

## Physical, social and cultural context: a macro-analysis.

Architecture exists in relation to two sets of conditions. Firstly buildings must respond to fundamental issues such as the need for shelter and for ideas to be symbolized. Secondly building must relate to a region, to a specific location, to topography, to the path of the sun, to variations of temperature, to the movement of people.

There are three key factors which affect architecture. [Baker, 1996: xviii] Buildings must respond to site conditions, functional requirements and to the culture in which they find themselves. To understand buildings, all three of these factors must be taken into account.

In any analysis of architecture one must consider the various factors as forces. In the case of topography these forces are clearly apparent: a road is a force, trees are a force, the climate is a force. Other aspects that consist of forces are neighbouring features, views, gradients, direction of sun angles, prevailing winds, seasonal variations, noise, atmospheric pollution and round-the-clock activities.

Taking the functional requirements into account, the organisation of a building can also be considered in terms of its force characteristics. Form can be either linear or centroidal, static or dynamic. A tower may be thought of as a dynamic vertical force and a bridge as a static horizontal force. Christian Norberg-Schulz explains the act of architecture as being 'to understand the vocation of the place'. He emphasizes the need 'to concretise the genius loci. . . by means of buildings which gather the properties of the place and bring them close to man.' [Norberg-Schulz, 1980:23] He places emphasis on features of topography and landscape which give a special character to places and shows how architecture can respond by creating a meaningful environment. Throughout his book *Genius Loci, Towards a Phenomenology of Architecture*, he constantly refers to man-made and natural forces. [Norberg-Schulz, 1980:23] In his study of the city of Prague he identifies the characteristics of the region, showing how the city became a nodal point formed by physical elements like roads and rivers.

The third factor which influences architecture is culture. Norberg-Schulz describes the relationship between the individual and society and how cultural integration depends on the presence of symbol-systems. 'From birth we try to orientate ourselves in the environment and establish a certain order. A common order is called culture. The development of culture is based on information and education and therefore depends on the existence of common symbol-systems. The culture integrates the single personality into an ordered world based on meaningful interactions.'

[Norberg-Schulz, 1969:220]

'But art, however one defines it, must still mirror, favourably or with hostility, the development of the society to which it belongs. Inevitably, contemporary art, too, reflects the complex and diverse social, political and ethical state of our civilization.' [Hauptfleisch, 1997:1] The metaphor of the mirror is a powerful way of depicting the symbiotic relationship between a society and its performing arts. The arts of a specific community may be seen as a something like a barometer with which to measure the intellectual and emotional, even political, climate of that community. Performance culture has, and still does, engage with the political sphere at a number of levels, especially in South Africa. The performing arts system in any given period and given context may be said to reflect that context, may be able to influence or change that specific context.

## Johannesburg as a global mega-city:

'The global city is not a place, but a process. A process by which centres of production and consumption of advanced services, and their ancillary local societies, are connected in a global network, while simultaneously down playing the linkages with their hinterlands, on the basis of information flows' [Castells, 1996:417]

The information age is introducing a new urban form: trans-cultural information cities or 'mega-cities'. The UN adopts a definition of a population of 8 million or more in size of the city [Rakodi, 1997:102]. Size only does not serve as an adequate indication for economic development and urban well being. Some successful world cities have far smaller populations than 8 million. Africa has two mega-cities: Greater Cairo and the Pretoria-Witwatersrand-Vereeniging metropolitan region centered around Johannesburg.

Globalization is generally regarded as a positive stimulus to the development of cities. Global forces interact with local circumstances to produce unique social, economic, political and spatial results at national, regional and city levels. Adoption may lead to adaptation and innovation, to different forms of diversity rather than to global homogenization [Rakodi, 1997:77]

South Africa was isolated from the rest of the world because of the country's apartheid policy. People wouldn't recognize the city of Johannesburg if it weren't for the city's association

with gold, Soweto and periodic bouts of violence. If a person who has never been to Johannesburg were transported to the lobby of a five-star hotel in the CBD and thereafter to one of the suburban shopping malls, and asked to identify the city, they would certainly recognize the city as some European or American city. Johannesburg's concrete and glass structures, the variety of branded foods, clothes, music, as well as consumer durables are indistinguishable from those in other mega cities. The skyline of the CBD from a distance, with tall buildings reaching up to compete with the 50-storey Carlton Centre, might well remind them of an image of Dallas. If, however, this person might see the south-western side of the city then he would immediately notice the vast contrast between the townscape they just saw and the sprawling residential townships occupied by Black people. Then only will they recognize the adjacent city to be Johannesburg.

We cannot always make the assumption that South African cities are increasingly similar to other world cities, simply because of the existence of global material culture or the physical appearance of a CBD. Although Coke and McDonald's are everyday commodities from New York to Cairo, and are having major impacts on our lives, we cannot assume that our social and cultural society develops in a linear sense towards a universal world culture.

The largest cities 'serve simultaneously as national and regional engines of economic growth, centers of technology and cultural creativity, homes of the poor and deprived, and the sites

and sources of environmental pollution' [Fuchs, 1994:2]

World cities are a cause of problems involving aspects of sustainable development of the urban form. Cities are seen as the major cause of environmental degradation and resource depletion, casting an ecological footprint across the globe. [Girardet, 1996] Cities are seen as congested, polluted, with poor housing, collapsing infrastructure, crime and poverty.

Cities may have problems, but they are not necessarily a problem in themselves. As Mitlin and Satterthwaite [1996:50] observe, it is the 'failure of effective governance within cities that explains the poor environmental performance of so many cities rather than an inherent characteristic of cities in general'. Despite many problems, even the densest, fastest growing city in a developing country has positive benefits for those living there. They can provide 'enhanced opportunity for millions of people', and 'refuges from a stifling, restrictive rural life' that may no longer be economically sustainable [Seabrook, 1996:5]

Our understanding of the dynamics of these cities and the urban systems of which they form part, and our capacity to manage them effectively, are limited, especially in the African context. We need to examine the growth of these mega-cities and the economic, social and environmental consequences.



Fig 30. The City of Johannesburg.

## Johannesburg: the past:

To fully understand the functioning and shortcomings of Johannesburg as a mega-city, one has to know the influences of the past that shaped our cultural, social and physical aspects of urban form.

Johannesburg was first established when geological events created the Witwatersrand Basin when, in 1886, gold was discovered. [McCarthy, 1986]

This discovery ensured that Johannesburg would become a mega-city on the highveld of the Transvaal. Within a mere 40 years Johannesburg developed from an unwanted south-sloping remnant of ground to a powerful financial and commercial city. By the time of its golden jubilee celebrations in 1936, Johannesburg already had a population of 475 000 [Shorten, 1970:365]

The discovery of gold resulted in the development of several towns along the east-west line of the gold-reef. Today we know this area as the industrial region of the Witwatersrand, consisting of Pretoria to the north and Vereeniging to the south. Today Johannesburg lies in the south of the richest province of the 'New South Africa': Gauteng, the Province of Gold. It is estimated that, by the year 2020, Johannesburg will be a region containing an estimated 20

million people. [Rakodi, 1997:156]

The role of the Johannesburg gold industry as producer of earnings and as employer of labour bloomed during World War II when the industry manufactured material for the war. After the war mining jobs diminished and a primary industry phase changed into a secondary phase. Office spaces developed in the Johannesburg CBD. Up to 1970 the location of Johannesburg's tertiary services in the concentration of offices was in the CBD. From the mid-1970's onwards, this pattern changed as office clusters moved to the expanding northern suburbs and neighboring municipalities.

By the 1990's actual mining activity become insignificant in the regional economy of the Johannesburg Metropolitan Area.

Johannesburg is seen as the city of finance, as the Johannesburg Stock Exchange is situated here. Johannesburg CBD contributes 12 % of South Africa's GNP. [Rakodi, 1997:161] The Johannesburg Metropolitan Area consumes 9,097 GWh of electricity per annum, which is 5.8% of the total installed capacity of the rest of Africa. [Eskom, 1993]

Apart from the wonders that makes Johannesburg such a vibrant urban place, there is also the less attractive, deprived and disturbing

side. There are hundreds of thousands of people living in deprived communities or townships. There are many people living in informal settlements erected in the veld. Johannesburg lies at the center of a region that has stagnated, and that has lost ground during the Apartheid era. Political settlement in South Africa, and the arrival of a government that reflects the majority of the people, has brought the plight of deprived communities to the attention of South Africans.

The process of transformation will depend on the successful reintegration of the previously segregated urban components through the reallocation of resources under what is termed the Reconstruction and Development Programme (RDP). [Rakodi, 1997:162] of the new government. Issues that emerge from the past include the provision of basic municipal services; overcoming the housing problem; promoting the development of commercial infrastructure and improved, affordable public transport systems. The challenge for the future is to meld the disadvantaged and advantaged parts of the metropolitan area into a functional whole, while uplifting the underdeveloped areas but retaining the ability to draw sustainable taxes for the common fiscal base from the more developed areas. [Rakodi, 1997:175]



Fig 31. The Johannesburg Metropolitan.



## Land Use Trends:

The trends in land use are as follows:

- The deterioration and decline of the CBD is beginning to stabilise as the Inner City's function within the metropolitan area becomes clearer.
  - Residential land use is restructuring and growing to accommodate residents of predominantly lower income levels at higher occupancy rates. An example is the proposed residential component in the Newtown Precinct.
- This increase of occupancy rate of residential buildings takes place in the Core of the Inner City, as well as in residential areas to the east.
- There are pockets of mainly formal residential land use in the western, north-eastern and eastern parts of the area showing signs of decay and over crowding. The reason for this is the lack of re-investment and maintenance of residential buildings as well as illegal occupation of buildings and land.
  - There is an increasing tendency for land uses to change. This can be seen in office use in vacant buildings, in the Core of the Inner City, changing to residential use. In the industrial areas vacant buildings are being used for shack farming: industrial use is changing to residential. The Newtown Precinct changed from an industrial area to a cultural precinct.

- A strong educational belt runs east-west beyond the region: a number of private schools and colleges have located in the Braamfontein area, two universities (Rand Afrikaans and Witwatersrand), and the Johannesburg Technikon.
- The manufacturing industry of the past changed into mostly non-noxious and/or service related industry and commercial activities. There are signs of serious neglect which is aggravated by building and land invasions, and illegal land uses.
- Open land is fragmented and is mainly found along the natural ridges running in an east-west direction.

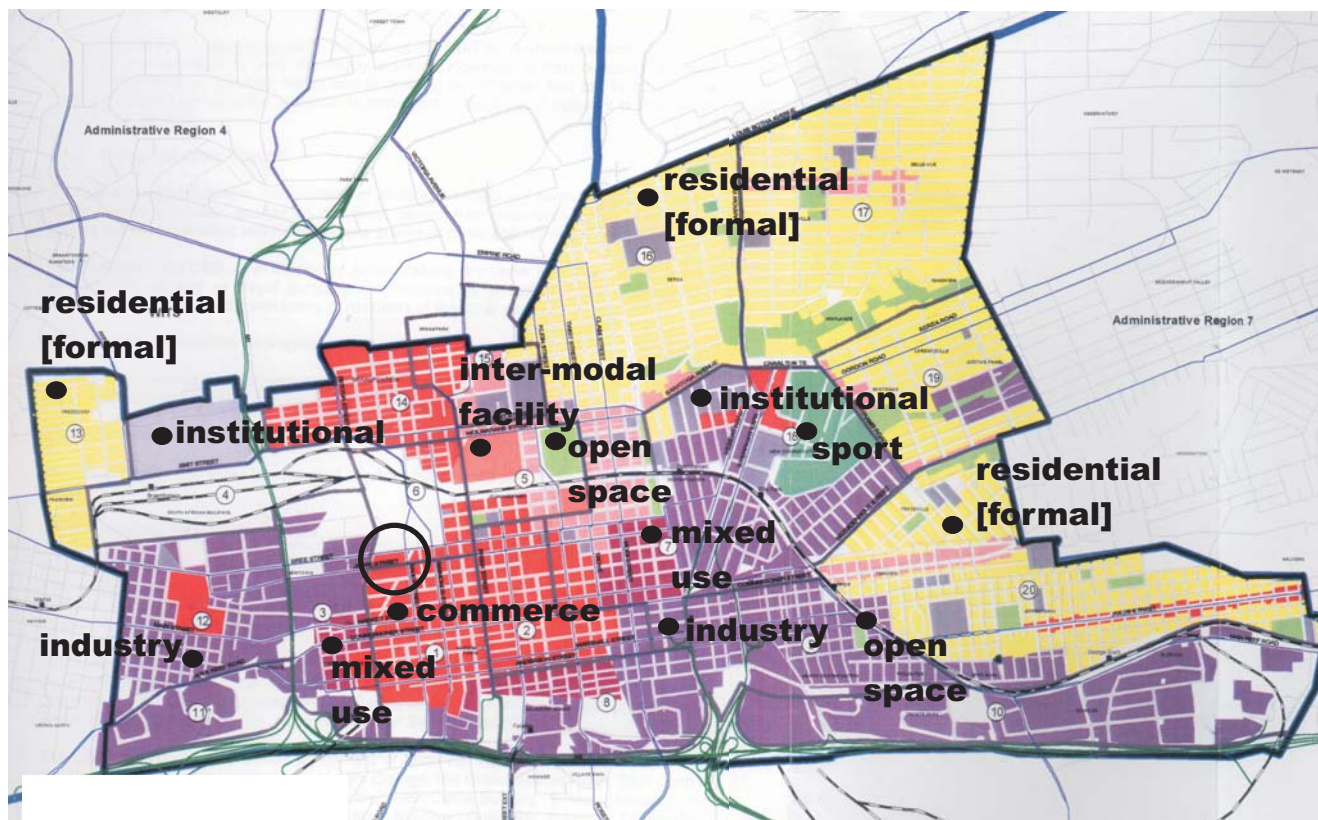


Fig 32. Land use trends.

**Environmental Trends:**

- Rivers and Streams:

The source of the Jukskei River is to the east of the CBD from where the water flows in a covered concrete canal past the rugby stadium. It then becomes an open, completely fenced in, concrete canal. The canal is polluted by industries that are built within the flood plain. The biggest pollutant is the run off from the city sewers.

- Parks and Open spaces:

There is a serious lack of parks in the CBD and surrounding areas as the existing parks and open spaces do not meet development standards. The open spaces are not maintained and have become places of crime, and illegal squatting and illegal dumping. This results in a poor public environment.

- Areas of Sensitive Ecological Value:

There are no places of real ecological significance. The Observatory Ridge is the most notable natural feature in the area and should be protected from further development.

- Cemeteries:

The Braamfontein Cemetery has reached capacity but can still play a role as a passive open space in the CBD.

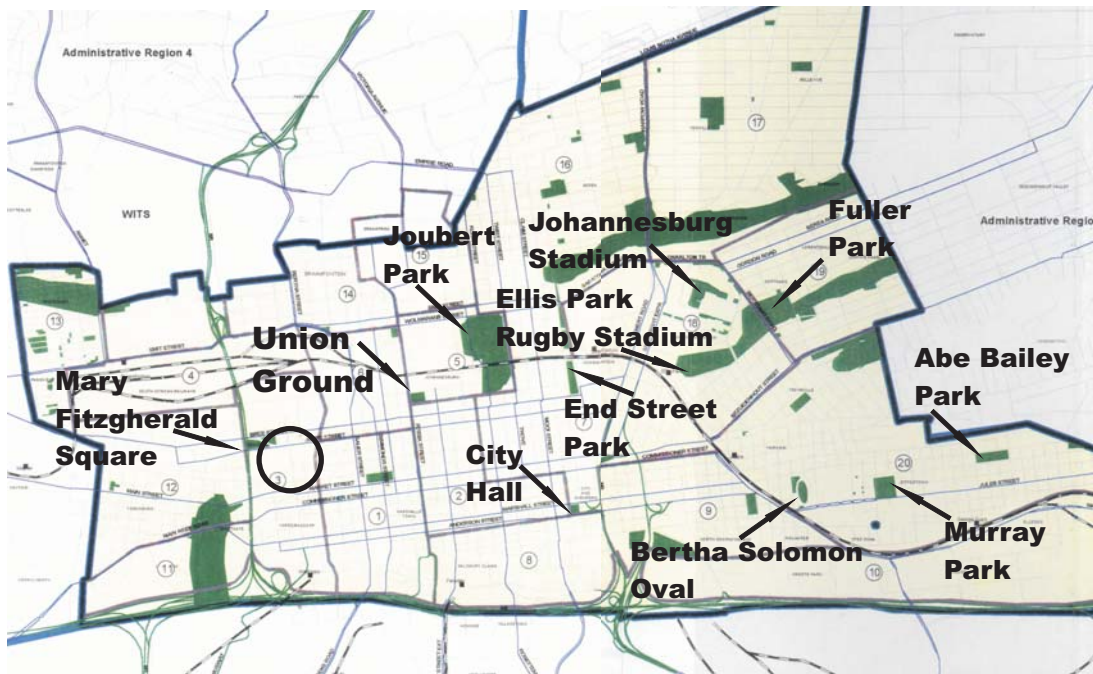


Fig 33. Environmental trends.

**ANALYSIS :  
OPEN SPACE**

National Roads

Score	Description
0	Ideal Situation
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	Worst Situation

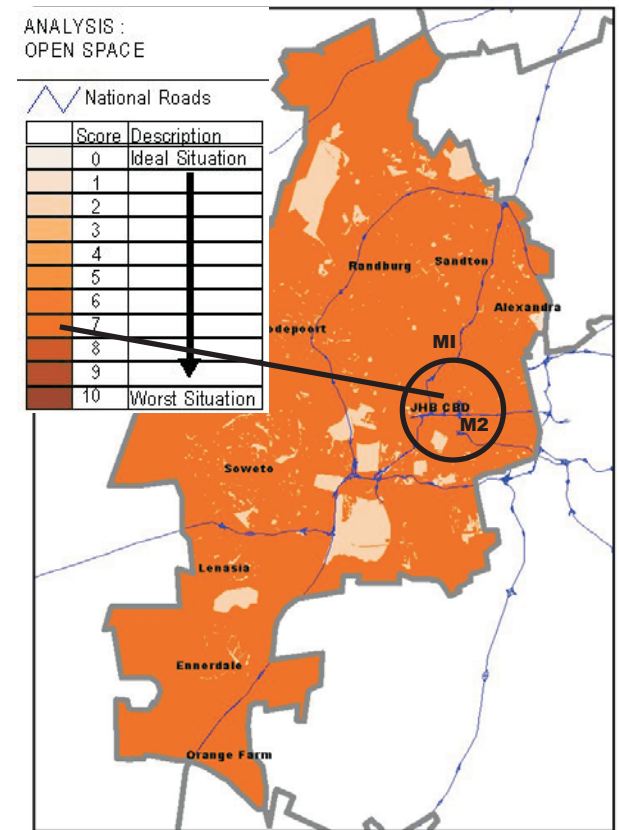


Fig 34. Open space analysis.

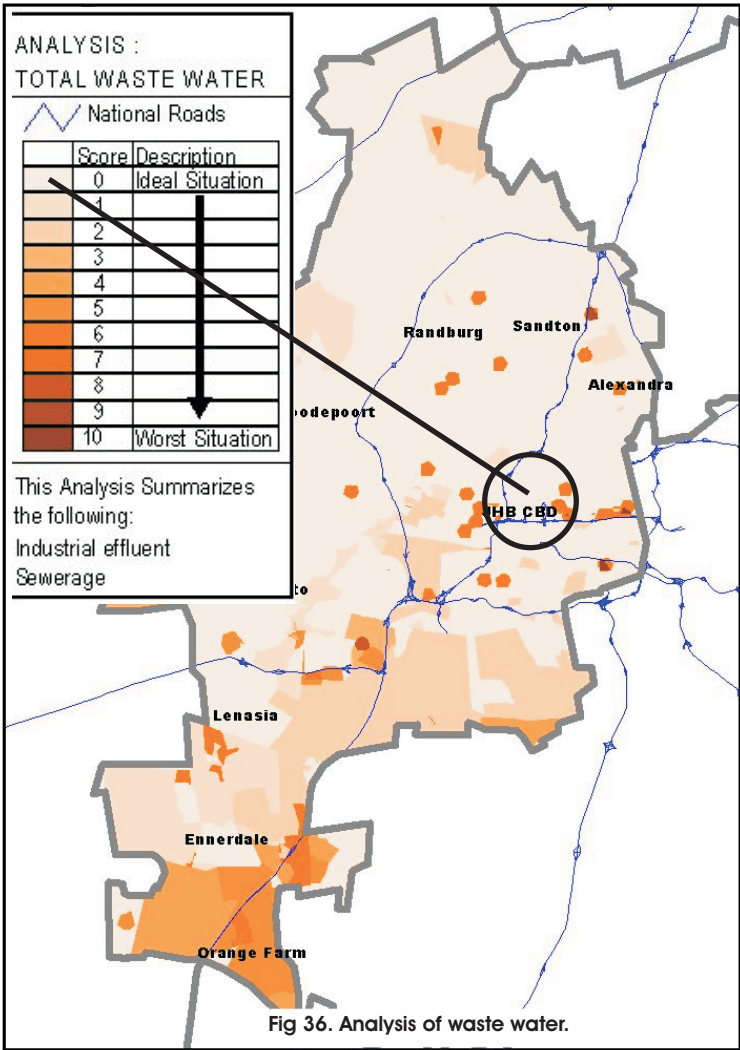
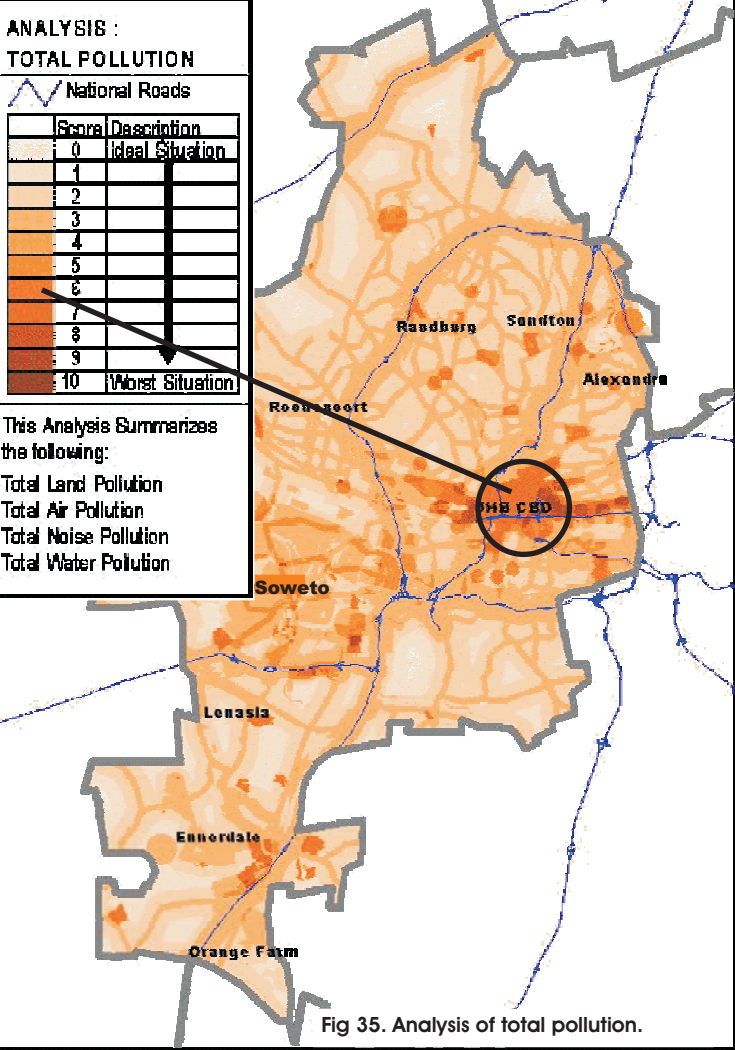


Fig 37. Waste on the streets of Johannesburg.



Fig 39. Waste strewn around the site.

**Pollution:**

- Informal settlements: Poverty and a lack of knowledge in these areas lead to littering, overflow of unmaintained or broken sewerage systems and unmanaged waste management. Dust from gravel or untarred roads causes air pollution. Smoke also causes air pollution. Some settlements around Ennerdale and Lenasia also have inadequate refuse removal services and illegal dumping leads to land

pollution. Informal settlements in the central and northern parts of Soweto and Palm Springs west of Orange Farm have the same problems. Illegal settlements in the Johannesburg CBD pose big land pollution problems due to a lack of refuse removal, littering, illegal dumping and overuse/overflow of sewers, especially in the rainy season. The areas with the worst cases of sewerage overflow are Hillbrow, Newtown and Jeppesstown. Informal settlements increase the amount of informal traders on the streets due to

population growth and high levels of poverty and this aggravate the pollution problem further.

- Mining activity: The biggest areas of dust/land pollution from mines occurs south of and near to the Johannesburg CBD, and along the whole mining belt that stretches from the south of Denver, southeast of Johannesburg, right through to the south of Roodepoort. Environmental degradation occurs here in the

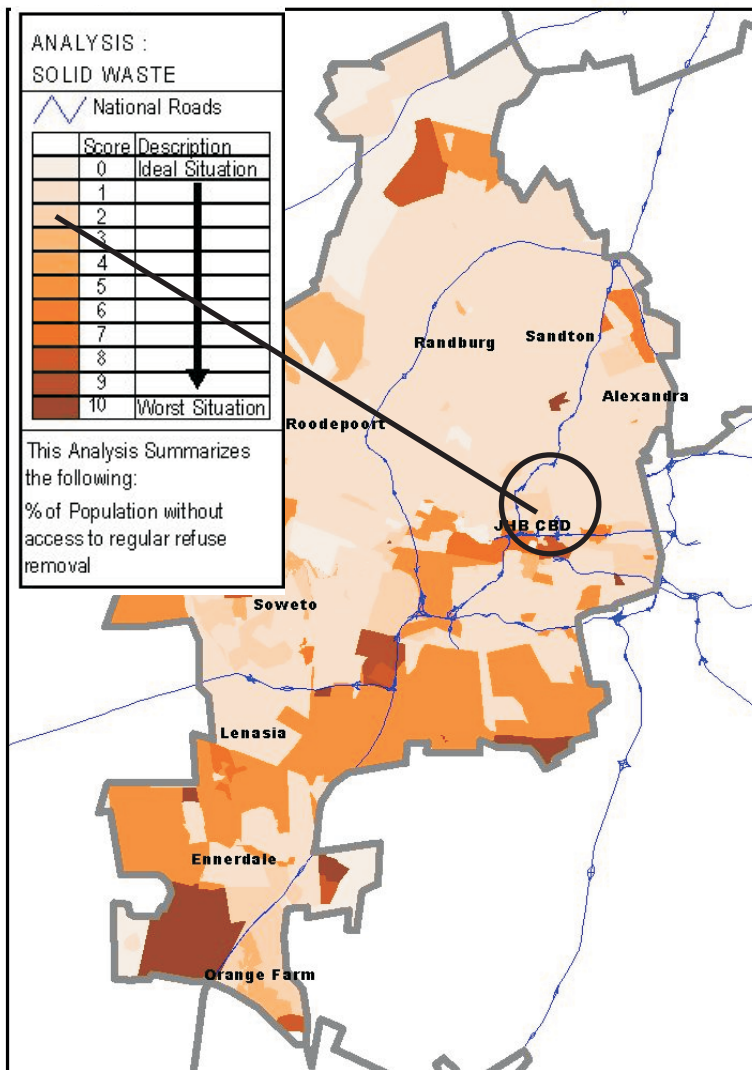


Fig 39. Analysis of solid waste.

form of slimes dams, excavations and exposed mine dumps and stretches of land, where soil erosion and poor soil quality are the major problems. In mining areas a lack of services like running water, refuse removal and sanitation services exist, but are in poor condition. No active mines exist in the far south, north-east and north of Greater Johannesburg, and land pollution due to mining activities is therefore limited to the mining belt running from east to west through the central part of the metropolitan area.

- Waste disposal sites:

Six major landfill sites exist in Greater Johannesburg, and are from the north to the south, Kya-Sands (north of Randburg), Linbro Park (north of Alexandra), Robinson Deep (between Roodepoort and Soweto), Marie Louise (south of the Johannesburg CBD), Goudkoppies (south-east of Soweto), and Ennerdale (west of Ennerdale). All the sites are aesthetically displeasing areas of land pollution, especially where waste is not managed properly. These sites also emit noxious odours, while bad odours were reported from the Goudkoppies Landfill site.

**Noise:**

Noise generally emanates from the concentration of activities typically associated with an urban environment such as traffic noise and noise associated with industrial and commercial areas.

Noise from an elevated freeway like the M1 which forms the western boundary of Newtown must be taken into consideration but does not have to be considered as a development constraint.

The following figure shows the average noise level readings in dB(A) taken at 40m intervals from the M1:

- The average noise level next to the M1 = 73.0 dB(A)
- The average noise level 40m east of the M1 = 65.3 dB(A)
- The average noise level in Mary Fitzgerald Square (80m from M1) = 55 dB(A). (Kirchhofer, 1980:6):

Accepted noise levels in dB(A) are:

- Small auditoria, conference, lecture rooms = 45 - 50 dB(A)
- Bedrooms for sleeping and resting = 30 - 40 dB(A) (Krige, 2000:28) (NAD, 2000:18)

The low reading of 55 dB(A) in Mary Fitzgerald Square, 80 away from the M1, suggests that such a lower noise level could be relied on in a space partially protected from noise. The nearest edge of the site is situated 434.3 metre from the M1. The site is also protected by the massive structure of the Turbine Hall to the west of the site, between the site and the M1. There will be no serious problems with noise considering these aspects.

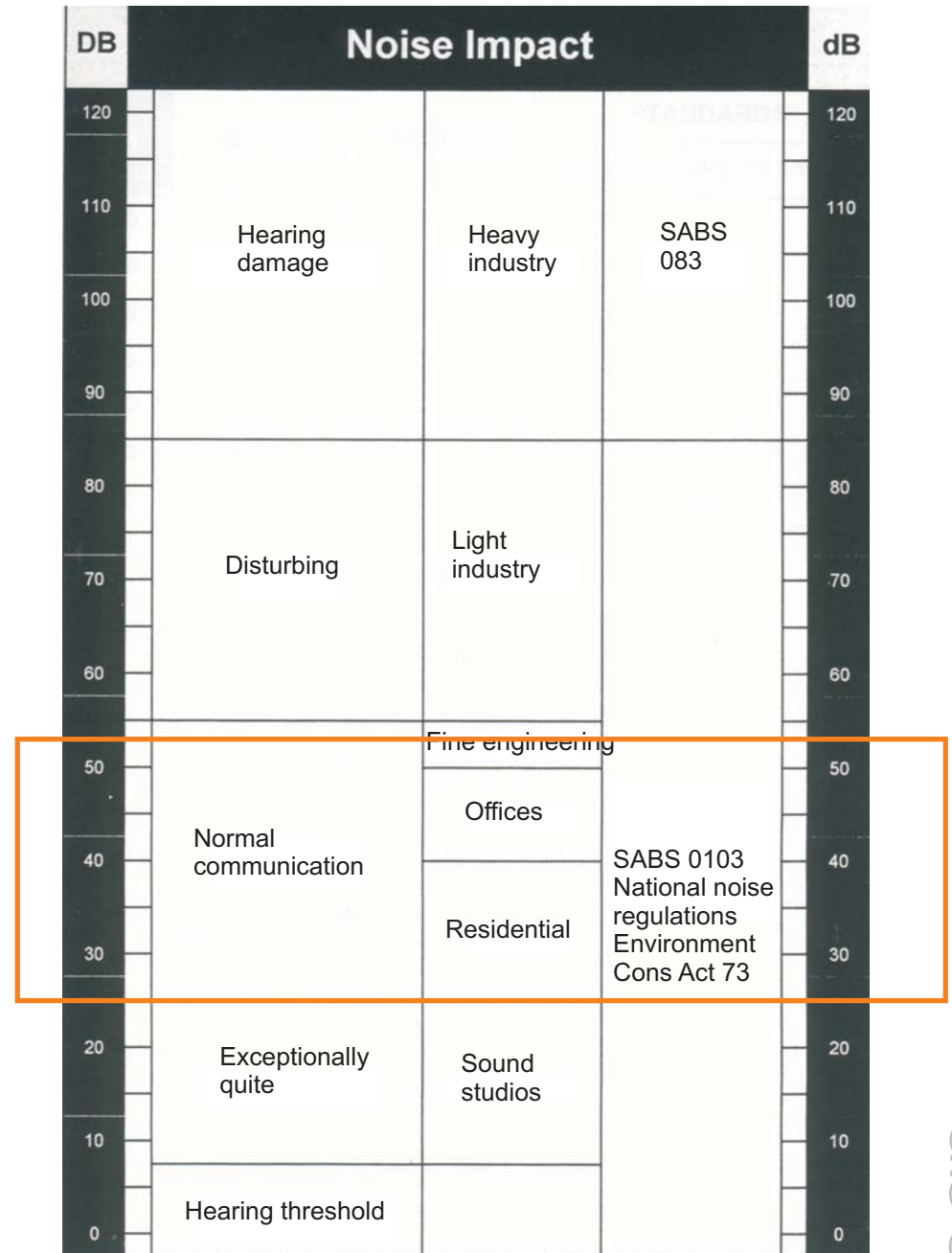
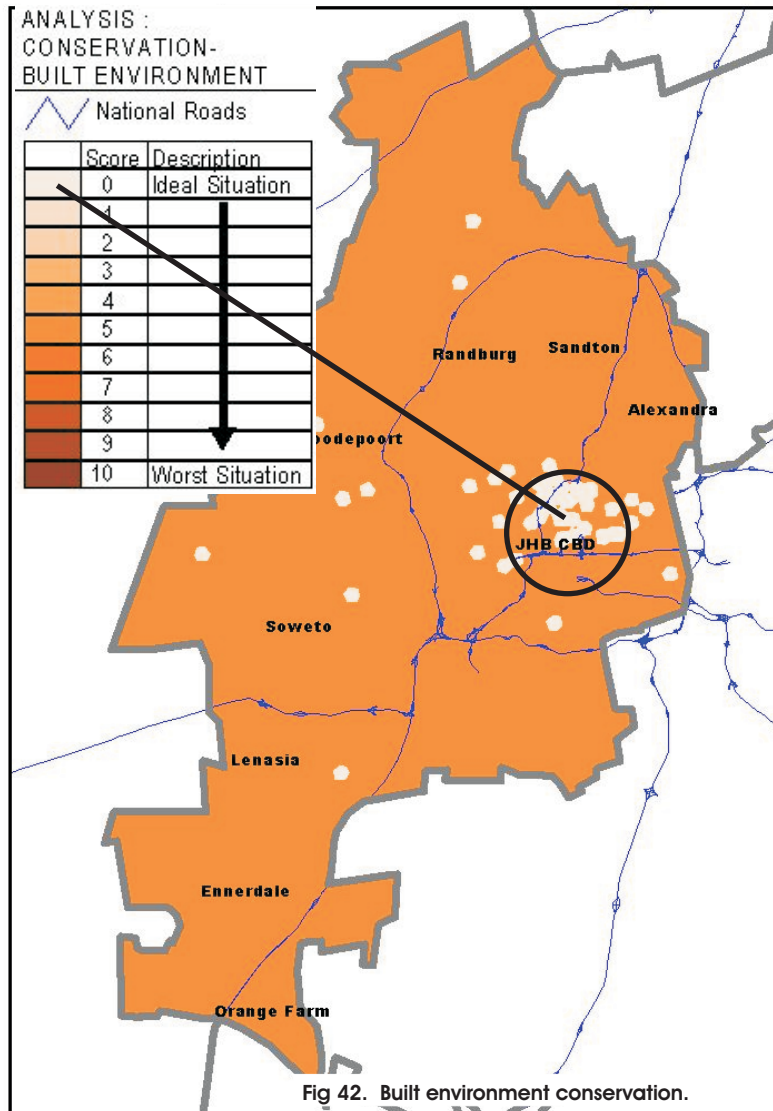
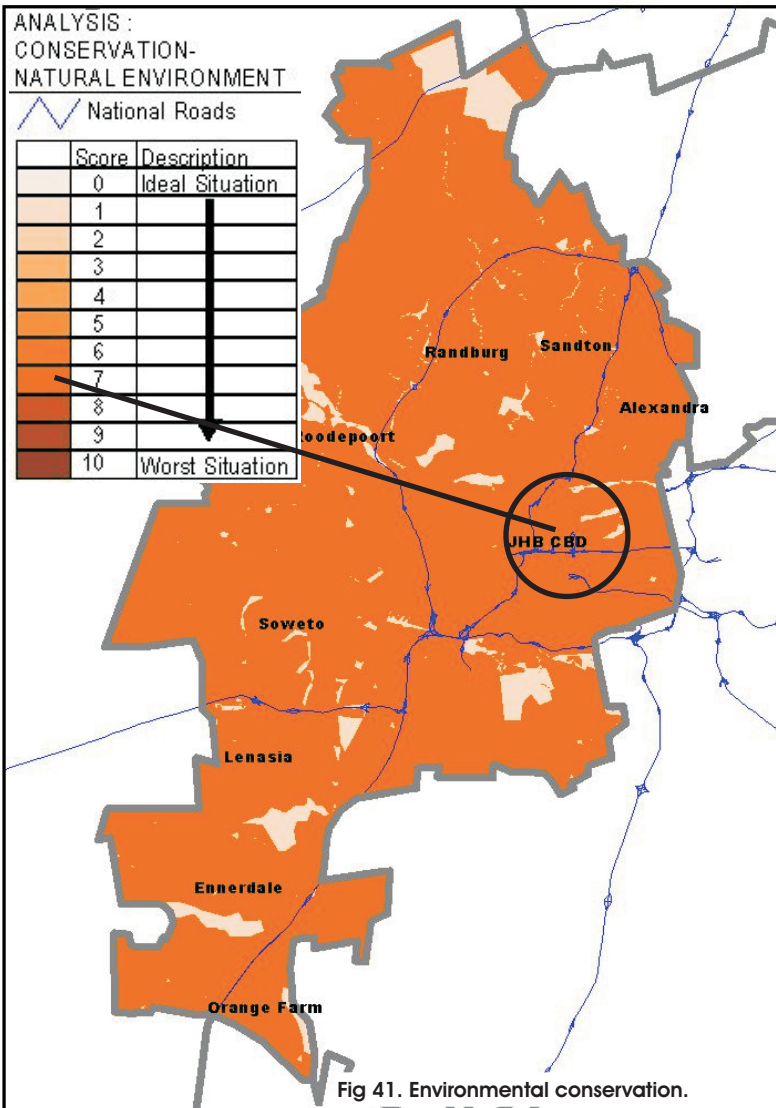


Fig 40. Noise impact according to SABS 0130





**Conservation:**

• Sensitive Built Environments:  
Numerous buildings, places and objects of historical heritage are found in Johannesburg. Most of the 76 historical buildings in Johannesburg are located in and around the CBD and westwards to Roodepoort.

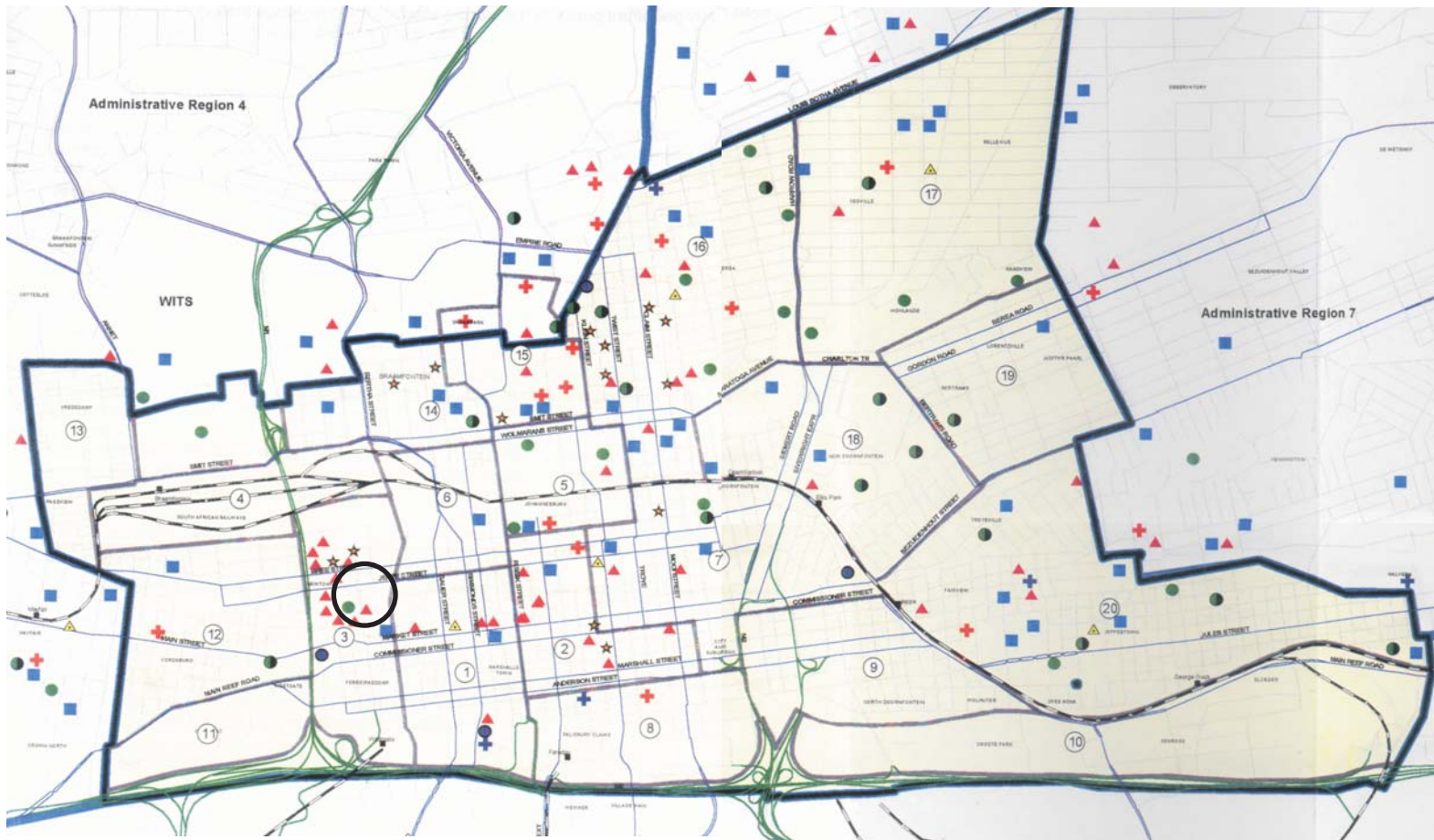
These include the Stone Age sites in Yeoville and

the University of the Witwatersrand. In the CBD there are protected National Monuments such as the Rissik Street Post Office, Old Jeppetown Post Office, Johannesburg Art Gallery in Joubert Park, the Newtown compound, Enoch Santonga Memorial Park and House 34 Becker Street in Yeoville.

The CBD has several historical buildings: Cosmopolitan Hotel in Jeppetown, St Mary's

College, the Grand Station Hotel, Saint John's Church and the Union Castle Building.

The houses to the east have historical value. The Simon van der Stel Foundation has done a survey of houses in Bertrams and concluded that the township has historical and architectural value and must be protected. The same is true for Art Deco buildings in the Inner City area.



- ▲ Areas of cultural and historical significance
- Education facilities
- + Health facilities
- ▲ Libraries
- ★ Theatres and cinemas
- Police stations
- Sport and recreation facilities

Fig 43. Social services.

### Social Services:

Social services are provided for communities to fulfill their social needs. The provision of such services is linked to economic development programmes. The following aspects form part of social development:

- Education
- Health
- Development welfare services
- Recreation, arts and culture
- Safety and security
- Local economic development

For many households suffering from institutional isolation and social exclusion (such as physical and social distance from schools, clinics, shops and cultural events), the Inner City offers the best opportunities.

The following trends were identified in the region:

- There is an influx of homeless people into the city who needs the public facilities and can not afford private services. It is estimated that there are 4 459 homeless people in the Inner City. (Bambanani Consortium, 201:17)
  - As the Inner City population intensifies, the open space requirements increase.
  - Open spaces are ill maintained and not suitable for recreational purposes.
  - There is lack of safety in parks and public spaces.
  - Vandalism of facilities occur.
  - There are a variety of public and private schools, as well as two tertiary institutions: RAU and WITS.
  - Welfare agencies in the form of six registered shelters for street children exist.
- Social problems include prostitution and drug trafficking which have a damaging effect on the well being of the youth.

 Reservoir zones

 Reservoirs

**Water:**

The city centre area is fully serviced. Reticulation piping in the area was renewed during the early nineties and thus in a good condition. Piping in the Inner City fringe areas requires maintenance and upgrading. Currently there is an intensive water management programme with the Rand Water Board to manage water leakage. The main bulk water pump-station supplying water to the Inner City, the Hector Norris Pump-station, Will require upgrading in the future. The bulk water mains are aligned from the south along Rosettenville/Von Wielligh through to Hillbrow.

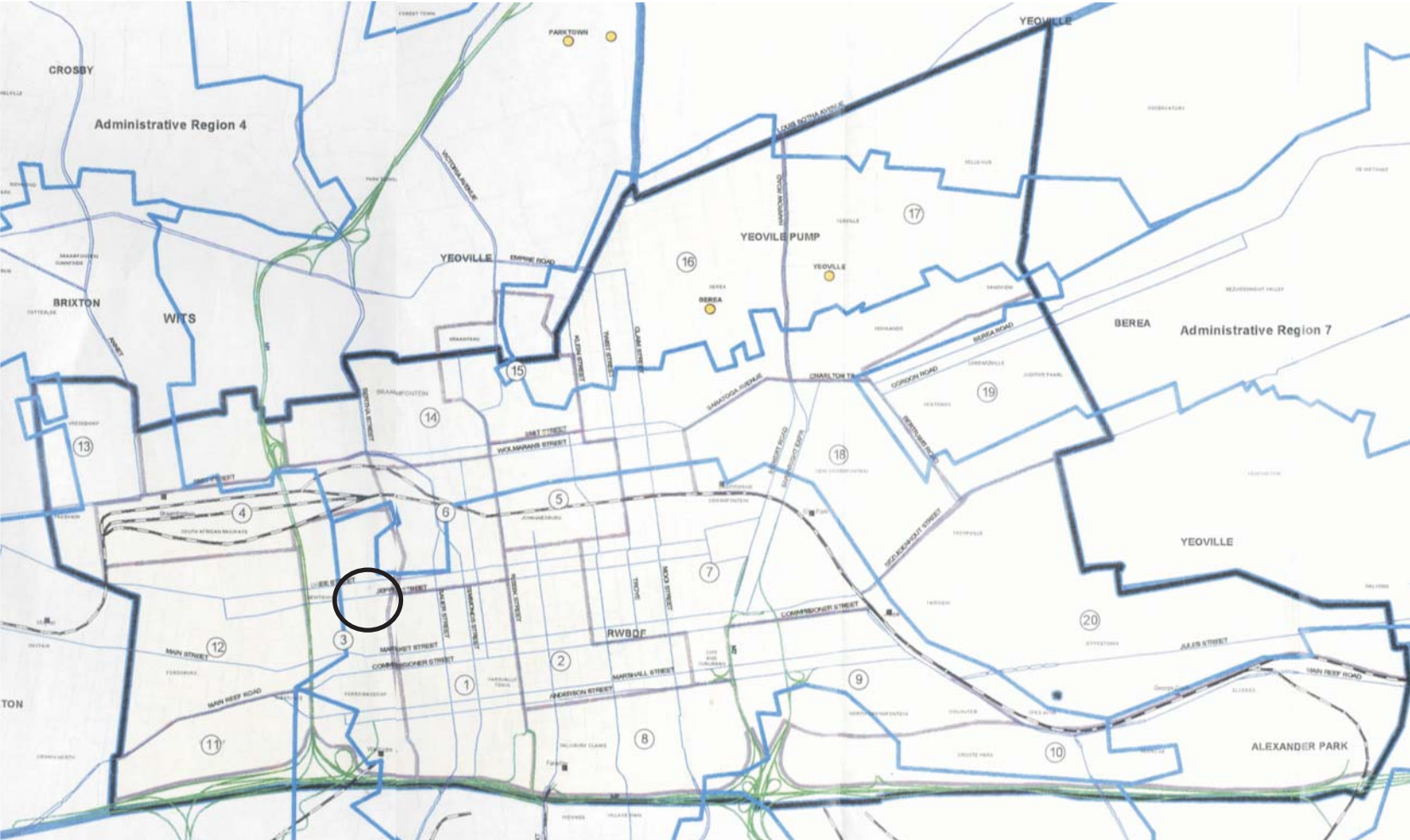


Fig 44. Water provision

**Engineering infrastructure:**

Physical infrastructure is needed to support and sustain the urban environment. The provision, operation and maintenance of infrastructure service to meet the community's needs are the responsibility of the local government.

Engineering infrastructure services include:

- Roads
- Stormwater
- Sanitation
- Waste management
- Electricity supply

**Roads:**

The road network is well developed with a series of east-west and north-south arterials and the M1, M2 and M3 urban freeways. There is a need for modification and upgrading of the road system to improve movement connectivity, traffic flow, parking facilities and congestion. Links should be provided to improve continuity of roads such as Anderson and Troye. Improvement of the urban freeway system by extending the N17, A3 and M2 west should be considered. The roads are in fair condition but pavements, walkways and pedestrian space need upgrading and maintenance.

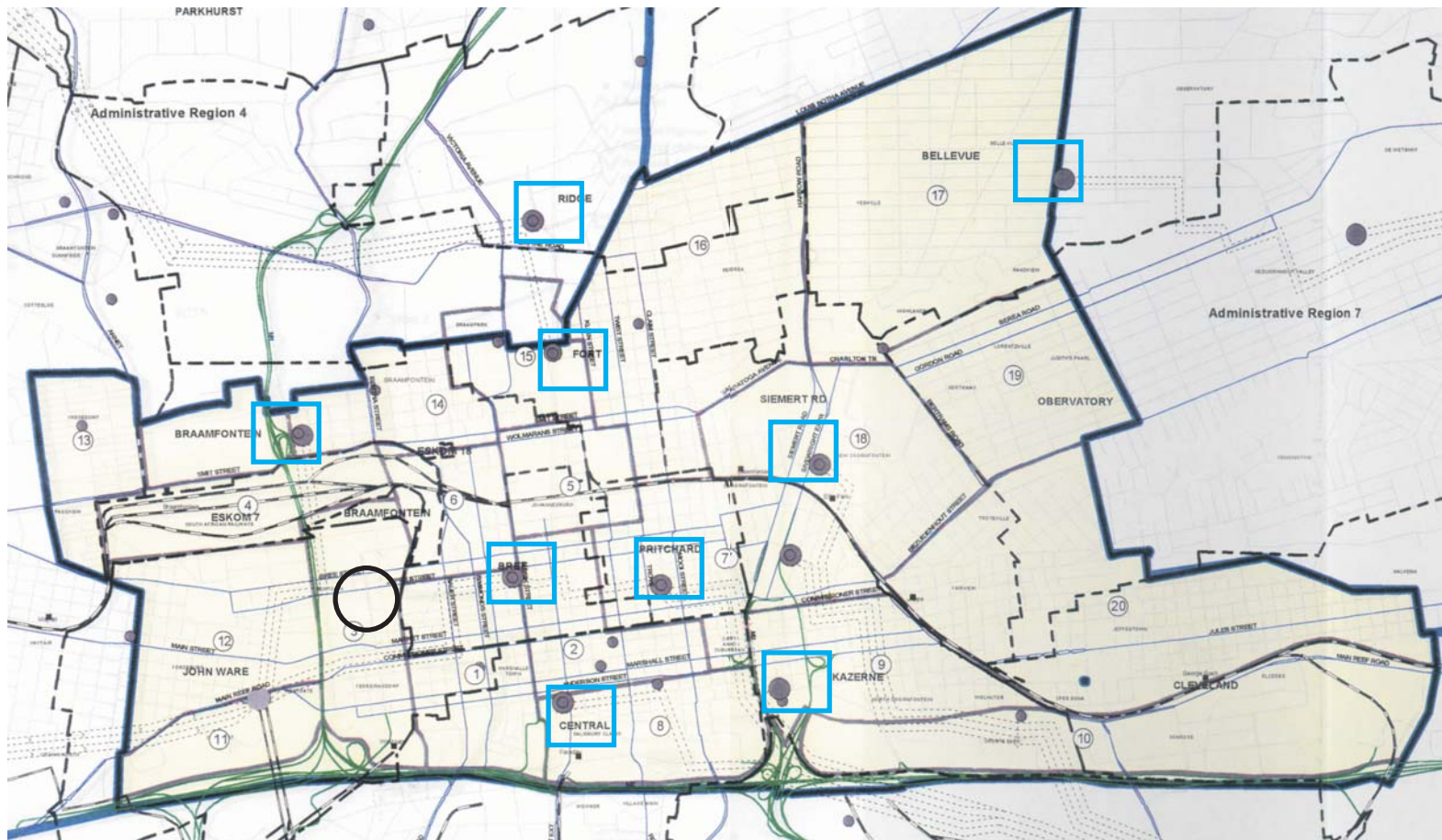


Fig 46. Electricity supply.

- Sub Stations Zones (88kV)
- ..... Municipality Electricity Network, 8kV and up (distribution)
- ● Municipality Electricity Network, 88kV and up (distribution)

**Waste Management:**

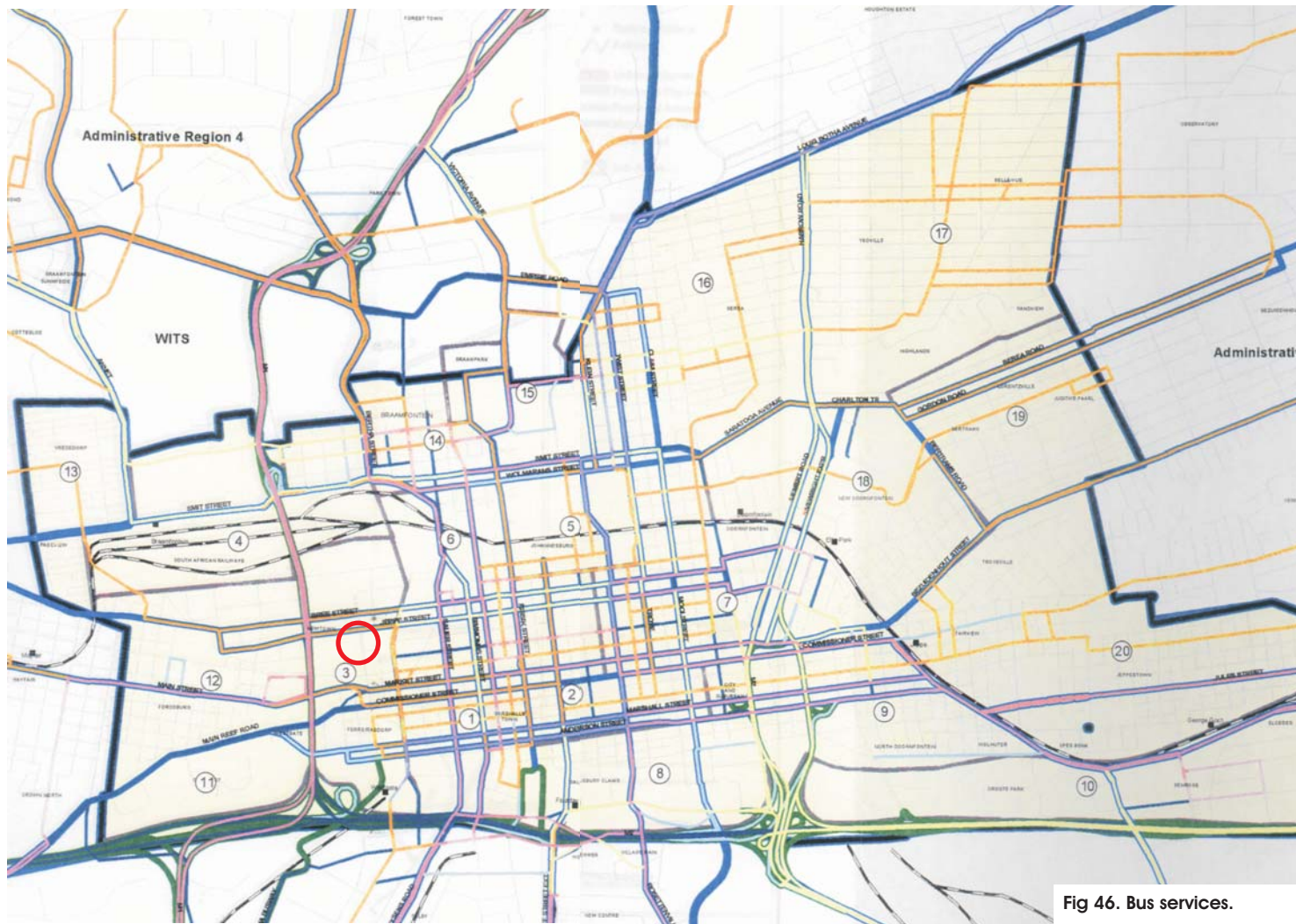
The extensive litter problem results in the blockage of storm- water inlets. In areas where there is changes to residential or mixed use the services is inadequate and in need of restructuring. The area is served by the Robinson Deep Landfill and Springfield incinerator. The site has an expected lifespan of 20 years with an estimated landfill airspace of 7.8 million cubic metres. There is a garden refuse site at Robinson Deep. The newly created agency, PIKITUP, is now responsible for waste management in the city.

**Sanitation**

The Goudkoppies sub-catchment serves the Johannesburg CBD as well as Melville, Auckland Park, Booyens, City Deep and partly La Rochelle and Turffontein. A few of the small bulk sewers are over capacity, but generally there is a spare capacity so that approximately 200 000 extra people can be accommodated. The Goudkoppies sub-catchment has a spare capacity to accommodate an approximate additional 225 000 persons [Bambanani Consortium, 2001]. The outfall sewer serving the area is the Klipspruit outfall. This area drains from Braamfontein through the CBD in a south-westerly direction to the Goudkoppies catchment near Baragwanath. This catchment is fully developed comprising the CBD in the north; the old mining belt, now largely industrial in the middle; and middle/high income residential to the south.

**Electricity**

City Power is the main supplier of electricity to the region. There are no backlogs of connections to consumers. The networks are presently fully loaded and, therefore, there is little space capacity available. Low voltage and overloaded feeder cables are a chronic problem and the cause of many complaints by consumers. System reliability is seriously affected by the age of a large portion of the network. Many of the areas were not designed to cater for the rate of development which is currently being experienced. The area is well served with bulk and reticulation infrastructure. Financial restrictions over the past five years have resulted in maintenance of the existing networks not being done. This includes the sub-station network as well as the distribution networks.



**Metro**

**Germiston**

**Bus services:**

Bus services in the area are provided by Metropolitan Bus Services, Putco Soweto, Putco Commuta, Putco Phapama, Germiston Bus Services, Megabus and Eldo Coaches.

Fig 46. Bus services.

**Transport:**

- The railway system composes of the east-west line from Braamfontein to Soweto and Vereeniging that passes through the northern section in the west and has 63% line utilization and 75% capacity utilization inbound. The line includes Braamfontein and Park City Stations. [Bamabanani Consortium, 2001] The rigidity of the system in terms of the fixed destination points and the lack of an in-city linkage system and the limited capacity of the system to expand existing routes is restrictive.
- The road network consists of the M1 freeway which passes north-south just west of the CBD area; the M2 freeway that passes east-west just south of the

region; the north-south M31 which links the M1 to M2 and lies just east of the CBD; and a series of east-west and north-south arterials that operate as one-way pairs in the CBD, like Wolmerans/Smit, Bree/Jeppe, Market/Commissioner and Marshall/Anderson running east-west.

Public transport ranks and termini include:

- Bus termini at the Magistrates Courts, Westgate Station, Bree Street, Sanlam, Stock Exchange, Kay Street in Ruikes Road and Braamfontein.
- Minibus ranking facilities at Joubert Park (Park Central), De Villiers Street, Wanderers Street, Bree Street Terminus, Bree Street at Sauer, Westgate Street, Kruis Street, Delvers Street, Faraday Rank in Stevenson Street, Banket Street, Noord Street and Van Beek Street (near Jeppe Station).

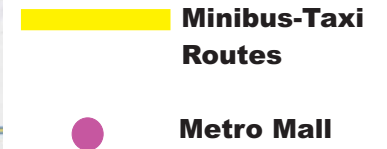


Fig 47. Minibus-taxi services.

**Minibus-Taxi Services:**

The minibus routes are as pervasive in the area as the bus services. The minibus routes converge on the CBD as the major interchange centre for their services, and many ranking facilities, such as Metro Mall and Park City, have been and are being provided. Many services and ranks are illegal because there is insufficient enforcement. Metered taxis operate in

the CBD area. Most operate illegally.

## Conclusion from Macro-analysis:

- Land uses: the existing infrastructure needs to be maintained and further developed to keep up with the demands due to change in land uses, like office and industrial uses to residential use and mixed use. The intensification of land uses in the area that was just industrial use in the past has resulted in an increase in the residential population. There is an increased pressure on the engineering services. The illegal occupation and land invasion in vacated buildings results in crime, vandalism, lack of security and physical degradation of the public environment. Alternative sustainable uses for vacant buildings prior to the taking place of illegal occupation has to be established, like in the case of the re-use of Turbine Hall for a music venue.
- Environment: there has to be made provision for much needed open space in the CBD, whether it is in the form of parks or well-functioning public environments like squares. Existing open spaces and watercourses must be preserved and enhanced where possible. Illegal dumping must be prevented in public spaces. Air and water pollution policies should be drawn up and sewers need to be maintained. Waste management and infrastructure provision must be strengthened to reduce land degradation and pollution.
- Pollution: the standard of service provision in the CBD is low in areas where the infrastructure is old. Dilapidated buildings with dysfunctional services within the buildings result in poor living conditions and contributes to a poor public and social environment. These issues need to be addressed. Stormwater management of the Jukskei River needs to be addressed to decrease pollution and provide better living conditions. The lack of financial and manpower resources for the delivery of basic services need attention to reverse environmental degradation.
- Social problems in the CBD include inadequate recreational and cultural facilities and amenities, poor maintenance and inadequate lighting of parks and public environments and high crime rates.

- Engineering infrastructure: all areas within the region require revision of services to cater for changes in land uses and for urban regeneration. Maintenance and refurbishment of the existing infrastructure on a planned basis are needed to ensure environmental and social sustainability. Current initiatives like Parallel Strategy 6 of the Inner City Renewal Strategy has been formulated to improve the situation of services. Services like gas, water, electricity, sewerage and refuse removal, stormwater and telecommunications are included in a Service Infrastructure Policy. [Bambanani Consortium, 2001:22] The renewal process involves the identification of areas under stress through assessment, the establishment of a maintenance and upgrade programme, the identification of funding mechanisms towards maintenance, the establishment of design guides and standards and the monitoring of the strategy at appropriate intervals.

- Transport: the major problem is caused by the changing modal choice of passengers from the south and south-west from higher capacity public transport modes to lower capacity modes; primarily from train and bus to minibus and car. This increase the level of congestion on the roads from the south. The congestion can be displaced to other areas if more direct routes become established between the residential areas to the south and south-west and the jobs to the north of the CBD. There seems to be inadequate linkages and co-ordinated public transport services between the residential areas in the eastern part of the region and the commercial core. A public transport distributor system is currently being planned to integrate the Inner City. The Inner City remains the location with the highest accessibility. This is an opportunity assisting the regeneration of the area.