

context *study*

MACRO, MESO AND MICRO SCALE



Fig. 4.1. A map indicating the different areas of focus in the context study

introduction *to the site*

A BRIEF SUMMARY

The site of the Berrals building, the subject to be investigated in this dissertation, is located in the Southern African Province of Gauteng, in Tshwane, a municipal ward of this province, within its central business district (CBD), the city of Pretoria. It is within this urban context that the subject will be analysed and studied.

The Berrals building is located on the corner of Nelson Mandela Drive and Skinner Street, two main arteries of the city.

On a number of different scales, site selection considered the objective of reuse and renewal in order to increase the legibility of the existing city and its built environment and several problems and opportunities were considered during this process.



Fig. 4.2. Map of Gauteng Province indicating the position of the municipal ward City of Tshwane



Fig. 4.3. Map of the City of Tshwane indicating Pretoria's Central Business District

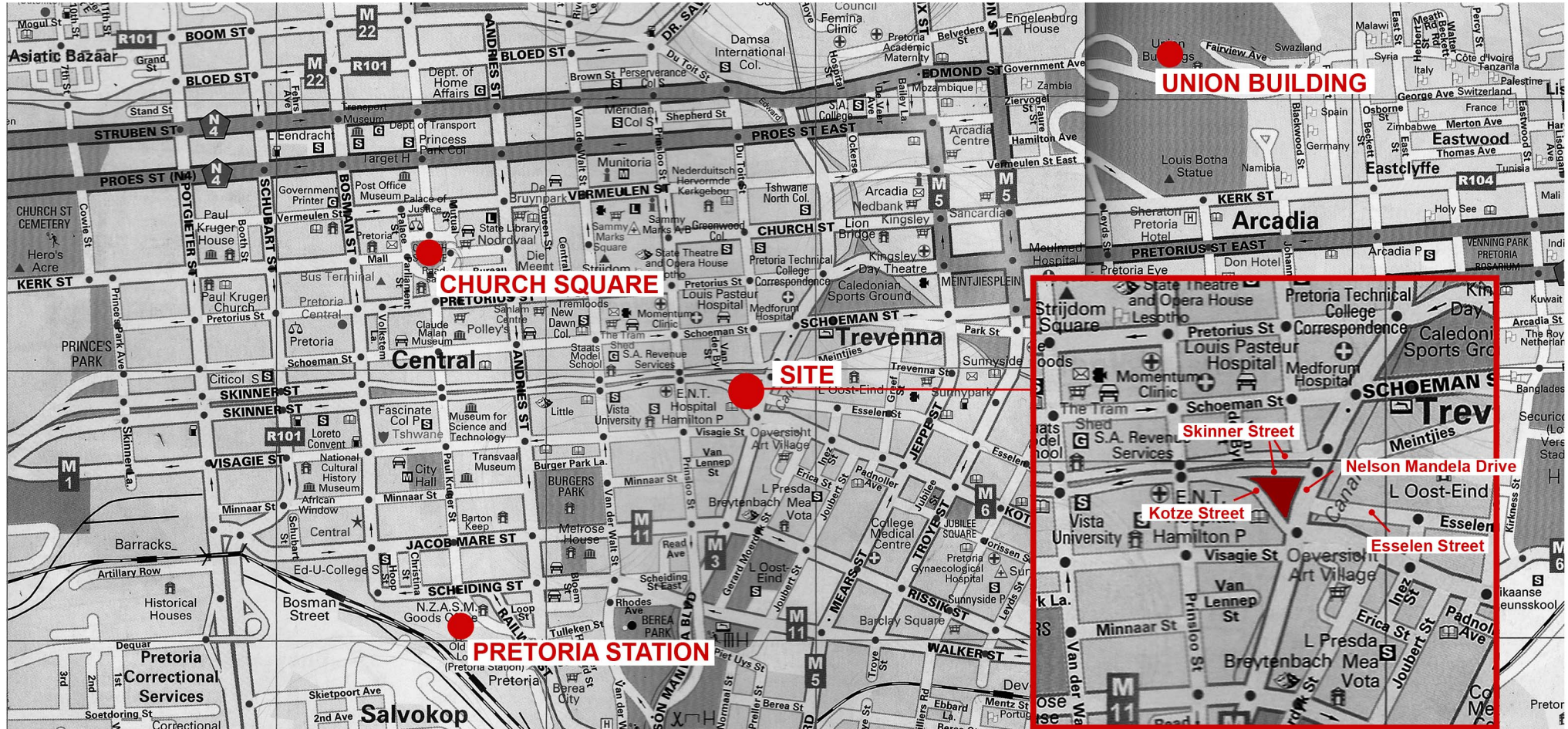


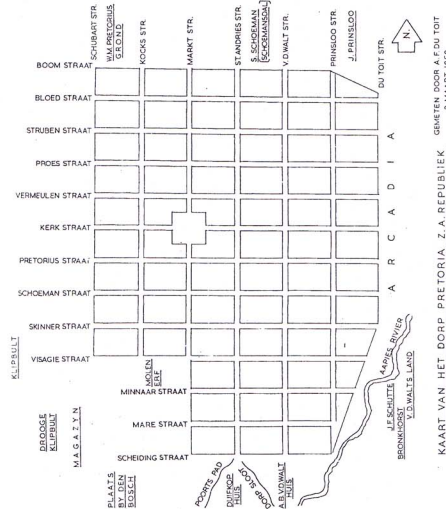
Fig. 4.4. A street map of Pretoria, indicating the position of the site in relation to known landmarks of the city

Fig. 4.5. The location of the site and the streets surrounding it

macro scale *fragmented urban fabric*

The fragmented nature of the current urban fabric along Nelson Mandela Drive and the Apies River decreases the legibility of the city, but presents areas viable for regeneration. The Berrals is located in this fragmented urban fabric and has been identified as a possible site to initiate regeneration from.

Fig. 4.6. A map of Pretoria drawn in 1959, a year after the construction of the Berrals building



To comprehend the fragmented nature of the urban fabric, it is necessary to establish and understand the shaping influences on the city's form.

The layout of the Inner City is defined by a rigid orthogonal street grid, related to the cosmic order of the sun's path and the position of topographical access points into the city. The grid finds its central point in Church Square and the rational gridiron layout of streets assists with orientation within the city on a vehicular scale as well as forming part of the definitive language of the CBD.

The free organic form of the Apies River that snakes through the rigid city grid forms the dividing line between the CBD and residential areas, resulting in awkward spaces along its edge as most buildings respond to the grid leaving leftover segments of land between it and the Apies River.

Most of these left over segments of land has been turned into green spaces, but the problem remains that the built environment does not respond to the natural feature of the Apies River and instead of opening out onto it and turning it into an asset, a harsh solid edge has been created.



Fig. 4.7. A bridge cross the Apies River, connecting to the DTI

THE GRID VERSUS NATURAL FORM



Fig. 4.8. A view of the Apies River/Canal from Esselen Street

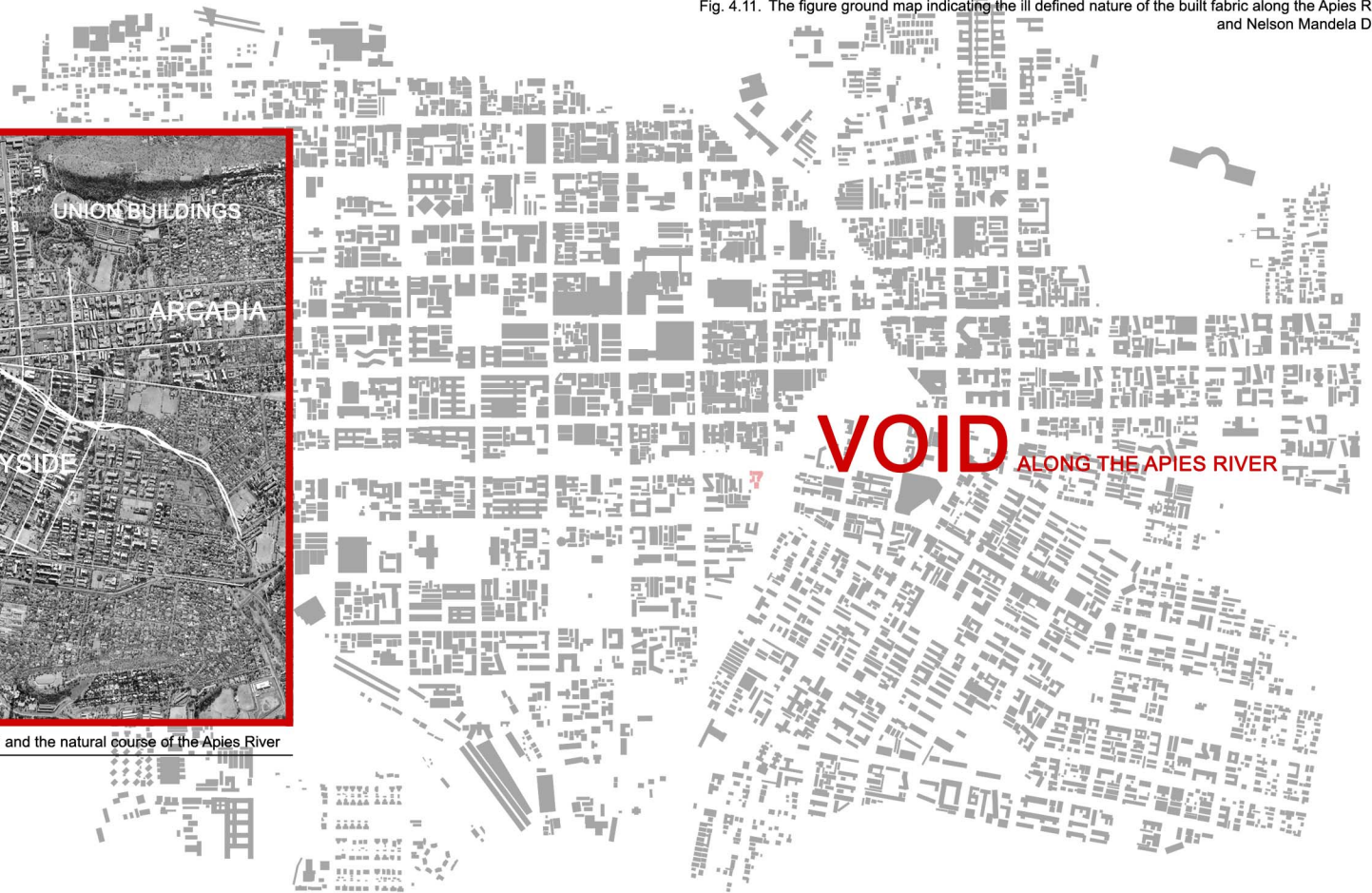


Fig. 4.9. A view of the Apies River/Canal revealing its deteriorating state



Fig. 4.10. Left over segments of land created by the meeting of the rigid grid and the natural course of the Apies River

Fig. 4.11. The figure ground map indicating the ill defined nature of the built fabric along the Apies River and Nelson Mandela Drive



The map is a detailed street plan of a residential area in Johannesburg, South Africa. It features a grid of streets with numerous lot numbers and street names. Key locations include the 'Pretoria English College' at the top, 'Calverton Grounds' in the center, and the 'Oort Eind Landboukool' (Oort End Farm) to the right. A red square marks the 'Position of Berrals Site' near the intersection of Van der Merwe and Skinnerstraat. The map also shows the 'Emelen' area and the 'Van der Merwe' street. A red line indicates a proposed or existing route through the area.

GRONDGEBRUIKPLAN

BYLAE 3

STREET

SKINNERSTRAAT

VISAGIESTRAAT

DU TOITSTRAAT

LEWISSTRAAT

SKINPIER STR

NOORD

SKAAL 1:2500

VERWYSING

	DIE BETROKKE EIENDOM		WOONHUISE
	BESIGHEDE		SKOOL
	UNISA KANTORE		KERK
	WOONSTELLE		PARKERING

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macro scale _city gateway

ENTRY INTO THE URBAN FABRIC OF TSHWANE

The relative location of the site in relation to an important entry point into the city, as well as its position on the edge of the CBD when approaching from the eastern residential areas presents an opportunity to announce the Tshwane Inner City and provide a visible point of orientation within the city.

The context study reveals that Pretoria's surrounding topography defines the urban edge as the meeting point of natural and urban. This in turn informs the position of access points into the city.

The Daspoort and Schurweberge mountain ranges bound the city to the North and the South, and the Apies River and Steenoven Spruit define the city edge to the East and West. These natural barriers form between them a low-lying plain upon which the city is built. From the north, access is possible via Paul Kruger Street and D.F. Malan Drive, and from the south via Nelson Mandela Drive. The crossing of the Apies River and Steenoven Spruit from east and west announces entry into the city.

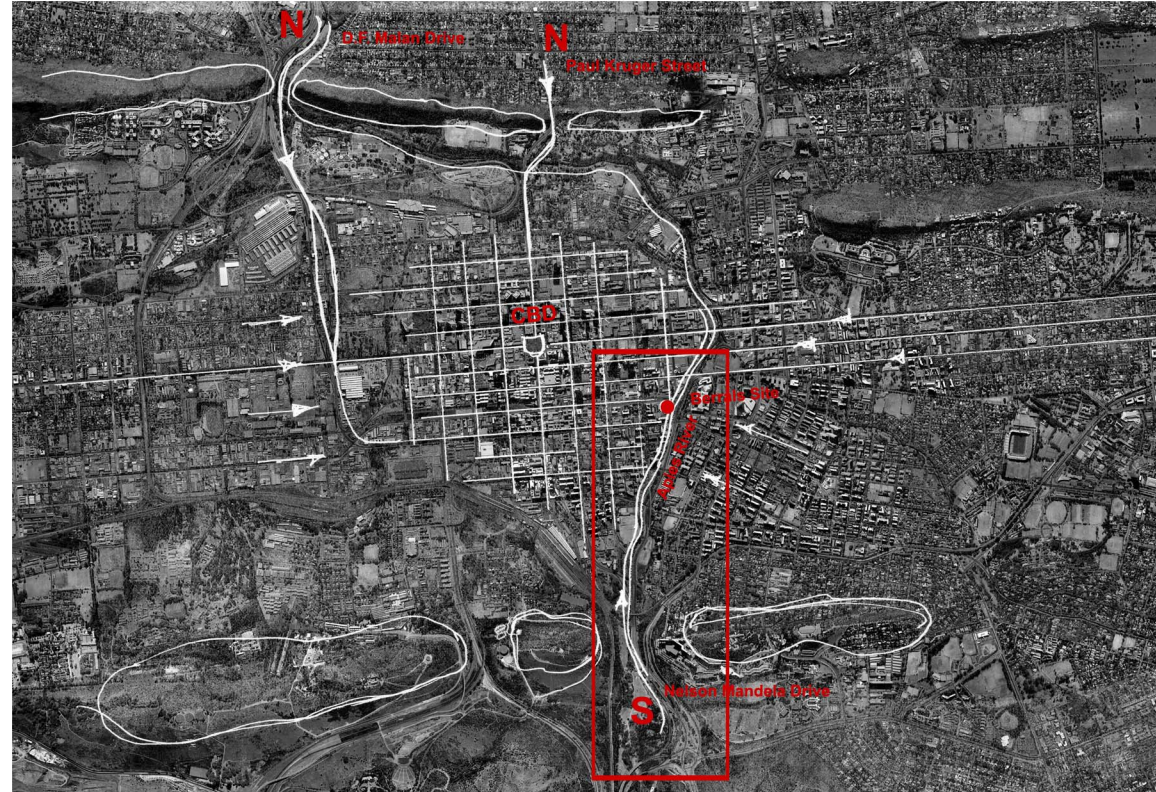


Fig. 4.15. The position of the natural elements determining access points into the city



Fig. 4.16. The southern entry routes into the city

The Southern Gateway

When entering the city from the south the Fountains Circle is the first signifier which suggest arrival. followed secondly by the UNISA buildings, and thirdly by the bridges crossing Nelson Mandela Drive. Yet, after one passes each of the above, an ill-defined scale of residential infill follows and disguises the sense of urbanness.

The first encounter with urbanness occurs at the

intersection of Skinner Street, presenting penetrating views into the CBD and its artificial skyline.

The proposed site's located along two elements defining entry into the city, the southern feeder route of Nelson Mandela Drive and the Apies River, establishes it as a viable point from which to establish orientation.



Fig. 4.17. A view of the Pretoria CBD skyline



Fig. 4.18. a.The Apies River



Fig. 4.18. b. Fontaine Circle with a view of the UNISA buildings



Fig. 4.18. c. An aerial view of UNISA

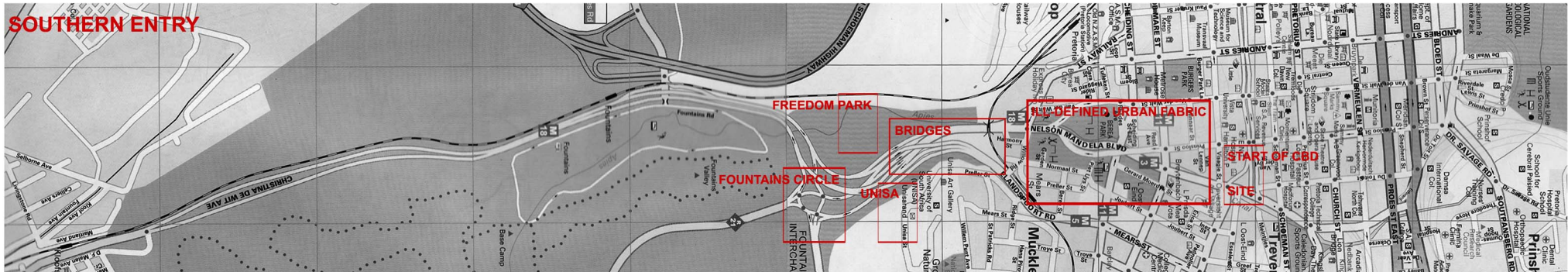


Fig. 4.18. Elements signifying entry into the city along the southern route

development *framework* [mandela corridor precinct]

THE SPATIAL GUIDE FOR FUTURE DEVELOPMENT



Fig. 4.19. A figure ground map of Pretoria indicating the location of the Mandela Development Corridor

The location of the Berrals is on the southern edge of the proposed Mandela Corridor precinct, an urban renewal initiative of the Tshwane Inner City. It provides the framework for the future development of the area, surrounding the Berrals building, which in return assists with the determination of an appropriate new program, viable for future use.

The Tshwane Inner City Spatial Development Framework (TICP SDF 2006:4) was developed to assist with the implementation of the city's 'spatial vision' in order to provide guidance for future development. Part of the framework is a set of key spatial proposals developed to initiate urban renewal within the city of Pretoria.

Seven 'precincts of development' (TICP SDF 2006:14) was identified, including the Nelson Mandela Corridor precinct, the precinct within which the object of study falls.

The Mandela Corridor precinct

The Nelson Mandela Corridor precinct (TICP SDF 2006:154) is located east of the CBD, and is bounded by Hamilton street in the east, Esselen Street in the south, Du Toit Street in the west and Vermeulen Street in the north.

The main structuring elements of the precinct are Nelson Mandela Drive, a key mobility route, entering the city via the N14 and N1, running in a north-south direction through the Inner City, and the Apies River, the most prominent 'natural' feature of the Inner City, forming the main axis of development and part of the Inner City's open space plan.

According to Gerrit Jordaan, of Holm Jordaan Architects and Urban Designers (2008:34), the intention of the Mandela Development Corridor is to establish maximum connectivity to the surrounding context, initiate economic benefits in terms of urban upgrade and job creation, as well as an increase in tax base. Parallel to the framework, a mandate for the release of the land into the market place was agreed upon between the City of Tshwane and MDC (Pty) Ltd and the framework is intended to form the basis for the release of the land, and to quantify the guidelines of the city council. All in order to initiate development along the corridor while implementing the requirements in terms of infrastructure, facilities and environmental upgrade for the Sunnyside-Travenna area.

Current Condition

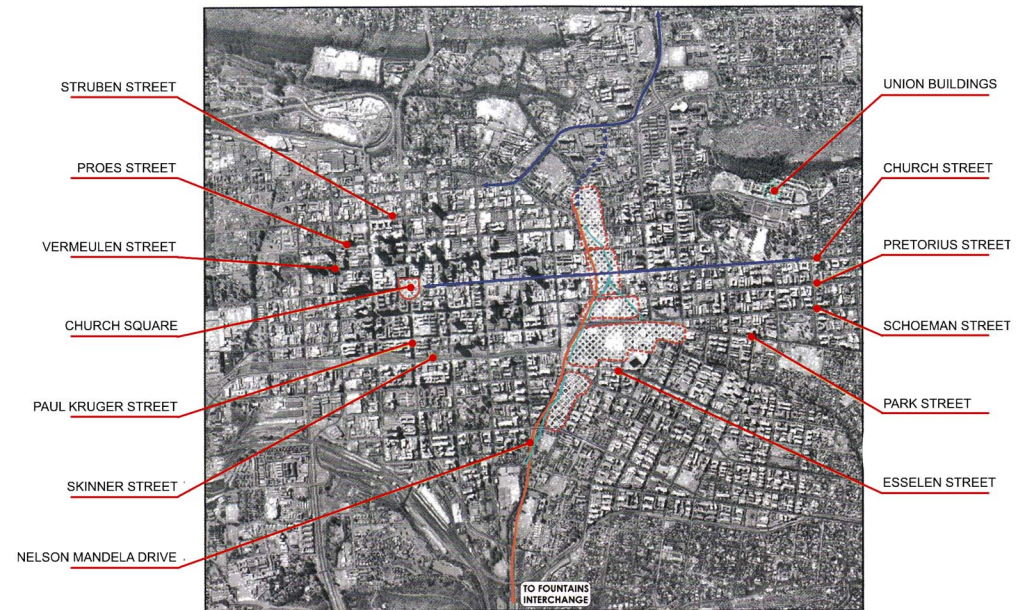
The area is fairly degraded due to the social economic changes that have taken place in Sunnyside and the CBD. With the flight of capital and energy from the city centres, market changes have occurred, which require intervention and an innovative approach.

The Apies River has for years been neglected as a possible urban asset and has become a liability in terms of environmental degradation, urban blight and crime. After completion of the Apies River Urban Development Framework (Jordaan 2008:34), the potential of the river was identified and guidelines were created, which intended to reclaim it as an integral part of Pretoria's city life.

Jordaan (2008:35) states that the vision for the corridor is to enable a vibrant and intense urban development, that will create a safe, exciting and economically viable environment, 24 hours a day. The development consists of:

1. Office development for the Department of Trade and Industry (DTI)
2. Retail and office development linking an interface with the existing Sunnypark development
3. Community facilities and urban management to be incorporated into the existing Oost-Eind School and development of an urban square, which will include a managed flea market and other urban activities
4. Conference, exhibition and office or hotel development linking to DTI offices and development of the public square
5. Sports, retail and related sporting activities around the existing soccer field with a positive linkage to Sterland, Meintjies Street and the Apies River
6. Retail, office and motor retail development with a strong tourism focus around the Heritage Node, which focuses onto Lion Bridge
7. Promotion of a series of corporate head offices along Nelson Mandela Drive

Fig. 4.20. The extent of the Mandela Development Corridor



Berrals in the Mandela Development Corridor

The position of the Berrals building at an intersection of various functional areas in the urban fabric, establishes it as a possible point of linkage, an attribute the Mandela Development Corridor wishes to exploit, in order to maximise connectivity and legibility.

Its use as an orientation and information node contributes functionally to the objective, as the facility is applicable to all the areas surrounding it.

Visually it introduces an identifiable landmark from which city users can orientate themselves, as well as establishing a lateral visual link to the activity node of Esselen Street and the Department of Trade and Industry (DTI).

macro scale *additional infrastructure*

GAUTRAIN AND BRT TRANSPORT IMPROVEMENTS

The Gautrain Rapid Rail Link, has been included in the context study, as it will contribute significantly to the influx of visitors to the city, whether for business or pleasure.

The position of the Berrals building is in close proximity of the Pretoria Station, and the routes of the feeder and distribution services supporting the Gautrain will move past the Berrals building, establishing it as a convenient en-route stop, with facilities relevant to all types of city users.

Gautrain Rapid Rail Proposal:

"The Gautrain Rapid Rail Link is one of the Spatial Development Initiatives (SDIs) of the Gauteng Provincial Government. The Gauteng SDI projects, including the Gautrain, are aimed at stimulating development in specific areas" (Bohlweki Environmental EIA (draft) 2003).

It is believed that the Gautrain will play a cardinal role in the initiation of a new urban structure and form.

According to the Gautrain official website (<http://www.gautrain.co.za>), the proposed

development is an 80-kilometre Mass Rapid Transit railway system, which will link Johannesburg, Pretoria (Tshwane Metropolitan area) and OR Tambo International Airport.

The aim of this light rail link is to relieve the over-used M1 and N1 highways that generates 300 000 passenger trips per day, as well as offer commuters a viable alternative to road transport.



Fig. 4.21. A 3D model of the planned Gautrain



Fig. 4.22. The Gautrain



Fig. 4.23. The planned route of the Gautrain indicating the position of the Stations



Fig. 4.25. The Pretoria Station designed by Sir Herbert Baker

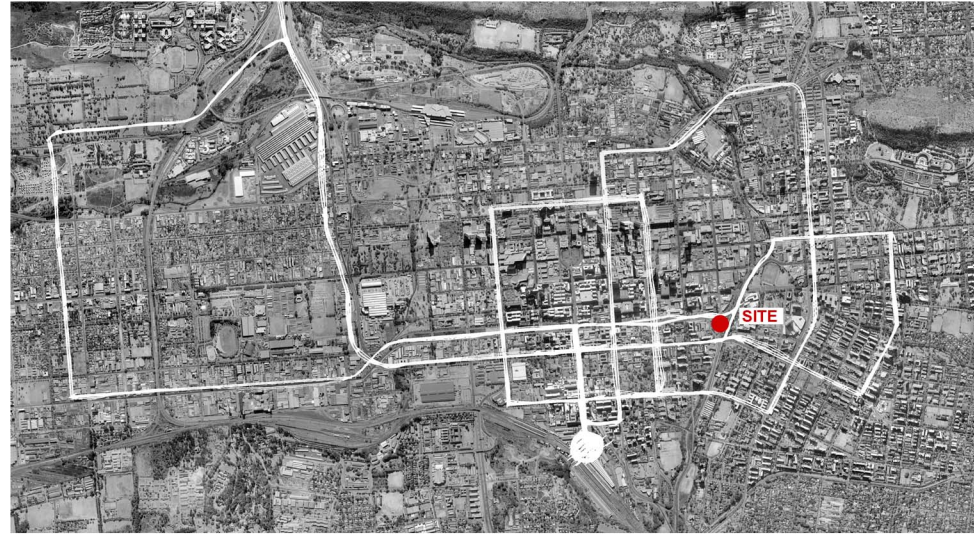


Fig. 4.24. The Feeder and Distribution routes serving the Gautrain in relation to the site

Apart from alleviating this 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 current land use densities in areas around the proposed Gautrain stations are such that only a limited percentage of potential Gautrain passengers will be able to initially access stations on foot. This means that the Gautrain will have to depend on passengers traveling to and from stations by means of either their own

private vehicles or other public transport services. Parking facilities at stations and public transport feeder and distribution services will facilitate this need. The challenge is to determine the type and extent of feeder and distribution networks and services to be provided to the Gautrain and its stations, in order to enable a seamless or "one-stop" service and to motivate customers to use this system. The important considerations for potential passengers would inter alia include aspects such as: acceptable door-to-door travel time; acceptable levels of service, convenience and safety; and at an

acceptable price.

The Pretoria Station

The new Gautrain Station in Pretoria will be located south-east of the existing Pretoria Station with its historic Herbert Baker station. It will be situated underneath the existing railway lines and platforms.

Being one of the anchor stations of the project, the Gautrain Pretoria Station provides access to and from the Pretoria CBD. It will have an important role in tourism and stimulate urban renewal in the Pretoria CBD. Its anticipated that more than 55 000 people will use the station on a daily basis.

In term of land use "*...Pretoria Station is situated in the city which is already formally established and forms the economic core of the metropolitan area... Gautrain Pretoria Station is deemed to bring with it urban upliftment and revitalisation encouraging business, residential and tourism trips. In particular existing land uses must be improved and renovated and pedestrian links created ensuring safe passage for commuters. Progress has already been made with the renewal of the Pretoria CBD with the construction of the Department of Trade and Industry (DTI) building and the planning of the Nelson Mandela Development corridor along the Apies River and Nelson Mandela Drive.*" (<http://www.gautrain.co.za>)

Similar to the Gautrain, a new bus system is planned for the City of Tshwane:

"Bus Rapid Transit (BRT) systems are being rolled out across South Africa, in a bid to alleviate congestion and promote public transport ahead of the 2010 soccer World Cup, which should see an influx of visitors dependent on such transport. Johannesburg, Tshwane, Cape Town and Port Elizabeth are cities that will introduce the initial phases of BRT systems to be operational before 2010."
(<http://www.baunews.gov.za>)

Roads are a fixed system that can carry individuals virtually anywhere. Believing we can pave our way out of the congestion and gridlock, we have developed a high tolerance for road expansion, one that is much higher than our tolerance for rail expansion. Unfortunately public transport infrastructure was left behind in this race as an automobile monoculture flourished.

The BRT system presents a new opportunity to exploit the developed road network in a more efficient and cost effective way.

Bus Rapid Transit System

Bus Rapid Transit sometimes called a surface subway, is an attempt to transform this relationship. From Curitiba, Brazil, to Ottawa, Canada, communities have invested in highly successful roadway transit systems that use buses, separated in dedicated lanes, which have

limited stops at identifiable stations, where fare is collected prior to boarding and service is frequent.

Often cast as a substitute for light rail, it has characteristics of both bus and rail. Although it has dedicated lanes, they may either be physically separate or instead may include right-turning or emergency or other buses for some sections of the route. When the BRT bus shares the public road, it often communicates directly with the traffic signal system to get priority at intersections. Deviations from the route or changes are easier to implement with BRT than with fixed rails. Schedules between bus feeders and rail transit can be coordinated for expected connections.

The City of Tshwane will develop a R1, 9-billion BRT system of 92km, to be operational in time for the World Cup. Construction is to start mid-2008, and to be concluded in 2010.

The first phase of the R1, 9-billion Tshwane Bus Rapid Transit has been launched. The system is aimed at helping to ease the nightmare traffic congestion on the city's streets.

Tshwane's BRT will feature median busways and stations, platform-level boarding and pre-boarding fare collection and verification to avoid snarl-ups when boarding the bus. The system will feature modern, 168-passenger articulated buses with access doors on either side and will cost R800 00 each (<http://www.iol.co.za>).

Fig. 4.26. The curb interface of the BRT system that is easy to negotiate



Fig. 4.27. A sign indicating dedicated bus lanes



Fig. 4.28. An example of Curitiba's BRT system that has been integrated into the existing road network

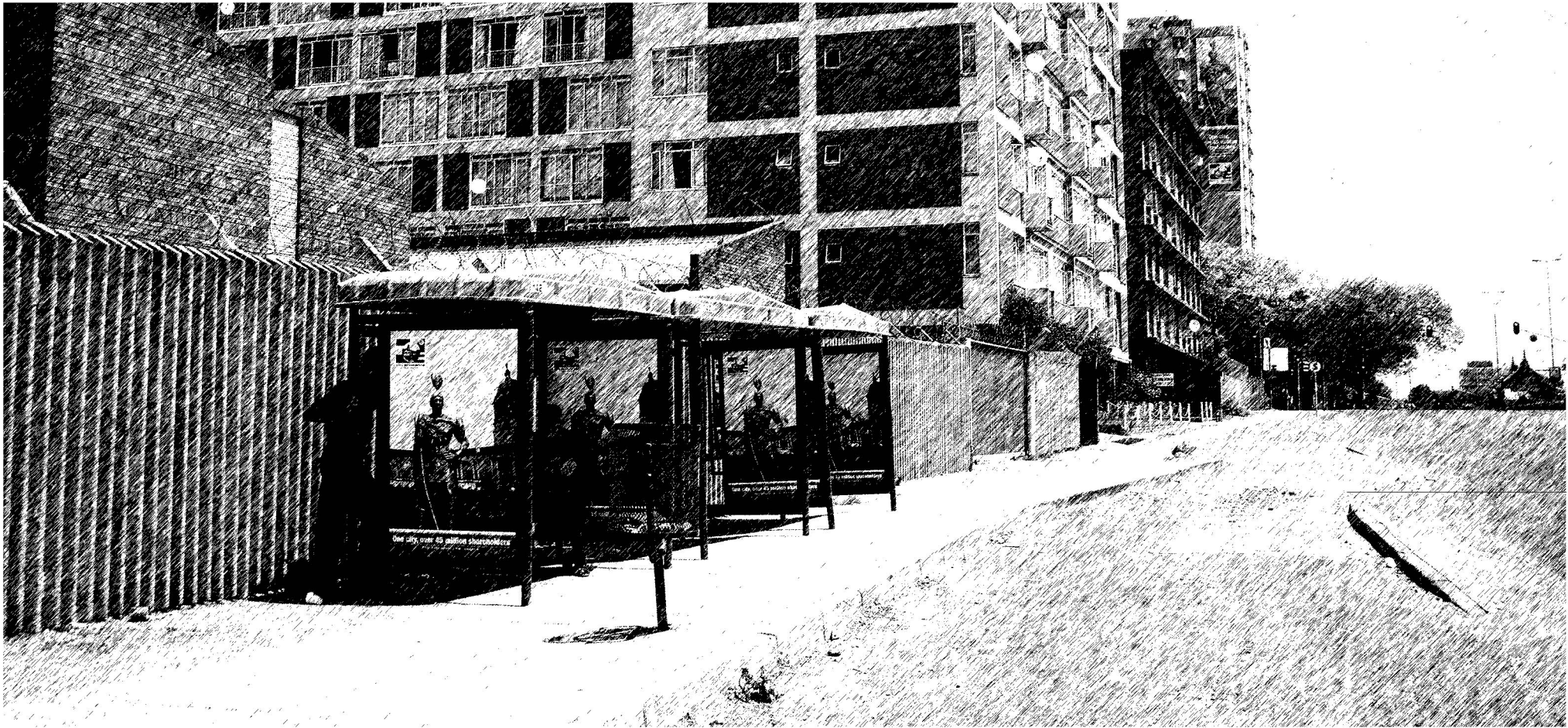


Fig. 4.29. The bus stop located behind the site on the corner of Skinner and Kotze Street

meso scale _way-finding elements

ESTABLISHING THE IDENTITY THROUGH ELEMENTS IN THE URBAN FABRIC

The context study conducted on a meso scale revealed why the position of the Berrals in the urban fabric is an ideal location to create an identifiable and legible landmark in the city.

The study was based on the research of the Urban Planner, Kevin Andrew Lynch, who in his book *Image of the City* (1960:12), revealed elements in the built structure of a city, important in the popular perception of the city.

According to Lynch (1960:14), "place legibility", is essentially the ease with which people understand the layout of place. Users perceive and organise spatial information as they navigate through cities in a predictable and consistent way, by forming mental maps. The mental maps of a city are mental representations of what the city contains, and its layout according to the individual. These mental representations, along with the actual city, contain many unique elements, which are defined by Lynch as a network of paths, edges, districts, nodes and landmarks.

Lynch found consistencies (1960:16) in the

imaginary trips of most of his subjects, such as people veering off course to go through a vivid part of the city, and most people mentioned water and vegetation with pleasure in their responses. Another consistency in people's descriptions was a way-finding problem that coincided with the parts of the city that contained confusion, floating points, weak boundaries, isolations, ambiguities and lack of character and differentiation.

The urban elements surrounding the Berrals building were analysed in terms of the five elements described by Lynch, to determine if it could be established as a place of legibility.

Paths:

Paths are the channels along which the observer moves. They may be streets, walkways, transit lines, canals, railroads (Lynch 1960: 47).

The Berrals is located at the junction of two main arteries in the city, Nelson Mandela Drive and Skinner Street. Nelson Mandela Drive enters the city from the south, connecting the city to the N1 and N14 highways, while Skinner Street establishing a link to Pretoria West. The third path influencing the Berrals is Kotzé Street, passing behind the Berrals.

Nelson Mandela Drive is a double carriage way that runs parallel to the Apies River. It consists of two lanes in each direction, separated by several islands along its route. These islands have been turned into landscaped green spaces along which pedestrians' travel, to reach different areas of the city.

Skinner Street on the other hand consists of four lanes in each direction, separated by a landscaped island.

Kotzé Street was constructed along with Nelson

Mandela Drive to re-establish a connection to Visagie Street, which would have been lost through the insertion Nelson Mandela Drive. Kotzé Street sliced through the original residential block of the Berrals, isolating the building on a fragment of land, surrounded by roads carrying heavy traffic, but providing the site with prominence.

Access to the site is possible from Nelson Mandela Drive, but Kotzé Street runs like a service road behind the Berrals, providing a possible alternative means of entry.

Along Nelson Mandela Drive and the Apies River, established pedestrian paths exist. They traverse between the walkways along the river, the green island fragments in Nelson Mandela Drive and Skinner Street and the urban fabric west of these elements. The heavy traffic on the paths presents possible dangerous crossings, which requires consideration in future planning, but by no means lessens the need for the linkages created by these routes.

Two main arteries:

- Nelson Mandela Drive
- Skinner Street

Service road:

- Kotzé Street

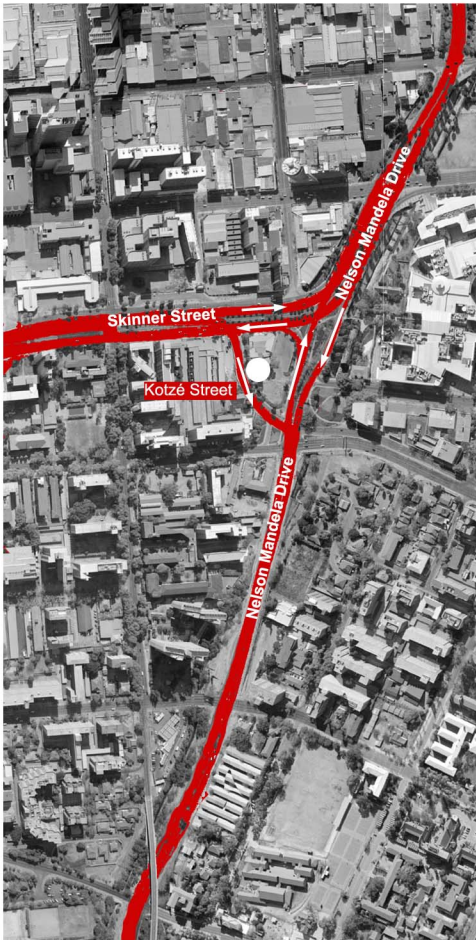


Fig. 4.30. Important paths surrounding the site

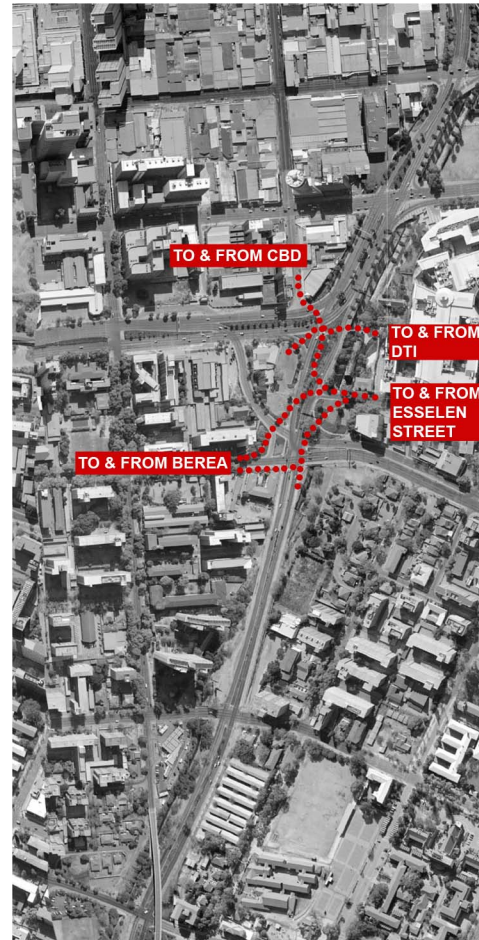


Fig. 4.31. Pedestrian movement routes

Edges:

Edges are the linear elements not used or considered as paths by the observer. They are the boundaries between two phases, linear breaks in continuity: shores, railroad cuts, edges of development, walls (Lynch 1960: 47).

The Apies River lining Nelson Mandela Drive presents an edge in the urban fabric, as its perception in the public eye and its deteriorating condition, attracts grime and crime. This situation has in turn, over the past few years informed the orientation of most of the built environment along its course, away from the river, although it must be mentioned connections through the edge to the CBD exist as it still remains a crucial link in the functioning of the city.

Nelson Mandela Drive, in itself presents a paradox, as it is an important vehicular path into the city, but acts as an edge on the pedestrian scale, due to the extent and the volume of traffic that it carries. Important to note though is that the green space in Nelson Mandela Drive softens the edge as they are a means to mediate through the traffic.

Edges:

- Apies River
- Nelson Mandela Drive
- Built environment's orientation away from edge/path (example: DTI)

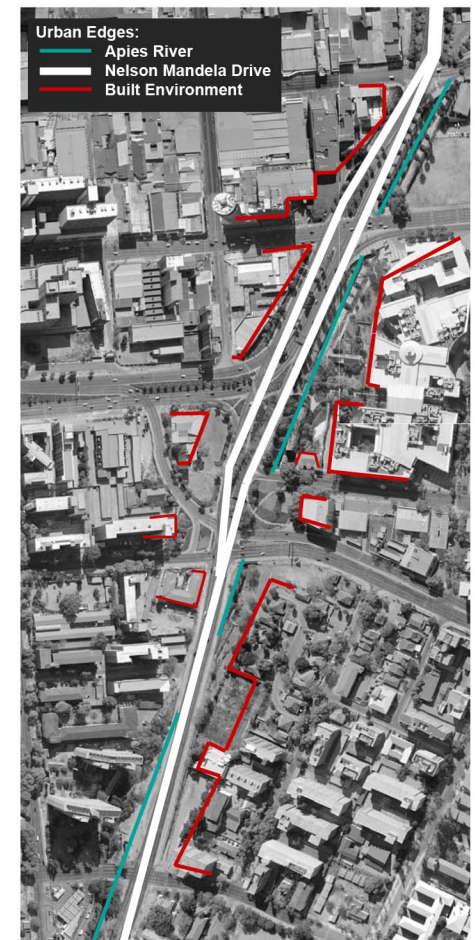


Fig. 4.32. The edges created the Apies River and Nelson Mandela Drive

Districts:

Districts are the medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters "inside of", and which are recognisable as having some, common, identifying character (Lynch 1960:47).

As discussed earlier, the Berrals is located at a point in the urban fabric, where several different areas, each with their own character and use, converge.

To the south and west of the Berrals lies Berea, a high-rise residential area, characterised by regular Modern high-rises. The original block of the Berrals building once formed part of one of Bereas residential blocks. To the north lies East CBD, a densely built-up hub of commercial activity part of the city centre, also with a strong modern character. To the east lies Travenna and Sunnyside, the main location of the proposed Mandela Development Corridor (Jordaan 2008:34), of which Esselen Street is a commercial and activity node.

District:

- Berea Residential Area
- East CBD
- Mandela Development Corridor:
 - Travenna
 - Sunnyside



Fig. 4.33. The areas surrounding the site

Nodes:

Nodes are points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which he is travelling. They may be primarily junctions, places of break in transportation, a crossing or convergence of paths, moments of shift from one structure to another

Or the nodes may be simply concentrations, which gain their importance from being the condensation of some use or physical character, as a street-corner hangout or an enclosed square. Some of these concentration nodes are the focus and epitome of a district, over which their influence radiates and of which they stand as a symbol. They may be called cores. Many nodes, of course, partake of the nature of both junctions and concentrations. The concept of nodes is related to the concept of path, since junctions are typically the convergence of paths, events on the journey. It is similarly related to the concept of district, since cores are typically the intensive foci of districts, their polarising centre (Lynch 1960:47-48).

The position of the Berrals building on the corner of Nelson Mandela Drive and Skinner Street, two main arteries of the city, presents a perfect junction in the urban fabric to establish a node.

In the areas in direct relation to Berrals, Esselen Street, Oeverzicht Art Village and the Apies River function as nodal points in the city fabric.

Esselen Street, is the main social and commercial activity hub of Travenna and Sunnyside, presenting a street bustling with social activity. The Berrals building is located at the end of Esselen Street's axis, providing a visual link to the area.

Oeverzicht Art Village is a cultural node, discussed in the following section, south-east of the Berrals building in Sunnyside. It is within this area where the Breytenbach Theatre is located.

The Apies River, in itself presents a possible node, in the form of a promenade along its course and its already established pedestrian routes.

Nodes:

- Junction Position of Berrals
- Esselen Street
- Oeverzicht Art Village
- Apies River



Fig. 4.34. Nodal elements in the area

Landmarks:

Landmarks are another type of point-references, but in this case the observer does not enter within them, they are external. They are usually a rather simply defined physical object: building, sign, store, or mountain. Their use involves the singling out of one element from a host of possibilities.

Some landmarks are distant ones, typically seen from many angles and distances, over the tops of smaller elements, and used as radial references. They may be within the city or at such a distance that for all practical purposes they symbolise a constant direction. Such are isolated towers, golden domes, great hills. The landmarks are primarily local, being visible only in restricted localities and from certain approaches. These are the innumerable signs, storefronts, trees, doorknobs and other urban detail, which fill in the image of most observers. They are frequently used clues of identity and even of structures, and seem to be increasingly relied upon as a journey becomes more and more familiar (Lynch 1960: 48).

As described earlier, the Apies river is a natural landmark announcing entry into the city on the southern entry route. When driving along Nelson Mandela the green spaces of the Apies River is easily recognisable, and provides a reference point on route.

The Department of Trade and Industry (DTI), on the corner of Esselen Street and Nelson Mandela Drive is an imposing structure, recently added to the urban fabric of Travenna. It is a structure visible from all approaches, acting as a distant point of reference as well as an close reference point.

The position of the Berrals building on an island, visible from all directions when travelling along the paths passing it, as well as its historic character, establishes it as a landmark.

Landmark:

- Island position of site
- Department of Trade and Industry (DTI)
- Apies River

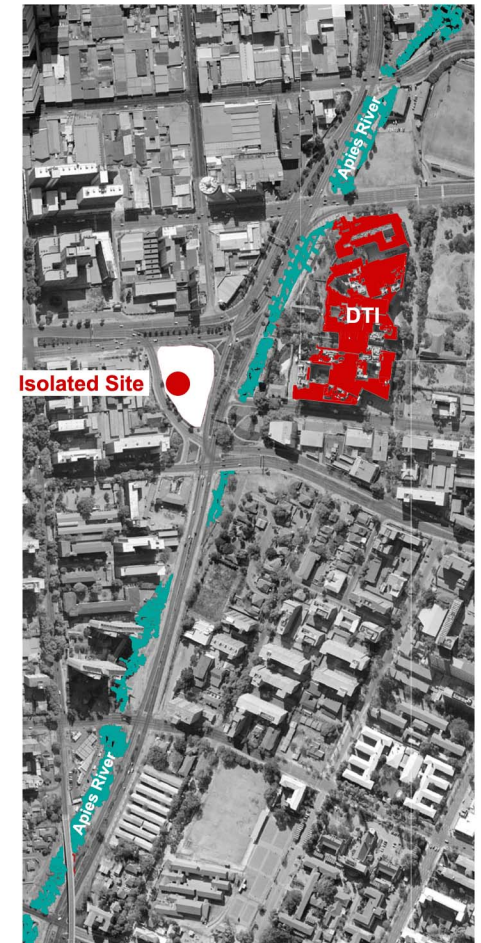


Fig. 4.35. Landmark elements in the area

surrounding *context*

Comprehending the site in relation to the existing and forthcoming energies which surround it is essential, for it creates a greater understanding of the site's function within the larger urban context.

The urban fabric is divided into functional and sub-functional areas or zones, according to natural, man-made features and land use.

The site of the Berrals (TICP SDF 2006: 23) falls in the sub-zone Berea but forms the converging point of several functional areas. These areas consist of East CBD, Lake City, Sunnyside, and Esselen Street.

The location of the Berrals at this particular point in the urban fabric, establishes it as an important point to create linkages between the various areas and stitch the urban fabric together. This will contribute to the MDCs vision (TICP SDF 2006: 14) as it will attempt to soften the edge between the urban fabric and the Apies River/Nelson Mandela Drive edge.

The linkages also play an important role in the movement routes already established along this converging point, creating a pedestrian-friendly environment.

Direct relations worth mentioning

Pre-Rand Motors
Esselen Street
Department of Trade and Industry (DTI)
Oeverzicht Art Village
Berea Residential Area
First Church of Christ, Scientist
Skinner Street Substation
McCarthy Suzuki



Fig. 4.36. The position of surrounding buildings in relation to the site



Fig. 4.37. The position of Pre-Rand Motors next to the Berrals building on the island site

Pre-Rand Motors

Located on the island fragment of site, with the Berrals building, is a car-dealership, Pre-Rand Motors. It is situated on the northern side of the Berrals building and consists mainly of a light corrugated structure.

The position of the site in the urban fabric is ideal for the display of vehicles, but in terms of the development planned for the Mandela Development Corridor the space should be utilised more efficiently, in terms of establishing a connection to the various surrounding areas.



Fig. 4.38. The remains of a structure on the southern side of the Berrals building



Fig. 4.39. Activity along Esselen Street

Esselen Street

The street is a vibrant activity node in the city, offering a mix of residential and commercial spaces.

In the urban fabric, the axis of Esselen Street aligns with the Berrals, as an possible, but undeveloped culminating point, creating a direct visual link.

Recently, Esselen Street has received major attention as an area viable for renewal, with various high profile developments and upgrades occurring along its route.



Fig. 4.40. The DTI and Esselen Street



Fig. 4.41. The entrance to the DTI facing the corner of Esselen and Meintjies Street

The Department of Trade and Industry (DTI)

The Department of Trade and Industry's campus-style head office is located east of the Berrals along the activity node of Esselen Street and the Apies River.

Sadly the design of the DTI did not consider the Apies River, turning the building away from it to further contribute to the solidity of the edge along the Apies River. The building opens onto Esselen Street and Meintjies Street.



Fig. 4.42. The solid edge of the DTI facing the Apies River



Fig. 4.43. The Travenna Office and Retail Campus in Meintjies Street

Travenna - Office and Retail Campus

Travenna Campus, a new office and retail complex built to compliment the Department of Trade and Industry, is the fifth development facilitated through MDC (Pty) Ltd (<http://www.atterbury.co.za>).

It is a facility, with a blend of the contemporary and historic, as the materials used in the new structures speak a contemporary endemic language, which contrasts with the historic Oost-Eind School included in the development.

A public square froms the central point of the campus inviting social activity.

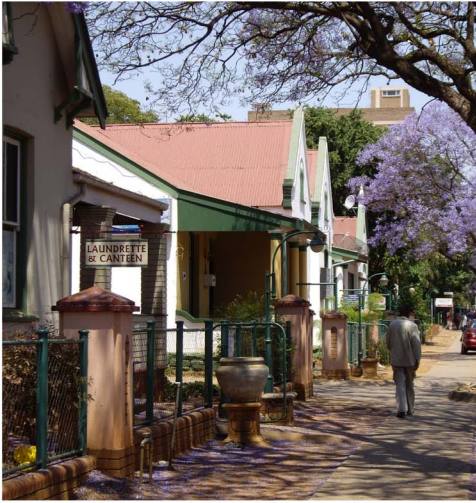


Fig. 4.44. Gerhard Moerdyk Street

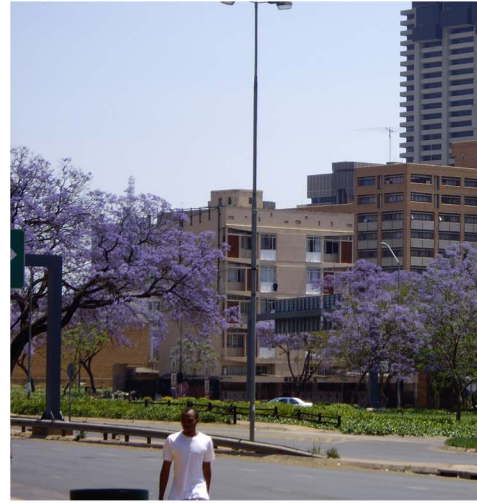


Fig. 4.45. A view of Berrals from the Village



Fig. 4.46. The residential building Barryhof

Oeverzicht Art village

The Oeverzicht art village consists of a variety of existing historical houses and the Bruytenbach Theatre, which becomes the focus of the Arts and Culture cluster according to the MDC (TICP SDF 2006: 160) urban development framework. The framework proposes that this area provides an outlet for arts and cultural activities in order to strengthen the existing theatre in this precinct, by creating an arts and cultural node.

Along Gerhard Moerdyk Street the Village presents a vibrant pedestrian friendly street, characterised by its historic built environment and social

interaction.

The problem though is that, unlike its name, the Village is orientated away from Nelson Mandela Drive and the Apies River, creating fragments of urban wasteland along the route of Nelson Mandela Drive. The Village is completely invisible from Nelson Mandela Drive and contributes to an unfriendly edge to both pedestrians and vehicular movement along this section of Nelson Mandela Drive.



Fig. 4.47. The First Church of Christ, Scientist

Berea Residential Area

Located directly south of the CBD as part of the Tshwane Inner City, the Berea residential area form an integral part of city life. It consists generally of high-rise residential buildings, characterised by a strong modern design theme.

The built fabric of Berea in direct relation to the Berrals include Barryhof, the First Church of Christ, Scientist and the Skinner Street Substation.

micro scale_ *the berrals building*

AN INTRODUCTION



Fig. 4.48. Berrals' signage

An Introductio to the Berrals Building

The building was designed and constructed in 1958 by the firm Smit & Viljoen for a Mr. and Mrs. Meyers, who named the building 'Berrals' after Mrs Berral Meyers (Smit & Viljoen 1958). It is one of only a few remaining examples of Brazilian inspired Pretoria Regionalism.

The complex is dominated by its square shape, and according to the original building plans consisted of three shops on ground level and four storeys above, each with two flats symmetrical to the stair and lift.

A cantilever slab, projecting outwards with an angle, above the shops and main entrance acts as a surface of separation between public and residential space.

According to the original building plans (Smit & Viljoen 1958) the initial occupants of the shops on ground floor included a butchery in the central shop (shop 2) and a dairy (shop 3), each with their own cold store. The design included a basement for the butchery, but was omitted before construction commenced. The third shop's (shop 1) initial function is unknown but the spatial layout is generic. Shared toilet facilities

were available to all of the shops.

Currently the Berrals is utilised as residential space only. The ground floor shops have been converted into residential units, but the building is in a poor state and in serious need of attention. The lack of maintenance and care, and the appalling alterations to the ground floor has left the building in need of a considered intervention.

In the author's subjective opinion, the current condition of the building can most probably be attributed to the fact that the Berrals building was recently sold to a foreigner living abroad, who appointed a law firm as custodians of the building.

A Description of the Position of the Building on the Island Site

The building is set back from Nelson Mandela Drive, with a parking area in front of the building and with Kotze Street running behind it. An adjacent car dealership is located on the northern side and the foundations of an illegally constructed structure are all that remains on the southern side.

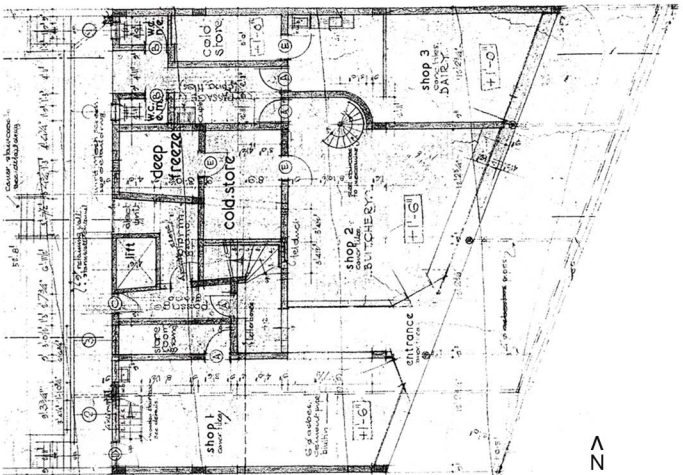


Fig. 4.49. Original ground floor plan

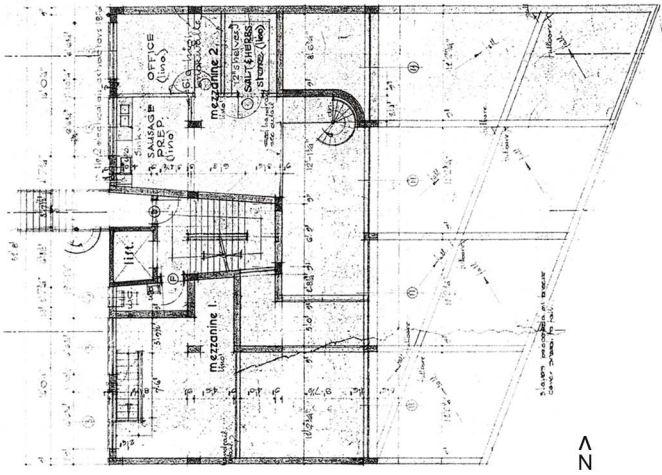


Fig. 4.50. Original mezzanine floor plan

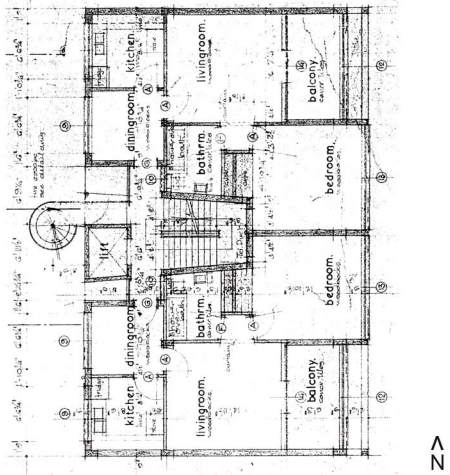


Fig. 4.51. Original first to fourth floor plan

micro scale_building analysis

BUILDING DEFINITION

Building Definition:

Name:

Berrals Building

Style:

Brazilian-inspired Pretoria Regionalism.

Designed by:

The architect Wynand Smit from the firm Smit and Viljoen Architects

Construction summary:

The building was originally built in 1958 and consisted of a ground floor (including a mezzanine) and four upper levels. (A basement can be found in the original plans, but was omitted during construction.)

Primary Components and Materials:

The primary components can be defined as those components essential to the physical structure of the building.

The Structural System: The building was built on a grid system, of 230mm x 500mm structural columns and an outside framework (230mm brick walls) which constitutes the load-bearing

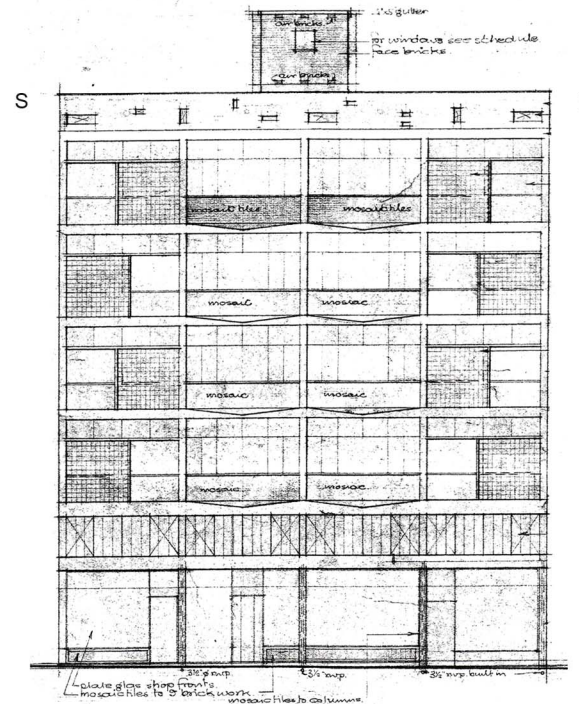


Fig. 4.52. Original elevation of the eastern front facade

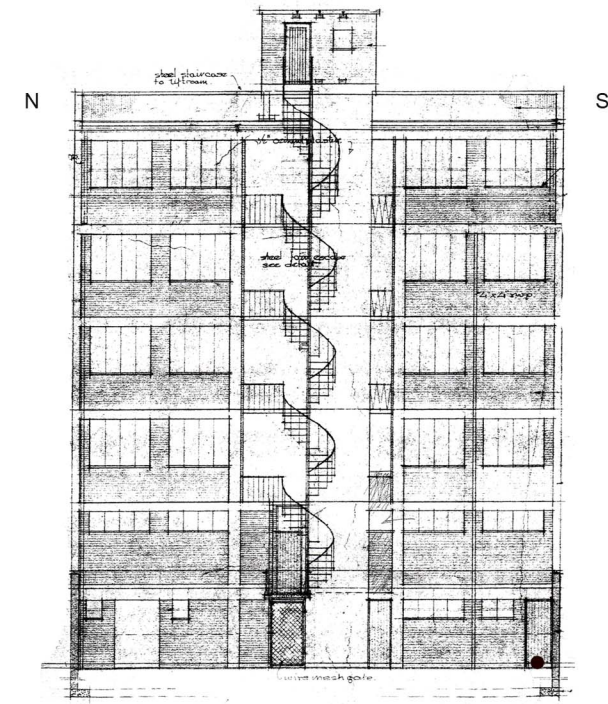


Fig. 4.53. Original elevation of the western back facade

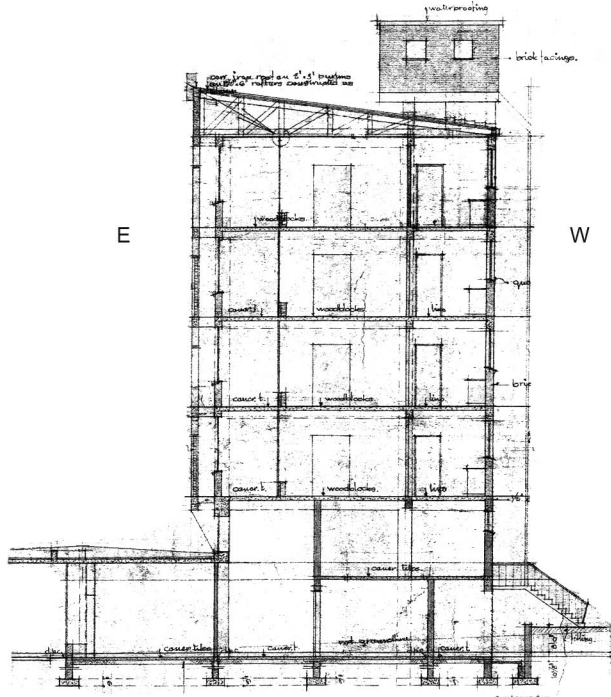


Fig. 4.54. A section revealing the 'free facade'

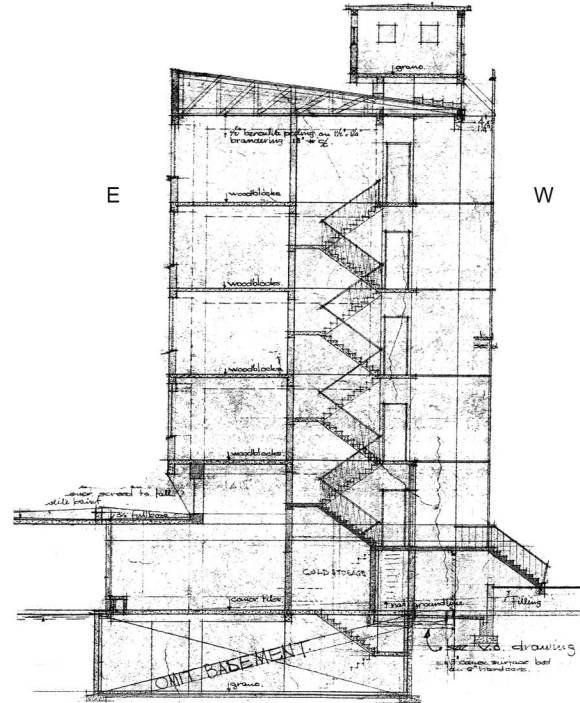


Fig. 4.55. A section through the central staircase

structure Most of the walls especially the interior walls can therefore be removed or moved, as long as the load-bearing skeleton remains intact. This type of structure facilitates freeing the interior space and also facilitates outward expansion.

Slabs: On all levels 150mm concrete slabs have been used, supported by the grid structure and outside framework of walls.

On the ground level a concrete cantilever slab protrudes to shelter the shopfronts. The slab is also supported by the grid structure and outside framework of walls as well as circular concrete columns, in which the water discharge pipes have been hidden.

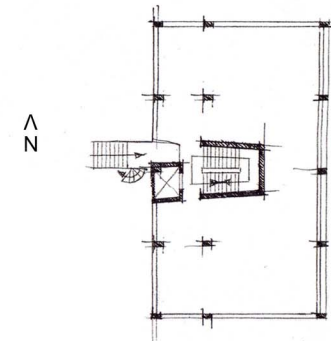


Fig. 4.56. A diagram of the column structural system

The Roof Structure: The roof is a low mono-pitch roof, with a brick parapet on the eastern front facade. It is constructed with howe trusses and corrugated metal sheeting and the structure is mainly supported by the outer wall framework and column structure of the building.

The Roof Structure: The roof is a low mono-pitch roof, with a brick parapet on the eastern front facade. It is constructed with howe trusses and corrugated metal sheeting and the structure is mainly supported by the outer wall framework and column structure of the building.

Elevated above the roof structure is a lift room with a floor and roof consisting of 150mm concrete slabs.

Staircases: The levels are connected by two sets of stairs, the first being the main staircase located centrally within the building, and the second, a spiral fire escape, attached to the western facade.

The interior staircase is a pre-cast concrete quarter-turn staircase with a landing at every 10th riser of 20. Each riser is finished with a red coat of paint and attached to the risers are square steel rods supporting the round mild steel handrail on top of it. The staircase connects all levels from ground floor to the 4th upper level.

The fire escape is a black painted steel spiral staircase, with a steel handrail and is located at the back of the building. It connects all levels from ground floor to the lift room on top of the roof structure.

The Elevator: The elevator shaft extends through all levels onto the roof, where the lift room is situated. The elevator shaft is constructed with reinforced concrete and finished with a tyroleantex-type of plaster finish

Secondary Components and Materials:

Secondary components can be defined as those not integral to the structure. Secondary components include inner walls, ceilings, floor finishes, openings (windows, doors etc.) and services not integral to the structure, this components include inner walls, ceilings, floor finishes, openings (windows, doors etc.) and services.

Internal walls: The interior walls are all plastered brick walls, varying from 115mm to 230mm in thickness. The walls are still strong and in good condition.

Ceilings: There are no ceiling installed anywhere in the building other than concrete soffits without cornices. The condition however is not so good, with several cracks appearing on the surface.

Floors:
150mm Concrete slabs form the floor structure.

Services:

Water: The water supply system seems to be in a good condition and are distributing regularly throughout the building. The water pipes are old but are still functioning well enough to adequately supply the building with water.

Sanitary system: All sanitation systems exist



Fig. 4.57. The services and spiral staircase attached to the back facade

on the western side of the building, indicating that the connection to the public sewer is available is available at the back of the building. All the toilet facilities are standard but not adequately accessible for the disabled.

Electricity: Electrical wiring are distributed throughout the building by means of conduits.

Structures on the Roof: One structure, the lift room is positioned on the roof. It is situated on the edge of the western side of the building and is connected to the fire escape.

Finishes:

Exterior Wall Finishes:

Eastern (Front) Façade: On ground level the shops are all fronted with windows and just in front of these windows are mosaic-covered pillars carrying the weight and gutters of the cantilever slab. The cantilever slab provides shelter for the walkway in front of the building, but tragically a palisade fence has been put all along the cantilever slab, preventing visibility and movement.

The façade then changes as you move upwards, showing an articulated façade of painted concrete, plastered bricks and screens. It consists of hollow clay bricks in concrete frames concrete, plastered bricks and screens. It consists of hollow clay bricks in concrete frames, in an alternating pattern in front of steel frame windows. A plastered parapet wall, decorated with geometric panels conceals the mono-pitch

roof structure. The condition of the paint on all surfaces of the building is in a poor condition and peeling.



Fig. 4.58. The fencing constructed in front of the entrance



Fig. 4.59. Screens constructed of hollow clay bricks in concrete frames

Northern and Southern Façade: Originally exposed brick-work was visible between the concrete slabs and columns, but later the building was fully plastered and painted on both these façades. Attached to them, are big billboards that was added due to the high visibility of the building from all approaches.



Fig. 4.60. A view of the plastered southern façade and the billboard attached to it

Western (Back) Façade: Generally considered the backside of the building, the façade is pierced by the circulation corridors leading to the

Western (Back) Façade: Generally considered the backside of the building, the façade is pierced by the circulation corridors leading to the apartments, as well as the repetitive rows of windows on each level, the steel spiral fire escape and the elevator shaft. The sanitary and water pipes are also exposed on this side. The walls are fully plastered and painted.

Interior Wall Finishes: All interior walls are plastered and painted.

Exterior Floor Finishes: The floor surface in front of the shopfronts are paved with bricks but poorly. The surface is uneven.



Fig. 4.61. The uneven brick floor surface in front of the shops

Interior Floor Finishes: The interior floor finishes are as follows in table 1:

Floor Level:	Accomodation	Materials		
		Concrete tiles	Linoleum Tiles	Kiaat Wooden Blocks (Parquet)
Ground Floor:	Shop 1	X		
	Shop 2	X		
	Shop 3	X		
Mezzanine:	Mezzanine 1		X	
	Mezzanine 2		X	
Upper Levels:	Dining Room			X
	Kitchen		X	
	Bathroom	X		
	Living Room			x
	Bedroom			x
	Balcony	X		