire-arms and traditional weapons shall be allowed in a cemetery.

23. Offences and penalties

- (1) Any person contravening or failing to comply with any of the provisions of these by-laws shall be guilty of an offence and shall upon conviction by a court be liable to a fine not exceeding R 60 000, or imprisonment for a period not exceeding three years or both a fine as well as period of imprisonment, or such other fine or period of imprisonment which the Minister of Justice may from time to time determine in terms of the provisions of section 92 of the Magistrate's Courts Act, 1944 (Act No. 32 of 1944)
- (2) Any expense incurred by the Council as a result of a contravention of these by-laws or in the doing of anything which a person was directed to do under these by-laws and which he or she failed to do, may be recovered by the Council from the person who committed the contravention or who failed to do such thing.

24. Repeal

The following by-laws are hereby repealed:

- (1) Cemetery Regulations of the former Bloemfontein Municipal Council, promulgated by Administrator's Notice No 96 of 5 March 1971;
- (2) Cemetery Regulations of the former Bainsvlei Municipal Council, promulgated by Administrator's Notice No 37 of 15 February 1974;
- (3) Cemetery Regulations of the former Bloemspruit Municipal Council, promulgated by Administrator's Notice No 23 of 28 January 1977;
- (4) By-laws relating to the control over Cemeteries of the former Mangaung City Council, promulgated by Government Notice No. R 2611 of 2 December 1983.

ANNEXURE B

QUESTIONNAIRE

1. How many cemeteries are in Bloemfontein?

Please name them.

Can you please provide information on each one of these cemeteries on the spaces provided below?

2. Who owns this cemetery?

3. When was it opened?

4. Which areas of Bloemfontein does it serve?

5. How many hectares does it occupy?

6. How many grave lots can it serve?

7. How many grave lots are used up already?

8. How many are left?

9. Do you have any other alternative burial site/sites?

10. How many burials do you have in a week/month/year?

11. Which types of burials do you allow?

a. Multiple burials

(b) Single burial

© Double

12. Which of them is mostly preferred?

What do you think is the reason for that?

13. Do you know of other different methods of burial other than the ones you are presently using?

Yes

No

Which are they?

14. Are you satisfied with the ones you are using?

(a) Yes

If yes, why?

(b) No

If no, why?

15. Which firms of funeral undertakers are mostly preferred /used by the people?

16. Is your department responsible for maintaining this cemetery?

(a) Yes

If yes, what strategies is the department presently using for maintenance?

Do you think they are appropriate?

(b) No

If no, why?

If not, what do you think should be done in addition or as an alternative?

17. How much do you charge undertakers for one grave (lot)?

18. Besides grave lots, what else do you provide people with for funeral undertaking?

19. Do you have enough staff and equipment to carry out all the duties (excavation of graves)?

20. How do you deal with people who cannot afford (financially) to bury their dead?

21. Have you ever experienced any sort of vandalism?

(a) Yes

If yes, explain.

(b) No

22. Have you encountered any problems with funeral undertakers?

(a) Yes

If yes, explain.

(b) No

23. Have you ever caused any inconveniences to the people? That is, do you sometimes miss dead lines?

(a) Yes

If yes, give reasons.

(b) No

24. Do you think it is necessary to plan ahead for new graveyards?

(a) Yes
If yes, give reasons

(b) No

If no, give reasons.

25. What type of accommodation would you use that could be complementary to graveyards?

Why?

26. Which between cremation and other methods of burial do you think is the most convenient in terms of cost, time and consumption of land?

Method of burial	Consumption of land	Cost	Time
Cremation			
Multiple burial			
Single burial			
Double burial			
Multiple burial of ashes on the ground			

Please support your answers above.

ANNEXURE C

QUESTIONNAIRE (*Funeral undertakers*)

1. How many bodies do you receive in your mortuary per day/week/month/year?

Per day

Per week

Per month

Per year

2. Which method(s) of burial do the people prefer?

Multiple burials

Single burial

Double burial

What do you think is the reason for that?

3. How big is your mortuary?

4. Do you cope with the number of corpses received and the number of burials you have to arrange for?

5. Which between the following methods of burial do you think is the most convenient in terms of cost, time and consumption of land?

Method of burial	Consumption of land	Cost	Time
Cremation			
Multiple burial			
Multiple burial of ashes on the ground			
Single burial			

Please support your answers above.

6. How much does the council charge you for one grave?

(a) Adult grave- (single-6feet) -----

(Double-8feet) -----

(Multiple-12feet) -----

Child grave- (single) -----

7. Are you satisfied with these charges?

8. How do you deal with people who cannot afford (financially) to bury their dead?

9. Have you ever experienced any problems with other undertakers?

Yes

Explain

No

Explain

10. Do you work cooperatively with the council?

Yes

Explain

No

Explain

11. Have you encountered any problems with any of the cemeteries in Bloemfontein (e.g. access, distance, etc)? Explain.

Access

Distance

Other (specify)

Give reasons for your answer

12. Do you think it is necessary to plan ahead of time for new graveyards?

(a) Yes

Explain

ANNEXURE D

QUESTIONNAIRE (*Crematorium*)

1. When was this crematorium opened?

2. Who owns it?

3. How many hectares do these crematorium walls occupy?

4. Is there a provision that more walls can be erected in the same crematorium?

5. How often do you get bodies for cremation?

Less often

What do you think is the reason for that?

More often

Support your answer

6. Which methods of burial do you use for the cremains?

(a) Burial on the wall

(b) Burial under the ground

(c) Other (specify)

7. Which method do the people prefer most?

Support your answer.

8. How much space is used up already or how much is left?
(Number of holes on the wall or percentage)

9. How much do you charge per cremated body? Please explain your discretion.

10. Are there any regulations by the local authorities governing cremation?

(a) Yes

(b) No

If not, what is it that you are basing yourselves on when carrying out cremations?

11. Do you think cremation should be used more than any method of burial?

Yes

Support your answer

No
Support your answer

12. What types of problems do you often meet with?

What do you think is the reason for that?

13. How do you think the problem(s) can be dealt away with?

ANNEXURE E

Questionnaire (*Town Planner*)

1. What do you think should be done with cemeteries that are full?

- (a) Recycled
- (b) Reserved for parks
- (c) Neglected
- (d) Maintained

Give reasons for your answer

2. How many burials do you think should be allowed in one grave?

- (a) Only one
- (b) Only two
- © As many as one grave can contain
- (e) Other (specify)
-
-

Please support your answer

3. Which between the following methods of burial do you think is/are the most convenient in terms of cost, time and consumption of land?

Method of burial	Consumption of land	Cost	Time
Cremation			
Single burial			
Double burial			
Multiple burial			
Multiple burial of ashes on the ground			

Please support your answers above.

4. Do you think government subsidy for burial of the dead is necessary?

(a) Yes

(i) To what extent and why?

(b) No

(ii) Why not?

5. Do you think it is necessary to plan ahead of time for new graveyards?

(c) Yes

If yes, give reasons

(b) No

If no, give reasons.

6. What do you think should be considered when planning new/future graveyards in the greater
Mangaung?

Proposed site for a cemetery and crematorium
(extension of either south park or bloemfontein cemeteries)

