

CHAPTER TWO

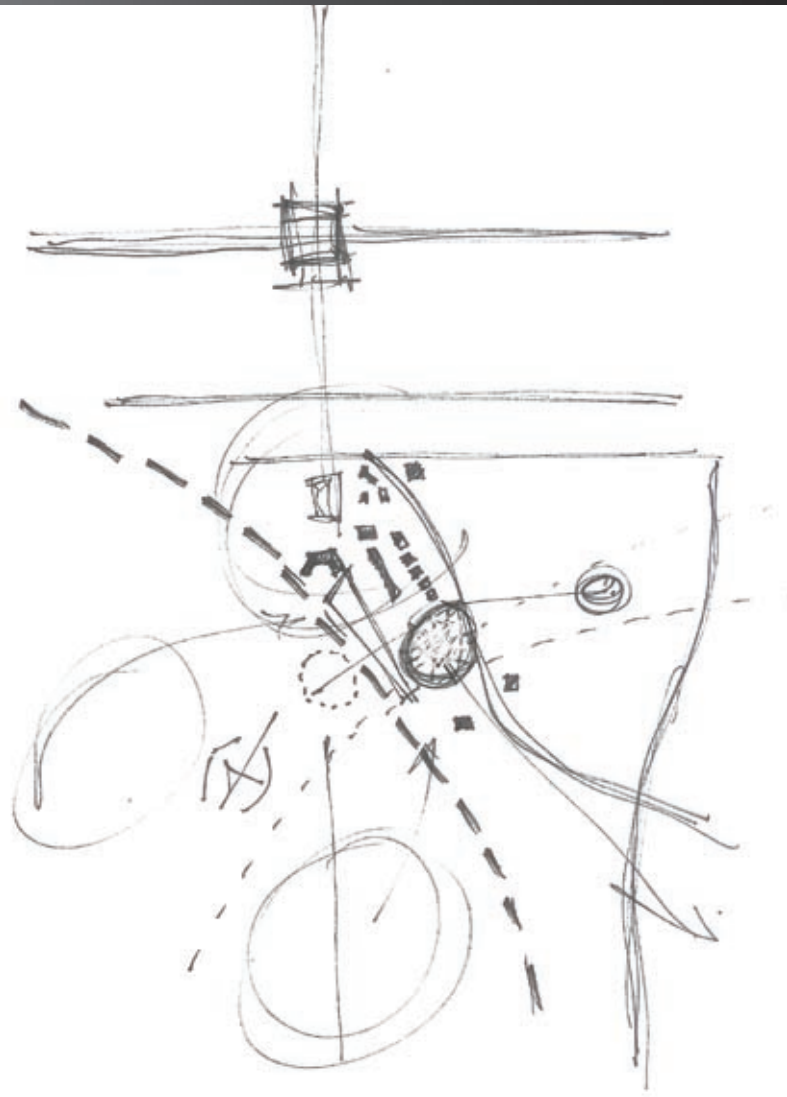


FIG 2.0.1 Sketch of precinct in context

2.1_GAUTRAIN RAPID RAIL LINK STATION FUNCTIONAL AREA GUIDELINES

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Vision for the Gautrain Pretoria Station, as formulated by the Gautrain Project:

“The Gautrain should be the heart and gateway of tourism in Pretoria, and should lead to urban renewal in the CBD “

(GAUTRAIN: PRETORIA STATION DEVELOPEMNT FRAMEWORK_ OCT 2003)

GAUTRAIN PLANNING PHILOSOPHY

Current urban development proposals (Gautrain 2003) suggest the need to create compact cities and limit urban sprawl in order to utilize urban infrastructure and land more effectively and efficiently. The Gautrain Rapid Rail Link is believed to be the catalyst to encourage this; as such a rapid rail transport system will operate most effectively in a densely populated and utilized urban environment. Therefore, the spatial development for the Gautrain focuses on the demand of seeking a new urban form that can and will support the proposed rail system.



The critical focus is to achieve support or patronage with a view of creating long term sustainability. This support or back-up system can be created by improving access to the train either through effective feeder and distribution systems or by developing the right type, mix and density of uses around the stations.

FIG 2.1.1 GAUTRAIN graphic



FIG 2.1.2 GAUTRAIN graphic



FIG 2.1.3 GAUTRAIN graphic



FIG 2.1.4 GAUTRAIN route

The Gautrain Rapid Rail Link is a state-of-the-art rapid rail network planned in Gauteng. The rail connection comprises of two links, namely a link between Pretoria and Johannesburg and a link between Johannesburg International Airport and Sandton. Apart from the three anchor stations on these two links, seven other stations will be linked by approximately 80 kilometres of rail along the proposed route located at:

Rosebank;
Sandton;
Marlboro;
Midrand;
Centurion;
Hatfield; and
Rhodesfield (Kempton Park).

This modern train will offer international standards of public transport with high levels of safety, reliability, predictability and comfort. Travelling at maximum speeds of 160 to 180 kilometres per hour it will reach Pretoria from Johannesburg in less than 40 minutes. The minimum frequency between Johannesburg and Tshwane will initially be six trains per hour per direction and it will operate approximately 18 hours per day. This public transport service will include dedicated, exclusive bus services to transport passengers to and from stations.

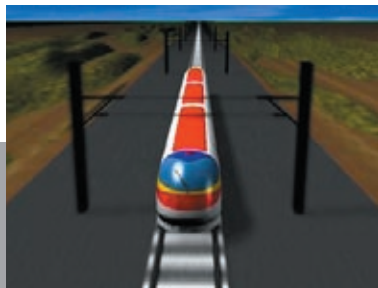


FIG 2.1.5 GAUTRAIN graphic



FIG 2.1.6 GAUTRAIN graphic



FIG 2.1.7 GAUTRAIN graphic



FIG 2.1.8 GAUTRAIN graphic



FIG 2.1.9 GAUTRAIN graphic



FIG 2.1.10 GAUTRAIN graphic



FIG 2.1.11 GAUTRAIN logo

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service will include dedicated, exclusive bus services to transport passengers to and from stations.

Besides the commuter service, air passengers will have a dedicated service between Johannesburg International Airport and Sandton. This purpose-designed service brings Gauteng in line with global practice which links cities by rail to international airports.

The Gautrain Rapid Rail Link project offers a cost effective, efficient, environmentally friendly and safe solution to some of the worst transport problems in the most densely developed area in Gauteng. It also supports many other government objectives. Gautrain is one of eleven Blue IQ projects of the Gauteng Provincial Government (GPG). Blue IQ is a multi-billion Rand initiative of the Gauteng Provincial Government to develop economic infrastructure for specific major projects in smart industries, high value-added manufacturing and tourism.



FIG 2.1.12 GAUTRAIN graphic

Blue IQ works in partnership with business and government departments as a catalyst to promote strategic private sector investment in key growth sectors of the Gauteng economy.

Its central aims are to lift the growth of the Gauteng economy onto a new and significantly higher growth trajectory and to shift the mix of Gross Geographic Product (GGP) towards the three above-named sectors. The Gautrain project is, therefore, primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment. This project is part of a longer-term vision, which will include a commitment towards creating and sustaining a new culture of public transport usage

Why a rapid rail system?

Gauteng, the country's economic hub, is currently experiencing traffic congestion on its major routes, especially between Pretoria and Johannesburg. The current transport facilities and services between these two cities are mainly road based. The land required for a rapid rail system is far less than that of a road system. Apart from alleviating the severe traffic congestion, economic development will be stimulated by the rapid rail system and it will have distinct environmental advantages over other forms of transport.

The N1 Freeway currently carries some of the highest traffic volumes in South Africa with more than 157 000 vehicles travelling on it per day and a traffic growth rate of 7% per year. There is currently 300 000 cars per week day in the Pretoria -Johannesburg traffic corridor. It is estimated that approximately one-fifth of Pretoria -Johannesburg commuters will make the switch from travelling by road to travelling by rail. Gautrain should initially transport more than 100 000 passengers per day.



FIG 2.1.13 Traffic congestion between Pretoria and Johannesburg



FIG 2.1.14 Model of modern street tram



FIG 2.1.15 Example of rail transportation usage

2.2_FEEDER AND DISTRIBUTION SERVICES

The development of Feeder and Distribution solutions for the Gautrain was based on the following:

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Many passengers using the Gautrain will not be able to walk to and from the station area due to the existing land-use developments and densities around the stations

Effective door-to-door transport solutions must be provided for the Gautrain to be an attractive alternative to those potential passengers currently using private vehicles

As many passengers are unable to walk to and from the station area, provision of public transport or park-and-ride facilities is essential

Provision is made all at proposed stations (excluding JIA) for private vehicle parking and drop-off zones

Due to the quality and areas served by the existing public transport services and operators, it was decided to supplement the existing system with new road-based dedicated feeder and distribution services operated by or under contract to the Gautrain Operator

The routes for the feeder and distribution services were identified and optimized through a process of inter-action with the demand forecasting model

The dedicated feeder and distribution services will consist of high frequency shuttle-bus type services running on a fixed schedule



FIG 2.2.1 Extent of Feeder and Distribution Services in Pretoria CBD

Full operational cost for providing these services will not be covered by the fares and cross-subsidization from the rail fare income will be required

In order to optimize these operational costs, the proposed routes are limited to only include areas and nodes within a 5km to 10km radius from proposed stations

Not all nodes and areas will be effectively covered by the feeder and distribution service and potential passengers will have to use private vehicles or existing public transport in order to utilize the services of the Gautrain



FIG 2.2.2 Bus services

2.3 _AS AN INTER-MODAL FACILITY

The PSP (Pretoria Station Precinct) provides major potential in the establishment of an inter-modal facility through the combination of existing modes of transport, the proposed modes and their feeder and distribution systems. This in turn provides enormous potential in the wake of urban development, social improvement and economic growth.

_The existing modes of transport in and around the vicinity of the precinct include:

- Metro rail system (with Pretoria Station and nearby Bosman Station)
- Intercity long-distance bus facility
- Local bus facility between Pretoria Station and Bosman Station (known as “Station B”)
- Mini-bus (taxi) facility at the “Dairy Mall” close to Bosman Station (“Station B”)

_Proposed modes of transport include:

- Gautrain Rapid Rail Link with a station proposed in close proximity to Pretoria Station
- The re-establishment of the Ring Rail system which is linked via feeder lines to all the disadvantaged communities in the area, such as GaRankuwa, Mabopane, Temba and Soshanguve to the north, Atteridgeville and Laudium to the west, and Mamelodi and Eersterust to the east
- Improved facilities for the intercity long-distance bus service
- The development of an intercity/ long distance taxi/ mini-bus transfer facility on the “Dairy Mall” site next to “Station B”
- Proposed CBD passenger feeder and distribution system to facilitate access to the station area consisting of high frequency shuttle-bus type services running on a fixed schedule

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FIG 2.3.1. Rail reserve with platforms at Pretoria Station



FIG 2.3.2. Existing Long-distance bus facility at Pretoria Station



FIG 2.3.3 Existing regional bus facility at Pretoria Station



FIG 2.3.4. Existing taxi services at Bosman Station

2.4 _THE CITY - A METROPOLITAN URBAN INTERVENTION CONTEXT

2.4.1 _PRETORIA INNER CITY SPATIAL DEVELOPMENT FRAMEWORK

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_Spatial Framework

Guidelines for Precinct 21 – Station precinct:

_Preserve the residential environment and encourage development of new and upliftment of existing residential land use

_Provide additional social facilities, including educational, health care and recreational facilities, to cater for the residential population

_Integrate cultural/tourism aspects in the area with rest of the Inner City. Integration in this regard includes catering for pedestrians to make the area more user friendly to visitors and tourists. Also integrate the cultural/tourism aspects with the adjacent Apies River Activity Spine and with the Museum Mall precinct

_Encourage a pedestrian and transport linkage to the CBD core along Paul Kruger Street

_Incorporate commercial development, facilities and amenities such as kiosks, cafeteria and information points at transportation facilities, transfer points and stations

*_Provide trading facilities for the informal sector, with lock-up facilities, sufficient toilet facilities and strong security presence
Street furniture should reflect the historic fabric of the area*

(CAPITOL CONSORTIUM 1999 Part 1; p53)

2.4.2 _FREEDOM PARK URBAN DESIGN FRAMEWORK

Freedom Park Final Draft Urban Development Framework. Prepared by Freedom park Architects in Association.

Strategic imperatives:

As summary, the framework:

Enables the physical integration of Freedom Park with the Pretoria CBD
Reinforces the Visual Axis with Church Square along Paul Kruger St to the Salvokop Crest

Ensures Access to Freedom Park

Makes physical Pedestrian and Road Connections

Makes an Activity Connection from the CBD via Pretoria Station / Salvokop Suburb to Freedom Park (A High Street and part Ceremonial Route).

Proposes Commercial Development opportunities

Reinforces the residential development and associated community facilities

Retains the Transnet Museum (Railway Houses)

The Overall Contextual Framework proposes a mixed use High Street development in a curved form – This alignment approximates the orientation of earlier railway lines which curved around the housing section in the south, and in these terms this idea seems to be in dialogue with the historical footprint. As concerns the position of historical buildings in this area, input from the heritage study (Bakker; 2004) may augment the idea to enable retention and legibility of past urban patterns. The historical town had a circular public recreation area, and the later loco Roundabout on the Paul Kruger St axis was also the largest urban form in that zone. Heritage related clues could influence the position and/or form of the main public square or elements around the square.

In terms of the position of the intended land-use activities, the heritage study provides clues for the position of certain land uses that will enhance the cultural narrative of the area (Bakker 2004; Phase A p40).

2.4.3 _GAUTRAIN HIGH SPEED RAIL PROJECT

The current and preferred final alignment of the Gautrain has been accepted to pass through a tunnel of Salvokop whilst retaining a station east of the main Pretoria Station building below ground level. Having established this change from the initial intention of having the Gautrain pass through Salvokop itself and emerging from a tunnel with a bridging element over the existing rail, full impacts in visual, heritage, social, economic and noise terms have been mitigated



FIG 2.4.3.1 GAUTRAIN graphic

2.4.4 _PAUL KRUGER STREET SPINE

UNIVERSITY OF PRETORIA. 2000. Paul Kruger Street Spine. Urban design framework for the improvement of the environmental conditions on Paul Kruger Street. On instruction of the City Council of Pretoria.

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The precinct is identified as one of the most important public places in the city. As arrival/departure point, focal point on the main axis of Paul Kruger Street, as well as due to the existence of important historical resources (mainly focusing on the railway function). The main proposals and design principles for the precinct, which relate to a heritage aspect, are:

_Development of the station forecourt as a pedestrian orientated public space that is edged by buildings and that is clearly legible, as well as the retention of historical buildings. Parking is envisaged on the south-eastern side of the main station building

– It is very important that the Salvokop heritage conservation and tourism initiatives link seamlessly with this initiative. The manner of this linkage, as well as the linkage of Gautrain passengers with Salvokop must receive attention. The manner in which the connection between the precincts for pedestrians, as well as the promotion of distinct precinct character clues, are essential. (Bakker; Phase A; 2004)

2.5 _SPATIAL PRINCIPLES FOR STATION DEVELOPMENT

2.5.1 _DENSITIES

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Certain density is important to ensure that there are or will be enough people within a determined area who will use the train. The more densely populated the area, the higher its potential of success. According to international examples, a gross density of ± 25 dwelling units per hectare (du/ha) should be able to attain acceptable levels (see section “Proposed Land Use” on page 9 of this document) where it has been determined that the Pretoria Station Precinct has a potential gross density of 30 du/ha). Without sufficient density, proper feeder and distribution systems become critical.

2.5.2 _ACCESS TO A STATION

To promote access in less dense areas, feeder and distribution systems need to be established in order to facilitate access to the station area, whereas in concentrated areas people can effectively reach the area by walking, which requires limited expenditure. Walking is restricted to a defined area because people are reluctant to walk longer than five minutes to reach their destination. Given that this time equates to approximately 500m in distance, the critical zone of influence around the station is a circle with a 500m radius, or a square kilometer (1km x 1km). This area represents the most important area of development.

2.5.3 _IMPACT OF LAND USE ON TRAVEL GENERATION

Land-use is a major influence of patronage as different land-uses generate different journey volumes at different times of the day, which is influenced by the land-uses established in the area around the station. International research indicates that:

Residential development (with the correct density) is the most important land-use for journey generation as people need and want to move around. Therefore, residential development in and around the station area, and along the length of the line is important.

Retail areas generate approximately 10 times more trips per unit than office space, indicating that retail facilities can act as anchors to encourage the support system of a specific destination. This also occurs during off-peak periods.

Office space has higher peak periods than retail space due to daily journeys to and from work places. Efficient feeder and distribution systems, ample parking, park-and-ride facilities and safe walking environments must be provided to achieve office-based travel.

Manufacturing and warehousing have limited impacts on passenger train facilities, mainly due to the reduced density of people in these areas.

CBD's are key places in rail development due to the densities achieved. These densities relate to the residents of the CBD (apartment buildings) and offices, which attract people on a daily basis

2.6 _STRUCTURING ELEMENTS

(Cape Metropolitan Council; 1996) pg34

2.6.1 _Urban Nodes

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Nodes refer to centers where many activities mutually reinforce one another and where there are high concentrations of people. An urban node is normally a place of high accessibility, usually at an important modal interchange or road intersection. Generally, the greater the number of vehicular and pedestrian traffic through an interchange, the larger the potential node or center. Traders wishing to locate businesses for maximum exposure to as many people as possible use this principle.

Modal interchanges provide excellent locations for retail, offices and community facilities, as well as for informal sector activity. The development of nodes will play an important part in changing investment patterns and encouraging a sustainable urban economy to emerge. In particular, nodes of all sizes are catalysts for development. Nodes, through appropriate location and development, can also act as triggers for the development of corridors. Historically, these have led to the growth of towns that developed as agricultural service centers and markets.

Key characteristics of Nodes

a. located at modal interchanges, providing maximum access – the larger the modal interchange, the greater the potential of the node;

b. locations for higher order, health, recreational, educational, commercial, and residential activities

c. they allow for high residential densities (100 du/ha gross, or more); and

d. create conditions for sustained growth and development through major public- and private-sector investment and increased accessibility. Nodes are points of high accessibility, and offer the most rational location for public investment and impact. Combined with incentives and opportunities for the private-sector, some nodes have great potential for ensuring improved access to facilities and services for the most disadvantaged.

Urban nodes can give social, economic and physical character to a residential area that distinguishes it from other areas. Urban areas around nodes should offer a full range of activities within a satisfying environment, rather than monotonous residential areas, industrial estates or office parks

2.7 _ TOWARDS A DEVELOPMENT FRAMEWORK

2.7.1 _ CITY OF TSHWANE IDENTITY AND DEVELOPMENT FRAMEWORK FOR THE INNER CITY

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VISION:

“ To be the hub of a world class city as the capitol of Africa by being a friendly and vibrant all-day-all-night Peoples Place catering for the social and human needs of all its people which proudly calls it ‘Our City and Our Home’” (Capitol Consortium 1999)

This hub is to be supported and continually strengthened by sustainable economic growth and development, efficient service delivery and adequate infrastructure provision as well as the political power and institutional support to make it the best city in Africa (Capitol Consortium 1999).

GUIDING PRINCIPLES FOR CITY BUILDING

DEVELOPMENT FACILITATION ACT_

The government’s Urban Development Framework (South Africa 1997) calls for “ the physical, social and economic integration of our towns and cities” and stresses the need for higher density, more compact and, in terms of land use, more mixed-use settlements. Similarly, the Development Facilitation Act, No 67 of 1995 (South Africa 1995), inter alia, calls for environments which:

-Promote the integration of the social, economic, institutional and physical aspects of land development;

-Promote integrated land development in rural and urban areas in support of each other;

-Promote the availability of residential and employment opportunities in close proximity to or integrated with each other;

-optimize the use of existing resources, including resources relating to agriculture, land minerals, bulk infrastructure, roads, transportation and social facilities;

-promote a diverse combination of land uses, also at the level of individual erven or sub-divisions of land;

-discourage the phenomenon of “urban sprawl” and contribute to the development of more compact towns and cities;

-contribute to the correction of historically distorted spatial patterns of settlement in the Republic and to the optimum use of existing infrastructure; and

-encourage environmentally sustainable land development practices and processes.

PRETORIA ISDF EXECUTIVE SUMMARY

(Capitol Consortium 1999 part 1; Pg 22)

SUB-FUNCTIONAL AREA WEST BEREA

- Maintain and uplift the cultural and historical elements in order to create a cultural precinct within the inner city
- Integrate extensive land uses such as depots with extensive land uses and service industries to the west
- The nature of the area must respond to the transportation node to the south (station) – cater for pedestrians and the informal sector
- Institute appropriate design and policy measures to effectively treat the interface between the cultural precinct and extensive land-use (depots)

SUB-FUNCTIONAL AREA BEREA

- Provide social support services to cater for the residential population
- institute appropriate policy to maintain standards fro these services
- Provide appropriate transportation planning and types – relook at the major traffic routes through the residential area
- Cater for pedestrian in terms of facilities and pedestrian routes
- Integrate with Sunnyside and appropriately treat the interface with surrounding areas

SUB-FUNCTIONAL AREA SOUTH BEREA

- Encourage mixed land use to respond to the station and the gateway to the south - formal/ informal retail (street level), tourist facilities (such as hotels)
- Develop resources and facilities for the residential population to the North and East, eg Berea Park
- Include the parks in an integrated open space system

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2.7.2 _THE GENERAL PROBLEM ENVIRONMENT

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According to the Pretoria ISDF and the proposed re-alignment of the Gautrain, major development opportunity emerges in the area southeast of Pretoria Central Station and the nearby-proposed Gautrain Station. This area is currently a dilapidated and much abandoned railway yard, comprising of the historical wash-bay shed structure and a few small historical buildings, which holds much potential in the wake of new development in the area.

Outlined in the Salvokop Development Framework Heritage Impact Assessment of February 2003, the suggested re-alignment of the Gautrain is to pass through a tunnel of Salvokop whilst retaining a station east of the current main station, placed in such a way that it will respect the current heritage resources in the precinct. Certain notes are made by the report and have been extracted here:

-If the Gautrain can deliver the same amount of feet to an intended central peoples' dispersal place in Salvokop, without the impact, it will be a major generator of tourism to the Salvokop precinct and Freedom Park – this external stimulus, if (and only if) well conceptualized and designed according to best practice norms in urban design and urban heritage conservation, may be compatible with heritage development for the precinct.



FIG 2.7.2.1 Zones of Salvokop: areas of influence

STATION ZONE:

-The initiatives to redesign this Zone must be linked to and integrated with the Salvokop development. Functions are to include transport interchange, commercial (formal), public amenities, administrative (e.g. Intersite), residential (e.g. short term accommodation). The zone needs to link with the Kruger St Spine, the Workshop zone to the southwest of the railway lines, the heart of Salvokop, as well as with the undeveloped area southeast of the Station and the Berea Zone.

-Apart from the redevelopment of the square, the removal of the diagonal road to Railway St with the subsequent re-instatement of the eastern border of the square and the historical street leading to Belgrave Hotel, are important actions.

-The pedestrian link with Salvokop, just west of the main Station building, needs to be emphasized.

-The zone west of Station square, being the original NZASM station square and station buildings, is currently used as bus station and market stalls. Whilst these uses are compatible with the historic fabric, the introduction of additional public amenities and shops, and the development of spaces between buildings as movement space as well as space for access to services, is required to properly utilize its potential.

-The new Bosman Street bridge must address the public nature of the area. The design for this area should make the railway history and currently confused spatial pattern of the zone, more legible.

-The parking area east of the main Station building, earmarked by Intersite and by Gautrans as a parking zone, should incorporate the 1928 Audit building, the historical coach washing shed and

subsidiary buildings into future planning initiatives, respect the scale of these buildings and recognize the Station building as the important focal point of the zone.

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-Railway Street as a whole, including the NZASM Station Master's House and Printing Office, the CSAR railway houses and the NZASM Telegraph Office, is to be developed as an 'edge'. The re-connection of the eastern side of the station Zone with Salvokop, by means of a pedestrian link on the axis of the old Roundhouse, should be considered.

-The scale and nature of new developments along the street (as was the case with the motor garages in the area), should acknowledge the precinct scale that has been established and retained over more than a century.

ZONE J (BEREA/ CENTRAL):

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-The need for the historical function of the Berea Club and sports field to be revitalized must be stressed as an action related to the experience of the total railway related cultural landscape – its role in tourist activities, as well as for use by the citizens of the city, should be better understood. The residential and light industrial character of the zone should be re-enforced. A manner of relation with the Station and Salvokop needs to be devised.

-The historical spatial link with Salvokop is to be re-enforced – i.e. the visual link between the Berea Club and the Station Zone is to be strengthened, and if possible, the open space west of the Club is to be articulated as green space, and Clara Street is to be extended over VD Walt St to re-connect with Railway St.

EASTERN RAILWAY-LINE ZONE:

-Consolidation of the historical edge of the main railway precinct is required. The development and use of the eastern open space system in which the NZASM line to Maputo curves over Nelson Mandela Drive, in accordance with environmental objectives for the area, may be an asset to the city: The heritage resources in the space, the historical houses in Du Preez Hoek, must be important elements in any redevelopment. The railway buildings along the railway line itself, which are still in use, need to be identified as protected heritage resources to the landowner.

-The re-use of the section adjacent to and west of the Blue Train shed needs careful consideration – this area is not 'empty space'. The retention of a memory of the largest urban element of historical

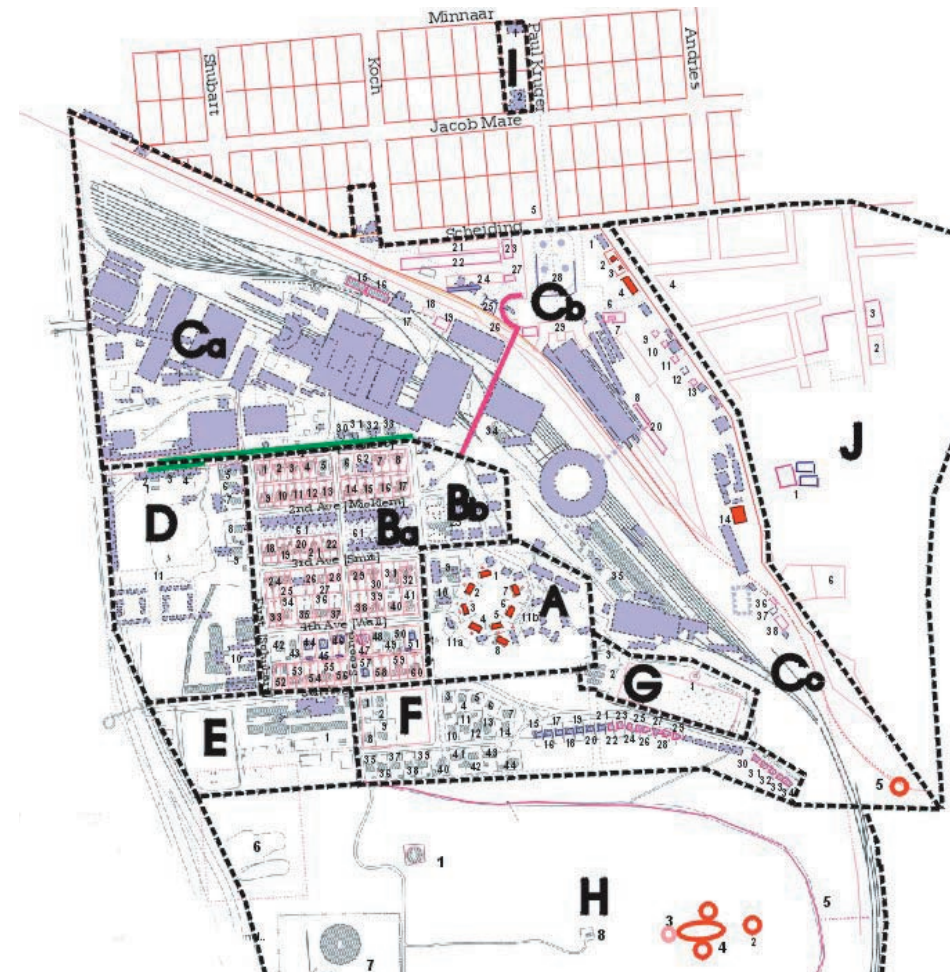


FIG. 2.7.2.2 TRANSNET Salvokop Township zones, Register of built resources in SDF area and relevant context 2002

Salvokop, i.e. the Roundhouse (centered in the rail reserve) will not only enhance the retention of a site specific memory of the emphasis placed on the Paul Kruger St axis and the Jailhouse axis, but also facilitate the successful re-introduction of the intended visual and physical axis aligned with Paul Kruger St.

-New buildings on the northern portion of this zone must react to the historically diagonal movement patterns and building positions, as well as the historical resolution of mass, space, movement and topology. Large, flat open spaces should be avoided.

With the realignment of the Gautrain passing underneath the railway lines, a major engineering structure of irreversible order and form, as well as a "roof" level that would have dictated and further development, has been avoided. Therefore the development can be lead by the analysis of the historical site and the dictates of the Freedom Park and Salvokop philosophies and frameworks.

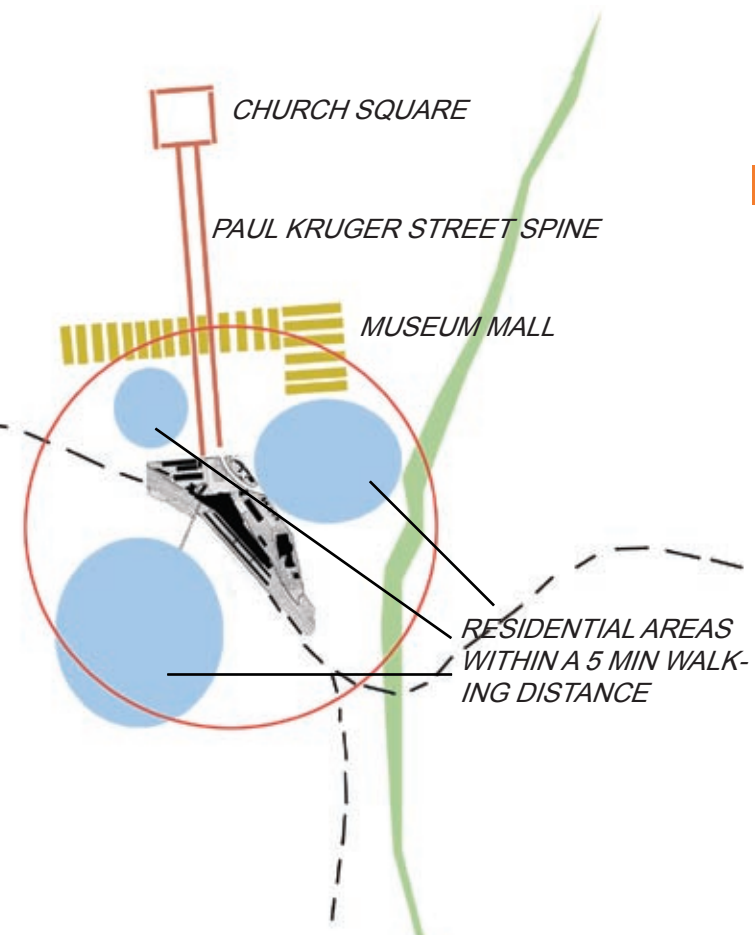


FIG. 2.7.2.3 Residential areas within 1km radius of precinct

2.7.3 _URBAN DESIGN GUIDELINES

_ZONE C 'WORKSHOP AND MARSHALLING YARD, STATION AND RAIL'

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Defined by Potgieter St on the west, Skietpoort St on the south, Scheiding St on the north, Railway St on the east, and the railway line on the south-west diagonal for the area from Skietpoort St east to the Komatipoort line and NZASM bridge on Nelson Mandela Drive.

AREA CB (STATION PRECINCT – NORTH AND NORTH EASTERN SECTION OF ZONE C)

Defined as the area north of the diagonal railway reserve, Scheiding St and Railway St up to the connection with Clara St.

Zone guidelines

Historical street patterns in this area must be re-instated in the event of the diagonal street east of Station Square being removed. Railway St must be developed in a way that requires new buildings to edge on and address the street. The historical buildings on the east and west of Railway St north and central must be conserved, and the area's scale, grain and pattern must not be overpowered by the Gautrain parking facilities - these buildings must retain a street edge character.

AREA CC (AREAS ADJACENT TO RAILWAY – SOUTH EASTERN SECTION OF ZONE C):

Portion east of railway reserve

Defined as the area between the railway reserve and Railway St, from the McCarthy Garage to the eastern side of the Salvokop Koppie.

Zone guidelines

Key conservation elements:

Conservation related guidelines included in the Phase A report of the Heritage Impact Assessment by Bakker (2004) have to be included in a future construction of a combined conservation management plan for the total Railway Area.

Character: An industrial character in the northern section as well as along the total railway reserve, but with quality green space with mature trees in the south, is outlined. The historical buildings on the east (and west) of Railway St south must be conserved, and the area's scale, grain and pattern must not be overpowered by the Gautrain rail and station, with the historical buildings retaining a street edge character. Any new developments resulting from the cut-and-cover operation must follow the same urban pattern.

The possibility of a crossing over the railway line and achieving a pedestrian connection with Clara St and the Berea Club area that lies beyond, must not be prevented by any proposed developments.

Linkage/s: A pedestrian linkage is required across the rail lines in line on the axis between Clara St and the historical Roundhouse, in order to re-institute historical pedestrian connection as well as to deliver visitors, urban users and inhabitants to Salvokop from the east – this connection can be adjacent or connected to the Gautrain tunnel, but with a purpose in delivering people on the public square NE of the NZASM Hof.

ZONE I: HEAD OFFICE'

Defined at corner of Minnaar and Paul Kruger St.

Zone guidelines:

Land use: Retain Railway related function.

Key conservation elements: Location of the demolished, former NZASM era head office buildings, but presently still occupied by the Modern NZASM Building.

Character: Retain *status quo*.

Linkage/s: Paul Kruger Street Spine [establish connection with Station Square and Salvokop through information transfer].

ZONE J: BEREA/CENTRAL

Defined as the area between Railway St, Scheiding/Walker Street, Nelson Mandela Drive and Willow St.

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Zone guidelines

Land use: Mixed use

key conservation elements are described here for use in future actions:

- SAR Electricity Dept and Magazine
- Institute Building, or SAR Berea Club
- Hall for Berea Club, 1926
- Belgrave Hotel, 1929
- Various houses in what is known as 'Du Preez Hoek', *sine anno* but some possibly *ca* 1900-10 (western one of Mr. EF Bourke).
- Various houses on Clara St and vicinity.

Conservation related guidelines are included in the Phase A of the Heritage Impact Assessment by Bakker (2004) must be included in a future construction of a combined conservation management plan for the total Railway Area.

2.7.4 _DEVELOPMENT OBJECTIVES AND GUIDING PRINCIPLES

2.7.4.1 PEDESTRIAN LINKS:

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The historical pedestrian links at Bosman St and from Railway St across the lines (aligned with old roundhouse) to Salvokop, should ideally be revived. The latter could tie the Gautrain, main station platforms and Blue Train platforms together. Accessibility and permeability will be increased whilst reviving historical pathways and linkages. The Bosman St pedestrian link is vital to link the public space at Scheiding/Bosman, with a public space that should occur at the Chief Engineers Office [or 'POPUP'], and from where further connections may be made to the township's residential or main public space elements. A pedestrian link from the Fountains' open space system is desirable for access to heritage resources in that area, as well as for access to the Unisa South and North campus and from the Sunnyside/Berea/Muckleneuk areas.

2.7.4.2 ECONOMIC DEVELOPMENT

Mixed use area - sustainable development criteria – use of current inhabitant skills/labour.

Use of heritage resources as tourist attraction linked with station precinct, Museum Mall and Freedom Park.

In order to be most effective, the conservation of Salvokop and adjacent areas should be an integral part of coherent policies of economic and social development and of urban and regional planning at every level. This implies adherence to Local Development Objectives (LDOs), the Integrated Development Plan (IDP) for the area, the Gautrain and Freedom Park projects, local zoning and zoning regulations, the development of Station Square and the

new Bosman Street taxi rank and cultural/tourism development as exemplified by the neighbouring Museum Park precinct. There is a need for community participation (Bakker, Phase A; 2004).

2.7.4.3 CONTEXTUAL LINKS

The identity of Salvokop as a precinct with a railway history should be at the core of conceptual urban design decisions. The strong links with the NZASM Headquarters and Paul Kruger St, the Station precinct with its main Station building and square and subsidiary spaces to the west and east with historical structures, the Victoria Hotel, the Berea Club building and sports ground (together with the Clara St connection and the open space on Van Der Walt St), the historical houses of railway people in Central, the Belgrave Hotel, the historical houses and the NZASM/CSAR buildings on Railway St, the trees and houses of Du Preez's Hoek, the sub-station area at the railway precinct south rail entrance, as well as the NZASM structures to the east and south of Salvokop (Bridge, culvert, aqueduct), form a cultural landscape with a common historical activity pattern – unfortunately many development proposals have separated the zones or are preventing the possibility of reading their interconnectedness.

The establishment and/or strengthening of visual and/or physical links, with the Museum Park precinct in the Inner City (especially the Kruger Street Spine, but the Bosman Street side connection is also important), as well as with the Correctional Services precinct to the west (Correctional Services Museum), the Fountains Valley recreational area to the south and the Berea Park recreational precinct in the east, are important.

2.7.5 _URBAN DESIGN DIRECTIVES FROM HERITAGE ANALYSIS



FIG. 2.7.5.1 Heritage resources of the precinct

 IMPORTANT HISTORICAL EDGES AND MASS

 IMPORTANT VISUAL AND HISTORICAL CONNECTIONS

2.7.6 _ISSUES AND CONSTRAINTS

2.7.6.1 ISSUES

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The historical analysis (Bakker; 2004) has indicated that the Salvokop heritage site is integrally connected with various important historical phases in the growth of our nation, particularly in terms of the growth of the Boer ZAR, British imperialist incursions in the Transvaal and Boer resistance, the period of Union and the Afrikaner nationalist phase. In all these phases the railways played an integral part, which is richly demonstrated on the Salvokop heritage precinct and its neighbouring Station heritage precinct, both of which ultimately form an integral whole.

The Salvokop area is deemed to be of high historical value to society and its value as a precinct – seen with the Station precinct - is placed at national level due to the amount of resources and roles that the railways have played in the evolution of our country.

The site, which has been functioning as a railway precinct since 1892, has always existed in stages of separation from the 'normal' urban fabric and has not been well maintained. Several important architectural elements have been demolished, however the large amount of remaining offices, sheds and housing elements of Salvokop are structurally sound, and many of the places and streetscapes of the historical layers of the site remain intact with a high degree of authenticity.

Retention of the heritage resources benefits the Inner City through an increase in usable heritage assets: Salvokop has the potential to act as bridge between the Museum Mall precinct and Freedom

Park - with attached development opportunities and increased legibility of the city fabric.

The Gautrain development, as a railway function, is a compatible function for the larger city sector, but only if planned correctly. The impact of the Gautrain, in terms of its alignment, frequency, noise and speed, as well as the size of the infrastructure and the physical intervention of both tunnel and feriduct on the qualities of landscape and intended development (Freedom Park and Salvokop), has been debated. The only way to avoid the impact is concluded to tunnel all the way, whilst retaining a station east of the current main station, placed in such a way that it will respect the current heritage resources in the precinct.

The Freedom Park development is the largest opportunity for the regeneration and utilisation of the heritage fabric of Salvokop. Where various previous attempts at regeneration have failed, this opportunity must be wisely grasped. It must be stressed that Salvokop cannot be seen in simple development terms – ie where only market forces determine the outcome of its regenerated urban form and content – the opportunity which the large component of heritage resources of Salvokop presents also requires involvement and investment from the State on various tiers, and if possible non-governmental cultural organisations, in order to safeguard the future of the resources and their use in regenerative development.

2.7.6.2 CONSTRAINTS

Heritage recourses in the area are in a neglected state apart from NZASM Hof - renovated by Transnet - and a few buildings in the Station precinct - which have been renovated by Intersite.

Inclusion of the historical structures and spaces of the precincts around Salvokop - the Station precinct, the Berea precinct, NZASM headquarters in Paul Kruger Street, the NZASM and CSAR/SAR&H buildings on the southern part of Railway Street, the old NZASM bridge and the small water reservoir and fort structures on Salvokop - into an integrated heritage conservation framework which revolves around the railway history will benefit the development of Salvokop greatly, but requires the involvement of more diverse stakeholders in the design and management process than is presently the case. These stakeholders must be made aware of the opportunities involved, and briefed at an opportune time in the conceptual phase of the design. The Intersite development in the Station precinct must specifically be linked with the Salvokop development.

2.7.7 _PROPOSED LAND USE

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A quantitative assessment of the land use was made using status quo information to predict a future densification scenario for 100 hectares around the station according to the densification proposals of the Gautrain Project Team. The status quo and suggestion to proposals are tabulated in Table 1 below, followed by explanatory notes

TABLE 1: CURRENT LAND-USE

| Land Use Component | Status Quo | | | Quantified Concept for 100 ha | | | Foot Print m ² |
|--------------------|-----------------------------------------|---------------------|-------------------|---------------------------------------------|--------------------|-------------------|------------------------------|
| | Total area bulk (m ²) | Current mix % | Average Height | Future Bulk Area (m ²) | Future Mix % | Desired height | |
| Residential | 248.362 | 26.9 | 6 | 500.000 | 53.4 | 6 | 83.333 |
| Offices | 82.822 | 9.0 | 3.2 | 55.000 | 5.9 | 4 | 13.750 |
| Retail | 28.790 | 3.1 | 1.2 | 35.000 | 3.7 | 1 | 29.167 |
| Industry | 5.435 | 0.6 | 2 | 5.500 | 0.6 | 2 | 2.750 |
| Community facility | 1.360 | 0.1 | 1 | 10.000 | 1.1 | 1 | 10.000 |
| Recreation/ Parks | 22.770 | 2.5 | 0 | 30.000 | 3.2 | 1 | 30.000 |
| Hotel& conference | 6.553 | 0.7 | 4 | 20.000 | 2.1 | 4 | 5.000 |
| Transport/ Parking | 261.823 | 28.4 | 0 | 280.000 | 29.9 | 1 | 280.000 |
| Vacant land | 265.184 | 28.7 | 0 | 0 | 0.0 | 0 | 0 |
| TOTAL | 923.099 | 100.00 | | 935.500 | 100 | | |

(GAUTRAIN: PRETORIA STATION DEVELOPEMENT FRAMEWORK_ OCT 2003)

Notes for Table 1:

-Coverage is estimated at 55% due to the large transportation-related areas. Densification is possible in areas such as Salvokop and other vacant areas.

-Present residential: @ 100m² / unit there are 2484 units in this node

-Densification will be achieved through the development of Salvokop (residential). Existing empty offices can also be converted into residential accommodation

-To attain 30du/ha (dwelling units per hectare) need to attain 3000 units @100m² on average per unit. Therefore, requiring 300 000m² areas taken up by residential within area (including existing residential)

-An additional 516 units are required to attain 30du/ ha for this area, resulting in an additional 8.6 residential blocks (6 floors @ 10 units/ floor). This can be accommodated in the Salvokop area.

From this study, the results indicate an existing residential population of 26.9% and it can be determined that the greatest need for the area would be the development and establishment of community-based facilities. The culmination of the proposed transport network and proposed land uses will bring about an energy and vibrancy our city wants, and from this it can be determined what our city needs.



FIG. 2.7.7.1 Existing Landuse of site: Commercial motor vehicle showroom due for demolition with Gautrain Development. Existing landuse of precinct: abandoned Railway yard

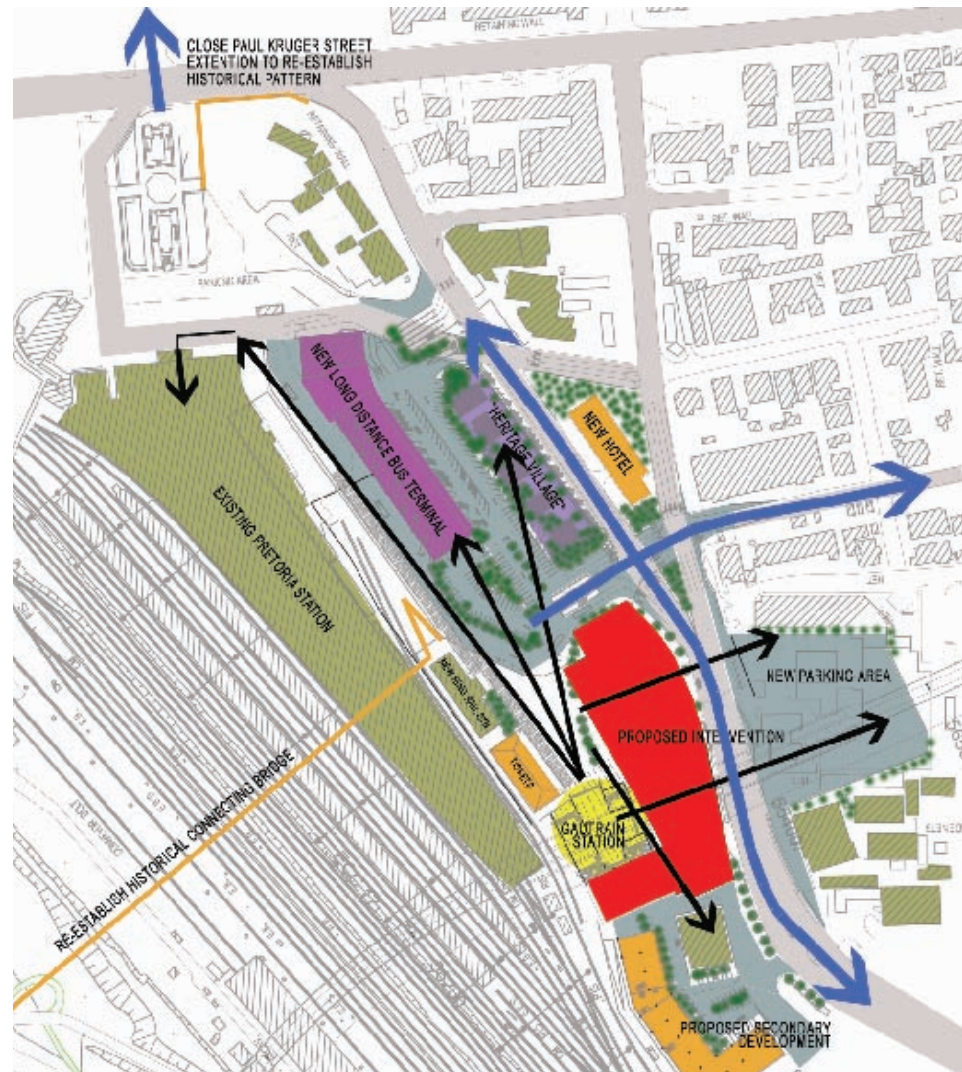


FIG. 2.7.7.2 Proposed Landuse of site: Community Development Centre with retail and office space. Proposed landuse for precinct: Inter-modal facility and public urban open-space



FIG. 2.7.8.1 Eastern elevation of proposed development to Pretoria Station Precinct

2.7.8 _RESPONSE AS A THESIS

A solution to this urban problem would be the creation of a community-based development facility within the Pretoria Station Precinct. The great opportunities provided by the rail networks ensures that easy access to the area is possible for those from more rural areas, those from neighboring metropolises, to those commuting from Johannesburg International Airport, resulting in a broad scale involvement of the population. As the development is situated between the two stations with considerable heritage value (as outlined in the Salvokop Development Framework Heritage Impact Assessment: February 2003) and possesses high potential as an urban space, a suitable name would be “The Pretoria **INTER-STATION DISTRICT** and Community Development Centre. Here the functions of the built form would begin to merge surrounding nodes of activity in an appropriate and meaningful manner through its mere presence, and reinforce the new energy foreseen for Pretoria inner city.

The development shall have the character of a convention centre with a strong focus on the community and the public. Not only will it embrace the energy of movement between two major rail stations, it shall also be the bridging element to Salvokop and Freedom Park, as well as nearby local areas of influence. Above this, the centre will have conference facilities, business opportunities and capacity-building facilities, with adaptable exhibition and social facilities.

The community would benefit from the centre with the establishment of spaces such as a multimedia library and study facilities for children during the day, child care for working parents, night-school and skills development for adults, as well as a social events calendar. The building could also cater for the international market as a venue for conventions or trade fairs, and the

government would find interest in using the location as a stepping stone from the new DTI (Department of Trade and Industry) campus on Nelson Mandela Drive. Business opportunities will emerge with the establishment of a commercial section with rental office and retail space, and a well conceptualized scheme will embrace the heritage forms according to best practice norms in urban design and urban heritage conservation that it may be compatible with heritage development for the precinct.

The building itself must embrace the concept of adaptability, where at varied scales the building functions are engineered to accept change and be able to grow with the demand of our evolving city over the years. In essence, the building should also be a subtle landmark with symbolic characteristics, not to be a distraction from important historical buildings such as Herbert Baker’s Pretoria Central Station building nor the important axial view down Paul Kruger Street towards Church Square that has been envisaged from Freedom Park. It must however, be an addition to the new developments in the area and recognized for its importance in the urban fabric.

2.8 _COMMUNITY DEVELOPMENT

“Community development implies interdependence between individuals, communities and states and presupposes equal rights and opportunities to grow and develop. Taking responsibility for ones own interests and those of the community is an integral part of community development. “

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Prof. E.A.K. HUGO

Head of Department: Department of Social Work
University of Pretoria (1990)

(Lombard 1991: pg 1)



FIG. 2.8.1 Depiction of members of a community

Community development aims at enhancing the quality of life by means of comprehensive development, i.e. physical, social, economic and political development, in a multi-professional team context.

Lombard (1991) discusses the relationship between community development and community work, and shows how the philosophy and underlying principles, on which community development and community work are based, are in fact quite similar. Although community work is founded on its own set of principles, it can be deduced that the differences are to be found in the contextual matter, rather in the underlying principles themselves. This deduction is valid according to Lombard (1991: pg 200) because “community development is aimed at comprehensive development, whereas community work is concerned exclusively with the social functioning of the community”.

In the table below, Lombard (1991) show how the principles fundamental to community work are subsequently used as the point of departure in order to illustrate the degree community development endorses the same principles:

TABLE 2: COMPARISON OF COMMUNITY WORK AND COMMUNITY DEVELOPMENT (Lombard 1991; 200-201)

| COMMUNITY WORK | COMMUNITY DEVELOPMENT |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Respect for human dignity | Human dignity forms the basis of community development. Human dignity originates in self-respect, which in turn is fundamental to the acceptance of others, notwithstanding their way of living, social standing, race or nationality. In every community all people should be regarded by themselves and others as the ultimate aim of and medium for community development |
| Individuality | Every person is unique and therefore has the opportunity to create his or her own unique living space ("Lebensraum"). Like individuals, communities too, are unique. The South African society, consisting of communities that differ regarding race, origin, language, culture and level of development, is a good example of this. |
| Self-determination | The principle of self-determination restrains the community developer from making decisions on behalf of the community. The individual wants the responsibility of making his or her own choices. Because the individual's human dignity he/ she is free, in his/ her own world of opposites to choose and decide as he/ she likes... but always in a responsible manner. |
| Self-help | Self-help leads to self-respect. The members of a community should be enabled to improve their own circumstances. Successful self-help projects serve as a source of motivation in the process of becoming independent. |
| Community needs | Activities that are undertaken, should be in accordance with the basic needs which the community itself has expressed and identified. |

| | |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Partnership | Comprehensive and balanced community development demands joint action and the establishment of multi-purpose programmes. Each partner in the partnership should know his or her rights, duties and responsibilities. The community developer is part of this partnership. |
| Change | Change in the attitudes of people is as important as the change which evolves from community development projects, especially during the initial development phases of these projects. The potential of the human race is fundamental to this principle. Because self-realization is a human's highest calling, humans are always in a process of "becoming" and thus never static. |
| Development of local leadership | The identification, encouragement and training of local leadership, should be a basic objective of any programme. The importance of leadership development is confirmed by the premise that every person has the ability to learn and to grow and that everyone should make a contribution to community life. |
| Involvement and participation | Community development is aimed at (1) the improvement and increase in the community's contribution to community affairs, (2) the rebirth of the existing forms of local government, and (3) the transition to effective local administration where it does not yet exist. The goals imply that the community development makes allowances for power-sharing and active participation in the decision making process. |
| Equity | Equity means the effort to give equal opportunity to everybody, for each person to reach his full potential. In the first instance this implies a struggle against injustice, not against inequality. |

Lombard (1991; pg 206) successfully summaries the aim of community development as:

“...the improvement of the quality of life of the individual and the community on the physical, social, economic and political terrains of development, to help establish a balanced growth, resulting in social stability, prosperity and progress in the community”.

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Community development aims at providing people with the opportunity to improve their own circumstances; thus the goals of community development are directed mainly at the process (Lombard 1991; p208). When the community becomes involved in the planning process or is taught in some manner or another, the people have been taught to help themselves and thus this community action can be called community development.

- freedom regarding economic, social, and political opportunities; and
- the opportunity to cooperate with others in the community.

The elements of the “good life” which are valid for many people in the United States of America, can also be applied to the people of South Africa (after Dunham 1970 in Lombard 1991: pg207). These elements are the following:
Physical health, mental health and the capacity for emotional adaptation;
A home and creative relationships with family and friends;
An education enabling the individual to play a suitable and effective role in life;

- A job and the basic economic security of being able to provide food;
- Opportunities and facilities for recreation;
- Spiritual and ethical development; and;
- Opportunities for the realization of the self, which include
 - respect for the individual as a person;
 - acceptance by and a feeling of “belonging to the community”;
 - the personal freedom to make decisions and exercise options;

Therefore, when the quality of life in a community is the aim of community development, the elements of a dignified human existence mentioned above, offer a basic guideline to the community developer. All development dimensions of the human being, i.e. the physical, social, economic and political, are represented by these elements. From this it can be deduced that, irrespective of the level of the quality of life the community is aspiring to, attempts to improve the quality of life should still be aimed at the comprehensive development of the community (Lombard 1991; pg 208).